Prepared for

Northridge Properties, LLC

15505 Roscoe Boulevard
North Hills, California 91343

SOIL ASSESSMENT REPORT

777 NORTH FRONT STREET
BURBANK, CALIFORNIA

Prepared by

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Geosyntec
consultants

SOIL ASSESSMENT REPORT
777 North Front Street
Burbank, California
September 2012

Supervision of fieldwork activities related to implementing the approved work plan was performed by the staff of Geosyntec Consultants, Inc., (Geosyntec) under the direction of the licensed professional with sufficient hydrogeologic experience whose signature appears hereon. The Soil Assessment Report was prepared under the supervision of the same. Consistent with applicable professional standards of care, our opinions and recommendations are based, in part, on data furnished by others as noted in this report where applicable. Geosyntec is not able to independently verify data provided by others. Geosyntec services were performed, and this report has been prepared, in accordance with generally accepted professional standards of care applicable to the scope of services authorized by Northridge Properties, LLC, consistent with direction from the Los Angeles Regional Water Quality Control Board, and no other warranty is provided in connection therewith.

Eric Smalstig, P.E.
Principal, Geosyntec Consultants, Inc.
License No. C56128

I, Herbert F. Boeckmann, II, do hereby declare under penalty of perjury under the laws of the State of California that I am a Member of Northridge Properties, LLC, a California limited liability company (the "Company"); that I am authorized to attest to the veracity of the information contained in the report described herein; that the information contained in Geosyntec Consultants, Inc.'s "Soil Assessment Report, 777 North Front Street, Burbank, California," dated September 10, 2012 (the "Report"), is true and correct; that I have no personal knowledge or expertise with respect to the findings and information contained in the Report and I am relying on the professionals who prepared it; that the issuance of the Report and this Declaration is not an admission that the Company was or is a discharger within the meaning of Water Code Section 13267, which the Company expressly denies; and that this Declaration was executed at North Hills, California, on September 28, 2012.

Herbert F. Boeckmann, II, Member
Northridge Properties, LLC

Geosyntec consultants

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1. INTRODUCTION

1.1 Project Overview

This Soil Assessment Report (Report) contains a summary of the soil sampling activities performed at the former industrial site located at 777 North Front Street, in Burbank, California (the Site) and an assessment of the analytical results. The Report was prepared by Dr. Rita Kampalath of Geosyntec Consultants, Inc. (Geosyntec), and was reviewed by Dr. Matt Thomas and Mr. Eric Smalstig, P.E. also of Geosyntec, in accordance with the peer review policy of the firm. Geosyntec has prepared this Report on behalf of its client Northridge Properties, LLC, for submission to the Los Angeles Regional Water Quality Control Board (LARWQCB) per the requirements of the approved Work Plan (Appendix A) that was prepared in response to an Order to provide a soil investigation work plan (LARWQCB, 2011b) sent to Northridge Properties, LLC, in a letter dated May 10, 2011 (LARWQCB, 2011a).

Based on the conclusions of this Report presented in Section 5: (1) that the limited number of hexavalent chromium (Cr^6) detections at the Site are not significant, (2) that the vertical distribution of detections of Cr^6 are inconsistent with historical releases of Cr^6 at concentrations that could have impacted groundwater in the past, (3) that Cr^6 concentrations in Site soils do not pose a threat to groundwater at the Site in the future, (4) that the low concentrations of Cr^6 and Title 22 metals in the soils at the Site are at levels that are protective of human health, and (5) that arsenic detected in soils at the Site are consistent with naturally occurring background arsenic levels in California, and given their consistency with past soil sampling results as detailed in the LARWQCB approved Work Plan (Appendix A) and summarized in Section 2.3 of this Report, Geosyntec concludes that no further investigations for hexavalent chromium or other metals are warranted and recommends Northridge Properties, LLC, request Site closure from LARWQCB.

Therefore, on behalf of Northridge Properties, LLC, Geosyntec has been asked to respectfully request that LARWQCB issue a closure letter for the above referenced Site. In addition, because the Site reopener was not due to any regulatory concern regarding volatile organic compounds or other contaminants, which were the subject of previous investigations and remedial action and closure, the requested closure should clarify that the Site was not reopened for any purpose other than this soil assessment and that no further action is required.

1.2 Report Organization

The remainder of this Report is organized into the following sections:

- Section 2, *Background*;
- Section 3, *Soil Sampling;*
- Section 4, *Results*; and
- Section 5, *Conclusions and Recommendations.*

References, a table, figures, and appendices are included at the end of the text.

2. BACKGROUND

2.1 Property Description

The Site located at 777 North Front Street (LARWQCB File No. 109.6162) consists of an approximately 8-acre lot in the City of Burbank, approximately 13 miles north-northwest of downtown Los Angeles (Figure 1). It is bordered by Interstate 5, Burbank Boulevard, and Front Street (Figure 2).

From 1920 to 1961, the Site was occupied by General Water Heater Company, and then was purchased by Zero Corporation (Zero) for use by a division of the company called Zero Enclosures, whose primary business was fabrication of metal enclosures. In addition to Zero Enclosures' operations, from 1964 to 1973, a part of the Site was leased to Ocean Technology Inc., a subsidiary of Zero, which used the space to manufacture and assemble electronic products.

Zero's manufacturing operations were discontinued in December, 1991. From then until 2002, the Site was used for storage (a 1995 city directory shows the occupant as Western Moving & Storage, Inc.) and later as temporary filming locations for the entertainment industry (Mactech 2005, p. 14; Law/Crandall 1997, p. 1). The Site was sold to the Ford Leasing Development Company in 1998. Since 2002, the Site has been unoccupied, with on-site buildings having been demolished in 2004 leaving concrete pads and foundations currently remaining on the Site.

A parcel of land adjacent to the Site on the southwest was leased by Zero from the Southern Pacific Transportation Company for chemical storage. This parcel is currently owned by the City of Burbank and was used in part for realignment of Front Street and with a portion remaining as a strip between the Site and realigned Front Street.

2.2 Regional Hexavalent Chromium Contamination

The Site is located within the San Fernando Valley Groundwater Basin (SFVGB). In 1980, the California Department of Health Services (DHS) requested all major groundwater users to conduct tests for the presence of certain industrial chemicals in the water they were serving. The results of testing indicated elevated concentrations of a number of volatile organic compounds (VOCs) in groundwater under large portions of the San Fernando Valley, which led to the designation of four separate areas that together comprise the San Fernando Valley Superfund Sites.

During the 1998 United States Environmental Protection Agency (USEPA) Superfund investigation, information provided to LARWQCB from the Upper Los Angeles River Area Watermaster (ULARA) indicated some of the groundwater supply wells in the SFVGB had been contaminated by hexavalent chromium (Cr^6) (LARWQCB, 2011b). Subsequently, the Regional Board re-evaluated Chemical Use Questionaires (CUQs) provided by each facility during the Superfund investigation and identified 112 sites, presumably the most suspect sites, to conduct further investigation to determine whether Cr^6 concentrations in the soil at these sites indicated any significant past release that may have contributed to the regional Cr^6 contamination or that might pose a threat to public drinking water supply wells in the future. It is significant to note that the subject Site was not among the 112 sites identified by the Regional Board at that time.

2.3 Recent Site Regulatory Context

The former responsible party for the Site had been issued a Certificate of Completion by Cal/EPA in 2002 for a remediation effort unrelated to Cr^6. The Site remained closed until it was reopened by the LARWQCB Order entitled "*Requirement To Provide Technical Report – Work Plan*" (LARWQCB, 2011b). The primary reasons for issuance of the Order given in the accompanying letter (LARWQCB, 2011a) were: (1) the records of historical use of Cr^6 at the facility and (2) the results of a California Department of Transportation (Caltrans) soil investigation that indicated there exist a limited number of detections of Cr^6 at the Site (Ninyo & Moore, 2009) at concentrations that, according to the Regional Board, are in exceedance of normal background concentrations of Cr^6 in the San Fernando Valley (LARWQCB, 2011a).

A few important results from the Caltrans soil investigation are summarized here. During the investigation 12 soil borings were advanced and samples were collected at 2, 5, 10, and 20 feet below ground surface (bgs) and analyzed for metals (including Cr^6). The soil boring locations were toward the eastern side of the Site nearer Interstate 5 and away from some of the larger building pads where Cr^6 was directly handled and/or used in industrial activities. Hexavalent chromium was detected in only four of the 48 samples (~8%), with three of four detections occurring in soils at or lesser than 5 feet bgs. There was a single detection of Cr^6 at 20 feet bgs at a concentration that was just 0.04 mg/kg above the detection limit. The concentrations of these detections were low, the highest concentration being 0.18 mg/kg, nearly 100 times lower than the California Human Health Screening Levels for Soil (CHHSLs) for residential land use which is more conservative than the commercial/industrial CHSSL (see Table 1). A detailed

summary of the results of the Caltrans Report were provided in the approved Work Plan (Appendix A).

It is important to note that the detections of Cr^6 reported in the Caltrans Report (Ninyo & Moore, 2009) were not a cause for health or environmental concerns in and of themselves, but they raised the question to LARWQCB as to whether there might be significant Cr^6 impacts to soils in other locations at the Site where Cr^6 was directly handled and/or used in industrial activities. In addition, previous investigations in those areas had tested for Title 22 metals, including total chromium, not speciated for Cr^6, with sampling at shallow depths not exceeding five feet bgs (Law/Crandall 1997); and LARWQCB now questions whether deeper sampling with testing speciated for Cr^6, and a screening for other Title 22 metals, would reveal evidence for concern.

The aforementioned Order was issued by LARWQCB to Northridge Properties, LLC, on May 10, 2011. Northridge Properties, LLC, worked with LARWQCB to target locations at the Site where impacts, if any, would be anticipated should any unauthorized releases of Cr^6 have occurred in the past. The five former clarifier locations shown on Figure 2 were selected. On behalf of Northridge Properties, LLC, Geosyntec submitted the Soil Assessment Work Plan – Hexavalent Chromium (Geosyntec, 2011), which was approved by the Regional Board in a letter dated 20 December, 2011. After that time, further negotiations and clarifications with LARWQCB resulted in a requirement to analyze samples collected at 10 and 20 feet bgs from two of the five locations for the suite of Title 22 metals in addition to Cr^6. These changes were confirmed in a letter sent to the Regional Board on 7 June, 2012. The original work plan submitted (Geosyntec, 2011) and the subsequent confirmation letter of 7 June 2012, constitute the approved Work Plan and are included in Appendix A.

Sampling activities in the approved Work Plan were implemented on 28 June, 2012, and Geosyntec has prepared this Report to present and provide an assessment of the analytical results obtained.

3. SOIL SAMPLING

3.1 General

The Soil Assessment activities described in this Report were conducted in accordance with the Site-specific Health and Safety Plan (HASP) and the approved Work Plan (Appendix A) prepared in accordance with the LARWQCB request.

3.2 Field Work Preparation

Five locations on the Site were chosen for sampling with LARWQCB concurrence. As mentioned previously, these locations were identified as potential areas of concern based on discussions with LARWQCB and review of facility maps, which indicated the former presence of clarifiers (now closed and filled with concrete, with the locations visible on site). It was determined that one boring would be drilled adjacent to each former clarifier to a maximum depth of 20 feet bgs or refusal (see Figure 2 for boring locations). Each clarifier was located in the field and a boring location was marked with white paint on the concrete surface approximately 2.5 feet from the edge of the clarifier in the locations shown on Figure 2.

Underground Service Alert (USA) was notified more than 48 hours prior to beginning drilling activities to identify underground utilities in the vicinity of the proposed borehole locations and to reduce the potential for accidentally encountering buried utility lines (USA ticket number B21730160). Geosyntec also contracted with Goldak Geophysics to conduct a subsurface geophysical survey on June 14, 2012, to identify locations of potential underground utilities. Once all utilities were cleared, concrete coring was scheduled.

Due to uncertainty in the thickness of the concrete surface cover at the Site and uncertainty in the dimensions of the former clarifiers, it was determined that slant drilling was not feasible at the Site. On June 27, 2012, Interphase Environmental, Inc., (Interphase), a drilling and soil sampling subcontractor, cored through the concrete at the marked boring locations prior to drilling activities which began the following day.

3.3 Soil Sampling

On June 28, 2012, under the direction of Geosyntec, Interphase advanced five borings (labeled SS-1 through SS-5; Figure 2) in the cored boring locations identified using a direct push drill rig and a continuous soil core was collected to a depth of approximately 20 feet bgs using a 4-foot sampler lined with acetate sleeves. Borings were visually logged for geologic lithology in accordance with the Unified Soil Classification System (USCS). The first 5 feet of each boring was completed by hand auger to reduce the potential for impairing unidentified underground utilities or pipes. Soil samples were collected from the cores at 5-foot intervals using disposable sampling equipment in order to avoid cross contamination of samples. The first sample was collected at a depth of 5 feet bgs, with subsequent samples collected at depths of 10, 15, and 20 feet bgs in accordance with the approved Work Plan (Appendix A). A total of 20 primary soil samples were collected in this manner and two duplicate soil samples (labeled SS-6-10 and SS-7-20) were collected from two of the sampling locations (SS-3-10 and SS-5-20, respectively), which had been chosen at random. The duplicate samples were submitted to the laboratory blind.

The soil samples were collected in 4-oz. glass jars sealed with Teflon®-lined plastic caps for analysis of Cr^6 (EPA Methods 3060A and 7199), with samples at 10 and 20 feet bgs from two of the borings (borings SS-2 and SS-3) also analyzed for the suite of Title 22 metals (EPA Methods 3050B and 6010B). Individual soil samples were labeled with unique identifiers, logged on laboratory chain of custody forms, placed in an ice-filled cooler, and transported to Calscience Environmental Laboratories, Inc. (Calscience), a local National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory. The borings were backfilled with bentonite chips from 20 feet bgs to just below the concrete surface and capped with concrete flush to existing grade. Remaining soil cores were stored in a 55-gallon DOT-approved drum during drilling and sampling activities and were removed from the Site. Upon receipt of laboratory results and waste profiling, the remaining soil cores were properly disposed by the driller as non-hazardous waste.

The non-dedicated soil sampling equipment (e.g., coring bits and hand augers) was washed prior to each sample collection by the "three-bucket-wash" method; sampling equipment was first washed in a solution of Alconox and potable water, then rinsed with potable water, and finally rinsed with distilled water and allowed to air-dry.

3.4 Laboratory Analysis

Samples were transported with proper chain of custody forms to Calscience Environmental Laboratories, Inc. (Calscience), located at 7440 Lincoln Way, in Garden Grove, California. Samples were analyzed for Cr^6 using EPA Method 3060A for extraction, and EPA Method 7199 for analysis. Samples at 10 and 20 feet bgs from borings SS-2 and SS-3 were additionally analyzed for Title 22 metals using EPA Method 3050B for extraction, and EPA Method 6010B for analysis. The laboratory analytical results for the soil samples are discussed in Section 4. The laboratory analytical report is provided in Appendix B.

4. RESULTS

4.1 Introduction

The laboratory analytical results for the soil samples arranged by boring location and depth are summarized in Table 1. In order to have a basis of comparison, Table 1 also includes the California Human Health Screening Levels for Soil (CHHSLs) for both residential and commercial/industrial land use (OEHHA, 2005, and subsequent revisions to tables). Soil lithology and analytical results are described in the following sections and the laboratory analytical report is included in Appendix B.

4.2 Soil Lithology

The five soil borings (SS-1 through SS-5) advanced at the Site were logged for soil lithology in accordance with the Unified Soil Classification System (USCS) and screened visually for evidence of contamination. The boring logs showing the soil lithology at each boring location are provided in Appendix C.

4.3 Soil Analytical Results

A total of 20 primary soil samples were collected at five-foot intervals from 5 to 20 feet bgs from the five soil boring locations, with all samples analyzed for Cr^6 using EPA Method 3060A for extraction, and EPA Method 7199 for analysis, and samples collected at 10 and 20 feet bgs from borings SS-2 and SS-3 also analyzed for Title 22 metals using EPA Method 3050B for extraction, and EPA Method 6010B for analysis. Table 1 summarizes the analytical results and provides commercial/industrial CHHSLs (i.e., chemical-specific soil health screening levels for commercial/industrial land use) for comparison. A plan view of boring locations is provided in Figure 3 that includes tables with soil sample depths and concentrations of Cr^6. Results of these analyses are summarized in the bulleted list below and described in more detail in the sections that follow:

- Cr^6 was detected in only four of 20 (20%) soil samples collected from locations where impacts, if any, would be anticipated;

- Concentrations of Cr^6 detected were significantly less than 10 times below the residential CHHSL, which is more conservative than the commercial/industrial CHHSL (see Table 1);

- Three of the four detections of Cr^6 were in shallow soils (at or lesser than 10 feet bgs);

- The single detection of Cr^6 at 20 feet bgs was at a concentration that was just 0.01 mg/kg above the detection limit;

- The concentrations of arsenic detected at the Site, while exceeding the commercial/industrial CHHSL, are consistent with naturally occurring background arsenic levels in California (Bradford et. al, 1996; LBNL, 2002);

- With the exception of arsenic and the single detection of cadmium, all Title 22 metals detected at the Site were at concentrations below residential CHHSLs (see Table 1);

- The concentration of the single detection of cadmium at a depth of 20 feet bgs was below the commercial/industrial CHHSL (see Table 1).

4.3.1 Hexavalent Chromium

Hexavalent chromium, which was the primary constituent of concern for this Soil Assessment was detected in only four of the 20 (20%) primary soil samples collected. These detections were in samples collected at depths of 5 and 10 feet bgs in boring SS-2, at 20 feet bgs in boring SS-4 and at 5 feet bgs in boring SS-5. All concentrations were significantly less than 10 times below the residential CHHSL, which is more conservative than the commercial/industrial CHHSL (see Table 1).

4.3.2 Title 22 Metals

Two of the five borings (SS-2 and SS-3) were analyzed for Title 22 metals at depths of 10 and 20 feet bgs, in accordance with the approved Work Plan (Appendix A). These four soil samples had detections of several Title 22 metals.

Arsenic was detected in all four soil samples analyzed at levels that exceeded CHHSLs. However, it has been noted that natural background levels of arsenic in California soils are often found to exceed health-based, direct-exposure goals. The concentrations of

arsenic detected at the Site are consistent with naturally occurring background arsenic levels in California (Bradford et. al, 1996; LBNL, 2002).

Barium, beryllium, total chromium, cobalt, copper, lead, nickel, vanadium and zinc were detected in soil samples collected from borings SS-2 and SS-3, while cadmium was detected in only one soil sample at a depth of 20 feet bgs from boring SS-2. With the exception of naturally occurring arsenic levels and the single detection of cadmium, concentrations of all analytes were below the more conservative residential CHHSLs. The concentration of the single detection of cadmium was below the commercial/industrial CHHSL (see Table 1).

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Based on the soil sampling data collected as part of this Soil Assessment as presented in the preceding section of this Report (see Table 1) and the analyses presented in the following sections, several conclusions related to chemical impacts at the Site can be drawn:

- The detections of Cr^6 in only 20% of the soil samples collected from locations where impacts, if any, would be anticipated and at low concentrations significantly less than 10 times below the more conservative residential CHHSL indicate that the limited number and low concentrations of Cr^6 detections at the Site are not significant;

- The vertical distribution of detections of Cr^6, primarily in shallow soil samples (at or lesser than 10 feet bgs) are inconsistent with historical releases of Cr^6 at concentrations that could have impacted groundwater and do not provide evidence to suggest that historical Site activities contributed to the San Fernando Valley Groundwater Basin (SFVGB) Cr^6 contamination that is currently under investigation by LARWQCB and USEPA;

- The vertical distribution primarily in shallow soil samples and the concentrations of Cr^6, orders of magnitude below the TTLC (500 mg/kg) and the more conservative value of 10 times the STLC, demonstrate that Cr^6 concentrations in Site soils are unlikely to pose a threat to groundwater at the Site in the future;

- The low concentrations of Cr^6 and Title 22 metals with the exceptions of arsenic and the single detection of cadmium (i.e., below residential CHHSLs other than the single detection of cadmium which was below commercial/industrial CHHSLs and at a depth of 20 feet bgs) and the concentrations of arsenic being consistent with naturally occurring background arsenic levels in California demonstrate that metals concentrations in the soils at the Site are at levels that are protective of human health.

The conclusions summarized above in bulleted format are described in more detail in the following sections.

5.2 Hexavalent Chromium

Hexavalent chromium, the chief focus of the LARWQCB Order (LARWQCB, 2011b) and of this Soil Assessment, was detected in only four of the 20 soil samples collected (20%) from sample locations that were specifically selected for this field program and approved by LARWQCB because they were locations where impacts, if any, would be anticipated (i.e., adjacent to the former clarifiers, now closed and filled with concrete). Furthermore the detections of Cr^6 were at low concentrations (below the commercial/industrial CHSSL and significantly less than 10 times lower than the more conservative residential CHHSL as shown in Table 1). These results indicate that the limited Cr^6 detections at the Site are not significant.

In terms of vertical distribution, three of the four detections of Cr^6 occurred in soils at or fewer than 10 feet bgs. The single detection that occurred at 20 feet bgs was at a low concentration, just 0.01 mg/kg above the detection limit. These results are inconsistent with historical releases of Cr^6 at concentrations that could have impacted groundwater and do not provide evidence to suggest that historical Site activities contributed to the San Fernando Valley Groundwater Basin (SFVGB) Cr^6 contamination that is currently under investigation by LARWQCB and USEPA.

The vertical distribution of Cr^6 detections in shallow soils makes it unlikely that the groundwater table would come into contact with these soils. Furthermore, the low concentrations of Cr^6 are orders of magnitude below the Total Threshold Limit Concentration (TTLC = 500 mg/kg) and the more conservative value of 10 times the Soluble Threshold Limit Concentration (STLC; i.e., the threshold value for STLC leachability testing = 50 mg/kg) which is an indication of a contaminant's potential to impact (i.e., leach into and/or migrate downward to) groundwater. These results demonstrate that Cr^6 concentrations in Site soils do not pose a threat to groundwater at the Site in the future.

5.3 Title 22 Metals

Several Title 22 metals, specifically arsenic, barium, beryllium, cadmium, total chromium, cobalt, copper, lead, nickel, vanadium and zinc were detected in soil

samples collected from the Site. These metals are commonly detected in soils within Southern California. With the exception of arsenic and the single detection of cadmium, the concentrations of Title 22 metals were below the more conservative residential CHHSLs. The concentration of the single detection of cadmium was still low, below the commercial/industrial CHHSL (see Table 1), and at a depth of 20 feet bgs, making contact with potential surface receptors highly unlikely. These results together indicate that Site soils do not pose a risk to human health due to these metals.

Although arsenic was found at concentrations above the commercial/industrial CHHSL, it has been well-documented that natural background levels of arsenic in California soils are often found to exceed published health-based, direct-exposure goals. The concentrations of arsenic detected at the Site are consistent with naturally occurring background arsenic levels in California (Bradford et. al, 1996; LBNL, 2002). A study conducted by the California Department of Toxic Substances Control (DTSC) on Los Angeles United School District sites estimated the 95% upper confidence limit of the 99th percentile concentration for arsenic at 6 mg/kg (DTSC, 2005). Another DTSC study determined an upper-bound estimate of 12 mg/kg for naturally occurring arsenic in Southern California soils (DTSC, 2008). The levels of arsenic found at the Site are also consistent with these regionally-specific background levels.

5.4 Recommendations

Given the conclusions of this Soil Assessment and their consistency with past soil sampling results detailed in the approved Work Plan (Appendix A) and summarized in Section 2.3 of this Report, Geosyntec concludes that no further investigations for hexavalent chromium or other metals are warranted and recommends Northridge Properties, LLC, request Site closure from LARWQCB.

Therefore, on behalf of Northridge Properties, LLC, Geosyntec has been asked to respectfully request that LARWQCB issue a closure letter for the Site referenced herein. In addition, because the Site reopener was not due to any regulatory concern regarding volatile organic compounds or other contaminants, which were the subject of previous investigations and remedial action and closure, the requested closure should clarify that the Site was not reopened for any purpose other than this soil assessment and that no further action is required.

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TABLE

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Table 1
Soil Sample Analytical Results
Soil Assessment
777 North Front Street
Burbank, California

Analyte		Chromium, Hexavalent	Title 22 Metals																
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium, Total	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Units		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Residential CHHSL*		17	30	0.07	5,200	16[2]	1.7	100,000[3]	660	3,000	80	18	380	1,600	380	380	5	530	23,000
Commercial/Industrial CHHSL*		37	380	0.24	63,000	190[2]	7.5	100,000[3]	3,200	38,000	320	180	4,800	16,000	4,800	4,800	63	6,700	100,000
SS-1	5	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS-2	5	1.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	0.96	ND<0.750	**6.23**[4]	75.7	ND<0.250	ND<0.500	33.0	7.02	244	1.67	ND<0.0835	ND<0.250	10.8	ND<0.750	ND<0.250	ND<0.750	31.1	753
	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	ND<0.4	ND<0.750	**8.06**[4]	178	0.699	3.23	20.4	30.6	79.0	2.21	ND<0.0835	ND<0.250	102	ND<0.750	ND<0.250	ND<0.750	42.7	12,100
SS-3	5	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10[1]	ND<0.4/ND<0.4	ND<0.750/ND<0.750	**6.83/6.59**[4]	168/166	0.387/0.337	ND<0.500/ND<0.500	22.6/19.0	14.2/12.5	23.9/21.2	1.89/1.70	ND<0.0835/ND<0.0835	ND<0.250/ND<0.250	17.6/15.1	ND<0.750/ND<0.750	ND<0.250/ND<0.250	ND<0.750/ND<0.750	44.5/37.8	63.8/55.0
	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	ND<0.4	ND<0.750	**7.78**[4]	234	0.436	ND<0.500	21.4	14.4	26.9	2.44	ND<0.0835	ND<0.250	17.1	ND<0.750	ND<0.250	ND<0.750	44.5	59.4
SS-4	5	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	0.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS-5	5	1.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20[1]	ND<0.4/ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* California Human Health Screening Levels for Soil (CHHSLs)

\- Compound not analyzed for this sample

168/166 Results are reported as (primary sample results)/(duplicate sample results)

6.23 Bold type indicates exceedance of a commercial/industrial CHHSL comparison criteria

(1) Field duplicate samples were collected for these primary samples and were submitted to the laboratory blind. Duplicate for SS-3-10 is SS-6-10 in reports and duplicate for SS-5-20 is SS-7-20 in reports.

(2) CHHSL excludes beryllium oxide and beryllium sulfate

(3) Comparison criteria are for Cr(III); there are separate comparison criteria for Cr(VI)

(4) Natural background concentrations of arsenic in California are often well above the health-based, direct-exposure goals in soil of 0.07 mg/kg for residential land use and 0.24 mg/kg for commercial/industrial land use (e.g., Bradford et. al, 1996; LBNL, 2002).

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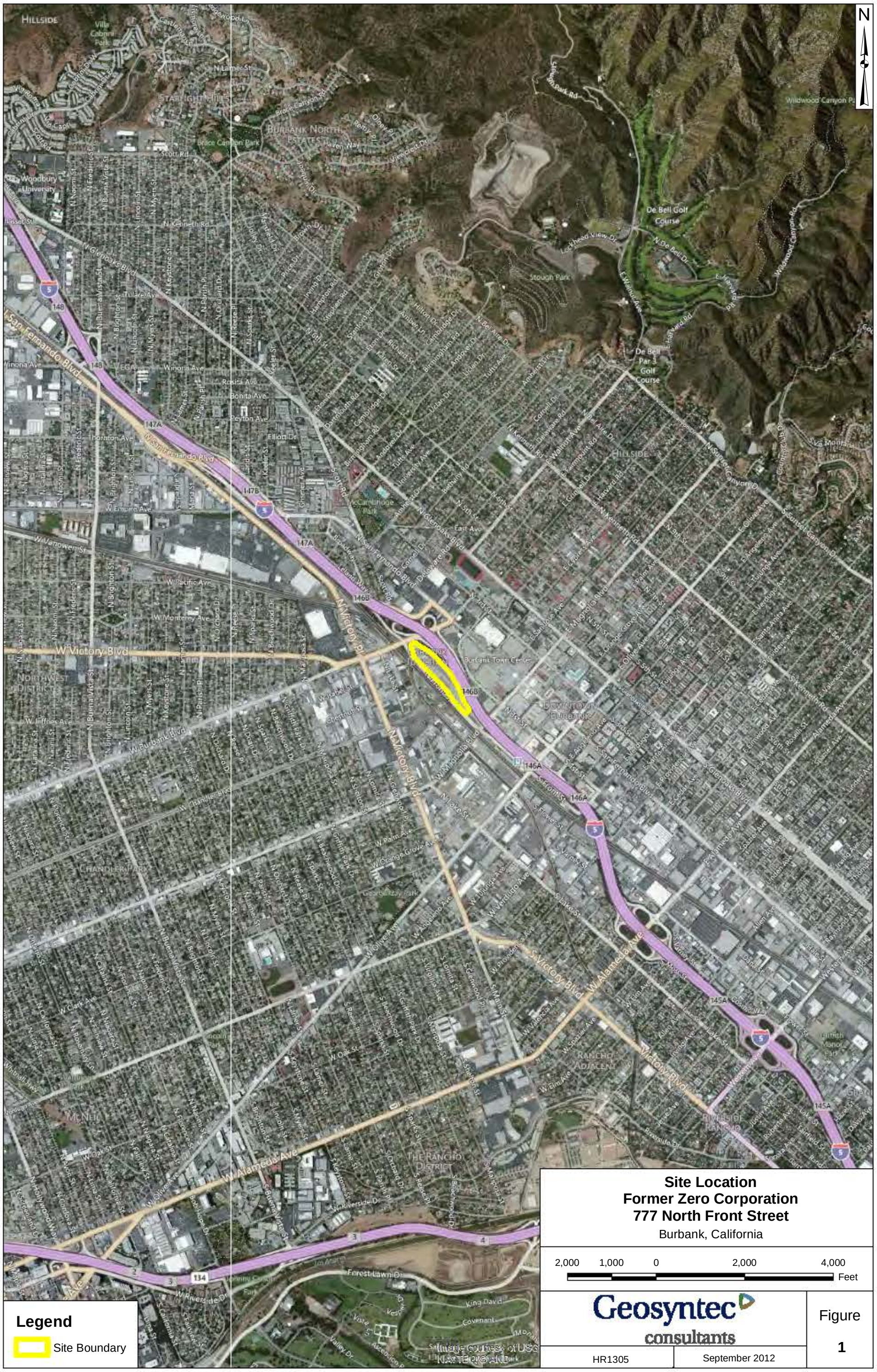
FIGURES



Legend

Site Boundary

Site Location
Former Zero Corporation
777 North Front Street
Burbank, California

2,000 1,000 0 2,000 4,000
Feet

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Figure **1**

HR1305 | September 2012

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N

SS-1

Building 11

Building 12

SS-2

Building 13

SS-3

SS-4

Building 14

SS-5

Legend

SS-3 Geosyntec Soil Boring

Former Clarifier (Based on Site Plan provided by Northridge Properties, LLC and field observations)

Former Building Location

Site Boundary

Site Map and Boring Locations
Former Zero Corporation
777 North Front Street
Burbank, California

200 100 0 200 400 Feet

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Figure 2

HR1305 | September 2012

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N

Boring	Depth (ft bgs)	Conc. Cr^6 (mg/kg)
SS-1	5	ND<0.4
	10	ND<0.4
	15	ND<0.4
	20	ND<0.4

SS-1

Building 11

Building 12

Boring	Depth (ft bgs)	Conc. Cr^6 (mg/kg)
SS-2	5	1.10
	10	0.96
	15	ND<0.4
	20	ND<0.4

SS-2

Building 13

Boring	Depth (ft bgs)	Conc. Cr^6 (mg/kg)
SS-3	5	ND<0.4
	10(1)	ND<0.4/ND<0.4
	15	ND<0.4
	20	ND<0.4

SS-3

Boring	Depth (ft bgs)	Conc. Cr^6 (mg/kg)
SS-4	5	ND<0.4
	10	ND<0.4
	15	ND<0.4
	20	0.41

SS-4

Building 14

SS-5

Boring	Depth (ft bgs)	Conc. Cr^6 (mg/kg)
SS-5	5	1.30
	10	ND<0.4
	15	ND<0.4
	20(1)	ND<0.4/ND<0.4

Notes:

(1) Field duplicate samples were collected for these primary samples. Results are reported as (primary sample results)/(duplicate sample results).
ND - Not Detected
Cr^6 - Hexavalent chromium
ft bgs - feet below ground surface

Legend

SS-3 Geosyntec Soil Boring

Former Clarifier (Based on Site Plan provided by Northridge Properties, LLC and field observations)

Former Building Location

Site Boundary

Hexavalent Chromium Analytical Results
Former Zero Corporation
777 North Front Street
Burbank, California

200 100 0 200 400 Feet

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Figure 3

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APPENDIX A

APPROVED WORK PLAN

Geosyntec consultants

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August 15, 2011
DRAFT

Samuel Unger
Executive Officer
Regional Water Quality Control Board, Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Subject: Soil Assessment Work Plan – Hexavalent Chromium
777 North Front Street, Burbank, California

Dear Mr. Unger:

INTRODUCTION

This document consists of a Work Plan for additional soil assessment to be conducted at the 777 North Front Street property, located in Burbank, California (the Site). This Work Plan was prepared by Geosyntec Consultants, Inc. (Geosyntec) at the request of Gilchrist & Rutter Professional Corp. (Gilchrist) on behalf of Northridge Properties, LLC, the owner of the property, for submittal to the Los Angeles Regional Water Quality Control Board (LARWQCB). The soil assessment is being conducted in response to a LARWQCB requirement sent to the Northridge Properties, LLC, in a letter dated May 10, 2011 [LARWQCB, 2011a]. The historical information contained in this Work Plan is based on Geosyntec's review and understanding of previous environmental reports and other reference material prepared by third parties (see Reference section). No warranty of the information provided in the third party reports or referenced materials is expressed or implied. Geosyntec reserves the right to correct any statement that we later find to be inaccurate in any way.

During the 1998 United States Environmental Protection Agency (USEPA) Superfund investigation of the San Fernando region which focused on volatile organic compounds (VOCs), groundwater supply well testing indicated the presence of hexavalent chromium (Cr^6) at levels significantly higher than expected background concentrations [LARWQCB, 2011a]. Based on this information, the LARWQCB reviewed Chemical Use Questionnaires (CUQs) provided by facilities in the area and identified 112 sites on which to conduct further investigation based on information that may indicate past

usage of chromium in their industrial activities. Though the Site was not part of the original 112 sites, further evaluation by the LARWQCB and results from an onsite 2009 Caltrans soil investigation of a strip of land along the northeasterly border of the Site led the LARWQCB to request that a soil investigation be conducted focused on Cr^6 as described in their May 10 letter [LARWQCB, 2011a]. The primary objective of the scope of work described in this work plan is to satisfy the request of the LARWQCB to conduct a soil assessment at the Site for Cr^6. The remainder of this Work Plan is divided into the following sections:

- Background;
- Sampling and Analysis Plan;
- Data Analysis and Reporting; and
- Closing.

BACKGROUND

Site Description & Operational History

The Site is located on an approximately 8-acre parcel in the City of Burbank, approximately 13 miles north-northwest of downtown Los Angeles. It is bordered to the northeast by old, vacated alignment of Front Street (beyond which is Interstate 5), to the northwest by Burbank Boulevard, to the southwest by a flood control channel and by a strip of land owned by the City of Burbank (beyond which is the new alignment of Front Street, and Front Street, and to the southeast by a parcel of land between old and new Front Street (also owned by the City) (Figure 1).

From 1920 to 1961, the Site was occupied by General Water Heater Company, and then was purchased by Zero Corporation (Zero) for use by a division of the company called Zero Enclosures, whose primary business was fabrication of metal enclosures. Six buildings were constructed at the Site to house historical manufacturing operations (Figure 2). In addition to Zero Enclosures' operations, from 1964 to 1973, a part of the Site was leased to Ocean Technology Inc., a subsidiary of Zero, which used the space to manufacture and assemble electronic products.

Zero's manufacturing operations were discontinued in December 1991. From that point until 2002, the Site was used for storage (a 1995 city directory shows the occupant as Western Moving & Storage, Inc.) and later as film studios for the entertainment industry [Mactech, 2005; Law/Crandall, 1997]. After that time, the Site was unoccupied, with on-site buildings demolished in 2004. Current aerial photographs show that concrete pads and foundations remain on the Site. The Site was sold in 1998 by Zero to the Ford Leasing Development Company, which sold it to Northridge Properties, LLC, in 2005.

A parcel of land adjacent to the Site on the southwest was leased by Zero from the Southern Pacific Transportation Company for use as chemical storage. This parcel is currently owned by the City of Burbank and was used in part for realignment of Front Street.

Description of Historical Activities

Zero's manufacturing operations included aluminum case drawing and washing, aluminum alodining (a metal coating process), chromate deoxidizing, steel phosphate coating and chromium sealing, painting (the Zero facility contained paint booths, a water-based paint shop and drying booth), aluminum machining, etching, deoxidizing and cleaning, aluminum vapor degreasing, and grinding [Targhee, 1991]. During Zero Enclosure's operations, the Site also contained four clarifiers, two underground storage tanks (USTs), two designated chemical storage areas, two paint storage areas, one oil storage area, one acid storage area, one acid/caustic soda storage area, and one hazardous waste staging area [Targhee, 1991]. The approximate former locations of the four clarifiers are shown in Figure 2. In 1987, the two USTs, which had been used to store unleaded gasoline, were removed from the Site under Los Angeles County Department of Public Works (LACDPW) oversight. A building permit was issued in 1993 for the removal and/or abandonment of clarifiers on the Site [Mactech, 2005].

A review of historical information indicates that an industrial waste permit was issued to Zero in 1967 [Targhee, 1991]. Wastes generated onsite included acetone, ketones, 1,1,1-TCA, waste oil, waste acids and paint sludges [Targhee, 1991]. Hazardous materials used in and/or generated from industrial activities on the Site were stored in the storage areas described above (chemical storage, oil storage, acid storage, acid/caustic soda storage, and hazardous waste staging areas) [Meredith/Boli & Associates, 1997].

In 1975, Zero was cited by the California Department of Health Services (DHS) and the City of Burbank for disposing excess chromium in a wastewater discharge. After an inspection of the Site and housekeeping activities, no further action was recommended by DHS [Targhee 1991]. A land ban generator inspection report was written in August 1988 by DHS which primarily discussed Site chemical handling and disposal practices. The report did not indicate chemicals had been disposed to the ground nor the presence of observed surface chemical staining [Targhee, 1991].

Site Geologic/Hydrogeologic Setting

The Site is located within the eastern San Fernando Valley. The majority of this area consists of alluvium, lake, playa and terrace deposits, and unconsolidated and semi-consolidated sedimentary deposits, with the area beneath the Site including recent Holocene-age to Pleistocene-age alluvial fan deposits derived from the Verdugo Mountains [Mactech, 2005]. During the most recent drilling activities conducted at a portion of the Site in 2009, soil encountered to depths of approximately 40 feet consisted primarily of sand, silty sand, clayey sand and sandy silt with trace gravel [Ninyo and Moore, 2009].

Based on measurements from on-site monitoring wells (installed after groundwater monitoring was required by LARWQCB as part of Site soil remediation activities described further in the next section) and recent environmental investigations over the period 1992 to 2009, depth to groundwater at the Site has varied between 94 and 126 feet below ground surface. The 1998 Seismic Hazard Evaluation for the Burbank Quadrangle [Mactech, 2005] indicated that the highest historical groundwater in the area was between 20 and 30 feet below ground surface.

Groundwater in the vicinity of the Site generally flows south to southeast toward the Los Angeles River. As a result of local groundwater treatment pumping activities close to the Site, the groundwater gradient and flow direction at the Site has been known to fluctuate in the past [Ninyo & Moore, 2009].

Previous Environmental Investigation and Regulatory History

Following excavation and removal of the USTs from the Site in 1987, samples were taken beneath each tank at a depth of 3 feet. The highest level of Total Petroleum Hydrocarbons detected was 31 parts per million (ppm) in one location. Based on this result, after the tank excavation pit was backfilled and repaved, and the tanks were triple rinsed with rinsate and disposed off-site, the LACDPW signed closure documentation indicating that no further action was required [Targhee, 1991].

In 1991, as part of its Well Investigation Program, the LARWQCB mandated that an initial subsurface investigation be conducted at the Site to assess VOC concentrations in soils. Based on the results of this initial survey, follow-on studies were conducted which eventually led to remedial activities aimed at addressing elevated levels of several chlorinated hydrocarbons in both shallow and deep soils. These activities (primarily Soil Vapor Extraction) were completed in 2000, with a Certificate of Completion issued by the LARWQCB dated July 1, 2002 [LAWRQCB, 2002]. Waste soils generated by sampling activities were tested for metals including total chromium, which was detected in the one sample analyzed at 33 milligrams per kilogram (mg/kg) (shown on Table 1) [Hydro Geo Chem, 1998].

The soil remediation activities performed by Hydro Geo Chem also included a requirement for onsite groundwater monitoring [Hydro Geo Chem, 1998]. Trichloroethene (TCE) and tetrachloroethene (PCE) were the primary VOCs detected in groundwater samples, with only TCE detected above the targeted cleanup goal established in the Phase 1 remediation Work Plan during the last two years of remediation activities [Hydro Geo Chem 2000]. Based on comparison to the relatively low VOC levels detected in soil and soil vapor samples it was concluded that the groundwater TCE concentrations could not be entirely attributed to on-site contamination and was probably due to regional VOC issues. Hydro Geo Chem also tested for heavy metals, including chromium, in monitoring well purge water and reported these data in self-monitoring reports submitted to the LARWQCB (analytical results from samples collected between 1999 and 2001 ranged from non-detect to 12ug/L). A request to end groundwater monitoring activities was included with the request for a No Further Action determination for the remediation activities submitted by Hydro Geo Chem [Hydro Geo Chem, 2000]. A Certificate of Completion indicating that "the Site Investigation and Remedial Action at the Site has been satisfactorily completed and a permanent remedy has been accomplished" was issued by LARWQCB on July 1, 2002 [LARWQCB, 2002].

In October 1997, as part of a Site environmental assessment for Galpin Motors, Inc. (at the time, a prospective buyer of the property, but did not purchase it), Law/Crandall collected soil samples from a total of 18 borings for analysis of Title 22 (California Code of Regulations) metals. Twenty (20) soil samples collected from depths between 1 and 5 feet below ground surface (bgs) were analyzed for total chromium; duplicate (split) samples from 12 of the 20 Law/Crandall sampling locations were also analyzed by Hydro Geo Chem. The soil boring locations are included on Figure 2 and a summary of the total chromium soil sample results is included as Table 1. Total

chromium was detected in each of the 20 soil samples analyzed, up to a maximum concentration of 42.5 mg/kg. In September 1997, Emcon conducted a Site assessment for the City of Burbank along the previous, now vacated, alignment of North Front Street. Six borings were drilled and soil samples were collected from depths between 5 to 20 feet bgs, with one sample collected at 40 feet bgs. Samples were analyzed for eight of the Title 22 metals including: barium, chromium (total), cobalt, copper, lead, nickel, vanadium, and zinc. These soil results were compared to ten times their Soluble Threshold Limit Concentration (10xSTLC) which, if exceeded, would indicate the need for further analysis and a possible classification as hazardous waste. The soil boring locations are included on Figure 2 and the total chromium soil data are presented in Table 1. The results indicated that reported total chromium concentrations were below the 10xSTLC screening level of 50 mg/kg. One sample at 10 ft bgs tested higher than the 10xSTLC for copper (sample concentration was 421 mg/kg). As a follow-up, additional samples were taken in the same boring location at several depths to test for soluble copper using the California Waste Extraction Test (WET) method. Results from this testing were found to be significantly lower than the STLC for copper [Emcon, 1998]. Based on these results, no further investigation or analysis was performed by Emcon.

In 2009, Ninyo & Moore performed an investigation for the California Department of Transportation (Caltrans) in support of a possible acquisition of a portion of the Site along the previous, now vacated, alignment of North Front Street. In addition to data collected to confirm the adequacy of Site closure with respect to VOCs, 20 soil borings were drilled to depths of up to 20 feet bgs and soil samples were analyzed for metals (including total chromium and Cr^6). The soil boring locations are included on Figure 2 and the total and Cr^6 soil sample results are included in Table 1. Total chromium was detected in each of the samples at relatively low levels (highest was 54 mg/kg) and Cr^6 was detected in 4 samples, with the highest concentration reported at 0.18 mg/kg. Results for total chromium were concluded to be significantly below the 10xSTLC level (50 mg/kg), and Cr^6 concentrations in each of the samples were also significantly lower than the target screening level used in the report, which was the EPA Preliminary Remediation Goal (PRG) for commercial/industrial properties of 200 mg/kg [Ninyo & Moore 2009].

SAMPLING AND ANALYSIS PLAN

General

To expand on the previous assessments of the Site for evidence of historical chromium releases described in previous sections, soil borings will be drilled in five locations (one boring per location) to a depth of 20 feet bgs in the areas identified in Figure 3. These locations were designated as areas of concern based on conversations with the LARWQCB and review of Zero Enclosures facility maps which indicated the presence of Site features, such as clarifiers and a former pretreatment process area. Locations where previous sampling activities had occurred were also taken into account. Based on the amount of sampling that has taken place at the Site to date, and the geologic materials present at the Site, one boring per Site feature location to 20 feet bgs will be sufficient to characterize these areas for the potential for Cr^6 impacts. The results from this sampling event will be documented and summarized along with previous assessment results for the LARWQCB to confirm closure of the Cr^6 question or to develop next steps, as needed.

Fieldwork Preparation and Borehole Installation

Soil borings will be installed using a direct push drill rig. Borings will be drilled to depths of up to 20 feet bgs or until refusal. As the Site is vacant without knowledgeable Site personnel, borehole locations will be cleared of underground utilities by performing a geophysical survey in advance of field work, and notification of Underground Service Alert (USA) prior to commencing field work. Concrete coring will be performed prior to drilling in areas currently covered with a concrete foundation.

Sample Collection

Soil cores will be continuously recovered over the entire borehole depth using a 2-foot sampler lined with acetate sleeves. Boreholes will be visually logged for geologic lithology in accordance with the Unified Soil Classification System (USCS) through evaluation of drill cuttings and soil samples. Soil cores will be visually evaluated for evidence of impacts or odors. Select soil samples will be retained for laboratory analytical testing. Soil samples will be collected at roughly 5-foot intervals, however sample locations may be adjusted based on the results of observations of visual impacts or odors, or the identification of low permeable layers. Soil samples will be stored in a cooler on ice pending shipment to Calscience Laboratories under chain of custody protocol. Samples will be analyzed for Cr^6 speciation.

Decontamination and Investigation-Derived Waste Disposal

Boreholes will be abandoned with hydrated bentonite pellets. Augers will be decontaminated with a three-stage rinse between borehole locations. The direct push method does not produce drill significant cuttings; however, some waste cuttings and decontamination water will be generated. Investigation-derived wastes will be stored in drums for off-site disposal.

Quality Assurance/Quality Control

Duplicate samples will be collected from each sample location and approximately 10% of the total sample number will be analyzed. Samples of water used to rinse equipment after decontamination procedures are completed will be collected to evaluate the effectiveness of decontamination protocols. Trip blanks will be stored with analytical samples during transport to the analytical lab.

Quality control procedures of Calscience Laboratories will be included in an appendix to the final report along with lab reports.

DATA ANALYSIS AND REPORTING

A data summary report will be prepared to document field activities and present the findings of the investigation. This report will be submitted to the LARWQCB within six weeks of receipt of the laboratory analytical results. The report will include figures illustrating sampling locations and copies of laboratory analytical data. The investigation analytical results will be evaluated based on a comparison with historical Cr^6 data, background levels of Cr^6 in the area, as well as EPA-established screening levels. If appropriate, the report will include recommendations for further analysis or investigation/delineation. Per the requirements of the LARWQCB, boring logs will also be prepared and included in the report.

CLOSING

We are seeking your concurrence with and approval of this Work Plan. If you have any questions or comments on the contents of this letter, please do not hesitate to contact Eric Smalstig of Geosyntec at 714-969-0800.

Sincerely,

Mike Reardon, P.E.
Senior Engineer

Eric Smalstig, P.E.
Principal

Copies to:

Larry Moore, LARWQCB (via electronic mail)

Jeffrey Hu, LARWQCB (via electronic mail)

Alex Lapostol, E2 (via electronic mail)

Don Nanney, Gilchrist & Rutter, PC (via electronic mail)

REFERENCES & BIBLIOGRAPHY

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TABLE

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Table 1: Summary of Historical Total Chromium Soils Data
Former Zero Corporation and Vicinity
777 N. Front Street, Burbank, California

Location	Company	Date Sampled	Total Chromium Conc. (mg/kg)	Hexavalent Chromium Conc. (mg/kg)
BE1@2.5'	Law/Crandall[1]	9/10/1997	7.06/7.7 (HGC)[1]	NA
BE2@2.5'	Law/Crandall[1]	9/15/1997	42.5	NA
BE3@2'	Law/Crandall[1]	9/10/1997	15/2.8 (HGC)[1]	NA
BE4@5'	Law/Crandall[1]	9/15/1997	11.9	NA
BE5@1'	Law/Crandall[1]	9/10/1997	6.03/20 (HGC)[1]	NA
BE6@5'	Law/Crandall[1]	9/10/1997	0.06/27 (HGC)[1]	NA
BE7@5'	Law/Crandall[1]	9/10/1997	19.9/5.4 (HGC)[1]	NA
BE8@1'	Law/Crandall[1]	9/10/1997	18.4/18 (HGC)[1]	NA
BE9@5'	Law/Crandall[1]	9/10/1997	19.6/2.6 (HGC)[1]	NA
BG10@1'	Law/Crandall[1]	9/15/1997	16/19 (HGC)[1]	NA
BG11@1'	Law/Crandall[1]	9/12/1997	12	NA
BG12@1'	Law/Crandall[1]	9/15/1997	16.6	NA
BG12B@1'	Law/Crandall[1]	9/15/1997	16.3	NA
BG13@5'	Law/Crandall[1]	9/12/1997	22.1/27 (HGC)[1]	NA
BG14@1'	Law/Crandall[1]	9/15/1997	3.76	NA
BG15@1'	Law/Crandall[1]	9/12/1997	11.9	NA
BG16@1'	Law/Crandall[1]	9/15/1997	15/26 (HGC)[1]	NA
BG17@1'	Law/Crandall[1]	9/12/1997	12/17 (HGC)[1]	NA
BG18@1'	Law/Crandall[1]	9/15/1997	5.43	NA
BG18@5'	Law/Crandall[1]	9/15/1997	18/26 (HGC)[1]	NA
Waste Soils	Hydro Geo Chem, Inc.[2]	1997 or 1998	33	NA
B1@5'	EMCON[3]	9/26/1997	22.7	NA
B1@10'	EMCON[3]	9/26/1997	21.3	NA
B1@15'	EMCON[3]	9/26/1997	16.7	NA
B1@20'	EMCON[3]	9/26/1997	15.5	NA
B2@5'	EMCON[3]	9/26/1997	10.7	NA
B2@10'	EMCON[3]	9/26/1997	11.4	NA
B2@15'	EMCON[3]	9/26/1997	16.6	NA
B2@20'	EMCON[3]	9/26/1997	8.17	NA
B3@5'	EMCON[3]	9/26/1997	24.7	NA
B3@10'	EMCON[3]	9/26/1997	21.6	NA
B3@15'	EMCON[3]	9/26/1997	21.4	NA

Location	Company	Date Sampled	Total Chromium Conc. (mg/kg)	Hexavalent Chromium Conc. (mg/kg)
B3@20'	EMCON[3]	9/26/1997	20.6	NA
B4@5'	EMCON[3]	9/26/1997	27.3	NA
B4@10'	EMCON[3]	9/26/1997	17.7	NA
B4@15'	EMCON[3]	9/26/1997	16.7	NA
B4@20'	EMCON[3]	9/26/1997	15	NA
B5@5'	EMCON[3]	9/26/1997	10.7	NA
B5@10'	EMCON[3]	9/26/1997	9.18	NA
B5@15'	EMCON[3]	9/26/1997	6.14	NA
B5@20'	EMCON[3]	9/26/1997	13.2	NA
B6@5'	EMCON[3]	9/26/1997	12.9	NA
B6@10'	EMCON[3]	9/26/1997	16.3	NA
B6@15'	EMCON[3]	9/26/1997	8.16	NA
B6@20'	EMCON[3]	9/26/1997	11.7	NA
B6@25'	EMCON[3]	9/26/1997	11.7	NA
B6@30'	EMCON[3]	9/26/1997	13.2	NA
B6@35'	EMCON[3]	9/26/1997	11.8	NA
B6@40'	EMCON[3]	9/26/1997	12.3	NA
1001-101-2-S	Ninyo & Moore[4]	4/20/2009	21	<0.10
1001-101-5-S	Ninyo & Moore[4]	4/20/2009	20	<0.10
1001-101-10-S	Ninyo & Moore[4]	4/20/2009	14	<0.10
1001-101-20-S	Ninyo & Moore[4]	4/20/2009	8.5	<0.10
1001-102-2-S	Ninyo & Moore[4]	4/20/2009	24	<0.10
1001-102-5-S	Ninyo & Moore[4]	4/20/2009	16	<0.10
1001-102-10-S	Ninyo & Moore[4]	4/20/2009	17	<0.10
1001-102-20-S	Ninyo & Moore[4]	4/20/2009	23	<0.10
1001-103-2-S	Ninyo & Moore[4]	4/20/2009	21	<0.10
1001-103-5-S	Ninyo & Moore[4]	4/20/2009	17	<0.10
1001-103-10-S	Ninyo & Moore[4]	4/20/2009	18	<0.10
1001-103-20-S	Ninyo & Moore[4]	4/20/2009	21	<0.10
1001-104-2-S	Ninyo & Moore[4]	4/20/2009	24	<0.10
1001-104-5-S	Ninyo & Moore[4]	4/20/2009	19	<0.10
1001-104-10-S	Ninyo & Moore[4]	4/20/2009	21	<0.10
1001-104-20-S	Ninyo & Moore[4]	4/20/2009	19	<0.10
1001-105-2-S	Ninyo & Moore[4]	4/20/2009	25	<0.10
1001-105-5-S	Ninyo & Moore[4]	4/20/2009	23	<0.10
1001-105-10-S	Ninyo & Moore[4]	4/20/2009	25	<0.10
1001-105-20-S	Ninyo & Moore[4]	4/20/2009	9.5	<0.10
1001-106-2-S	Ninyo & Moore[4]	4/21/2009	29	<0.10

Location	Company	Date Sampled	Total Chromium Conc. (mg/kg)	Hexavalent Chromium Conc. (mg/kg)
1001-106-5-S	Ninyo & Moore[4]	4/21/2009	28	0.18
1001-106-10-S	Ninyo & Moore[4]	4/21/2009	23	<0.10
1001-106-20-S	Ninyo & Moore[4]	4/21/2009	25	<0.10
1001-106-20D-S	Ninyo & Moore[4]	4/21/2009	22	<0.10
1001-107-2-S	Ninyo & Moore[4]	4/21/2009	54	0.12
1001-107-5-S	Ninyo & Moore[4]	4/21/2009	35	0.10
1001-107-10-S	Ninyo & Moore[4]	4/21/2009	22	<0.10
1001-107-20-S	Ninyo & Moore[4]	4/21/2009	19	0.14
1001-108-2-S	Ninyo & Moore[4]	4/21/2009	26	<0.10
1001-108-5-S	Ninyo & Moore[4]	4/21/2009	21	<0.10
1001-108-10-S	Ninyo & Moore[4]	4/21/2009	27	<0.10
1001-108-10D-S	Ninyo & Moore[4]	4/21/2009	30	<0.10
1001-108-20-S	Ninyo & Moore[4]	4/21/2009	18	<0.10
1001-109-2-S	Ninyo & Moore[4]	4/21/2009	19	<0.10
1001-109-5-S	Ninyo & Moore[4]	4/21/2009	25	<0.10
1001-109-10-S	Ninyo & Moore[4]	4/21/2009	13	<0.10
1001-109-20-S	Ninyo & Moore[4]	4/21/2009	15	<0.10
1001-110-2-S	Ninyo & Moore[4]	4/21/2009	18	<0.10
1001-110-5-S	Ninyo & Moore[4]	4/21/2009	26	<0.10
1001-110-5D-S	Ninyo & Moore[4]	4/21/2009	24	<0.10
1001-110-10-S	Ninyo & Moore[4]	4/21/2009	17	<0.10
1001-110-20-S	Ninyo & Moore[4]	4/21/2009	9.7	<0.10
1001-111-2-S	Ninyo & Moore[4]	4/20/2009	20	<0.10
1001-111-2D-S	Ninyo & Moore[4]	4/20/2009	21	<0.10
1001-111-5-S	Ninyo & Moore[4]	4/20/2009	25	<0.10
1001-111-10-S	Ninyo & Moore[4]	4/20/2009	13	<0.10
1001-111-20-S	Ninyo & Moore[4]	4/20/2009	21	<0.10
1001-111-20D-S	Ninyo & Moore[4]	4/20/2009	16	<0.10
1001-112-2-S	Ninyo & Moore[4]	4/20/2009	22	<0.10
1001-112-5-S	Ninyo & Moore[4]	4/20/2009	16	<0.10
1001-112-10-S	Ninyo & Moore[4]	4/20/2009	8.5	<0.10
1001-112-20-S	Ninyo & Moore[4]	4/20/2009	21	<0.10

Notes:

mg/kg - Milligrams per kilogram

NA - Not analyzed as part of the investigation

HGC - Hydro Geo Chem, Inc.

Data From:

1 - Law/Crandall based sampling, splits given to Hydro Geo Chem, Inc. for quality control

Law/Crandall, 1997. Report of Environmental Evaluation - 777 North Front Street. 1 October, Table 1.

Hydro Geo Chem, Inc., 2000. Work Plan for No Further Action Closure - Former Zero Facility. 28 June, Table 4.

2 - Hydro Geo Chem, Inc., 1998. Groundwater Monitoring Report January 1997 Through January 1998 - Zero Facility. 3 April, Table 5.

3 - EMCON, 1997. Results of Phase II Environmental Site Assessment - North Front Street. 22 October, Appendix C.

4 - Ninyo & Moore, 2009. Parcel Acquisition Site Investigation - 777 North Front Street. 30 June, Table 3.

Total Chromium analyzed using EPA Test Method 6010B

Hexavalent Chromium analyzed using EPA Test Method 7196A

FIGURES

DRAFT

N

Legend

Site Boundary

Site Location
Former Zero Corporation
777 North Front Street
Burbank, California

2,000 1,000 0 2,000 4,000
Feet

Geosyntec consultants

Figure
1

HR1305 | August 2011

S:\GIS\HR1305\Projects\LocationMap_20110804.mxd tvs 8/15/2011

GOLDEN STATE FREEWAY (I-5)

FRONT STREET

BURBANK BLVD

BURBANK WESTERN CHANNEL

SOUTHERN PACIFIC RAILROAD

MAGNOLIA AVE

BUILDING 10

BUILDING 11

BUILDING 12

BUILDING 13

BUILDING 14

BUILDING 15

B-1 B-2 B-3 B-4 B-5 B-6

1001-101 1001-102 1001-103 1001-104 1001-105 1001-106 1001-107 1001-108 1001-109 1001-110 1001-111 1001-112

BE-1 BE-2 BE-3 BE-4 BE-5 BE-6 BE-7 BE-8 BE-9 BE-13

BG-10 BG-11 BG-12 BG-14 BG-15 BG-16 BG-17 BG-18

0 150'

LEGEND

- FORMER PRETREATMENT PROCESS AREA (BASED ON SITE PLAN PROVIDED BY NORTHRIDGE)
- FORMER CLARIFIERS (BASED ON SITE PLAN PROVIDED BY NORTHRIDGE)
- LAW/CRANDALL HISTORICAL SOIL BORING LOCATION (1997)
- EMCON HISTORICAL SOIL BORING LOCATION (1997)
- NINYO & MOORE HISTORICAL SOIL BORING LOCATION (2009)

Geosyntec consultants

HISTORICAL SOIL BORING LOCATIONS (CHROMIUM)
FORMER ZERO CORPORATION
777 NORTH FRONT STREET, BURBANK, CALIFORNIA

DATE:	AUGUST 2011	FILE NO.	1305F001
PROJECT NO.	HR1305-01	FIGURE NO.	2

N:\CACADD\CICITY OF BURBANK\CITY OF BURBANK - HR1305\Figures\1305F001.dwg 8/15/11 12:54 SBerdy

N

Building 11

Building 12

Building 13

Building 14

Legend

- Geosyntec Proposed Soil Boring (2011)
- Former Clarifier (Based on Site Plan Provided by Northridge)
- Former Building Location
- Site Boundary

Proposed Soil Boring Locations
Former Zero Corporation
777 North Front Street
Burbank, California

200 100 0 200 400 Feet

Geosyntec consultants

Figure **3**

HR1305 | October 2011

S:\GIS\HR1305\Projects\SitePlan_20110804.mxd tvs 10/28/2011

Geosyntec consultants

2100 Main Street, Suite 150
Huntington Beach, California 92648
PH 714.969.0800
FAX 714.969.0820
www.geosyntec.com

June 7, 2012

Larry Moore
Project Manager
Regional Water Quality Control Board, Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Subject: Soil Assessment Confirmation / Metals Testing
Case/File: Former Zero Corporation (File No. 109.6162)
777 North Front Street, Burbank, California

Dear Mr. Moore:

This letter supersedes our letter dated May 24, 2012. The purpose of this letter is to confirm specific provisions of the Regional Water Quality Control Board (Regional Board) approved Work Plan for additional soil assessment to be conducted at the 777 North Front Street property, located in Burbank, California (the Site). The soil assessment is to be conducted in response to a letter and California Water Code Section 13267 Requirement to Provide Technical Report, dated May 10, 2011 [LARWQCB, 2011a], sent by the Regional Board to the owner of the Site, Northridge Properties, LLC. The Soil Assessment Work Plan (Work Plan) proposed analysis of soil samples only for hexavalent chromium (Cr^6), consistent with the focus of LARWQCB, 2011a. The Work Plan was approved by the Regional Board in a letter dated December 20, 2011, which called for analysis of soil samples for Title 22 metals and Cr^6. This confirmation letter was prepared by Geosyntec Consultants, Inc. (Geosyntec) at the request of Gilchrist & Rutter Professional Corp. (Gilchrist) on behalf of Northridge Properties, LLC.

Because past studies of soil samples for Title 22 metals have not indicated metals of concern [Law/Crandall, 1997; Hydro Geo Chem, 2000; and Ninyo & Moore, 2009], other than the Regional Board's concern regarding Cr^6 as stated in LARWQCB, 2011a, and to avoid incurring unwarranted analytical costs, we requested (in our letter of May 24, 2012) confirmation that the soils to be sampled again at identified Site locations in accordance with the approved Work Plan will be analyzed only for speciated chromium

Geosyntec consultants

(specifically Cr^6). Following subsequent discussions, we understand that you have agreed instead to limit the number of soil samples to be analyzed for Title 22 metals. Specifically, two of the five borings will include soil sampling for Title 22 metals analysis at 10 feet and 20 feet (boring termination depth), in addition to speciated Cr^6. We will work with you to select the two borings for this additional testing. We also understand that the purpose for the testing for Title 22 metals is to obtain additional data to support the issuance of a no further action determination for the Site if indicated by the data.

We are seeking your concurrence with this confirmation letter as to the required scope of work. If you have questions or comments on the contents of this letter, please do not hesitate to contact Eric Smalstig of Geosyntec at 714-969-0800.

Finally, while cooperating with the Section 13267 Requirement to Provide Technical Report, Northridge Properties reserves all its contentions, rights, remedies and defenses in this matter, including but not limited to those stated in Petition No. A-2167 on file with the State Water Resources Control Board.

Sincerely,

Mike Reardon, P.E.
Senior Engineer

Eric Smalstig, P.E.
Principal

Copies to:

Alex Lapostol, E2 (via electronic mail)

Don Nanney, Gilchrist & Rutter, PC (via electronic mail)

Geosyntec consultants

APPENDIX B

LABORATORY ANALYTICAL REPORT

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-06-1919

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: HR1305

Attention: Matt Thomas
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Approved for release on 07/6/2012 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: HR1305
Work Order Number: 12-06-1919

Calscience Environmental Laboratories, Inc.

Client:	Geosyntec Consultants	Work Order:	12-06-1919
	2100 Main Street, Suite 150	Project name:	HR1305
	Huntington Beach, CA 92648-2460	Received:	06/28/12 13:05
Attn:	Matt Thomas		

DETECTIONS SUMMARY

Client Sample ID / Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
SS-2-5 (12-06-1919-5)						
Chromium, Hexavalent	**1100**		400	ug/kg	EPA 7199	EPA 3060A
SS-2-10 (12-06-1919-6)						
Arsenic	**6.23**		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	**75.7**		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	**33.0**		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	**7.02**		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	**244**		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	**1.67**		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	**10.8**		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	**31.1**		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	**753**		1.00	mg/kg	EPA 6010B	EPA 3050B
Chromium, Hexavalent	**960**		400	ug/kg	EPA 7199	EPA 3060A
SS-2-20 (12-06-1919-8)						
Arsenic	**8.06**		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	**178**		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	**0.699**		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	**3.23**		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	**20.4**		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	**30.6**		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	**79.0**		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	**2.21**		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	**102**		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	**42.7**		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	**12100**		100	mg/kg	EPA 6010B	EPA 3050B
SS-3-10 (12-06-1919-10)						
Arsenic	**6.83**		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	**168**		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	**0.387**		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	**22.6**		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	**14.2**		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	**23.9**		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	**1.89**		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	**17.6**		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	**44.5**		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	**63.8**		1.00	mg/kg	EPA 6010B	EPA 3050B

*MDL is shown.

Return to Contents

Calscience Environmental Laboratories, Inc.

Client:	Geosyntec Consultants	Work Order:	12-06-1919
	2100 Main Street, Suite 150	Project name:	HR1305
	Huntington Beach, CA 92648-2460	Received:	06/28/12 13:05
Attn:	Matt Thomas		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
SS-3-20 (12-06-1919-12)						
Arsenic	**7.78**		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	**234**		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	**0.436**		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	**21.4**		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	**14.4**		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	**26.9**		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	**2.44**		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	**17.1**		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	**44.5**		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	**59.4**		1.00	mg/kg	EPA 6010B	EPA 3050B
SS-4-20 (12-06-1919-16)						
Chromium, Hexavalent	**410**		400	ug/kg	EPA 7199	EPA 3060A
SS-5-5 (12-06-1919-17)						
Chromium, Hexavalent	**1300**		400	ug/kg	EPA 7199	EPA 3060A
SS-6-10 (12-06-1919-21)						
Arsenic	**6.59**		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	**166**		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	**0.337**		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	**19.0**		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	**12.5**		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	**21.2**		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	**1.70**		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	**15.1**		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	**37.8**		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	**55.0**		1.00	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3060A
Method: EPA 7199

Project: HR1305

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1-5	**12-06-1919-1-A**	**06/28/12 07:30**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 16:58**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1-10	**12-06-1919-2-A**	**06/28/12 07:32**	**Solid**	**IC 12**	**06/29/12**	**06/30/12 12:12**	**120630L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1-15	**12-06-1919-3-A**	**06/28/12 07:34**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 17:43**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1-20	**12-06-1919-4-A**	**06/28/12 07:36**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 17:51**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2-5	**12-06-1919-5-A**	**06/28/12 08:00**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 17:58**	**120629L01**

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	1100	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2-10	**12-06-1919-6-A**	**06/28/12 08:04**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 18:06**	**120629L01**

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	960	400	10		ug/kg

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3060A
Method: EPA 7199

Project: HR1305

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2-15	**12-06-1919-7-A**	**06/28/12 08:08**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 18:13**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2-20	**12-06-1919-8-A**	**06/28/12 08:12**	**Solid**	**IC 12**	**06/29/12**	**06/30/12 12:19**	**120630L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3-5	**12-06-1919-9-A**	**06/28/12 09:10**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 18:28**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3-10	**12-06-1919-10-A**	**06/28/12 09:15**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 18:44**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3-15	**12-06-1919-11-A**	**06/28/12 09:16**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 19:32**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3-20	**12-06-1919-12-A**	**06/28/12 09:18**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 19:40**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3060A
Method: EPA 7199

Project: HR1305

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4-5	**12-06-1919-13-A**	**06/28/12 08:43**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 19:47**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4-10	**12-06-1919-14-A**	**06/28/12 08:47**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 19:55**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4-15	**12-06-1919-15-A**	**06/28/12 08:51**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 20:02**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4-20	**12-06-1919-16-A**	**06/28/12 08:55**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 20:10**	**120629L01**

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	410	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-5-5	**12-06-1919-17-A**	**06/28/12 09:53**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 20:17**	**120629L01**

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	1300	400	10		ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-5-10	**12-06-1919-18-A**	**06/28/12 09:58**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 20:25**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3060A
Method: EPA 7199

Project: HR1305

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-5-15	**12-06-1919-19-A**	**06/28/12 10:02**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 20:32**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

SS-5-20	**12-06-1919-20-A**	**06/28/12 10:07**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 20:40**	**120629L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

SS-6-10	**12-06-1919-21-A**	**06/28/12 09:28**	**Solid**	**IC 12**	**06/29/12**	**06/30/12 11:27**	**120630L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

SS-7-20	**12-06-1919-24-A**	**06/28/12 10:30**	**Solid**	**IC 12**	**06/29/12**	**06/30/12 12:04**	**120630L01**

Comment(s): -The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	400	10		ug/kg

Method Blank	**099-05-125-2,402**	**N/A**	**Solid**	**IC 12**	**06/29/12**	**06/29/12 16:27**	**120629L01**

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	40	1		ug/kg

Method Blank	**099-05-125-2,404**	**N/A**	**Solid**	**IC 12**	**06/29/12**	**06/30/12 10:30**	**120630L01**

Parameter	Result	RL	DF	Qual	Units
Chromium, Hexavalent	ND	40	1		ug/kg

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3050B / EPA 7471A Total
Method: EPA 6010B / EPA 7471A
Units: mg/kg

Project: HR1305

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2-10	**12-06-1919-6-A**	**06/28/12 08:04**	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12 19:34**	**120629L01**

Comment(s): -Mercury analysis was performed on 06/29/12 12:57 with batch 120629L02.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Mercury	ND	0.0835	1	
Arsenic	6.23	0.750	1		Molybdenum	ND	0.250	1	
Barium	75.7	0.500	1		Nickel	10.8	0.250	1	
Beryllium	ND	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	33.0	0.250	1		Thallium	ND	0.750	1	
Cobalt	7.02	0.250	1		Vanadium	31.1	0.250	1	
Copper	244	0.500	1		Zinc	753	1.00	1	
Lead	1.67	0.500	1						

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2-20	**12-06-1919-8-A**	**06/28/12 08:12**	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12 19:36**	**120629L01**

Comment(s): -Mercury analysis was performed on 06/29/12 13:00 with batch 120629L02.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Mercury	ND	0.0835	1	
Arsenic	8.06	0.750	1		Molybdenum	ND	0.250	1	
Barium	178	0.500	1		Nickel	102	0.250	1	
Beryllium	0.699	0.250	1		Selenium	ND	0.750	1	
Cadmium	3.23	0.500	1		Silver	ND	0.250	1	
Chromium	20.4	0.250	1		Thallium	ND	0.750	1	
Cobalt	30.6	0.250	1		Vanadium	42.7	0.250	1	
Copper	79.0	0.500	1		Zinc	12100	100	100	
Lead	2.21	0.500	1						

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3-10	**12-06-1919-10-A**	**06/28/12 09:15**	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12 19:37**	**120629L01**

Comment(s): -Mercury analysis was performed on 06/29/12 13:02 with batch 120629L02.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Mercury	ND	0.0835	1	
Arsenic	6.83	0.750	1		Molybdenum	ND	0.250	1	
Barium	168	0.500	1		Nickel	17.6	0.250	1	
Beryllium	0.387	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	22.6	0.250	1		Thallium	ND	0.750	1	
Cobalt	14.2	0.250	1		Vanadium	44.5	0.250	1	
Copper	23.9	0.500	1		Zinc	63.8	1.00	1	
Lead	1.89	0.500	1						

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3050B / EPA 7471A Total
Method: EPA 6010B / EPA 7471A
Units: mg/kg

Project: HR1305

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3-20	**12-06-1919-12-A**	**06/28/12 09:18**	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12 19:38**	**120629L01**

Comment(s): -Mercury analysis was performed on 06/29/12 13:09 with batch 120629L02.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Mercury	ND	0.0835	1	
Arsenic	7.78	0.750	1		Molybdenum	ND	0.250	1	
Barium	234	0.500	1		Nickel	17.1	0.250	1	
Beryllium	0.436	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	21.4	0.250	1		Thallium	ND	0.750	1	
Cobalt	14.4	0.250	1		Vanadium	44.5	0.250	1	
Copper	26.9	0.500	1		Zinc	59.4	1.00	1	
Lead	2.44	0.500	1						

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-6-10	**12-06-1919-21-A**	**06/28/12 09:28**	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12 19:39**	**120629L01**

Comment(s): -Mercury analysis was performed on 06/29/12 13:11 with batch 120629L02.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Mercury	ND	0.0835	1	
Arsenic	6.59	0.750	1		Molybdenum	ND	0.250	1	
Barium	166	0.500	1		Nickel	15.1	0.250	1	
Beryllium	0.337	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	19.0	0.250	1		Thallium	ND	0.750	1	
Cobalt	12.5	0.250	1		Vanadium	37.8	0.250	1	
Copper	21.2	0.500	1		Zinc	55.0	1.00	1	
Lead	1.70	0.500	1						

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-007-8,698**	**N/A**	**Solid**	**Mercury**	**06/29/12**	**06/29/12 12:46**	**120629L02**

Comment(s): -Preparation/analysis for Mercury was performed by EPA 7471A.

Parameter	Result	RL	DF	Qual
Mercury	ND	0.0835	1	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3050B / EPA 7471A Total
Method: EPA 6010B / EPA 7471A
Units: mg/kg

Project: HR1305

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-15,953**	**N/A**	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12 18:40**	**120629L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Lead	ND	0.500	1	
Arsenic	ND	0.750	1		Molybdenum	ND	0.250	1	
Barium	ND	0.500	1		Nickel	ND	0.250	1	
Beryllium	ND	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	ND	0.250	1		Thallium	ND	0.750	1	
Cobalt	ND	0.250	1		Vanadium	ND	0.250	1	
Copper	ND	0.500	1		Zinc	ND	1.00	1	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3050B
Method: EPA 6010B

Project HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SS-3-10	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12**	**120629S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	4.310	17	3.345	13	50-115	25	0-20	3,4
Arsenic	6.827	25.00	29.57	91	29.42	90	75-125	1	0-20	
Barium	167.6	25.00	195.1	4X	204.7	4X	75-125	4X	0-20	Q
Beryllium	0.3873	25.00	23.39	92	23.75	93	75-125	1	0-20	
Cadmium	ND	25.00	22.45	90	22.70	91	75-125	1	0-20	
Chromium	22.62	25.00	45.04	90	45.38	91	75-125	1	0-20	
Cobalt	14.21	25.00	37.21	92	38.20	96	75-125	3	0-20	
Copper	23.90	25.00	48.38	98	50.41	106	75-125	4	0-20	
Lead	1.891	25.00	23.81	88	24.16	89	75-125	1	0-20	
Molybdenum	ND	25.00	21.70	87	22.03	88	75-125	2	0-20	
Nickel	17.64	25.00	40.82	93	41.44	95	75-125	2	0-20	
Selenium	ND	25.00	20.55	82	21.46	86	75-125	4	0-20	
Silver	ND	12.50	11.04	88	11.15	89	75-125	1	0-20	
Thallium	ND	25.00	18.24	73	18.40	74	75-125	1	0-20	3
Vanadium	44.50	25.00	65.58	84	67.32	91	75-125	3	0-20	
Zinc	63.84	25.00	79.23	62	82.12	73	75-125	4	0-20	3

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3050B
Method: EPA 6010B

Project: HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
SS-3-10	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12**	**120629S01**

Parameter	SAMPLE CONC	SPIKE ADDED	PDS CONC	PDS %REC	PDSD CONC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	20.80	83	21.66	87	75-125	4	0-20	
Arsenic	6.827	25.00	29.10	89	29.12	89	75-125	0	0-20	
Barium	167.6	25.00	189.6	88	192.9	101	75-125	2	0-20	
Beryllium	0.3873	25.00	22.53	89	23.12	91	75-125	3	0-20	
Cadmium	ND	25.00	21.68	87	21.85	87	75-125	1	0-20	
Chromium	22.62	25.00	43.85	85	45.07	90	75-125	3	0-20	
Cobalt	14.21	25.00	36.79	90	36.92	91	75-125	0	0-20	
Copper	23.90	25.00	47.99	96	48.89	100	75-125	2	0-20	
Lead	1.891	25.00	22.98	84	23.19	85	75-125	1	0-20	
Molybdenum	ND	25.00	22.17	89	22.44	90	75-125	1	0-20	
Nickel	17.64	25.00	39.82	89	39.97	89	75-125	0	0-20	
Selenium	ND	25.00	21.26	85	22.07	88	75-125	4	0-20	
Silver	ND	12.50	10.36	83	10.57	85	75-125	2	0-20	
Thallium	ND	25.00	17.66	71	17.72	71	75-125	0	0-20	5
Vanadium	44.50	25.00	65.52	84	67.28	91	75-125	3	0-20	
Zinc	63.84	25.00	77.38	54	78.88	60	75-125	2	0-20	5

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3060A
Method: EPA 7199

Project HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SS-1-5	**Solid**	**IC 12**	**06/29/12**	**06/29/12**	**120629S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	ND	40000	39000	98	39000	96	75-125	1	0-25	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3060A
Method: EPA 7199

Project HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SS-6-10	**Solid**	**IC 12**	**06/29/12**	**06/30/12**	**120630S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	ND	40000	41000	103	40000	99	75-125	4	0-25	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 7471A Total
Method: EPA 7471A

Project HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SS-3-10	**Solid**	**Mercury**	**06/29/12**	**06/29/12**	**120629S02**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7471	89	0.6825	82	71-137	9	0-14	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: N/A
Work Order No: 12-06-1919
Preparation: EPA 3050B
Method: EPA 6010B

Project: HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-15,953	**Solid**	**ICP 7300**	**06/29/12**	**06/29/12**	**120629L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Antimony	25.00	25.88	104	25.99	104	80-120	73-127	0	0-20	
Arsenic	25.00	24.18	97	24.14	97	80-120	73-127	0	0-20	
Barium	25.00	26.16	105	26.47	106	80-120	73-127	1	0-20	
Beryllium	25.00	24.52	98	24.53	98	80-120	73-127	0	0-20	
Cadmium	25.00	25.56	102	25.77	103	80-120	73-127	1	0-20	
Chromium	25.00	25.38	102	25.67	103	80-120	73-127	1	0-20	
Cobalt	25.00	26.87	107	27.12	108	80-120	73-127	1	0-20	
Copper	25.00	25.95	104	26.17	105	80-120	73-127	1	0-20	
Lead	25.00	25.59	102	25.55	102	80-120	73-127	0	0-20	
Molybdenum	25.00	24.97	100	25.05	100	80-120	73-127	0	0-20	
Nickel	25.00	27.16	109	27.40	110	80-120	73-127	1	0-20	
Selenium	25.00	24.62	98	24.70	99	80-120	73-127	0	0-20	
Silver	12.50	12.55	100	12.70	102	80-120	73-127	1	0-20	
Thallium	25.00	25.85	103	25.91	104	80-120	73-127	0	0-20	
Vanadium	25.00	24.73	99	24.99	100	80-120	73-127	1	0-20	
Zinc	25.00	26.30	105	26.39	106	80-120	73-127	0	0-20	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants		Date Received:	N/A
2100 Main Street, Suite 150		Work Order No:	12-06-1919
Huntington Beach, CA 92648-2460		Preparation:	EPA 3060A
		Method:	EPA 7199

Project: HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-125-2,402	**Solid**	**IC 12**	**06/29/12**	**06/29/12**	**120629L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	20000	20000	99	20000	102	80-120	3	0-20	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants		Date Received:	N/A
2100 Main Street, Suite 150		Work Order No:	12-06-1919
Huntington Beach, CA 92648-2460		Preparation:	EPA 3060A
		Method:	EPA 7199

Project: HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-125-2,404	**Solid**	**IC 12**	**06/29/12**	**06/30/12**	**120630L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	20000	20000	101	19000	97	80-120	4	0-20	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Geosyntec Consultants		Date Received:	N/A
2100 Main Street, Suite 150		Work Order No:	12-06-1919
Huntington Beach, CA 92648-2460		Preparation:	EPA 7471A Total
		Method:	EPA 7471A

Project: HR1305

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-007-8,698	**Solid**	**Mercury**	**06/29/12**	**06/29/12**	**120629L02**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.8350	0.8020	96	0.8008	96	85-121	0	0-10	

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RPD - Relative Percent Difference , CL - Control Limit

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Glossary of Terms and Qualifiers

Work Order Number: 12-06-1919

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **12-06-1919**

Date 6/28/12

Page 1 of 3

LABORATORY CLIENT: Geosyntec Consultants

ADDRESS: 2100 Main St. Suite 150

CITY: H.B. STATE: CA ZIP: 92648

TEL: 714-969-0800 E-MAIL: MThomas@Geosyntec.com

CLIENT PROJECT NAME / NUMBER: HR1305

P.O. NO.:

PROJECT CONTACT: Matt Thomas

SAMPLER(S): (PRINT) A. S.

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010B/747X)	Cr(VI) [7196 or 7199 or 218.6]
1	SS-1-5	6/28/12	7:30	Soil	1	✓															✓
2	SS-1-10		7:32	Soil	1	✓															✓
3	SS-1-15		7:34	Soil	1	✓															✓
4	SS-1-20		7:36	Soil	1	✓															✓
5	SS-2-5		8:00		1	✓														✓	✓
6	SS-2-10		8:04		1	✓														✓	✓
7	SS-2-15		8:08		1	✓														✓	✓
8	SS-2-20		8:12		1	✓														✓	✓
9	SS-3-5		~~8:17~~ 9:10		1	✓														✓	✓
10	SS-3-10		~~8:17~~ 9:15		1	✓														✓	✓

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Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-06-1919

Date 6/28/12

Page 2 of 3

LABORATORY CLIENT: Geosynter Consultants

ADDRESS: 2100 Main St. Suite 150

CITY: H.B. STATE: CA. ZIP: 92648

TEL: 714-969-0800 E-MAIL: MThomas@Geosynter.com

CLIENT PROJECT NAME / NUMBER: HR1305

P.O. NO.:

PROJECT CONTACT: Matt Thomas

SAMPLER(S): (PRINT) A.S.

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010B/747X)	Cr(VI) [7196 or 7199 or 218.6]
11	SS-3-15	6/28/12	916	Soil	1	✓														✓	✓
12	SS-3-20		918		1	✓														✓	✓
13	SS-4-5		8:43		1	✓															✓
14	SS-4-10		8:47		1	✓															✓
15	SS-4-15		8:51		1	✓															✓
16	SS-4-20		8:55		1	✓															✓
17	SS-5-5		9:53		1	✓															✓
18	SS-5-10		9:58		1	✓															✓
19	SS-5-15		10:02		1	✓															✓
20	SS-5-20		10:07		1	✓															✓

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
[signature]	Prec/ A. Ca	6/28/12	1306
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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WO # / LAB USE ONLY: 12-06-1919

Date: 6/28/12

Page: 3 of 3

LABORATORY CLIENT: Geosyntec Consultants

ADDRESS: 2100 Main St. Suite 150

CITY: Irv. STATE: CA. ZIP: 92648

TEL: 714-969-0800 E-MAIL: MThomas@Geosyntec

CLIENT PROJECT NAME / NUMBER: HR1305

P.O. NO.:

PROJECT CONTACT: Matt Thomas

SAMPLER(S): (PRINT) A. S.

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF | GLOBAL ID | LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010B/747X)	Cr(VI) [7196 or 7199 or 218.6]
21	SS-6-10	6/28/12	928	Soil	1	X														X	X
22	SS-6-20	6/28/12	931	Soil	1	X														X	X
—	Temp Blank		—	water	1																
23	SS-7-10		10:15	Soil	1	X															X
24	SS-7-20		10:30	Soil	1	X															X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
	Preserved in ice	6/28/12	1306
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
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Date: 6/28/12
Page: 1 of 3

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 2100 Main St, Suite 150
CITY: H.B. STATE: CA ZIP: 92648
TEL: 714-969-0800 E-MAIL: MThomas@geosyntec.com

CLIENT PROJECT NAME / NUMBER: HR1305
PROJECT CONTACT: Matt Thomas
P.O. NO.:
SAMPLER(S): (PRINT): A S.

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ STANDARD
☐ COELT EDF GLOBAL ID: LOG CODE:
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	SS-1-5	6/28/12	7:30	Soil	1	✓															X
	SS-1-10		7:32	Soil	1	✓															X
	SS-1-15		7:34	Soil	1	✓															X
	SS-1-20		7:36	Soil	1	✓															X
	SS-2-5		8:00		1	✓														/	X
	SS-2-10		8:04		1	✓														X	X
	SS-2-15		8:08		1	✓														/	X
	SS-2-20		8:12		1	✓														X	X
	SS-3-5		~~8:13~~ 9:10		1	✓														/	X
	SS-3-10		~~8:17~~ 9:15		1	✓														X	X

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CLIENT PROJECT NAME / NUMBER: HR1305

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PROJECT CONTACT: Matt Thomas

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	SS-3-15	6/28/12	916	Soil	1	✓														X	X
	SS-3-20	"	918	"	1	✓														X	X
	SS-4-5	"	8:43	"	1	✓														X	X
	SS-4-10	"	8:47	"	1	✓														X	X
	SS-4-15	"	8:51	"	1	✓														X	X
	SS-4-20	"	8:55	"	1	✓														X	X
	SS-5-5	"	9:53	"	1	✓														X	X
	SS-5-10	"	9:58	"	1	✓														X	X
	SS-5-15	"	10:02	"	1	✓														X	X
	SS-5-20	"	10:07	"	1	✓														X	X

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Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-06-1919

Date: 6/28/12
Page: 3 of 3

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 2100 Main St. Suite 150
CITY: Hlb. STATE: CA ZIP: 92648
TEL: 714-969-0800 E-MAIL: MThomas@geosyntec
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD
☐ COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: HR1305
PROJECT CONTACT: Matt Thomas
P.O. NO.:
SAMPLER(S): (PRINT) A. S.

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6C36) or (C6-C44)	TPH (	BTEX / MTBE (8260) or (	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010B/747X)	Cr(VI) [7196 or 7199 or 218.6]					
	SS-6-10	6/28/12	928	Soil	1	X														XX						
	SS-6-20	6/28/12	931	Soil	1	X														~~X~~	~~X~~					Hold
	Temp Blank	↓	—	Water	1																					
	SS-7-10	↓	10:15	Soil	1	X														~~X~~						Hold
	SS-7-20	↓	10:30	Soil	1	X															X					

Relinquished by: (Signature)	Received by: (Signature/Affiliation) Present	Date: 6/28/12	Time: 1306
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-06-1919

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: GEOSYNTEC CONSULTANTS DATE: 06/28/12

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 3.5 °C - 0.3 °C (CF) = 3.2 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: PS

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: PS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: SH

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☑4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** SH

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** VL

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**_____

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Geosyntec consultants

APPENDIX C

BORING LOGS

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

GS FORM: GEOTECH2 01/04

BOREHOLE LOG

BORING SS-1 **SHEET** 1 **OF** 1
START DRILL DATE Jun 28, 12 **ELEVATION DATA:**
FINISH DRILL DATE Jun 28, 12 **GROUND SURF. (Ft)**
LOCATION 777 Front St., Burbank **TOP OF CASING (Ft)**
PROJECT FORMER ZERO CORP **DATUM** Ground Surface
NUMBER HR1305

DESCRIPTION
1) Soil Name (USCS) 6) Plasticity
2) Color 7) Density/Consistency
3) Moisture 8) Other (Mineral Content, Discoloration, Odor, etc.)
4) Grain Size
5) Percentage

COMMENTS
1) Rig Behavior
2) Air Monitoring
3) Pocket Pen
4) Tor Vane

DEPTH (ft-bgs)	ELEVATION (ft)	DESCRIPTION	GRAPHIC LOG	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS	DRY DENSITY (pcf)	MAX. DRY DENSITY (pcf)	PERCENT FINES (%)	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	OPT. MOIST. CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX
0		Sand (SP) very dark grey (75YR 2/1); moist; fine-grained sand with trace medium to coarse-grained sand and fine gravel; trace silt; (5, 90, 5) unconsolidated.																		
5		Sand (SP); as above.																		
10		Silty sand (SM); very dark greyish brown (10YR 3/2); moist; fine-grained sand; (25, 75, 0); unconsolidated.																		
15		Silty sand (SM); very dark greyish brown (10YR 3/2); moist; fine-grained sand; (20, 80, 0); slightly dense.																		
		Clay (CL); dark greenish brown (10YR 4/2); moist; trace fine-grained sand and silt (95, 5, 0); low to moderate density; slightly dense.																		
20		Boring terminated @ 20' bgs.																		
25																				
30																				

CONTRACTOR
EQUIPMENT
DRILL MTHD
DIAMETER
LOGGER Kyle Gadley **REVIEWER**

NORTHING
EASTING
COORDINATE SYSTEM:

NOTES: Soil boring logged on 7/26/12 from bagged samples collected on 6/28/12.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

03-GEOTECH2 HR1305.GPJ GEOSNTEC.GDT 8/15/12

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

GS FORM: GEOTECH2 01/04

BOREHOLE LOG

BORING SS-2 **SHEET** 1 **OF** 1
START DRILL DATE Jun 28, 12 **ELEVATION DATA:**
FINISH DRILL DATE Jun 28, 12 **GROUND SURF. (Ft)**
LOCATION 777 Front St., Burbank **TOP OF CASING (Ft)**
PROJECT FORMER ZERO CORP **DATUM** Ground Surface
NUMBER HR1305

DESCRIPTION
1) Soil Name (USCS) 6) Plasticity
2) Color 7) Density/Consistency
3) Moisture 8) Other (Mineral Content, Discoloration, Odor, etc.)
4) Grain Size
5) Percentage

COMMENTS
1) Rig Behavior
2) Air Monitoring
3) Pocket Pen
4) Tor Vane

DEPTH (ft-bgs)	ELEVATION (ft)	DESCRIPTION	GRAPHIC LOG	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS	DRY DENSITY (pcf)	MAX. DRY DENSITY (pcf)	PERCENT FINES (%)	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	OPT. MOIST. CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX
		Sand (SP); brown (10YR 4/3); moist; fine to coarse-grained sand with trace fine gravel; unconsolidated. (5, 90, 5).																		
5		Sand (SP); as above; very dark greenish brown; gravel size increased.																		
10		Silty Sand (SM); dark greenish brown (10YR 4/3); moist; fine-grained sand with trace medium-grained sand; (40, 60, 0); slightly dense.																		
15		Sand (SP); greyish brown (10YR 5/2); moist; fine to medium grained sand with sub-angular rock fragments (less than or equal to 4cm); trace silt; (5, 90, 5); unconsolidated.																		
		Silty Sand (SM); very dark greyish brown (10YR 3/2); moist; fine-grained sand; trace medium-grained sand; slightly dense (30, 70, 0).																		
20		Boring terminated @20' bgs.																		
25																				
30																				

CONTRACTOR
EQUIPMENT
DRILL MTHD
DIAMETER
LOGGER Kyle Gadley **REVIEWER**

NORTHING
EASTING
COORDINATE SYSTEM:

NOTES: Soil boring logged on 7/26/12 from bagged samples collected on 6/28/12.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

03-GEOTECH2 HR1305.GPJ GEOSNTEC.GDT 8/15/12

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

GS FORM: GEOTECH2 01/04

BOREHOLE LOG

BORING SS-3 **SHEET** 1 **OF** 1
START DRILL DATE Jun 28, 12 **ELEVATION DATA:**
FINISH DRILL DATE Jun 28, 12 **GROUND SURF. (Ft)**
LOCATION 777 Front St., Burbank **TOP OF CASING (Ft)**
PROJECT FORMER ZERO CORP **DATUM** Ground Surface
NUMBER HR1305

DESCRIPTION
1) Soil Name (USCS) 6) Plasticity
2) Color 7) Density/Consistency
3) Moisture 8) Other (Mineral Content, Discoloration, Odor, etc.)
4) Grain Size
5) Percentage

COMMENTS
1) Rig Behavior
2) Air Monitoring
3) Pocket Pen
4) Tor Vane

DEPTH (ft-bgs)	ELEVATION (ft)	DESCRIPTION	GRAPHIC LOG	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS	DRY DENSITY (pcf)	MAX. DRY DENSITY (pcf)	PERCENT FINES (%)	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	OPT. MOIST. CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX
		Sand (SP); very dark grey (75YR 3/1); moist; fine-grained sand with trace coarse-grained sand; trace silt; (5, 95, 0); unconsolidated.																		
5		Silty Sand (SM); very dark greyish brown (10YR 3/2); moist; fine-grained; (25, 75, 0); unconsolidated.																		
10		Sand (SP); very dark greyish brown (10R 3/2); moist; fine-grained sand with trace medium-grained sand; (5, 95, 0); unconsolidated.																		
15																				
20		Silty Sand (SM); very dark greyish brown (10 YR 3/2); moist; fine-grained sand; slightly dense; (30, 70, 0).																		
		Boring terminated @20' bgs.																		
25																				
30																				

CONTRACTOR
EQUIPMENT
DRILL MTHD
DIAMETER
LOGGER Kyle Gadley **REVIEWER**

NORTHING
EASTING
COORDINATE SYSTEM:

NOTES: Soil boring logged on 7/26/12 from bagged samples collected on 6/28/12.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

03-GEOTECH2 HR1305.GPJ GEOSNTEC.GDT 8/15/12

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GS FORM: GEOTECH2 01/04

BOREHOLE LOG

BORING SS-4 **SHEET** 1 **OF** 1
START DRILL DATE Jun 28, 12 **ELEVATION DATA:**
FINISH DRILL DATE Jun 28, 12 **GROUND SURF. (Ft)**
LOCATION 777 Front St., Burbank **TOP OF CASING (Ft)**
PROJECT FORMER ZERO CORP **DATUM** Ground Surface
NUMBER HR1305

DESCRIPTION
1) Soil Name (USCS) 6) Plasticity
2) Color 7) Density/Consistency
3) Moisture 8) Other (Mineral Content, Discoloration, Odor, etc.)
4) Grain Size
5) Percentage

COMMENTS
1) Rig Behavior
2) Air Monitoring
3) Pocket Pen
4) Tor Vane

DEPTH (ft-bgs)	ELEVATION (ft)	DESCRIPTION	GRAPHIC LOG	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS	DRY DENSITY (pcf)	MAX. DRY DENSITY (pcf)	PERCENT FINES (%)	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	OPT. MOIST. CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX
0		Silty Sand (SM); very dark greenish brown (10 YR 3/2); moist; fine-grained sand; (25, 75, 0); slightly dense.																		
5		Sand (SP); very dark greenish brown (10 YR 3/2); moist; fine-grained sand; trace silt; (5, 95, 0); unconsolidated.																		
10																				
15																				
20		Sand (SP); vas above; trace medium-grained sand; (5, 95, 0); loosely consolidated.																		
		Boring terminated @20' bgs.																		
25																				
30																				

CONTRACTOR
EQUIPMENT
DRILL MTHD
DIAMETER
LOGGER Kyle Gadley **REVIEWER**

NORTHING
EASTING
COORDINATE SYSTEM:

NOTES: Soil boring logged on 7/26/12 from bagged samples collected on 6/28/12.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

03-GEOTECH2 HR1305.GPJ GEOSNTEC.GDT 8/15/12

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GS FORM: GEOTECH2 01/04

BOREHOLE LOG

BORING SS-5 **SHEET** 1 **OF** 1
START DRILL DATE Jun 28, 12 **ELEVATION DATA:**
FINISH DRILL DATE Jun 28, 12 **GROUND SURF. (Ft)**
LOCATION 777 Front St., Burbank **TOP OF CASING (Ft)**
PROJECT FORMER ZERO CORP **DATUM** Ground Surface
NUMBER HR1305

DESCRIPTION
1) Soil Name (USCS) 6) Plasticity
2) Color 7) Density/Consistency
3) Moisture 8) Other (Mineral Content, Discoloration, Odor, etc.)
4) Grain Size
5) Percentage

COMMENTS
1) Rig Behavior
2) Air Monitoring
3) Pocket Pen
4) Tor Vane

DEPTH (ft-bgs)	ELEVATION (ft)	DESCRIPTION	GRAPHIC LOG	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS	DRY DENSITY (pcf)	MAX. DRY DENSITY (pcf)	PERCENT FINES (%)	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	OPT. MOIST. CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX
0		Sand (SP); brown (10YR 4/3); moist; fine to coarse-grained sand; loosely consolidated; (0, 100, 0).																		
5		Sand (SP); as above; very dark greenish brown; trace silt; (5, 95, 0).																		
10		Sand (SP); as above; very dark grey (75YR 3/1).																		
15		Silty Sand (SM); very dark grey (10YR 3/1); moist; fine-grained sand (40, 60, 0); moderately dense.																		
		Silty Sand (SM); As above; dark grey (10 YR 4/1); (30, 70, 0).																		
20		Boring terminated @20' bgs																		
25																				
30																				

CONTRACTOR
EQUIPMENT
DRILL MTHD
DIAMETER
LOGGER Kyle Gadley **REVIEWER**

NORTHING
EASTING
COORDINATE SYSTEM:

NOTES: Soil boring logged on 7/26/12 from bagged samples collected on 6/28/12.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

03-GEOTECH2 HR1305.GPJ GEOSNTEC.GDT 8/15/12

Prepared for:

Northridge Properties, LLC

15505 Roscoe Boulevard
North Hills, California 91343

SOIL ASSESSMENT REPORT

ADDITIONAL BORING SS-4A

777 NORTH FRONT STREET
BURBANK, CALIFORNIA

Prepared by:

Geosyntec consultants

engineers | scientists | innovators

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Project Number HR1305

July 22, 2016

Geosyntec
consultants

SOIL ASSESSMENT REPORT

777 North Front Street
Burbank, California
July 2016

Supervision of fieldwork activities related to implementing the approved work plan was performed by the staff of Geosyntec Consultants, Inc., (Geosyntec) under the direction of the licensed professional with sufficient hydrogeologic experience whose signature appears hereon. The Soil Assessment Report (the "Report") was prepared under the supervision of the same. Consistent with applicable professional standards of care, our opinions and recommendations are based, in part, on data furnished by others as noted in this Report where applicable. Geosyntec is not able to independently verify data provided by others. Geosyntec services were performed, and this Report has been prepared, in accordance with generally accepted professional standards of care applicable to the scope of services authorized by Northridge Properties, LLC, consistent with direction from the Los Angeles Regional Water Quality Control Board, and no other warranty is provided in connection therewith.

Eric Smalstig, P.E.
Senior Principal, Geosyntec Consultants, Inc.
License No. C56128

I, Herbert F. Boeckmann, II, do hereby declare under penalty of perjury under the laws of the State of California that I am a Member of Northridge Properties, LLC, a California limited liability company (the "Company"); that I am authorized to attest to the veracity of the information contained in the report described herein; that the information contained in Geosyntec Consultants, Inc.'s "Soil Assessment Report, Additional Boring SS-4A, 777 North Front Street, Burbank, California," dated July 8, 2016 (the "Report"), is true and correct; that I have no personal knowledge or expertise with respect to the findings and information contained in the Report and I am relying on the professionals who prepared it; that the issuance of the Report and this Declaration is not an admission that the Company was or is a discharger within the meaning of Water Code Section 13267, which the Company expressly denies; and that this Declaration was executed at North Hills, California, on July 22, 2016.

Herbert F. Boeckmann, II, Member
Northridge Properties, LLC

Geosyntec consultants

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TABLE

FIGURES

APPENDICES

1. INTRODUCTION

1.1 Project Overview

This Soil Assessment Report (Report) contains a summary of the soil sampling activities performed in June 2016 at the former industrial site located at 777 North Front Street, in Burbank, California (the Site), and an assessment of the analytical results. The Report was prepared by Brian Penserini of Geosyntec Consultants, Inc. (Geosyntec), and was reviewed by Matt Thomas, Ph.D., and Eric Smalstig, P.E., also of Geosyntec, in accordance with the peer review policy of the firm. Geosyntec has prepared this Report on behalf of its client Northridge Properties, LLC, for submission to the Los Angeles Regional Water Quality Control Board (LARWQCB) per the requirements of the approved Work Plan (Appendix A) [Geosyntec, 2015] that was prepared in response to the June 3, 2015 Order No. R4-2015-0065 [LARWQCB, 2015a]. The Work Plan was approved, with conditions, in a letter from the LARWQCB dated March 18, 2016 [LARWQCB, 2016].

Based on the results and conclusions of this Report presented in Sections 4 and 5: (1) that hexavalent chromium (Cr^{6+}) was not detected in the deepest soil horizon (i.e., 40 feet below ground surface (ft bgs); (2) that the vertical distribution of detections of Cr^{6+} encountered during this and previous Site investigations continue to be inconsistent with a historical Site release of Cr^{6+} at concentrations that could have impacted groundwater in the past; and (3) that Cr^{6+} concentrations in Site soils do not pose a threat to groundwater at the Site in the future, Geosyntec concludes that no further Cr^{6+}-specific investigations are warranted.

1.2 Report Organization

The remainder of this Report is organized into the following sections:

- Section 2, *Background*;
- Section 3, *Soil Sampling;*
- Section 4, *Results*; and
- Section 5, *Conclusions.*

References, a table, figures, and appendices are included at the end of the text.

2. BACKGROUND

2.1 Property Description

The Site located at 777 North Front Street (LARWQCB File No. 109.6162) consists of an approximately 8-acre lot in the City of Burbank, approximately 13 miles north-northwest of downtown Los Angeles (Figure 1). It is bordered by Interstate 5, Burbank Boulevard, and Front Street. From 1920 to 1961, the Site was occupied by General Water Heater Company, and then was purchased by Zero Corporation (Zero) for use by a division of the company called Zero Enclosures, whose primary business was fabrication of metal enclosures. In addition to Zero Enclosures' operations, from 1964 to 1973, a part of the Site was leased to Ocean Technology Inc., a subsidiary of Zero, which used the space to manufacture and assemble electronic products.

Zero's manufacturing operations were discontinued in December 1991. From then until 2002, the Site was used for storage (a 1995 city directory shows the occupant as Western Moving & Storage, Inc.) and later as temporary filming locations for the entertainment industry [Mactech 2005, p. 14; Law/Crandall 1997, p. 1]. The Site was sold to the Ford Leasing Development Company in 1998. Since 2002, the Site has been unoccupied, with on-site buildings having been demolished in 2004, leaving concrete pads and foundations currently remaining on the Site. The Site was periodically used for traveling circus operations (e.g., most recently Circus Vargas in 2016).

Recent activities associated with California Department of Transportation (Caltrans') widening of I-5 adjacent to the Site have resulted in some alterations to Site features, including in the area around the former clarifier near the SS-4 and SS-4A sampling locations (Figure 2). The activities were primarily related to stockpile soil storage and miscellaneous materials storage (e.g., large steel I-beams).

2.2 Regional Cr6+ Contamination and Recent Regulatory Context

This section summarizes the environmental context of the Site, both in terms of regional contamination, as well as regulatory actions. Previous Site reports provide additional details related to these topics. The Site is located within the San Fernando Valley Groundwater Basin (SFVGB). In 1980, the California Department of Health Services (DHS) requested that all major groundwater users conduct tests for the presence of certain industrial chemicals in the water they were serving. The results of testing indicated elevated concentrations of a number of volatile organic compounds (VOCs) in groundwater under large portions of the San Fernando Valley, which led to the designation of four separate areas that together comprise the San Fernando Valley Superfund Sites.

In 1998, during the United States Environmental Protection Agency (USEPA) Superfund investigation, information provided to LARWQCB from the Upper Los Angeles River Area Watermaster (ULARA) indicated that some of the groundwater supply wells in the SFVGB had been contaminated by hexavalent chromium (Cr^{6+}) [LARWQCB, 2011b]. Subsequently, the LARWQCB re-evaluated Chemical Use Questionnaires (CUQs) provided by each facility during the Superfund investigation and identified 112 sites, presumably the most suspect sites, and required that they conduct further investigations to determine whether Cr^{6+} concentrations in the soil at these sites indicated past release that may have contributed to the regional Cr^{6+} contamination or that might pose a threat to public drinking water supply wells in the future. It is significant to note that the subject Site was not among the 112 sites identified by the LARWQCB at that time.

The former responsible party for the Site had been issued a Certificate of Completion by Cal/EPA in 2002. The Site remained closed until it was reopened by the LARWQCB Order titled "*Requirement to Provide Technical Report – Work Plan*" [LARWQCB, 2011b]. The primary reasons for issuance of the Order given in the accompanying letter [LARWQCB, 2011a] were: (1) the records of historical use of Cr^{6+} at the facility; and (2) the results of a Caltrans soil investigation that indicated there exist a limited number of detections of Cr^{6+} at the Site [Ninyo & Moore, 2009] at concentrations that, according to the LARWQCB, are in exceedance of normal background concentrations of Cr^{6+} in the San Fernando Valley [LARWQCB, 2011a]. A detailed summary of the results of the Caltrans report were provided in the original approved investigation Work Plan for Cr^{6+}sampling at the Site.

The aforementioned Order was issued by LARWQCB to Northridge Properties, LLC, on May 10, 2011. Northridge Properties, LLC, worked with LARWQCB to target locations at the Site where impacts, if any, would be anticipated should any unauthorized releases of Cr^{6+} have occurred in the past. The five former clarifier locations shown on Figure 2 were selected. On behalf of Northridge Properties, LLC, Geosyntec submitted the Soil Assessment Work Plan – Hexavalent Chromium [Geosyntec, 2011], which was approved by the LARWQCB in a letter dated December 20, 2011. Work was completed in June 2012. After the LARWQCB review of the Site Assessment Report [Geosyntec, 2012] and the coordinated discussions between Northridge Properties and the LARWQCB that followed, the LARWQCB issued the June 3, 2015 Order No. R4-2015-0065 requiring additional soil assessment at the Site. A Work Plan was prepared responding to the order which was subsequently approved, with conditions, in a letter from the LARWQCB dated March 18, 2016 [LARWQCB, 2016]. Sampling activities in the approved Work Plan were implemented on June 2, 2016, and Geosyntec has prepared this Report to present and provide an assessment of the analytical results obtained.

3. SOIL SAMPLING

3.1 General

The Soil Assessment activities described in this Report were conducted in accordance with the Site-specific Health and Safety Plan (HASP) and the approved Work Plan (Appendix A) prepared in accordance with the LARWQCB request. To supplement the previous assessments of the Site, specifically with respect to vertical delineation of hexavalent chromium (Cr^{6+}) in the vicinity of one of the former clarifiers, and in accordance with the approved Work Plan, an additional soil boring (SS-4A) was drilled to a depth of 40 ft bgs and soil samples were collected at various depths. The location of SS-4A is shown on Figure 2, along with the locations where Geosyntec collected previous soil samples in June 2012.

SS-4A was drilled to a depth of 40 ft bgs and soil samples were collected at 10, 20, 25, 30, 35, and 40 ft bgs. Duplicate samples were collected at 10 ft and 20 ft bgs. The shallowest two depths were also intended to compare and/or confirm the results from the previous soil testing at SS-4, and the subsequent samples were collected at 5-foot intervals to the termination depth of the boring. The results from this sampling event are documented and summarized in this Report, along with Geosyntec's previous assessment results.

3.2 Field Work Preparation

The location of SS-4A was selected pursuant to conversations with the LARWQCB related to the detection of Cr^{6+} at a concentration above the laboratory reporting limit in sample SS-4 (at 20 ft bgs). SS-4 was located in an area originally identified as a potential area of concern based on discussions with LARWQCB and review of facility maps, which indicated the former presence of a clarifier (now closed and filled with concrete). LARWQCB agreed that for this supplemental investigation, one additional boring would be drilled adjacent to the former clarifier and in the vicinity of the previous location SS-4 (June 2012); LARWQCB representatives also attended a field walk with Geosyntec to confirm the location of SS-4A.

Underground Service Alert (USA) was notified more than 48 hours prior to beginning drilling activities to identify underground utilities in the vicinity of the proposed borehole location and to reduce the potential for accidentally encountering buried utility lines (USA ticket number A61341104). Once utilities were cleared, drilling of the borehole was scheduled. Geosyntec also contracted with Goldak Geophysics to conduct a subsurface geophysical survey to identify locations of potential underground utilities. Goldak identified a subsurface anomaly in the approximate location of the former clarifier

and marked the outline of the anomaly with high-visibility paint. SS-4A was then positioned approximately 5 ft north of the anomaly.

3.3 Soil Sampling

On June 2, 2016, under the direction of Geosyntec, Gregg Drilling advanced a single boring (labeled SS-4A; Figure 2) using a hollow-stem auger rig to a depth of approximately 40 ft bgs and several depth discrete soil cores were collected using a 18-inch split-spoon sampler. Borings were visually logged for geologic lithology in accordance with the Unified Soil Classification System (USCS). The first 5 ft of the boring was completed by hand auger to reduce the potential for impairing unidentified underground utilities or pipes. Soil samples were collected from the cores at 10, 20, 25, 30, 35, and 40 ft bgs in accordance with the approved Work Plan (Appendix A) using disposable sampling equipment in order to avoid cross contamination of samples. A photographic log showing the Site soil assessment field procedures is provided in Appendix D. A total of six primary soil samples and two duplicate soil samples (labeled SS-4A-10DUP and SS-4A-20DUP) were collected in this manner.

The soil samples were collected in 4-oz. glass jars sealed with Teflon®-lined plastic caps for Cr^{6+} analysis (EPA Method 7199). Individual soil samples were labeled with unique identifiers, logged on laboratory chain of custody forms, placed in an ice-filled cooler, and transported to Eurofins-Calscience Environmental Laboratories, Inc. (Eurofins-Calscience), a local National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory. The boring was backfilled with bentonite from the borehole terminus to ground surface. Remaining soil cores were stored in a 55-gallon DOT-approved drum during drilling and sampling activities and were removed from the Site. Upon receipt of laboratory results and waste profiling, the remaining soil cores were properly disposed of by the driller as non-hazardous waste.

The non-dedicated soil sampling equipment (e.g., coring bits and hand augers) was washed prior to each sample collection by the "three-bucket-wash" method; sampling equipment was first washed in a solution of Alconox and potable water, then rinsed with potable water, and finally rinsed with distilled water and allowed to air-dry.

3.4 Laboratory Analysis

Samples were transported with proper chain of custody forms to Eurofins-Calscience, located at 7440 Lincoln Way, in Garden Grove, California, and were analyzed for Cr^{6+} using EPA Method 7199. The laboratory analytical results for the soil samples are discussed in Section 4. The laboratory analytical report is provided in Appendix B.

4. RESULTS

4.1 Introduction

The laboratory analytical results for the soil samples arranged by boring location and depth for both the samples collected in June 2012 and in June 2016 are summarized in Table 1. In order to have a basis of comparison, Table 1 also includes the USEPA Region 9 Soil Screening Levels for Cr^{6+} in Soil (SSLs) for both residential and commercial/industrial land use [USEPA, 2016, and subsequent revisions to tables]. Soil lithology and analytical results are described in the following sections, and the laboratory analytical report is included in Appendix B.

4.2 Soil Lithology

The soil boring (SS-4A) advanced at the Site was logged for soil lithology in accordance with the Unified Soil Classification System (USCS) and screened visually for evidence of contamination. No visually evidence of metals staining was observed in the primarily sandy alluvial soils to 40 ft bgs. The boring log showing the soil lithology at the boring location is provided in Appendix C. Soil lithology was consistent with previous borings described in the 2012 Site assessment report [Geosyntec, 2012].

4.3 Soil Sample Cr^{6+} Analytical Results

A total of six primary and two duplicate soil samples were collected from SS-4A and were analyzed for Cr^{6+} using EPA Method 7199. Table 1 summarizes the analytical results and provides commercial/industrial SSLs (i.e., chemical-specific soil health screening levels for commercial/industrial land use) for comparison. A plan view of boring locations from June 2012 and June 2016 is provided in Figure 3 that includes tables with soil sample depths and concentrations of Cr^{6+}. Per the request of the LARWQCB in the conditional approval letter [LARWQCB, 2016], the vertical distribution of Cr^{6+} results is also shown on Figure 4 along with a general lithologic profile.

Cr^{6+}, which was the primary constituent of concern for this Site soil assessment, was detected in only one of the six primary soil samples collected. This detection was in a sample collected at a depth of 35 ft bgs in boring SS-4A. The measured concentration was less than 10 times below the industrial USEPA SSL, (see Table 1) and was 0.09 mg/kg greater than the laboratory method quantitative reporting limit of 0.4 mg/kg, slightly above the residential SSL at 35 ft bgs (where no exposure would occur). Moreover, Cr^{6+} was not detected in the sample collected at a depth of 40 ft bgs in boring SS-4A.

5. CONCLUSIONS

5.1 Summary

Based on the soil sampling data collected as part of this Soil Assessment as presented in the preceding section of this Report (see Table 1 and Figure 3) and the analyses presented in the following sections, several conclusions related to chemical impacts at the Site can be drawn:

- The single low-level detection of Cr^{6+} in the soil samples collected from the SS-4A location where impacts, if any, would be anticipated (i.e., near the former clarifier location detected at a concentration significantly less than 10 times below the USEPA SSL) confirm the previous report [Geosyntec, 2012] finding that the limited number and low concentrations of Cr^{6+} detections at the Site are not significant; and
- The single detection of Cr^{6+} in SS-4A at 35 ft bgs, with no detection at 40 ft bgs, is inconsistent with historical releases of Cr^{6+} at concentrations that could have impacted groundwater and do not provide evidence to suggest that historical Site activities contributed to the San Fernando Valley Groundwater Basin (SFVGB) Cr^{6+} contamination that is currently under investigation by LARWQCB and USEPA.

The conclusions summarized above in bulleted format are described in more detail in the following sections.

5.2 Hexavalent Chromium

Hexavalent chromium, the chief focus of the LARWQCB Orders [LARWQCB, 2011b and 2015a] and of this Soil Assessment, was detected in one of the six primary soil samples collected (one of eight samples, if the duplicates are counted) from the sample location SS-4A that was specifically selected for this field program and approved by LARWQCB. Furthermore, the detection of Cr^{6+} was at a low concentration (below the industrial SSL as shown in Table 1). When combined with the previous results in 2012, these results provide further indication that the limited Cr^{6+} detections at the Site are not significant.

In terms of vertical distribution, the one detection at 35 ft bgs was at a low concentration, just 0.09 mg/kg above the detection limit. These results are inconsistent with historical releases of Cr^{6+} at concentrations that could have impacted groundwater and do not provide evidence to suggest that historical Site activities contributed to the San Fernando

Valley Groundwater Basin (SFVGB) Cr^{6+} contamination that is currently under investigation by LARWQCB and USEPA. In addition, because Cr^{6+} was not detected in the sample collected at the base of the soil boring (40 ft bgs), the vertical distribution of Cr^{6+} detections in boring SS-4A, as well as the previous soil sampling results, makes it unlikely that the groundwater table would come into contact with these soils. Furthermore, the low concentrations of Cr^{6+} are orders of magnitude below the Total Threshold Limit Concentration (TTLC = 500 mg/kg) and the more conservative value of 10 times the Soluble Threshold Limit Concentration (STLC; i.e., the comparable threshold value for STLC leachability testing = 50 mg/kg) which is an indication of a contaminant's potential to impact (i.e., leach into and/or migrate downward to) groundwater. These results demonstrate that Cr^{6+} concentrations in Site soils do not pose a threat to groundwater at the Site in the future. Finally, the LARWQCB committed to add Cr^{6+} to the Certificate of Completion for the Site and to reissue it if the additional boring documented in this Report yields a non-detect finding at depth for Cr^{6+}, which it has yielded [LARWQCB, 2015b].

5.3 Conclusion

Given the conclusions of this and the previous Soil Assessment and their consistency with past soil sampling findings provided by previous technical investigations, Geosyntec concludes that no further hexavalent chromium-specific investigations are warranted.

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Office of Environmental Health Hazard Assessment (OEHHA). 2005. Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soils, Revised. January.

TABLE

Table 1
Soil Sample Cr^{6+} Analytical Results
Soil Assessment
777 North Front Street
Burbank, California

Geosyntec consultants

Sample Location ID	Depth of Sample (feet bgs)	June 2012 Cr^{6+} Results (mg/kg)	June 2016 Cr^{6+} Results (mg/kg)
EPA Region 9 Residential RSL*		0.30	0.30
EPA Region 9 Commercial/Industrial RSL*		6.3	6.3
SS-1	5	ND<0.40	-
	10	ND<0.40	-
	15	ND<0.40	-
	20	ND<0.40	-
SS-2	5	1.10	-
	10	0.96	-
	15	ND<0.40	-
	20	ND<0.40	-
SS-3	5	ND<0.40	-
	10(1)	ND<0.40/ND<0.40	-
	15	ND<0.40	-
	20	ND<0.40	-
SS-4 / SS-4A	5	ND<0.40	-
	10(1)	ND<0.40	ND<0.40/ND<0.40
	15	ND<0.40	-
	20(1)	0.41	ND<0.40/ND<0.40
	25	-	ND<0.40
	30	-	ND<0.40
	35	-	0.49
	40	-	ND<0.40
SS-5	5	1.30	-
	10	ND<0.40	-
	15	ND<0.40	-
	20(1)	ND<0.40/ND<0.40	-

bgs = below ground surface

Cr^{6+} = Hexavalent chromium

* = May 2016 screening values for soil; for comparison, California Human Health Screening Levels (CHHSLs), used less frequently since the RSLs were issued, are 17 mg/kg (residential) and 37 mg/kg (industrial)

ND<0.40 = Not detected above laboratory Detection Limits (i.e., 0.20 mg/kg); quantitative Quantitative Reporting Limit = 0.40 mg/kg

- = Samples not collected at referenced depth

(1) = Duplicate sample collected and analyzed

ND<0.40/ND<0.40 = Primary sample results/duplicate sample results

FIGURES

Site Location
Former Zero Corporation
777 North Front Street
Burbank, California

4,000 2,000 0 4,000 8,000
Feet

Geosyntec consultants

Project No: HR1305C | July 2016

Figure 1

S:\GIS\HR1305\Projects\LocationMap_20110804modified.mxd mk 7/11/2016

N

SS-1

Building 11

Building 12

SS-2

Building 13

SS-4A

SS-4

SS-3

Building 14

SS-5

Source: Esri, Digital
AEX, Getmapping, A

Legend

SS-4A	Geosyntec Soil Boring (June 2016)
SS-3	Geosyntec Soil Boring (June 2012)
	Former Clarifier (Based on Site Plan Provided by Northridge Properties, LLC and Field Observations)
	Former Building Location
	Site Boundary

Soil Boring Locations
Former Zero Corporation
777 North Front Street
Burbank, California

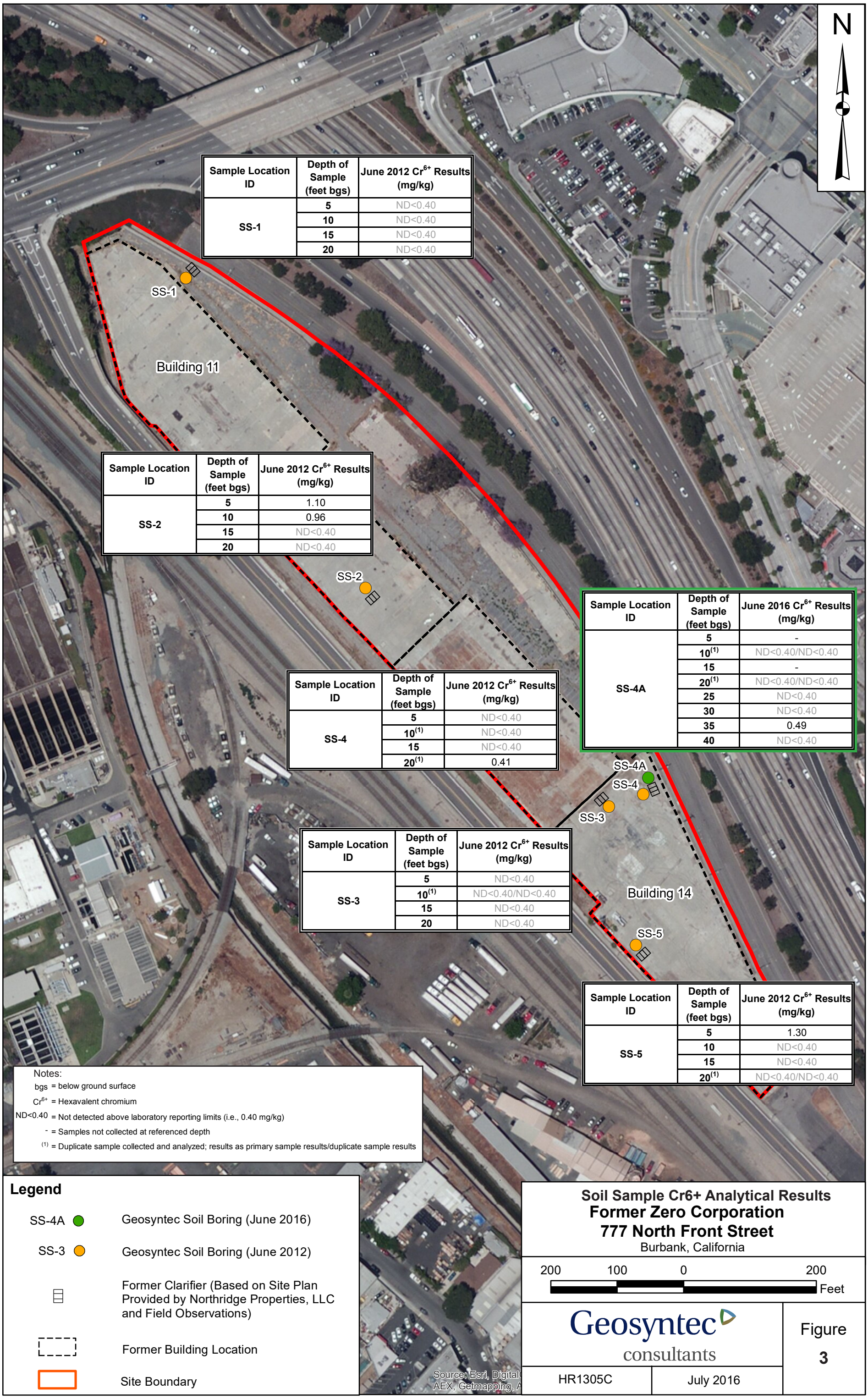
200 100 0 200
Feet

Geosyntec consultants

Figure 2

HR1305C | July 2016

S:\GIS\HR1305\Projects\SitePlan_20160711.mxd mk 7/11/2016



Sample Location ID	Depth of Sample (feet bgs)	June 2012 Cr^{6+} Results (mg/kg)
SS-1	5	ND<0.40
	10	ND<0.40
	15	ND<0.40
	20	ND<0.40

Sample Location ID	Depth of Sample (feet bgs)	June 2012 Cr^{6+} Results (mg/kg)
SS-2	5	1.10
	10	0.96
	15	ND<0.40
	20	ND<0.40

Sample Location ID	Depth of Sample (feet bgs)	June 2016 Cr^{6+} Results (mg/kg)
SS-4A	5	-
	10(1)	ND<0.40/ND<0.40
	15	-
	20(1)	ND<0.40/ND<0.40
	25	ND<0.40
	30	ND<0.40
	35	0.49
	40	ND<0.40

Sample Location ID	Depth of Sample (feet bgs)	June 2012 Cr^{6+} Results (mg/kg)
SS-4	5	ND<0.40
	10(1)	ND<0.40
	15	ND<0.40
	20(1)	0.41

Sample Location ID	Depth of Sample (feet bgs)	June 2012 Cr^{6+} Results (mg/kg)
SS-3	5	ND<0.40
	10(1)	ND<0.40/ND<0.40
	15	ND<0.40
	20	ND<0.40

Sample Location ID	Depth of Sample (feet bgs)	June 2012 Cr^{6+} Results (mg/kg)
SS-5	5	1.30
	10	ND<0.40
	15	ND<0.40
	20(1)	ND<0.40/ND<0.40

Notes:
bgs = below ground surface
Cr^{6+} = Hexavalent chromium
ND<0.40 = Not detected above laboratory reporting limits (i.e., 0.40 mg/kg)
- = Samples not collected at referenced depth
(1) = Duplicate sample collected and analyzed; results as primary sample results/duplicate sample results

Legend

- SS-4A — Geosyntec Soil Boring (June 2016)
- SS-3 — Geosyntec Soil Boring (June 2012)
- Former Clarifier (Based on Site Plan Provided by Northridge Properties, LLC and Field Observations)
- Former Building Location
- Site Boundary

Source: Esri, Digital... AEX, Getmapping, A...

Soil Sample Cr6+ Analytical Results
Former Zero Corporation
777 North Front Street
Burbank, California

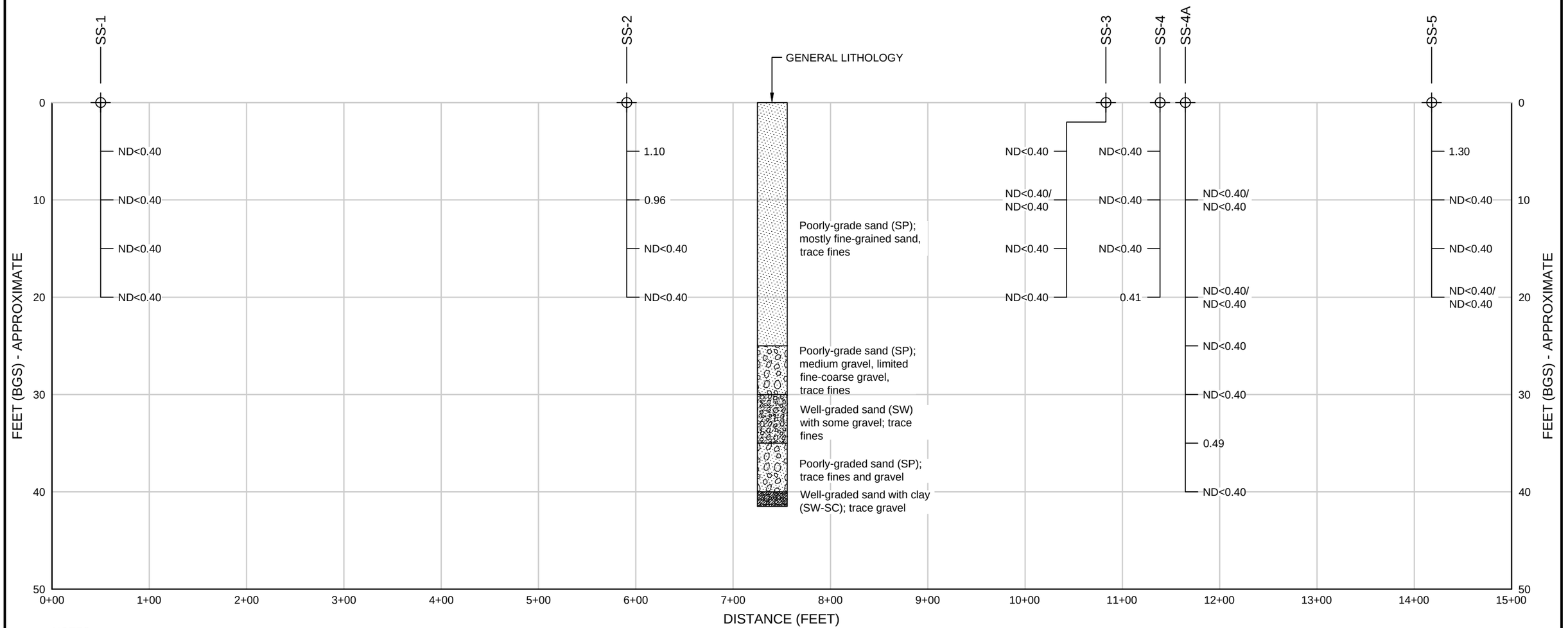
200 100 0 200
Feet

Geosyntec consultants

HR1305C | July 2016

Figure 3

S:\GIS\HR1305\Projects\SitePlan_20160711.mxd mk 7/11/2016



NOTES:

1. HORIZONTAL AND VERTICAL MEASUREMENTS ARE APPROXIMATE.
2. Cr6+ RESULTS ARE MG/KG.

0 100'
HORIZONTAL SCALE

0 10'
VERTICAL SCALE

FENCE DIAGRAM - Cr6+ RESULTS
FORMER ZERO CORPORATION
777 NORTH FRONT STREET
BURBANK, CALIFORNIA

Geosyntec consultants

Project No: HR1305C | July 2016

Figure 4

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APPENDIX A

APPROVED WORK PLAN

Geosyntec consultants

2100 Main Street, Suite 150
Huntington Beach, California 92648
PH 714.969.0800
FAX 714.969.0820
www.geosyntec.com

October 1, 2015

Samuel Unger
Executive Officer
Regional Water Quality Control Board, Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Subject: Supplemental Investigation Work Plan – Hexavalent Chromium
777 North Front Street, Burbank, California

Dear Mr. Unger:

INTRODUCTION

This document consists of a Work Plan for supplemental soil assessment to be conducted at the 777 North Front Street property, located in Burbank, California (the Site). This Work Plan was prepared by Geosyntec Consultants, Inc. (Geosyntec) at the request of Gilchrist & Rutter Professional Corp. (Gilchrist) on behalf of Northridge Properties, LLC, the owner of the property, for submittal to the Los Angeles Regional Water Quality Control Board (LARWQCB). The soil assessment is being conducted in response to a LARWQCB letter addressed to Northridge Properties, LLC, dated June 3, 2015 (LARWQCB Case File No. 109.6162). The letter required that Northridge Properties, LLC, complete a supplemental soil investigation in the vicinity of one of the previous investigation boring locations, and submit a technical report documenting the results of the supplemental investigation.

SAMPLING AND ANALYSIS PLAN

General

To supplement the previous assessments of the Site, specifically with respect to vertical extent of hexavalent chromium in the vicinity of a former clarifier, an additional soil boring will be drilled in the location to a depth of 40 feet below ground surface (bgs) in the area identified in the attached Figure 1. The proposed sample location SS-4A was selected pursuant to conversations with the LARWQCB related to the detection of hexavalent chromium at a concentration above the laboratory reporting limit in sample

SS-4 (at 20 ft bgs). The locations where Geosyntec collected previous soil samples are also shown on Figure 1. While the LARWQCB requires in their June 3, 2015, letter that the boring shall be advanced to 50 ft bgs, subsequent conversations with Mr. Larry Moore of the LARWQCB, case representative for this site, allowed for the depth of the new boring at the SS-4 location to be 40 ft bgs, doubling the depth achieved during the previous soil investigation. Northridge Properties, LLC, understands that, if hexavalent chromium is detected in soils at 40 ft bgs, additional supplemental soil investigation may be required to the originally specified depth of 50 ft bgs[1].

The proposed boring location SS-4A will be drilled to 40 ft bgs, with soil samples to be collected at the following depths below ground surface: 10 ft, 20 ft, 25 ft, 30 ft, 35 ft, and 40 ft. The shallowest two depths are intended to confirm results from the previous soil testing at SS-4, and the subsequent samples collected at 5 ft intervals to the termination depth of the boring. The results from this sampling event will be documented and summarized along with Geosyntec's previous assessment results.

Fieldwork Preparation and Borehole Installation

The soil boring location will be determined in the field during a site walk with representatives of Northridge Properties, LLC, and the LARWQCB.

The soil boring will be installed using hollow stem drilling technology. The boring will be drilled to a depth of up to a maximum of 40 ft bgs or until refusal; if drilling refusal is encountered prior to reaching 40 ft bgs, then the location will be relocated in the immediate vicinity of SS-4A and drilling resumed. As the Site is vacant without knowledgeable Site personnel, borehole locations will be cleared of underground utilities by performing a geophysical survey in advance of field work, and notification of Underground Service Alert (USA) prior to commencing field work. Concrete coring will be performed prior to drilling in areas currently covered with a concrete foundation.

Sample Collection

Samples of the subsurface soil will be recovered at approximately the intervals noted above over the entire borehole depth using an approximately 2-inch diameter California split spoon sampler. The boring will be overseen by a registered Professional Engineer

[1] Based on field drilling conditions, Geosyntec may opt to continue the boring to 50 ft bgs as specified in the RWQCB June 3, 2015, letter, and to hold soil samples collected from 45 ft bgs and 50 ft bgs for analysis only if the presence of a detectible level of hexavalent chromium is confirmed in the soil sample collected from 40 ft bgs.

or Geologist, with visually logging for geologic lithology in accordance with the Unified Soil Classification System (USCS) through evaluation of drill cuttings and soil samples by the field representative. The soil core will be visually evaluated for evidence of impacts. Select soil samples will be retained for laboratory analytical testing at the intervals identified above. Soil sampling intervals may be adjusted based on the results of observations of visual impacts, or the identification of low permeable layers. Soil samples will be stored in a cooler on ice pending shipment to Eurofins/Calscience Laboratories under chain of custody protocol. Samples will be analyzed for hexavalent chromium speciation. Similar to the previous soil investigation, the laboratory reporting limit for hexavalent chromium is 0.40 milligram per kilogram (mg/kg).

Decontamination and Investigation-Derived Waste Disposal

The borehole will be abandoned with hydrated bentonite pellets. Augers will be decontaminated with a three-stage rinse; waste cuttings and decontamination water that are generated are referred to as investigation-derived waste. Investigation-derived wastes will be stored in drums for off-site disposal.

Quality Assurance/Quality Control

Duplicate samples will be collected from each sampling depth as a contingency. Trip blanks will be stored with analytical samples during transport to the analytical lab. Quality control procedures of Eurofins/Calscience Laboratories will be included in an appendix to the final report along with lab reports.

DATA ANALYSIS AND REPORTING

A data summary report will be prepared to document field activities and present the findings of the investigation. This report will be submitted to the LARWQCB within six weeks of receipt of the laboratory analytical results. The report will include figures illustrating sampling locations and copies of laboratory analytical data. The investigation analytical results will be evaluated based on a comparison with historical hexavalent chromium data, as well as EPA-established screening levels. If appropriate, the report will include recommendations for further analysis or investigation/delineation; pursuant to discussions with the LARWQCB, the recommendations may include a request for soil closure if the soil sample hexavalent chromium concentrations are below screening limits and the deepest (i.e., 40 ft bgs) sample is below laboratory reporting limit of 0.40 mg/kg. Per the requirements of the LARWQCB, the boring log will also be prepared and included in the report.

CLOSING

We are seeking your concurrence with and approval of this Work Plan. If you have any questions or comments on the contents of this letter, please do not hesitate to contact Eric Smalstig of Geosyntec at 714-969-0800.

Sincerely,

Matt Thomas

Matt Thomas, Ph.D.
Project Engineer

Eric Smalstig, P.E.
Principal

Copies to:
Alan Skobin, Northridge Properties (via electronic mail)
Larry Moore, LARWQCB (via electronic mail)
Don Nanney, Gilchrist & Rutter, PC (via electronic mail)

FIGURE 1

Legend

- Previous Geosyntec Soil Boring (2011)
- Proposed Soil Boring
- Former Clarifier (Based on Site Plan Provided by Northridge)
- Former Building Location
- Site Boundary

Proposed Soil Boring Location
Former Zero Corporation
777 North Front Street
Burbank, California

150 75 0 150 300
Feet

Geosyntec consultants

HR1305 | July 2015

Figure 1

S:\GIS\HR1305\Projects\2015\SitePlan.mxd lv 7/31/2015

Geosyntec consultants

APPENDIX B

LABORATORY ANALYTICAL REPORT

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WORK ORDER NUMBER: 16-06-0179

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: 777 N. Front Street / HR1305C

Attention: Matt Thomas
2100 Main Street
Suite 150
Huntington Beach, CA 92648-2460

Approved for release on 06/08/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Contents

Client Project Name: 777 N. Front Street / HR1305C
Work Order Number: 16-06-0179

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Work Order Narrative

Work Order: 16-06-0179 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/02/16. They were assigned to Work Order 16-06-0179.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-06-0179
	2100 Main Street, Suite 150	Project Name:	777 N. Front Street / HR1305C
	Huntington Beach, CA 92648-2460	PO Number:	
		Date/Time Received:	06/02/16 13:45
		Number of Containers:	8
Attn:	Matt Thomas		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SS-4A-10	16-06-0179-1	06/02/16 09:10	1	Solid
SS-4A-10(DUP)	16-06-0179-2	06/02/16 09:10	1	Solid
SS-4A-20	16-06-0179-3	06/02/16 09:18	1	Solid
SS-4A-20(DUP)	16-06-0179-4	06/02/16 09:18	1	Solid
SS-4A-25	16-06-0179-5	06/02/16 09:24	1	Solid
SS-4A-30	16-06-0179-6	06/02/16 09:30	1	Solid
SS-4A-35	16-06-0179-7	06/02/16 09:39	1	Solid
SS-4A-40	16-06-0179-8	06/02/16 09:57	1	Solid

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-06-0179
	2100 Main Street, Suite 150	Project Name:	777 N. Front Street / HR1305C
	Huntington Beach, CA 92648-2460	Received:	06/02/16
Attn:	Matt Thomas		Page 1 of 1

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SS-4A-35 (16-06-0179-7)						
Chromium, Hexavalent	490		400	ug/kg	EPA 7199	EPA 3060A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Project: 777 N. Front Street / HR1305C

Date Received: 06/02/16
Work Order: 16-06-0179
Preparation: EPA 3060A
Method: EPA 7199
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4A-10	**16-06-0179-1-A**	**06/02/16 09:10**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 16:20**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4A-10(DUP)	**16-06-0179-2-A**	**06/02/16 09:10**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 16:29**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4A-20	**16-06-0179-3-A**	**06/02/16 09:18**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 16:38**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4A-20(DUP)	**16-06-0179-4-A**	**06/02/16 09:18**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 16:47**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4A-25	**16-06-0179-5-A**	**06/02/16 09:24**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 16:56**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4A-30	**16-06-0179-6-A**	**06/02/16 09:30**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 17:05**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4A-35	**16-06-0179-7-A**	**06/02/16 09:39**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 17:14**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	490	400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4A-40	**16-06-0179-8-A**	**06/02/16 09:57**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 17:23**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	400	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	06/02/16
2100 Main Street, Suite 150		Work Order:	16-06-0179
Huntington Beach, CA 92648-2460		Preparation:	EPA 3060A
		Method:	EPA 7199
		Units:	ug/kg
Project: 777 N. Front Street / HR1305C			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-125-2924**	**N/A**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 15:53**	**160603L01P**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	400	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/02/16
2100 Main Street, Suite 150		Work Order:	16-06-0179
Huntington Beach, CA 92648-2460		Preparation:	EPA 3060A
		Method:	EPA 7199
Project: 777 N. Front Street / HR1305C			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0196-2	**Sample**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 16:11**	**160603S01P**
16-06-0196-2	**Matrix Spike**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 17:32**	**160603S01P**
16-06-0196-2	**Matrix Spike Duplicate**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 17:41**	**160603S01P**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	ND	40000	5890	15	6548	16	75-125	11	0-25	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	06/02/16
2100 Main Street, Suite 150		Work Order:	16-06-0179
Huntington Beach, CA 92648-2460		Preparation:	EPA 3060A
		Method:	EPA 7199
Project: 777 N. Front Street / HR1305C			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-125-2924	**LCS**	**Solid**	**IC 11**	**06/03/16**	**06/03/16 16:02**	**160603L01P**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chromium, Hexavalent	20000	19270	96	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 16-06-0179 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WO NO. / LAB USE ONLY
16-06-0179

CHAIN-OF-CUSTODY RECORD

Date 2 JUNE 2016
Page 1 of 1

LABORATORY CLIENT: GEOSYNTEC CONSULTANTS
ADDRESS: 2100 MAIN STREET, #150
CITY: HUNTINGTON BEACH STATE: CA ZIP: 92648
TEL: 714-969-0800 E-MAIL: mthomas@geosyntec.com

CLIENT PROJECT NAME / NO.: 777 N. FRONT STREET
P.O. NO.: HR1305C
PROJECT CONTACT: MATT THOMAS
LAB CONTACT OR QUOTE NO:
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT) BRIAN PENSERINI

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☑ STANDARD

EDD
☐ COELT EDF ☐ OTHER

REQUESTED ANALYSES
Please check box or fill in blank as needed.

SPECIAL INSTRUCTIONS:
* CHROMIUM 6 (HEX CHROME) ONLY
* MAINTAIN SUFFICIENT SAMPLE FOR 2ND ANALYSIS, IF REQUESTED (DISCARD AFTER 3 MONTHS)

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	RL = 0.4 mg/kg			
1	SS-4A-10	6/2/16	09:10	SOIL	1	X																X				
2	SS-4A-10(DUP)	"	09:10	Soil	1	X																X				
3	SS-4A-20	"	09:18	Soil	1	X																X				
4	SS-4A-20(DUP)	"	09:18	Soil	1	X																X				
5	SS-4A-25	"	09:24	Soil	1	X																X				
6	SS-4A-30	"	09:30	Soil	1	X																X				
7	SS-4A-35	"	09:39	Soil	1	X																X				
8	SS-4A-40	"	09:57	Soil	1	X																X				

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
		6/2/16	1345
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2016-04-01-Revision

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WORK ORDER NUMBER: 16-06- 0179

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 06 / 02 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.7 °C (w/ CF): 3.7 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 836

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 836

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 836

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number:** _____**)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: _____

Reviewed by: 836

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APPENDIX C

BORING LOG

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING SS-4A
START DRILL DATE Jun 2, 16
FINISH DRILL DATE Jun 2, 16
LOCATION 777 Front St., Burbank
PROJECT FORMER ZERO CORP
NUMBER HR1305

ELEVATION DATA:
GROUND SURF. (Ft)
TOP OF CASING (Ft) NA
DATUM Ground Surface

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) USCS Name (3) Color (4) Moisture (5) Percent Grain Size (6) Plasticity (7) Density/Consistency (8) Structure (9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	Poorly-graded sand (SP); grayish-brown (5YR 3/2); moist; mostly fine-grained sand, trace silt; (5, 95, 0); homogenous.											From drill cuttings. No sample taken from 0-10' bgs
10	Poorly-graded sand (SP) as above; trace clay; (5, 95,0); homogeneous.					SS-4A-10		8/ 18/ 21	66	0	09:10	Duplicate sample taken (SS-4A-10DUP). 12"/18" recovery
20	Poorly-graded sand (SP) as above (at 10' bgs).					SS-4A-20		10/ 19/ 16	100	0	09:18	Duplicate sample taken (SS-4A-20DUP). 18" recovery
25	Poorly-graded sand (SP); grayish-brown (5YR 3/2) sand, medium light gray (N6) gravel; moist; mostly sand, few fine-coarse gravel, trace fines; (5,85,10); unconsolidated.					SS-4A-25		28/ 50 (6")	100	0	09:24	Driller noted coarse gravel in cuttings. 15" recovery
30												

CONTRACTOR Gregg Drilling
EQUIPMENT
DRILL MTHD Hollow-Stem Auger
DIAMETER
LOGGER Brian Penserini
REVIEWER

NORTHING
EASTING
COORDINATE SYSTEM:

NOTES: Samples collected using 2" diameter, 18" long split spoon, lined. Representative specimens sent for lab analyses or retained in 4 oz. glass jars. Samples taken from bottom sleeve except SS-4A-10 (10DUP) (taken from middle)

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING SS-4A **SHEET** 2 OF 2
START DRILL DATE Jun 2, 16 **ELEVATION DATA:**
FINISH DRILL DATE Jun 2, 16 **GROUND SURF. (Ft)**
LOCATION 777 Front St., Burbank **TOP OF CASING (Ft)** NA
PROJECT FORMER ZERO CORP **DATUM** Ground Surface
NUMBER HR1305

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	Well-graded sand (SW); grayish-brown (5YR 3/2) sand, yellowish-gray (5YR 7/2) gravel; moist; trace fines, mostly medium-coarse sand, trace gravel; (5, 90, 5); unconsolidated.					SS-4A-30		21/ 40/ 36	100	0	09:30	18" recovery
35	Poorly-graded sand (SP); grayish-brown (5YR 3/2) sand; moist; trace fines, mostly fine sand, trace fine gravel; (5, 90, 5).					SS-4A-35		14/ 22/ 31	100	0	09:39	18" recovery
40	Well-graded sand with clay (SW-SC); grayish-brown (5YR 3/2) sand; moist; few fines, mostly sand, trace fine gravel; unconsolidated.					SS-4A-40		17/ 40/ 38	100	0	09:57	18" recovery
45												
50												
55												
60												

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT **EASTING**
DRILL MTHD Hollow-Stem Auger **COORDINATE SYSTEM:**
DIAMETER
LOGGER Brian Penserini **REVIEWER**

NOTES: Samples collected using 2" diameter, 18" long split spoon, lined. Representative specimens sent for lab analyses or retained in 4 oz. glass jars. Samples taken from bottom sleeve except SS-4A-10 (10DUP) (taken from middle)

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE HR1305.GPJ GEOSNTEC.GDT 6/17/16

APPENDIX D

PHOTOGRAPHIC LOG

Photo No.:	1	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	View of Proposed Site of SS-4A		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	2	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	Goldak Geophysics Performing Subsurface Survey		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	3	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	Location of SS-4A Prior to Drilling		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	4	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	Gregg Drilling Hand Augering at SS-4A		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	5	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	Overview of SS-4A Site Setup During Drilling		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	6	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	Sampling Setup		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	7	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	Sample SS-4A-30 After Sample Collection		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	8	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	Sample SS-4A-40 Prior to Sample Collection		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	9	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	Gregg Drilling Hydrating Bentonite Backfill		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Photo No.:	10	**Date:**	June 2, 2016
Photographer:	Brian Penserini		
Subject:	SS-4A After Backfilling		
Project:	777 N. Front Street, Additional Boing Investigation - 2016	**City/State:**	Burbank, CA

Prepared for

Northridge Properties, LLC
15505 Roscoe Boulevard
North Hills, California 91343

GROUNDWATER IMPACTS ASSESSMENT

777 North Front Street
Burbank, California

Prepared by

Geosyntec consultants

2100 Main Street, Suite 150
Huntington Beach, California 92648

Telephone: (714) 969-0800
Fax: (714) 969-0820
www.geosyntec.com

Project Number HR1305C

May 2017

GROUNDWATER IMPACTS ASSESSMENT

777 North Front Street

Burbank, California

Prepared for

Northridge Properties, LLC

Geosyntec' s services were performed and this report has been prepared in accordance with generally accepted professional standards of care applicable to the scope of services authorized by the client, and no other warranty is provided in connection therewith.

Consistent with applicable professional standards of care, our opinions and recommendations were based in large part on data furnished by others. Although we were not able to independently verify such data, we did evaluate it to determine whether it was consistent with other information that was developed in the course of our performance of this scope of services.

Jeffrey Thompson
Project Scientist

Eric Smalstig
Senior Principal

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LIST OF ACRONYMS / ABBREVIATIONS

%	percent
ac-ft	acre-feet
bgs	below ground surface
Caltrans	California Department of Transportation
CrVI	Hexavalent Chromium
CSM	Conceptual Site Model
CWRD	California Water Resources Department
ft	feet
ft bgs	feet below ground surface
GIA	Groundwater Impacts Assessment
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
NCEI	National Center for Environmental Information
NOAA	National Oceanic and Atmospheric Administration
OTIE	Oneida Total Integrated Enterprises
PCB	Polychlorinated Biphenyls
PCE	Tetrachloroethylene
QCLCD	Quality Controlled Local Climatological Data
SFV	San Fernando Valley
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
TCE	Trichloroethylene
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbon
ULARA	Upper Los Angeles River Area
ULARAW	Upper Los Angeles River Area Watermaster
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VOC	Volatile Organic Compound

1. INTRODUCTION

1.1 Overview

Geosyntec Consultants, Inc. (Geosyntec) has prepared this groundwater impacts assessment (GIA) for Northridge Properties, LLC to evaluate the potential for residual concentrations of chemicals detected in soil samples collected from the 8-acre proposed mixed use development property located at 777 North Front Street in Burbank, California (Site, shown in **Figure 1**) to impact groundwater. This GIA has been prepared at the request of the Los Angeles Regional Water Quality Control Board (LARWQCB). The assessment methods used in this GIA are consistent with the LARWQCB's *Interim Site Assessment & Cleanup Guidebook Table 3-8* [LARWQCB, 1996], and include the following criteria for consideration:

- depth of the soil contamination and groundwater;
- nature and extent of groundwater contamination;
- type of soil contaminants and levels;
- soil type;
- comparison of groundwater contaminant levels to maximum contaminant levels (MCLs);
- potential of the contaminants to migrate; and
- location of drinking water wells in the area.

This GIA summarizes the current understanding of chemical impacts to groundwater beneath the Site. As the Site lies within the footprint of regional groundwater impacts associated with the San Fernando Valley (SFV) Superfund Site (see **Figures 2-4** based on OTIE [2016]), this GIA also assesses the potential for residual Site soil impacts to act as a source to the existing regional groundwater impacts. The vadose zone fate and transport model SESOIL is used to assess if the Site has the potential to be an incremental additive source of impacts to the groundwater beneath the Site. The results of this GIA demonstrate that impacted soil at the Site is not a likely residual source of groundwater impacts in the Site's current condition, nor under the proposed re-development scenario.

1.2 Report Organization

The remainder of this GIA is organized as follows:

- Section 2 – Conceptual Site Model, provides a description of the current Site condition and layout, along with the proposed development plan. The Conceptual Site Model then describes the framework for evaluating the Site environmental condition and its potential to impact underlying groundwater resources.

- Section 3 – Soil Data, describes the existing environmental data from soil sampling performed at the Site and how these data are used in the GIA.
- Section 4 – Groundwater Data, describes the existing environmental data from groundwater sampling performed in the vicinity of the Site and how these data are used in the GIA.
- Section 5 – Soil to Groundwater Pathway, describes the potential groundwater impacts scenarios evaluated as part of the GIA.
- Section 6 – Conclusion, provides a summary of the conclusions drawn from the GIA.

Tables, figures, and appendices are included following the text of this GIA.

2. CONCEPTUAL SITE MODEL

2.1 Property Description

The Site is located at 777 North Front Street in Burbank, California in a commercial/industrial area of Los Angeles County. The Site is bounded by the Interstate-5 freeway to the northeast, North Front Street to the southwest, West Burbank Boulevard to the northwest, and West Magnolia Boulevard to the southeast.

Background information regarding the Site presented in this section is summarized from the *Soil Gas Survey and Soil Investigation Eight-Acre Proposed Mixed Use Development* by Leighton [Leighton, 2016]. From the 1930s to 1961, the Site was the location of a water heater manufacturing company with operations that included galvanizing, vulcanizing, plating, welding, and metalwork [Leighton, 2016]. From 1961 to 1991, the Site was owned and operated by Zero Corporation, whose operations included aluminum case drawing and washing, aluminum alodining (a metal coating process involving chromium and aluminum), chromate deoxidizing, steel phosphate coating, and chromium sealing [Leighton, 2016]. Zero Corporation ceased operations on site in 1991. The buildings on site were demolished in 2004, with the building concrete slabs and footings (i.e., surface cover comprised of several inches to approximately one-foot thick concrete) left to cover the Site. The Site has been vacant since that time, having no significant Site uses since 1991. Northridge Properties, LLC purchased the Site in 2005 and is the current owner. While the Site has been leased out on occasion to horse circus show productions and has allowed limited use easements to Caltrans during Interstate-5 widening operations (and a portion of the Caltrans easement area will be permanent for the widening of Interstate-5), the Site has no current tenants.

2.2 Future Re-Development Plans

The proposed re-development of the Site is for a mixed-use residential and commercial complex. Proposed features include residential apartments, a hotel, limited ground floor commercial use, a park and bike hub with amphitheater style seating in the southernmost area of the site, and first floor as well as subterranean parking structures. These future development plans are depicted in **Figure 5**.

2.3 Previous Site Investigations

Several previous environmental investigations have been conducted at the Site, summarized below [based in part on Leighton, 2016]:

- An initial Site investigation in 1991 by Targhee Inc. identified that soils in the areas of former clarifiers and former chemical/oils storage were impacted by VOCs and total petroleum hydrocarbons (TPH) in soils.
- A Site investigation performed in 1992 by Hydro Geo Chem, Inc. also indicated that Site soil vapor and soil were impacted by chlorinated VOCs. Additional investigations were performed to assess the extent of soil and soil vapor contamination. Remedial activities were performed by Hydro Geo Chem from 1998 to 2001, including a shallow-soil vapor extraction (SVE) system and a deeper SVE system with air sparging wells.
- Soil sampling performed in 2005 by Golder & Associates in areas adjacent to potential polychlorinated biphenyl (PCB) sources did not indicate that PCBs were a concern on site.
- A soil and soil vapor sampling investigation by Ninyo & Moore in 2009 of the northeastern portion of the Site indicated soil concentrations of CrVI above regional background, and concentrations of VOCs in soil vapor above relevant human health screening criteria. The area of this investigation has since been deeded to CalTrans as a permanent easement in connection with an Interstate Highway No. 5 widening project.
- A soil investigation conducted by Geosyntec in 2012 found detectable levels of CrVI that were below the residential and commercial/industrial soil California Human Health Screening Levels (CHHSLs). The CrVI concentrations were above the USEPA residential soil regional screening level (RSL), but below the commercial/industrial soil RSL. Select soil samples were additionally analyzed for metals. The vertical distribution of CrVI in soil was inconsistent with historical releases of CrVI that would have affected groundwater and did not suggest that historical Site activities had contributed to the groundwater basin's regional CrVI contamination. In addition, sampling near Boring SS-4 (Figure 2) was performed in 2016 with no detectable concentration of CrVI in shallow soils identified [Geosyntec, 2016].
- An investigation for a proposed multi-family residential development and hotel at the Site was completed in 2016 by Geocon West. This investigation included soil dry bulk density, soil moisture, and porosity data up to 61.5 feet below ground surface (ft bgs).
- In parallel with this GIA, Geosyntec has also prepared a human health risk assessment (HHRA) to assess potential risks of exposure to soil and soil vapor impacts at the Site [Geosyntec, 2017].

In addition, other environmental investigations have been performed near the Site, primarily related to regional groundwater issues of elevated volatile organic compounds (VOCs) and hexavalent chromium (CrVI) in the area. Such reports reviewed in the preparation of this GIA include:

- The Final Remedial Investigation Report of the Glendale chromium operable unit by Oneida Total Integrated Enterprises [OTIE, 2016] was used to gather information about groundwater impacts in the vicinity of the Site.
- The Dynamic Soil Investigation at the former Librascope-Glendale Facility was to gather information about soil fractional organic carbon nearby the Site [Tetra Tech, 2010].

2.4 Geological Description

2.4.1 Regional Geology

The Site is located in the San Fernando Valley (SFV), a late Tertiary-Quaternary basin bounded by the Santa Susana Mountains to the northwest, the San Gabriel and Verdugo Mountains to the northeast, the San Rafael Hills to the east, the Santa Monica Mountains to the south, and the Simi Hills to the west [ULARAW, 2016; Tinsley, 2001]. The SVF is part of the broader Transverse Ranges physiographic province [USGS, 1996]. The Transverse Ranges province is characterized by fault-created valleys filled with marine to terrestrial sediments of Pleistocene through Holocene age, which are underlain by sedimentary bedrock and/or crystalline basement rock [USGS, 2012; ULARAW, 2015].

The water-bearing alluvial deposits in SFV consist of the Holocene and Pleistocene age alluvium underlain by the lower Pleistocene Saugus Formation, [California Department of Water Resources (CDWR), 2004]. The eastern part of the SFV Holocene age alluvium consists of about 20% clay mixed with primarily coarse-grained unsorted gravel and sand. The Pleistocene age alluvium consists of mostly highly permeable, unconsolidated coarse-grain alluvial fan interspersed with lower permeability paleosols. The Saugus Formation consists of continental and shallow marine deposits with a lower permeability than that of the overlying alluvium [ULARAW, 2016]. In the eastern SFV, the Saugus Formation lies above the crystalline bedrock and reaches a maximum thickness of approximately 1,000 feet (ft) in the eastern portion of the SFV.

2.4.2 Site-Specific Geology

There are two primary sources of information for the Site-specific geology: a Site geotechnical investigation report [Geocon, 2016] and boring logs for nearby monitoring wells PWA-2 and PWA-3 [OTIE, 2016, Appendix A]. The locations of these wells with

respect to the Site are shown in **Figure 6**. The Geocon [2016] report identified two distinct soil layers:

- A layer of fill materials exists from ground surface to approximately 14 ft bgs.
- A layer of alluvial soils that continued to the maximum exploration depth of 61.5 ft bgs, predominantly sandy silts, silty sands, and sands with varying amounts of gravel.

Based upon the boring logs of PWA-2 and PWA-3, the material within the vadose zone is predominantly sand (poorly to well-graded) with lesser amounts of silty sand and sand with gravel [OTIE, 2016, Appendix A].

2.5 Hydrogeological Description

2.5.1 Regional Hydrogeology

The Site is located in the Upper Los Angeles River Area (ULARA) in the eastern part of SFV Basin of the South Coast Hydrologic Region. The SFV receives an average annual precipitation of about 17 inches, and much of this surface water is drained by the Los Angeles River and its tributaries [CWDR, 2004]. Groundwater flows from the edges to the central portion of the SFV Basin, into the eastern portion of the basin, beneath the Los Angeles River Narrows following the Los Angeles River near Glendale, and into the Coastal Plain of Los Angeles Basin [CDWR, 2004]. The groundwater flow velocity is about 5 ft per year in the western part of the basin and reaches as much as 1,300 ft per year beneath the Los Angeles River Narrows [CWDR, 2004].

Groundwater in the eastern part of the SFV basin is primarily calcium bicarbonate in nature [CDWR, 2004]. The SFV Basin has an estimated storage capacity of 3,200,000 acre-feet (ac-ft) of groundwater, with a maximum thickness of water-bearing alluvial deposits in the eastern portion of the SFV Basin of about 200 to 300 ft [ULARAW, 1999; ULARAW, 2016]. Groundwater in this region is mainly unconfined and, since water adjudication in the 1980s, levels have remained reasonably stable, although up to 80 ft variations in water level in the eastern portion has occurred historically [CDWR, 2004].

2.5.2 Site-Specific Hydrogeology

In 1991, as a part of a soil gas survey performed by Leighton on the adjacent Hyrail property (a linear rail property extending along the western boundary of the Site), two soil borings were drilled to groundwater at approximately 110 ft bgs [Leighton, 2016]. Groundwater elevations from January 31, 2013 were reported for two wells adjacent to the Site, PWA-2 and PWA-3, as 123.34 and 105.84 ft bgs, respectively [OTIE, 2016].

Site-specific aquifer properties have not been identified. Based on the Site-specific geology, the predominant soil type is sand, with some intervals of finer (silt) or coarser (gravel) materials mixed with sand (see Section 2.4.2 above).

2.5.3 Water Usage

The South Coast Hydrologic Region meets 23% of its agricultural and municipal water demands with groundwater [CDWR, 2004]. The three parties with pumping rights in the SFV Groundwater Basin (the City of Los Angeles, Burbank, and Glendale) get a significant portion of their municipal water supply from the basin [ULARAW, 2016].

Based on the California State Water Resources Control Board's (SWRCB's) Groundwater Ambient Monitoring and Assessment (GAMA) online database [SWRCB, 2017], eight supply wells are within one mile of the Site. Six of these wells are Department of Water Resources wells, and only limited information about these wells could be identified. The other wells are City of Burbank Water Department wells, and the screen intervals for these wells were identified [ERM, 2011]. These supply wells are shallowly screened (from approximately 75 to 330 ft bgs, indicating that shallow groundwater has been used for water supply. These wells are summarized in **Table 1** and shown in **Figure 7**.

3. SOIL DATA

Soil samples were collected at the Site between 1991-2016. However, as much of this data set is old or outside of the redevelopment footprint of the Site, some of these data are not applicable for use in this GIA. As described in the HHRA [Geosyntec, 2017], data collected by Geosyntec in 2012 and by Leighton in 2016 met data quality criteria for use in Site assessment. The same data quality criteria, described below, are used in this GIA.

As part of the HHRA [Geosyntec, 2017], the historical soil dataset was evaluated to determine which constituents were potentially related to Site operations and to establish data quality acceptance criteria for the use of these data. Based on this data quality review, the following studies were not included as part of the HHRA (or GIA) datasets:

- Site remediation activities were conducted up to 2001. Thus, previous investigations conducted prior to 2001 are no longer representative of Site conditions. As such, the soil data from Targhee Inc. [1991] and Hydro Geo Chem, Inc. [1992] were not included.
- Results of the 2009 Ninyo & Moore Site investigation were considered for inclusion in the dataset for this report, but were not included, as this portion of the Site had since been deeded to Caltrans as permanent easement and is not within the proposed redevelopment boundary. Additionally, a review of this 2009 dataset indicated that concentrations of VOCs and metals in soils were generally higher in the 2016 dataset. While some chemicals were detected in the Ninyo & Moore dataset at higher concentrations or were not analyzed for in the more recent data collection effort, such as semi-volatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs), Ninyo & Moore's investigation concluded that concentrations of VOCs, metals, PCBs, SVOCs, and TPH in soil were below the Site-specific cleanup goals approved by the LARWQCB and were therefore not at a level of significant concern (Ninyo & Moore, 2009).

Based on the above data selection criteria, the data from Geosyntec [2012] and Leighton [2016] were used to evaluate a representative concentration of the contaminants of concern for both the fill and alluvial sediment layers at the Site for model input. Representative concentrations of constituents in both the fill and alluvial sediment layers at the Site were calculated as 95% upper confidence limits (UCLs)[1] of the mean data in each layer. For constituents with both detections and non-detects, the ProUCL method

[1] UCLs were calculated with ProUCL version 5.0, and are provided in Appendix A. For additional discussion of UCLs as model input, see section 4.2.1.5.

for calculating the UCL of the mean for left-censored data sets containing non-detects was used. For constituents with only non-detect values at the Site, the maximum detection limit for the constituent was used as a representative concentration at the Site.

The HHRA assesses the potential risk associated with exposure to impacted soil [Geosyntec, 2017]. Constituents of interest for this GIA are defined based on those observed in groundwater, as described below in Section 4. The UCLs (or maximum detection limits) for these constituents of interest are summarized in **Table 2.**

4. GROUNDWATER DATA

The SVF Basin is impacted by historical industrial operations contaminating the region's groundwater. Groundwater monitoring conducted from 1981 to 1987 found contamination in over 50% of the water supply wells in the eastern SFV Basin [OTIE, 2016]. Samples from public water supply wells from 1994 to 2000 found that 42% of sampled wells contained one or more constituents exceeding the corresponding maximum contaminant level (MCL) [CWDR, 2004]. Of the exceedances reported, 38% and 31% were due to nitrates and VOCs/SVOCs (particularly trichloroethylene [TCE] and tetrachloroethylene [PCE]), respectively [CWDR, 2004]. Other contaminants of concern include pesticides, heavy metals (e.g., CrVI), petroleum compounds, chloroform, and sulfate [CWDR, 2004]. Total dissolved solids (TDS) concentrations from 125 public supply wells ranged from 176 to 1,160 mg/L, with an average of 499 mg/L [CWDR, 2004].

While historical environmental reports documenting Site groundwater conditions are not available on Geotracker, SFV Site-wide monitoring program reports available from the USEPA from approximately 1995 through 2007 depict ten "ZEC" monitoring wells located on or near the Site [e.g., CH2M Hill, Inc., 1996; 2009]. However, tabulated data for these wells has not been located, and it is our understanding that historical monitoring wells at the Site have been previously abandoned. Depictions of TCE within groundwater generally show that these constituents are presented beneath and in the vicinity of the Site at concentrations at or above the regional groundwater impacts in this area, while depictions of PCE generally show PCE was present beneath and in the vicinity of the Site at non-detect levels and at concentrations comparable to regional background, depending on the time period. The 2007 monitoring data report [CH2M Hill, 2009] is the most-current report containing references to these "ZEC" wells available online at the SFV Superfund Site webpage [https://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/San+Fernando+Valley+(All+Areas)?OpenDocument], and the groundwater conditions in 2007 may not be representative of current Site conditions.

Groundwater near the Site is currently monitored as part of the SFV Superfund Site at Wells PWA-2 and PWA-3. As described in Section 2.5.2, water levels in PWA-2 are higher than PWA-3, but the regional direction of groundwater flow is poorly characterized in the immediate vicinity of the Site [OTIE, 2016, Figure 4-1]. It appears reasonable to assume that these wells are primarily cross-gradient of a regional southwesterly flow; however, pumping of the aquifer in this area as part of the cleanup activities may alter the local gradient. Groundwater data from these wells in October 2012 and January 2013 are summarized in OTIE [2016] and are presented here as **Table 3.**

There are several detections of VOCs and metals within the groundwater near the Site. The VOCs in PWA-2 and PWA-3 which exceed their respective MCL comprise the following chlorinated organic compounds:

- 1,1,2,2-tetrachloroethane;
- 1,1-dichloroethene;
- 1,2-dichloroethane;
- PCE;
- TCE;
- trans-1,3-dichloropropene; and
- vinyl chloride (VC).

The non-chlorinated VOC benzene also exceeds its California MCL in Wells PWA-2 and PWA-3. In addition, total chromium was identified above its California MCL.

The Site lies above the lateral edges of previously identified plumes of chlorinated solvents (primarily TCE and PCE) which are being addressed separately as part of the SFV Superfund Site [e.g., OTIE, 2016, Figures 5-5 and 5-6]. As part of the SFV Superfund Site, a small, isolated zone of total chromium impacts is mapped beneath the Site near PWA-2 [OTIE, 2016, Figure 5-3]. The source of these chromium impacts is unclear. While the groundwater data near the Site indicate that there are regional impacts which have migrated beneath the Site, the uncertainty and potential pumping-induced variability in the groundwater flow direction through time suggests that the current groundwater data alone are insufficient to determine whether the Site is a potential additive source contributing to the regional groundwater issues.

To assess the potential for the Site to be a source of impacts to groundwater based on the data from Geosyntec [2012] and Leighton [2016], the vadose zone fate and transport model SESOIL was used to estimate the time and magnitude of hypothetical mass transport from impacted soil to groundwater for the constituents of interest. This modeling is described in this GIA, Section 5.

5. SOIL TO GROUNDWATER PATHWAY

5.1 Fate and Transport Processes

Chemical impacts have the potential to migrate between different media (i.e., soil, soil vapor, and groundwater) due to naturally occurring transport processes. Chemical impacts to vadose zone soils can exist in a variety of states, including pure phase, adsorbed to soil particles, or dissolved in soil moisture (i.e., in pore water). In general, the primary transport mechanisms for soil impacts are leaching to infiltrating surface water (downward transport) or volatilization to soil gas (upward transport). The HHRA for the Site [Geosyntec, 2017] describes many of these transport processes. This GIA describes and models the soil leaching/infiltration pathway for chemical impacts to potentially travel from a residual source in soil into groundwater.

Surface water infiltration can be conceptualized as a balance between precipitation and the combined effects of surface runoff, evaporation and transpiration (together, evapotranspiration), capillary rise from groundwater, soil moisture retention, and infiltration. In general, precipitation which does not runoff, does not evaporate, and is not transpired enters the vadose zone and travels downward through the pore space of the soil under the influence of gravity. Dependent on the relative moisture contained within the vadose zone, a portion of the infiltrating precipitation may be retained in soil moisture (wet seasons) or a portion of water retained in soil moisture joins the infiltrating precipitation (dry season).

In regions of residual chemical impacts (i.e., the source zone), the infiltrating surface water can come in contact with impacted soil moisture or soil with sorbed chemical impacts. When this occurs, a portion of these chemical impacts may enter the infiltrating water and be transported downward through the soil column. The chemical properties and the concentration of the specific chemical impacts will dictate how much of those impacts enter the infiltrating surface water. In general, compounds at higher concentrations, with higher water solubilities, and with lower absorption coefficients will more readily enter the infiltrating water.

As the infiltration proceeds downward out of the source zone through cleaner soil, numerous physical and chemical processes may influence the fate of the chemical impacts. Physical processes generally involve chemical impacts adsorbing to soil particulates or organic matter within the soil, partitioning into soil moisture, or volatilizing to soil gas. Chemical processes generally involve the degradation or immobilization of chemical impacts, and may include biologically enhanced degradation, cation exchange for ionic compounds, metal complexation/chelation. Depending on the nature of the chemical impacts, the depth to groundwater, soil properties, and the amount

of infiltrating precipitation, impacted precipitation may reach groundwater or the chemical impacts may degrade or become immobilized before the infiltration reaches groundwater. As there are numerous fate and transport processes active in the vadose zone, the use of a fate and transport model is a common and widely accepted methodology for estimating the potential for soil impacts to act as a residual source of groundwater impacts.

5.2 Fate and Transport Model

To simulate the possible fate and transport of contaminants of concern in Section 4 through the vadose zone and to assess the potential impacts – if any – to groundwater, Geosyntec used the SESOIL model (with the SEVIEW 7.1 interface). SESOIL is a one-dimensional vertical transport model for the unsaturated (vadose) zone that simulates contaminant transport and fate including the processes of diffusion, adsorption, biodegradation, and hydrolysis. SESOIL can simulate seasonal climatic variation with the input and incorporation of climate data by monthly averages. SESOIL was first developed for the USEPA's Office of Water and the Office of Toxic Substances in 1981. SEVIEW 7.1 is a property version of the SESOIL model developed and maintained by Environmental Software Consultants Inc, LLC.

5.2.1 Model Setup and Input

As applied in this GIA, SESOIL requires the definition of five different sets of input parameters related to:

- climate;
- model geometry;
- soil properties;
- chemical properties; and
- source configuration and concentration.

These input parameters are described in more detail below and are presented in **Appendix B**.

5.2.1.1 Climate Parameters

SEVIEW contains a database of climate model information compiled from observed data. Based on the available database entries, the location nearest to the Site, the Los Angeles County Civic Center database entry, was used at the basis for the climate data. These climate data include the following monthly average data:

- temperature;
- cloud cover;
- relative humidity;
- short wave albedo;
- precipitation;
- storm length (duration);
- number of storms; and
- rainy season (duration).

The only modification to the default climate database entry was to round the precipitation rates to the nearest 0.1 cm (1 mm), with a minimum monthly precipitation of 0.1 cm.[2]

5.2.1.2 Model Geometry

The SEVIEW interface allows for up to four layers (each with ten sublayers) in the model. As described below in Section 5.2.1.3, some soil properties are assigned to each model layer and are forced to be constant in each of a layer's sublayers. Other soil properties represent the average value of the soil column and are constant among all model layers/sublayers.

To approximate the subsurface beneath the Site, the four model layers were assigned to represent either fill (Layer 1) or alluvium (Layers 2, 3, and 4). The fill material was assumed to be 14 feet thick (428 cm). Groundwater was conservatively assumed to begin at approximately 100 ft bgs. Thus, as the base of the model represents the first occurrence of groundwater, the alluvium was assigned a thickness of 86 ft (2,619 cm). Each layer was assigned the maximum of ten sublayers, resulting in a 40-layer-thick model domain. See **Figure 8** for a schematic view of the model geometry.

5.2.1.3 Soil Properties

SESOIL requires the following soil parameters (applied on a layer-by-layer basis, except where noted:

- Intrinsic permeability;
- Organic carbon content;
- cation exchange capacity;

[2] In SESOIL, a precipitation rate of 0 cm/month effectively causes the model to skip that monthly (i.e., no transport processes operate). To avoid completely neglecting transport in the summer months, the minimum precipitation rate of 0.1 cm/month was used.

- Freundlich exponent;
- soil pH;
- bulk density (model average);
- effective porosity (model average); and
- soil pore disconnectedness (model average).

As described in Section 2.4, limited hydrogeological soil data have been collected at the Site. Based on the Geocon [2016] study, layer-specific values of bulk density and effective porosity values were used to calculate a thickness-weighted average bulk density and effective porosity for the SESOIL model. The other soil properties were determined based on literature values, model default suggestions, and professional judgment:

- As both the fill and alluvium are primarily sand, the SESOIL-suggested default values for intrinsic permeability and soil pore disconnectedness were assumed for all model layers;
- The soil was assumed to have a neutral pH of 7.0;
- The default Freundlich exponent was used; and
- The value of organic carbon content was chosen to be 0.58% because available data from a location nearby the site had organic carbon content between 0.36% and 0.8% [Tetra Tech, 2010].

5.2.1.4 Chemical Properties

SEVIEW includes an extensive database of chemical properties for a wide variety of constituents. For the nine constituents identified in groundwater above MCLs (i.e., constituents of interest), the database values included in SEVIEW for relevant chemical properties were used as input values for SESOIL.

Note that for total chromium, SEVIEW's chemical database included entries for trivalent chromium (CrIII) and CrVI. To assess total chromium, the SESOIL model was run twice using parameters equivalent to CrIII and CrVI to provide an approximate range in expected results for an aggregate total chromium impact. In addition, the effect of cation exchange was not included for CrIII or CrVI in this analysis, as the cation exchange capacity of soil is a poorly constrained parameter for the Site. This is a conservative assumption, as cation exchange is expected to immobilize some portion of the potential mobile chromium mass.

In addition, the constituents were assumed to not biodegrade in either the solid or liquid phase. This assumption is conservative, as many of the VOCs identified in soil and groundwater are known to biodegrade over wide ranges of geochemical conditions.

5.2.1.5 Source Configuration and Concentrations

For the SESOIL models, the initial contaminant source was set equal to the 95% UCL of soil concentrations for benzene, PCE, TCE, and total chromium. For the remaining constituents of interest, 1,1,2,2-tetrachloroethane, 1,1-dichloroethene, 1,2-dichloroethane, trans-1,3-dichloropropene, and vinyl chloride, the available sampling data contain only data below the detection limit (i.e., non-detect data). Even though these constituents are not found at detectable concentrations at the Site, for the purposes of understanding fate and transport of these constituents, the highest detection limit (usual 0.001 mg/kg) was applied as the initial concentration.

As there are no ongoing Site activities and potential future activities are anticipated to be residential in nature, the initial contaminant concentrations were applied as a finite mass at the start of the model with no long-term sources of additional contaminant in the model. Based on the available soil data described above in Section 3, the initial contaminant was applied to the entire fill domain (i.e., the upper 14 ft). Specific to total chromium, additional contaminant mass was applied to the upper portions of the alluvium layers to a depth of 30 ft bgs based on Site data. These input concentrations are summarized in **Table 4.**

For mass-balance purposes, the area of the soil column was assumed to be one square-meter, meaning that the model results should be considered to be per square-meter of impacted soil.

5.2.2 Model Scenarios

To model current and future Site conditions, three different model scenarios were created to encompass different Site use (and thus surface) conditions. These scenarios were:

1. Current Site conditions;
2. Future Site conditions (residential structures with concrete foundation); and
3. Future Site conditions (potential exposed soil).

The assumptions of each of these scenarios is described below.

5.2.2.1 Scenario 1 – Current Site Conditions (Aged Concrete)

For this scenario, the Site was assumed to be covered in the aged concrete. However, as described above, the SESOIL model geometry does not specifically include a surface

cover. To approximate an aged concrete, the California SWRCB guidance for runoff coefficients[3] was consulted to select a representative runoff coefficient to modify the amount of precipitation which could infiltrate into the subsurface. Based on SWRCB [2011], the expected range of runoff coefficients for concrete ranges from 0.85 to 0.95. To represent an aged concrete, the low-end value of 0.85 was selected. For the Scenario 1 models, the average monthly precipitation was reduced by 85% to a minimum monthly precipitation of 0.1 cm (1 mm) per month.

In addition, evapotranspiration through the concrete surface was assumed to be negligible. To approximate this condition, the evapotranspiration was fixed to the smallest non-zero amount (0.0001 cm/day) allowed in SEVIEW.[4] This assumption is conservative, as it minimizes the reduction of infiltration due to evapotranspiration.

5.2.2.2 Scenario 2 – Future Conditions (Concrete/Multi-Story Structure)

For this scenario, the Site was assumed to be covered in the new concrete. Based on the SWRCB [2011] guidance, a fresh concrete covering was assumed to have the upper-end runoff coefficient of 0.95. For the Scenario 2 models, the average monthly precipitation was reduced by 95% to a minimum monthly precipitation of 0.1 cm (1 mm) per month. This is also a conservative assumption, given that the re-development will consist of multiple layers (i.e., stories) which may further reduce the potential for precipitation infiltrating underlying Site soils.

For Scenario 2, evapotranspiration was fixed to a value of 0.0001 cm/day, as was done in the Scenario 1 models.

5.2.2.3 Scenario 3 – Future Conditions (Soil)

Lastly, a scenario was developed for the potential future condition of the concrete covering at the Site being removed and exposed soil left as the surface conditions. While not the expected Site usage, this scenario is a conservative approximation of conditions

[3] The runoff coefficient is a parameter which ranges from 0.0 to 1.0 and describes the fraction of precipitation which is expected to run off, as opposed to infiltration. A runoff coefficient of 0.0 means all precipitation will infiltrate a surface, while a runoff coefficient of 1.0 means that no precipitation will infiltrate a surface.

[4] In SEVIEW, an evapotranspiration rate of 0.0 cm/day is shorthand for using the climate model within SEVIEW to calculate an evapotranspiration rate. Assuming an evapotranspiration rate of 0.0001 cm/day is a practical method for approximating zero evapotranspiration.

where precipitation is allowed to infiltrate without runoff. For the Scenario 3 models, the average monthly precipitation values were applied in full.

In contrast to the concrete scenarios, the hypothetical exposed soil would be subject to evapotranspiration processes. The SEVIEW climate model was used to calculate the monthly evapotranspiration rate.

5.3 SESOIL Model Results

Based on the above constituents of interest and the three scenarios, a total of 30 unique SESOIL models were run as part of this GIA. The results of the SESOIL modeling are summarized in **Tables 5-7**. An example model output file is shown as **Figure 9**, with all model output files from SEVIEW compiled in **Appendix C**. As the goal of this modeling effort is to assess the potential for soil impacts to act as a residual source of groundwater contamination, three model outputs were used as a basis of comparison:

- Time for soil impacts to reach groundwater;
- Percentage of mass which enters groundwater; and
- Fate of the majority of contaminant mass.

5.3.1 Scenario 1 – Current Site Conditions (Aged Concrete)

Based on the current Site conditions, there is little risk of the impacts to soil reaching groundwater (see **Table 5**). The fastest theoretical travel time to groundwater is approximately 13 years (1,2-dichloroethane), with 0.03% of the source mass reaching groundwater. The largest theoretical contaminant mass reaching groundwater was 1,1,2,2-tetrachloroethane, with 11% of the source mass estimated to reach groundwater after 14 years of travel time. None of the other modeled constituents were estimated to have resolvable amounts of the source mass (i.e., greater than 0.01%) reach groundwater, even with no biodegradation or cation exchange processes active. The VOC mass is generally volatilized by the end the model, while the chromium mass is generally adsorbed to soil by the end of the model.

While the Scenario 1 results suggest that some fraction of 1,2-dichloroethane and 1,1,2,2-tetrachloroethane may reach groundwater under current Site conditions, it is important to note that neither of these constituents has been detected in soil at the Site. Thus, based on the absence of these constituents in Site soil data and the SESOIL modeling results for the other constituents, the Scenario 1 results suggest that the Site is not a potential residual source of groundwater impacts.

5.3.2 Scenario 2 – Future Conditions (Concrete)

Based on the expected future Site conditions, there is little risk of the impacts to soil reaching groundwater (see **Table 6**). As expected, replacing the aged concrete with new concrete resulted in an even more protective situation. The fastest theoretical travel time to groundwater is approximately 25 years (1,2-dichloroethane), with no resolvable quantity of mass reaching groundwater. One percent of the source mass of 1,1,2,2-tetrachloroethane reached groundwater after 27 years of travel time. As with Scenario 1, none of the other constituents of interest had resolvable quantities of mass reach the groundwater, even with no biodegradation or cation exchange processes active. The VOC mass is generally volatilized by the end the model, while the chromium mass is generally adsorbed to soil by the end of the model.

The Scenario 2 results suggest that the Site will not act as a potential residual source of groundwater impacts under the anticipated future use of the Site.

5.3.3 Scenario 3 – Future Conditions (Soil)

If the concrete cover at the Site is removed and the Site is left as exposed soil in perpetuity, there is some limited risk of select soil impacts reaching groundwater under the assumption of no biodegradation (see **Table 7**). The fastest theoretical travel time to groundwater is 3 years (1,2-dichloroethane and 1,1,2,2-tetrachloroethane) with 1,3-dichloropropene and benzene having theoretical travel times of 5 and 6 years, respectively. 1,2-Dichloroethane and 1,1,2,2-tetrachloroethane are theoretically able to reach groundwater at 17% and 50% of their source masses, respectively. Model results indicate that 6% of the source mass of 1,3-dichloropropene, and 0.4% of the source mass of benzene reach groundwater. Similar to the other scenarios, the VOC mass is generally volatilized by the end the model, while the chromium mass is generally adsorbed to soil by the end of the model.

Of the four VOCs found with resolvable mass percentages reaching groundwater, only benzene has been identified in soils at the Site. However, the SESOIL model results suggest that less than 0.5% of the mass of benzene could theoretically reach groundwater at the conclusion of the 40-year modeling period if the surface cover at the Site were removed for the duration of that period and with the conservative assumption that these compounds were subject to zero biodegradation in the subsurface. Furthermore, the maximum leachate concentrations per square meter for benzene was less than its MCL (see model output files in **Appendix C**). These results suggest that even in the unanticipated future condition of the Site having the surface cover removed and soil impacts not addressed, soil impacts at the Site are not expected to pose a risk to groundwater beneath the Site.

5.4 Sensitivity Analysis

5.4.1 Analysis Approach

A sensitivity analysis (SA) is a method to determine the influence which key variables, parameters, or other inputs have on model output. For this SA, the following four soil parameters were assessed for their sensitivity in the SESOIL model of fate and transport of constituents at the Site:

- Intrinsic Permeability;
- Organic Carbon Content;
- Effective Porosity; and
- Soil Disconnectivity Index.

For each of the above soil parameters, SA models were run over a range of four additional values. The ranges of these values were selected based on literature ranges of physically representative values for the lithology found at the Site and professional judgement. Organic carbon values for the sensitivity analysis were chosen based on the LARWQCB's *Interim Site Assessment & Cleanup GuideBook* [1996] values for minimum and maximum organic carbon content. The SA parameters are summarized in **Table 8**.

As the goal of the SA is to determine the relative sensitivity of each of the above parameters, the suite of models described in Section 5.3 were pared down to those constituents and configurations which had the fastest travel times to groundwater. As the constituents of interest at the Site include both metals and VOCs, the SA was conducted on CrVI as the fastest-travelling metal and 1,2-dichloroethane as the fastest-traveling VOC. In addition, the Scenario 3 model (future site conditions, soil) was selected for use as the SA model, as this model predicted the fastest travel times and highest mass percentages reaching groundwater for the different constituents of interest, and thus would be the model most likely to show clear sensitivity to variations in input parameters.

Biodegradation rates were not used in the fate and transport models for any constituents of concern. To demonstrate the general effect of biodegradation on the fate and transport of constituents of concern, a sensitivity analysis of four biodegradation rates for 1,2-dichloroethane was conducted with Scenario 3. The biodegradation rates were based on values from *Natural Attenuation of the Lead Scavengers 1,2-Dibromoethane (EDB) and 1,2-Dichloroethane (1,2-DCA) at Motor Fuel Release Sites and Implications for Risk Management* [Wilson et al., 2008]. For the two constituents and the five model parameters assessed, including biodegradation, a total of 36 additional SESOIL models

were included as the basis for this SA. The SESOIL model outputs for these SA models are included as **Appendix C**.

The above-mentioned SA approach determined that parameters associated with the hydrogeological properties of the soil had a strong influence on the Scenario 3 model results. Based on this result, select Scenario 1 and 2 models were assessed over a range of material properties reflective of the Site's geology (i.e., primarily sand) to determine the potential influence of uncertainty in material parameters on the fate and transport model results. This approach is further described in Section 5.4.4.

5.4.2 Analysis Results – 1,2-Dichloroethane

The results of the SA for 1,2-dichloroethane are shown in **Table 9**. The travel time and mass-to-groundwater percentages are sensitive to all four of the SA parameters, as described below. For the SA model parameters, the travel time of 1,2-dichloroethane to groundwater was found to range between approximately 1 and 16 years and the mass-to-groundwater percentage was 6 to 30%.

When the intrinsic permeability was varied from a value of 1e-6 cm^2 to 1e-10 cm^2, the travel time was found to vary from 1 year to 16 years and the mass-to-groundwater percentage varied from 11% to 24%. In general, as the intrinsic permeability was decreased, the travel time monotonically increased. Between 1e-6 cm^2 and 1e-9 cm^2, the mass-to-groundwater percentage increased as the intrinsic permeability decreased. However, between 1e-9 cm^2 and 1e-10 cm^2, the mass-to-groundwater percentage dropped slightly to 21%. A review of the model outputs (see **Appendix C**) demonstrates that in the very low permeability model, a larger proportion of the 1,2-dichloroethane is expected to remain in soil moisture (and thus not enter groundwater) compared to higher permeability models.

When the effective porosity was varied from a value of 10% to 30%, the travel time was found to vary from 1 year to 5 years and the mass-to-groundwater percentage varied from 6% to 36%. The travel time monotonically increased with higher effective porosity, while the mass-to-groundwater percentage monotonically decreased with higher effective porosity.

When the soil disconnectivity index was varied from a value of 3.5 to 12.0, the travel time was found to vary from 3 years to 9 years and the mass-to-groundwater percentage varied from 17% to 69%. The travel time and mass-to-groundwater percentages both monotonically increased with a higher soil disconnectivity index.

When the organic carbon content was varied from a value of 0% to 2%, the travel time was found to vary between 3 to 4 years and the mass-to-groundwater percentage varied from 17% to 18%. The travel time and mass-to-groundwater percentage were found to not be strongly sensitive to the range of organic carbon content expected in silty sands near the Site. Biodegradation rate constants for 1,2-dichloroethane ranged from 0.3 to 4.4 per year [Wilson, et al., 2008]. The travel time varied from 3 years to 4 years. The mass-to-groundwater percentage monotonically decreased from 17% to less than 0.01% with increasing biodegradation rates. With no biodegradation, the majority of the 1,2-dichloroethane mass is volatilized and 17% reaches groundwater. As the biodegradation rate constant is increased, the majority of the 1,2-dichloroethane mass is also volatilized; however, up to 32% of the mass is degraded in soil moisture. These model results demonstrate that active biodegradation would decrease the mass-to-groundwater percentage for constituents of concern which biodegrade, even if the constituents have fast travel times. Thus, in this GIA, the SESOIL modeling assumption of no active biodegradation provides a conservative estimate of the travel time and mass-to-groundwater percentages for the constituents of concern.

5.4.3 Analysis Results – Hexavalent Chromium

The results of the SA for CrVI are shown in **Table 10**. Over the travel times and mass-to-groundwater percentages of interest, CrVI was not sensitive to any of the four SA parameters.

5.4.4 Analysis Results – Conservative Values Applied to Scenarios 1 and 2

As demonstrated above in Section 5.4.2, the predicted fate and transport of 1,2-dichloroethane was sensitive to the hydrogeological properties of the vadose zone. As these values were based upon literature values rather than Site-specific values, additional SA model runs were conducted to determine if uncertainty in the hydrogeological parameters for the Scenario 1 and 2 models might modify the conclusion that Site soil is not a potential residual source of impacts to groundwater.

The hydrogeological parameters with the greatest uncertainty are the intrinsic permeability and effective porosity. While the pore disconnectivity index is based upon literature values, the index is well-constrained for sandy geologies to being approximately 3.7 [Bonazountas and Wagner, 1984], and thus was not considered in this SA. Based on the Scenario 3 SA, the most conservative (i.e., fastest contaminant travel time and highest mass-to-groundwater percentage) effective porosity value representative of a sand is 15% (**Table 9**). For intrinsic permeability, larger permeabilities generally resulted in faster travel times, but lower mass-to-groundwater percentages. Thus, the full range of intrinsic

permeabilities representative of a sand (1e-6 to 1e-19 cm^2) were assessed for Scenarios 1 and 2 (**Table 9**).

These conservative parameter values were applied to Scenarios 1 and 2 for the constituents that were detected at the Site (benzene, TCE, and PCE). The results from this analysis can be found in **Table 11**. Even by selecting conservative parameter values that may represent the sandy Site geology, for Scenarios 1 and 2, none of the constituents of concern detected at the Site are predicted to have a resolvable quantity of mass reach groundwater.

5.4.5 Analysis Conclusions

Based on the above SA, the results for chromium are essentially insensitive to the model input parameters for soil. On the other hand, VOCs are sensitive to the soil parameters as demonstrated by the example of 1,2-dichloroethane. In general, the intrinsic permeability had the strongest influence over the travel time of 1,2-dichloroethane to groundwater. In contrast, the effective porosity and soil disconnectivity index had the strongest influence over the percentage of the constituent mass which entered groundwater. Also based on the above SA, biodegradation processes applied to the SESOIL model would effectively decrease the mass-to-groundwater and increase the travel time of the constituents of concern.

These results suggest that the primary control over the amount of mass for volatile compounds which could potentially enter groundwater is expected to be controlled primarily by the amount and connectedness of void spaces in the soil. However, as the boring logs for PWA-2 and PWA-3 indicate that the soil beneath the Site is primarily sand (see Section 2.4.2), the material properties selected for use in the main SESOIL analysis are expected only to vary over the range representative of a sand. As depicted in the SA results in **Tables 9** and **10**, the Scenario 3 model (future uncovered soil) for 1,2-dichloroethene is sensitive to soil properties, while hexavalent chromium is not sensitive to soil properties in terms of travel time and mass-to-groundwater percentage. Further SA of the Scenario 1 and 2 models for volatile constituents detected in soils at the Site (benzene, TCE, and PCE) determined that these constituents are not expected to reach groundwater in resolvable quantities under the current and anticipated future use of the Site (**Table 11**). Thus, the Scenario 1 and 2 model results presented in Section 5.3 have been found to be insensitive to the soil properties selected for these models.

6. CONCLUSION

This GIA was performed to evaluate the potential of residual detected concentrations of certain chemicals and elements in the Site soil to impact groundwater resources below the Site. Regional chemical impacts to groundwater have been the subject of regulatory evaluations and enforcement actions throughout the San Fernando Valley (including groundwater flowing beneath the Site). The purpose of this GIA is to perform analyses, including modeling, based on fate and transport guidance from the LARWQCB, to evaluate if the detected constituent concentrations in Site soil have the potential to be residual sources of groundwater impacts. To evaluate if the soil impacts at the Site pose a threat to groundwater, the vadose zone fate and transport model SESOIL was used to model current Site conditions (i.e., capped and covered with existing aged building and development foundations) and two potential future Site conditions (i.e., one overly conservative condition assuming open, bare soil and the likely future re-development condition that is proposed to cover the entire Site area).

Based on the available groundwater data collected from facilities near to the Site, there are impacts of chlorinated solvents (e.g., TCE and PCE), benzene, and total chromium which exceed the California maximum contaminant levels for drinking water. During previous environmental investigations conducted both at the Site and at facilities in the vicinity of the Site, several constituents were identified in environmental samples collected as part of regulatory-driven or guided monitoring programs, and several of the constituents were not identified at detectable levels at the Site.

For current site conditions (aged concrete), the model results demonstrated that the residual concentrations of constituents in Site soil do not pose a risk of migrating to groundwater in sufficient quantities to result in exceedance of groundwater MCLs. While some constituents found in groundwater nearby the Site do have fast travel times and could theoretically have mass reach groundwater (i.e., 1,2-dichloroethane and 1,1,2,2-tetrachloroethane), these constituents were not detected in the soil at the Site. For the constituents of concern detected at the Site (benzene, TCE, and PCE), the presence of these constituents in soil is not predicted to represent a residual source of impact to groundwater. This suggests strongly that the Site is not a potential additive source to the regional groundwater impacts beneath the Site associated with the SFV Superfund Site.

For the likely future development of the Site (new concrete with multi-level/story structures), the model results similarly demonstrate that there is little risk of groundwater impacts due to soil impacts. These results are due in large part to the reduction in surface water infiltration provided by the concrete surface cover at the Site under these scenarios,

as well as the depth to groundwater (i.e., geologic separation of 80 to 100 ft of Site constituents to uppermost groundwater table).

In the unlikely scenario that the Site has the concrete surface cover removed and soil left exposed in perpetuity, the model indicates that there is the potential for some VOC mass to reach groundwater. However, of the Site constituents of concern predicted to have potentially yield source mass to groundwater in Scenario 3, only benzene has been detected at the Site, and its SESOIL-predicted maximum leachate concentration entering groundwater was below its MCL. In addition, note that the SESOIL model was run under the conservative assumption that there is no biodegradation of constituents, a process which was shown to reduce the mass of degradable constituents (such as TCE, PCE, and benzene) which would reach groundwater, further reducing the limited likelihood of the residual concentrations of constituents impacting groundwater based on modeling.

In conclusion, the residual impacts to soils at the Site – even if left unaddressed – are not likely sources of impacts to groundwater beneath the Site under the expected Site usage.

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Geosyntec consultants

TABLES

Table 1
Summary of Groundwater Supply Wells within
One Mile of the Site

Geosyntec consultants

Well ID	Well Category	Distance from Site	Direction from Site	Screen Top (ft bgs)	Screen Bottom (ft bgs)	Surface Elevation (ft msl)	Data Source
1910179-023	City of Burbank Water Department Supply Well	3300 feet	North	76	331	614	ERM, 2011
1910179-024	City of Burbank Water Department Supply Well	3300 feet	North	92	332	622	ERM, 2011
01N14W14B001S	Department of Water Resources Supply Well	2500 feet	South-Southeast	Data Not Available			N/A
01N14W14B002S	Department of Water Resources Supply Well	2500 feet	South-Southeast	Data Not Available			N/A
01N14W14B008S	Department of Water Resources Supply Well	2500 feet	South-Southeast	Data Not Available			N/A
01N14W12M002S	Department of Water Resources Supply Well	3200 feet	East	Data Not Available			N/A
01N14W14H001S	Department of Water Resources Supply Well	4400 feet	Southeast	Data Not Available			N/A
01N14W10A001S	Department of Water Resources Supply Well	4400 feet	Northwest	Data Not Available			N/A

Table 2
Summary of Soil Data for Constituents of Interest

Geosyntec consultants

Layer	Consituent	Number of Samples	Number of Detections	Maximum Detection (µg/g)	95% Upper Confidence Limit (µg/g)
Fill	1,1,2,2-Tetrachloroethane	103	0	ND	ND
	1,1-Dichloroethene	104	0	ND	ND
	1,2-Dichloroethane	104	0	ND	ND
	Benzene	105	3	0.004	0.001
	PCE	107	77	2.54	0.043
	TCE	107	77	4.8	0.247
	Total Chromium	103	103	157	29.947
	trans-1,3-Dichloropropene	108	0	ND	ND
	Vinyl Chloride	108	0	ND	ND
Alluvial	1,1,2,2-Tetrachloroethane	--	--	--	--
	1,1-Dichloroethene	--	--	--	--
	1,2-Dichloroethane	--	--	--	--
	Benzene	8	0	ND	ND
	PCE	8	3	0.059	0.025
	TCE	8	0	ND	ND
	Total Chromium	56	56	67.7	28.358
	trans-1,3-Dichloropropene	--	--	--	--
	Vinyl Chloride	--	--	--	--

Note:
-- No data were collected in Geosyntec [2012] or Leighton [2016]
ND indicates non-detect

Table 3
Summary of Groundwater Data

Geosyntec consultants

	Compound	PWA-02 Value		PWA-03 Value		MCL / *AL*
Major Ions	ALKALINITY, BICARBONATE (AS CACO3)	240	mg/L	150	mg/L	--
	ALKALINITY, TOTAL (AS CACO3)	240	mg/L	150	mg/L	--
	BORON	0.059	mg/L	0.081	mg/L	--
	BROMIDE	0.5	mg/L	0.38	mg/L	*1*
	CALCIUM	113	mg/L	100	mg/L	--
	CHLORIDE (AS CL)	52	mg/L	120	mg/L	--
	FLUORIDE	0.49	mg/L	ND	mg/L	--
	MAGNESIUM	28.9	mg/L	32	mg/L	--
	NITROGEN, NITRATE (AS N)	9.3	mg/L	1.7	mg/L	**10**
	POTASSIUM	4.3	mg/L	5.1	mg/L	--
	SODIUM	39	mg/L	41	mg/L	--
	STRONTIUM	0.72	mg/L	0.64	mg/L	--
	SULFATE (AS SO4)	100	mg/L	110	mg/L	--
Metals	ARSENIC	ND	µg/L	0.99	µg/L	**10**
	BARIUM	140	µg/L	210	µg/L	**1,000**
	CHROMIUM, HEXAVALENT	8.8	µg/L	3.58	µg/L	**10**
	CHROMIUM, TOTAL	245	µg/L	59	µg/L	**50**
	COPPER	0.53	µg/L	ND	µg/L	*1,300*
	MOLYBDENUM	7.4	µg/L	5.9	µg/L	--
	SELENIUM	2.2	µg/L	ND	µg/L	**50**
	VANADIUM	5.7	µg/L	8.4	µg/L	*50*
Volatile Organic Compounds	1,1,1-TRICHLOROMETHANE, CHLOROFORM-D	4.9	µg/L	4.8	µg/L	--
	1,1,2,2-TETRACHLOROETHANE-D2	4.7	µg/L	4.9	µg/L	**1**
	1,1,2-TRICHLOROETHANE	0.1	µg/L	ND	µg/L	**5**
	1,1-DICHLOROETHANE	0.51	µg/L	ND	µg/L	**5**
	1,1-DICHLOROETHENE	6.3	µg/L	4.7	µg/L	**6**
	1,2-DICHLOROBENZENE-D4	4.8	µg/L	5	µg/L	**600**
	1,2-DICHLOROETHANE-D4	5.2	µg/L	5.2	µg/L	**5**
	1,2-DICHLOROPROPANE-D6	4.5	µg/L	4.9	µg/L	**5**
	1-BROMO-4-FLUOROBENZENE (4-BROMOFLUOROBENZENE)	23	µg/L	22	µg/L	--
	2-BUTANONE-D5	47	µg/L	47	µg/L	--
	2-HEXANONE-D5	50	µg/L	51	µg/L	--
	BENZENE-D6	4.3	µg/L	4.7	µg/L	**1**
	CARBON TETRACHLORIDE	0.28	µg/L	ND	µg/L	**0.5**
	CHLOROETHANE-D5	5	µg/L	4.7	µg/L	--
	CHLOROFORM	1.7	µg/L	ND	µg/L	--
	CIS-1,2-DICHLOROETHYLENE	ND	µg/L	5.3	µg/L	**6**
	DIBROMOFLUOROMETHANE	28	µg/L	24	µg/L	--
	TETRACHLOROETHYLENE(PCE)	9.7	µg/L	3.6	µg/L	**5**
	TOLUENE-D8	25	µg/L	25	µg/L	**150**
	TRANS-1,2-DICHLOROETHENE	ND	µg/L	0.63	µg/L	**10**
	TRANS-1,3-DICHLOROPROPENE-D4	4.2	µg/L	4.5	µg/L	**0.5**
	TRICHLOROETHYLENE (TCE)	17	µg/L	87	µg/L	**5**
	VINYL CHLORIDE-D3	4.4	µg/L	4.2	µg/L	**0.5**

MCL - Maximum Contaminant Level; *AL - Action Level* ; Highlighted cells - exceedance of the MCL

Table 4
SESOIL Input Parameters for
Constituents of Interest

Geosyntec consultants

COPC	Model Layer	SESOIL Variable	Amount	Unit
1,1,2,2-Tetrachloroethane	Fill	CONC	<0.001	ug/g
		POLIN	<0.791	ug/cm2
	Alluvial	CONC	--	ug/g
		POLIN	--	ug/cm2
1,1-Dichloroethene	Fill	CONC	<0.001	ug/g
		POLIN	<0.791	ug/cm2
	Alluvial	CONC	--	ug/g
		POLIN	--	ug/cm2
1,2-Dichloroethane	Fill	CONC	<0.001	ug/g
		POLIN	<0.791	ug/cm2
	Alluvial	CONC	--	ug/g
		POLIN	--	ug/cm2
Benzene	Fill	CONC	0.001	ug/g
		POLIN	0.896	ug/cm2
	Alluvial	CONC	ND	ug/g
		POLIN	ND	ug/cm2
PCE	Fill	CONC	0.291	ug/g
		POLIN	230.414	ug/cm2
	Alluvial	CONC	0.025	ug/g
		POLIN	19.422	ug/cm2
TCE	Fill	CONC	0.247	ug/g
		POLIN	195.300	ug/cm2
	Alluvial	CONC	ND	ug/g
		POLIN	ND	ug/cm2
Total Chromium	Fill	CONC	29.947	ug/g
		POLIN	23700	ug/cm2
	Alluvial	CONC	28.358	ug/g
		POLIN	22500	ug/cm2
trans-1,3-Dichloropropene	Fill	CONC	<0.001	ug/g
		POLIN	<0.791	ug/cm2
	Alluvial	CONC	--	ug/g
		POLIN	--	ug/cm2
Vinyl Chloride	Fill	CONC	<0.791	ug/g
		POLIN	<0.001	ug/cm2
	Alluvial	CONC	--	ug/g
		POLIN	--	ug/cm2

Notes:
Amount - The UCL of all data collected for each respective later
POLIN- COPC mass load
CONC- Concentration of the COPC sorbed to the soil

ND All data were non-detections and a UCL was not calculated
-- No data were measured for this parameter
< The maximum detection limit was used when there were no detections for a COPC

Table 5
SESOIL Output Summary
Scenario 1 (Current Site Conditions)

Consitutent of Interest	Theoretical Time to Groundwater	Theoretical Percentage of Mass in Groundwater	Fate of Majority of Mass
Chromium-III	> 999 years	< 0.01%	Adsorbed on Soil (100%)
Chromium-VI	> 999 years	< 0.01%	Adsorbed on Soil (100%)
Benzene	28 years	< 0.01%	Volatilized (100%)
1,1,2,2-Tetrachloroethane	14 years	**11%**	Volatilized (89%) In Groundwater (11%)
1,1-Dichoroethene	96 years	< 0.01%	Volatilized (100%)
1,2-Dichloroethane	13 years	**0.03%**	Volatilized (100%)
1,3-Dichloropropene	24 years	< 0.01%	Volatilized (100%)
Tetrachloroethene	65 years	< 0.01%	Volatilized (100%)
Trichloroethene	54 years	< 0.01%	Volatilized (100%)
Vinyl Chloride	82 years	< 0.01%	Volatilized (100%)

Note: Percentages may not sum to 100% due to rounding errors

Table 6
SESOIL Output Summary
Scenario 2 (Future Site Conditions, Concrete)

Constituent of Interest	Theoretical Time to Groundwater	Theoretical Percentage of Mass in Groundwater	Fate of Majority of Mass
Chromium-III	< 999 years	< 0.01%	Adsorbed on Soil (100%)
Chromium-VI	< 999 years	< 0.01%	Adsorbed on Soil (100%)
Benzene	59 years	< 0.01%	Volatilized (100%)
1,1,2,2-Tetrachloroethane	27 years	**1%**	Volatilized (99%) In Groundwater (1%)
1,1-Dichoroethene	211 years	< 0.01%	Volatilized (100%)
1,2-Dichloroethane	25 years	< 0.01%	Volatilized (100%)
1,3-Dichloropropene	49 years	< 0.01%	Volatilized (100%)
Tetrachloroethene	143 years	< 0.01%	Volatilized (100%)
Trichloroethene	117 years	< 0.01%	Volatilized (100%)
Vinyl Chloride	180 years	< 0.01%	Volatilized (100%)

Note: Percentages may not sum to 100% due to rounding errors

Table 7
SESOIL Output Summary
Scenario 3 (Future Site Conditions, Soil)

Consitutent of Interest	Theoretical Time to Groundwater	Theoretical Percentage of Mass in Groundwater	Fate of Majority of Mass
Chromium-III	> 999 years	< 0.01%	Adsorbed on Soil (100%)
Chromium-VI	> 999 years	< 0.01%	Adsorbed on Soil (100%)
Benzene	6 years	**0.4%**	Volatilized (100%)
1,1,2,2-Tetrachloroethane	3 years	**50%**	Volatilized (50%) In Groundwater (50%)
1,1-Dichoroethene	19 years	< 0.01%	Volatilized (100%)
1,2-Dichloroethane	3 years	**17%**	Volatilized (83%) In Groundwater (17%)
1,3-Dichloropropene	5 years	**6%**	Volatilized (94%) In Groundwater (6%)
Tetrachloroethene	13 years	< 0.01%	Volatilized (100%)
Trichloroethene	11 years	< 0.01%	Volatilized (100%)
Vinyl Chloride	16 years	< 0.01%	Volatilized (100%)

Note: Percentages may not sum to 100% due to rounding errors

Table 8
Sensitivity Analysis Parameters

Parameter	Intrinsic Permeability		Effective Porosity		Soil Disconnectivity Index		Organic Carbon Content		Biodegradation (1,2-DCA)	
	Value	Associated Material[1]	Value	Associated Material[2]	Value	Associated Material[3]	Value	Associated Material[4]	Rate Constant (per year)	Location of Estimate[5]
Scenario 3 Model Value	1e-8 cm^2	Clean to silty sand	20%	Sand	3.7	Sand	0.58%	Value from nearby site	--	--
Sensitivity Value 1	1e-6 cm^2	Clean sand to gravel	10%	Silt to clay	3.5	SESOIL minimum	0.02%	Minimum observed	0.3	South Carolina
Sensitivity Value 2	1e-7 cm^2	Clean sand	15%	Fine sand to silt	6.0	Sandy clay	0.14%	Median observed	0.71	North Carolina
Sensitivity Value 3	1e-9 cm^2	Silty sand	25%	Coarse Sand	9.0	Clay to silty clay loam	0.25%	Mean observed	1.7	Oklahoma
Sensitivity Value 4	1e-10 cm^2	Silt	30%	Coarse to gravelly sand	12.0	Silt to clay	1.5%	Maximum observed	4.4	Louisiana

Notes:
1 - Based on Freeze and Cherry [1979].
2 - Based on Domenico and Schwartz [1990]. Note that associated material is based on average values over potentially overlapping ranges of effective porosity.
3 - Based on Bonazountas and Wagner [1984].
4 - Based on values presented in Tetra Tech [2010] and Appendix A of LARWQCB [1996].
5 - Based on values from Table 2.3 of Wilson et al. [2008]

Table 9
Sensitivity Analysis Results
1,2-Dichloroethane

Sensitivity Analysis Results			
Model Scenario	Scenario 3 - Future Site Conditions (Soil)		
Constituent	1,2-Dichloroethane		
Parameter	**Value**	**Travel Time**	**Percent Mass Reaching Groundwater**
Intrinsic Permeability	1e-10 cm^2	16 years	21%
	1e-9 cm^2	6 years	24%
	1e-8 cm^2	3 years	17%
	1e-7 cm^2	2 years	13%
	1e-6 cm^2	1 year	11%
Effective Porosity	10%	1 year	36%
	15%	2 years	27%
	20%	3 years	17%
	25%	4 years	10%
	30%	5 years	6%
Soil Disconnectivity Index	3.5	3 years	17%
	3.7	3 years	17%
	6.0	7 years	32%
	9.0	9 years	51%
	12.0	9 years	69%
Organic Carbon Content	0.00%	3 years	17%
	0.58%	3 years	17%
	0.75%	3 years	17%
	1.00%	3 years	18%
	2.00%	4 years	18%
Biodegradation	0 per year	3 years	17%
	0.3 per year	3 years	5%
	0.71 per year	3 years	1%
	1.7 per year	3 years	0.07%
	4.4 per year	3 years	<0.01%

The values in green show the Future Soil model values.

Table 10
Sensitivity Analysis Results
Chromium VI

Sensitivity Analysis Results			
Model Scenario	Scenario 3 - Future Site Conditions (Soil)		
Constituent	Chromium VI		
Parameter	**Value**	**Travel Time**	**Percent Mass**
Intrinsic Permeability	1e-10 cm^2	> 999 years	< 0.01%
	1e-9 cm^2	> 999 years	< 0.01%
	1e-8 cm^2	> 999 years	< 0.01%
	1e-7 cm^2	> 999 years	< 0.01%
	1e-6 cm^2	> 999 years	< 0.01%
Effective Porosity	10%	> 999 years	< 0.01%
	15%	> 999 years	< 0.01%
	20%	> 999 years	< 0.01%
	25%	> 999 years	< 0.01%
	30%	> 999 years	< 0.01%
Soil Disconnectivity Index	3.5	> 999 years	< 0.01%
	3.7	> 999 years	< 0.01%
	6.0	> 999 years	< 0.01%
	9.0	> 999 years	< 0.01%
	12.0	> 999 years	< 0.01%
Organic Carbon Content	0.00%	> 999 years	< 0.01%
	0.58%	> 999 years	< 0.01%
	0.75%	> 999 years	< 0.01%
	1.00%	> 999 years	< 0.01%
	2.00%	> 999 years	< 0.01%

The values in green show the Future Soil model values.

Table 11
Conservative Values Applied to Scenarios 1 and 2

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Scenario	Consitutent of Interest	Intrinsic Permeability	Effective Porosity	Theoretical Time to Groundwater	Theoretical Percentage of Mass in Groundwater	Fate of Majority of Mass
Scenario 1	Benzene	1e-6 cm2	15%	17 years	< 0.01%	Volatilized (100%)
		1e-7 cm2		19 years	< 0.01%	Volatilized (100%)
		1e-8 cm2		21 years	< 0.01%	Volatilized (100%)
		1e-9 cm2		26 years	< 0.01%	Volatilized (100%)
	Tetrachloroethene	1e-6 cm2	15%	48 years	< 0.01%	Volatilized (100%)
		1e-7 cm2		51 years	< 0.01%	Volatilized (100%)
		1e-8 cm2		51 years	< 0.01%	Volatilized (100%)
		1e-9 cm2		53 years	< 0.01%	Volatilized (100%)
	Trichloroethene	1e-6 cm2	15%	38 years	< 0.01%	Volatilized (100%)
		1e-7 cm2		41 years	< 0.01%	Volatilized (100%)
		1e-8 cm2		42 years	< 0.01%	Volatilized (100%)
		1e-9 cm2		46 years	< 0.01%	Volatilized (100%)
Scenario 2	Benzene	1e-6 cm2	15%	--	--	--
		1e-7 cm2		42 years	< 0.01%	Volatilized (100%)
		1e-8 cm2		47 years	< 0.01%	Volatilized (100%)
		1e-9 cm2		57 years	< 0.01%	Volatilized (100%)
	Tetrachloroethene	1e-6 cm2	15%	--	--	--
		1e-7 cm2		115 years	< 0.01%	Volatilized (100%)
		1e-8 cm2		119 years	< 0.01%	Volatilized (100%)
		1e-9 cm2		123 years	< 0.01%	Volatilized (100%)
	Trichloroethene	1e-6 cm2	15%	--	--	--
		1e-7 cm2		92 years	< 0.01%	Volatilized (100%)
		1e-8 cm2		97 years	< 0.01%	Volatilized (100%)
		1e-9 cm2		105 years	< 0.01%	Volatilized (100%)

Note: -- indicates that the SESOIL did not have enough water in the hydrologic system to complete the analysis

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FIGURES

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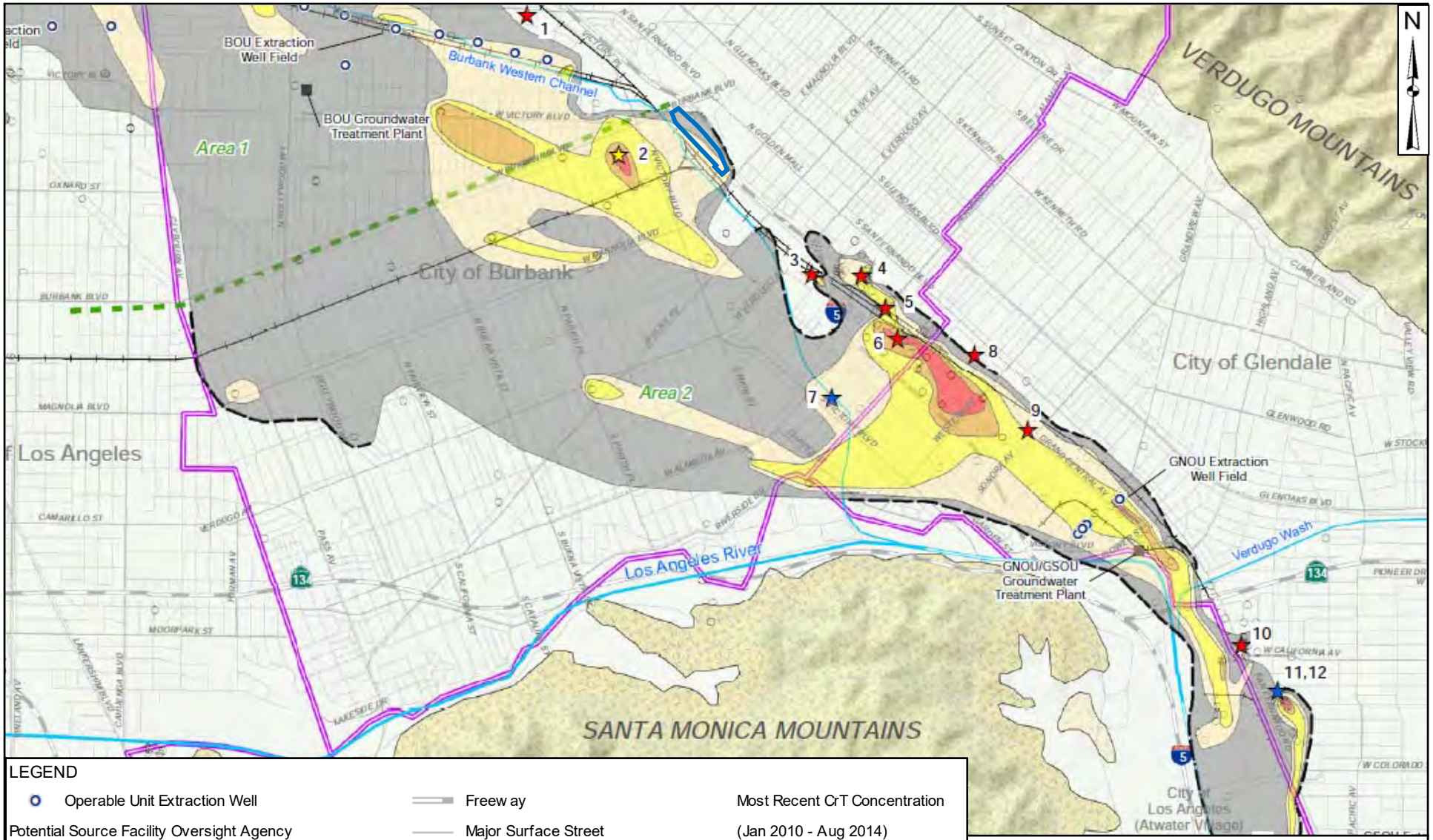

LEGEND

- Operable Unit Extraction Well
- Operable Unit Groundwater Treatment Plant
- Municipal Boundary
- Approximate Boundaries of Investigation Areas for San Fernando Valley Super Fund Sites

Potential Source Facility Oversight Agency

- EPA
- DTSC
- LARWQCB

- Freeway
- Major Surface Street
- Railroads
- Los Angeles River
- Unlined Section of Los Angeles River
- Stream
- Site Boundary

Most Recent CrT Concentration (Jan 2010 - Aug 2014)

- >1,000 µg/L
- 100-1,000 µg/L
- 50-100 µg/L
- 10-50 µg/L
- Dashed where uncertain
- Wells with CrT Data
- Data Prior to 2010

Note: Base map from OTIE (2016)

San Fernando Valley Superfund Site
Extent of TCE Impacts Circa 2016

Burbank, California

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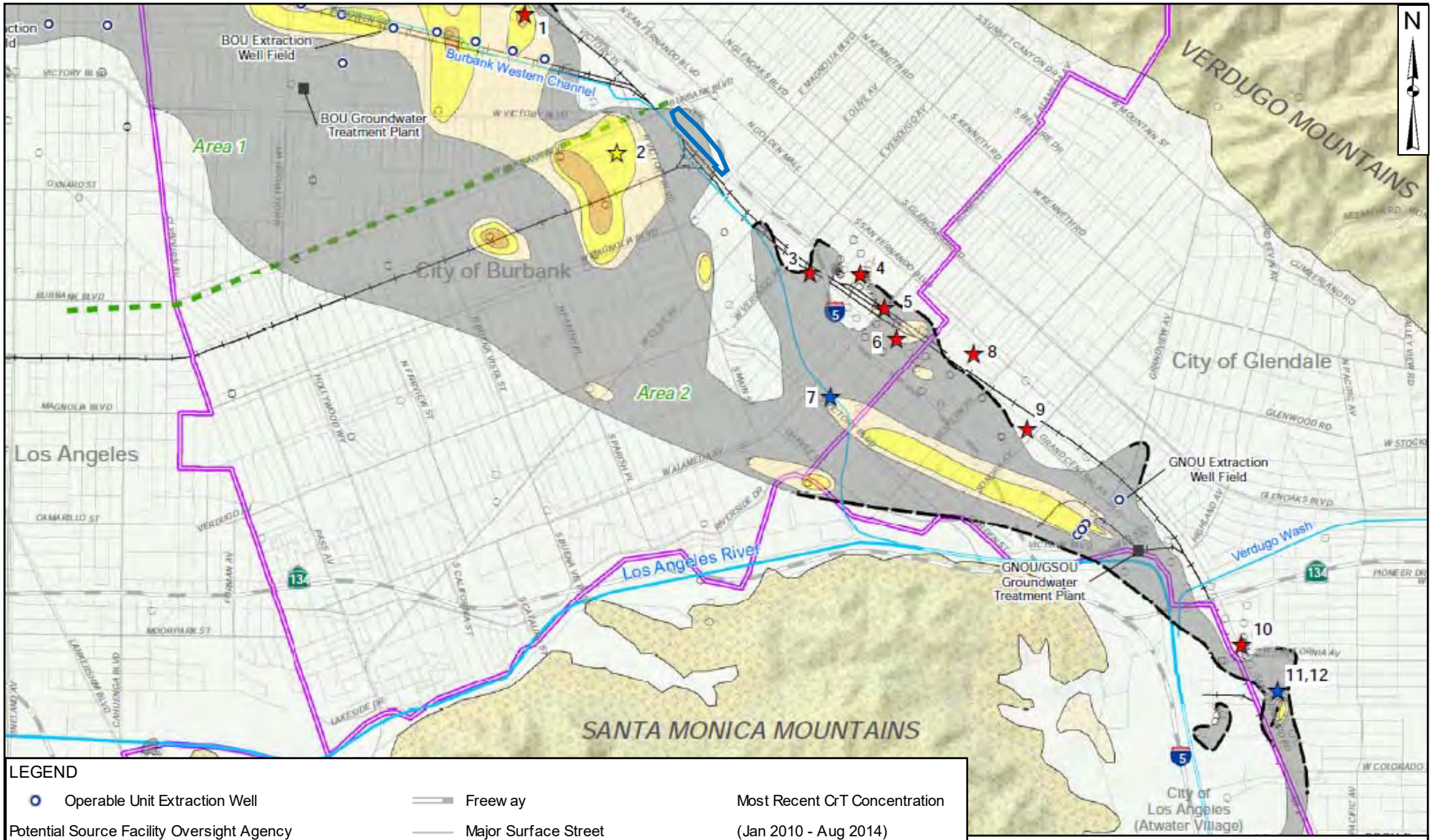
Figure 2

Project No,: HR1305C

February 2017



LEGEND

- Operable Unit Extraction Well
- Operable Unit Groundwater Treatment Plant
- Municipal Boundary
- Approximate Boundaries of Investigation Areas for San Fernando Valley Super Fund Sites

Potential Source Facility Oversight Agency

- EPA
- DTSC
- LARWQCB

- Freeway
- Major Surface Street
- Railroads
- Los Angeles River
- Unlined Section of Los Angeles River
- Stream
- Site Boundary

Most Recent CrT Concentration (Jan 2010 - Aug 2014)

- >1,000 µg/L
- 100-1,000 µg/L
- 50-100 µg/L
- 10-50 µg/L
- Dashed where uncertain
- Wells with CrT Data
- Data Prior to 2010

Note: Base map from OTIE (2016)

San Fernando Valley Superfund Site
Extent of PCE Impacts Circa 2016

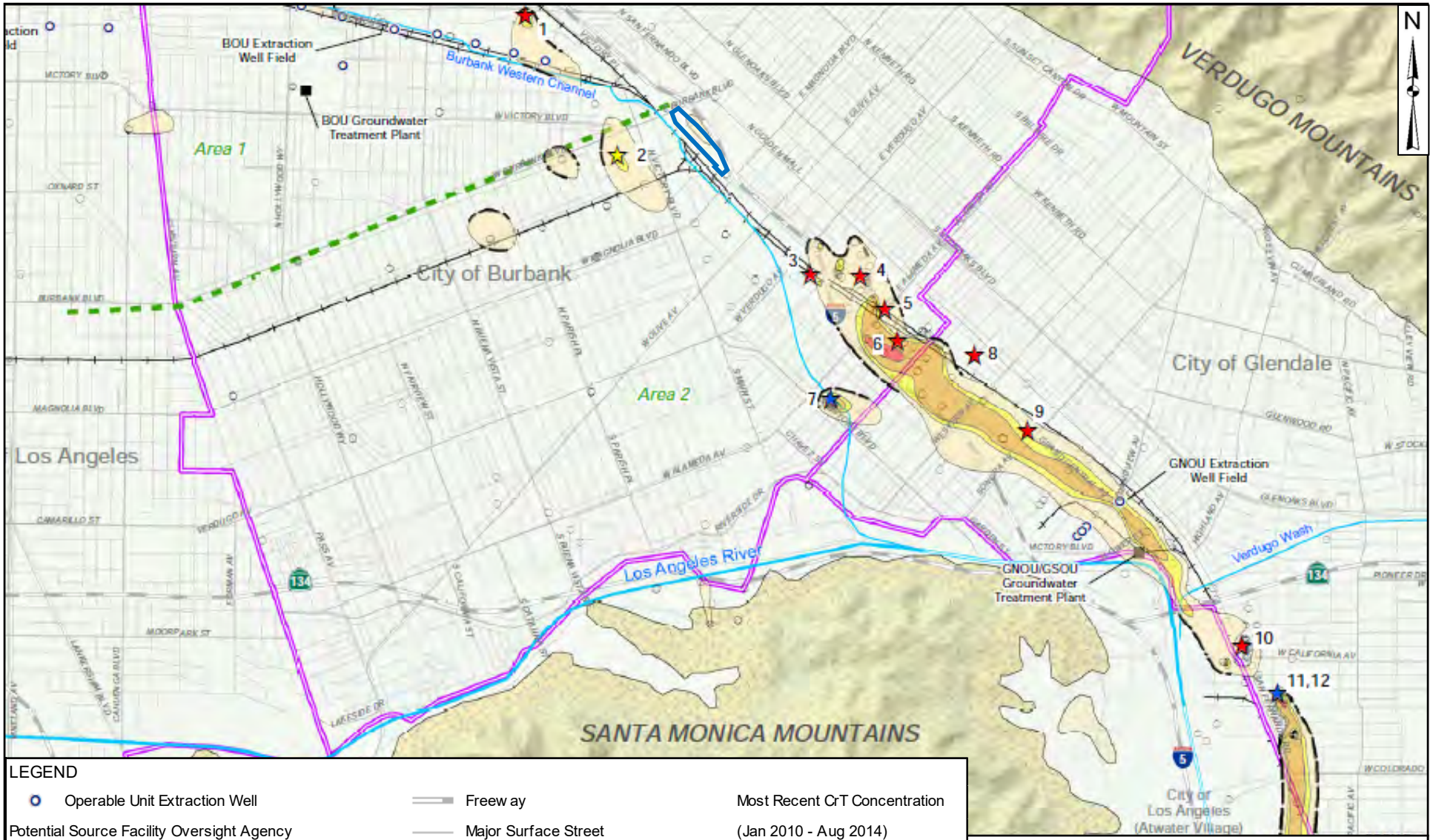
Burbank, California

Geosyntec consultants

Figure 3

Project No,: HR1305C

February 2017



LEGEND

- Operable Unit Extraction Well
- Potential Source Facility Oversight Agency
  - EPA
  - DTSC
  - LARWQCB
- Operable Unit Groundwater Treatment Plant
- Municipal Boundary
- Approximate Boundaries of Investigation Areas for San Fernando Valley Super Fund Sites
- Freeway
- Major Surface Street
- Railroads
- Los Angeles River
- Unlined Section of Los Angeles River
- Stream
- Site Boundary

Note: Base map from OTIE (2016)

Most Recent CrT Concentration (Jan 2010 - Aug 2014)

- >1,000 µg/L
- 100-1,000 µg/L
- 50-100 µg/L
- 10-50 µg/L
- Dashed where uncertain
- Wells with CrT Data
- Data Prior to 2010

San Fernando Valley Superfund Site
Extent of Total Chromium Impacts Circa 2016

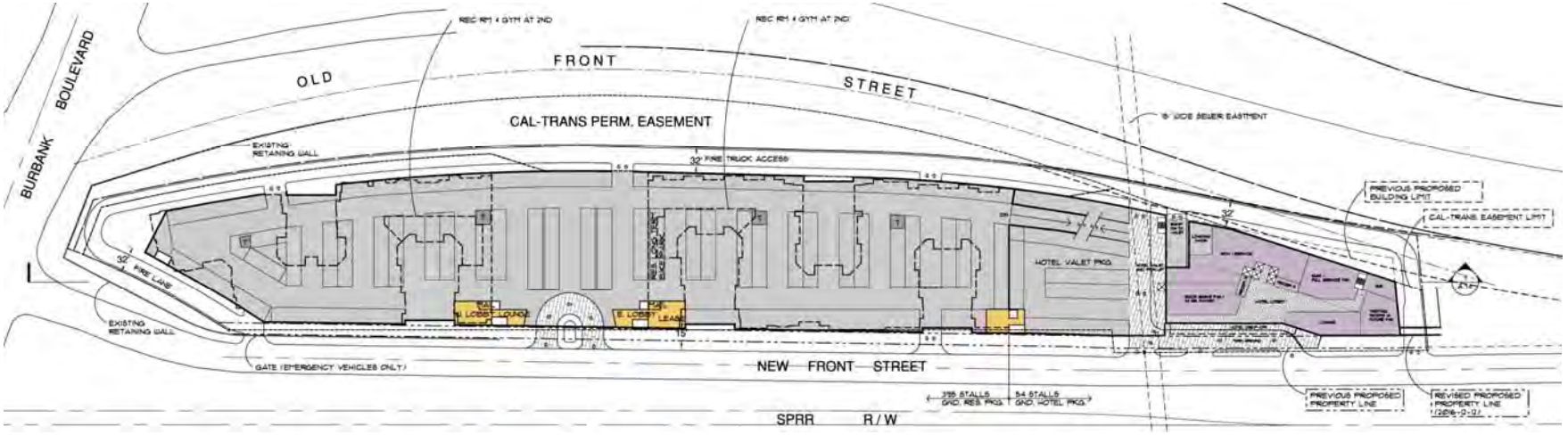
Burbank, California

Geosyntec consultants

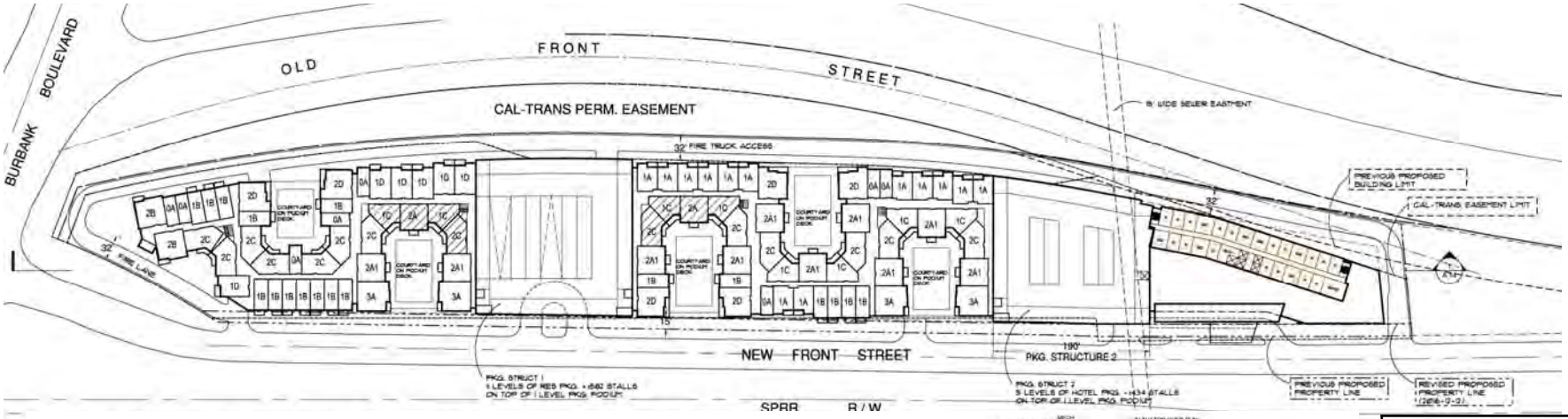
Figure 4

Project No,: HR1305C

February 2017

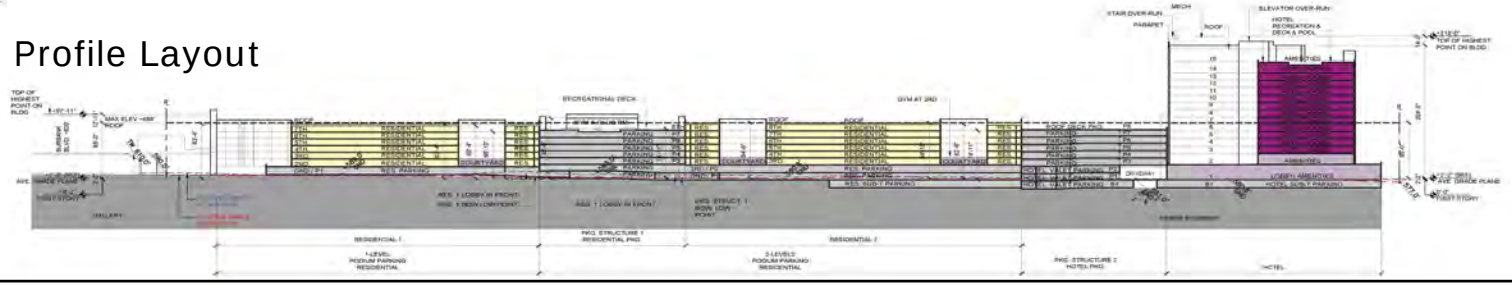


Ground Floor



1st Floor

Profile Layout



Preliminary Development Plan
Building Sections – The Line @ Burbank
777 North Front Street
Burbank, California

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Project No: HR1305C | February 2017

Figure **5**

Locations of Soil Samples and GCOU Monitoring Wells
777 North Front Street
Burbank, California

100 50 0 100 200
Feet

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Project No: HR1305C | February 2017

Figure **6**

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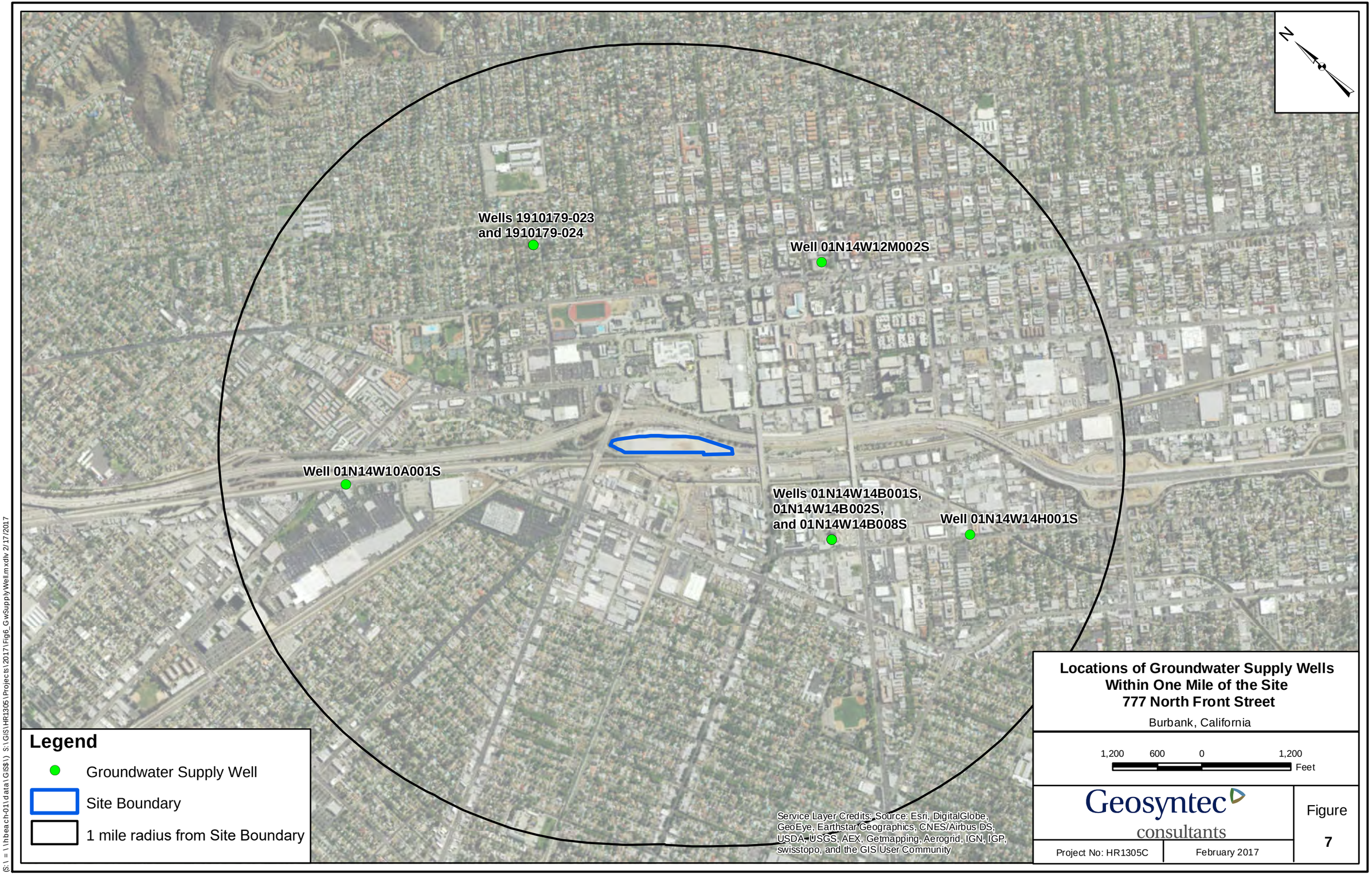

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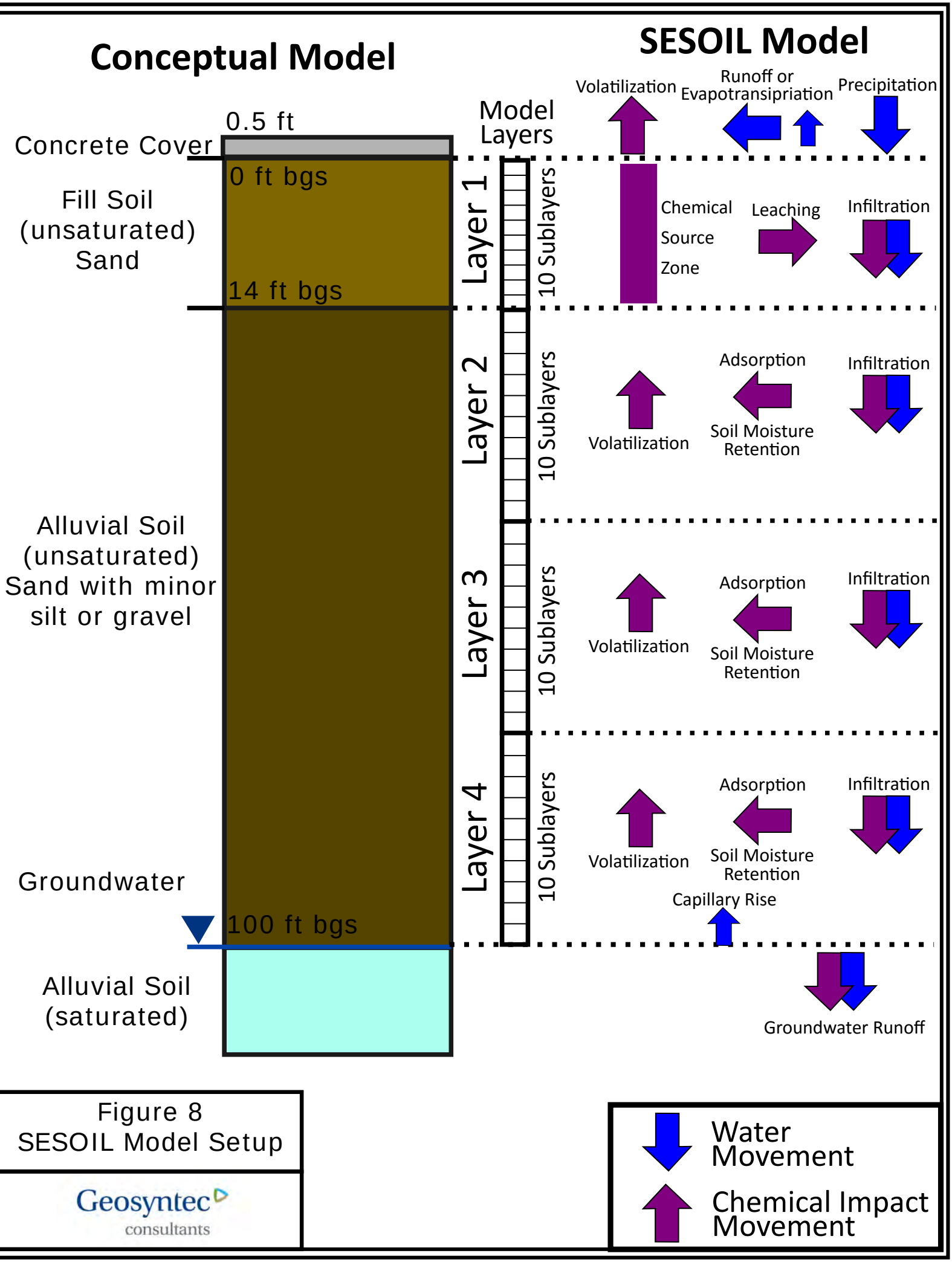

Figure 8
SESOIL Model Setup

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Figure 9
Example SESOIL Output for 1,2-Dichloroethane
A) Current Condition
B) Future Cover Condition
C) Future Soil Condition

A

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.586E+04	99.97
In Soil Air	1.708E-01	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	3.145E+00	0.02
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.316E-01	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.586E+04	99.99
Total Input	1.587E+04	
Input - Output	1.018E+00	

Maximum leachate concentration: 0.000E+00 **mg/l**

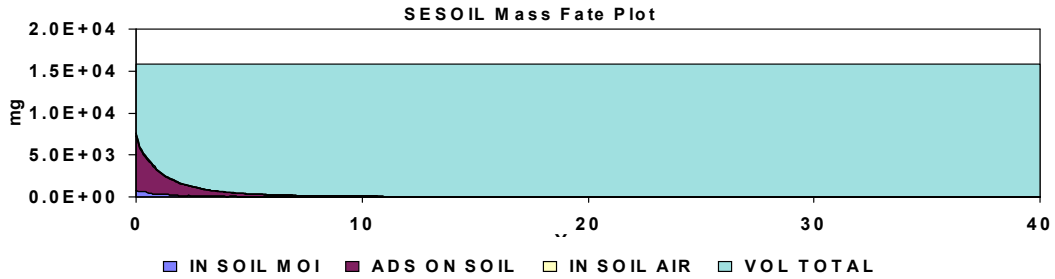
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

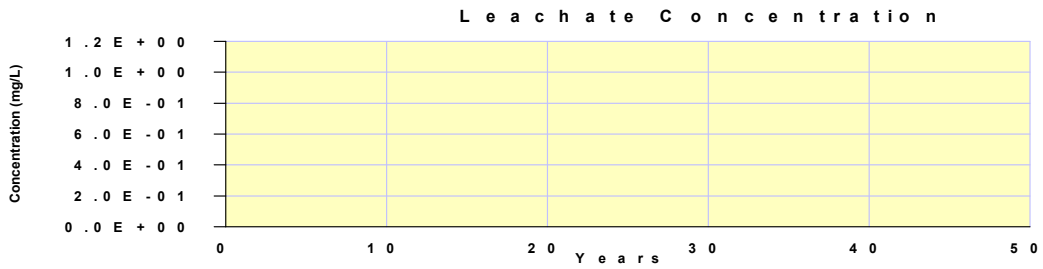
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

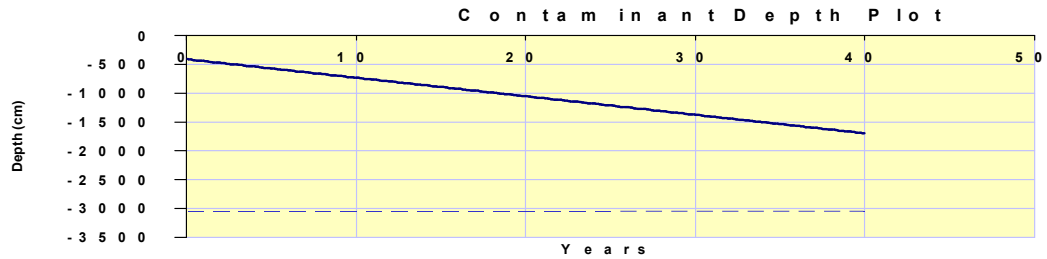
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP.APL

Time to Groundwater: 82.07 **years**
Starting Depth: 407.60 **cm**
Ending Depth: 1694.00 **cm**
Total Depth: 3047.00 **cm**







B

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.587E+04	100.01
In Soil Air	9.442E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.721E-01	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.623E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.587E+04	100.01
Total Input	1.587E+04	
Input - Output	-2.034E+00	

Maximum leachate concentration: 0.000E+00 **mg/l**

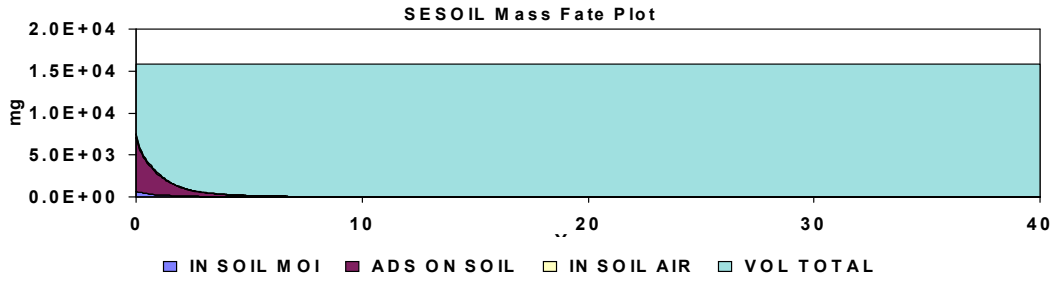
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

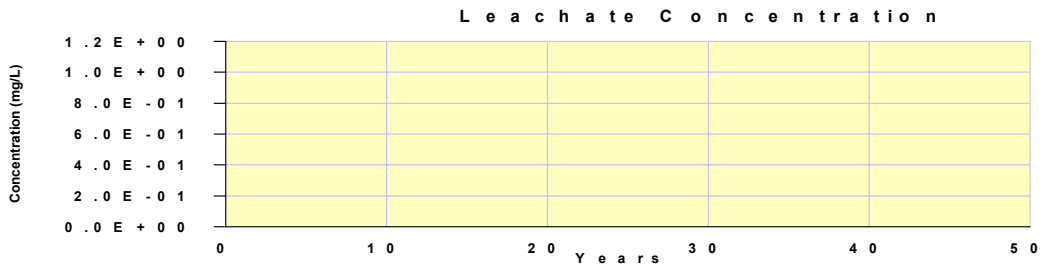
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

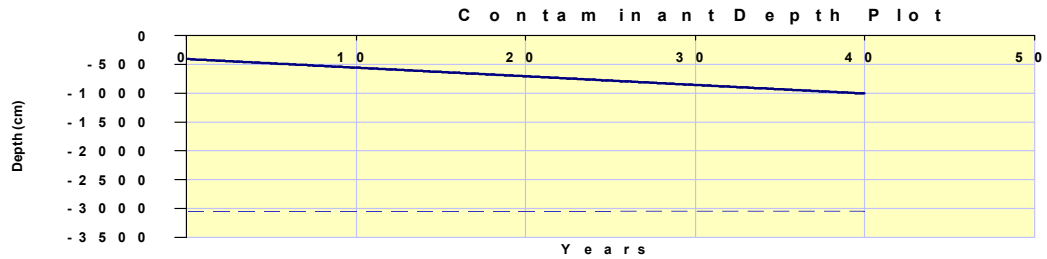
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP.APL

Time to Groundwater: 176.38 **years**
Starting Depth: 407.40 **cm**
Ending Depth: 1006.00 **cm**
Total Depth: 3047.00 **cm**







C

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.286E+04	81.05
In Soil Air	1.179E+01	0.07
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.209E+02	1.39
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.766E+01	0.17
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	2.738E+03	17.26
Total Output	1.586E+04	99.95
Total Input	1.587E+04	
Input - Output	8.593E+00	

Maximum leachate concentration: 1.099E-03 **mg/l**

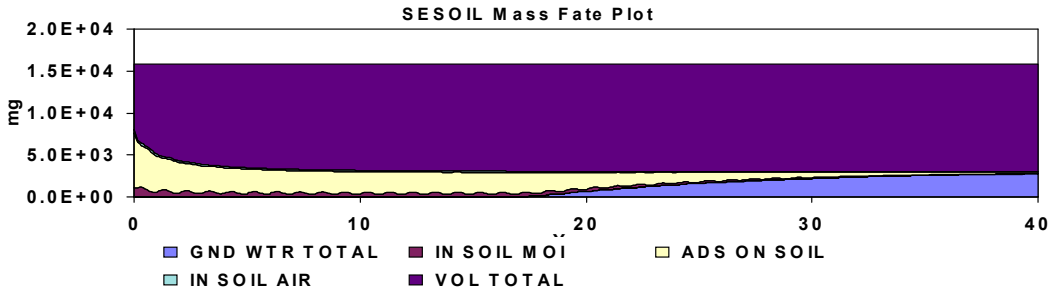
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

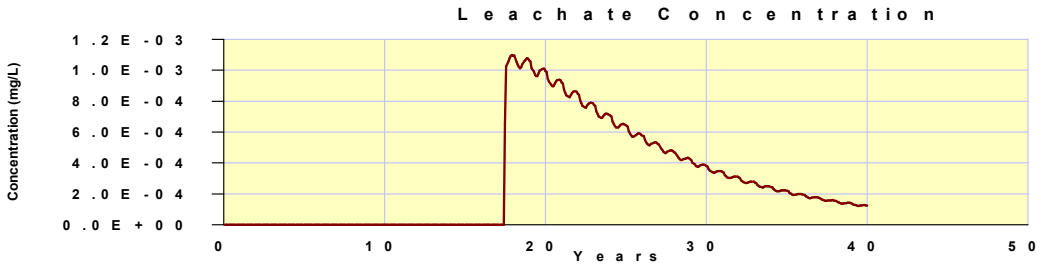
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

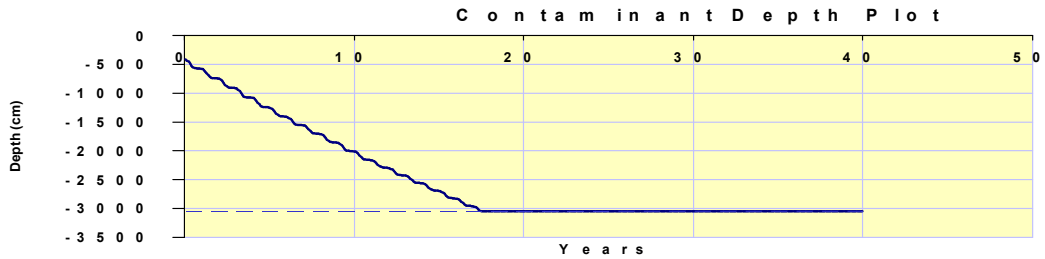
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP.APL

Time to Groundwater: 17.08 **years**
Starting Depth: 410.80 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







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APPENDICES

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APPENDIX A

ProUCL Statistical Output for Soil Data

Appendix A
Soil Data
and
Upper Confidence Limits

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A1	1	A1-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A5	1.25	A5-1.25'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B12	5	B12-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1

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Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB4	8.5	LB4-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B11	1	B11-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1

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Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB3	4.5	LB3-4.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1

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Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A13	11	A13-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B4	8.5	B4-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB6	1	LB6-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A13	5	A13-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB5	8.5	LB5-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	71-43-2	Benzene	3	µg/kg	1
A10	1	A10-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A13	1	A13-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	71-43-2	Benzene	1.7	µg/kg	1
B8	1	B8-1'	5/5/2016	71-43-2	Benzene	4.3	µg/kg	1
B9	1	B9-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	71-43-2	Benzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A5B	4.5	A5B-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	71-43-2	Benzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A4	8.5	A4-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A1	14.5	A1-14.5'	5/4/2016		Benzene	ND	ug/kg	1
A2	14.5	A2-14.5'	5/4/2016		Benzene	ND	ug/kg	1

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Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A3	14.5	A3-14.5'	5/4/2016		Benzene	ND	ug/kg	1
A4	14.5	A4-14.5'	5/4/2016		Benzene	ND	ug/kg	1
A1	20.5	A1-20.5'	5/4/2016		Benzene	ND	ug/kg	1
A2	20.5	A2-20.5'	5/4/2016		Benzene	ND	ug/kg	1
A3	20.5	A3-20.5'	5/4/2016		Benzene	ND	ug/kg	1
A4	20.5	A4-20.5'	5/4/2016		Benzene	ND	ug/kg	1
LB3	1D	LB3-1'-D	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	7440-47-3	Chromium, Cr	15.9	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-47-3	Chromium, Cr	14.3	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-47-3	Chromium, Cr	22.5	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-47-3	Chromium, Cr	25.8	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-47-3	Chromium, Cr	18.5	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-47-3	Chromium, Cr	17.7	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-47-3	Chromium, Cr	21.6	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-47-3	Chromium, Cr	28.2	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-47-3	Chromium, Cr	33.5	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-47-3	Chromium, Cr	30.2	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-47-3	Chromium, Cr	21.4	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-47-3	Chromium, Cr	23.4	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-47-3	Chromium, Cr	23.1	mg/kg	0.5

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Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B4	1	B4-1'	5/4/2016	7440-47-3	Chromium, Cr	25.9	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-47-3	Chromium, Cr	16.4	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-47-3	Chromium, Cr	24	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-47-3	Chromium, Cr	10.2	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-47-3	Chromium, Cr	14.3	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-47-3	Chromium, Cr	24.6	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-47-3	Chromium, Cr	22.3	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-47-3	Chromium, Cr	32.8	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-47-3	Chromium, Cr	30.7	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-47-3	Chromium, Cr	52.2	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-47-3	Chromium, Cr	24.9	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-47-3	Chromium, Cr	7	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-47-3	Chromium, Cr	26.4	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-47-3	Chromium, Cr	19.1	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-47-3	Chromium, Cr	27.2	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-47-3	Chromium, Cr	35.7	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-47-3	Chromium, Cr	24.7	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-47-3	Chromium, Cr	27.7	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-47-3	Chromium, Cr	29	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-47-3	Chromium, Cr	7.9	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-47-3	Chromium, Cr	24.4	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-47-3	Chromium, Cr	33.7	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-47-3	Chromium, Cr	31.8	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-47-3	Chromium, Cr	32.9	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.4	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-47-3	Chromium, Cr	21.3	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-47-3	Chromium, Cr	18.3	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-47-3	Chromium, Cr	157	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-47-3	Chromium, Cr	34.5	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-47-3	Chromium, Cr	31.1	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-47-3	Chromium, Cr	21.9	mg/kg	0.5

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B1	4.5	B1-4.5'	5/4/2016	7440-47-3	Chromium, Cr	20.1	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-47-3	Chromium, Cr	33.3	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-47-3	Chromium, Cr	23.7	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-47-3	Chromium, Cr	26.4	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.2	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.1	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.7	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.5	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.5	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.6	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-47-3	Chromium, Cr	30.2	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-47-3	Chromium, Cr	22.8	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-47-3	Chromium, Cr	8.1	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-47-3	Chromium, Cr	32.4	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-47-3	Chromium, Cr	18.4	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-47-3	Chromium, Cr	26.9	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-47-3	Chromium, Cr	37.7	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-47-3	Chromium, Cr	35.4	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-47-3	Chromium, Cr	32.4	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-47-3	Chromium, Cr	35.3	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-47-3	Chromium, Cr	6.7	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-47-3	Chromium, Cr	27.8	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-47-3	Chromium, Cr	30.1	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-47-3	Chromium, Cr	29.1	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-47-3	Chromium, Cr	35.1	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-47-3	Chromium, Cr	43.2	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-47-3	Chromium, Cr	18.3	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-47-3	Chromium, Cr	33.3	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-47-3	Chromium, Cr	13.9	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-47-3	Chromium, Cr	24.9	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-47-3	Chromium, Cr	73.4	mg/kg	0.5

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A7	8.5	A7-8.5'	5/5/2016	7440-47-3	Chromium, Cr	34.3	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-47-3	Chromium, Cr	21.5	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-47-3	Chromium, Cr	20.3	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-47-3	Chromium, Cr	31.6	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-47-3	Chromium, Cr	27.3	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-47-3	Chromium, Cr	19	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-47-3	Chromium, Cr	19.8	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-47-3	Chromium, Cr	14.5	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-47-3	Chromium, Cr	25.3	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-47-3	Chromium, Cr	31.8	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-47-3	Chromium, Cr	17.8	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-47-3	Chromium, Cr	22.4	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-47-3	Chromium, Cr	25.7	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-47-3	Chromium, Cr	34.6	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-47-3	Chromium, Cr	33.9	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-47-3	Chromium, Cr	28.7	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-47-3	Chromium, Cr	27.4	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-47-3	Chromium, Cr	6.6	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-47-3	Chromium, Cr	19.6	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-47-3	Chromium, Cr	35.4	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-47-3	Chromium, Cr	35.5	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-47-3	Chromium, Cr	31.8	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-47-3	Chromium, Cr	34.2	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-47-3	Chromium, Cr	32.8	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-47-3	Chromium, Cr	26.7	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-47-3	Chromium, Cr	28.7	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-47-3	Chromium, Cr	27.3	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-47-3	Chromium, Cr	30	mg/kg	0.5
A5B	14.5	A5B-14.5'	5/4/2016	7440-47-3	Chromium, Cr	35.2	mg/kg	0.5
A6	14.5	A6-14.5'	5/5/2016	7440-47-3	Chromium, Cr	67.7	mg/kg	0.5
A7	14.5	A7-14.5'	5/5/2016	7440-47-3	Chromium, Cr	15.7	mg/kg	0.5

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A8	14.5	A8-14.5'	5/5/2016	7440-47-3	Chromium, Cr	25.4	mg/kg	0.5
A9	14.5	A9-14.5'	5/5/2016	7440-47-3	Chromium, Cr	26.9	mg/kg	0.5
A10	14.5	A10-14.5'	5/5/2016	7440-47-3	Chromium, Cr	20.1	mg/kg	0.5
A11	14.5	A11-14.5'	5/5/2016	7440-47-3	Chromium, Cr	28	mg/kg	0.5
B2	14.5	B2-14.5'	5/5/2016	7440-47-3	Chromium, Cr	28.5	mg/kg	0.5
B6	14.5	B6-14.5'	5/4/2016	7440-47-3	Chromium, Cr	10.9	mg/kg	0.5
B7	14.5	B7-14.5'	5/5/2016	7440-47-3	Chromium, Cr	19	mg/kg	0.5
B8	14.5	B8-14.5'	5/5/2016	7440-47-3	Chromium, Cr	16	mg/kg	0.5
B9	14.5	B9-14.5'	5/5/2016	7440-47-3	Chromium, Cr	13.6	mg/kg	0.5
B10	14.5	B10-14.5'	5/5/2016	7440-47-3	Chromium, Cr	13.6	mg/kg	0.5
B11	14.5	B11-14.5'	5/5/2016	7440-47-3	Chromium, Cr	31.6	mg/kg	0.5
LB1	14.5	LB1-14.5'	5/6/2016	7440-47-3	Chromium, Cr	31.4	mg/kg	0.5
LB2	14.5	LB2-14.5'	5/6/2016	7440-47-3	Chromium, Cr	28.2	mg/kg	0.5
LB3	14.5	LB3-14.5'	5/6/2016	7440-47-3	Chromium, Cr	22.7	mg/kg	0.5
LB4	14.5	LB4-14.5'	5/5/2016	7440-47-3	Chromium, Cr	13.2	mg/kg	0.5
LB5	14.5	LB5-14.5'	5/5/2016	7440-47-3	Chromium, Cr	12.9	mg/kg	0.5
A12	17	A12-17'	5/5/2016	7440-47-3	Chromium, Cr	30.1	mg/kg	0.5
A13	17	A13-17'	5/5/2016	7440-47-3	Chromium, Cr	26	mg/kg	0.5
B12	17	B12-17'	5/5/2016	7440-47-3	Chromium, Cr	30.3	mg/kg	0.5
B13	17	B13-17'	5/6/2016	7440-47-3	Chromium, Cr	28.2	mg/kg	0.5
B14	17	B14-17'	5/6/2016	7440-47-3	Chromium, Cr	30.6	mg/kg	0.5
LB6	17	LB6-17'	5/5/2016	7440-47-3	Chromium, Cr	23.4	mg/kg	0.5
LB7	17	LB7-17'	5/5/2016	7440-47-3	Chromium, Cr	22.3	mg/kg	0.5
LB8	17	LB8-17'	5/5/2016	7440-47-3	Chromium, Cr	25.8	mg/kg	0.5
A5B	20.5	A5B-20.5'	5/4/2016	7440-47-3	Chromium, Cr	32.1	mg/kg	0.5
A6	20.5	A6-20.5'	5/5/2016	7440-47-3	Chromium, Cr	61.2	mg/kg	0.5
A6	20.5	A6-20.5'-D	5/5/2016	7440-47-3	Chromium, Cr	59.1	mg/kg	0.5
A7	20.5	A7-20.5'	5/5/2016	7440-47-3	Chromium, Cr	23.5	mg/kg	0.5
A8	20.5	A8-20.5'	5/5/2016	7440-47-3	Chromium, Cr	26.3	mg/kg	0.5
A9	20.5	A9-20.5'	5/5/2016	7440-47-3	Chromium, Cr	23.1	mg/kg	0.5
A9	20.5	A9-20.5'-D	5/5/2016	7440-47-3	Chromium, Cr	22.6	mg/kg	0.5

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A10	20.5	A10-20.5'	5/5/2016	7440-47-3	Chromium, Cr	18	mg/kg	0.5
A11	20.5	A11-20.5'	5/5/2016	7440-47-3	Chromium, Cr	21.9	mg/kg	0.5
B2	20.5	B2-20.5'	5/5/2016	7440-47-3	Chromium, Cr	28.6	mg/kg	0.5
B6	20.5	B6-20.5'	5/4/2016	7440-47-3	Chromium, Cr	30	mg/kg	0.5
B7	20.5	B7-20.5'	5/5/2016	7440-47-3	Chromium, Cr	29.7	mg/kg	0.5
B8	20.5	B8-20.5'	5/5/2016	7440-47-3	Chromium, Cr	22.4	mg/kg	0.5
B9	20.5	B9-20.5'	5/5/2016	7440-47-3	Chromium, Cr	29.2	mg/kg	0.5
B10	20.5	B10-20.5'	5/5/2016	7440-47-3	Chromium, Cr	30.7	mg/kg	0.5
B11	20.5	B11-20.5'	5/5/2016	7440-47-3	Chromium, Cr	24.7	mg/kg	0.5
LB1	20.5	LB1-20.5'	5/6/2016	7440-47-3	Chromium, Cr	26	mg/kg	0.5
LB2	20.5	LB2-20.5'	5/6/2016	7440-47-3	Chromium, Cr	32.8	mg/kg	0.5
LB3	20.5	LB3-20.5'	5/6/2016	7440-47-3	Chromium, Cr	30.5	mg/kg	0.5
LB4	20.5	LB4-20.5'	5/5/2016	7440-47-3	Chromium, Cr	31.2	mg/kg	0.5
LB5	20.5	LB5-20.5'	5/5/2016	7440-47-3	Chromium, Cr	31.1	mg/kg	0.5
A9	25.5	A9-25.5'	5/5/2016	7440-47-3	Chromium, Cr	12.6	mg/kg	0.5
A10	25.5	A10-25.5'	5/5/2016	7440-47-3	Chromium, Cr	13	mg/kg	0.5
B9	25.5	B9-25.5'	5/5/2016	7440-47-3	Chromium, Cr	17.7	mg/kg	0.5
B10	25.5	B10-25.5'	5/5/2016	7440-47-3	Chromium, Cr	30.4	mg/kg	0.5
A9	30.5	A9-30.5'	5/5/2016	7440-47-3	Chromium, Cr	10	mg/kg	0.5
A10	30.5	A10-30.5'	5/5/2016	7440-47-3	Chromium, Cr	19.2	mg/kg	0.5
B9	30.5	B9-30.5'	5/5/2016	7440-47-3	Chromium, Cr	18.7	mg/kg	0.5
B10	30.5	B10-30.5'	5/5/2016	7440-47-3	Chromium, Cr	16	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-47-3	Chromium, Cr	28.7	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-47-3	Chromium, Cr	22.7	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-47-3	Chromium, Cr	6.7	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-47-3	Chromium, Cr	34.5	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-47-3	Chromium, Cr	11.5	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-47-3	Chromium, Cr	19.1	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-47-3	Chromium, Cr	21.8	mg/kg	0.5
A1	1	A1-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1

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Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A5B	1	A5B-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB8	1	LB8-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A13	5	A13-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB3	8.5	LB3-8.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A1	14.5	A1-14.5'	5/4/2016		Tetrachloroethylene	ND	ug/kg	1
A2	14.5	A2-14.5'	5/4/2016		Tetrachloroethylene	ND	ug/kg	1
A3	14.5	A3-14.5'	5/4/2016		Tetrachloroethylene	2	ug/kg	2
A4	14.5	A4-14.5'	5/4/2016		Tetrachloroethylene	58.7	ug/kg	58.7
A1	20.5	A1-20.5'	5/4/2016		Tetrachloroethylene	ND	ug/kg	1
A2	20.5	A2-20.5'	5/4/2016		Tetrachloroethylene	ND	ug/kg	1
A3	20.5	A3-20.5'	5/4/2016		Tetrachloroethylene	ND	ug/kg	1
A4	20.5	A4-20.5'	5/4/2016		Tetrachloroethylene	6.8	ug/kg	6.8
A1	14.5	A1-14.5'	5/4/2016		Trichloroethylene	ND	ug/kg	1
A2	14.5	A2-14.5'	5/4/2016		Trichloroethylene	ND	ug/kg	1
A3	14.5	A3-14.5'	5/4/2016		Trichloroethylene	ND	ug/kg	1
A4	14.5	A4-14.5'	5/4/2016		Trichloroethylene	ND	ug/kg	1
A1	20.5	A1-20.5'	5/4/2016		Trichloroethylene	ND	ug/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A2	20.5	A2-20.5'	5/4/2016		Trichloroethylene	ND	ug/kg	1
A3	20.5	A3-20.5'	5/4/2016		Trichloroethylene	ND	ug/kg	1
A4	20.5	A4-20.5'	5/4/2016		Trichloroethylene	ND	ug/kg	1
A5B	1	A5B-1'	5/4/2016	127-18-4	Tetrachloroethylene	253	µg/kg	9
A1	1	A1-1'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	127-18-4	Tetrachloroethylene	8.2	µg/kg	1
A3	1	A3-1'	5/4/2016	127-18-4	Tetrachloroethylene	8.9	µg/kg	1
A4	1	A4-1'	5/4/2016	127-18-4	Tetrachloroethylene	2540	µg/kg	1
A6	1	A6-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	127-18-4	Tetrachloroethylene	22.1	µg/kg	1
A8	1	A8-1'	5/5/2016	127-18-4	Tetrachloroethylene	21.9	µg/kg	1
A9	1	A9-1'	5/5/2016	127-18-4	Tetrachloroethylene	4.3	µg/kg	1
A10	1	A10-1'	5/5/2016	127-18-4	Tetrachloroethylene	6.8	µg/kg	1
A11	1	A11-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	127-18-4	Tetrachloroethylene	12.7	µg/kg	1
B3	1	B3-1'	5/4/2016	127-18-4	Tetrachloroethylene	21.8	µg/kg	1
B4	1	B4-1'	5/4/2016	127-18-4	Tetrachloroethylene	3330*	µg/kg	1
B5	1	B5-1'	5/4/2016	127-18-4	Tetrachloroethylene	29.6	µg/kg	1
B6	1	B6-1'	5/4/2016	127-18-4	Tetrachloroethylene	28.7	µg/kg	1
B7	1	B7-1'	5/5/2016	127-18-4	Tetrachloroethylene	5.8	µg/kg	1
B8	1	B8-1'	5/5/2016	127-18-4	Tetrachloroethylene	13.9	µg/kg	1
B9	1	B9-1'	5/5/2016	127-18-4	Tetrachloroethylene	1.8	µg/kg	1
B10	1	B10-1'	5/7/2016	127-18-4	Tetrachloroethylene	2	µg/kg	1
B11	1	B11-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	127-18-4	Tetrachloroethylene	22.8	µg/kg	1
B13	1	B13-1'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1

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Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB1	1	LB1-1'	5/6/2016	127-18-4	Tetrachloroethylene	2.9	µg/kg	1
LB2	1	LB2-1'	5/6/2016	127-18-4	Tetrachloroethylene	28	µg/kg	1
LB3	1	LB3-1'	5/6/2016	127-18-4	Tetrachloroethylene	43.9	µg/kg	1
LB4	1	LB4-1'	5/5/2016	127-18-4	Tetrachloroethylene	4.4	µg/kg	1
LB5	1	LB5-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	127-18-4	Tetrachloroethylene	1	µg/kg	1
LB7	1	LB7-1'	5/5/2016	127-18-4	Tetrachloroethylene	3.5	µg/kg	1
LB8	1	LB8-1'	5/5/2016	127-18-4	Tetrachloroethylene	187	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	127-18-4	Tetrachloroethylene	810	µg/kg	10
A7	3.5	A7-3.5'	5/5/2016	127-18-4	Tetrachloroethylene	2470	µg/kg	23
B15	4	B15-4'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	2.1	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	10.5	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	46.9	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	32.2	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	39.8	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	13.7	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	11.4	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	4.5	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	27	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	1.7	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	7.9	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	24	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	148	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	33.1	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	22.1	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	3.3	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	2.3	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	4.3	µg/kg	1

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B11	4.5	B11-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	7.3	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	2.2	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	1.6	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	19.6	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	25.6	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	21.2	µg/kg	1
A12	5	A12-5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	127-18-4	Tetrachloroethylene	2.4	µg/kg	1
B13	5	B13-5'	5/6/2016	127-18-4	Tetrachloroethylene	2.1	µg/kg	1
B14	5	B14-5'	5/8/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	127-18-4	Tetrachloroethylene	21.5	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	11.4	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	118	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	16	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	2	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	1.4	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	1.5	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	2.1	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	1.2	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	22.4	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	161	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	22.1	µg/kg	1

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B7	8.5	B7-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	5.5	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	2	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	2.8	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	2.4	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	1.8	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	2.2	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	8.2	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	5.4	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	3.9	µg/kg	1
A12	11	A12-11'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	127-18-4	Tetrachloroethylene	1.3	µg/kg	1
B13	11	B13-11'	5/6/2016	127-18-4	Tetrachloroethylene	1.2	µg/kg	1
B14	11	B14-11'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	127-18-4	Tetrachloroethylene	1	µg/kg	1
LB8	11	LB8-11'	5/5/2016	127-18-4	Tetrachloroethylene	3	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	127-18-4	Tetrachloroethylene	46.7	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	127-18-4	Tetrachloroethylene	21.2	µg/kg	1
B12	5D	B12-5'D	5/5/2016	127-18-4	Tetrachloroethylene	2.8	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	127-18-4	Tetrachloroethylene	6.6	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	127-18-4	Tetrachloroethylene	6	µg/kg	1
A1	1	A1-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	79-01-6	Trichloroethylene	11.5	µg/kg	1
A5B	1	A5B-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1

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Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A7	1	A7-1'	5/5/2016	79-01-6	Trichloroethylene	64.7	µg/kg	1
A8	1	A8-1'	5/5/2016	79-01-6	Trichloroethylene	2.1	µg/kg	1
A9	1	A9-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	79-01-6	Trichloroethylene	153	µg/kg	1
B5	1	B5-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	79-01-6	Trichloroethylene	1.6	µg/kg	1
B8	1	B8-1'	5/5/2016	79-01-6	Trichloroethylene	19.8	µg/kg	1
B9	1	B9-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	79-01-6	Trichloroethylene	1.6	µg/kg	1
B13	1	B13-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	79-01-6	Trichloroethylene	1.4	µg/kg	1
LB3	1	LB3-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	79-01-6	Trichloroethylene	1.7	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	79-01-6	Trichloroethylene	2.8	µg/kg	1

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A7	3.5	A7-3.5'	5/5/2016	79-01-6	Trichloroethylene	4800	µg/kg	23
B15	4	B15-4'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	79-01-6	Trichloroethylene	13.6	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	79-01-6	Trichloroethylene	1	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	79-01-6	Trichloroethylene	5.3	µg/kg	1
A12	5	A12-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B13	5	B13-5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	79-01-6	Trichloroethylene	2.7	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	79-01-6	Trichloroethylene	2.6	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	79-01-6	Trichloroethylene	1.2	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB5	8.5	LB5-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	79-01-6	Trichloroethylene	1.3	µg/kg	1
A1	1	A1-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B3	1	B3-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A8	4.5	A8-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A4	8.5	A4-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1

Table A-1
Soil data compiled from Geosyntec [2012] and Leighton [2016]

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Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB3	1D	LB3-1'-D	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1

Upper Confidence Limits for Fill Layer

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.12/14/2017 5:58:13 PM
From File	App A Table A-1 - Soil Data COMPLETE_a.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Result2_ug/kg (1,1,1,2-tetrachloroethane)

General Statistics

Total Number of Observations	103	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	103
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (1,1,1,2-tetrachloroethane) was not processed!

Result2_ug/kg (1,1,1-trichloroethane)

General Statistics

Total Number of Observations	103	Number of Distinct Observations	3
Number of Detects	2	Number of Non-Detects	101
Number of Distinct Detects	2	Number of Distinct Non-Detects	1
Minimum Detect	4.1	Minimum Non-Detect	1
Maximum Detect	20.9	Maximum Non-Detect	1
Variance Detects	141.1	Percent Non-Detects	98.06%
Mean Detects	12.5	SD Detects	11.88
Median Detects	12.5	CV Detects	0.95
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	2.225	SD of Logged Detects	1.152

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.223	KM Standard Error of Mean	0.275
KM SD	1.972	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1.679	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1.675	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	2.048	95% KM Chebyshev UCL	2.421
97.5% KM Chebyshev UCL	2.939	99% KM Chebyshev UCL	3.957

Gamma GOF Tests on Detected Observations Only

	A	B	C	D	E	F	G	H	I	J	K	L
54	Not Enough Data to Perform GOF Test											
55												
56	Gamma Statistics on Detected Data Only											
57					k hat (MLE)	1.814			k star (bias corrected MLE)			N/A
58					Theta hat (MLE)	6.893			Theta star (bias corrected MLE)			N/A
59					nu hat (MLE)	7.254			nu star (bias corrected)			N/A
60					Mean (detects)	12.5						
61												
62	Estimates of Gamma Parameters using KM Estimates											
63					Mean (KM)	1.223			SD (KM)			1.972
64					Variance (KM)	3.888			SE of Mean (KM)			0.275
65					k hat (KM)	0.385			k star (KM)			0.38
66					nu hat (KM)	79.28			nu star (KM)			78.31
67					theta hat (KM)	3.178			theta star (KM)			3.218
68					80% gamma percentile (KM)	1.962			90% gamma percentile (KM)			3.486
69					95% gamma percentile (KM)	5.173			99% gamma percentile (KM)			9.437
70												
71	Gamma Kaplan-Meier (KM) Statistics											
72									Adjusted Level of Significance (β)			0.0477
73					Approximate Chi Square Value (78.31, α)	58.92			Adjusted Chi Square Value (78.31, β)			58.68
74					95% Gamma Approximate KM-UCL (use when n>=50)	1.626			95% Gamma Adjusted KM-UCL (use when n<50)			1.632
75												
76	Lognormal GOF Test on Detected Observations Only											
77	Not Enough Data to Perform GOF Test											
78												
79	Lognormal ROS Statistics Using Imputed Non-Detects											
80					Mean in Original Scale	0.253			Mean in Log Scale			-12.67
81					SD in Original Scale	2.094			SD in Log Scale			6.156
82					95% t UCL (assumes normality of ROS data)	0.595			95% Percentile Bootstrap UCL			0.658
83					95% BCA Bootstrap UCL	1.017			95% Bootstrap t UCL			10.59
84					95% H-UCL (Log ROS)	120079						
85												
86	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
87					KM Mean (logged)	0.0432			KM Geo Mean			1.044
88					KM SD (logged)	0.327			95% Critical H Value (KM-Log)			1.745
89					KM Standard Error of Mean (logged)	0.0456			95% H-UCL (KM -Log)			1.166
90					KM SD (logged)	0.327			95% Critical H Value (KM-Log)			1.745
91					KM Standard Error of Mean (logged)	0.0456						
92												
93	DL/2 Statistics											
94	DL/2 Normal						DL/2 Log-Transformed					
95					Mean in Original Scale	0.733			Mean in Log Scale			-0.636
96					SD in Original Scale	2.038			SD in Log Scale			0.42
97					95% t UCL (Assumes normality)	1.066			95% H-Stat UCL			0.623
98	DL/2 is not a recommended method, provided for comparisons and historical reasons											
99												
100	Nonparametric Distribution Free UCL Statistics											
101	Data do not follow a Discernible Distribution at 5% Significance Level											
102												
103	Suggested UCL to Use											
104					95% KM (Chebyshev) UCL	2.421						
105												
106	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											

107	Recommendations are based upon data size, data distribution, and skewness.										
108	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
109	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
110											
111	Result2_ug/kg (1,1,2,2-tetrachloroethane)										
112											
113	General Statistics										
114					Total Number of Observations	103			Number of Distinct Observations	1	
115					Number of Detects	0			Number of Non-Detects	103	
116					Number of Distinct Detects	0			Number of Distinct Non-Detects	1	
117											
118	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
119	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
120	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
121											
122	The data set for variable Result2_ug/kg (1,1,2,2-tetrachloroethane) was not processed!										
123											
124											
125	Result2_ug/kg (1,1,2-trichloroethane)										
126											
127	General Statistics										
128					Total Number of Observations	104			Number of Distinct Observations	1	
129					Number of Detects	0			Number of Non-Detects	104	
130					Number of Distinct Detects	0			Number of Distinct Non-Detects	1	
131											
132	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
133	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
134	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
135											
136	The data set for variable Result2_ug/kg (1,1,2-trichloroethane) was not processed!										
137											
138											
139	Result2_ug/kg (1,1-dichloroethane)										
140											
141	General Statistics										
142					Total Number of Observations	104			Number of Distinct Observations	1	
143					Number of Detects	0			Number of Non-Detects	104	
144					Number of Distinct Detects	0			Number of Distinct Non-Detects	1	
145											
146	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
147	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
148	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
149											
150	The data set for variable Result2_ug/kg (1,1-dichloroethane) was not processed!										
151											
152											
153	Result2_ug/kg (1,1-dichloroethene)										
154											
155	General Statistics										
156					Total Number of Observations	104			Number of Distinct Observations	1	
157					Number of Detects	0			Number of Non-Detects	104	
158					Number of Distinct Detects	0			Number of Distinct Non-Detects	1	
159											

160	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
161	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
162	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
163											
164	The data set for variable Result2_ug/kg (1,1-dichloroethene) was not processed!										
165											
166											
167	Result2_ug/kg (1,1-dichloropropene)										
168											
169	General Statistics										
170	Total Number of Observations	104					Number of Distinct Observations	1			
171	Number of Detects	0					Number of Non-Detects	104			
172	Number of Distinct Detects	0					Number of Distinct Non-Detects	1			
173											
174	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
175	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
176	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
177											
178	The data set for variable Result2_ug/kg (1,1-dichloropropene) was not processed!										
179											
180											
181	Result2_ug/kg (1,2,3-trichlorobenzene)										
182											
183	General Statistics										
184	Total Number of Observations	104					Number of Distinct Observations	1			
185	Number of Detects	0					Number of Non-Detects	104			
186	Number of Distinct Detects	0					Number of Distinct Non-Detects	1			
187											
188	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
189	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
190	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
191											
192	The data set for variable Result2_ug/kg (1,2,3-trichlorobenzene) was not processed!										
193											
194											
195	Result2_ug/kg (1,2,3-trichloropropane)										
196											
197	General Statistics										
198	Total Number of Observations	104					Number of Distinct Observations	1			
199	Number of Detects	0					Number of Non-Detects	104			
200	Number of Distinct Detects	0					Number of Distinct Non-Detects	1			
201											
202	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
203	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
204	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
205											
206	The data set for variable Result2_ug/kg (1,2,3-trichloropropane) was not processed!										
207											
208											
209	Result2_ug/kg (1,2,4-trichlorobenzene)										
210											
211	General Statistics										
212	Total Number of Observations	104					Number of Distinct Observations	1			

213				Number of Detects	0				Number of Non-Detects	104	
214				Number of Distinct Detects	0				Number of Distinct Non-Detects	1	
215											
216	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
217	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
218	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
219											
220	The data set for variable Result2_ug/kg (1,2,4-trichlorobenzene) was not processed!										
221											
222											
223	Result2_ug/kg (1,2,4-trimethylbenzene)										
224											
225	General Statistics										
226				Total Number of Observations	104				Number of Distinct Observations	1	
227				Number of Detects	0				Number of Non-Detects	104	
228				Number of Distinct Detects	0				Number of Distinct Non-Detects	1	
229											
230	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
231	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
232	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
233											
234	The data set for variable Result2_ug/kg (1,2,4-trimethylbenzene) was not processed!										
235											
236											
237	Result2_ug/kg (1,2-dibromo-3-chloropropane)										
238											
239	General Statistics										
240				Total Number of Observations	104				Number of Distinct Observations	1	
241				Number of Detects	0				Number of Non-Detects	104	
242				Number of Distinct Detects	0				Number of Distinct Non-Detects	1	
243											
244	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
245	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
246	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
247											
248	The data set for variable Result2_ug/kg (1,2-dibromo-3-chloropropane) was not processed!										
249											
250											
251	Result2_ug/kg (1,2-dibromoethane (edb))										
252											
253	General Statistics										
254				Total Number of Observations	104				Number of Distinct Observations	1	
255				Number of Detects	0				Number of Non-Detects	104	
256				Number of Distinct Detects	0				Number of Distinct Non-Detects	1	
257											
258	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
259	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
260	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
261											
262	The data set for variable Result2_ug/kg (1,2-dibromoethane (edb)) was not processed!										
263											
264											
265	Result2_ug/kg (1,2-dichlorobenzene)										

	A	B	C	D	E	F	G	H	I	J	K	L
266												
267						General Statistics						
268						Total Number of Observations	104			Number of Distinct Observations		1
269						Number of Detects	0			Number of Non-Detects		104
270						Number of Distinct Detects	0			Number of Distinct Non-Detects		1
271												
272						Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!						
273						Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!						
274						The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).						
275												
276						The data set for variable Result2_ug/kg (1,2-dichlorobenzene) was not processed!						
277												
278												
279	Result2_ug/kg (1,2-dichloroethane)											
280												
281						General Statistics						
282						Total Number of Observations	104			Number of Distinct Observations		1
283						Number of Detects	0			Number of Non-Detects		104
284						Number of Distinct Detects	0			Number of Distinct Non-Detects		1
285												
286						Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!						
287						Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!						
288						The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).						
289												
290						The data set for variable Result2_ug/kg (1,2-dichloroethane) was not processed!						
291												
292												
293	Result2_ug/kg (1,2-dichloropropane)											
294												
295						General Statistics						
296						Total Number of Observations	104			Number of Distinct Observations		1
297						Number of Detects	0			Number of Non-Detects		104
298						Number of Distinct Detects	0			Number of Distinct Non-Detects		1
299												
300						Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!						
301						Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!						
302						The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).						
303												
304						The data set for variable Result2_ug/kg (1,2-dichloropropane) was not processed!						
305												
306												
307	Result2_ug/kg (1,3,5-trimethylbenzene)											
308												
309						General Statistics						
310						Total Number of Observations	104			Number of Distinct Observations		1
311						Number of Detects	0			Number of Non-Detects		104
312						Number of Distinct Detects	0			Number of Distinct Non-Detects		1
313												
314						Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!						
315						Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!						
316						The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).						
317												
318						The data set for variable Result2_ug/kg (1,3,5-trimethylbenzene) was not processed!						

Result2_ug/kg (1,3-dichlorobenzene)

General Statistics

Total Number of Observations	104	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	104
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (1,3-dichlorobenzene) was not processed!

Result2_ug/kg (1,3-dichloropropane)

General Statistics

Total Number of Observations	104	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	104
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (1,3-dichloropropane) was not processed!

Result2_ug/kg (1,4-dichlorobenzene)

General Statistics

Total Number of Observations	104	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	104
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (1,4-dichlorobenzene) was not processed!

Result2_ug/kg (2,2-dichloropropane)

General Statistics

Total Number of Observations	104	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	104
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

	A	B	C	D	E	F	G	H	I	J	K	L
372	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
373												
374	The data set for variable Result2_ug/kg (2,2-dichloropropane) was not processed!											
375												
376												
377	Result2_ug/kg (2-chlorotoluene)											
378												
379	General Statistics											
380					Total Number of Observations	104			Number of Distinct Observations	1		
381					Number of Detects	0			Number of Non-Detects	104		
382					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
383												
384	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
385	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
386	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
387												
388	The data set for variable Result2_ug/kg (2-chlorotoluene) was not processed!											
389												
390												
391	Result2_ug/kg (4-chlorotoluene)											
392												
393	General Statistics											
394					Total Number of Observations	104			Number of Distinct Observations	1		
395					Number of Detects	0			Number of Non-Detects	104		
396					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
397												
398	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
399	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
400	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
401												
402	The data set for variable Result2_ug/kg (4-chlorotoluene) was not processed!											
403												
404												
405	Result2_ug/kg (4-isopropyltoluene)											
406												
407	General Statistics											
408					Total Number of Observations	105			Number of Distinct Observations	1		
409					Number of Detects	0			Number of Non-Detects	105		
410					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
411												
412	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
413	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
414	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
415												
416	The data set for variable Result2_ug/kg (4-isopropyltoluene) was not processed!											
417												
418												
419	Result2_ug/kg (antimony)											
420												
421	General Statistics											
422					Total Number of Observations	3			Number of Distinct Observations	1		
423					Number of Detects	0			Number of Non-Detects	3		
424					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (antimony) was not processed!

Result2_ug/kg (antimony, sb)

General Statistics

Total Number of Observations	103	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	103
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (antimony, sb) was not processed!

Result2_ug/kg (arsenic)

General Statistics

Total Number of Observations	3	Number of Distinct Observations	3
		Number of Missing Observations	0
Minimum	6230	Mean	6550
Maximum	6830	Median	6590
SD	302	Std. Error of Mean	174.4
Coefficient of Variation	0.0461	Skewness	-0.586

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.987	Shapiro Wilk GOF Test
5% Shapiro Wilk Critical Value	0.767	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.219	Lilliefors GOF Test
5% Lilliefors Critical Value	0.425	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	7059	95% Adjusted-CLT UCL (Chen-1995)	6774
		95% Modified-t UCL (Johnson-1978)	7049

Gamma GOF Test

Not Enough Data to Perform GOF Test

	A	B	C	D	E	F	G	H	I	J	K	L
478	Gamma Statistics											
479					k hat (MLE)	700.8			k star (bias corrected MLE)			N/A
480					Theta hat (MLE)	9.346			Theta star (bias corrected MLE)			N/A
481					nu hat (MLE)	4205			nu star (bias corrected)			N/A
482					MLE Mean (bias corrected)	N/A			MLE Sd (bias corrected)			N/A
483									Approximate Chi Square Value (0.05)			N/A
484					Adjusted Level of Significance	N/A			Adjusted Chi Square Value			N/A
485												
486	Assuming Gamma Distribution											
487				95% Approximate Gamma UCL (use when n>=50))		N/A			95% Adjusted Gamma UCL (use when n<50)			N/A
488												
489	Lognormal GOF Test											
490					Shapiro Wilk Test Statistic	0.984			Shapiro Wilk Lognormal GOF Test			
491					5% Shapiro Wilk Critical Value	0.767			Data appear Lognormal at 5% Significance Level			
492					Lilliefors Test Statistic	0.225			Lilliefors Lognormal GOF Test			
493					5% Lilliefors Critical Value	0.425			Data appear Lognormal at 5% Significance Level			
494	Data appear Lognormal at 5% Significance Level											
495												
496	Lognormal Statistics											
497					Minimum of Logged Data	8.737			Mean of logged Data			8.787
498					Maximum of Logged Data	8.829			SD of logged Data			0.0464
499												
500	Assuming Lognormal Distribution											
501					95% H-UCL	N/A			90% Chebyshev (MVUE) UCL			7076
502					95% Chebyshev (MVUE) UCL	7314			97.5% Chebyshev (MVUE) UCL			7644
503					99% Chebyshev (MVUE) UCL	8294						
504												
505	Nonparametric Distribution Free UCL Statistics											
506	Data appear to follow a Discernible Distribution at 5% Significance Level											
507												
508	Nonparametric Distribution Free UCLs											
509					95% CLT UCL	6837			95% Jackknife UCL			7059
510					95% Standard Bootstrap UCL	N/A			95% Bootstrap-t UCL			N/A
511					95% Hall's Bootstrap UCL	N/A			95% Percentile Bootstrap UCL			N/A
512					95% BCA Bootstrap UCL	N/A						
513					90% Chebyshev(Mean, Sd) UCL	7073			95% Chebyshev(Mean, Sd) UCL			7310
514					97.5% Chebyshev(Mean, Sd) UCL	7639			99% Chebyshev(Mean, Sd) UCL			8285
515												
516	Suggested UCL to Use											
517					95% Student's-t UCL	7059						
518												
519	Recommended UCL exceeds the maximum observation											
520												
521	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
522	Recommendations are based upon data size, data distribution, and skewness.											
523	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
524	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
525												
526	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be											
527	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.											
528												
529	Result2_ug/kg (arsenic, as)											
530												

	A	B	C	D	E	F	G	H	I	J	K	L
531	General Statistics											
532					Total Number of Observations	103			Number of Distinct Observations			3
533					Number of Detects	2			Number of Non-Detects			101
534					Number of Distinct Detects	2			Number of Distinct Non-Detects			1
535					Minimum Detect	2300			Minimum Non-Detect			500
536					Maximum Detect	2400			Maximum Non-Detect			500
537					Variance Detects	5000			Percent Non-Detects			98.06%
538					Mean Detects	2350			SD Detects			70.71
539					Median Detects	2350			CV Detects			0.0301
540					Skewness Detects	N/A			Kurtosis Detects			N/A
541					Mean of Logged Detects	7.762			SD of Logged Detects			0.0301
542												
543	Warning: Data set has only 2 Detected Values.											
544	This is not enough to compute meaningful or reliable statistics and estimates.											
545												
546												
547	Normal GOF Test on Detects Only											
548	Not Enough Data to Perform GOF Test											
549												
550	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
551					KM Mean	535.9			KM Standard Error of Mean			35.59
552					KM SD	255.4			95% KM (BCA) UCL			N/A
553					95% KM (t) UCL	595			95% KM (Percentile Bootstrap) UCL			N/A
554					95% KM (z) UCL	594.5			95% KM Bootstrap t UCL			N/A
555					90% KM Chebyshev UCL	642.7			95% KM Chebyshev UCL			691
556					97.5% KM Chebyshev UCL	758.2			99% KM Chebyshev UCL			890
557												
558	Gamma GOF Tests on Detected Observations Only											
559	Not Enough Data to Perform GOF Test											
560												
561	Gamma Statistics on Detected Data Only											
562					k hat (MLE)	2209			k star (bias corrected MLE)			N/A
563					Theta hat (MLE)	1.064			Theta star (bias corrected MLE)			N/A
564					nu hat (MLE)	8835			nu star (bias corrected)			N/A
565					Mean (detects)	2350						
566												
567	Estimates of Gamma Parameters using KM Estimates											
568					Mean (KM)	535.9			SD (KM)			255.4
569					Variance (KM)	65214			SE of Mean (KM)			35.59
570					k hat (KM)	4.404			k star (KM)			4.282
571					nu hat (KM)	907.3			nu star (KM)			882.2
572					theta hat (KM)	121.7			theta star (KM)			125.1
573					80% gamma percentile (KM)	733.1			90% gamma percentile (KM)			883
574					95% gamma percentile (KM)	1020			99% gamma percentile (KM)			1313
575												
576	Gamma Kaplan-Meier (KM) Statistics											
577									Adjusted Level of Significance (β)			0.0477
578					Approximate Chi Square Value (882.16, α)	814.2			Adjusted Chi Square Value (882.16, β)			813.3
579					95% Gamma Approximate KM-UCL (use when n>=50)	580.6			95% Gamma Adjusted KM-UCL (use when n<50)			581.3
580												
581	Lognormal GOF Test on Detected Observations Only											
582	Not Enough Data to Perform GOF Test											
583												

584	Lognormal ROS Statistics Using Imputed Non-Detects										
585				Mean in Original Scale	1613			Mean in Log Scale	7.373		
586				SD in Original Scale	261.4			SD in Log Scale	0.161		
587			95% t UCL (assumes normality of ROS data)		1655			95% Percentile Bootstrap UCL	1654		
588				95% BCA Bootstrap UCL	1655			95% Bootstrap t UCL	1657		
589				95% H-UCL (Log ROS)	1657						
590											
591	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										
592				KM Mean (logged)	6.245			KM Geo Mean	515.3		
593				KM SD (logged)	0.214			95% Critical H Value (KM-Log)	1.702		
594				KM Standard Error of Mean (logged)	0.0298			95% H-UCL (KM -Log)	546.4		
595				KM SD (logged)	0.214			95% Critical H Value (KM-Log)	1.702		
596				KM Standard Error of Mean (logged)	0.0298						
597											
598	DL/2 Statistics										
599			DL/2 Normal					DL/2 Log-Transformed			
600				Mean in Original Scale	290.8			Mean in Log Scale	5.565		
601				SD in Original Scale	291.3			SD in Log Scale	0.311		
602				95% t UCL (Assumes normality)	338.4			95% H-Stat UCL	289.1		
603	DL/2 is not a recommended method, provided for comparisons and historical reasons										
604											
605	Nonparametric Distribution Free UCL Statistics										
606	Data do not follow a Discernible Distribution at 5% Significance Level										
607											
608	Suggested UCL to Use										
609				95% KM (t) UCL	595			KM H-UCL	546.4		
610				95% KM (BCA) UCL	N/A						
611	Warning: One or more Recommended UCL(s) not available!										
612											
613	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
614	Recommendations are based upon data size, data distribution, and skewness.										
615	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
616	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
617											
618											
619	Result2_ug/kg (barium)										
620											
621	General Statistics										
622				Total Number of Observations	3			Number of Distinct Observations	3		
623								Number of Missing Observations	0		
624				Minimum	75700			Mean	136567		
625				Maximum	168000			Median	166000		
626				SD	52722			Std. Error of Mean	30439		
627				Coefficient of Variation	0.386			Skewness	-1.729		
628											
629	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
630	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
631	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
632	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
633											
634	Normal GOF Test										
635				Shapiro Wilk Test Statistic	0.766			Shapiro Wilk GOF Test			
636				5% Shapiro Wilk Critical Value	0.767			Data Not Normal at 5% Significance Level			

637				Lilliefors Test Statistic	0.378	Lilliefors GOF Test					
638				5% Lilliefors Critical Value	0.425	Data appear Normal at 5% Significance Level					
639	Data appear Approximate Normal at 5% Significance Level										
640											
641	Assuming Normal Distribution										
642	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
643				95% Student's-t UCL	225448	95% Adjusted-CLT UCL (Chen-1995)	154162				
644						95% Modified-t UCL (Johnson-1978)	220383				
645											
646	Gamma GOF Test										
647	Not Enough Data to Perform GOF Test										
648											
649	Gamma Statistics										
650				k hat (MLE)	8.154	k star (bias corrected MLE)	N/A				
651				Theta hat (MLE)	16748	Theta star (bias corrected MLE)	N/A				
652				nu hat (MLE)	48.93	nu star (bias corrected)	N/A				
653				MLE Mean (bias corrected)	N/A	MLE Sd (bias corrected)	N/A				
654						Approximate Chi Square Value (0.05)	N/A				
655				Adjusted Level of Significance	N/A	Adjusted Chi Square Value	N/A				
656											
657	Assuming Gamma Distribution										
658	95% Approximate Gamma UCL (use when n>=50))				N/A	95% Adjusted Gamma UCL (use when n<50)	N/A				
659											
660	Lognormal GOF Test										
661				Shapiro Wilk Test Statistic	0.761	Shapiro Wilk Lognormal GOF Test					
662				5% Shapiro Wilk Critical Value	0.767	Data Not Lognormal at 5% Significance Level					
663				Lilliefors Test Statistic	0.38	Lilliefors Lognormal GOF Test					
664				5% Lilliefors Critical Value	0.425	Data appear Lognormal at 5% Significance Level					
665	Data appear Approximate Lognormal at 5% Significance Level										
666											
667	Lognormal Statistics										
668				Minimum of Logged Data	11.23	Mean of logged Data	11.76				
669				Maximum of Logged Data	12.03	SD of logged Data	0.457				
670											
671	Assuming Lognormal Distribution										
672				95% H-UCL	965283	90% Chebyshev (MVUE) UCL	243318				
673				95% Chebyshev (MVUE) UCL	291312	97.5% Chebyshev (MVUE) UCL	357925				
674				99% Chebyshev (MVUE) UCL	488774						
675											
676	Nonparametric Distribution Free UCL Statistics										
677	Data appear to follow a Discernible Distribution at 5% Significance Level										
678											
679	Nonparametric Distribution Free UCLs										
680				95% CLT UCL	186634	95% Jackknife UCL	225448				
681				95% Standard Bootstrap UCL	N/A	95% Bootstrap-t UCL	N/A				
682				95% Hall's Bootstrap UCL	N/A	95% Percentile Bootstrap UCL	N/A				
683				95% BCA Bootstrap UCL	N/A						
684				90% Chebyshev(Mean, Sd) UCL	227883	95% Chebyshev(Mean, Sd) UCL	269246				
685				97.5% Chebyshev(Mean, Sd) UCL	326657	99% Chebyshev(Mean, Sd) UCL	439429				
686											
687	Suggested UCL to Use										
688				95% Student's-t UCL	225448						
689											

690	Recommended UCL exceeds the maximum observation										
691											
692	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test										
693	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL										
694											
695	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
696	Recommendations are based upon data size, data distribution, and skewness.										
697	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
698	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
699											
700	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be										
701	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.										
702											
703											
704	Result2_ug/kg (barium, ba)										
705											
706	General Statistics										
707	Total Number of Observations	103					Number of Distinct Observations	76			
708							Number of Missing Observations	0			
709	Minimum	34500					Mean	168331			
710	Maximum	287000					Median	166000			
711	SD	52125					Std. Error of Mean	5136			
712	Coefficient of Variation	0.31					Skewness	-0.249			
713											
714	Normal GOF Test										
715	Shapiro Wilk Test Statistic	0.976					Shapiro Wilk GOF Test				
716	5% Shapiro Wilk P Value	0.325					Data appear Normal at 5% Significance Level				
717	Lilliefors Test Statistic	0.0698					Lilliefors GOF Test				
718	5% Lilliefors Critical Value	0.0876					Data appear Normal at 5% Significance Level				
719	Data appear Normal at 5% Significance Level										
720											
721	Assuming Normal Distribution										
722	95% Normal UCL						95% UCLs (Adjusted for Skewness)				
723	95% Student's-t UCL	176856					95% Adjusted-CLT UCL (Chen-1995)	176644			
724							95% Modified-t UCL (Johnson-1978)	176835			
725											
726	Gamma GOF Test										
727	A-D Test Statistic	1.275					Anderson-Darling Gamma GOF Test				
728	5% A-D Critical Value	0.753					Data Not Gamma Distributed at 5% Significance Level				
729	K-S Test Statistic	0.0918					Kolmogorov-Smirnov Gamma GOF Test				
730	5% K-S Critical Value	0.0887					Data Not Gamma Distributed at 5% Significance Level				
731	Data Not Gamma Distributed at 5% Significance Level										
732											
733	Gamma Statistics										
734	k hat (MLE)	8.555					k star (bias corrected MLE)	8.312			
735	Theta hat (MLE)	19677					Theta star (bias corrected MLE)	20252			
736	nu hat (MLE)	1762					nu star (bias corrected)	1712			
737	MLE Mean (bias corrected)	168331					MLE Sd (bias corrected)	58387			
738							Approximate Chi Square Value (0.05)	1617			
739	Adjusted Level of Significance	0.0477					Adjusted Chi Square Value	1616			
740											
741	Assuming Gamma Distribution										
742	95% Approximate Gamma UCL (use when n>=50))	178231					95% Adjusted Gamma UCL (use when n<50)	178374			

743											
744					Lognormal GOF Test						
745				Shapiro Wilk Test Statistic	0.905			Shapiro Wilk Lognormal GOF Test			
746				5% Shapiro Wilk P Value	1.4332E-8			Data Not Lognormal at 5% Significance Level			
747				Lilliefors Test Statistic	0.104			Lilliefors Lognormal GOF Test			
748				5% Lilliefors Critical Value	0.0876			Data Not Lognormal at 5% Significance Level			
749					Data Not Lognormal at 5% Significance Level						
750											
751					Lognormal Statistics						
752				Minimum of Logged Data	10.45			Mean of logged Data	11.97		
753				Maximum of Logged Data	12.57			SD of logged Data	0.374		
754											
755					Assuming Lognormal Distribution						
756				95% H-UCL	181622			90% Chebyshev (MVUE) UCL	189401		
757				95% Chebyshev (MVUE) UCL	198194			97.5% Chebyshev (MVUE) UCL	210398		
758				99% Chebyshev (MVUE) UCL	234371						
759											
760					Nonparametric Distribution Free UCL Statistics						
761					Data appear to follow a Discernible Distribution at 5% Significance Level						
762											
763					Nonparametric Distribution Free UCLs						
764				95% CLT UCL	176779			95% Jackknife UCL	176856		
765				95% Standard Bootstrap UCL	176802			95% Bootstrap-t UCL	176729		
766				95% Hall's Bootstrap UCL	176551			95% Percentile Bootstrap UCL	176642		
767				95% BCA Bootstrap UCL	176361						
768				90% Chebyshev(Mean, Sd) UCL	183739			95% Chebyshev(Mean, Sd) UCL	190718		
769				97.5% Chebyshev(Mean, Sd) UCL	200405			99% Chebyshev(Mean, Sd) UCL	219434		
770											
771					Suggested UCL to Use						
772				95% Student's-t UCL	176856						
773											
774					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
775					Recommendations are based upon data size, data distribution, and skewness.						
776					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
777					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
778											
779					Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be						
780					reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.						
781											
782	Result2_ug/kg (benzene)										
783											
784					General Statistics						
785				Total Number of Observations	105			Number of Distinct Observations	4		
786				Number of Detects	3			Number of Non-Detects	102		
787				Number of Distinct Detects	3			Number of Distinct Non-Detects	1		
788				Minimum Detect	1.7			Minimum Non-Detect	1		
789				Maximum Detect	4.3			Maximum Non-Detect	1		
790				Variance Detects	1.69			Percent Non-Detects	97.14%		
791				Mean Detects	3			SD Detects	1.3		
792				Median Detects	3			CV Detects	0.433		
793				Skewness Detects	-6.06E-16			Kurtosis Detects	N/A		
794				Mean of Logged Detects	1.029			SD of Logged Detects	0.468		
795											

796	Warning: Data set has only 3 Detected Values.										
797	This is not enough to compute meaningful or reliable statistics and estimates.										
798											
799											
800	Normal GOF Test on Detects Only										
801				Shapiro Wilk Test Statistic	1	Shapiro Wilk GOF Test					
802				5% Shapiro Wilk Critical Value	0.767	Detected Data appear Normal at 5% Significance Level					
803				Lilliefors Test Statistic	0.175	Lilliefors GOF Test					
804				5% Lilliefors Critical Value	0.425	Detected Data appear Normal at 5% Significance Level					
805	Detected Data appear Normal at 5% Significance Level										
806											
807	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs										
808				KM Mean	1.057	KM Standard Error of Mean	0.0452				
809				KM SD	0.378	95% KM (BCA) UCL	N/A				
810				95% KM (t) UCL	1.132	95% KM (Percentile Bootstrap) UCL	N/A				
811				95% KM (z) UCL	1.132	95% KM Bootstrap t UCL	N/A				
812				90% KM Chebyshev UCL	1.193	95% KM Chebyshev UCL	1.254				
813				97.5% KM Chebyshev UCL	1.34	99% KM Chebyshev UCL	1.507				
814											
815	Gamma GOF Tests on Detected Observations Only										
816	Not Enough Data to Perform GOF Test										
817											
818	Gamma Statistics on Detected Data Only										
819				k hat (MLE)	7.375	k star (bias corrected MLE)	N/A				
820				Theta hat (MLE)	0.407	Theta star (bias corrected MLE)	N/A				
821				nu hat (MLE)	44.25	nu star (bias corrected)	N/A				
822				Mean (detects)	3						
823											
824	Gamma ROS Statistics using Imputed Non-Detects										
825	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
826	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
827	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
828	This is especially true when the sample size is small.										
829	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
830				Minimum	0.01	Mean	0.0993				
831				Maximum	4.3	Median	0.01				
832				SD	0.533	CV	5.366				
833				k hat (MLE)	0.324	k star (bias corrected MLE)	0.321				
834				Theta hat (MLE)	0.306	Theta star (bias corrected MLE)	0.309				
835				nu hat (MLE)	68.11	nu star (bias corrected)	67.5				
836				Adjusted Level of Significance (β)	0.0477						
837				Approximate Chi Square Value (67.50, α)	49.59	Adjusted Chi Square Value (67.50, β)	49.38				
838				95% Gamma Approximate UCL (use when n>=50)	0.135	95% Gamma Adjusted UCL (use when n<50)	N/A				
839											
840	Estimates of Gamma Parameters using KM Estimates										
841				Mean (KM)	1.057	SD (KM)	0.378				
842				Variance (KM)	0.143	SE of Mean (KM)	0.0452				
843				k hat (KM)	7.804	k star (KM)	7.587				
844				nu hat (KM)	1639	nu star (KM)	1593				
845				theta hat (KM)	0.135	theta star (KM)	0.139				
846				80% gamma percentile (KM)	1.359	90% gamma percentile (KM)	1.569				
847				95% gamma percentile (KM)	1.757	99% gamma percentile (KM)	2.148				
848											

	A	B	C	D	E	F	G	H	I	J	K	L
849	Gamma Kaplan-Meier (KM) Statistics											
850	Approximate Chi Square Value (N/A, α)					1502	Adjusted Chi Square Value (N/A, β)					1500
851	95% Gamma Approximate KM-UCL (use when n>=50)					1.122	95% Gamma Adjusted KM-UCL (use when n<50)					1.123
852												
853	Lognormal GOF Test on Detected Observations Only											
854	Shapiro Wilk Test Statistic					0.984	Shapiro Wilk GOF Test					
855	5% Shapiro Wilk Critical Value					0.767	Detected Data appear Lognormal at 5% Significance Level					
856	Lilliefors Test Statistic					0.226	Lilliefors GOF Test					
857	5% Lilliefors Critical Value					0.425	Detected Data appear Lognormal at 5% Significance Level					
858	Detected Data appear Lognormal at 5% Significance Level											
859												
860	Lognormal ROS Statistics Using Imputed Non-Detects											
861	Mean in Original Scale					0.18	Mean in Log Scale					-3.654
862	SD in Original Scale					0.549	SD in Log Scale					2.055
863	95% t UCL (assumes normality of ROS data)					0.269	95% Percentile Bootstrap UCL					0.281
864	95% BCA Bootstrap UCL					0.308	95% Bootstrap t UCL					0.368
865	95% H-UCL (Log ROS)					0.421						
866												
867	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
868	KM Mean (logged)					0.0294	KM Geo Mean					1.03
869	KM SD (logged)					0.183	95% Critical H Value (KM-Log)					1.693
870	KM Standard Error of Mean (logged)					0.0219	95% H-UCL (KM -Log)					1.08
871	KM SD (logged)					0.183	95% Critical H Value (KM-Log)					1.693
872	KM Standard Error of Mean (logged)					0.0219						
873												
874	DL/2 Statistics											
875	DL/2 Normal						DL/2 Log-Transformed					
876	Mean in Original Scale					0.571	Mean in Log Scale					-0.644
877	SD in Original Scale					0.456	SD in Log Scale					0.296
878	95% t UCL (Assumes normality)					0.645	95% H-Stat UCL					0.577
879	DL/2 is not a recommended method, provided for comparisons and historical reasons											
880												
881	Nonparametric Distribution Free UCL Statistics											
882	Detected Data appear Normal Distributed at 5% Significance Level											
883												
884	Suggested UCL to Use											
885	95% KM (t) UCL					1.132						
886												
887	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
888	Recommendations are based upon data size, data distribution, and skewness.											
889	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
890	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
891												
892	Result2_ug/kg (beryllium)											
893												
894	General Statistics											
895	Total Number of Observations					3	Number of Distinct Observations					3
896	Number of Detects					2	Number of Non-Detects					1
897	Number of Distinct Detects					2	Number of Distinct Non-Detects					1
898	Minimum Detect					337	Minimum Non-Detect					250
899	Maximum Detect					387	Maximum Non-Detect					250
900	Variance Detects					1250	Percent Non-Detects					33.33%
901	Mean Detects					362	SD Detects					35.36

902				Median Detects	362				CV Detects	0.0977	
903				Skewness Detects	N/A				Kurtosis Detects	N/A	
904				Mean of Logged Detects	5.889				SD of Logged Detects	0.0978	
905											
906				Warning: Data set has only 2 Detected Values.							
907				This is not enough to compute meaningful or reliable statistics and estimates.							
908											
909											
910				Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use							
911				guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.							
912				For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).							
913				Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1							
914											
915				Normal GOF Test on Detects Only							
916				Not Enough Data to Perform GOF Test							
917											
918				Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs							
919				KM Mean	324.7				KM Standard Error of Mean	46.22	
920				KM SD	56.61				95% KM (BCA) UCL	N/A	
921				95% KM (t) UCL	459.6				95% KM (Percentile Bootstrap) UCL	N/A	
922				95% KM (z) UCL	400.7				95% KM Bootstrap t UCL	N/A	
923				90% KM Chebyshev UCL	463.3				95% KM Chebyshev UCL	526.1	
924				97.5% KM Chebyshev UCL	613.3				99% KM Chebyshev UCL	784.5	
925											
926				Gamma GOF Tests on Detected Observations Only							
927				Not Enough Data to Perform GOF Test							
928											
929				Gamma Statistics on Detected Data Only							
930				k hat (MLE)	209.3				k star (bias corrected MLE)	N/A	
931				Theta hat (MLE)	1.729				Theta star (bias corrected MLE)	N/A	
932				nu hat (MLE)	837.3				nu star (bias corrected)	N/A	
933				Mean (detects)	362						
934											
935				Estimates of Gamma Parameters using KM Estimates							
936				Mean (KM)	324.7				SD (KM)	56.61	
937				Variance (KM)	3204				SE of Mean (KM)	46.22	
938				k hat (KM)	32.9				k star (KM)	N/A	
939				nu hat (KM)	197.4				nu star (KM)	N/A	
940				theta hat (KM)	9.869				theta star (KM)	N/A	
941				80% gamma percentile (KM)	N/A				90% gamma percentile (KM)	N/A	
942				95% gamma percentile (KM)	N/A				99% gamma percentile (KM)	N/A	
943											
944				Gamma Kaplan-Meier (KM) Statistics							
945									Adjusted Level of Significance (β)	0.00136	
946				Approximate Chi Square Value (N/A, α)	N/A				Adjusted Chi Square Value (N/A, β)	N/A	
947				95% Gamma Approximate KM-UCL (use when n>=50)	N/A				95% Gamma Adjusted KM-UCL (use when n<50)	N/A	
948											
949				Lognormal GOF Test on Detected Observations Only							
950				Not Enough Data to Perform GOF Test							
951											
952				Lognormal ROS Statistics Using Imputed Non-Detects							
953				Mean in Original Scale	329.3				Mean in Log Scale	5.785	
954				SD in Original Scale	61.99				SD in Log Scale	0.194	

955				95% t UCL (assumes normality of ROS data)		433.8			95% Percentile Bootstrap UCL			N/A
956				95% BCA Bootstrap UCL		N/A			95% Bootstrap t UCL			N/A
957				95% H-UCL (Log ROS)		518.2						
958												
959					Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution							
960				KM Mean (logged)		5.767			KM Geo Mean			319.5
961				KM SD (logged)		0.182			95% Critical H Value (KM-Log)			3.179
962				KM Standard Error of Mean (logged)		0.149			95% H-UCL (KM -Log)			489.4
963				KM SD (logged)		0.182			95% Critical H Value (KM-Log)			3.179
964				KM Standard Error of Mean (logged)		0.149						
965												
966					DL/2 Statistics							
967				DL/2 Normal					DL/2 Log-Transformed			
968				Mean in Original Scale		283			Mean in Log Scale			5.536
969				SD in Original Scale		139.1			SD in Log Scale			0.616
970				95% t UCL (Assumes normality)		517.5			95% H-Stat UCL			10122
971				DL/2 is not a recommended method, provided for comparisons and historical reasons								
972												
973					Nonparametric Distribution Free UCL Statistics							
974				Data do not follow a Discernible Distribution at 5% Significance Level								
975												
976					Suggested UCL to Use							
977				95% KM (t) UCL		459.6			KM H-UCL			489.4
978				95% KM (BCA) UCL		N/A						
979				Warning: One or more Recommended UCL(s) not available!								
980				Warning: Recommended UCL exceeds the maximum observation								
981												
982				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
983				Recommendations are based upon data size, data distribution, and skewness.								
984				These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).								
985				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
986												
987	Result2_ug/kg (beryllium, be)											
988												
989					General Statistics							
990				Total Number of Observations		103			Number of Distinct Observations			1
991				Number of Detects		0			Number of Non-Detects			103
992				Number of Distinct Detects		0			Number of Distinct Non-Detects			1
993												
994				Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!								
995				Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!								
996				The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).								
997												
998				The data set for variable Result2_ug/kg (beryllium, be) was not processed!								
999												
1000												
1001	Result2_ug/kg (bromobenzene)											
1002												
1003					General Statistics							
1004				Total Number of Observations		105			Number of Distinct Observations			1
1005				Number of Detects		0			Number of Non-Detects			105
1006				Number of Distinct Detects		0			Number of Distinct Non-Detects			1
1007												

	A	B	C	D	E	F	G	H	I	J	K	L
1008	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
1009	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
1010	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
1011												
1012	The data set for variable Result2_ug/kg (bromobenzene) was not processed!											
1013												
1014												
1015	Result2_ug/kg (bromodichloromethane)											
1016												
1017	General Statistics											
1018					Total Number of Observations	105			Number of Distinct Observations	1		
1019					Number of Detects	0			Number of Non-Detects	105		
1020					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1021												
1022	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
1023	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
1024	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
1025												
1026	The data set for variable Result2_ug/kg (bromodichloromethane) was not processed!											
1027												
1028												
1029	Result2_ug/kg (bromoform)											
1030												
1031	General Statistics											
1032					Total Number of Observations	105			Number of Distinct Observations	1		
1033					Number of Detects	0			Number of Non-Detects	105		
1034					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1035												
1036	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
1037	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
1038	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
1039												
1040	The data set for variable Result2_ug/kg (bromoform) was not processed!											
1041												
1042												
1043	Result2_ug/kg (cadmium)											
1044												
1045	General Statistics											
1046					Total Number of Observations	3			Number of Distinct Observations	1		
1047					Number of Detects	0			Number of Non-Detects	3		
1048					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1049												
1050	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
1051	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
1052	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
1053												
1054	The data set for variable Result2_ug/kg (cadmium) was not processed!											
1055												
1056												
1057	Result2_ug/kg (cadmium, cd)											
1058												
1059	General Statistics											
1060					Total Number of Observations	103			Number of Distinct Observations	4		

1061				Number of Detects	4				Number of Non-Detects	99	
1062				Number of Distinct Detects	3				Number of Distinct Non-Detects	1	
1063				Minimum Detect	800				Minimum Non-Detect	500	
1064				Maximum Detect	6100				Maximum Non-Detect	500	
1065				Variance Detects	6369167				Percent Non-Detects	96.12%	
1066				Mean Detects	2325				SD Detects	2524	
1067				Median Detects	1200				CV Detects	1.085	
1068				Skewness Detects	1.966				Kurtosis Detects	3.895	
1069				Mean of Logged Detects	7.395				SD of Logged Detects	0.901	
1070											
1071				Normal GOF Test on Detects Only							
1072				Shapiro Wilk Test Statistic	0.694			Shapiro Wilk GOF Test			
1073				5% Shapiro Wilk Critical Value	0.748			Detected Data Not Normal at 5% Significance Level			
1074				Lilliefors Test Statistic	0.422			Lilliefors GOF Test			
1075				5% Lilliefors Critical Value	0.375			Detected Data Not Normal at 5% Significance Level			
1076				Detected Data Not Normal at 5% Significance Level							
1077											
1078				Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs							
1079				KM Mean	570.9				KM Standard Error of Mean	63.33	
1080				KM SD	556.6				95% KM (BCA) UCL	N/A	
1081				95% KM (t) UCL	676				95% KM (Percentile Bootstrap) UCL	N/A	
1082				95% KM (z) UCL	675				95% KM Bootstrap t UCL	N/A	
1083				90% KM Chebyshev UCL	760.9				95% KM Chebyshev UCL	846.9	
1084				97.5% KM Chebyshev UCL	966.4				99% KM Chebyshev UCL	1201	
1085											
1086				Gamma GOF Tests on Detected Observations Only							
1087				A-D Test Statistic	0.683			Anderson-Darling GOF Test			
1088				5% A-D Critical Value	0.662			Detected Data Not Gamma Distributed at 5% Significance Level			
1089				K-S Test Statistic	0.427			Kolmogorov-Smirnov GOF			
1090				5% K-S Critical Value	0.399			Detected Data Not Gamma Distributed at 5% Significance Level			
1091				Detected Data Not Gamma Distributed at 5% Significance Level							
1092											
1093				Gamma Statistics on Detected Data Only							
1094				k hat (MLE)	1.549				k star (bias corrected MLE)	0.554	
1095				Theta hat (MLE)	1501				Theta star (bias corrected MLE)	4197	
1096				nu hat (MLE)	12.39				nu star (bias corrected)	4.431	
1097				Mean (detects)	2325						
1098											
1099				Gamma ROS Statistics using Imputed Non-Detects							
1100				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1101				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1102				For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1103				This is especially true when the sample size is small.							
1104				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1105				Minimum	0.01				Mean	90.3	
1106				Maximum	6100				Median	0.01	
1107				SD	625.4				CV	6.925	
1108				k hat (MLE)	0.0946				k star (bias corrected MLE)	0.0983	
1109				Theta hat (MLE)	954.4				Theta star (bias corrected MLE)	918.3	
1110				nu hat (MLE)	19.49				nu star (bias corrected)	20.26	
1111				Adjusted Level of Significance (β)	0.0477						
1112				Approximate Chi Square Value (20.26, α)	11.04				Adjusted Chi Square Value (20.26, β)	10.94	
1113				95% Gamma Approximate UCL (use when n>=50)	165.7				95% Gamma Adjusted UCL (use when n<50)	N/A	

1114											
1115	Estimates of Gamma Parameters using KM Estimates										
1116					Mean (KM)	570.9			SD (KM)	556.6	
1117					Variance (KM)	309831			SE of Mean (KM)	63.33	
1118					k hat (KM)	1.052			k star (KM)	1.028	
1119					nu hat (KM)	216.7			nu star (KM)	211.7	
1120					theta hat (KM)	542.7			theta star (KM)	555.5	
1121					80% gamma percentile (KM)	916.7			90% gamma percentile (KM)	1306	
1122					95% gamma percentile (KM)	1694			99% gamma percentile (KM)	2593	
1123											
1124	Gamma Kaplan-Meier (KM) Statistics										
1125					Approximate Chi Square Value (211.70, α)	179			Adjusted Chi Square Value (211.70, β)	178.6	
1126					95% Gamma Approximate KM-UCL (use when n>=50)	675.1			95% Gamma Adjusted KM-UCL (use when n<50)	676.7	
1127											
1128	Lognormal GOF Test on Detected Observations Only										
1129					Shapiro Wilk Test Statistic	0.8			Shapiro Wilk GOF Test		
1130					5% Shapiro Wilk Critical Value	0.748			Detected Data appear Lognormal at 5% Significance Level		
1131					Lilliefors Test Statistic	0.383			Lilliefors GOF Test		
1132					5% Lilliefors Critical Value	0.375			Detected Data Not Lognormal at 5% Significance Level		
1133	Detected Data appear Approximate Lognormal at 5% Significance Level										
1134											
1135	Lognormal ROS Statistics Using Imputed Non-Detects										
1136					Mean in Original Scale	107.3			Mean in Log Scale	-0.00139	
1137					SD in Original Scale	624.8			SD in Log Scale	3.42	
1138					95% t UCL (assumes normality of ROS data)	209.5			95% Percentile Bootstrap UCL	222.1	
1139					95% BCA Bootstrap UCL	295.7			95% Bootstrap t UCL	509.1	
1140					95% H-UCL (Log ROS)	1967					
1141											
1142	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										
1143					KM Mean (logged)	6.26			KM Geo Mean	523.5	
1144					KM SD (logged)	0.275			95% Critical H Value (KM-Log)	1.724	
1145					KM Standard Error of Mean (logged)	0.0313			95% H-UCL (KM -Log)	569.8	
1146					KM SD (logged)	0.275			95% Critical H Value (KM-Log)	1.724	
1147					KM Standard Error of Mean (logged)	0.0313					
1148											
1149	DL/2 Statistics										
1150					DL/2 Normal				DL/2 Log-Transformed		
1151					Mean in Original Scale	330.6			Mean in Log Scale	5.594	
1152					SD in Original Scale	591.3			SD in Log Scale	0.395	
1153					95% t UCL (Assumes normality)	427.3			95% H-Stat UCL	311.6	
1154	DL/2 is not a recommended method, provided for comparisons and historical reasons										
1155											
1156	Nonparametric Distribution Free UCL Statistics										
1157	Detected Data appear Approximate Lognormal Distributed at 5% Significance Level										
1158											
1159	Suggested UCL to Use										
1160					KM H-UCL	569.8					
1161											
1162	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1163	Recommendations are based upon data size, data distribution, and skewness.										
1164	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1165	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1166											

1167	Result2_ug/kg (carbon tetrachloride)										
1168											
1169					General Statistics						
1170				Total Number of Observations	105			Number of Distinct Observations	1		
1171				Number of Detects	0			Number of Non-Detects	105		
1172				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1173											
1174	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1175	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1176	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1177											
1178	The data set for variable Result2_ug/kg (carbon tetrachloride) was not processed!										
1179											
1180											
1181	Result2_ug/kg (chlorobenzene)										
1182											
1183					General Statistics						
1184				Total Number of Observations	105			Number of Distinct Observations	1		
1185				Number of Detects	0			Number of Non-Detects	105		
1186				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1187											
1188	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1189	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1190	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1191											
1192	The data set for variable Result2_ug/kg (chlorobenzene) was not processed!										
1193											
1194											
1195	Result2_ug/kg (chloroform)										
1196											
1197					General Statistics						
1198				Total Number of Observations	105			Number of Distinct Observations	1		
1199				Number of Detects	0			Number of Non-Detects	105		
1200				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1201											
1202	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1203	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1204	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1205											
1206	The data set for variable Result2_ug/kg (chloroform) was not processed!										
1207											
1208											
1209											
1210	Result2_ug/kg (chromium)										
1211											
1212					General Statistics						
1213				Total Number of Observations	3			Number of Distinct Observations	3		
1214								Number of Missing Observations	0		
1215				Minimum	19000			Mean	24867		
1216				Maximum	33000			Median	22600		
1217				SD	7270			Std. Error of Mean	4197		
1218				Coefficient of Variation	0.292			Skewness	1.267		
1219											

1220	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
1221	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
1222	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
1223	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
1224											
1225	Normal GOF Test										
1226	Shapiro Wilk Test Statistic				0.927	Shapiro Wilk GOF Test					
1227	5% Shapiro Wilk Critical Value				0.767	Data appear Normal at 5% Significance Level					
1228	Lilliefors Test Statistic				0.289	Lilliefors GOF Test					
1229	5% Lilliefors Critical Value				0.425	Data appear Normal at 5% Significance Level					
1230	Data appear Normal at 5% Significance Level										
1231											
1232	Assuming Normal Distribution										
1233	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
1234	95% Student's-t UCL				37123	95% Adjusted-CLT UCL (Chen-1995)					35050
1235						95% Modified-t UCL (Johnson-1978)					37634
1236											
1237	Gamma GOF Test										
1238	Not Enough Data to Perform GOF Test										
1239											
1240	Gamma Statistics										
1241	k hat (MLE)				18.53	k star (bias corrected MLE)					N/A
1242	Theta hat (MLE)				1342	Theta star (bias corrected MLE)					N/A
1243	nu hat (MLE)				111.2	nu star (bias corrected)					N/A
1244	MLE Mean (bias corrected)				N/A	MLE Sd (bias corrected)					N/A
1245						Approximate Chi Square Value (0.05)					N/A
1246	Adjusted Level of Significance				N/A	Adjusted Chi Square Value					N/A
1247											
1248	Assuming Gamma Distribution										
1249	95% Approximate Gamma UCL (use when n>=50))				N/A	95% Adjusted Gamma UCL (use when n<50)					N/A
1250											
1251	Lognormal GOF Test										
1252	Shapiro Wilk Test Statistic				0.956	Shapiro Wilk Lognormal GOF Test					
1253	5% Shapiro Wilk Critical Value				0.767	Data appear Lognormal at 5% Significance Level					
1254	Lilliefors Test Statistic				0.262	Lilliefors Lognormal GOF Test					
1255	5% Lilliefors Critical Value				0.425	Data appear Lognormal at 5% Significance Level					
1256	Data appear Lognormal at 5% Significance Level										
1257											
1258	Lognormal Statistics										
1259	Minimum of Logged Data				9.852	Mean of logged Data					10.09
1260	Maximum of Logged Data				10.4	SD of logged Data					0.282
1261											
1262	Assuming Lognormal Distribution										
1263	95% H-UCL				55354	90% Chebyshev (MVUE) UCL					36875
1264	95% Chebyshev (MVUE) UCL				42324	97.5% Chebyshev (MVUE) UCL					49887
1265	99% Chebyshev (MVUE) UCL				64743						
1266											
1267	Nonparametric Distribution Free UCL Statistics										
1268	Data appear to follow a Discernible Distribution at 5% Significance Level										
1269											
1270	Nonparametric Distribution Free UCLs										
1271	95% CLT UCL				31771	95% Jackknife UCL					37123
1272	95% Standard Bootstrap UCL				N/A	95% Bootstrap-t UCL					N/A

1273				95% Hall's Bootstrap UCL	N/A			95% Percentile Bootstrap UCL			N/A	
1274				95% BCA Bootstrap UCL	N/A							
1275				90% Chebyshev(Mean, Sd) UCL	37459			95% Chebyshev(Mean, Sd) UCL			43163	
1276				97.5% Chebyshev(Mean, Sd) UCL	51079			99% Chebyshev(Mean, Sd) UCL			66630	
1277												
1278					Suggested UCL to Use							
1279				95% Student's-t UCL	37123							
1280												
1281					Recommended UCL exceeds the maximum observation							
1282												
1283					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1284					Recommendations are based upon data size, data distribution, and skewness.							
1285					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
1286					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1287												
1288												
1289	Result2_ug/kg (chromium, cr)											
1290												
1291					General Statistics							
1292				Total Number of Observations	103			Number of Distinct Observations			88	
1293								Number of Missing Observations			0	
1294				Minimum	6600			Mean			27344	
1295				Maximum	157000			Median			26700	
1296				SD	15919			Std. Error of Mean			1569	
1297				Coefficient of Variation	0.582			Skewness			5.537	
1298												
1299					Normal GOF Test							
1300				Shapiro Wilk Test Statistic	0.602			Shapiro Wilk GOF Test				
1301				5% Shapiro Wilk P Value	0			Data Not Normal at 5% Significance Level				
1302				Lilliefors Test Statistic	0.251			Lilliefors GOF Test				
1303				5% Lilliefors Critical Value	0.0876			Data Not Normal at 5% Significance Level				
1304					Data Not Normal at 5% Significance Level							
1305												
1306					Assuming Normal Distribution							
1307				95% Normal UCL				95% UCLs (Adjusted for Skewness)				
1308				95% Student's-t UCL	29947			95% Adjusted-CLT UCL (Chen-1995)			30838	
1309								95% Modified-t UCL (Johnson-1978)			30090	
1310												
1311					Gamma GOF Test							
1312				A-D Test Statistic	3.09			Anderson-Darling Gamma GOF Test				
1313				5% A-D Critical Value	0.754			Data Not Gamma Distributed at 5% Significance Level				
1314				K-S Test Statistic	0.17			Kolmogorov-Smirnov Gamma GOF Test				
1315				5% K-S Critical Value	0.0888			Data Not Gamma Distributed at 5% Significance Level				
1316					Data Not Gamma Distributed at 5% Significance Level							
1317												
1318					Gamma Statistics							
1319				k hat (MLE)	5.119			k star (bias corrected MLE)			4.976	
1320				Theta hat (MLE)	5342			Theta star (bias corrected MLE)			5495	
1321				nu hat (MLE)	1054			nu star (bias corrected)			1025	
1322				MLE Mean (bias corrected)	27344			MLE Sd (bias corrected)			12258	
1323								Approximate Chi Square Value (0.05)			951.7	
1324				Adjusted Level of Significance	0.0477			Adjusted Chi Square Value			950.7	
1325												

1326	Assuming Gamma Distribution										
1327	95% Approximate Gamma UCL (use when n>=50))				29450	95% Adjusted Gamma UCL (use when n<50)					29481
1328											
1329	Lognormal GOF Test										
1330	Shapiro Wilk Test Statistic				0.903	Shapiro Wilk Lognormal GOF Test					
1331	5% Shapiro Wilk P Value				7.4845E-9	Data Not Lognormal at 5% Significance Level					
1332	Lilliefors Test Statistic				0.155	Lilliefors Lognormal GOF Test					
1333	5% Lilliefors Critical Value				0.0876	Data Not Lognormal at 5% Significance Level					
1334	Data Not Lognormal at 5% Significance Level										
1335											
1336	Lognormal Statistics										
1337	Minimum of Logged Data				8.795	Mean of logged Data					10.12
1338	Maximum of Logged Data				11.96	SD of logged Data					0.444
1339											
1340	Assuming Lognormal Distribution										
1341	95% H-UCL				29520	90% Chebyshev (MVUE) UCL					30978
1342	95% Chebyshev (MVUE) UCL				32668	97.5% Chebyshev (MVUE) UCL					35013
1343	99% Chebyshev (MVUE) UCL				39619						
1344											
1345	Nonparametric Distribution Free UCL Statistics										
1346	Data do not follow a Discernible Distribution (0.05)										
1347											
1348	Nonparametric Distribution Free UCLs										
1349	95% CLT UCL				29924	95% Jackknife UCL					29947
1350	95% Standard Bootstrap UCL				30001	95% Bootstrap-t UCL					31607
1351	95% Hall's Bootstrap UCL				42533	95% Percentile Bootstrap UCL					29966
1352	95% BCA Bootstrap UCL				31245						
1353	90% Chebyshev(Mean, Sd) UCL				32049	95% Chebyshev(Mean, Sd) UCL					34181
1354	97.5% Chebyshev(Mean, Sd) UCL				37139	99% Chebyshev(Mean, Sd) UCL					42950
1355											
1356	Suggested UCL to Use										
1357	95% Student's-t UCL				29947	or 95% Modified-t UCL					30090
1358											
1359	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1360	Recommendations are based upon data size, data distribution, and skewness.										
1361	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1362	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1363											
1364	Result2_ug/kg (chromium, hexavalent)										
1365											
1366	General Statistics										
1367	Total Number of Observations				11	Number of Distinct Observations					4
1368	Number of Detects				3	Number of Non-Detects					8
1369	Number of Distinct Detects				3	Number of Distinct Non-Detects					1
1370	Minimum Detect				960	Minimum Non-Detect					400
1371	Maximum Detect				1300	Maximum Non-Detect					400
1372	Variance Detects				29200	Percent Non-Detects					72.73%
1373	Mean Detects				1120	SD Detects					170.9
1374	Median Detects				1100	CV Detects					0.153
1375	Skewness Detects				0.519	Kurtosis Detects					N/A
1376	Mean of Logged Detects				7.013	SD of Logged Detects					0.152
1377											
1378	Warning: Data set has only 3 Detected Values.										

1379	This is not enough to compute meaningful or reliable statistics and estimates.										
1380											
1381											
1382	Normal GOF Test on Detects Only										
1383				Shapiro Wilk Test Statistic	0.99	Shapiro Wilk GOF Test					
1384				5% Shapiro Wilk Critical Value	0.767	Detected Data appear Normal at 5% Significance Level					
1385				Lilliefors Test Statistic	0.213	Lilliefors GOF Test					
1386				5% Lilliefors Critical Value	0.425	Detected Data appear Normal at 5% Significance Level					
1387	Detected Data appear Normal at 5% Significance Level										
1388											
1389	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs										
1390				KM Mean	596.4	KM Standard Error of Mean	121.4				
1391				KM SD	328.8	95% KM (BCA) UCL	N/A				
1392				95% KM (t) UCL	816.5	95% KM (Percentile Bootstrap) UCL	N/A				
1393				95% KM (z) UCL	796.1	95% KM Bootstrap t UCL	N/A				
1394				90% KM Chebyshev UCL	960.7	95% KM Chebyshev UCL	1126				
1395				97.5% KM Chebyshev UCL	1355	99% KM Chebyshev UCL	1805				
1396											
1397	Gamma GOF Tests on Detected Observations Only										
1398	Not Enough Data to Perform GOF Test										
1399											
1400	Gamma Statistics on Detected Data Only										
1401				k hat (MLE)	65.01	k star (bias corrected MLE)	N/A				
1402				Theta hat (MLE)	17.23	Theta star (bias corrected MLE)	N/A				
1403				nu hat (MLE)	390	nu star (bias corrected)	N/A				
1404				Mean (detects)	1120						
1405											
1406	Gamma ROS Statistics using Imputed Non-Detects										
1407	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1408	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1409	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1410	This is especially true when the sample size is small.										
1411	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1412				Minimum	0.01	Mean	587.4				
1413				Maximum	1300	Median	545.7				
1414				SD	410.9	CV	0.699				
1415				k hat (MLE)	0.569	k star (bias corrected MLE)	0.475				
1416				Theta hat (MLE)	1032	Theta star (bias corrected MLE)	1238				
1417				nu hat (MLE)	12.52	nu star (bias corrected)	10.44				
1418				Adjusted Level of Significance (β)	0.0278						
1419				Approximate Chi Square Value (10.44, α)	4.22	Adjusted Chi Square Value (10.44, β)	3.598				
1420				95% Gamma Approximate UCL (use when n>=50)	1454	95% Gamma Adjusted UCL (use when n<50)	N/A				
1421											
1422	Estimates of Gamma Parameters using KM Estimates										
1423				Mean (KM)	596.4	SD (KM)	328.8				
1424				Variance (KM)	108132	SE of Mean (KM)	121.4				
1425				k hat (KM)	3.289	k star (KM)	2.453				
1426				nu hat (KM)	72.36	nu star (KM)	53.96				
1427				theta hat (KM)	181.3	theta star (KM)	243.2				
1428				80% gamma percentile (KM)	871.4	90% gamma percentile (KM)	1106				
1429				95% gamma percentile (KM)	1328	99% gamma percentile (KM)	1814				
1430											
1431	Gamma Kaplan-Meier (KM) Statistics										

1432	Approximate Chi Square Value (53.96, α)				38.08	Adjusted Chi Square Value (53.96, β)					35.92
1433	95% Gamma Approximate KM-UCL (use when n>=50)				845	95% Gamma Adjusted KM-UCL (use when n<50)					895.9
1434											
1435	Lognormal GOF Test on Detected Observations Only										
1436	Shapiro Wilk Test Statistic				0.997	Shapiro Wilk GOF Test					
1437	5% Shapiro Wilk Critical Value				0.767	Detected Data appear Lognormal at 5% Significance Level					
1438	Lilliefors Test Statistic				0.194	Lilliefors GOF Test					
1439	5% Lilliefors Critical Value				0.425	Detected Data appear Lognormal at 5% Significance Level					
1440	Detected Data appear Lognormal at 5% Significance Level										
1441											
1442	Lognormal ROS Statistics Using Imputed Non-Detects										
1443	Mean in Original Scale				718.3	Mean in Log Scale					6.502
1444	SD in Original Scale				296.2	SD in Log Scale					0.406
1445	95% t UCL (assumes normality of ROS data)				880.1	95% Percentile Bootstrap UCL					863.4
1446	95% BCA Bootstrap UCL				874.9	95% Bootstrap t UCL					919.6
1447	95% H-UCL (Log ROS)				942.3						
1448											
1449	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										
1450	KM Mean (logged)				6.27	KM Geo Mean					528.6
1451	KM SD (logged)				0.46	95% Critical H Value (KM-Log)					2.125
1452	KM Standard Error of Mean (logged)				0.17	95% H-UCL (KM -Log)					800.1
1453	KM SD (logged)				0.46	95% Critical H Value (KM-Log)					2.125
1454	KM Standard Error of Mean (logged)				0.17						
1455											
1456	DL/2 Statistics										
1457	DL/2 Normal					DL/2 Log-Transformed					
1458	Mean in Original Scale				450.9	Mean in Log Scale					5.766
1459	SD in Original Scale				436.5	SD in Log Scale					0.804
1460	95% t UCL (Assumes normality)				689.4	95% H-Stat UCL					862.8
1461	DL/2 is not a recommended method, provided for comparisons and historical reasons										
1462											
1463	Nonparametric Distribution Free UCL Statistics										
1464	Detected Data appear Normal Distributed at 5% Significance Level										
1465											
1466	Suggested UCL to Use										
1467	95% KM (t) UCL				816.5						
1468											
1469	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1470	Recommendations are based upon data size, data distribution, and skewness.										
1471	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1472	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1473											
1474	Result2_ug/kg (cis-1,2-dichloroethene)										
1475											
1476	General Statistics										
1477	Total Number of Observations				105	Number of Distinct Observations					2
1478	Number of Detects				1	Number of Non-Detects					104
1479	Number of Distinct Detects				1	Number of Distinct Non-Detects					1
1480											
1481	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!										
1482	s suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BT										
1483											
1484	The data set for variable Result2_ug/kg (cis-1,2-dichloroethene) was not processed!										

Result2_ug/kg (cis-1,3-dichloropropene)

General Statistics

Total Number of Observations	106	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	106
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (cis-1,3-dichloropropene) was not processed!

Result2_ug/kg (cobalt)

General Statistics

Total Number of Observations	3	Number of Distinct Observations	3
		Number of Missing Observations	0
Minimum	7020	Mean	11240
Maximum	14200	Median	12500
SD	3752	Std. Error of Mean	2166
Coefficient of Variation	0.334	Skewness	-1.341

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.915	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.767	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.298	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.425	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	17566	95% Adjusted-CLT UCL (Chen-1995)	13012
		95% Modified-t UCL (Johnson-1978)	17286

Gamma GOF Test

Not Enough Data to Perform GOF Test

Gamma Statistics

k hat (MLE)	11.64	k star (bias corrected MLE)	N/A
Theta hat (MLE)	965.6	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	69.84	nu star (bias corrected)	N/A
MLE Mean (bias corrected)	N/A	MLE Sd (bias corrected)	N/A
		Approximate Chi Square Value (0.05)	N/A

1538				Adjusted Level of Significance		N/A			Adjusted Chi Square Value			N/A
1539												
1540						Assuming Gamma Distribution						
1541				95% Approximate Gamma UCL (use when n>=50))		N/A			95% Adjusted Gamma UCL (use when n<50)			N/A
1542												
1543						Lognormal GOF Test						
1544				Shapiro Wilk Test Statistic		0.881			Shapiro Wilk Lognormal GOF Test			
1545				5% Shapiro Wilk Critical Value		0.767			Data appear Lognormal at 5% Significance Level			
1546				Lilliefors Test Statistic		0.322			Lilliefors Lognormal GOF Test			
1547				5% Lilliefors Critical Value		0.425			Data appear Lognormal at 5% Significance Level			
1548						Data appear Lognormal at 5% Significance Level						
1549												
1550						Lognormal Statistics						
1551				Minimum of Logged Data		8.857			Mean of logged Data			9.284
1552				Maximum of Logged Data		9.561			SD of logged Data			0.375
1553												
1554						Assuming Lognormal Distribution						
1555				95% H-UCL		42605			90% Chebyshev (MVUE) UCL			18475
1556				95% Chebyshev (MVUE) UCL		21738			97.5% Chebyshev (MVUE) UCL			26266
1557				99% Chebyshev (MVUE) UCL		35161						
1558												
1559						Nonparametric Distribution Free UCL Statistics						
1560						Data appear to follow a Discernible Distribution at 5% Significance Level						
1561												
1562						Nonparametric Distribution Free UCLs						
1563				95% CLT UCL		14803			95% Jackknife UCL			17566
1564				95% Standard Bootstrap UCL		N/A			95% Bootstrap-t UCL			N/A
1565				95% Hall's Bootstrap UCL		N/A			95% Percentile Bootstrap UCL			N/A
1566				95% BCA Bootstrap UCL		N/A						
1567				90% Chebyshev(Mean, Sd) UCL		17739			95% Chebyshev(Mean, Sd) UCL			20683
1568				97.5% Chebyshev(Mean, Sd) UCL		24769			99% Chebyshev(Mean, Sd) UCL			32795
1569												
1570						Suggested UCL to Use						
1571				95% Student's-t UCL		17566						
1572												
1573						Recommended UCL exceeds the maximum observation						
1574												
1575						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1576						Recommendations are based upon data size, data distribution, and skewness.						
1577						These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
1578						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1579												
1580						Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be						
1581						reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.						
1582												
1583												
1584	Result2_ug/kg (cobalt, co)											
1585												
1586						General Statistics						
1587				Total Number of Observations		103			Number of Distinct Observations			80
1588									Number of Missing Observations			0
1589				Minimum		1100			Mean			14401
1590				Maximum		22600			Median			14300

1591					SD	4373			Std. Error of Mean		430.9
1592					Coefficient of Variation	0.304			Skewness		-0.396
1593											
1594					Normal GOF Test						
1595					Shapiro Wilk Test Statistic	0.966	Shapiro Wilk GOF Test				
1596					5% Shapiro Wilk P Value	0.0707	Data appear Normal at 5% Significance Level				
1597					Lilliefors Test Statistic	0.0784	Lilliefors GOF Test				
1598					5% Lilliefors Critical Value	0.0876	Data appear Normal at 5% Significance Level				
1599					Data appear Normal at 5% Significance Level						
1600											
1601					Assuming Normal Distribution						
1602				95% Normal UCL			95% UCLs (Adjusted for Skewness)				
1603				95% Student's-t UCL	15116		95% Adjusted-CLT UCL (Chen-1995)	15092			
1604							95% Modified-t UCL (Johnson-1978)	15113			
1605											
1606					Gamma GOF Test						
1607					A-D Test Statistic	1.67	Anderson-Darling Gamma GOF Test				
1608					5% A-D Critical Value	0.753	Data Not Gamma Distributed at 5% Significance Level				
1609					K-S Test Statistic	0.0966	Kolmogorov-Smirnov Gamma GOF Test				
1610					5% K-S Critical Value	0.0887	Data Not Gamma Distributed at 5% Significance Level				
1611					Data Not Gamma Distributed at 5% Significance Level						
1612											
1613					Gamma Statistics						
1614					k hat (MLE)	7.983	k star (bias corrected MLE)	7.757			
1615					Theta hat (MLE)	1804	Theta star (bias corrected MLE)	1856			
1616					nu hat (MLE)	1645	nu star (bias corrected)	1598			
1617					MLE Mean (bias corrected)	14401	MLE Sd (bias corrected)	5171			
1618							Approximate Chi Square Value (0.05)	1506			
1619					Adjusted Level of Significance	0.0477	Adjusted Chi Square Value	1505			
1620											
1621					Assuming Gamma Distribution						
1622				95% Approximate Gamma UCL (use when n>=50))		15279	95% Adjusted Gamma UCL (use when n<50)	15292			
1623											
1624					Lognormal GOF Test						
1625					Shapiro Wilk Test Statistic	0.823	Shapiro Wilk Lognormal GOF Test				
1626					5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level				
1627					Lilliefors Test Statistic	0.124	Lilliefors Lognormal GOF Test				
1628					5% Lilliefors Critical Value	0.0876	Data Not Lognormal at 5% Significance Level				
1629					Data Not Lognormal at 5% Significance Level						
1630											
1631					Lognormal Statistics						
1632					Minimum of Logged Data	7.003	Mean of logged Data	9.511			
1633					Maximum of Logged Data	10.03	SD of logged Data	0.411			
1634											
1635					Assuming Lognormal Distribution						
1636					95% H-UCL	15809	90% Chebyshev (MVUE) UCL	16543			
1637					95% Chebyshev (MVUE) UCL	17383	97.5% Chebyshev (MVUE) UCL	18548			
1638					99% Chebyshev (MVUE) UCL	20838					
1639											
1640					Nonparametric Distribution Free UCL Statistics						
1641					Data appear to follow a Discernible Distribution at 5% Significance Level						
1642											
1643					Nonparametric Distribution Free UCLs						

1644				95% CLT UCL	15110			95% Jackknife UCL	15116		
1645				95% Standard Bootstrap UCL	15093			95% Bootstrap-t UCL	15099		
1646				95% Hall's Bootstrap UCL	15104			95% Percentile Bootstrap UCL	15111		
1647				95% BCA Bootstrap UCL	15092						
1648				90% Chebyshev(Mean, Sd) UCL	15694			95% Chebyshev(Mean, Sd) UCL	16279		
1649				97.5% Chebyshev(Mean, Sd) UCL	17092			99% Chebyshev(Mean, Sd) UCL	18688		
1650											
1651				Suggested UCL to Use							
1652				95% Student's-t UCL	15116						
1653											
1654	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1655	Recommendations are based upon data size, data distribution, and skewness.										
1656	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1657	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1658											
1659	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be										
1660	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.										
1661											
1662											
1663	Result2_ug/kg (copper)										
1664											
1665				General Statistics							
1666				Total Number of Observations	3			Number of Distinct Observations	3		
1667								Number of Missing Observations	0		
1668				Minimum	21200			Mean	96367		
1669				Maximum	244000			Median	23900		
1670				SD	127861			Std. Error of Mean	73821		
1671				Coefficient of Variation	1.327			Skewness	1.731		
1672											
1673	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
1674	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
1675	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
1676	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
1677											
1678				Normal GOF Test							
1679				Shapiro Wilk Test Statistic	0.759			Shapiro Wilk GOF Test			
1680				5% Shapiro Wilk Critical Value	0.767			Data Not Normal at 5% Significance Level			
1681				Lilliefors Test Statistic	0.381			Lilliefors GOF Test			
1682				5% Lilliefors Critical Value	0.425			Data appear Normal at 5% Significance Level			
1683	Data appear Approximate Normal at 5% Significance Level										
1684											
1685				Assuming Normal Distribution							
1686				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
1687				95% Student's-t UCL	311922			95% Adjusted-CLT UCL (Chen-1995)	296630		
1688								95% Modified-t UCL (Johnson-1978)	324220		
1689											
1690				Gamma GOF Test							
1691				Not Enough Data to Perform GOF Test							
1692											
1693				Gamma Statistics							
1694				k hat (MLE)	0.888			k star (bias corrected MLE)	N/A		
1695				Theta hat (MLE)	108574			Theta star (bias corrected MLE)	N/A		
1696				nu hat (MLE)	5.325			nu star (bias corrected)	N/A		

1697					MLE Mean (bias corrected)	N/A			MLE Sd (bias corrected)			N/A
1698									Approximate Chi Square Value (0.05)			N/A
1699					Adjusted Level of Significance	N/A			Adjusted Chi Square Value			N/A
1700												
1701						Assuming Gamma Distribution						
1702					95% Approximate Gamma UCL (use when n>=50))	N/A			95% Adjusted Gamma UCL (use when n<50)			N/A
1703												
1704						Lognormal GOF Test						
1705					Shapiro Wilk Test Statistic	0.787			Shapiro Wilk Lognormal GOF Test			
1706					5% Shapiro Wilk Critical Value	0.767			Data appear Lognormal at 5% Significance Level			
1707					Lilliefors Test Statistic	0.37			Lilliefors Lognormal GOF Test			
1708					5% Lilliefors Critical Value	0.425			Data appear Lognormal at 5% Significance Level			
1709						Data appear Lognormal at 5% Significance Level						
1710												
1711						Lognormal Statistics						
1712					Minimum of Logged Data	9.962			Mean of logged Data			10.82
1713					Maximum of Logged Data	12.4			SD of logged Data			1.377
1714												
1715						Assuming Lognormal Distribution						
1716					95% H-UCL	5.255E+12			90% Chebyshev (MVUE) UCL			256167
1717					95% Chebyshev (MVUE) UCL	332948			97.5% Chebyshev (MVUE) UCL			439518
1718					99% Chebyshev (MVUE) UCL	648855						
1719												
1720						Nonparametric Distribution Free UCL Statistics						
1721						Data appear to follow a Discernible Distribution at 5% Significance Level						
1722												
1723						Nonparametric Distribution Free UCLs						
1724					95% CLT UCL	217791			95% Jackknife UCL			311922
1725					95% Standard Bootstrap UCL	N/A			95% Bootstrap-t UCL			N/A
1726					95% Hall's Bootstrap UCL	N/A			95% Percentile Bootstrap UCL			N/A
1727					95% BCA Bootstrap UCL	N/A						
1728					90% Chebyshev(Mean, Sd) UCL	317829			95% Chebyshev(Mean, Sd) UCL			418144
1729					97.5% Chebyshev(Mean, Sd) UCL	557377			99% Chebyshev(Mean, Sd) UCL			830874
1730												
1731						Suggested UCL to Use						
1732					95% Student's-t UCL	311922						
1733												
1734						Recommended UCL exceeds the maximum observation						
1735												
1736						When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test						
1737						When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL						
1738												
1739						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1740						Recommendations are based upon data size, data distribution, and skewness.						
1741						These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
1742						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1743												
1744												
1745	Result2_ug/kg (copper, cu)											
1746												
1747						General Statistics						
1748					Total Number of Observations	103			Number of Distinct Observations			94
1749									Number of Missing Observations			0

1750				Minimum	6800				Mean	104683	
1751				Maximum	6740000				Median	30500	
1752				SD	663022				Std. Error of Mean	65329	
1753				Coefficient of Variation	6.334				Skewness	10.02	
1754											
1755					Normal GOF Test						
1756				Shapiro Wilk Test Statistic	0.127			Shapiro Wilk GOF Test			
1757				5% Shapiro Wilk P Value	0			Data Not Normal at 5% Significance Level			
1758				Lilliefors Test Statistic	0.456			Lilliefors GOF Test			
1759				5% Lilliefors Critical Value	0.0876			Data Not Normal at 5% Significance Level			
1760					Data Not Normal at 5% Significance Level						
1761											
1762					Assuming Normal Distribution						
1763				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
1764				95% Student's-t UCL	213125			95% Adjusted-CLT UCL (Chen-1995)	281087		
1765								95% Modified-t UCL (Johnson-1978)	223879		
1766											
1767					Gamma GOF Test						
1768				A-D Test Statistic	23.87			Anderson-Darling Gamma GOF Test			
1769				5% A-D Critical Value	0.816			Data Not Gamma Distributed at 5% Significance Level			
1770				K-S Test Statistic	0.419			Kolmogorov-Smirnov Gamma GOF Test			
1771				5% K-S Critical Value	0.0936			Data Not Gamma Distributed at 5% Significance Level			
1772					Data Not Gamma Distributed at 5% Significance Level						
1773											
1774					Gamma Statistics						
1775				k hat (MLE)	0.531			k star (bias corrected MLE)	0.522		
1776				Theta hat (MLE)	197253			Theta star (bias corrected MLE)	200650		
1777				nu hat (MLE)	109.3			nu star (bias corrected)	107.5		
1778				MLE Mean (bias corrected)	104683			MLE Sd (bias corrected)	144929		
1779								Approximate Chi Square Value (0.05)	84.55		
1780				Adjusted Level of Significance	0.0477			Adjusted Chi Square Value	84.26		
1781											
1782					Assuming Gamma Distribution						
1783				95% Approximate Gamma UCL (use when n>=50))	133068			95% Adjusted Gamma UCL (use when n<50)	133522		
1784											
1785					Lognormal GOF Test						
1786				Shapiro Wilk Test Statistic	0.735			Shapiro Wilk Lognormal GOF Test			
1787				5% Shapiro Wilk P Value	0			Data Not Lognormal at 5% Significance Level			
1788				Lilliefors Test Statistic	0.222			Lilliefors Lognormal GOF Test			
1789				5% Lilliefors Critical Value	0.0876			Data Not Lognormal at 5% Significance Level			
1790					Data Not Lognormal at 5% Significance Level						
1791											
1792					Lognormal Statistics						
1793				Minimum of Logged Data	8.825			Mean of logged Data	10.37		
1794				Maximum of Logged Data	15.72			SD of logged Data	0.792		
1795											
1796					Assuming Lognormal Distribution						
1797				95% H-UCL	51311			90% Chebyshev (MVUE) UCL	55135		
1798				95% Chebyshev (MVUE) UCL	60367			97.5% Chebyshev (MVUE) UCL	67629		
1799				99% Chebyshev (MVUE) UCL	81892						
1800											
1801					Nonparametric Distribution Free UCL Statistics						
1802					Data do not follow a Discernible Distribution (0.05)						

1803											
1804	Nonparametric Distribution Free UCLs										
1805				95% CLT UCL	212140			95% Jackknife UCL	213125		
1806				95% Standard Bootstrap UCL	210794			95% Bootstrap-t UCL	2323358		
1807				95% Hall's Bootstrap UCL	1043736			95% Percentile Bootstrap UCL	234223		
1808				95% BCA Bootstrap UCL	311988						
1809				90% Chebyshev(Mean, Sd) UCL	300671			95% Chebyshev(Mean, Sd) UCL	389447		
1810				97.5% Chebyshev(Mean, Sd) UCL	512665			99% Chebyshev(Mean, Sd) UCL	754702		
1811											
1812	Suggested UCL to Use										
1813				95% Chebyshev (Mean, Sd) UCL	389447						
1814											
1815	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1816	Recommendations are based upon data size, data distribution, and skewness.										
1817	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1818	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1819											
1820	Result2_ug/kg (dibromochloromethane)										
1821											
1822	General Statistics										
1823				Total Number of Observations	108			Number of Distinct Observations	1		
1824				Number of Detects	0			Number of Non-Detects	108		
1825				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1826											
1827	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1828	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1829	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1830											
1831	The data set for variable Result2_ug/kg (dibromochloromethane) was not processed!										
1832											
1833											
1834	Result2_ug/kg (dibromomethane)										
1835											
1836	General Statistics										
1837				Total Number of Observations	108			Number of Distinct Observations	1		
1838				Number of Detects	0			Number of Non-Detects	108		
1839				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1840											
1841	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1842	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1843	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1844											
1845	The data set for variable Result2_ug/kg (dibromomethane) was not processed!										
1846											
1847											
1848	Result2_ug/kg (dichlorodifluoromethane)										
1849											
1850	General Statistics										
1851				Total Number of Observations	108			Number of Distinct Observations	2		
1852				Number of Detects	0			Number of Non-Detects	108		
1853				Number of Distinct Detects	0			Number of Distinct Non-Detects	2		
1854											
1855	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										

1856	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1857	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1858											
1859	The data set for variable Result2_ug/kg (dichlorodifluoromethane) was not processed!										
1860											
1861											
1862	Result2_ug/kg (di-isopropylether (dipe))										
1863											
1864	General Statistics										
1865			Total Number of Observations	108			Number of Distinct Observations	2			
1866			Number of Detects	0			Number of Non-Detects	108			
1867			Number of Distinct Detects	0			Number of Distinct Non-Detects	2			
1868											
1869	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1870	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1871	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1872											
1873	The data set for variable Result2_ug/kg (di-isopropylether (dipe)) was not processed!										
1874											
1875											
1876	Result2_ug/kg (dro (c10-c28))										
1877											
1878	General Statistics										
1879			Total Number of Observations	108			Number of Distinct Observations	5			
1880			Number of Detects	4			Number of Non-Detects	104			
1881			Number of Distinct Detects	4			Number of Distinct Non-Detects	1			
1882			Minimum Detect	21.8			Minimum Non-Detect	10			
1883			Maximum Detect	241			Maximum Non-Detect	10			
1884			Variance Detects	10847			Percent Non-Detects	96.3%			
1885			Mean Detects	87.98			SD Detects	104.1			
1886			Median Detects	44.55			CV Detects	1.184			
1887			Skewness Detects	1.772			Kurtosis Detects	3.106			
1888			Mean of Logged Detects	3.97			SD of Logged Detects	1.136			
1889											
1890	Normal GOF Test on Detects Only										
1891			Shapiro Wilk Test Statistic	0.767			Shapiro Wilk GOF Test				
1892			5% Shapiro Wilk Critical Value	0.748			Detected Data appear Normal at 5% Significance Level				
1893			Lilliefors Test Statistic	0.331			Lilliefors GOF Test				
1894			5% Lilliefors Critical Value	0.375			Detected Data appear Normal at 5% Significance Level				
1895	Detected Data appear Normal at 5% Significance Level										
1896											
1897	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs										
1898			KM Mean	12.89			KM Standard Error of Mean	2.529			
1899			KM SD	22.76			95% KM (BCA) UCL	N/A			
1900			95% KM (t) UCL	17.08			95% KM (Percentile Bootstrap) UCL	N/A			
1901			95% KM (z) UCL	17.05			95% KM Bootstrap t UCL	N/A			
1902			90% KM Chebyshev UCL	20.48			95% KM Chebyshev UCL	23.91			
1903			97.5% KM Chebyshev UCL	28.68			99% KM Chebyshev UCL	38.05			
1904											
1905	Gamma GOF Tests on Detected Observations Only										
1906			A-D Test Statistic	0.459			Anderson-Darling GOF Test				
1907			5% A-D Critical Value	0.666			Detected data appear Gamma Distributed at 5% Significance Level				
1908			K-S Test Statistic	0.299			Kolmogorov-Smirnov GOF				

1909				5% K-S Critical Value	0.402	Detected data appear Gamma Distributed at 5% Significance Level					
1910	Detected data appear Gamma Distributed at 5% Significance Level										
1911											
1912	Gamma Statistics on Detected Data Only										
1913				k hat (MLE)	1.123			k star (bias corrected MLE)	0.447		
1914				Theta hat (MLE)	78.35			Theta star (bias corrected MLE)	196.6		
1915				nu hat (MLE)	8.983			nu star (bias corrected)	3.579		
1916				Mean (detects)	87.98						
1917											
1918	Gamma ROS Statistics using Imputed Non-Detects										
1919	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1920	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1921	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1922	This is especially true when the sample size is small.										
1923	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1924				Minimum	0.01			Mean	3.268		
1925				Maximum	241			Median	0.01		
1926				SD	24.14			CV	7.386		
1927				k hat (MLE)	0.142			k star (bias corrected MLE)	0.144		
1928				Theta hat (MLE)	23.07			Theta star (bias corrected MLE)	22.71		
1929				nu hat (MLE)	30.59			nu star (bias corrected)	31.08		
1930				Adjusted Level of Significance (β)	0.0478						
1931				Approximate Chi Square Value (31.08, α)	19.34			Adjusted Chi Square Value (31.08, β)	19.22		
1932				95% Gamma Approximate UCL (use when n>=50)	5.251			95% Gamma Adjusted UCL (use when n<50)	N/A		
1933											
1934	Estimates of Gamma Parameters using KM Estimates										
1935				Mean (KM)	12.89			SD (KM)	22.76		
1936				Variance (KM)	518.1			SE of Mean (KM)	2.529		
1937				k hat (KM)	0.321			k star (KM)	0.318		
1938				nu hat (KM)	69.24			nu star (KM)	68.65		
1939				theta hat (KM)	40.2			theta star (KM)	40.55		
1940				80% gamma percentile (KM)	20.03			90% gamma percentile (KM)	37.73		
1941				95% gamma percentile (KM)	57.86			99% gamma percentile (KM)	109.8		
1942											
1943	Gamma Kaplan-Meier (KM) Statistics										
1944				Approximate Chi Square Value (68.65, α)	50.58			Adjusted Chi Square Value (68.65, β)	50.37		
1945				95% Gamma Approximate KM-UCL (use when n>=50)	17.49			95% Gamma Adjusted KM-UCL (use when n<50)	17.57		
1946											
1947	Lognormal GOF Test on Detected Observations Only										
1948				Shapiro Wilk Test Statistic	0.869	Shapiro Wilk GOF Test					
1949				5% Shapiro Wilk Critical Value	0.748	Detected Data appear Lognormal at 5% Significance Level					
1950				Lilliefors Test Statistic	0.275	Lilliefors GOF Test					
1951				5% Lilliefors Critical Value	0.375	Detected Data appear Lognormal at 5% Significance Level					
1952	Detected Data appear Lognormal at 5% Significance Level										
1953											
1954	Lognormal ROS Statistics Using Imputed Non-Detects										
1955				Mean in Original Scale	3.49			Mean in Log Scale	-5.959		
1956				SD in Original Scale	24.12			SD in Log Scale	4.552		
1957				95% t UCL (assumes normality of ROS data)	7.341			95% Percentile Bootstrap UCL	7.669		
1958				95% BCA Bootstrap UCL	12.21			95% Bootstrap t UCL	27.7		
1959				95% H-UCL (Log ROS)	1559						
1960											
1961	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										

1962				KM Mean (logged)	2.364				KM Geo Mean		10.64	
1963				KM SD (logged)	0.367				95% Critical H Value (KM-Log)		1.764	
1964				KM Standard Error of Mean (logged)	0.0408				95% H-UCL (KM -Log)		12.12	
1965				KM SD (logged)	0.367				95% Critical H Value (KM-Log)		1.764	
1966				KM Standard Error of Mean (logged)	0.0408							
1967												
1968					DL/2 Statistics							
1969				DL/2 Normal					DL/2 Log-Transformed			
1970				Mean in Original Scale	8.073				Mean in Log Scale		1.697	
1971				SD in Original Scale	23.49				SD in Log Scale		0.487	
1972				95% t UCL (Assumes normality)	11.82				95% H-Stat UCL		6.693	
1973				DL/2 is not a recommended method, provided for comparisons and historical reasons								
1974												
1975					Nonparametric Distribution Free UCL Statistics							
1976					Detected Data appear Normal Distributed at 5% Significance Level							
1977												
1978					Suggested UCL to Use							
1979				95% KM (t) UCL	17.08							
1980												
1981					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1982					Recommendations are based upon data size, data distribution, and skewness.							
1983					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
1984					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1985												
1986	Result2_ug/kg (ethylbenzene)											
1987												
1988					General Statistics							
1989				Total Number of Observations	108				Number of Distinct Observations		2	
1990				Number of Detects	1				Number of Non-Detects		107	
1991				Number of Distinct Detects	1				Number of Distinct Non-Detects		1	
1992												
1993					Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!							
1994	s suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BT											
1995												
1996					The data set for variable Result2_ug/kg (ethylbenzene) was not processed!							
1997												
1998												
1999	Result2_ug/kg (ethyl-tert-butylether (etbe))											
2000												
2001					General Statistics							
2002				Total Number of Observations	108				Number of Distinct Observations		2	
2003				Number of Detects	0				Number of Non-Detects		108	
2004				Number of Distinct Detects	0				Number of Distinct Non-Detects		2	
2005												
2006					Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!							
2007					Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!							
2008					The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).							
2009												
2010					The data set for variable Result2_ug/kg (ethyl-tert-butylether (etbe)) was not processed!							
2011												
2012												
2013	Result2_ug/kg (freon 113)											
2014												

2015	General Statistics										
2016				Total Number of Observations	108			Number of Distinct Observations	2		
2017				Number of Detects	0			Number of Non-Detects	108		
2018				Number of Distinct Detects	0			Number of Distinct Non-Detects	2		
2019											
2020	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
2021	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
2022	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
2023											
2024	The data set for variable Result2_ug/kg (freon 113) was not processed!										
2025											
2026											
2027	Result2_ug/kg (gasoline range organics)										
2028											
2029	General Statistics										
2030				Total Number of Observations	24			Number of Distinct Observations	1		
2031				Number of Detects	0			Number of Non-Detects	24		
2032				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
2033											
2034	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
2035	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
2036	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
2037											
2038	The data set for variable Result2_ug/kg (gasoline range organics) was not processed!										
2039											
2040											
2041	Result2_ug/kg (hexachlorobutadiene)										
2042											
2043	General Statistics										
2044				Total Number of Observations	108			Number of Distinct Observations	1		
2045				Number of Detects	0			Number of Non-Detects	108		
2046				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
2047											
2048	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
2049	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
2050	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
2051											
2052	The data set for variable Result2_ug/kg (hexachlorobutadiene) was not processed!										
2053											
2054											
2055	Result2_ug/kg (isopropylbenzene)										
2056											
2057	General Statistics										
2058				Total Number of Observations	108			Number of Distinct Observations	1		
2059				Number of Detects	0			Number of Non-Detects	108		
2060				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
2061											
2062	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
2063	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
2064	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
2065											
2066	The data set for variable Result2_ug/kg (isopropylbenzene) was not processed!										
2067											

2068											
2069											
2070	Result2_ug/kg (lead)										
2071											
2072					General Statistics						
2073				Total Number of Observations	3			Number of Distinct Observations	3		
2074								Number of Missing Observations	0		
2075				Minimum	1670			Mean	1753		
2076				Maximum	1890			Median	1700		
2077				SD	119.3			Std. Error of Mean	68.88		
2078				Coefficient of Variation	0.068			Skewness	1.61		
2079											
2080					Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use						
2081					guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.						
2082					For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).						
2083					Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1						
2084											
2085					Normal GOF Test						
2086				Shapiro Wilk Test Statistic	0.85			Shapiro Wilk GOF Test			
2087				5% Shapiro Wilk Critical Value	0.767			Data appear Normal at 5% Significance Level			
2088				Lilliefors Test Statistic	0.339			Lilliefors GOF Test			
2089				5% Lilliefors Critical Value	0.425			Data appear Normal at 5% Significance Level			
2090					Data appear Normal at 5% Significance Level						
2091											
2092					Assuming Normal Distribution						
2093				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
2094				95% Student's-t UCL	1954			95% Adjusted-CLT UCL (Chen-1995)	1935		
2095								95% Modified-t UCL (Johnson-1978)	1965		
2096											
2097					Gamma GOF Test						
2098					Not Enough Data to Perform GOF Test						
2099											
2100					Gamma Statistics						
2101				k hat (MLE)	331.5			k star (bias corrected MLE)	N/A		
2102				Theta hat (MLE)	5.289			Theta star (bias corrected MLE)	N/A		
2103				nu hat (MLE)	1989			nu star (bias corrected)	N/A		
2104				MLE Mean (bias corrected)	N/A			MLE Sd (bias corrected)	N/A		
2105								Approximate Chi Square Value (0.05)	N/A		
2106				Adjusted Level of Significance	N/A			Adjusted Chi Square Value	N/A		
2107											
2108					Assuming Gamma Distribution						
2109				95% Approximate Gamma UCL (use when n>=50))	N/A			95% Adjusted Gamma UCL (use when n<50)	N/A		
2110											
2111					Lognormal GOF Test						
2112				Shapiro Wilk Test Statistic	0.855			Shapiro Wilk Lognormal GOF Test			
2113				5% Shapiro Wilk Critical Value	0.767			Data appear Lognormal at 5% Significance Level			
2114				Lilliefors Test Statistic	0.336			Lilliefors Lognormal GOF Test			
2115				5% Lilliefors Critical Value	0.425			Data appear Lognormal at 5% Significance Level			
2116					Data appear Lognormal at 5% Significance Level						
2117											
2118					Lognormal Statistics						
2119				Minimum of Logged Data	7.421			Mean of logged Data	7.468		
2120				Maximum of Logged Data	7.544			SD of logged Data	0.0669		

2121											
2122					Assuming Lognormal Distribution						
2123				95% H-UCL	N/A			90% Chebyshev (MVUE) UCL	1956		
2124				95% Chebyshev (MVUE) UCL	2048			97.5% Chebyshev (MVUE) UCL	2176		
2125				99% Chebyshev (MVUE) UCL	2427						
2126											
2127					Nonparametric Distribution Free UCL Statistics						
2128					Data appear to follow a Discernible Distribution at 5% Significance Level						
2129											
2130					Nonparametric Distribution Free UCLs						
2131				95% CLT UCL	1867			95% Jackknife UCL	1954		
2132				95% Standard Bootstrap UCL	N/A			95% Bootstrap-t UCL	N/A		
2133				95% Hall's Bootstrap UCL	N/A			95% Percentile Bootstrap UCL	N/A		
2134				95% BCA Bootstrap UCL	N/A						
2135				90% Chebyshev(Mean, Sd) UCL	1960			95% Chebyshev(Mean, Sd) UCL	2054		
2136				97.5% Chebyshev(Mean, Sd) UCL	2183			99% Chebyshev(Mean, Sd) UCL	2439		
2137											
2138					Suggested UCL to Use						
2139				95% Student's-t UCL	1954						
2140											
2141					Recommended UCL exceeds the maximum observation						
2142											
2143					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2144					Recommendations are based upon data size, data distribution, and skewness.						
2145					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
2146					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2147											
2148	Result2_ug/kg (lead, pb)										
2149											
2150					General Statistics						
2151				Total Number of Observations	103			Number of Distinct Observations	59		
2152				Number of Detects	101			Number of Non-Detects	2		
2153				Number of Distinct Detects	58			Number of Distinct Non-Detects	1		
2154				Minimum Detect	600			Minimum Non-Detect	500		
2155				Maximum Detect	1110000			Maximum Non-Detect	500		
2156				Variance Detects	1.235E+10			Percent Non-Detects	1.942%		
2157				Mean Detects	19274			SD Detects	111140		
2158				Median Detects	3200			CV Detects	5.766		
2159				Skewness Detects	9.652			Kurtosis Detects	95.42		
2160				Mean of Logged Detects	8.286			SD of Logged Detects	1.168		
2161											
2162					Normal GOF Test on Detects Only						
2163				Shapiro Wilk Test Statistic	0.162			Normal GOF Test on Detected Observations Only			
2164				5% Shapiro Wilk P Value	0			Detected Data Not Normal at 5% Significance Level			
2165				Lilliefors Test Statistic	0.433			Lilliefors GOF Test			
2166				5% Lilliefors Critical Value	0.0884			Detected Data Not Normal at 5% Significance Level			
2167					Detected Data Not Normal at 5% Significance Level						
2168											
2169					Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs						
2170				KM Mean	18910			KM Standard Error of Mean	10847		
2171				KM SD	109541			95% KM (BCA) UCL	40699		
2172				95% KM (t) UCL	36915			95% KM (Percentile Bootstrap) UCL	39845		
2173				95% KM (z) UCL	36752			95% KM Bootstrap t UCL	119427		

2174				90% KM Chebyshev UCL	51451				95% KM Chebyshev UCL	66191	
2175				97.5% KM Chebyshev UCL	86650				99% KM Chebyshev UCL	126838	
2176											
2177				Gamma GOF Tests on Detected Observations Only							
2178				A-D Test Statistic	17.72	Anderson-Darling GOF Test					
2179				5% A-D Critical Value	0.84	Detected Data Not Gamma Distributed at 5% Significance Level					
2180				K-S Test Statistic	0.356	Kolmogorov-Smirnov GOF					
2181				5% K-S Critical Value	0.0954	Detected Data Not Gamma Distributed at 5% Significance Level					
2182				Detected Data Not Gamma Distributed at 5% Significance Level							
2183											
2184				Gamma Statistics on Detected Data Only							
2185				k hat (MLE)	0.414	k star (bias corrected MLE)	0.408				
2186				Theta hat (MLE)	46543	Theta star (bias corrected MLE)	47193				
2187				nu hat (MLE)	83.65	nu star (bias corrected)	82.5				
2188				Mean (detects)	19274						
2189											
2190				Gamma ROS Statistics using Imputed Non-Detects							
2191				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2192				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2193				For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2194				This is especially true when the sample size is small.							
2195				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2196				Minimum	0.01	Mean	18900				
2197				Maximum	1110000	Median	3200				
2198				SD	110078	CV	5.824				
2199				k hat (MLE)	0.368	k star (bias corrected MLE)	0.364				
2200				Theta hat (MLE)	51321	Theta star (bias corrected MLE)	51921				
2201				nu hat (MLE)	75.86	nu star (bias corrected)	74.99				
2202				Adjusted Level of Significance (β)	0.0477						
2203				Approximate Chi Square Value (74.99, α)	56.04	Adjusted Chi Square Value (74.99, β)	55.81				
2204				95% Gamma Approximate UCL (use when n>=50)	25289	95% Gamma Adjusted UCL (use when n<50)	25394				
2205											
2206				Estimates of Gamma Parameters using KM Estimates							
2207				Mean (KM)	18910	SD (KM)	109541				
2208				Variance (KM)	1.200E+10	SE of Mean (KM)	10847				
2209				k hat (KM)	0.0298	k star (KM)	0.0354				
2210				nu hat (KM)	6.139	nu star (KM)	7.293				
2211				theta hat (KM)	634548	theta star (KM)	534100				
2212				80% gamma percentile (KM)	565.7	90% gamma percentile (KM)	16203				
2213				95% gamma percentile (KM)	83885	99% gamma percentile (KM)	465263				
2214											
2215				Gamma Kaplan-Meier (KM) Statistics							
2216				Approximate Chi Square Value (7.29, α)	2.333	Adjusted Chi Square Value (7.29, β)	2.294				
2217				95% Gamma Approximate KM-UCL (use when n>=50)	59116	95% Gamma Adjusted KM-UCL (use when n<50)	60133				
2218											
2219				Lognormal GOF Test on Detected Observations Only							
2220				Shapiro Wilk Approximate Test Statistic	0.849	Shapiro Wilk GOF Test					
2221				5% Shapiro Wilk P Value	2.887E-15	Detected Data Not Lognormal at 5% Significance Level					
2222				Lilliefors Test Statistic	0.184	Lilliefors GOF Test					
2223				5% Lilliefors Critical Value	0.0884	Detected Data Not Lognormal at 5% Significance Level					
2224				Detected Data Not Lognormal at 5% Significance Level							
2225											
2226				Lognormal ROS Statistics Using Imputed Non-Detects							

2227				Mean in Original Scale	18905				Mean in Log Scale	8.232		
2228				SD in Original Scale	110077				SD in Log Scale	1.219		
2229			95% t UCL (assumes normality of ROS data)		36909				95% Percentile Bootstrap UCL	40178		
2230				95% BCA Bootstrap UCL	53394				95% Bootstrap t UCL	120477		
2231				95% H-UCL (Log ROS)	10582							
2232												
2233				Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution								
2234				KM Mean (logged)	8.246				KM Geo Mean	3813		
2235				KM SD (logged)	1.186				95% Critical H Value (KM-Log)	2.384		
2236				KM Standard Error of Mean (logged)	0.117				95% H-UCL (KM -Log)	10186		
2237				KM SD (logged)	1.186				95% Critical H Value (KM-Log)	2.384		
2238				KM Standard Error of Mean (logged)	0.117							
2239												
2240				DL/2 Statistics								
2241				DL/2 Normal					DL/2 Log-Transformed			
2242				Mean in Original Scale	18905				Mean in Log Scale	8.233		
2243				SD in Original Scale	110077				SD in Log Scale	1.218		
2244				95% t UCL (Assumes normality)	36909				95% H-Stat UCL	10573		
2245				DL/2 is not a recommended method, provided for comparisons and historical reasons								
2246												
2247				Nonparametric Distribution Free UCL Statistics								
2248				Data do not follow a Discernible Distribution at 5% Significance Level								
2249												
2250				Suggested UCL to Use								
2251				95% KM (Chebyshev) UCL	66191							
2252												
2253				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
2254				Recommendations are based upon data size, data distribution, and skewness.								
2255				These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).								
2256				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
2257												
2258	Result2_ug/kg (mercury)											
2259												
2260				General Statistics								
2261				Total Number of Observations	3				Number of Distinct Observations	1		
2262				Number of Detects	0				Number of Non-Detects	3		
2263				Number of Distinct Detects	0				Number of Distinct Non-Detects	1		
2264												
2265				Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!								
2266				Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!								
2267				The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).								
2268												
2269				The data set for variable Result2_ug/kg (mercury) was not processed!								
2270												
2271												
2272	Result2_ug/kg (mercury, hg)											
2273												
2274				General Statistics								
2275				Total Number of Observations	103				Number of Distinct Observations	21		
2276				Number of Detects	27				Number of Non-Detects	76		
2277				Number of Distinct Detects	21				Number of Distinct Non-Detects	1		
2278				Minimum Detect	20				Minimum Non-Detect	20		
2279				Maximum Detect	62				Maximum Non-Detect	20		

2280				Variance Detects	136				Percent Non-Detects	73.79%	
2281				Mean Detects	35.52				SD Detects	11.66	
2282				Median Detects	35				CV Detects	0.328	
2283				Skewness Detects	0.662				Kurtosis Detects	-0.305	
2284				Mean of Logged Detects	3.52				SD of Logged Detects	0.323	
2285											
2286				Normal GOF Test on Detects Only							
2287				Shapiro Wilk Test Statistic	0.937	Shapiro Wilk GOF Test					
2288				5% Shapiro Wilk Critical Value	0.923	Detected Data appear Normal at 5% Significance Level					
2289				Lilliefors Test Statistic	0.126	Lilliefors GOF Test					
2290				5% Lilliefors Critical Value	0.167	Detected Data appear Normal at 5% Significance Level					
2291				Detected Data appear Normal at 5% Significance Level							
2292											
2293				Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs							
2294				KM Mean	24.07	KM Standard Error of Mean	0.903				
2295				KM SD	8.994	95% KM (BCA) UCL	25.6				
2296				95% KM (t) UCL	25.57	95% KM (Percentile Bootstrap) UCL	25.49				
2297				95% KM (z) UCL	25.55	95% KM Bootstrap t UCL	25.88				
2298				90% KM Chebyshev UCL	26.78	95% KM Chebyshev UCL	28				
2299				97.5% KM Chebyshev UCL	29.71	99% KM Chebyshev UCL	33.05				
2300											
2301				Gamma GOF Tests on Detected Observations Only							
2302				A-D Test Statistic	0.328	Anderson-Darling GOF Test					
2303				5% A-D Critical Value	0.744	Detected data appear Gamma Distributed at 5% Significance Level					
2304				K-S Test Statistic	0.105	Kolmogorov-Smirnov GOF					
2305				5% K-S Critical Value	0.168	Detected data appear Gamma Distributed at 5% Significance Level					
2306				Detected data appear Gamma Distributed at 5% Significance Level							
2307											
2308				Gamma Statistics on Detected Data Only							
2309				k hat (MLE)	10.08	k star (bias corrected MLE)	8.981				
2310				Theta hat (MLE)	3.525	Theta star (bias corrected MLE)	3.955				
2311				nu hat (MLE)	544.1	nu star (bias corrected)	485				
2312				Mean (detects)	35.52						
2313											
2314				Gamma ROS Statistics using Imputed Non-Detects							
2315				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2316				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2317				For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2318				This is especially true when the sample size is small.							
2319				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2320				Minimum	0.01	Mean	13.32				
2321				Maximum	62	Median	7.891				
2322				SD	15.62	CV	1.173				
2323				k hat (MLE)	0.288	k star (bias corrected MLE)	0.286				
2324				Theta hat (MLE)	46.19	Theta star (bias corrected MLE)	46.5				
2325				nu hat (MLE)	59.39	nu star (bias corrected)	58.99				
2326				Adjusted Level of Significance (β)	0.0477						
2327				Approximate Chi Square Value (58.99, α)	42.33	Adjusted Chi Square Value (58.99, β)	42.13				
2328				95% Gamma Approximate UCL (use when n>=50)	18.56	95% Gamma Adjusted UCL (use when n<50)	18.64				
2329											
2330				Estimates of Gamma Parameters using KM Estimates							
2331				Mean (KM)	24.07	SD (KM)	8.994				
2332				Variance (KM)	80.9	SE of Mean (KM)	0.903				

	A	B	C	D	E	F	G	H	I	J	K	L
2333					k hat (KM)	7.16				k star (KM)		6.958
2334					nu hat (KM)	1475				nu star (KM)		1433
2335					theta hat (KM)	3.361				theta star (KM)		3.459
2336					80% gamma percentile (KM)	31.22				90% gamma percentile (KM)		36.25
2337					95% gamma percentile (KM)	40.77				99% gamma percentile (KM)		50.19
2338												
2339					Gamma Kaplan-Meier (KM) Statistics							
2340					Approximate Chi Square Value (N/A, α)	1347				Adjusted Chi Square Value (N/A, β)		1345
2341					95% Gamma Approximate KM-UCL (use when n>=50)	25.62				95% Gamma Adjusted KM-UCL (use when n<50)		25.64
2342												
2343					Lognormal GOF Test on Detected Observations Only							
2344					Shapiro Wilk Test Statistic	0.962				Shapiro Wilk GOF Test		
2345					5% Shapiro Wilk Critical Value	0.923				Detected Data appear Lognormal at 5% Significance Level		
2346					Lilliefors Test Statistic	0.0893				Lilliefors GOF Test		
2347					5% Lilliefors Critical Value	0.167				Detected Data appear Lognormal at 5% Significance Level		
2348					Detected Data appear Lognormal at 5% Significance Level							
2349												
2350					Lognormal ROS Statistics Using Imputed Non-Detects							
2351					Mean in Original Scale	18.02				Mean in Log Scale		2.666
2352					SD in Original Scale	12.78				SD in Log Scale		0.681
2353					95% t UCL (assumes normality of ROS data)	20.11				95% Percentile Bootstrap UCL		20.14
2354					95% BCA Bootstrap UCL	20.2				95% Bootstrap t UCL		20.47
2355					95% H-UCL (Log ROS)	20.67						
2356												
2357					Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution							
2358					KM Mean (logged)	3.133				KM Geo Mean		22.94
2359					KM SD (logged)	0.282				95% Critical H Value (KM-Log)		1.726
2360					KM Standard Error of Mean (logged)	0.0283				95% H-UCL (KM -Log)		25.05
2361					KM SD (logged)	0.282				95% Critical H Value (KM-Log)		1.726
2362					KM Standard Error of Mean (logged)	0.0283						
2363												
2364					DL/2 Statistics							
2365					DL/2 Normal					DL/2 Log-Transformed		
2366					Mean in Original Scale	16.69				Mean in Log Scale		2.622
2367					SD in Original Scale	12.72				SD in Log Scale		0.562
2368					95% t UCL (Assumes normality)	18.77				95% H-Stat UCL		17.88
2369					DL/2 is not a recommended method, provided for comparisons and historical reasons							
2370												
2371					Nonparametric Distribution Free UCL Statistics							
2372					Detected Data appear Normal Distributed at 5% Significance Level							
2373												
2374					Suggested UCL to Use							
2375					95% KM (t) UCL	25.57						
2376												
2377					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2378					Recommendations are based upon data size, data distribution, and skewness.							
2379					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
2380					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2381												
2382	Result2_ug/kg (methylene chloride)											
2383												
2384					General Statistics							
2385					Total Number of Observations	108				Number of Distinct Observations		1

2386				Number of Detects	0				Number of Non-Detects	108		
2387				Number of Distinct Detects	0				Number of Distinct Non-Detects	1		
2388												
2389	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
2390	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
2391	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
2392												
2393	The data set for variable Result2_ug/kg (methylene chloride) was not processed!											
2394												
2395												
2396	Result2_ug/kg (methyl-t-butyl ether (mtbe))											
2397												
2398	General Statistics											
2399				Total Number of Observations	108				Number of Distinct Observations	2		
2400				Number of Detects	0				Number of Non-Detects	108		
2401				Number of Distinct Detects	0				Number of Distinct Non-Detects	2		
2402												
2403	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
2404	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
2405	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
2406												
2407	The data set for variable Result2_ug/kg (methyl-t-butyl ether (mtbe)) was not processed!											
2408												
2409												
2410	Result2_ug/kg (molybdenum)											
2411												
2412	General Statistics											
2413				Total Number of Observations	3				Number of Distinct Observations	1		
2414				Number of Detects	0				Number of Non-Detects	3		
2415				Number of Distinct Detects	0				Number of Distinct Non-Detects	1		
2416												
2417	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
2418	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
2419	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
2420												
2421	The data set for variable Result2_ug/kg (molybdenum) was not processed!											
2422												
2423												
2424	Result2_ug/kg (molybdenum, mo)											
2425												
2426	General Statistics											
2427				Total Number of Observations	103				Number of Distinct Observations	2		
2428				Number of Detects	1				Number of Non-Detects	102		
2429				Number of Distinct Detects	1				Number of Distinct Non-Detects	1		
2430												
2431	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
2432	s suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BT											
2433												
2434	The data set for variable Result2_ug/kg (molybdenum, mo) was not processed!											
2435												
2436												
2437	Result2_ug/kg (naphthalene)											
2438												

2439	General Statistics										
2440				Total Number of Observations	108			Number of Distinct Observations	1		
2441				Number of Detects	0			Number of Non-Detects	108		
2442				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
2443											
2444	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
2445	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
2446	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
2447											
2448	The data set for variable Result2_ug/kg (naphthalene) was not processed!										
2449											
2450											
2451	Result2_ug/kg (n-butylbenzene)										
2452											
2453	General Statistics										
2454				Total Number of Observations	108			Number of Distinct Observations	1		
2455				Number of Detects	0			Number of Non-Detects	108		
2456				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
2457											
2458	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
2459	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
2460	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
2461											
2462	The data set for variable Result2_ug/kg (n-butylbenzene) was not processed!										
2463											
2464											
2465											
2466	Result2_ug/kg (nickel)										
2467											
2468	General Statistics										
2469				Total Number of Observations	3			Number of Distinct Observations	3		
2470								Number of Missing Observations	0		
2471				Minimum	10800			Mean	14500		
2472				Maximum	17600			Median	15100		
2473				SD	3439			Std. Error of Mean	1986		
2474				Coefficient of Variation	0.237			Skewness	-0.761		
2475											
2476	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
2477	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
2478	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
2479	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
2480											
2481	Normal GOF Test										
2482				Shapiro Wilk Test Statistic	0.977			Shapiro Wilk GOF Test			
2483				5% Shapiro Wilk Critical Value	0.767			Data appear Normal at 5% Significance Level			
2484				Lilliefors Test Statistic	0.236			Lilliefors GOF Test			
2485				5% Lilliefors Critical Value	0.425			Data appear Normal at 5% Significance Level			
2486	Data appear Normal at 5% Significance Level										
2487											
2488	Assuming Normal Distribution										
2489	95% Normal UCL							95% UCLs (Adjusted for Skewness)			
2490				95% Student's-t UCL	20298			95% Adjusted-CLT UCL (Chen-1995)	16834		
2491								95% Modified-t UCL (Johnson-1978)	20153		

2492											
2493						Gamma GOF Test					
2494						Not Enough Data to Perform GOF Test					
2495											
2496						Gamma Statistics					
2497					k hat (MLE)	25.04			k star (bias corrected MLE)	N/A	
2498					Theta hat (MLE)	579.1			Theta star (bias corrected MLE)	N/A	
2499					nu hat (MLE)	150.2			nu star (bias corrected)	N/A	
2500					MLE Mean (bias corrected)	N/A			MLE Sd (bias corrected)	N/A	
2501									Approximate Chi Square Value (0.05)	N/A	
2502					Adjusted Level of Significance	N/A			Adjusted Chi Square Value	N/A	
2503											
2504						Assuming Gamma Distribution					
2505					95% Approximate Gamma UCL (use when n>=50))	N/A			95% Adjusted Gamma UCL (use when n<50)	N/A	
2506											
2507						Lognormal GOF Test					
2508					Shapiro Wilk Test Statistic	0.956			Shapiro Wilk Lognormal GOF Test		
2509					5% Shapiro Wilk Critical Value	0.767			Data appear Lognormal at 5% Significance Level		
2510					Lilliefors Test Statistic	0.263			Lilliefors Lognormal GOF Test		
2511					5% Lilliefors Critical Value	0.425			Data appear Lognormal at 5% Significance Level		
2512						Data appear Lognormal at 5% Significance Level					
2513											
2514						Lognormal Statistics					
2515					Minimum of Logged Data	9.287			Mean of logged Data	9.562	
2516					Maximum of Logged Data	9.776			SD of logged Data	0.25	
2517											
2518						Assuming Lognormal Distribution					
2519					95% H-UCL	28016			90% Chebyshev (MVUE) UCL	20736	
2520					95% Chebyshev (MVUE) UCL	23557			97.5% Chebyshev (MVUE) UCL	27473	
2521					99% Chebyshev (MVUE) UCL	35164					
2522											
2523						Nonparametric Distribution Free UCL Statistics					
2524						Data appear to follow a Discernible Distribution at 5% Significance Level					
2525											
2526						Nonparametric Distribution Free UCLs					
2527					95% CLT UCL	17766			95% Jackknife UCL	20298	
2528					95% Standard Bootstrap UCL	N/A			95% Bootstrap-t UCL	N/A	
2529					95% Hall's Bootstrap UCL	N/A			95% Percentile Bootstrap UCL	N/A	
2530					95% BCA Bootstrap UCL	N/A					
2531					90% Chebyshev(Mean, Sd) UCL	20457			95% Chebyshev(Mean, Sd) UCL	23156	
2532					97.5% Chebyshev(Mean, Sd) UCL	26901			99% Chebyshev(Mean, Sd) UCL	34258	
2533											
2534						Suggested UCL to Use					
2535					95% Student's-t UCL	20298					
2536											
2537						Recommended UCL exceeds the maximum observation					
2538											
2539						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.					
2540						Recommendations are based upon data size, data distribution, and skewness.					
2541						These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).					
2542						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.					
2543											
2544						Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be					

2545	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.										
2546											
2547											
2548	Result2_ug/kg (nickel, ni)										
2549											
2550	General Statistics										
2551				Total Number of Observations	103			Number of Distinct Observations	87		
2552								Number of Missing Observations	0		
2553				Minimum	2300			Mean	18606		
2554				Maximum	47100			Median	18800		
2555				SD	6432			Std. Error of Mean	633.8		
2556				Coefficient of Variation	0.346			Skewness	0.597		
2557											
2558	Normal GOF Test										
2559				Shapiro Wilk Test Statistic	0.975			Shapiro Wilk GOF Test			
2560				5% Shapiro Wilk P Value	0.283			Data appear Normal at 5% Significance Level			
2561				Lilliefors Test Statistic	0.0572			Lilliefors GOF Test			
2562				5% Lilliefors Critical Value	0.0876			Data appear Normal at 5% Significance Level			
2563	Data appear Normal at 5% Significance Level										
2564											
2565	Assuming Normal Distribution										
2566				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
2567				95% Student's-t UCL	19658			95% Adjusted-CLT UCL (Chen-1995)	19688		
2568								95% Modified-t UCL (Johnson-1978)	19664		
2569											
2570	Gamma GOF Test										
2571				A-D Test Statistic	1.138			Anderson-Darling Gamma GOF Test			
2572				5% A-D Critical Value	0.753			Data Not Gamma Distributed at 5% Significance Level			
2573				K-S Test Statistic	0.09			Kolmogorov-Smirnov Gamma GOF Test			
2574				5% K-S Critical Value	0.0887			Data Not Gamma Distributed at 5% Significance Level			
2575	Data Not Gamma Distributed at 5% Significance Level										
2576											
2577	Gamma Statistics										
2578				k hat (MLE)	7.288			k star (bias corrected MLE)	7.082		
2579				Theta hat (MLE)	2553			Theta star (bias corrected MLE)	2627		
2580				nu hat (MLE)	1501			nu star (bias corrected)	1459		
2581				MLE Mean (bias corrected)	18606			MLE Sd (bias corrected)	6991		
2582								Approximate Chi Square Value (0.05)	1371		
2583				Adjusted Level of Significance	0.0477			Adjusted Chi Square Value	1370		
2584											
2585	Assuming Gamma Distribution										
2586				95% Approximate Gamma UCL (use when n>=50))	19796			95% Adjusted Gamma UCL (use when n<50)	19813		
2587											
2588	Lognormal GOF Test										
2589				Shapiro Wilk Test Statistic	0.915			Shapiro Wilk Lognormal GOF Test			
2590				5% Shapiro Wilk P Value	2.0528E-7			Data Not Lognormal at 5% Significance Level			
2591				Lilliefors Test Statistic	0.115			Lilliefors Lognormal GOF Test			
2592				5% Lilliefors Critical Value	0.0876			Data Not Lognormal at 5% Significance Level			
2593	Data Not Lognormal at 5% Significance Level										
2594											
2595	Lognormal Statistics										
2596				Minimum of Logged Data	7.741			Mean of logged Data	9.761		
2597				Maximum of Logged Data	10.76			SD of logged Data	0.41		

2598											
2599					Assuming Lognormal Distribution						
2600					95% H-UCL	20279			90% Chebyshev (MVUE) UCL	21217	
2601					95% Chebyshev (MVUE) UCL	22290			97.5% Chebyshev (MVUE) UCL	23780	
2602					99% Chebyshev (MVUE) UCL	26705					
2603											
2604					Nonparametric Distribution Free UCL Statistics						
2605					Data appear to follow a Discernible Distribution at 5% Significance Level						
2606											
2607					Nonparametric Distribution Free UCLs						
2608					95% CLT UCL	19648			95% Jackknife UCL	19658	
2609					95% Standard Bootstrap UCL	19641			95% Bootstrap-t UCL	19643	
2610					95% Hall's Bootstrap UCL	19683			95% Percentile Bootstrap UCL	19706	
2611					95% BCA Bootstrap UCL	19634					
2612					90% Chebyshev(Mean, Sd) UCL	20507			95% Chebyshev(Mean, Sd) UCL	21368	
2613					97.5% Chebyshev(Mean, Sd) UCL	22564			99% Chebyshev(Mean, Sd) UCL	24912	
2614											
2615					Suggested UCL to Use						
2616					95% Student's-t UCL	19658					
2617											
2618					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2619					Recommendations are based upon data size, data distribution, and skewness.						
2620					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
2621					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2622											
2623	Result2_ug/kg (n-propylbenzene)										
2624											
2625					General Statistics						
2626					Total Number of Observations	108			Number of Distinct Observations	1	
2627					Number of Detects	0			Number of Non-Detects	108	
2628					Number of Distinct Detects	0			Number of Distinct Non-Detects	1	
2629											
2630					Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!						
2631					Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!						
2632					The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).						
2633											
2634					The data set for variable Result2_ug/kg (n-propylbenzene) was not processed!						
2635											
2636											
2637	Result2_ug/kg (oro (c29-c32))										
2638											
2639					General Statistics						
2640					Total Number of Observations	108			Number of Distinct Observations	4	
2641					Number of Detects	3			Number of Non-Detects	105	
2642					Number of Distinct Detects	3			Number of Distinct Non-Detects	1	
2643					Minimum Detect	42.1			Minimum Non-Detect	10	
2644					Maximum Detect	169			Maximum Non-Detect	10	
2645					Variance Detects	4194			Percent Non-Detects	97.22%	
2646					Mean Detects	113			SD Detects	64.76	
2647					Median Detects	128			CV Detects	0.573	
2648					Skewness Detects	-0.984			Kurtosis Detects	N/A	
2649					Mean of Logged Detects	4.574			SD of Logged Detects	0.735	
2650											

	A	B	C	D	E	F	G	H	I	J	K	L
2651	Warning: Data set has only 3 Detected Values.											
2652	This is not enough to compute meaningful or reliable statistics and estimates.											
2653												
2654												
2655	Normal GOF Test on Detects Only											
2656					Shapiro Wilk Test Statistic	0.96	Shapiro Wilk GOF Test					
2657					5% Shapiro Wilk Critical Value	0.767	Detected Data appear Normal at 5% Significance Level					
2658					Lilliefors Test Statistic	0.258	Lilliefors GOF Test					
2659					5% Lilliefors Critical Value	0.425	Detected Data appear Normal at 5% Significance Level					
2660	Detected Data appear Normal at 5% Significance Level											
2661												
2662	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
2663					KM Mean	12.86	KM Standard Error of Mean	2.25				
2664					KM SD	19.09	95% KM (BCA) UCL	N/A				
2665					95% KM (t) UCL	16.59	95% KM (Percentile Bootstrap) UCL	N/A				
2666					95% KM (z) UCL	16.56	95% KM Bootstrap t UCL	N/A				
2667					90% KM Chebyshev UCL	19.61	95% KM Chebyshev UCL	22.67				
2668					97.5% KM Chebyshev UCL	26.91	99% KM Chebyshev UCL	35.24				
2669												
2670	Gamma GOF Tests on Detected Observations Only											
2671	Not Enough Data to Perform GOF Test											
2672												
2673	Gamma Statistics on Detected Data Only											
2674					k hat (MLE)	3.411	k star (bias corrected MLE)	N/A				
2675					Theta hat (MLE)	33.14	Theta star (bias corrected MLE)	N/A				
2676					nu hat (MLE)	20.47	nu star (bias corrected)	N/A				
2677					Mean (detects)	113						
2678												
2679	Gamma ROS Statistics using Imputed Non-Detects											
2680	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2681	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2682	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2683	This is especially true when the sample size is small.											
2684	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2685					Minimum	0.01	Mean	3.15				
2686					Maximum	169	Median	0.01				
2687					SD	20.65	CV	6.558				
2688					k hat (MLE)	0.141	k star (bias corrected MLE)	0.143				
2689					Theta hat (MLE)	22.33	Theta star (bias corrected MLE)	21.98				
2690					nu hat (MLE)	30.47	nu star (bias corrected)	30.95				
2691					Adjusted Level of Significance (β)	0.0478						
2692					Approximate Chi Square Value (30.95, α)	19.24	Adjusted Chi Square Value (30.95, β)	19.12				
2693					95% Gamma Approximate UCL (use when n>=50)	5.066	95% Gamma Adjusted UCL (use when n<50)	N/A				
2694												
2695	Estimates of Gamma Parameters using KM Estimates											
2696					Mean (KM)	12.86	SD (KM)	19.09				
2697					Variance (KM)	364.4	SE of Mean (KM)	2.25				
2698					k hat (KM)	0.454	k star (KM)	0.448				
2699					nu hat (KM)	98.07	nu star (KM)	96.68				
2700					theta hat (KM)	28.33	theta star (KM)	28.74				
2701					80% gamma percentile (KM)	20.98	90% gamma percentile (KM)	35.58				
2702					95% gamma percentile (KM)	51.38	99% gamma percentile (KM)	90.67				
2703												

	A	B	C	D	E	F	G	H	I	J	K	L
2704	Gamma Kaplan-Meier (KM) Statistics											
2705	Approximate Chi Square Value (96.68, α)					75	Adjusted Chi Square Value (96.68, β)					74.74
2706	95% Gamma Approximate KM-UCL (use when n>=50)					16.58	95% Gamma Adjusted KM-UCL (use when n<50)					16.64
2707												
2708	Lognormal GOF Test on Detected Observations Only											
2709	Shapiro Wilk Test Statistic					0.893	Shapiro Wilk GOF Test					
2710	5% Shapiro Wilk Critical Value					0.767	Detected Data appear Lognormal at 5% Significance Level					
2711	Lilliefors Test Statistic					0.314	Lilliefors GOF Test					
2712	5% Lilliefors Critical Value					0.425	Detected Data appear Lognormal at 5% Significance Level					
2713	Detected Data appear Lognormal at 5% Significance Level											
2714												
2715	Lognormal ROS Statistics Using Imputed Non-Detects											
2716	Mean in Original Scale					4.396	Mean in Log Scale					-2.297
2717	SD in Original Scale					20.76	SD in Log Scale					3.001
2718	95% t UCL (assumes normality of ROS data)					7.711	95% Percentile Bootstrap UCL					8.139
2719	95% BCA Bootstrap UCL					10.29	95% Bootstrap t UCL					18.3
2720	95% H-UCL (Log ROS)					34.5						
2721												
2722	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
2723	KM Mean (logged)					2.366	KM Geo Mean					10.65
2724	KM SD (logged)					0.386	95% Critical H Value (KM-Log)					1.773
2725	KM Standard Error of Mean (logged)					0.0455	95% H-UCL (KM -Log)					12.26
2726	KM SD (logged)					0.386	95% Critical H Value (KM-Log)					1.773
2727	KM Standard Error of Mean (logged)					0.0455						
2728												
2729	DL/2 Statistics											
2730	DL/2 Normal						DL/2 Log-Transformed					
2731	Mean in Original Scale					8.001	Mean in Log Scale					1.692
2732	SD in Original Scale					19.91	SD in Log Scale					0.5
2733	95% t UCL (Assumes normality)					11.18	95% H-Stat UCL					6.72
2734	DL/2 is not a recommended method, provided for comparisons and historical reasons											
2735												
2736	Nonparametric Distribution Free UCL Statistics											
2737	Detected Data appear Normal Distributed at 5% Significance Level											
2738												
2739	Suggested UCL to Use											
2740	95% KM (t) UCL					16.59						
2741												
2742	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2743	Recommendations are based upon data size, data distribution, and skewness.											
2744	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
2745	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2746												
2747	Result2_ug/kg (sec-butylbenzene)											
2748												
2749	General Statistics											
2750	Total Number of Observations					108	Number of Distinct Observations					1
2751	Number of Detects					0	Number of Non-Detects					108
2752	Number of Distinct Detects					0	Number of Distinct Non-Detects					1
2753												
2754	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
2755	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
2756	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.13/22/2017 2:29:20 PM
From File	Soil Data_BOTHlayers_a.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Result2 (tetrachloroethylene_ug/g)

General Statistics

Total Number of Observations	115	Number of Distinct Observations	68
Number of Detects	83	Number of Non-Detects	32
Number of Distinct Detects	67	Number of Distinct Non-Detects	1
Minimum Detect	0.001	Minimum Non-Detect	1
Maximum Detect	3.33	Maximum Non-Detect	1
Variance Detects	0.281	Percent Non-Detects	27.83%
Mean Detects	0.131	SD Detects	0.53
Median Detects	0.0082	CV Detects	4.035
Skewness Detects	5.005	Kurtosis Detects	24.87
Mean of Logged Detects	-4.537	SD of Logged Detects	1.788

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.268	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.455	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0974	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.104	KM Standard Error of Mean	0.0429
KM SD	0.453	95% KM (BCA) UCL	0.184
95% KM (t) UCL	0.175	95% KM (Percentile Bootstrap) UCL	0.18
95% KM (z) UCL	0.174	95% KM Bootstrap t UCL	0.235
90% KM Chebyshev UCL	0.232	95% KM Chebyshev UCL	0.291
97.5% KM Chebyshev UCL	0.371	99% KM Chebyshev UCL	0.53

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	12.07	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.876	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.322	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.107	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.278	k star (bias corrected MLE)	0.276
Theta hat (MLE)	0.472	Theta star (bias corrected MLE)	0.476
nu hat (MLE)	46.21	nu star (bias corrected)	45.87
Mean (detects)	0.131		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58					Minimum	0.001				Mean	0.128	
59					Maximum	3.33				Median	0.01	
60					SD	0.465				CV	3.635	
61					k hat (MLE)	0.31				k star (bias corrected MLE)	0.308	
62					Theta hat (MLE)	0.412				Theta star (bias corrected MLE)	0.415	
63					nu hat (MLE)	71.37				nu star (bias corrected)	70.84	
64					Adjusted Level of Significance (β)	0.0479						
65					Approximate Chi Square Value (70.84, α)	52.46				Adjusted Chi Square Value (70.84, β)	52.26	
66					95% Gamma Approximate UCL (use when n>=50)	0.173				95% Gamma Adjusted UCL (use when n<50)	0.173	
67												
68	**Estimates of Gamma Parameters using KM Estimates**											
69					Mean (KM)	0.104				SD (KM)	0.453	
70					Variance (KM)	0.205				SE of Mean (KM)	0.0429	
71					k hat (KM)	0.0525				k star (KM)	0.0569	
72					nu hat (KM)	12.08				nu star (KM)	13.1	
73					theta hat (KM)	1.976				theta star (KM)	1.822	
74					80% gamma percentile (KM)	0.0215				90% gamma percentile (KM)	0.185	
75					95% gamma percentile (KM)	0.574				99% gamma percentile (KM)	2.14	
76												
77	**Gamma Kaplan-Meier (KM) Statistics**											
78					Approximate Chi Square Value (13.10, α)	5.958				Adjusted Chi Square Value (13.10, β)	5.897	
79					95% Gamma Approximate KM-UCL (use when n>=50)	0.228				95% Gamma Adjusted KM-UCL (use when n<50)	0.23	
80												
81	**Lognormal GOF Test on Detected Observations Only**											
82					Shapiro Wilk Approximate Test Statistic	0.887				**Shapiro Wilk GOF Test**		
83					5% Shapiro Wilk P Value	2.5518E-8				Detected Data Not Lognormal at 5% Significance Level		
84					Lilliefors Test Statistic	0.107				**Lilliefors GOF Test**		
85					5% Lilliefors Critical Value	0.0974				Detected Data Not Lognormal at 5% Significance Level		
86	**Detected Data Not Lognormal at 5% Significance Level**											
87												
88	**Lognormal ROS Statistics Using Imputed Non-Detects**											
89					Mean in Original Scale	0.102				Mean in Log Scale	-4.575	
90					SD in Original Scale	0.453				SD in Log Scale	1.71	
91					95% t UCL (assumes normality of ROS data)	0.172				95% Percentile Bootstrap UCL	0.174	
92					95% BCA Bootstrap UCL	0.204				95% Bootstrap t UCL	0.34	
93					95% H-UCL (Log ROS)	0.0716						
94												
95	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
96					KM Mean (logged)	-4.595				KM Geo Mean	0.0101	
97					KM SD (logged)	1.693				95% Critical H Value (KM-Log)	2.957	
98					KM Standard Error of Mean (logged)	0.18				95% H-UCL (KM -Log)	0.0676	
99					KM SD (logged)	1.693				95% Critical H Value (KM-Log)	2.957	
100					KM Standard Error of Mean (logged)	0.18						
101												
102	**DL/2 Statistics**											
103	**DL/2 Normal**									**DL/2 Log-Transformed**		
104					Mean in Original Scale	0.234				Mean in Log Scale	-3.468	
105					SD in Original Scale	0.479				SD in Log Scale	2.301	
106					95% t UCL (Assumes normality)	0.308				95% H-Stat UCL	0.977	
107	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
108												

	A	B	C	D	E	F	G	H	I	J	K	L
109	**Nonparametric Distribution Free UCL Statistics**											
110	**Data do not follow a Discernible Distribution at 5% Significance Level**											
111												
112	**Suggested UCL to Use**											
113	95% KM (Chebyshev) UCL					0.291						
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

The data set for variable Result2_ug/kg (sec-butylbenzene) was not processed!

Result2_ug/kg (selenium)

General Statistics

Total Number of Observations	3	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	3
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (selenium) was not processed!

Result2_ug/kg (selenium, se)

General Statistics

Total Number of Observations	103	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	103
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (selenium, se) was not processed!

Result2_ug/kg (silver)

General Statistics

Total Number of Observations	3	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	3
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (silver) was not processed!

Result2_ug/kg (silver, ag)

General Statistics

Total Number of Observations	103	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	103
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

	A	B	C	D	E	F	G	H	I	J	K	L
2810	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
2811	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
2812	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
2813												
2814	The data set for variable Result2_ug/kg (silver, ag) was not processed!											
2815												
2816												
2817	Result2_ug/kg (styrene)											
2818												
2819	General Statistics											
2820	Total Number of Observations					108	Number of Distinct Observations					1
2821	Number of Detects					0	Number of Non-Detects					108
2822	Number of Distinct Detects					0	Number of Distinct Non-Detects					1
2823												
2824	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
2825	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
2826	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
2827												
2828	The data set for variable Result2_ug/kg (styrene) was not processed!											
2829												
2830												
2831	Result2_ug/kg (tert- butylalcohol (tba))											
2832												
2833	General Statistics											
2834	Total Number of Observations					108	Number of Distinct Observations					2
2835	Number of Detects					0	Number of Non-Detects					108
2836	Number of Distinct Detects					0	Number of Distinct Non-Detects					2
2837												
2838	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
2839	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
2840	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
2841												
2842	The data set for variable Result2_ug/kg (tert- butylalcohol (tba)) was not processed!											
2843												
2844												
2845	Result2_ug/kg (tert-amylmethylether (tame))											
2846												
2847	General Statistics											
2848	Total Number of Observations					108	Number of Distinct Observations					2
2849	Number of Detects					0	Number of Non-Detects					108
2850	Number of Distinct Detects					0	Number of Distinct Non-Detects					2
2851												
2852	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
2853	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
2854	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
2855												
2856	The data set for variable Result2_ug/kg (tert-amylmethylether (tame)) was not processed!											
2857												
2858												
2859	Result2_ug/kg (tert-butylbenzene)											
2860												
2861	General Statistics											
2862	Total Number of Observations					108	Number of Distinct Observations					1

	A	B	C	D	E	F	G	H	I	J	K	L
3022	The data set for variable Result2_ug/kg (toluene) was not processed!											
3023												
3024												
3025	Result2_ug/kg (tph gasoline range)											
3026												
3027	General Statistics											
3028					Total Number of Observations	84			Number of Distinct Observations	2		
3029					Number of Detects	0			Number of Non-Detects	84		
3030					Number of Distinct Detects	0			Number of Distinct Non-Detects	2		
3031												
3032	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
3033	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
3034	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
3035												
3036	The data set for variable Result2_ug/kg (tph gasoline range) was not processed!											
3037												
3038												
3039	Result2_ug/kg (trans-1,2-dichloroethene)											
3040												
3041	General Statistics											
3042					Total Number of Observations	108			Number of Distinct Observations	2		
3043					Number of Detects	1			Number of Non-Detects	107		
3044					Number of Distinct Detects	1			Number of Distinct Non-Detects	1		
3045												
3046	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
3047	s suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BT											
3048												
3049	The data set for variable Result2_ug/kg (trans-1,2-dichloroethene) was not processed!											
3050												
3051												
3052	Result2_ug/kg (trans-1,3-dichloropropene)											
3053												
3054	General Statistics											
3055					Total Number of Observations	108			Number of Distinct Observations	1		
3056					Number of Detects	0			Number of Non-Detects	108		
3057					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
3058												
3059	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
3060	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
3061	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
3062												
3063	The data set for variable Result2_ug/kg (trans-1,3-dichloropropene) was not processed!											
3064												
3065												
3066	Result2_ug/kg (trichloroethylene)											
3067												
3068	General Statistics											
3069					Total Number of Observations	108			Number of Distinct Observations	16		
3070					Number of Detects	17			Number of Non-Detects	91		
3071					Number of Distinct Detects	16			Number of Distinct Non-Detects	1		
3072					Minimum Detect	1			Minimum Non-Detect	1		
3073					Maximum Detect	4800			Maximum Non-Detect	1		
3074					Variance Detects	1346650			Percent Non-Detects	84.26%		

3075				Mean Detects	299.2				SD Detects	1160	
3076				Median Detects	2.7				CV Detects	3.878	
3077				Skewness Detects	4.116				Kurtosis Detects	16.96	
3078				Mean of Logged Detects	1.947				SD of Logged Detects	2.222	
3079											
3080				Normal GOF Test on Detects Only							
3081				Shapiro Wilk Test Statistic	0.28	Shapiro Wilk GOF Test					
3082				5% Shapiro Wilk Critical Value	0.892	Detected Data Not Normal at 5% Significance Level					
3083				Lilliefors Test Statistic	0.491	Lilliefors GOF Test					
3084				5% Lilliefors Critical Value	0.207	Detected Data Not Normal at 5% Significance Level					
3085				Detected Data Not Normal at 5% Significance Level							
3086											
3087				Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs							
3088				KM Mean	47.94	KM Standard Error of Mean	45.59				
3089				KM SD	459.7	95% KM (BCA) UCL	136.3				
3090				95% KM (t) UCL	123.6	95% KM (Percentile Bootstrap) UCL	136.8				
3091				95% KM (z) UCL	122.9	95% KM Bootstrap t UCL	6545				
3092				90% KM Chebyshev UCL	184.7	95% KM Chebyshev UCL	246.7				
3093				97.5% KM Chebyshev UCL	332.7	99% KM Chebyshev UCL	501.6				
3094											
3095				Gamma GOF Tests on Detected Observations Only							
3096				A-D Test Statistic	3.422	Anderson-Darling GOF Test					
3097				5% A-D Critical Value	0.889	Detected Data Not Gamma Distributed at 5% Significance Level					
3098				K-S Test Statistic	0.361	Kolmogorov-Smirnov GOF					
3099				5% K-S Critical Value	0.232	Detected Data Not Gamma Distributed at 5% Significance Level					
3100				Detected Data Not Gamma Distributed at 5% Significance Level							
3101											
3102				Gamma Statistics on Detected Data Only							
3103				k hat (MLE)	0.197	k star (bias corrected MLE)	0.201				
3104				Theta hat (MLE)	1522	Theta star (bias corrected MLE)	1488				
3105				nu hat (MLE)	6.682	nu star (bias corrected)	6.836				
3106				Mean (detects)	299.2						
3107											
3108				Gamma ROS Statistics using Imputed Non-Detects							
3109				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
3110				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
3111				For such situations, GROS method may yield incorrect values of UCLs and BTVs							
3112				This is especially true when the sample size is small.							
3113				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
3114				Minimum	0.01	Mean	47.11				
3115				Maximum	4800	Median	0.01				
3116				SD	461.9	CV	9.805				
3117				k hat (MLE)	0.108	k star (bias corrected MLE)	0.111				
3118				Theta hat (MLE)	435.2	Theta star (bias corrected MLE)	422.8				
3119				nu hat (MLE)	23.38	nu star (bias corrected)	24.07				
3120				Adjusted Level of Significance (β)	0.0478						
3121				Approximate Chi Square Value (24.07, α)	13.9	Adjusted Chi Square Value (24.07, β)	13.79				
3122				95% Gamma Approximate UCL (use when n>=50)	81.56	95% Gamma Adjusted UCL (use when n<50)	82.18				
3123											
3124				Estimates of Gamma Parameters using KM Estimates							
3125				Mean (KM)	47.94	SD (KM)	459.7				
3126				Variance (KM)	211299	SE of Mean (KM)	45.59				
3127				k hat (KM)	0.0109	k star (KM)	0.0167				

3128					nu hat (KM)	2.349				nu star (KM)	3.618	
3129					theta hat (KM)	4407				theta star (KM)	2863	
3130					80% gamma percentile (KM)	0.00266				90% gamma percentile (KM)	3.022	
3131					95% gamma percentile (KM)	78.25				99% gamma percentile (KM)	1357	
3132												
3133					Gamma Kaplan-Meier (KM) Statistics							
3134					Approximate Chi Square Value (3.62, α)	0.577				Adjusted Chi Square Value (3.62, β)	0.562	
3135					95% Gamma Approximate KM-UCL (use when n>=50)	300.7				95% Gamma Adjusted KM-UCL (use when n<50)	308.7	
3136												
3137					Lognormal GOF Test on Detected Observations Only							
3138					Shapiro Wilk Test Statistic	0.786				Shapiro Wilk GOF Test		
3139					5% Shapiro Wilk Critical Value	0.892				Detected Data Not Lognormal at 5% Significance Level		
3140					Lilliefors Test Statistic	0.248				Lilliefors GOF Test		
3141					5% Lilliefors Critical Value	0.207				Detected Data Not Lognormal at 5% Significance Level		
3142					Detected Data Not Lognormal at 5% Significance Level							
3143												
3144					Lognormal ROS Statistics Using Imputed Non-Detects							
3145					Mean in Original Scale	47.12				Mean in Log Scale	-6.423	
3146					SD in Original Scale	461.9				SD in Log Scale	5.436	
3147					95% t UCL (assumes normality of ROS data)	120.9				95% Percentile Bootstrap UCL	136.3	
3148					95% BCA Bootstrap UCL	223.8				95% Bootstrap t UCL	3313	
3149					95% H-UCL (Log ROS)	273762						
3150												
3151					Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution							
3152					KM Mean (logged)	0.306				KM Geo Mean	1.359	
3153					KM SD (logged)	1.111				95% Critical H Value (KM-Log)	2.316	
3154					KM Standard Error of Mean (logged)	0.11				95% H-UCL (KM -Log)	3.229	
3155					KM SD (logged)	1.111				95% Critical H Value (KM-Log)	2.316	
3156					KM Standard Error of Mean (logged)	0.11						
3157												
3158					DL/2 Statistics							
3159					DL/2 Normal					DL/2 Log-Transformed		
3160					Mean in Original Scale	47.52				Mean in Log Scale	-0.278	
3161					SD in Original Scale	461.9				SD in Log Scale	1.293	
3162					95% t UCL (Assumes normality)	121.3				95% H-Stat UCL	2.388	
3163					DL/2 is not a recommended method, provided for comparisons and historical reasons							
3164												
3165					Nonparametric Distribution Free UCL Statistics							
3166					Data do not follow a Discernible Distribution at 5% Significance Level							
3167												
3168					Suggested UCL to Use							
3169					95% KM (Chebyshev) UCL	246.7						
3170												
3171					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3172					Recommendations are based upon data size, data distribution, and skewness.							
3173					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
3174					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3175												
3176	Result2_ug/kg (trichlorofluoromethane)											
3177												
3178					General Statistics							
3179					Total Number of Observations	108				Number of Distinct Observations	2	
3180					Number of Detects	0				Number of Non-Detects	108	

3181				Number of Distinct Detects	0			Number of Distinct Non-Detects		2	
3182											
3183	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
3184	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
3185	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
3186											
3187	The data set for variable Result2_ug/kg (trichlorofluoromethane) was not processed!										
3188											
3189											
3190											
3191	Result2_ug/kg (vanadium)										
3192											
3193	General Statistics										
3194				Total Number of Observations	3			Number of Distinct Observations		3	
3195								Number of Missing Observations		0	
3196				Minimum	31100			Mean		37800	
3197				Maximum	44500			Median		37800	
3198				SD	6700			Std. Error of Mean		3868	
3199				Coefficient of Variation	0.177			Skewness		0	
3200											
3201	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
3202	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
3203	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
3204	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
3205											
3206	Normal GOF Test										
3207				Shapiro Wilk Test Statistic	1			Shapiro Wilk GOF Test			
3208				5% Shapiro Wilk Critical Value	0.767			Data appear Normal at 5% Significance Level			
3209				Lilliefors Test Statistic	0.175			Lilliefors GOF Test			
3210				5% Lilliefors Critical Value	0.425			Data appear Normal at 5% Significance Level			
3211	Data appear Normal at 5% Significance Level										
3212											
3213	Assuming Normal Distribution										
3214	95% Normal UCL							95% UCLs (Adjusted for Skewness)			
3215				95% Student's-t UCL	49095			95% Adjusted-CLT UCL (Chen-1995)		44163	
3216								95% Modified-t UCL (Johnson-1978)		49095	
3217											
3218	Gamma GOF Test										
3219	Not Enough Data to Perform GOF Test										
3220											
3221	Gamma Statistics										
3222				k hat (MLE)	47.16			k star (bias corrected MLE)		N/A	
3223				Theta hat (MLE)	801.6			Theta star (bias corrected MLE)		N/A	
3224				nu hat (MLE)	282.9			nu star (bias corrected)		N/A	
3225				MLE Mean (bias corrected)	N/A			MLE Sd (bias corrected)		N/A	
3226								Approximate Chi Square Value (0.05)		N/A	
3227				Adjusted Level of Significance	N/A			Adjusted Chi Square Value		N/A	
3228											
3229	Assuming Gamma Distribution										
3230	95% Approximate Gamma UCL (use when n>=50))				N/A			95% Adjusted Gamma UCL (use when n<50)		N/A	
3231											
3232	Lognormal GOF Test										
3233				Shapiro Wilk Test Statistic	0.997			Shapiro Wilk Lognormal GOF Test			

3234				5% Shapiro Wilk Critical Value		0.767		Data appear Lognormal at 5% Significance Level				
3235				Lilliefors Test Statistic		0.19		Lilliefors Lognormal GOF Test				
3236				5% Lilliefors Critical Value		0.425		Data appear Lognormal at 5% Significance Level				
3237				Data appear Lognormal at 5% Significance Level								
3238												
3239				Lognormal Statistics								
3240				Minimum of Logged Data		10.34		Mean of logged Data		10.53		
3241				Maximum of Logged Data		10.7		SD of logged Data		0.179		
3242												
3243				Assuming Lognormal Distribution								
3244				95% H-UCL		56749		90% Chebyshev (MVUE) UCL		49500		
3245				95% Chebyshev (MVUE) UCL		54799		97.5% Chebyshev (MVUE) UCL		62153		
3246				99% Chebyshev (MVUE) UCL		76599						
3247												
3248				Nonparametric Distribution Free UCL Statistics								
3249				Data appear to follow a Discernible Distribution at 5% Significance Level								
3250												
3251				Nonparametric Distribution Free UCLs								
3252				95% CLT UCL		44163		95% Jackknife UCL		49095		
3253				95% Standard Bootstrap UCL		N/A		95% Bootstrap-t UCL		N/A		
3254				95% Hall's Bootstrap UCL		N/A		95% Percentile Bootstrap UCL		N/A		
3255				95% BCA Bootstrap UCL		N/A						
3256				90% Chebyshev(Mean, Sd) UCL		49405		95% Chebyshev(Mean, Sd) UCL		54661		
3257				97.5% Chebyshev(Mean, Sd) UCL		61957		99% Chebyshev(Mean, Sd) UCL		76289		
3258												
3259				Suggested UCL to Use								
3260				95% Student's-t UCL		49095						
3261												
3262				Recommended UCL exceeds the maximum observation								
3263												
3264				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
3265				Recommendations are based upon data size, data distribution, and skewness.								
3266				These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).								
3267				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
3268												
3269												
3270	Result2_ug/kg (vanadium, v)											
3271												
3272				General Statistics								
3273				Total Number of Observations		103		Number of Distinct Observations		94		
3274								Number of Missing Observations		0		
3275				Minimum		11300		Mean		55901		
3276				Maximum		83800		Median		57100		
3277				SD		13988		Std. Error of Mean		1378		
3278				Coefficient of Variation		0.25		Skewness		-0.468		
3279												
3280				Normal GOF Test								
3281				Shapiro Wilk Test Statistic		0.968		Shapiro Wilk GOF Test				
3282				5% Shapiro Wilk P Value		0.096		Data appear Normal at 5% Significance Level				
3283				Lilliefors Test Statistic		0.0912		Lilliefors GOF Test				
3284				5% Lilliefors Critical Value		0.0876		Data Not Normal at 5% Significance Level				
3285				Data appear Approximate Normal at 5% Significance Level								
3286												

	A	B	C	D	E	F	G	H	I	J	K	L
3287	Assuming Normal Distribution											
3288	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
3289	95% Student's-t UCL	58189					95% Adjusted-CLT UCL (Chen-1995)	58100				
3290							95% Modified-t UCL (Johnson-1978)	58178				
3291												
3292	Gamma GOF Test											
3293	A-D Test Statistic	1.441	Anderson-Darling Gamma GOF Test									
3294	5% A-D Critical Value	0.751	Data Not Gamma Distributed at 5% Significance Level									
3295	K-S Test Statistic	0.103	Kolmogorov-Smirnov Gamma GOF Test									
3296	5% K-S Critical Value	0.0886	Data Not Gamma Distributed at 5% Significance Level									
3297	Data Not Gamma Distributed at 5% Significance Level											
3298												
3299	Gamma Statistics											
3300	k hat (MLE)	13.05	k star (bias corrected MLE)	12.68								
3301	Theta hat (MLE)	4284	Theta star (bias corrected MLE)	4410								
3302	nu hat (MLE)	2688	nu star (bias corrected)	2611								
3303	MLE Mean (bias corrected)	55901	MLE Sd (bias corrected)	15701								
3304			Approximate Chi Square Value (0.05)	2494								
3305	Adjusted Level of Significance	0.0477	Adjusted Chi Square Value	2492								
3306												
3307	Assuming Gamma Distribution											
3308	95% Approximate Gamma UCL (use when n>=50))	58540	95% Adjusted Gamma UCL (use when n<50)	58578								
3309												
3310	Lognormal GOF Test											
3311	Shapiro Wilk Test Statistic	0.883	Shapiro Wilk Lognormal GOF Test									
3312	5% Shapiro Wilk P Value	2.479E-11	Data Not Lognormal at 5% Significance Level									
3313	Lilliefors Test Statistic	0.104	Lilliefors Lognormal GOF Test									
3314	5% Lilliefors Critical Value	0.0876	Data Not Lognormal at 5% Significance Level									
3315	Data Not Lognormal at 5% Significance Level											
3316												
3317	Lognormal Statistics											
3318	Minimum of Logged Data	9.333	Mean of logged Data	10.89								
3319	Maximum of Logged Data	11.34	SD of logged Data	0.302								
3320												
3321	Assuming Lognormal Distribution											
3322	95% H-UCL	59292	90% Chebyshev (MVUE) UCL	61399								
3323	95% Chebyshev (MVUE) UCL	63725	97.5% Chebyshev (MVUE) UCL	66954								
3324	99% Chebyshev (MVUE) UCL	73296										
3325												
3326	Nonparametric Distribution Free UCL Statistics											
3327	Data appear to follow a Discernible Distribution at 5% Significance Level											
3328												
3329	Nonparametric Distribution Free UCLs											
3330	95% CLT UCL	58168	95% Jackknife UCL	58189								
3331	95% Standard Bootstrap UCL	58127	95% Bootstrap-t UCL	58136								
3332	95% Hall's Bootstrap UCL	58156	95% Percentile Bootstrap UCL	58180								
3333	95% BCA Bootstrap UCL	58088										
3334	90% Chebyshev(Mean, Sd) UCL	60036	95% Chebyshev(Mean, Sd) UCL	61909								
3335	97.5% Chebyshev(Mean, Sd) UCL	64508	99% Chebyshev(Mean, Sd) UCL	69615								
3336												
3337	Suggested UCL to Use											
3338	95% Student's-t UCL	58189										
3339												

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

Result2_ug/kg (vinyl chloride)

General Statistics

Total Number of Observations	108	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	108
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (vinyl chloride) was not processed!

Result2_ug/kg (xylenes)

General Statistics

Total Number of Observations	108	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	108
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (xylenes) was not processed!

Result2_ug/kg (zinc)

General Statistics

Total Number of Observations	3	Number of Distinct Observations	3
		Number of Missing Observations	0
Minimum	55000	Mean	290600
Maximum	753000	Median	63800
SD	400474	Std. Error of Mean	231214
Coefficient of Variation	1.378	Skewness	1.731

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.

For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).

3393	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
3394											
3395	Normal GOF Test										
3396					Shapiro Wilk Test Statistic	0.759		Shapiro Wilk GOF Test			
3397					5% Shapiro Wilk Critical Value	0.767		Data Not Normal at 5% Significance Level			
3398					Lilliefors Test Statistic	0.381		Lilliefors GOF Test			
3399					5% Lilliefors Critical Value	0.425		Data appear Normal at 5% Significance Level			
3400	Data appear Approximate Normal at 5% Significance Level										
3401											
3402	Assuming Normal Distribution										
3403				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
3404					95% Student's-t UCL	965741		95% Adjusted-CLT UCL (Chen-1995)	917834		
3405								95% Modified-t UCL (Johnson-1978)	1004256		
3406											
3407	Gamma GOF Test										
3408	Not Enough Data to Perform GOF Test										
3409											
3410	Gamma Statistics										
3411					k hat (MLE)	0.799		k star (bias corrected MLE)	N/A		
3412					Theta hat (MLE)	363697		Theta star (bias corrected MLE)	N/A		
3413					nu hat (MLE)	4.794		nu star (bias corrected)	N/A		
3414					MLE Mean (bias corrected)	N/A		MLE Sd (bias corrected)	N/A		
3415								Approximate Chi Square Value (0.05)	N/A		
3416					Adjusted Level of Significance	N/A		Adjusted Chi Square Value	N/A		
3417											
3418	Assuming Gamma Distribution										
3419				95% Approximate Gamma UCL (use when n>=50))		N/A		95% Adjusted Gamma UCL (use when n<50)	N/A		
3420											
3421	Lognormal GOF Test										
3422					Shapiro Wilk Test Statistic	0.792		Shapiro Wilk Lognormal GOF Test			
3423					5% Shapiro Wilk Critical Value	0.767		Data appear Lognormal at 5% Significance Level			
3424					Lilliefors Test Statistic	0.367		Lilliefors Lognormal GOF Test			
3425					5% Lilliefors Critical Value	0.425		Data appear Lognormal at 5% Significance Level			
3426	Data appear Lognormal at 5% Significance Level										
3427											
3428	Lognormal Statistics										
3429					Minimum of Logged Data	10.92		Mean of logged Data	11.84		
3430					Maximum of Logged Data	13.53		SD of logged Data	1.47		
3431											
3432	Assuming Lognormal Distribution										
3433					95% H-UCL	1.899E+14		90% Chebyshev (MVUE) UCL	782039		
3434					95% Chebyshev (MVUE) UCL	1019762		97.5% Chebyshev (MVUE) UCL	1349713		
3435					99% Chebyshev (MVUE) UCL	1997838					
3436											
3437	Nonparametric Distribution Free UCL Statistics										
3438	Data appear to follow a Discernible Distribution at 5% Significance Level										
3439											
3440	Nonparametric Distribution Free UCLs										
3441					95% CLT UCL	670913		95% Jackknife UCL	965741		
3442					95% Standard Bootstrap UCL	N/A		95% Bootstrap-t UCL	N/A		
3443					95% Hall's Bootstrap UCL	N/A		95% Percentile Bootstrap UCL	N/A		
3444					95% BCA Bootstrap UCL	N/A					
3445					90% Chebyshev(Mean, Sd) UCL	984242		95% Chebyshev(Mean, Sd) UCL	1298438		

3446			97.5% Chebyshev(Mean, Sd) UCL		1734531			99% Chebyshev(Mean, Sd) UCL			2591150	
3447												
3448					Suggested UCL to Use							
3449				95% Student's-t UCL	965741							
3450												
3451					Recommended UCL exceeds the maximum observation							
3452												
3453					When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test							
3454					When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL							
3455												
3456					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3457					Recommendations are based upon data size, data distribution, and skewness.							
3458					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
3459					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3460												
3461												
3462	Result2_ug/kg (zinc, zn)											
3463												
3464					General Statistics							
3465				Total Number of Observations	103			Number of Distinct Observations			96	
3466								Number of Missing Observations			0	
3467				Minimum	21700			Mean			326771	
3468				Maximum	6920000			Median			69300	
3469				SD	1122432			Std. Error of Mean			110597	
3470				Coefficient of Variation	3.435			Skewness			5.002	
3471												
3472					Normal GOF Test							
3473				Shapiro Wilk Test Statistic	0.274			Shapiro Wilk GOF Test				
3474				5% Shapiro Wilk P Value	0			Data Not Normal at 5% Significance Level				
3475				Lilliefors Test Statistic	0.452			Lilliefors GOF Test				
3476				5% Lilliefors Critical Value	0.0876			Data Not Normal at 5% Significance Level				
3477					Data Not Normal at 5% Significance Level							
3478												
3479					Assuming Normal Distribution							
3480				95% Normal UCL				95% UCLs (Adjusted for Skewness)				
3481				95% Student's-t UCL	510353			95% Adjusted-CLT UCL (Chen-1995)			566933	
3482								95% Modified-t UCL (Johnson-1978)			519439	
3483												
3484					Gamma GOF Test							
3485				A-D Test Statistic	23.93			Anderson-Darling Gamma GOF Test				
3486				5% A-D Critical Value	0.822			Data Not Gamma Distributed at 5% Significance Level				
3487				K-S Test Statistic	0.429			Kolmogorov-Smirnov Gamma GOF Test				
3488				5% K-S Critical Value	0.094			Data Not Gamma Distributed at 5% Significance Level				
3489					Data Not Gamma Distributed at 5% Significance Level							
3490												
3491					Gamma Statistics							
3492				k hat (MLE)	0.485			k star (bias corrected MLE)			0.477	
3493				Theta hat (MLE)	674019			Theta star (bias corrected MLE)			684822	
3494				nu hat (MLE)	99.87			nu star (bias corrected)			98.3	
3495				MLE Mean (bias corrected)	326771			MLE Sd (bias corrected)			473054	
3496								Approximate Chi Square Value (0.05)			76.42	
3497				Adjusted Level of Significance	0.0477			Adjusted Chi Square Value			76.15	
3498												

	A	B	C	D	E	F	G	H	I	J	K	L
3499	Assuming Gamma Distribution											
3500	95% Approximate Gamma UCL (use when n>=50))					420285	95% Adjusted Gamma UCL (use when n<50)					421788
3501												
3502	Lognormal GOF Test											
3503	Shapiro Wilk Test Statistic					0.646	Shapiro Wilk Lognormal GOF Test					
3504	5% Shapiro Wilk P Value					0	Data Not Lognormal at 5% Significance Level					
3505	Lilliefors Test Statistic					0.325	Lilliefors Lognormal GOF Test					
3506	5% Lilliefors Critical Value					0.0876	Data Not Lognormal at 5% Significance Level					
3507	Data Not Lognormal at 5% Significance Level											
3508												
3509	Lognormal Statistics											
3510	Minimum of Logged Data					9.985	Mean of logged Data					11.38
3511	Maximum of Logged Data					15.75	SD of logged Data					1.07
3512												
3513	Assuming Lognormal Distribution											
3514	95% H-UCL					197643	90% Chebyshev (MVUE) UCL					213701
3515	95% Chebyshev (MVUE) UCL					240737	97.5% Chebyshev (MVUE) UCL					278262
3516	99% Chebyshev (MVUE) UCL					351973						
3517												
3518	Nonparametric Distribution Free UCL Statistics											
3519	Data do not follow a Discernible Distribution (0.05)											
3520												
3521	Nonparametric Distribution Free UCLs											
3522	95% CLT UCL					508686	95% Jackknife UCL					510353
3523	95% Standard Bootstrap UCL					502348	95% Bootstrap-t UCL					636904
3524	95% Hall's Bootstrap UCL					494935	95% Percentile Bootstrap UCL					519249
3525	95% BCA Bootstrap UCL					567153						
3526	90% Chebyshev(Mean, Sd) UCL					658561	95% Chebyshev(Mean, Sd) UCL					808850
3527	97.5% Chebyshev(Mean, Sd) UCL					1017446	99% Chebyshev(Mean, Sd) UCL					1427193
3528												
3529	Suggested UCL to Use											
3530	95% Chebyshev (Mean, Sd) UCL					808850						
3531												
3532	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3533	Recommendations are based upon data size, data distribution, and skewness.											
3534	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
3535	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3536												

Upper Confidence Limits for Alluvial Layer

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.12/14/2017 6:01:34 PM
From File	App A Table A-1 - Soil Data COMPLETE_b.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Result2_ug/kg (1,1,1-tca)

General Statistics

Total Number of Observations	8	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	8
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (1,1,1-tca) was not processed!

Result2_ug/kg (antimony)

General Statistics

Total Number of Observations	8	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	8
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (antimony) was not processed!

Result2_ug/kg (antimony, sb)

General Statistics

Total Number of Observations	56	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	56
Number of Distinct Detects	0	Number of Distinct Non-Detects	1

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Result2_ug/kg (antimony, sb) was not processed!

Result2_ug/kg (arsenic)

54	General Statistics										
55				Total Number of Observations	8			Number of Distinct Observations	1		
56				Number of Detects	0			Number of Non-Detects	8		
57				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
58											
59	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
60	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
61	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
62											
63	The data set for variable Result2_ug/kg (arsenic) was not processed!										
64											
65											
66	Result2_ug/kg (arsenic, as)										
67											
68	General Statistics										
69				Total Number of Observations	56			Number of Distinct Observations	1		
70				Number of Detects	0			Number of Non-Detects	56		
71				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
72											
73	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
74	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
75	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
76											
77	The data set for variable Result2_ug/kg (arsenic, as) was not processed!										
78											
79											
80											
81	Result2_ug/kg (barium)										
82											
83	General Statistics										
84				Total Number of Observations	8			Number of Distinct Observations	8		
85								Number of Missing Observations	0		
86				Minimum	99500			Mean	163813		
87				Maximum	213000			Median	175000		
88				SD	40790			Std. Error of Mean	14422		
89				Coefficient of Variation	0.249			Skewness	-0.422		
90											
91	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
92	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
93	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
94	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
95											
96	Normal GOF Test										
97				Shapiro Wilk Test Statistic	0.912			Shapiro Wilk GOF Test			
98				5% Shapiro Wilk Critical Value	0.818			Data appear Normal at 5% Significance Level			
99				Lilliefors Test Statistic	0.255			Lilliefors GOF Test			
100				5% Lilliefors Critical Value	0.283			Data appear Normal at 5% Significance Level			
101	Data appear Normal at 5% Significance Level										
102											
103	Assuming Normal Distribution										
104				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
105				95% Student's-t UCL	191135			95% Adjusted-CLT UCL (Chen-1995)	185236		
106								95% Modified-t UCL (Johnson-1978)	190777		

107											
108						Gamma GOF Test					
109					A-D Test Statistic	0.454		Anderson-Darling Gamma GOF Test			
110					5% A-D Critical Value	0.716		Detected data appear Gamma Distributed at 5% Significance Level			
111					K-S Test Statistic	0.273		Kolmogorov-Smirnov Gamma GOF Test			
112					5% K-S Critical Value	0.294		Detected data appear Gamma Distributed at 5% Significance Level			
113					Detected data appear Gamma Distributed at 5% Significance Level						
114											
115						Gamma Statistics					
116					k hat (MLE)	16.78		k star (bias corrected MLE)	10.57		
117					Theta hat (MLE)	9763		Theta star (bias corrected MLE)	15497		
118					nu hat (MLE)	268.5		nu star (bias corrected)	169.1		
119					MLE Mean (bias corrected)	163813		MLE Sd (bias corrected)	50384		
120								Approximate Chi Square Value (0.05)	140.1		
121					Adjusted Level of Significance	0.0195		Adjusted Chi Square Value	133.4		
122											
123						Assuming Gamma Distribution					
124					95% Approximate Gamma UCL (use when n>=50))	197817		95% Adjusted Gamma UCL (use when n<50)	207753		
125											
126						Lognormal GOF Test					
127					Shapiro Wilk Test Statistic	0.898		Shapiro Wilk Lognormal GOF Test			
128					5% Shapiro Wilk Critical Value	0.818		Data appear Lognormal at 5% Significance Level			
129					Lilliefors Test Statistic	0.258		Lilliefors Lognormal GOF Test			
130					5% Lilliefors Critical Value	0.283		Data appear Lognormal at 5% Significance Level			
131					Data appear Lognormal at 5% Significance Level						
132											
133						Lognormal Statistics					
134					Minimum of Logged Data	11.51		Mean of logged Data	11.98		
135					Maximum of Logged Data	12.27		SD of logged Data	0.269		
136											
137						Assuming Lognormal Distribution					
138					95% H-UCL	202485		90% Chebyshev (MVUE) UCL	211104		
139					95% Chebyshev (MVUE) UCL	232411		97.5% Chebyshev (MVUE) UCL	261983		
140					99% Chebyshev (MVUE) UCL	320073					
141											
142						Nonparametric Distribution Free UCL Statistics					
143					Data appear to follow a Discernible Distribution at 5% Significance Level						
144											
145						Nonparametric Distribution Free UCLs					
146					95% CLT UCL	187534		95% Jackknife UCL	191135		
147					95% Standard Bootstrap UCL	186088		95% Bootstrap-t UCL	190041		
148					95% Hall's Bootstrap UCL	182485		95% Percentile Bootstrap UCL	186000		
149					95% BCA Bootstrap UCL	185125					
150					90% Chebyshev(Mean, Sd) UCL	207077		95% Chebyshev(Mean, Sd) UCL	226675		
151					97.5% Chebyshev(Mean, Sd) UCL	253875		99% Chebyshev(Mean, Sd) UCL	307305		
152											
153						Suggested UCL to Use					
154					95% Student's-t UCL	191135					
155											
156					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
157					Recommendations are based upon data size, data distribution, and skewness.						
158					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
159					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

Result2_ug/kg (barium, ba)

General Statistics

Total Number of Observations	56	Number of Distinct Observations	53
		Number of Missing Observations	0
Minimum	60800	Mean	165991
Maximum	267000	Median	172500
SD	47179	Std. Error of Mean	6305
Coefficient of Variation	0.284	Skewness	-0.102

Normal GOF Test

Shapiro Wilk Test Statistic	0.981	Shapiro Wilk GOF Test
5% Shapiro Wilk P Value	0.745	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.078	Lilliefors GOF Test
5% Lilliefors Critical Value	0.118	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	176539	95% Adjusted-CLT UCL (Chen-1995)	176269
		95% Modified-t UCL (Johnson-1978)	176524

Gamma GOF Test

A-D Test Statistic	0.544	Anderson-Darling Gamma GOF Test
5% A-D Critical Value	0.75	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.115	Kolmogorov-Smirnov Gamma GOF Test
5% K-S Critical Value	0.119	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	11.22	k star (bias corrected MLE)	10.63
Theta hat (MLE)	14791	Theta star (bias corrected MLE)	15611
nu hat (MLE)	1257	nu star (bias corrected)	1191
MLE Mean (bias corrected)	165991	MLE Sd (bias corrected)	50905
		Approximate Chi Square Value (0.05)	1112
Adjusted Level of Significance	0.0457	Adjusted Chi Square Value	1110

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	177804	95% Adjusted Gamma UCL (use when n<50)	178126

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.948	Shapiro Wilk Lognormal GOF Test
5% Shapiro Wilk P Value	0.0323	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.129	Lilliefors Lognormal GOF Test
5% Lilliefors Critical Value	0.118	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

213	Minimum of Logged Data				11.02	Mean of logged Data					11.97
214	Maximum of Logged Data				12.5	SD of logged Data					0.316
215											
216	Assuming Lognormal Distribution										
217	95% H-UCL				179384	90% Chebyshev (MVUE) UCL					188200
218	95% Chebyshev (MVUE) UCL				197971	97.5% Chebyshev (MVUE) UCL					211531
219	99% Chebyshev (MVUE) UCL				238169						
220											
221	Nonparametric Distribution Free UCL Statistics										
222	Data appear to follow a Discernible Distribution at 5% Significance Level										
223											
224	Nonparametric Distribution Free UCLs										
225	95% CLT UCL				176361	95% Jackknife UCL					176539
226	95% Standard Bootstrap UCL				176150	95% Bootstrap-t UCL					176620
227	95% Hall's Bootstrap UCL				176086	95% Percentile Bootstrap UCL					176686
228	95% BCA Bootstrap UCL				176795						
229	90% Chebyshev(Mean, Sd) UCL				184905	95% Chebyshev(Mean, Sd) UCL					193472
230	97.5% Chebyshev(Mean, Sd) UCL				205363	99% Chebyshev(Mean, Sd) UCL					228720
231											
232	Suggested UCL to Use										
233	95% Student's-t UCL				176539						
234											
235	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
236	Recommendations are based upon data size, data distribution, and skewness.										
237	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
238	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
239											
240	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be										
241	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.										
242											
243	Result2_ug/kg (benzene)										
244											
245	General Statistics										
246	Total Number of Observations				8	Number of Distinct Observations					1
247	Number of Detects				0	Number of Non-Detects					8
248	Number of Distinct Detects				0	Number of Distinct Non-Detects					1
249											
250	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
251	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
252	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
253											
254	The data set for variable Result2_ug/kg (benzene) was not processed!										
255											
256											
257	Result2_ug/kg (beryllium)										
258											
259	General Statistics										
260	Total Number of Observations				8	Number of Distinct Observations					1
261	Number of Detects				0	Number of Non-Detects					8
262	Number of Distinct Detects				0	Number of Distinct Non-Detects					1
263											
264	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
265	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										

266	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
267											
268	The data set for variable Result2_ug/kg (beryllium) was not processed!										
269											
270											
271	Result2_ug/kg (beryllium, be)										
272											
273	General Statistics										
274					Total Number of Observations	56			Number of Distinct Observations	1	
275					Number of Detects	0			Number of Non-Detects	56	
276					Number of Distinct Detects	0			Number of Distinct Non-Detects	1	
277											
278	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
279	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
280	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
281											
282	The data set for variable Result2_ug/kg (beryllium, be) was not processed!										
283											
284											
285	Result2_ug/kg (cadmium)										
286											
287	General Statistics										
288					Total Number of Observations	8			Number of Distinct Observations	1	
289					Number of Detects	0			Number of Non-Detects	8	
290					Number of Distinct Detects	0			Number of Distinct Non-Detects	1	
291											
292	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
293	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
294	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
295											
296	The data set for variable Result2_ug/kg (cadmium) was not processed!										
297											
298											
299	Result2_ug/kg (cadmium, cd)										
300											
301	General Statistics										
302					Total Number of Observations	56			Number of Distinct Observations	1	
303					Number of Detects	0			Number of Non-Detects	56	
304					Number of Distinct Detects	0			Number of Distinct Non-Detects	1	
305											
306	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
307	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
308	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
309											
310	The data set for variable Result2_ug/kg (cadmium, cd) was not processed!										
311											
312											
313											
314	Result2_ug/kg (chromium)										
315											
316	General Statistics										
317					Total Number of Observations	8			Number of Distinct Observations	8	
318									Number of Missing Observations	0	

319				Minimum	15400				Mean	24600	
320				Maximum	31400				Median	25050	
321				SD	5433				Std. Error of Mean	1921	
322				Coefficient of Variation	0.221				Skewness	-0.464	
323											
324	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
325	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
326	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
327	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
328											
329	Normal GOF Test										
330				Shapiro Wilk Test Statistic	0.96	Shapiro Wilk GOF Test					
331				5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level					
332				Lilliefors Test Statistic	0.157	Lilliefors GOF Test					
333				5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level					
334	Data appear Normal at 5% Significance Level										
335											
336	Assuming Normal Distribution										
337	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
338				95% Student's-t UCL	28239	95% Adjusted-CLT UCL (Chen-1995)	27423				
339						95% Modified-t UCL (Johnson-1978)	28187				
340											
341	Gamma GOF Test										
342				A-D Test Statistic	0.261	Anderson-Darling Gamma GOF Test					
343				5% A-D Critical Value	0.716	Detected data appear Gamma Distributed at 5% Significance Level					
344				K-S Test Statistic	0.182	Kolmogorov-Smirnov Gamma GOF Test					
345				5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level					
346	Detected data appear Gamma Distributed at 5% Significance Level										
347											
348	Gamma Statistics										
349				k hat (MLE)	21.37	k star (bias corrected MLE)	13.44				
350				Theta hat (MLE)	1151	Theta star (bias corrected MLE)	1830				
351				nu hat (MLE)	342	nu star (bias corrected)	215.1				
352				MLE Mean (bias corrected)	24600	MLE Sd (bias corrected)	6710				
353						Approximate Chi Square Value (0.05)	182.1				
354				Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	174.4				
355											
356	Assuming Gamma Distribution										
357	95% Approximate Gamma UCL (use when n>=50))				29049	95% Adjusted Gamma UCL (use when n<50)	30329				
358											
359	Lognormal GOF Test										
360				Shapiro Wilk Test Statistic	0.934	Shapiro Wilk Lognormal GOF Test					
361				5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level					
362				Lilliefors Test Statistic	0.177	Lilliefors Lognormal GOF Test					
363				5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level					
364	Data appear Lognormal at 5% Significance Level										
365											
366	Lognormal Statistics										
367				Minimum of Logged Data	9.642	Mean of logged Data	10.09				
368				Maximum of Logged Data	10.35	SD of logged Data	0.238				
369											
370	Assuming Lognormal Distribution										
371				95% H-UCL	29563	90% Chebyshev (MVUE) UCL	30877				

372			95% Chebyshev (MVUE) UCL		33707			97.5% Chebyshev (MVUE) UCL		37634	
373			99% Chebyshev (MVUE) UCL		45349						
374											
375					Nonparametric Distribution Free UCL Statistics						
376					Data appear to follow a Discernible Distribution at 5% Significance Level						
377											
378					Nonparametric Distribution Free UCLs						
379			95% CLT UCL		27760			95% Jackknife UCL		28239	
380			95% Standard Bootstrap UCL		27565			95% Bootstrap-t UCL		28161	
381			95% Hall's Bootstrap UCL		27428			95% Percentile Bootstrap UCL		27500	
382			95% BCA Bootstrap UCL		27388						
383			90% Chebyshev(Mean, Sd) UCL		30363			95% Chebyshev(Mean, Sd) UCL		32973	
384			97.5% Chebyshev(Mean, Sd) UCL		36596			99% Chebyshev(Mean, Sd) UCL		43712	
385											
386					Suggested UCL to Use						
387			95% Student's-t UCL		28239						
388											
389					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
390					Recommendations are based upon data size, data distribution, and skewness.						
391					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
392					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
393											
394					Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be						
395					reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.						
396											
397											
398	Result2_ug/kg (chromium, cr)										
399											
400					General Statistics						
401			Total Number of Observations		56			Number of Distinct Observations		52	
402								Number of Missing Observations		0	
403			Minimum		10000			Mean		25886	
404			Maximum		67700			Median		25900	
405			SD		11060			Std. Error of Mean		1478	
406			Coefficient of Variation		0.427			Skewness		1.83	
407											
408					Normal GOF Test						
409			Shapiro Wilk Test Statistic		0.821			Shapiro Wilk GOF Test			
410			5% Shapiro Wilk P Value		6.8899E-9			Data Not Normal at 5% Significance Level			
411			Lilliefors Test Statistic		0.198			Lilliefors GOF Test			
412			5% Lilliefors Critical Value		0.118			Data Not Normal at 5% Significance Level			
413					Data Not Normal at 5% Significance Level						
414											
415					Assuming Normal Distribution						
416			95% Normal UCL					95% UCLs (Adjusted for Skewness)			
417			95% Student's-t UCL		28358			95% Adjusted-CLT UCL (Chen-1995)		28703	
418								95% Modified-t UCL (Johnson-1978)		28419	
419											
420					Gamma GOF Test						
421			A-D Test Statistic		1.313			Anderson-Darling Gamma GOF Test			
422			5% A-D Critical Value		0.753			Data Not Gamma Distributed at 5% Significance Level			
423			K-S Test Statistic		0.152			Kolmogorov-Smirnov Gamma GOF Test			
424			5% K-S Critical Value		0.119			Data Not Gamma Distributed at 5% Significance Level			

425	Data Not Gamma Distributed at 5% Significance Level										
426											
427	Gamma Statistics										
428					k hat (MLE)	6.632			k star (bias corrected MLE)	6.289	
429					Theta hat (MLE)	3903			Theta star (bias corrected MLE)	4116	
430					nu hat (MLE)	742.8			nu star (bias corrected)	704.3	
431					MLE Mean (bias corrected)	25886			MLE Sd (bias corrected)	10322	
432									Approximate Chi Square Value (0.05)	643.8	
433					Adjusted Level of Significance	0.0457			Adjusted Chi Square Value	642.2	
434											
435	Assuming Gamma Distribution										
436					95% Approximate Gamma UCL (use when n>=50))	28322			95% Adjusted Gamma UCL (use when n<50)	28389	
437											
438	Lognormal GOF Test										
439					Shapiro Wilk Test Statistic	0.939			Shapiro Wilk Lognormal GOF Test		
440					5% Shapiro Wilk P Value	0.0104			Data Not Lognormal at 5% Significance Level		
441					Lilliefors Test Statistic	0.141			Lilliefors Lognormal GOF Test		
442					5% Lilliefors Critical Value	0.118			Data Not Lognormal at 5% Significance Level		
443	Data Not Lognormal at 5% Significance Level										
444											
445	Lognormal Statistics										
446					Minimum of Logged Data	9.21			Mean of logged Data	10.08	
447					Maximum of Logged Data	11.12			SD of logged Data	0.393	
448											
449	Assuming Lognormal Distribution										
450					95% H-UCL	28489			90% Chebyshev (MVUE) UCL	30056	
451					95% Chebyshev (MVUE) UCL	31962			97.5% Chebyshev (MVUE) UCL	34607	
452					99% Chebyshev (MVUE) UCL	39803					
453											
454	Nonparametric Distribution Free UCL Statistics										
455	Data do not follow a Discernible Distribution (0.05)										
456											
457	Nonparametric Distribution Free UCLs										
458					95% CLT UCL	28317			95% Jackknife UCL	28358	
459					95% Standard Bootstrap UCL	28278			95% Bootstrap-t UCL	28947	
460					95% Hall's Bootstrap UCL	29314			95% Percentile Bootstrap UCL	28404	
461					95% BCA Bootstrap UCL	28866					
462					90% Chebyshev(Mean, Sd) UCL	30319			95% Chebyshev(Mean, Sd) UCL	32328	
463					97.5% Chebyshev(Mean, Sd) UCL	35115			99% Chebyshev(Mean, Sd) UCL	40591	
464											
465	Suggested UCL to Use										
466					95% Student's-t UCL	28358			or 95% Modified-t UCL	28419	
467											
468	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
469	Recommendations are based upon data size, data distribution, and skewness.										
470	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
471	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
472											
473	Result2_ug/kg (cis-1,2-dce)										
474											
475	General Statistics										
476					Total Number of Observations	8			Number of Distinct Observations	1	
477					Number of Detects	0			Number of Non-Detects	8	

478				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
479											
480				Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!							
481				Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!							
482				The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).							
483											
484				The data set for variable Result2_ug/kg (cis-1,2-dce) was not processed!							
485											
486											
487											
488	Result2_ug/kg (cobalt)										
489											
490					General Statistics						
491				Total Number of Observations	8			Number of Distinct Observations	8		
492								Number of Missing Observations	0		
493				Minimum	7900			Mean	13475		
494				Maximum	17500			Median	13600		
495				SD	3409			Std. Error of Mean	1205		
496				Coefficient of Variation	0.253			Skewness	-0.361		
497											
498				Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use							
499				guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.							
500				For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).							
501				Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1							
502											
503					Normal GOF Test						
504				Shapiro Wilk Test Statistic	0.922			Shapiro Wilk GOF Test			
505				5% Shapiro Wilk Critical Value	0.818			Data appear Normal at 5% Significance Level			
506				Lilliefors Test Statistic	0.194			Lilliefors GOF Test			
507				5% Lilliefors Critical Value	0.283			Data appear Normal at 5% Significance Level			
508					Data appear Normal at 5% Significance Level						
509											
510					Assuming Normal Distribution						
511				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
512				95% Student's-t UCL	15759			95% Adjusted-CLT UCL (Chen-1995)	15293		
513								95% Modified-t UCL (Johnson-1978)	15733		
514											
515					Gamma GOF Test						
516				A-D Test Statistic	0.394			Anderson-Darling Gamma GOF Test			
517				5% A-D Critical Value	0.716			Detected data appear Gamma Distributed at 5% Significance Level			
518				K-S Test Statistic	0.218			Kolmogorov-Smirnov Gamma GOF Test			
519				5% K-S Critical Value	0.294			Detected data appear Gamma Distributed at 5% Significance Level			
520					Detected data appear Gamma Distributed at 5% Significance Level						
521											
522					Gamma Statistics						
523				k hat (MLE)	16.25			k star (bias corrected MLE)	10.24		
524				Theta hat (MLE)	829.2			Theta star (bias corrected MLE)	1316		
525				nu hat (MLE)	260			nu star (bias corrected)	163.8		
526				MLE Mean (bias corrected)	13475			MLE Sd (bias corrected)	4211		
527								Approximate Chi Square Value (0.05)	135.2		
528				Adjusted Level of Significance	0.0195			Adjusted Chi Square Value	128.7		
529											
530					Assuming Gamma Distribution						

531	95% Approximate Gamma UCL (use when n>=50))				16324	95% Adjusted Gamma UCL (use when n<50)					17158
532												
533	Lognormal GOF Test											
534	Shapiro Wilk Test Statistic				0.904	Shapiro Wilk Lognormal GOF Test						
535	5% Shapiro Wilk Critical Value				0.818	Data appear Lognormal at 5% Significance Level						
536	Lilliefors Test Statistic				0.21	Lilliefors Lognormal GOF Test						
537	5% Lilliefors Critical Value				0.283	Data appear Lognormal at 5% Significance Level						
538	Data appear Lognormal at 5% Significance Level											
539												
540	Lognormal Statistics											
541	Minimum of Logged Data				8.975	Mean of logged Data					9.478	
542	Maximum of Logged Data				9.77	SD of logged Data					0.274	
543												
544	Assuming Lognormal Distribution											
545	95% H-UCL				16732	90% Chebyshev (MVUE) UCL					17437	
546	95% Chebyshev (MVUE) UCL				19221	97.5% Chebyshev (MVUE) UCL					21697	
547	99% Chebyshev (MVUE) UCL				26562							
548												
549	Nonparametric Distribution Free UCL Statistics											
550	Data appear to follow a Discernible Distribution at 5% Significance Level											
551												
552	Nonparametric Distribution Free UCLs											
553	95% CLT UCL				15458	95% Jackknife UCL					15759	
554	95% Standard Bootstrap UCL				15332	95% Bootstrap-t UCL					15694	
555	95% Hall's Bootstrap UCL				15106	95% Percentile Bootstrap UCL					15325	
556	95% BCA Bootstrap UCL				15250							
557	90% Chebyshev(Mean, Sd) UCL				17091	95% Chebyshev(Mean, Sd) UCL					18729	
558	97.5% Chebyshev(Mean, Sd) UCL				21002	99% Chebyshev(Mean, Sd) UCL					25468	
559												
560	Suggested UCL to Use											
561	95% Student's-t UCL				15759							
562												
563	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
564	Recommendations are based upon data size, data distribution, and skewness.											
565	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
566	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
567												
568	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be											
569	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.											
570												
571												
572	Result2_ug/kg (cobalt, co)											
573												
574	General Statistics											
575	Total Number of Observations				56	Number of Distinct Observations					43	
576						Number of Missing Observations					0	
577	Minimum				5600	Mean					14289	
578	Maximum				21600	Median					15200	
579	SD				3861	Std. Error of Mean					515.9	
580	Coefficient of Variation				0.27	Skewness					-0.409	
581												
582	Normal GOF Test											
583	Shapiro Wilk Test Statistic				0.955	Shapiro Wilk GOF Test						

584				5% Shapiro Wilk P Value	0.0719		Data appear Normal at 5% Significance Level					
585				Lilliefors Test Statistic	0.125		Lilliefors GOF Test					
586				5% Lilliefors Critical Value	0.118		Data Not Normal at 5% Significance Level					
587				Data appear Approximate Normal at 5% Significance Level								
588												
589				Assuming Normal Distribution								
590				95% Normal UCL			95% UCLs (Adjusted for Skewness)					
591				95% Student's-t UCL	15152		95% Adjusted-CLT UCL (Chen-1995)	15108				
592							95% Modified-t UCL (Johnson-1978)	15148				
593												
594				Gamma GOF Test								
595				A-D Test Statistic	1.336		Anderson-Darling Gamma GOF Test					
596				5% A-D Critical Value	0.75		Data Not Gamma Distributed at 5% Significance Level					
597				K-S Test Statistic	0.148		Kolmogorov-Smirnov Gamma GOF Test					
598				5% K-S Critical Value	0.119		Data Not Gamma Distributed at 5% Significance Level					
599				Data Not Gamma Distributed at 5% Significance Level								
600												
601				Gamma Statistics								
602				k hat (MLE)	11.92		k star (bias corrected MLE)	11.29				
603				Theta hat (MLE)	1199		Theta star (bias corrected MLE)	1266				
604				nu hat (MLE)	1335		nu star (bias corrected)	1264				
605				MLE Mean (bias corrected)	14289		MLE Sd (bias corrected)	4253				
606							Approximate Chi Square Value (0.05)	1183				
607				Adjusted Level of Significance	0.0457		Adjusted Chi Square Value	1181				
608												
609				Assuming Gamma Distribution								
610				95% Approximate Gamma UCL (use when n>=50))	15275		95% Adjusted Gamma UCL (use when n<50)	15301				
611												
612				Lognormal GOF Test								
613				Shapiro Wilk Test Statistic	0.91		Shapiro Wilk Lognormal GOF Test					
614				5% Shapiro Wilk P Value	2.8826E-4		Data Not Lognormal at 5% Significance Level					
615				Lilliefors Test Statistic	0.156		Lilliefors Lognormal GOF Test					
616				5% Lilliefors Critical Value	0.118		Data Not Lognormal at 5% Significance Level					
617				Data Not Lognormal at 5% Significance Level								
618												
619				Lognormal Statistics								
620				Minimum of Logged Data	8.631		Mean of logged Data	9.525				
621				Maximum of Logged Data	9.98		SD of logged Data	0.309				
622												
623				Assuming Lognormal Distribution								
624				95% H-UCL	15420		90% Chebyshev (MVUE) UCL	16165				
625				95% Chebyshev (MVUE) UCL	16987		97.5% Chebyshev (MVUE) UCL	18127				
626				99% Chebyshev (MVUE) UCL	20367							
627												
628				Nonparametric Distribution Free UCL Statistics								
629				Data appear to follow a Discernible Distribution at 5% Significance Level								
630												
631				Nonparametric Distribution Free UCLs								
632				95% CLT UCL	15138		95% Jackknife UCL	15152				
633				95% Standard Bootstrap UCL	15129		95% Bootstrap-t UCL	15151				
634				95% Hall's Bootstrap UCL	15083		95% Percentile Bootstrap UCL	15100				
635				95% BCA Bootstrap UCL	15088							
636				90% Chebyshev(Mean, Sd) UCL	15837		95% Chebyshev(Mean, Sd) UCL	16538				

637			97.5% Chebyshev(Mean, Sd) UCL		17511			99% Chebyshev(Mean, Sd) UCL			19423	
638												
639					Suggested UCL to Use							
640				95% Student's-t UCL	15152							
641												
642					When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test							
643					When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL							
644												
645					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
646					Recommendations are based upon data size, data distribution, and skewness.							
647					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
648					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
649												
650					Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be							
651					reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.							
652												
653												
654	Result2_ug/kg (copper)											
655												
656					General Statistics							
657				Total Number of Observations	8			Number of Distinct Observations			8	
658								Number of Missing Observations			0	
659				Minimum	13800			Mean			31113	
660				Maximum	39600			Median			33150	
661				SD	9162			Std. Error of Mean			3239	
662				Coefficient of Variation	0.294			Skewness			-0.968	
663												
664					Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use							
665					guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.							
666					For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).							
667					Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1							
668												
669					Normal GOF Test							
670				Shapiro Wilk Test Statistic	0.887			Shapiro Wilk GOF Test				
671				5% Shapiro Wilk Critical Value	0.818			Data appear Normal at 5% Significance Level				
672				Lilliefors Test Statistic	0.177			Lilliefors GOF Test				
673				5% Lilliefors Critical Value	0.283			Data appear Normal at 5% Significance Level				
674					Data appear Normal at 5% Significance Level							
675												
676					Assuming Normal Distribution							
677				95% Normal UCL				95% UCLs (Adjusted for Skewness)				
678				95% Student's-t UCL	37249			95% Adjusted-CLT UCL (Chen-1995)			35256	
679								95% Modified-t UCL (Johnson-1978)			37065	
680												
681					Gamma GOF Test							
682				A-D Test Statistic	0.525			Anderson-Darling Gamma GOF Test				
683				5% A-D Critical Value	0.715			Detected data appear Gamma Distributed at 5% Significance Level				
684				K-S Test Statistic	0.197			Kolmogorov-Smirnov Gamma GOF Test				
685				5% K-S Critical Value	0.294			Detected data appear Gamma Distributed at 5% Significance Level				
686					Detected data appear Gamma Distributed at 5% Significance Level							
687												
688					Gamma Statistics							
689				k hat (MLE)	10.29			k star (bias corrected MLE)			6.514	

690				Theta hat (MLE)	3024		Theta star (bias corrected MLE)				4776
691				nu hat (MLE)	164.6		nu star (bias corrected)				104.2
692				MLE Mean (bias corrected)	31113		MLE Sd (bias corrected)				12190
693							Approximate Chi Square Value (0.05)				81.67
694				Adjusted Level of Significance	0.0195		Adjusted Chi Square Value				76.63
695											
696				Assuming Gamma Distribution							
697			95% Approximate Gamma UCL (use when n>=50))		39706		95% Adjusted Gamma UCL (use when n<50)				42318
698											
699				Lognormal GOF Test							
700				Shapiro Wilk Test Statistic	0.825		Shapiro Wilk Lognormal GOF Test				
701				5% Shapiro Wilk Critical Value	0.818		Data appear Lognormal at 5% Significance Level				
702				Lilliefors Test Statistic	0.21		Lilliefors Lognormal GOF Test				
703				5% Lilliefors Critical Value	0.283		Data appear Lognormal at 5% Significance Level				
704				Data appear Lognormal at 5% Significance Level							
705											
706				Lognormal Statistics							
707				Minimum of Logged Data	9.532		Mean of logged Data				10.3
708				Maximum of Logged Data	10.59		SD of logged Data				0.361
709											
710				Assuming Lognormal Distribution							
711				95% H-UCL	42303		90% Chebyshev (MVUE) UCL				43395
712				95% Chebyshev (MVUE) UCL	48857		97.5% Chebyshev (MVUE) UCL				56438
713				99% Chebyshev (MVUE) UCL	71330						
714											
715				Nonparametric Distribution Free UCL Statistics							
716				Data appear to follow a Discernible Distribution at 5% Significance Level							
717											
718				Nonparametric Distribution Free UCLs							
719				95% CLT UCL	36440		95% Jackknife UCL				37249
720				95% Standard Bootstrap UCL	36015		95% Bootstrap-t UCL				36092
721				95% Hall's Bootstrap UCL	35359		95% Percentile Bootstrap UCL				35825
722				95% BCA Bootstrap UCL	35138						
723				90% Chebyshev(Mean, Sd) UCL	40830		95% Chebyshev(Mean, Sd) UCL				45232
724				97.5% Chebyshev(Mean, Sd) UCL	51341		99% Chebyshev(Mean, Sd) UCL				63342
725											
726				Suggested UCL to Use							
727				95% Student's-t UCL	37249						
728											
729	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
730	Recommendations are based upon data size, data distribution, and skewness.										
731	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
732	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
733											
734	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be										
735	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.										
736											
737											
738	Result2_ug/kg (copper, cu)										
739											
740				General Statistics							
741				Total Number of Observations	56		Number of Distinct Observations				51
742							Number of Missing Observations				0

743				Minimum	10700				Mean	30091	
744				Maximum	103000				Median	30650	
745				SD	13491				Std. Error of Mean	1803	
746				Coefficient of Variation	0.448				Skewness	2.816	
747											
748					Normal GOF Test						
749				Shapiro Wilk Test Statistic	0.793			Shapiro Wilk GOF Test			
750				5% Shapiro Wilk P Value	3.210E-10			Data Not Normal at 5% Significance Level			
751				Lilliefors Test Statistic	0.142			Lilliefors GOF Test			
752				5% Lilliefors Critical Value	0.118			Data Not Normal at 5% Significance Level			
753					Data Not Normal at 5% Significance Level						
754											
755					Assuming Normal Distribution						
756				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
757				95% Student's-t UCL	33107			95% Adjusted-CLT UCL (Chen-1995)	33782		
758								95% Modified-t UCL (Johnson-1978)	33220		
759											
760					Gamma GOF Test						
761				A-D Test Statistic	0.948			Anderson-Darling Gamma GOF Test			
762				5% A-D Critical Value	0.753			Data Not Gamma Distributed at 5% Significance Level			
763				K-S Test Statistic	0.11			Kolmogorov-Smirnov Gamma GOF Test			
764				5% K-S Critical Value	0.119			Detected data appear Gamma Distributed at 5% Significance Level			
765					Detected data follow Appr. Gamma Distribution at 5% Significance Level						
766											
767					Gamma Statistics						
768				k hat (MLE)	6.404			k star (bias corrected MLE)	6.073		
769				Theta hat (MLE)	4699			Theta star (bias corrected MLE)	4955		
770				nu hat (MLE)	717.3			nu star (bias corrected)	680.2		
771				MLE Mean (bias corrected)	30091			MLE Sd (bias corrected)	12211		
772								Approximate Chi Square Value (0.05)	620.7		
773				Adjusted Level of Significance	0.0457			Adjusted Chi Square Value	619.2		
774											
775					Assuming Gamma Distribution						
776				95% Approximate Gamma UCL (use when n>=50)	32976			95% Adjusted Gamma UCL (use when n<50)	33056		
777											
778					Lognormal GOF Test						
779				Shapiro Wilk Test Statistic	0.952			Shapiro Wilk Lognormal GOF Test			
780				5% Shapiro Wilk P Value	0.049			Data Not Lognormal at 5% Significance Level			
781				Lilliefors Test Statistic	0.136			Lilliefors Lognormal GOF Test			
782				5% Lilliefors Critical Value	0.118			Data Not Lognormal at 5% Significance Level			
783					Data Not Lognormal at 5% Significance Level						
784											
785					Lognormal Statistics						
786				Minimum of Logged Data	9.278			Mean of logged Data	10.23		
787				Maximum of Logged Data	11.54			SD of logged Data	0.402		
788											
789					Assuming Lognormal Distribution						
790				95% H-UCL	33224			90% Chebyshev (MVUE) UCL	35061		
791				95% Chebyshev (MVUE) UCL	37327			97.5% Chebyshev (MVUE) UCL	40471		
792				99% Chebyshev (MVUE) UCL	46648						
793											
794					Nonparametric Distribution Free UCL Statistics						
795					Data appear to follow a Discernible Distribution at 5% Significance Level						

796											
797	Nonparametric Distribution Free UCLs										
798				95% CLT UCL	33056			95% Jackknife UCL	33107		
799				95% Standard Bootstrap UCL	33058			95% Bootstrap-t UCL	34267		
800				95% Hall's Bootstrap UCL	36576			95% Percentile Bootstrap UCL	33325		
801				95% BCA Bootstrap UCL	33579						
802				90% Chebyshev(Mean, Sd) UCL	35500			95% Chebyshev(Mean, Sd) UCL	37950		
803				97.5% Chebyshev(Mean, Sd) UCL	41350			99% Chebyshev(Mean, Sd) UCL	48029		
804											
805	Suggested UCL to Use										
806				95% Approximate Gamma UCL	32976						
807											
808	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test										
809	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL										
810											
811	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
812	Recommendations are based upon data size, data distribution, and skewness.										
813	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
814	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
815											
816	Result2_ug/kg (dro (c10-c28))										
817											
818	General Statistics										
819				Total Number of Observations	56			Number of Distinct Observations	1		
820				Number of Detects	0			Number of Non-Detects	56		
821				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
822											
823	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
824	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
825	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
826											
827	The data set for variable Result2_ug/kg (dro (c10-c28)) was not processed!										
828											
829											
830	Result2_ug/kg (ethylbenzene)										
831											
832	General Statistics										
833				Total Number of Observations	8			Number of Distinct Observations	1		
834				Number of Detects	0			Number of Non-Detects	8		
835				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
836											
837	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
838	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
839	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
840											
841	The data set for variable Result2_ug/kg (ethylbenzene) was not processed!										
842											
843											
844											
845	Result2_ug/kg (hexacosane)										
846											
847	General Statistics										
848				Total Number of Observations	56			Number of Distinct Observations	42		

849									Number of Missing Observations		0
850					Minimum	0			Mean		269.8
851					Maximum	880			Median		0.97
852					SD	356.5			Std. Error of Mean		47.64
853					Coefficient of Variation	1.322			Skewness		0.628
854											
855					Normal GOF Test						
856					Shapiro Wilk Test Statistic	0.665		Shapiro Wilk GOF Test			
857					5% Shapiro Wilk P Value	6.661E-16		Data Not Normal at 5% Significance Level			
858					Lilliefors Test Statistic	0.399		Lilliefors GOF Test			
859					5% Lilliefors Critical Value	0.118		Data Not Normal at 5% Significance Level			
860					Data Not Normal at 5% Significance Level						
861											
862					Assuming Normal Distribution						
863					95% Normal UCL			95% UCLs (Adjusted for Skewness)			
864					95% Student's-t UCL	349.5		95% Adjusted-CLT UCL (Chen-1995)			352.4
865								95% Modified-t UCL (Johnson-1978)			350.1
866					Gamma Statistics Not Available						
867					Lognormal Statistics Not Available						
868											
869					Nonparametric Distribution Free UCL Statistics						
870					Data do not follow a Discernible Distribution (0.05)						
871											
872					Nonparametric Distribution Free UCLs						
873					95% CLT UCL	348.1		95% Jackknife UCL			349.5
874					95% Standard Bootstrap UCL	346.9		95% Bootstrap-t UCL			357.3
875					95% Hall's Bootstrap UCL	347.1		95% Percentile Bootstrap UCL			348.3
876					95% BCA Bootstrap UCL	350.9					
877					90% Chebyshev(Mean, Sd) UCL	412.7		95% Chebyshev(Mean, Sd) UCL			477.4
878					97.5% Chebyshev(Mean, Sd) UCL	567.3		99% Chebyshev(Mean, Sd) UCL			743.8
879											
880					Suggested UCL to Use						
881					95% Chebyshev (Mean, Sd) UCL	477.4					
882											
883					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
884					Recommendations are based upon data size, data distribution, and skewness.						
885					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
886					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
887											
888											
889	Result2_ug/kg (lead)										
890											
891					General Statistics						
892					Total Number of Observations	8		Number of Distinct Observations			6
893								Number of Missing Observations			0
894					Minimum	1200		Mean			2938
895					Maximum	5300		Median			2950
896					SD	1324		Std. Error of Mean			468.3
897					Coefficient of Variation	0.451		Skewness			0.542
898											
899					Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use						
900					guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.						
901					For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).						

902	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
903											
904	Normal GOF Test										
905					Shapiro Wilk Test Statistic	0.925	Shapiro Wilk GOF Test				
906					5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level				
907					Lilliefors Test Statistic	0.192	Lilliefors GOF Test				
908					5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level				
909	Data appear Normal at 5% Significance Level										
910											
911	Assuming Normal Distribution										
912					95% Normal UCL		95% UCLs (Adjusted for Skewness)				
913					95% Student's-t UCL	3825	95% Adjusted-CLT UCL (Chen-1995)	3804			
914							95% Modified-t UCL (Johnson-1978)	3840			
915											
916	Gamma GOF Test										
917					A-D Test Statistic	0.348	Anderson-Darling Gamma GOF Test				
918					5% A-D Critical Value	0.719	Detected data appear Gamma Distributed at 5% Significance Level				
919					K-S Test Statistic	0.236	Kolmogorov-Smirnov Gamma GOF Test				
920					5% K-S Critical Value	0.295	Detected data appear Gamma Distributed at 5% Significance Level				
921	Detected data appear Gamma Distributed at 5% Significance Level										
922											
923	Gamma Statistics										
924					k hat (MLE)	5.426	k star (bias corrected MLE)	3.475			
925					Theta hat (MLE)	541.4	Theta star (bias corrected MLE)	845.4			
926					nu hat (MLE)	86.82	nu star (bias corrected)	55.6			
927					MLE Mean (bias corrected)	2938	MLE Sd (bias corrected)	1576			
928							Approximate Chi Square Value (0.05)	39.46			
929					Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	36.05			
930											
931	Assuming Gamma Distribution										
932					95% Approximate Gamma UCL (use when n>=50))	4139	95% Adjusted Gamma UCL (use when n<50)	4530			
933											
934	Lognormal GOF Test										
935					Shapiro Wilk Test Statistic	0.944	Shapiro Wilk Lognormal GOF Test				
936					5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level				
937					Lilliefors Test Statistic	0.234	Lilliefors Lognormal GOF Test				
938					5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level				
939	Data appear Lognormal at 5% Significance Level										
940											
941	Lognormal Statistics										
942					Minimum of Logged Data	7.09	Mean of logged Data	7.89			
943					Maximum of Logged Data	8.575	SD of logged Data	0.478			
944											
945	Assuming Lognormal Distribution										
946					95% H-UCL	4551	90% Chebyshev (MVUE) UCL	4458			
947					95% Chebyshev (MVUE) UCL	5141	97.5% Chebyshev (MVUE) UCL	6090			
948					99% Chebyshev (MVUE) UCL	7953					
949											
950	Nonparametric Distribution Free UCL Statistics										
951	Data appear to follow a Discernible Distribution at 5% Significance Level										
952											
953	Nonparametric Distribution Free UCLs										
954					95% CLT UCL	3708	95% Jackknife UCL	3825			

955			95% Standard Bootstrap UCL		3656			95% Bootstrap-t UCL		3949	
956			95% Hall's Bootstrap UCL		3880			95% Percentile Bootstrap UCL		3663	
957			95% BCA Bootstrap UCL		3650						
958			90% Chebyshev(Mean, Sd) UCL		4342			95% Chebyshev(Mean, Sd) UCL		4979	
959			97.5% Chebyshev(Mean, Sd) UCL		5862			99% Chebyshev(Mean, Sd) UCL		7597	
960											
961					Suggested UCL to Use						
962					95% Student's-t UCL	3825					
963											
964	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
965	Recommendations are based upon data size, data distribution, and skewness.										
966	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
967	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
968											
969	Result2_ug/kg (lead, pb)										
970											
971					General Statistics						
972					Total Number of Observations	56		Number of Distinct Observations		31	
973					Number of Detects	51		Number of Non-Detects		5	
974					Number of Distinct Detects	30		Number of Distinct Non-Detects		1	
975					Minimum Detect	600		Minimum Non-Detect		500	
976					Maximum Detect	36400		Maximum Non-Detect		500	
977					Variance Detects	31610259		Percent Non-Detects		8.929%	
978					Mean Detects	4012		SD Detects		5622	
979					Median Detects	2800		CV Detects		1.401	
980					Skewness Detects	4.507		Kurtosis Detects		23.05	
981					Mean of Logged Detects	7.935		SD of Logged Detects		0.732	
982											
983					Normal GOF Test on Detects Only						
984					Shapiro Wilk Test Statistic	0.458		Normal GOF Test on Detected Observations Only			
985					5% Shapiro Wilk P Value	0		Detected Data Not Normal at 5% Significance Level			
986					Lilliefors Test Statistic	0.382		Lilliefors GOF Test			
987					5% Lilliefors Critical Value	0.123		Detected Data Not Normal at 5% Significance Level			
988					Detected Data Not Normal at 5% Significance Level						
989											
990					Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs						
991					KM Mean	3698		KM Standard Error of Mean		729.6	
992					KM SD	5406		95% KM (BCA) UCL		5193	
993					95% KM (t) UCL	4919		95% KM (Percentile Bootstrap) UCL		4979	
994					95% KM (z) UCL	4898		95% KM Bootstrap t UCL		6373	
995					90% KM Chebyshev UCL	5887		95% KM Chebyshev UCL		6879	
996					97.5% KM Chebyshev UCL	8255		99% KM Chebyshev UCL		10958	
997											
998					Gamma GOF Tests on Detected Observations Only						
999					A-D Test Statistic	4.409		Anderson-Darling GOF Test			
1000					5% A-D Critical Value	0.767		Detected Data Not Gamma Distributed at 5% Significance Level			
1001					K-S Test Statistic	0.262		Kolmogorov-Smirnov GOF			
1002					5% K-S Critical Value	0.126		Detected Data Not Gamma Distributed at 5% Significance Level			
1003					Detected Data Not Gamma Distributed at 5% Significance Level						
1004											
1005					Gamma Statistics on Detected Data Only						
1006					k hat (MLE)	1.526		k star (bias corrected MLE)		1.449	
1007					Theta hat (MLE)	2630		Theta star (bias corrected MLE)		2769	

1008				nu hat (MLE)	155.6			nu star (bias corrected)	147.8		
1009				Mean (detects)	4012						
1010											
1011				Gamma ROS Statistics using Imputed Non-Detects							
1012				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1013				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1014				For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1015				This is especially true when the sample size is small.							
1016				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1017				Minimum	0.01			Mean	3654		
1018				Maximum	36400			Median	2600		
1019				SD	5484			CV	1.501		
1020				k hat (MLE)	0.463			k star (bias corrected MLE)	0.45		
1021				Theta hat (MLE)	7890			Theta star (bias corrected MLE)	8117		
1022				nu hat (MLE)	51.86			nu star (bias corrected)	50.42		
1023				Adjusted Level of Significance (β)	0.0457						
1024				Approximate Chi Square Value (50.42, α)	35.11			Adjusted Chi Square Value (50.42, β)	34.77		
1025				95% Gamma Approximate UCL (use when n>=50)	5246			95% Gamma Adjusted UCL (use when n<50)	5297		
1026											
1027				Estimates of Gamma Parameters using KM Estimates							
1028				Mean (KM)	3698			SD (KM)	5406		
1029				Variance (KM)	29226247			SE of Mean (KM)	729.6		
1030				k hat (KM)	0.468			k star (KM)	0.455		
1031				nu hat (KM)	52.41			nu star (KM)	50.94		
1032				theta hat (KM)	7903			theta star (KM)	8132		
1033				80% gamma percentile (KM)	6041			90% gamma percentile (KM)	10199		
1034				95% gamma percentile (KM)	14692			99% gamma percentile (KM)	25843		
1035											
1036				Gamma Kaplan-Meier (KM) Statistics							
1037				Approximate Chi Square Value (50.94, α)	35.55			Adjusted Chi Square Value (50.94, β)	35.21		
1038				95% Gamma Approximate KM-UCL (use when n>=50)	5299			95% Gamma Adjusted KM-UCL (use when n<50)	5350		
1039											
1040				Lognormal GOF Test on Detected Observations Only							
1041				Shapiro Wilk Approximate Test Statistic	0.887			Shapiro Wilk GOF Test			
1042				5% Shapiro Wilk P Value	5.2799E-5			Detected Data Not Lognormal at 5% Significance Level			
1043				Lilliefors Test Statistic	0.18			Lilliefors GOF Test			
1044				5% Lilliefors Critical Value	0.123			Detected Data Not Lognormal at 5% Significance Level			
1045				Detected Data Not Lognormal at 5% Significance Level							
1046											
1047				Lognormal ROS Statistics Using Imputed Non-Detects							
1048				Mean in Original Scale	3705			Mean in Log Scale	7.792		
1049				SD in Original Scale	5451			SD in Log Scale	0.838		
1050				95% t UCL (assumes normality of ROS data)	4924			95% Percentile Bootstrap UCL	5021		
1051				95% BCA Bootstrap UCL	5572			95% Bootstrap t UCL	6305		
1052				95% H-UCL (Log ROS)	4391						
1053											
1054				Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution							
1055				KM Mean (logged)	7.781			KM Geo Mean	2395		
1056				KM SD (logged)	0.848			95% Critical H Value (KM-Log)	2.169		
1057				KM Standard Error of Mean (logged)	0.114			95% H-UCL (KM -Log)	4398		
1058				KM SD (logged)	0.848			95% Critical H Value (KM-Log)	2.169		
1059				KM Standard Error of Mean (logged)	0.114						
1060											

	A	B	C	D	E	F	G	H	I	J	K	L
1061	DL/2 Statistics											
1062	DL/2 Normal						DL/2 Log-Transformed					
1063	Mean in Original Scale					3676	Mean in Log Scale					7.719
1064	SD in Original Scale					5469	SD in Log Scale					0.985
1065	95% t UCL (Assumes normality)					4899	95% H-Stat UCL					4971
1066	DL/2 is not a recommended method, provided for comparisons and historical reasons											
1067												
1068	Nonparametric Distribution Free UCL Statistics											
1069	Data do not follow a Discernible Distribution at 5% Significance Level											
1070												
1071	Suggested UCL to Use											
1072	95% KM (Chebyshev) UCL					6879						
1073												
1074	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1075	Recommendations are based upon data size, data distribution, and skewness.											
1076	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
1077	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1078												
1079	Result2_ug/kg (mercury)											
1080												
1081	General Statistics											
1082	Total Number of Observations					8	Number of Distinct Observations					3
1083	Number of Detects					2	Number of Non-Detects					6
1084	Number of Distinct Detects					2	Number of Distinct Non-Detects					1
1085	Minimum Detect					27	Minimum Non-Detect					20
1086	Maximum Detect					33	Maximum Non-Detect					20
1087	Variance Detects					18	Percent Non-Detects					75%
1088	Mean Detects					30	SD Detects					4.243
1089	Median Detects					30	CV Detects					0.141
1090	Skewness Detects					N/A	Kurtosis Detects					N/A
1091	Mean of Logged Detects					3.396	SD of Logged Detects					0.142
1092												
1093	Warning: Data set has only 2 Detected Values.											
1094	This is not enough to compute meaningful or reliable statistics and estimates.											
1095												
1096												
1097	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use											
1098	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.											
1099	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).											
1100	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1											
1101												
1102	Normal GOF Test on Detects Only											
1103	Not Enough Data to Perform GOF Test											
1104												
1105	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
1106	KM Mean					22.5	KM Standard Error of Mean					2.291
1107	KM SD					4.583	95% KM (BCA) UCL					N/A
1108	95% KM (t) UCL					26.84	95% KM (Percentile Bootstrap) UCL					N/A
1109	95% KM (z) UCL					26.27	95% KM Bootstrap t UCL					N/A
1110	90% KM Chebyshev UCL					29.37	95% KM Chebyshev UCL					32.49
1111	97.5% KM Chebyshev UCL					36.81	99% KM Chebyshev UCL					45.3
1112												
1113	Gamma GOF Tests on Detected Observations Only											

	A	B	C	D	E	F	G	H	I	J	K	L
1114	Not Enough Data to Perform GOF Test											
1115												
1116	Gamma Statistics on Detected Data Only											
1117					k hat (MLE)	99.67			k star (bias corrected MLE)	N/A		
1118					Theta hat (MLE)	0.301			Theta star (bias corrected MLE)	N/A		
1119					nu hat (MLE)	398.7			nu star (bias corrected)	N/A		
1120					Mean (detects)	30						
1121												
1122	Estimates of Gamma Parameters using KM Estimates											
1123					Mean (KM)	22.5			SD (KM)	4.583		
1124					Variance (KM)	21			SE of Mean (KM)	2.291		
1125					k hat (KM)	24.11			k star (KM)	15.15		
1126					nu hat (KM)	385.7			nu star (KM)	242.4		
1127					theta hat (KM)	0.933			theta star (KM)	1.485		
1128					80% gamma percentile (KM)	27.17			90% gamma percentile (KM)	30.15		
1129					95% gamma percentile (KM)	32.77			99% gamma percentile (KM)	38.08		
1130												
1131	Gamma Kaplan-Meier (KM) Statistics											
1132									Adjusted Level of Significance (β)	0.0195		
1133					Approximate Chi Square Value (242.40, α)	207.4			Adjusted Chi Square Value (242.40, β)	199.1		
1134					95% Gamma Approximate KM-UCL (use when n>=50)	26.3			95% Gamma Adjusted KM-UCL (use when n<50)	27.39		
1135												
1136	Lognormal GOF Test on Detected Observations Only											
1137	Not Enough Data to Perform GOF Test											
1138												
1139	Lognormal ROS Statistics Using Imputed Non-Detects											
1140					Mean in Original Scale	18.47			Mean in Log Scale	2.836		
1141					SD in Original Scale	8.043			SD in Log Scale	0.424		
1142					95% t UCL (assumes normality of ROS data)	23.86			95% Percentile Bootstrap UCL	23.1		
1143					95% BCA Bootstrap UCL	23.95			95% Bootstrap t UCL	27.14		
1144					95% H-UCL (Log ROS)	26.69						
1145												
1146	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
1147					KM Mean (logged)	3.096			KM Geo Mean	22.11		
1148					KM SD (logged)	0.181			95% Critical H Value (KM-Log)	1.923		
1149					KM Standard Error of Mean (logged)	0.0903			95% H-UCL (KM -Log)	25.62		
1150					KM SD (logged)	0.181			95% Critical H Value (KM-Log)	1.923		
1151					KM Standard Error of Mean (logged)	0.0903						
1152												
1153	DL/2 Statistics											
1154				DL/2 Normal					DL/2 Log-Transformed			
1155					Mean in Original Scale	15			Mean in Log Scale	2.576		
1156					SD in Original Scale	9.396			SD in Log Scale	0.509		
1157					95% t UCL (Assumes normality)	21.29			95% H-Stat UCL	23.61		
1158	DL/2 is not a recommended method, provided for comparisons and historical reasons											
1159												
1160	Nonparametric Distribution Free UCL Statistics											
1161	Data do not follow a Discernible Distribution at 5% Significance Level											
1162												
1163	Suggested UCL to Use											
1164					95% KM (t) UCL	26.84			KM H-UCL	25.62		
1165					95% KM (BCA) UCL	N/A						
1166	Warning: One or more Recommended UCL(s) not available!											

	A	B	C	D	E	F	G	H	I	J	K	L
1167												
1168	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1169	Recommendations are based upon data size, data distribution, and skewness.											
1170	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
1171	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1172												
1173	Result2_ug/kg (mercury, hg)											
1174												
1175	General Statistics											
1176	Total Number of Observations					56		Number of Distinct Observations				5
1177	Number of Detects					7		Number of Non-Detects				49
1178	Number of Distinct Detects					4		Number of Distinct Non-Detects				1
1179	Minimum Detect					21		Minimum Non-Detect				20
1180	Maximum Detect					28		Maximum Non-Detect				20
1181	Variance Detects					8.476		Percent Non-Detects				87.5%
1182	Mean Detects					23.14		SD Detects				2.911
1183	Median Detects					21		CV Detects				0.126
1184	Skewness Detects					0.938		Kurtosis Detects				-0.801
1185	Mean of Logged Detects					3.135		SD of Logged Detects				0.122
1186												
1187	Normal GOF Test on Detects Only											
1188	Shapiro Wilk Test Statistic					0.78		Shapiro Wilk GOF Test				
1189	5% Shapiro Wilk Critical Value					0.803		Detected Data Not Normal at 5% Significance Level				
1190	Lilliefors Test Statistic					0.341		Lilliefors GOF Test				
1191	5% Lilliefors Critical Value					0.304		Detected Data Not Normal at 5% Significance Level				
1192	Detected Data Not Normal at 5% Significance Level											
1193												
1194	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
1195	KM Mean					20.39		KM Standard Error of Mean				0.204
1196	KM SD					1.41		95% KM (BCA) UCL				N/A
1197	95% KM (t) UCL					20.73		95% KM (Percentile Bootstrap) UCL				N/A
1198	95% KM (z) UCL					20.73		95% KM Bootstrap t UCL				N/A
1199	90% KM Chebyshev UCL					21		95% KM Chebyshev UCL				21.28
1200	97.5% KM Chebyshev UCL					21.66		99% KM Chebyshev UCL				22.42
1201												
1202	Gamma GOF Tests on Detected Observations Only											
1203	A-D Test Statistic					0.832		Anderson-Darling GOF Test				
1204	5% A-D Critical Value					0.708		Detected Data Not Gamma Distributed at 5% Significance Level				
1205	K-S Test Statistic					0.36		Kolmogorov-Smirnov GOF				
1206	5% K-S Critical Value					0.311		Detected Data Not Gamma Distributed at 5% Significance Level				
1207	Detected Data Not Gamma Distributed at 5% Significance Level											
1208												
1209	Gamma Statistics on Detected Data Only											
1210	k hat (MLE)					77.33		k star (bias corrected MLE)				44.28
1211	Theta hat (MLE)					0.299		Theta star (bias corrected MLE)				0.523
1212	nu hat (MLE)					1083		nu star (bias corrected)				620
1213	Mean (detects)					23.14						
1214												
1215	Gamma ROS Statistics using Imputed Non-Detects											
1216	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1217	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1218	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1219	This is especially true when the sample size is small.											

	A	B	C	D	E	F	G	H	I	J	K	L
1220	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1221					Minimum	0.01				Mean		10.71
1222					Maximum	28				Median		10.24
1223					SD	7.019				CV		0.655
1224					k hat (MLE)	0.911				k star (bias corrected MLE)		0.874
1225					Theta hat (MLE)	11.76				Theta star (bias corrected MLE)		12.25
1226					nu hat (MLE)	102.1				nu star (bias corrected)		97.93
1227					Adjusted Level of Significance (β)	0.0457						
1228					Approximate Chi Square Value (97.93, α)	76.1				Adjusted Chi Square Value (97.93, β)		75.59
1229					95% Gamma Approximate UCL (use when n>=50)	13.79				95% Gamma Adjusted UCL (use when n<50)		13.88
1230												
1231	Estimates of Gamma Parameters using KM Estimates											
1232					Mean (KM)	20.39				SD (KM)		1.41
1233					Variance (KM)	1.989				SE of Mean (KM)		0.204
1234					k hat (KM)	209.1				k star (KM)		197.9
1235					nu hat (KM)	23423				nu star (KM)		22170
1236					theta hat (KM)	0.0975				theta star (KM)		0.103
1237					80% gamma percentile (KM)	21.6				90% gamma percentile (KM)		22.27
1238					95% gamma percentile (KM)	22.83				99% gamma percentile (KM)		23.92
1239												
1240	Gamma Kaplan-Meier (KM) Statistics											
1241					Approximate Chi Square Value (N/A, α)	21824				Adjusted Chi Square Value (N/A, β)		21815
1242					95% Gamma Approximate KM-UCL (use when n>=50)	20.72				95% Gamma Adjusted KM-UCL (use when n<50)		20.72
1243												
1244	Lognormal GOF Test on Detected Observations Only											
1245					Shapiro Wilk Test Statistic	0.779				Shapiro Wilk GOF Test		
1246					5% Shapiro Wilk Critical Value	0.803				Detected Data Not Lognormal at 5% Significance Level		
1247					Lilliefors Test Statistic	0.344				Lilliefors GOF Test		
1248					5% Lilliefors Critical Value	0.304				Detected Data Not Lognormal at 5% Significance Level		
1249	Detected Data Not Lognormal at 5% Significance Level											
1250												
1251	Lognormal ROS Statistics Using Imputed Non-Detects											
1252					Mean in Original Scale	13.8				Mean in Log Scale		2.568
1253					SD in Original Scale	4.818				SD in Log Scale		0.341
1254					95% t UCL (assumes normality of ROS data)	14.88				95% Percentile Bootstrap UCL		14.89
1255					95% BCA Bootstrap UCL	14.95				95% Bootstrap t UCL		15.03
1256					95% H-UCL (Log ROS)	14.96						
1257												
1258	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
1259					KM Mean (logged)	3.013				KM Geo Mean		20.35
1260					KM SD (logged)	0.0609				95% Critical H Value (KM-Log)		N/A
1261					KM Standard Error of Mean (logged)	0.00879				95% H-UCL (KM -Log)		N/A
1262					KM SD (logged)	0.0609				95% Critical H Value (KM-Log)		N/A
1263					KM Standard Error of Mean (logged)	0.00879						
1264												
1265	DL/2 Statistics											
1266					DL/2 Normal					DL/2 Log-Transformed		
1267					Mean in Original Scale	11.64				Mean in Log Scale		2.407
1268					SD in Original Scale	4.49				SD in Log Scale		0.281
1269					95% t UCL (Assumes normality)	12.65				95% H-Stat UCL		12.31
1270	DL/2 is not a recommended method, provided for comparisons and historical reasons											
1271												
1272	Nonparametric Distribution Free UCL Statistics											

1273	Data do not follow a Discernible Distribution at 5% Significance Level										
1274											
1275	Suggested UCL to Use										
1276				95% KM (t) UCL	20.73			KM H-UCL	N/A		
1277				95% KM (BCA) UCL	N/A						
1278	Warning: One or more Recommended UCL(s) not available!										
1279											
1280	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1281	Recommendations are based upon data size, data distribution, and skewness.										
1282	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1283	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1284											
1285	Result2_ug/kg (molybdemun, mo)										
1286											
1287	General Statistics										
1288				Total Number of Observations	56			Number of Distinct Observations	1		
1289				Number of Detects	0			Number of Non-Detects	56		
1290				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1291											
1292	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1293	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1294	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1295											
1296	The data set for variable Result2_ug/kg (molybdemun, mo) was not processed!										
1297											
1298											
1299	Result2_ug/kg (molybdenum)										
1300											
1301	General Statistics										
1302				Total Number of Observations	8			Number of Distinct Observations	1		
1303				Number of Detects	0			Number of Non-Detects	8		
1304				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1305											
1306	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1307	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1308	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1309											
1310	The data set for variable Result2_ug/kg (molybdenum) was not processed!										
1311											
1312											
1313											
1314	Result2_ug/kg (nickel)										
1315											
1316	General Statistics										
1317				Total Number of Observations	8			Number of Distinct Observations	8		
1318								Number of Missing Observations	0		
1319				Minimum	8800			Mean	16888		
1320				Maximum	22000			Median	17200		
1321				SD	4588			Std. Error of Mean	1622		
1322				Coefficient of Variation	0.272			Skewness	-0.609		
1323											
1324	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
1325	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										

1326	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
1327	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
1328											
1329	Normal GOF Test										
1330				Shapiro Wilk Test Statistic	0.895	Shapiro Wilk GOF Test					
1331				5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level					
1332				Lilliefors Test Statistic	0.23	Lilliefors GOF Test					
1333				5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level					
1334	Data appear Normal at 5% Significance Level										
1335											
1336	Assuming Normal Distribution										
1337	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
1338				95% Student's-t UCL	19961	95% Adjusted-CLT UCL (Chen-1995)	19182				
1339						95% Modified-t UCL (Johnson-1978)	19902				
1340											
1341	Gamma GOF Test										
1342				A-D Test Statistic	0.525	Anderson-Darling Gamma GOF Test					
1343				5% A-D Critical Value	0.715	Detected data appear Gamma Distributed at 5% Significance Level					
1344				K-S Test Statistic	0.248	Kolmogorov-Smirnov Gamma GOF Test					
1345				5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level					
1346	Detected data appear Gamma Distributed at 5% Significance Level										
1347											
1348	Gamma Statistics										
1349				k hat (MLE)	13.29	k star (bias corrected MLE)	8.39				
1350				Theta hat (MLE)	1271	Theta star (bias corrected MLE)	2013				
1351				nu hat (MLE)	212.6	nu star (bias corrected)	134.2				
1352				MLE Mean (bias corrected)	16888	MLE Sd (bias corrected)	5830				
1353						Approximate Chi Square Value (0.05)	108.5				
1354				Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	102.6				
1355											
1356	Assuming Gamma Distribution										
1357				95% Approximate Gamma UCL (use when n>=50))	20899	95% Adjusted Gamma UCL (use when n<50)	22092				
1358											
1359	Lognormal GOF Test										
1360				Shapiro Wilk Test Statistic	0.859	Shapiro Wilk Lognormal GOF Test					
1361				5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level					
1362				Lilliefors Test Statistic	0.233	Lilliefors Lognormal GOF Test					
1363				5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level					
1364	Data appear Lognormal at 5% Significance Level										
1365											
1366	Lognormal Statistics										
1367				Minimum of Logged Data	9.083	Mean of logged Data	9.696				
1368				Maximum of Logged Data	9.999	SD of logged Data	0.309				
1369											
1370	Assuming Lognormal Distribution										
1371				95% H-UCL	21705	90% Chebyshev (MVUE) UCL	22518				
1372				95% Chebyshev (MVUE) UCL	25042	97.5% Chebyshev (MVUE) UCL	28545				
1373				99% Chebyshev (MVUE) UCL	35427						
1374											
1375	Nonparametric Distribution Free UCL Statistics										
1376	Data appear to follow a Discernible Distribution at 5% Significance Level										
1377											
1378	Nonparametric Distribution Free UCLs										

1379				95% CLT UCL	19556				95% Jackknife UCL	19961	
1380				95% Standard Bootstrap UCL	19383				95% Bootstrap-t UCL	19528	
1381				95% Hall's Bootstrap UCL	19075				95% Percentile Bootstrap UCL	19363	
1382				95% BCA Bootstrap UCL	19188						
1383				90% Chebyshev(Mean, Sd) UCL	21754				95% Chebyshev(Mean, Sd) UCL	23958	
1384				97.5% Chebyshev(Mean, Sd) UCL	27018				99% Chebyshev(Mean, Sd) UCL	33027	
1385											
1386					Suggested UCL to Use						
1387				95% Student's-t UCL	19961						
1388											
1389					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1390					Recommendations are based upon data size, data distribution, and skewness.						
1391					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
1392					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1393											
1394					Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be						
1395					reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.						
1396											
1397											
1398	Result2_ug/kg (nickel, ni)										
1399											
1400					General Statistics						
1401				Total Number of Observations	56				Number of Distinct Observations	52	
1402									Number of Missing Observations	0	
1403				Minimum	5000				Mean	16395	
1404				Maximum	25400				Median	17350	
1405				SD	5550				Std. Error of Mean	741.6	
1406				Coefficient of Variation	0.339				Skewness	-0.451	
1407											
1408					Normal GOF Test						
1409				Shapiro Wilk Test Statistic	0.93				Shapiro Wilk GOF Test		
1410				5% Shapiro Wilk P Value	0.0034				Data Not Normal at 5% Significance Level		
1411				Lilliefors Test Statistic	0.143				Lilliefors GOF Test		
1412				5% Lilliefors Critical Value	0.118				Data Not Normal at 5% Significance Level		
1413					Data Not Normal at 5% Significance Level						
1414											
1415					Assuming Normal Distribution						
1416				95% Normal UCL					95% UCLs (Adjusted for Skewness)		
1417				95% Student's-t UCL	17635				95% Adjusted-CLT UCL (Chen-1995)	17567	
1418									95% Modified-t UCL (Johnson-1978)	17628	
1419											
1420					Gamma GOF Test						
1421				A-D Test Statistic	1.968				Anderson-Darling Gamma GOF Test		
1422				5% A-D Critical Value	0.752				Data Not Gamma Distributed at 5% Significance Level		
1423				K-S Test Statistic	0.167				Kolmogorov-Smirnov Gamma GOF Test		
1424				5% K-S Critical Value	0.119				Data Not Gamma Distributed at 5% Significance Level		
1425					Data Not Gamma Distributed at 5% Significance Level						
1426											
1427					Gamma Statistics						
1428				k hat (MLE)	7.048				k star (bias corrected MLE)	6.683	
1429				Theta hat (MLE)	2326				Theta star (bias corrected MLE)	2453	
1430				nu hat (MLE)	789.4				nu star (bias corrected)	748.5	
1431				MLE Mean (bias corrected)	16395				MLE Sd (bias corrected)	6342	

1432							Approximate Chi Square Value (0.05)				686
1433					Adjusted Level of Significance	0.0457			Adjusted Chi Square Value		684.4
1434											
1435						Assuming Gamma Distribution					
1436					95% Approximate Gamma UCL (use when n>=50))	17888			95% Adjusted Gamma UCL (use when n<50)		17929
1437											
1438						Lognormal GOF Test					
1439					Shapiro Wilk Test Statistic	0.872			Shapiro Wilk Lognormal GOF Test		
1440					5% Shapiro Wilk P Value	2.7547E-6			Data Not Lognormal at 5% Significance Level		
1441					Lilliefors Test Statistic	0.172			Lilliefors Lognormal GOF Test		
1442					5% Lilliefors Critical Value	0.118			Data Not Lognormal at 5% Significance Level		
1443						Data Not Lognormal at 5% Significance Level					
1444											
1445						Lognormal Statistics					
1446					Minimum of Logged Data	8.517			Mean of logged Data		9.632
1447					Maximum of Logged Data	10.14			SD of logged Data		0.413
1448											
1449						Assuming Lognormal Distribution					
1450					95% H-UCL	18385			90% Chebyshev (MVUE) UCL		19419
1451					95% Chebyshev (MVUE) UCL	20706			97.5% Chebyshev (MVUE) UCL		22493
1452					99% Chebyshev (MVUE) UCL	26003					
1453											
1454						Nonparametric Distribution Free UCL Statistics					
1455						Data do not follow a Discernible Distribution (0.05)					
1456											
1457						Nonparametric Distribution Free UCLs					
1458					95% CLT UCL	17615			95% Jackknife UCL		17635
1459					95% Standard Bootstrap UCL	17601			95% Bootstrap-t UCL		17564
1460					95% Hall's Bootstrap UCL	17559			95% Percentile Bootstrap UCL		17596
1461					95% BCA Bootstrap UCL	17577					
1462					90% Chebyshev(Mean, Sd) UCL	18620			95% Chebyshev(Mean, Sd) UCL		19627
1463					97.5% Chebyshev(Mean, Sd) UCL	21026			99% Chebyshev(Mean, Sd) UCL		23774
1464											
1465						Suggested UCL to Use					
1466					95% Student's-t UCL	17635			or 95% Modified-t UCL		17628
1467											
1468	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1469	Recommendations are based upon data size, data distribution, and skewness.										
1470	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1471	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1472											
1473	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be										
1474	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.										
1475											
1476	Result2_ug/kg (oro (c29-c32))										
1477											
1478						General Statistics					
1479					Total Number of Observations	56			Number of Distinct Observations		1
1480					Number of Detects	0			Number of Non-Detects		56
1481					Number of Distinct Detects	0			Number of Distinct Non-Detects		1
1482											
1483	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1484	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										

1485	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1486											
1487	The data set for variable Result2_ug/kg (oro (c29-c32)) was not processed!										
1488											
1489											
1490	Result2_ug/kg (pce)										
1491											
1492	General Statistics										
1493					Total Number of Observations	8			Number of Distinct Observations	4	
1494					Number of Detects	3			Number of Non-Detects	5	
1495					Number of Distinct Detects	3			Number of Distinct Non-Detects	1	
1496					Minimum Detect	2			Minimum Non-Detect	1	
1497					Maximum Detect	58.7			Maximum Non-Detect	1	
1498					Variance Detects	988.6			Percent Non-Detects	62.5%	
1499					Mean Detects	22.5			SD Detects	31.44	
1500					Median Detects	6.8			CV Detects	1.397	
1501					Skewness Detects	1.687			Kurtosis Detects	N/A	
1502					Mean of Logged Detects	2.228			SD of Logged Detects	1.711	
1503											
1504	Warning: Data set has only 3 Detected Values.										
1505	This is not enough to compute meaningful or reliable statistics and estimates.										
1506											
1507											
1508	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
1509	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
1510	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
1511	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
1512											
1513	Normal GOF Test on Detects Only										
1514					Shapiro Wilk Test Statistic	0.813			Shapiro Wilk GOF Test		
1515					5% Shapiro Wilk Critical Value	0.767			Detected Data appear Normal at 5% Significance Level		
1516					Lilliefors Test Statistic	0.358			Lilliefors GOF Test		
1517					5% Lilliefors Critical Value	0.425			Detected Data appear Normal at 5% Significance Level		
1518	Detected Data appear Normal at 5% Significance Level										
1519											
1520	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs										
1521					KM Mean	9.063			KM Standard Error of Mean	8.164	
1522					KM SD	18.85			95% KM (BCA) UCL	N/A	
1523					95% KM (t) UCL	24.53			95% KM (Percentile Bootstrap) UCL	N/A	
1524					95% KM (z) UCL	22.49			95% KM Bootstrap t UCL	N/A	
1525					90% KM Chebyshev UCL	33.56			95% KM Chebyshev UCL	44.65	
1526					97.5% KM Chebyshev UCL	60.05			99% KM Chebyshev UCL	90.3	
1527											
1528	Gamma GOF Tests on Detected Observations Only										
1529	Not Enough Data to Perform GOF Test										
1530											
1531	Gamma Statistics on Detected Data Only										
1532					k hat (MLE)	0.684			k star (bias corrected MLE)	N/A	
1533					Theta hat (MLE)	32.88			Theta star (bias corrected MLE)	N/A	
1534					nu hat (MLE)	4.106			nu star (bias corrected)	N/A	
1535					Mean (detects)	22.5					
1536											
1537	Gamma ROS Statistics using Imputed Non-Detects										

1538	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1539	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1540	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1541	This is especially true when the sample size is small.										
1542	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1543					Minimum	0.01			Mean	8.444	
1544					Maximum	58.7			Median	0.01	
1545					SD	20.44			CV	2.421	
1546					k hat (MLE)	0.179			k star (bias corrected MLE)	0.195	
1547					Theta hat (MLE)	47.11			Theta star (bias corrected MLE)	43.22	
1548					nu hat (MLE)	2.867			nu star (bias corrected)	3.126	
1549					Adjusted Level of Significance (β)	0.0195					
1550					Approximate Chi Square Value (3.13, α)	0.411			Adjusted Chi Square Value (3.13, β)	0.237	
1551					95% Gamma Approximate UCL (use when n>=50)	64.28			95% Gamma Adjusted UCL (use when n<50)	N/A	
1552											
1553	Estimates of Gamma Parameters using KM Estimates										
1554					Mean (KM)	9.063			SD (KM)	18.85	
1555					Variance (KM)	355.5			SE of Mean (KM)	8.164	
1556					k hat (KM)	0.231			k star (KM)	0.228	
1557					nu hat (KM)	3.697			nu star (KM)	3.644	
1558					theta hat (KM)	39.23			theta star (KM)	39.8	
1559					80% gamma percentile (KM)	12.7			90% gamma percentile (KM)	27.34	
1560					95% gamma percentile (KM)	45.07			99% gamma percentile (KM)	92.91	
1561											
1562	Gamma Kaplan-Meier (KM) Statistics										
1563					Approximate Chi Square Value (3.64, α)	0.586			Adjusted Chi Square Value (3.64, β)	0.35	
1564					95% Gamma Approximate KM-UCL (use when n>=50)	56.33			95% Gamma Adjusted KM-UCL (use when n<50)	94.45	
1565											
1566	Lognormal GOF Test on Detected Observations Only										
1567					Shapiro Wilk Test Statistic	0.975			Shapiro Wilk GOF Test		
1568					5% Shapiro Wilk Critical Value	0.767			Detected Data appear Lognormal at 5% Significance Level		
1569					Lilliefors Test Statistic	0.239			Lilliefors GOF Test		
1570					5% Lilliefors Critical Value	0.425			Detected Data appear Lognormal at 5% Significance Level		
1571	Detected Data appear Lognormal at 5% Significance Level										
1572											
1573	Lognormal ROS Statistics Using Imputed Non-Detects										
1574					Mean in Original Scale	8.466			Mean in Log Scale	-2.004	
1575					SD in Original Scale	20.43			SD in Log Scale	4.037	
1576					95% t UCL (assumes normality of ROS data)	22.15			95% Percentile Bootstrap UCL	22.27	
1577					95% BCA Bootstrap UCL	29.86			95% Bootstrap t UCL	247.3	
1578					95% H-UCL (Log ROS)	4.350E+10					
1579											
1580	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										
1581					KM Mean (logged)	0.835			KM Geo Mean	2.306	
1582					KM SD (logged)	1.376			95% Critical H Value (KM-Log)	4.405	
1583					KM Standard Error of Mean (logged)	0.596			95% H-UCL (KM -Log)	58.81	
1584					KM SD (logged)	1.376			95% Critical H Value (KM-Log)	4.405	
1585					KM Standard Error of Mean (logged)	0.596					
1586											
1587	DL/2 Statistics										
1588	DL/2 Normal								DL/2 Log-Transformed		
1589					Mean in Original Scale	8.75			Mean in Log Scale	0.402	
1590					SD in Original Scale	20.3			SD in Log Scale	1.767	

1591			95% t UCL (Assumes normality)		22.35					95% H-Stat UCL	276.2	
1592	DL/2 is not a recommended method, provided for comparisons and historical reasons											
1593												
1594	Nonparametric Distribution Free UCL Statistics											
1595	Detected Data appear Normal Distributed at 5% Significance Level											
1596												
1597	Suggested UCL to Use											
1598				95% KM (t) UCL	24.53							
1599												
1600	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1601	Recommendations are based upon data size, data distribution, and skewness.											
1602	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
1603	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1604												
1605	Result2_ug/kg (selenium)											
1606												
1607	General Statistics											
1608				Total Number of Observations	8					Number of Distinct Observations	1	
1609				Number of Detects	0					Number of Non-Detects	8	
1610				Number of Distinct Detects	0					Number of Distinct Non-Detects	1	
1611												
1612	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
1613	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
1614	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
1615												
1616	The data set for variable Result2_ug/kg (selenium) was not processed!											
1617												
1618												
1619	Result2_ug/kg (selenium, se)											
1620												
1621	General Statistics											
1622				Total Number of Observations	56					Number of Distinct Observations	1	
1623				Number of Detects	0					Number of Non-Detects	56	
1624				Number of Distinct Detects	0					Number of Distinct Non-Detects	1	
1625												
1626	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
1627	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
1628	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
1629												
1630	The data set for variable Result2_ug/kg (selenium, se) was not processed!											
1631												
1632												
1633	Result2_ug/kg (silver)											
1634												
1635	General Statistics											
1636				Total Number of Observations	8					Number of Distinct Observations	1	
1637				Number of Detects	0					Number of Non-Detects	8	
1638				Number of Distinct Detects	0					Number of Distinct Non-Detects	1	
1639												
1640	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!											
1641	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!											
1642	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
1643												

1644	The data set for variable Result2_ug/kg (silver) was not processed!										
1645											
1646											
1647	Result2_ug/kg (silver, ag)										
1648											
1649	General Statistics										
1650				Total Number of Observations	56			Number of Distinct Observations	1		
1651				Number of Detects	0			Number of Non-Detects	56		
1652				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1653											
1654	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1655	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1656	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1657											
1658	The data set for variable Result2_ug/kg (silver, ag) was not processed!										
1659											
1660											
1661	Result2_ug/kg (tce)										
1662											
1663	General Statistics										
1664				Total Number of Observations	8			Number of Distinct Observations	1		
1665				Number of Detects	0			Number of Non-Detects	8		
1666				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1667											
1668	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1669	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1670	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1671											
1672	The data set for variable Result2_ug/kg (tce) was not processed!										
1673											
1674											
1675	Result2_ug/kg (thallium)										
1676											
1677	General Statistics										
1678				Total Number of Observations	8			Number of Distinct Observations	1		
1679				Number of Detects	0			Number of Non-Detects	8		
1680				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1681											
1682	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1683	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1684	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1685											
1686	The data set for variable Result2_ug/kg (thallium) was not processed!										
1687											
1688											
1689	Result2_ug/kg (thallium, tl)										
1690											
1691	General Statistics										
1692				Total Number of Observations	56			Number of Distinct Observations	1		
1693				Number of Detects	0			Number of Non-Detects	56		
1694				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1695											
1696	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										

1697	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1698	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1699											
1700	The data set for variable Result2_ug/kg (thallium, tl) was not processed!										
1701											
1702											
1703	Result2_ug/kg (toluene)										
1704											
1705	General Statistics										
1706				Total Number of Observations	8			Number of Distinct Observations	1		
1707				Number of Detects	0			Number of Non-Detects	8		
1708				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1709											
1710	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1711	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1712	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1713											
1714	The data set for variable Result2_ug/kg (toluene) was not processed!										
1715											
1716											
1717	Result2_ug/kg (trans-1,2-dce)										
1718											
1719	General Statistics										
1720				Total Number of Observations	8			Number of Distinct Observations	1		
1721				Number of Detects	0			Number of Non-Detects	8		
1722				Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
1723											
1724	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!										
1725	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!										
1726	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
1727											
1728	The data set for variable Result2_ug/kg (trans-1,2-dce) was not processed!										
1729											
1730											
1731											
1732	Result2_ug/kg (vanadium)										
1733											
1734	General Statistics										
1735				Total Number of Observations	8			Number of Distinct Observations	8		
1736								Number of Missing Observations	0		
1737				Minimum	34500			Mean	54413		
1738				Maximum	66400			Median	55900		
1739				SD	10989			Std. Error of Mean	3885		
1740				Coefficient of Variation	0.202			Skewness	-0.728		
1741											
1742	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
1743	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
1744	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
1745	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										
1746											
1747	Normal GOF Test										
1748				Shapiro Wilk Test Statistic	0.929			Shapiro Wilk GOF Test			
1749				5% Shapiro Wilk Critical Value	0.818			Data appear Normal at 5% Significance Level			

1750				Lilliefors Test Statistic	0.172	Lilliefors GOF Test					
1751				5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level					
1752	Data appear Normal at 5% Significance Level										
1753											
1754	Assuming Normal Distribution										
1755	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
1756				95% Student's-t UCL	61774	95% Adjusted-CLT UCL (Chen-1995)	59735				
1757						95% Modified-t UCL (Johnson-1978)	61607				
1758											
1759	Gamma GOF Test										
1760				A-D Test Statistic	0.351	Anderson-Darling Gamma GOF Test					
1761				5% A-D Critical Value	0.716	Detected data appear Gamma Distributed at 5% Significance Level					
1762				K-S Test Statistic	0.192	Kolmogorov-Smirnov Gamma GOF Test					
1763				5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level					
1764	Detected data appear Gamma Distributed at 5% Significance Level										
1765											
1766	Gamma Statistics										
1767				k hat (MLE)	25.05	k star (bias corrected MLE)	15.74				
1768				Theta hat (MLE)	2172	Theta star (bias corrected MLE)	3457				
1769				nu hat (MLE)	400.8	nu star (bias corrected)	251.8				
1770				MLE Mean (bias corrected)	54413	MLE Sd (bias corrected)	13716				
1771						Approximate Chi Square Value (0.05)	216.1				
1772				Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	207.7				
1773											
1774	Assuming Gamma Distribution										
1775	95% Approximate Gamma UCL (use when n>=50))				63413	95% Adjusted Gamma UCL (use when n<50)	65977				
1776											
1777	Lognormal GOF Test										
1778				Shapiro Wilk Test Statistic	0.897	Shapiro Wilk Lognormal GOF Test					
1779				5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level					
1780				Lilliefors Test Statistic	0.184	Lilliefors Lognormal GOF Test					
1781				5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level					
1782	Data appear Lognormal at 5% Significance Level										
1783											
1784	Lognormal Statistics										
1785				Minimum of Logged Data	10.45	Mean of logged Data	10.88				
1786				Maximum of Logged Data	11.1	SD of logged Data	0.221				
1787											
1788	Assuming Lognormal Distribution										
1789				95% H-UCL	64412	90% Chebyshev (MVUE) UCL	67292				
1790				95% Chebyshev (MVUE) UCL	73095	97.5% Chebyshev (MVUE) UCL	81149				
1791				99% Chebyshev (MVUE) UCL	96970						
1792											
1793	Nonparametric Distribution Free UCL Statistics										
1794	Data appear to follow a Discernible Distribution at 5% Significance Level										
1795											
1796	Nonparametric Distribution Free UCLs										
1797				95% CLT UCL	60803	95% Jackknife UCL	61774				
1798				95% Standard Bootstrap UCL	60437	95% Bootstrap-t UCL	60797				
1799				95% Hall's Bootstrap UCL	59530	95% Percentile Bootstrap UCL	60375				
1800				95% BCA Bootstrap UCL	59663						
1801				90% Chebyshev(Mean, Sd) UCL	66069	95% Chebyshev(Mean, Sd) UCL	71348				
1802				97.5% Chebyshev(Mean, Sd) UCL	78676	99% Chebyshev(Mean, Sd) UCL	93071				

1803											
1804					Suggested UCL to Use						
1805				95% Student's-t UCL	61774						
1806											
1807					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1808					Recommendations are based upon data size, data distribution, and skewness.						
1809					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).						
1810					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1811											
1812					Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be						
1813					reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.						
1814											
1815											
1816	Result2_ug/kg (vanadium, v)										
1817											
1818					General Statistics						
1819				Total Number of Observations	56			Number of Distinct Observations	53		
1820								Number of Missing Observations	0		
1821				Minimum	32800			Mean	57304		
1822				Maximum	81300			Median	58900		
1823				SD	12495			Std. Error of Mean	1670		
1824				Coefficient of Variation	0.218			Skewness	-0.256		
1825											
1826					Normal GOF Test						
1827				Shapiro Wilk Test Statistic	0.958			Shapiro Wilk GOF Test			
1828				5% Shapiro Wilk P Value	0.1			Data appear Normal at 5% Significance Level			
1829				Lilliefors Test Statistic	0.0981			Lilliefors GOF Test			
1830				5% Lilliefors Critical Value	0.118			Data appear Normal at 5% Significance Level			
1831					Data appear Normal at 5% Significance Level						
1832											
1833					Assuming Normal Distribution						
1834				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
1835				95% Student's-t UCL	60097			95% Adjusted-CLT UCL (Chen-1995)	59989		
1836								95% Modified-t UCL (Johnson-1978)	60088		
1837											
1838					Gamma GOF Test						
1839				A-D Test Statistic	0.923			Anderson-Darling Gamma GOF Test			
1840				5% A-D Critical Value	0.749			Data Not Gamma Distributed at 5% Significance Level			
1841				K-S Test Statistic	0.126			Kolmogorov-Smirnov Gamma GOF Test			
1842				5% K-S Critical Value	0.119			Data Not Gamma Distributed at 5% Significance Level			
1843					Data Not Gamma Distributed at 5% Significance Level						
1844											
1845					Gamma Statistics						
1846				k hat (MLE)	19.66			k star (bias corrected MLE)	18.62		
1847				Theta hat (MLE)	2914			Theta star (bias corrected MLE)	3077		
1848				nu hat (MLE)	2202			nu star (bias corrected)	2086		
1849				MLE Mean (bias corrected)	57304			MLE Sd (bias corrected)	13279		
1850								Approximate Chi Square Value (0.05)	1981		
1851				Adjusted Level of Significance	0.0457			Adjusted Chi Square Value	1978		
1852											
1853					Assuming Gamma Distribution						
1854				95% Approximate Gamma UCL (use when n>=50))	60344			95% Adjusted Gamma UCL (use when n<50)	60426		
1855											

1856	Lognormal GOF Test										
1857				Shapiro Wilk Test Statistic	0.93	Shapiro Wilk Lognormal GOF Test					
1858				5% Shapiro Wilk P Value	0.00337	Data Not Lognormal at 5% Significance Level					
1859				Lilliefors Test Statistic	0.137	Lilliefors Lognormal GOF Test					
1860				5% Lilliefors Critical Value	0.118	Data Not Lognormal at 5% Significance Level					
1861	Data Not Lognormal at 5% Significance Level										
1862											
1863	Lognormal Statistics										
1864				Minimum of Logged Data	10.4	Mean of logged Data	10.93				
1865				Maximum of Logged Data	11.31	SD of logged Data	0.235				
1866											
1867	Assuming Lognormal Distribution										
1868				95% H-UCL	60623	90% Chebyshev (MVUE) UCL	62845				
1869				95% Chebyshev (MVUE) UCL	65319	97.5% Chebyshev (MVUE) UCL	68752				
1870				99% Chebyshev (MVUE) UCL	75497						
1871											
1872	Nonparametric Distribution Free UCL Statistics										
1873	Data appear to follow a Discernible Distribution at 5% Significance Level										
1874											
1875	Nonparametric Distribution Free UCLs										
1876				95% CLT UCL	60050	95% Jackknife UCL	60097				
1877				95% Standard Bootstrap UCL	59995	95% Bootstrap-t UCL	60042				
1878				95% Hall's Bootstrap UCL	60105	95% Percentile Bootstrap UCL	60029				
1879				95% BCA Bootstrap UCL	59964						
1880				90% Chebyshev(Mean, Sd) UCL	62313	95% Chebyshev(Mean, Sd) UCL	64582				
1881				97.5% Chebyshev(Mean, Sd) UCL	67731	99% Chebyshev(Mean, Sd) UCL	73917				
1882											
1883	Suggested UCL to Use										
1884				95% Student's-t UCL	60097						
1885											
1886	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1887	Recommendations are based upon data size, data distribution, and skewness.										
1888	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1889	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1890											
1891	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be										
1892	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.										
1893											
1894											
1895	Result2_ug/kg (zinc)										
1896											
1897	General Statistics										
1898				Total Number of Observations	8	Number of Distinct Observations	8				
1899						Number of Missing Observations	0				
1900				Minimum	41500	Mean	60475				
1901				Maximum	75100	Median	61250				
1902				SD	12711	Std. Error of Mean	4494				
1903				Coefficient of Variation	0.21	Skewness	-0.225				
1904											
1905	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use										
1906	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.										
1907	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).										
1908	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1										

1909											
1910					Normal GOF Test						
1911				Shapiro Wilk Test Statistic	0.91	Shapiro Wilk GOF Test					
1912				5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level					
1913				Lilliefors Test Statistic	0.177	Lilliefors GOF Test					
1914				5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level					
1915					Data appear Normal at 5% Significance Level						
1916											
1917					Assuming Normal Distribution						
1918				95% Normal UCL		95% UCLs (Adjusted for Skewness)					
1919				95% Student's-t UCL	68989	95% Adjusted-CLT UCL (Chen-1995)	67484				
1920						95% Modified-t UCL (Johnson-1978)	68929				
1921											
1922					Gamma GOF Test						
1923				A-D Test Statistic	0.401	Anderson-Darling Gamma GOF Test					
1924				5% A-D Critical Value	0.716	Detected data appear Gamma Distributed at 5% Significance Level					
1925				K-S Test Statistic	0.202	Kolmogorov-Smirnov Gamma GOF Test					
1926				5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level					
1927					Detected data appear Gamma Distributed at 5% Significance Level						
1928											
1929					Gamma Statistics						
1930				k hat (MLE)	24.63	k star (bias corrected MLE)	15.48				
1931				Theta hat (MLE)	2455	Theta star (bias corrected MLE)	3907				
1932				nu hat (MLE)	394.1	nu star (bias corrected)	247.7				
1933				MLE Mean (bias corrected)	60475	MLE Sd (bias corrected)	15371				
1934						Approximate Chi Square Value (0.05)	212.2				
1935				Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	203.9				
1936											
1937					Assuming Gamma Distribution						
1938				95% Approximate Gamma UCL (use when n>=50))	70572	95% Adjusted Gamma UCL (use when n<50)	73452				
1939											
1940					Lognormal GOF Test						
1941				Shapiro Wilk Test Statistic	0.908	Shapiro Wilk Lognormal GOF Test					
1942				5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level					
1943				Lilliefors Test Statistic	0.196	Lilliefors Lognormal GOF Test					
1944				5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level					
1945					Data appear Lognormal at 5% Significance Level						
1946											
1947					Lognormal Statistics						
1948				Minimum of Logged Data	10.63	Mean of logged Data	10.99				
1949				Maximum of Logged Data	11.23	SD of logged Data	0.219				
1950											
1951					Assuming Lognormal Distribution						
1952				95% H-UCL	71415	90% Chebyshev (MVUE) UCL	74609				
1953				95% Chebyshev (MVUE) UCL	80996	97.5% Chebyshev (MVUE) UCL	89861				
1954				99% Chebyshev (MVUE) UCL	107275						
1955											
1956					Nonparametric Distribution Free UCL Statistics						
1957					Data appear to follow a Discernible Distribution at 5% Significance Level						
1958											
1959					Nonparametric Distribution Free UCLs						
1960				95% CLT UCL	67867	95% Jackknife UCL	68989				
1961				95% Standard Bootstrap UCL	67378	95% Bootstrap-t UCL	69296				

1962				95% Hall's Bootstrap UCL	66439			95% Percentile Bootstrap UCL		67400	
1963				95% BCA Bootstrap UCL	66988						
1964				90% Chebyshev(Mean, Sd) UCL	73957			95% Chebyshev(Mean, Sd) UCL		80064	
1965				97.5% Chebyshev(Mean, Sd) UCL	88539			99% Chebyshev(Mean, Sd) UCL		105189	
1966											
1967				Suggested UCL to Use							
1968				95% Student's-t UCL	68989						
1969											
1970	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1971	Recommendations are based upon data size, data distribution, and skewness.										
1972	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
1973	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1974											
1975	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be										
1976	reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.										
1977											
1978											
1979	Result2_ug/kg (zinc, zn)										
1980											
1981	General Statistics										
1982				Total Number of Observations	56			Number of Distinct Observations		53	
1983								Number of Missing Observations		0	
1984				Minimum	22700			Mean		354418	
1985				Maximum	7050000			Median		62900	
1986				SD	1323482			Std. Error of Mean		176858	
1987				Coefficient of Variation	3.734			Skewness		4.623	
1988											
1989	Normal GOF Test										
1990				Shapiro Wilk Test Statistic	0.252			Shapiro Wilk GOF Test			
1991				5% Shapiro Wilk P Value	0			Data Not Normal at 5% Significance Level			
1992				Lilliefors Test Statistic	0.528			Lilliefors GOF Test			
1993				5% Lilliefors Critical Value	0.118			Data Not Normal at 5% Significance Level			
1994	Data Not Normal at 5% Significance Level										
1995											
1996	Assuming Normal Distribution										
1997				95% Normal UCL				95% UCLs (Adjusted for Skewness)			
1998				95% Student's-t UCL	650307			95% Adjusted-CLT UCL (Chen-1995)		762078	
1999								95% Modified-t UCL (Johnson-1978)		668518	
2000											
2001	Gamma GOF Test										
2002				A-D Test Statistic	17.04			Anderson-Darling Gamma GOF Test			
2003				5% A-D Critical Value	0.836			Data Not Gamma Distributed at 5% Significance Level			
2004				K-S Test Statistic	0.528			Kolmogorov-Smirnov Gamma GOF Test			
2005				5% K-S Critical Value	0.127			Data Not Gamma Distributed at 5% Significance Level			
2006	Data Not Gamma Distributed at 5% Significance Level										
2007											
2008	Gamma Statistics										
2009				k hat (MLE)	0.412			k star (bias corrected MLE)		0.402	
2010				Theta hat (MLE)	859583			Theta star (bias corrected MLE)		881351	
2011				nu hat (MLE)	46.18			nu star (bias corrected)		45.04	
2012				MLE Mean (bias corrected)	354418			MLE Sd (bias corrected)		558898	
2013								Approximate Chi Square Value (0.05)		30.64	
2014				Adjusted Level of Significance	0.0457			Adjusted Chi Square Value		30.33	

2015											
2016	Assuming Gamma Distribution										
2017	95% Approximate Gamma UCL (use when n>=50))				520898	95% Adjusted Gamma UCL (use when n<50)					526291
2018											
2019	Lognormal GOF Test										
2020	Shapiro Wilk Test Statistic				0.485	Shapiro Wilk Lognormal GOF Test					
2021	5% Shapiro Wilk P Value				0	Data Not Lognormal at 5% Significance Level					
2022	Lilliefors Test Statistic				0.395	Lilliefors Lognormal GOF Test					
2023	5% Lilliefors Critical Value				0.118	Data Not Lognormal at 5% Significance Level					
2024	Data Not Lognormal at 5% Significance Level										
2025											
2026	Lognormal Statistics										
2027	Minimum of Logged Data				10.03	Mean of logged Data					11.19
2028	Maximum of Logged Data				15.77	SD of logged Data					1.065
2029											
2030	Assuming Lognormal Distribution										
2031	95% H-UCL				180861	90% Chebyshev (MVUE) UCL					190282
2032	95% Chebyshev (MVUE) UCL				219507	97.5% Chebyshev (MVUE) UCL					260070
2033	99% Chebyshev (MVUE) UCL				339748						
2034											
2035	Nonparametric Distribution Free UCL Statistics										
2036	Data do not follow a Discernible Distribution (0.05)										
2037											
2038	Nonparametric Distribution Free UCLs										
2039	95% CLT UCL				645323	95% Jackknife UCL					650307
2040	95% Standard Bootstrap UCL				638960	95% Bootstrap-t UCL					1171173
2041	95% Hall's Bootstrap UCL				737216	95% Percentile Bootstrap UCL					669286
2042	95% BCA Bootstrap UCL				818089						
2043	90% Chebyshev(Mean, Sd) UCL				884991	95% Chebyshev(Mean, Sd) UCL					1125323
2044	97.5% Chebyshev(Mean, Sd) UCL				1458894	99% Chebyshev(Mean, Sd) UCL					2114130
2045											
2046	Suggested UCL to Use										
2047	95% Chebyshev (Mean, Sd) UCL				1125323						
2048											
2049	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
2050	Recommendations are based upon data size, data distribution, and skewness.										
2051	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
2052	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
2053											

Geosyntec consultants

APPENDIX B

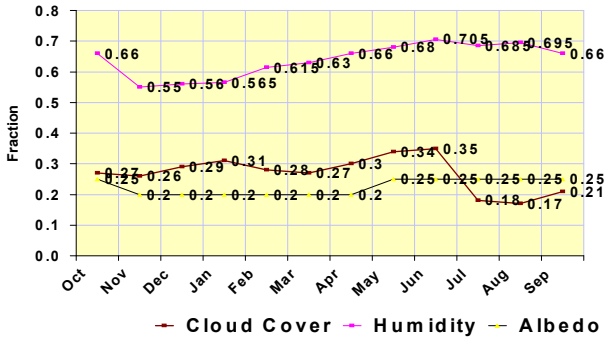
SESOIL Model Input Reports

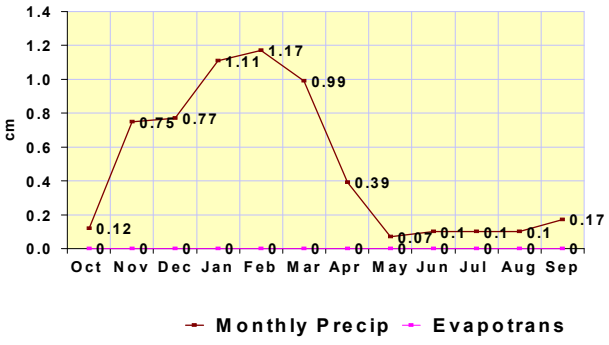
Climate Inputs
Scenario 1

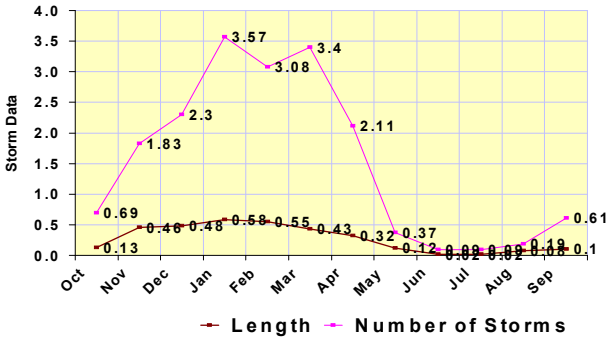
Climate Report

Location Description: LOS ANGELES, CIVIC CENTER
Climatic Input File: C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

Month	Temperature		Precipitation		Evapotranspiration Rate		Storms		Cloud Cover	Albedo	Humidity
Units	^{o}C	^{o}F	cm	Inches	cm	Inches	# per Month	Length Days	Fraction	Fraction	Fraction
October	20.94	69.69	0.12	0.05	0.00	0.00	0.69	0.130	0.270	0.250	0.660
November	17.22	63.00	0.75	0.30	0.00	0.00	1.83	0.460	0.260	0.200	0.550
December	14.61	58.30	0.77	0.30	0.00	0.00	2.30	0.480	0.290	0.200	0.560
January	14.61	58.30	1.11	0.44	0.00	0.00	3.57	0.580	0.310	0.200	0.565
February	15.61	60.10	1.17	0.46	0.00	0.00	3.08	0.550	0.280	0.200	0.615
March	15.94	60.69	0.99	0.39	0.00	0.00	3.40	0.430	0.270	0.200	0.630
April	17.39	63.30	0.39	0.15	0.00	0.00	2.11	0.320	0.300	0.200	0.660
May	18.78	65.80	0.07	0.03	0.00	0.00	0.37	0.120	0.340	0.250	0.680
June	20.94	69.69	0.1	0.04	0.00	0.00	0.09	0.020	0.350	0.250	0.705
July	23.50	74.30	0.1	0.04	0.00	0.00	0.09	0.020	0.180	0.250	0.685
August	23.94	75.09	0.1	0.04	0.00	0.00	0.19	0.080	0.170	0.250	0.695
September	23.17	73.71	0.17	0.07	0.00	0.00	0.61	0.100	0.210	0.250	0.660
Total			5.84	2.30	0.00	0.00					





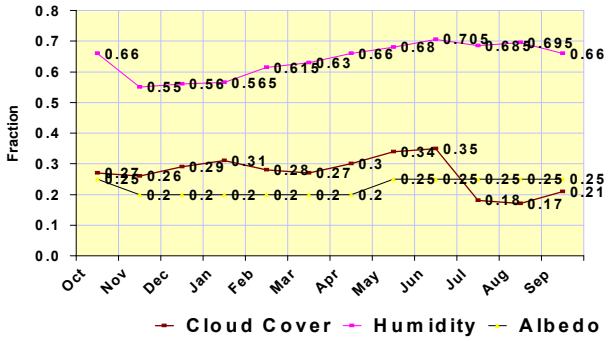


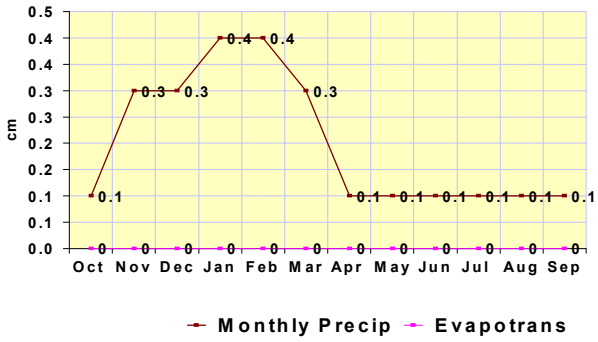
Climate Inputs
Scenario 2

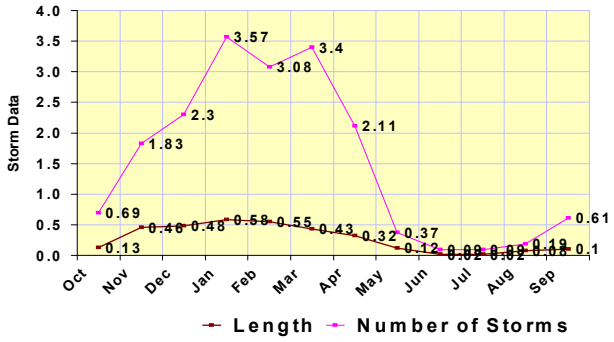
Climate Report

Location Description: LOS ANGELES, CIVIC CENTER
Climatic Input File: C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

Month	Temperature		Precipitation		Evapotranspiration Rate		Storms		Cloud Cover	Albedo	Humidity
Units	^{o}C	^{o}F	cm	Inches	cm	Inches	# per Month	Length Days	Fraction	Fraction	Fraction
October	20.94	69.69	0.1	0.04	0.00	0.00	0.69	0.130	0.270	0.250	0.660
November	17.22	63.00	0.3	0.12	0.00	0.00	1.83	0.460	0.260	0.200	0.550
December	14.61	58.30	0.3	0.12	0.00	0.00	2.30	0.480	0.290	0.200	0.560
January	14.61	58.30	0.4	0.16	0.00	0.00	3.57	0.580	0.310	0.200	0.565
February	15.61	60.10	0.4	0.16	0.00	0.00	3.08	0.550	0.280	0.200	0.615
March	15.94	60.69	0.3	0.12	0.00	0.00	3.40	0.430	0.270	0.200	0.630
April	17.39	63.30	0.1	0.04	0.00	0.00	2.11	0.320	0.300	0.200	0.660
May	18.78	65.80	0.1	0.04	0.00	0.00	0.37	0.120	0.340	0.250	0.680
June	20.94	69.69	0.1	0.04	0.00	0.00	0.09	0.020	0.350	0.250	0.705
July	23.50	74.30	0.1	0.04	0.00	0.00	0.09	0.020	0.180	0.250	0.685
August	23.94	75.09	0.1	0.04	0.00	0.00	0.19	0.080	0.170	0.250	0.695
September	23.17	73.71	0.1	0.04	0.00	0.00	0.61	0.100	0.210	0.250	0.660
Total			2.40	0.94	0.00	0.00					





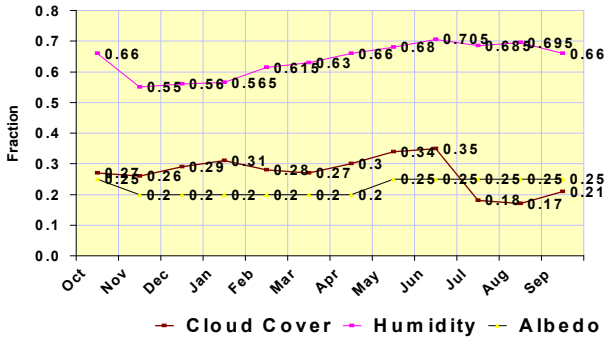


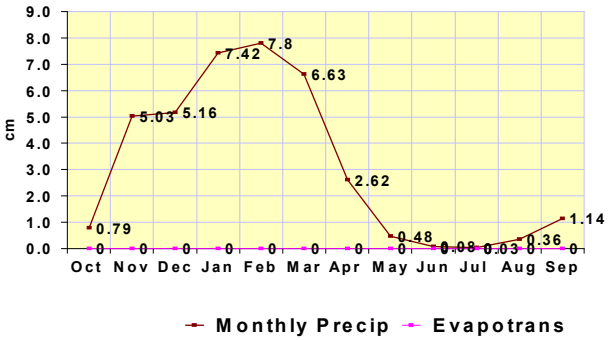
Climate Inputs
Scenario 3

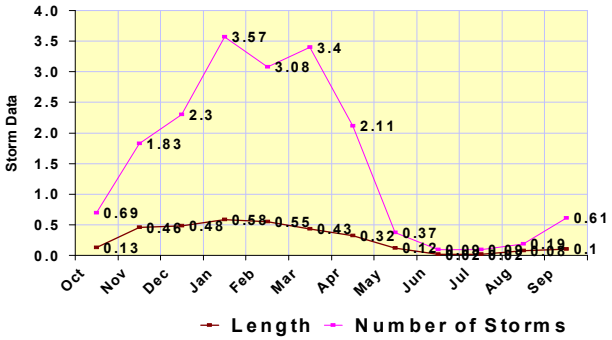
Climate Report

Location Description: LOS ANGELES, CIVIC CENTER
Climatic Input File: C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Month	Temperature		Precipitation		Evapotranspiration Rate		Storms		Cloud Cover	Albedo	Humidity
Units	^{o}C	^{o}F	cm	Inches	cm	Inches	# per Month	Length Days	Fraction	Fraction	Fraction
October	20.94	69.69	0.79	0.31	0.00	0.00	0.69	0.130	0.270	0.250	0.660
November	17.22	63.00	5.03	1.98	0.00	0.00	1.83	0.460	0.260	0.200	0.550
December	14.61	58.30	5.16	2.03	0.00	0.00	2.30	0.480	0.290	0.200	0.560
January	14.61	58.30	7.42	2.92	0.00	0.00	3.57	0.580	0.310	0.200	0.565
February	15.61	60.10	7.80	3.07	0.00	0.00	3.08	0.550	0.280	0.200	0.615
March	15.94	60.69	6.63	2.61	0.00	0.00	3.40	0.430	0.270	0.200	0.630
April	17.39	63.30	2.62	1.03	0.00	0.00	2.11	0.320	0.300	0.200	0.660
May	18.78	65.80	0.48	0.19	0.00	0.00	0.37	0.120	0.340	0.250	0.680
June	20.94	69.69	0.08	0.03	0.00	0.00	0.09	0.020	0.350	0.250	0.705
July	23.50	74.30	0.03	0.01	0.00	0.00	0.09	0.020	0.180	0.250	0.685
August	23.94	75.09	0.36	0.14	0.00	0.00	0.19	0.080	0.170	0.250	0.695
September	23.17	73.71	1.14	0.45	0.00	0.00	0.61	0.100	0.210	0.250	0.660
Total			37.54	14.78	0.00	0.00					







Soil Parameters and Constituent Inputs All Scenarios

SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	2.97E+3	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	3.45E-4	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	93.30		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	7.10E-2	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	7.90E-6	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	168.00	**Acid Hydrolysis** (L/mol/day)	0.00

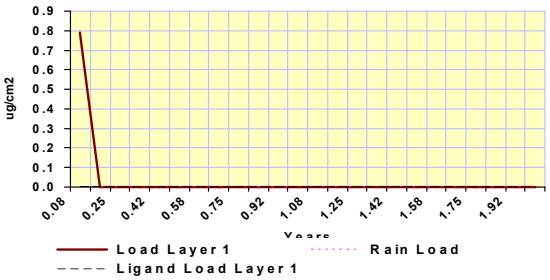
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

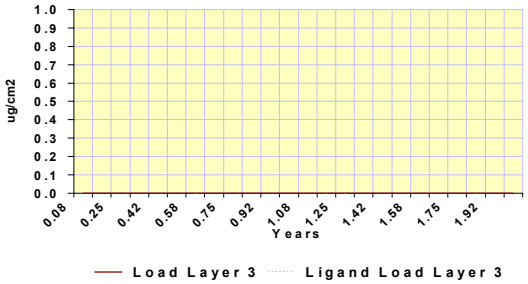
Chemical File: 1,1,2,2-Tetrachloroethane MA DEP
c:\sev7 win7\1 1 2 2-TETRACHLOROETHANE MA DEP.CHM

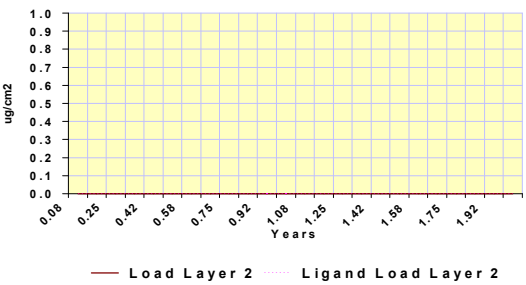
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

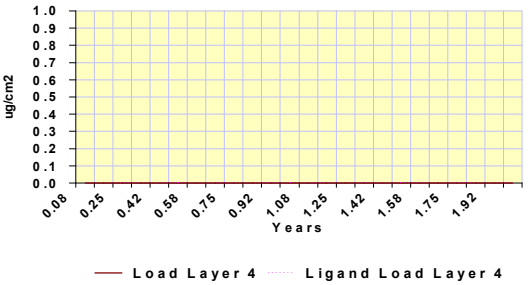
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Layer 1 (ug/g)	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	2.25E+3	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	2.61E-2	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	65.00		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	9.00E-2	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	1.04E-5	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	97.00	**Acid Hydrolysis** (L/mol/day)	0.00

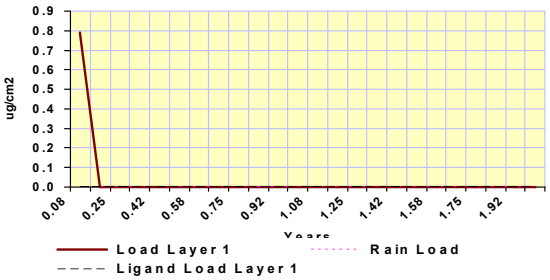
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

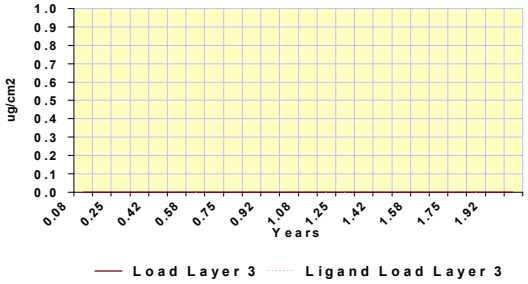
Chemical File: 1,1-Dichloroethene OEPA 2003
c:\sev7 win7\1 1-DICHLOROETHENE OEPA 2003.CHM

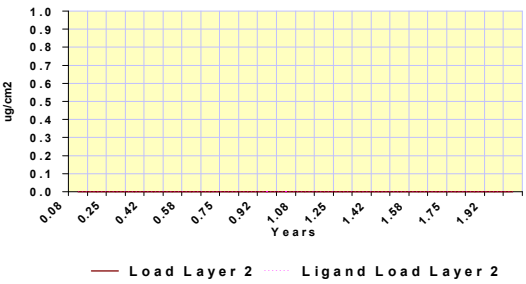
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

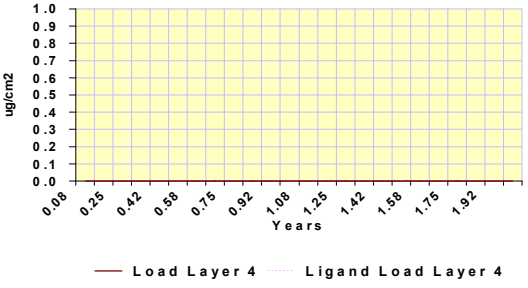
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	1	2	3	4	5	6	7	8	9	10
Layer 1 (ug/g)	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	8.52E+3	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	1.18E-3	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	17.40		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	.104	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	9.90E-6	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	99.00	**Acid Hydrolysis** (L/mol/day)	0.00

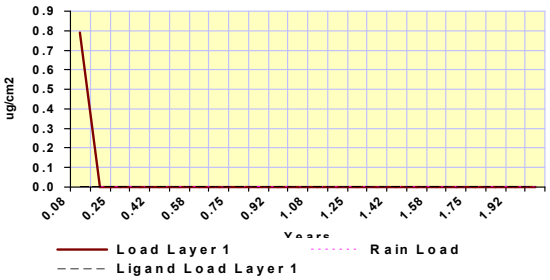
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

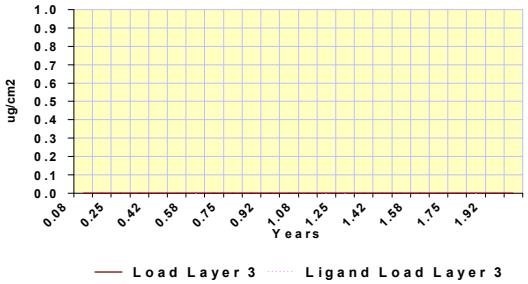
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

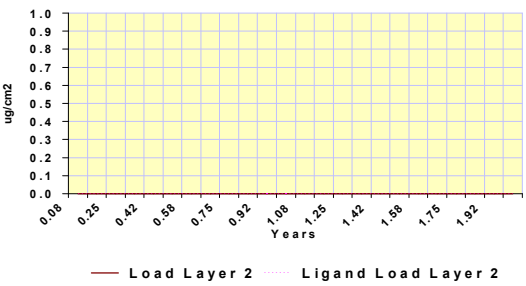
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

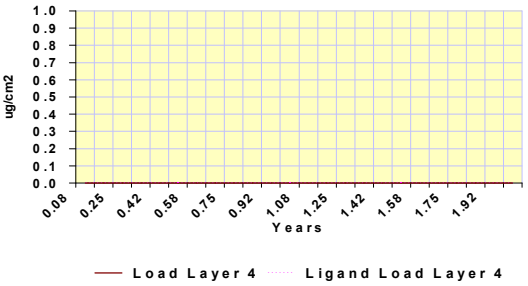
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Layer 1 (ug/g)	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	2.80E+3	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	3.54E-3	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	80.80		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	6.26E-2	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	1.00E-5	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	111.00	**Acid Hydrolysis** (L/mol/day)	0.00

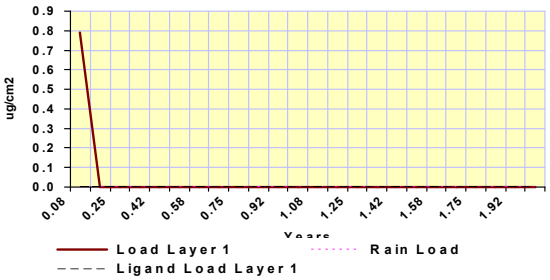
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

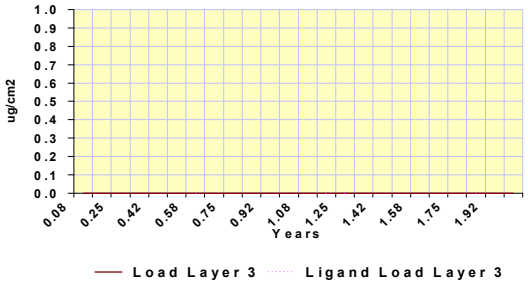
Chemical File: Dichloropropene, 1,3-
c:\sev7 win7\DICHLOROPROPENE 1 3-.CHM

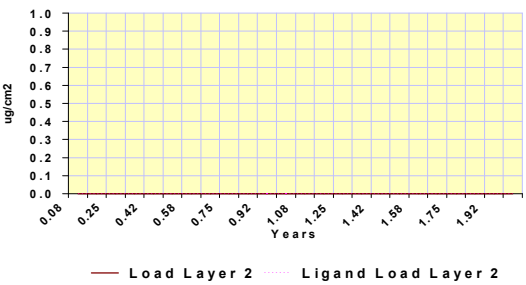
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

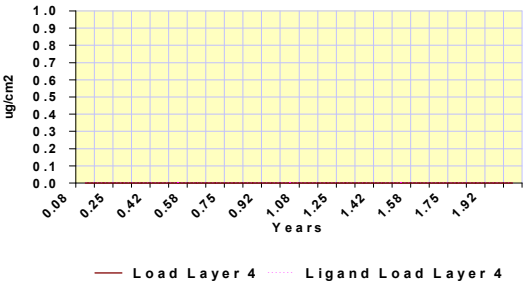
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Layer 1 (ug/g)	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	1.78E+3	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	5.55E-3	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	31.00		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	7.70E-2	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	9.80E-6	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	78.10	**Acid Hydrolysis** (L/mol/day)	0.00

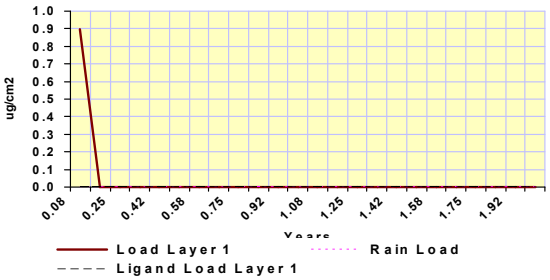
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

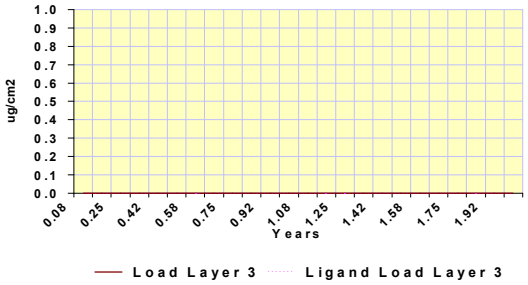
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

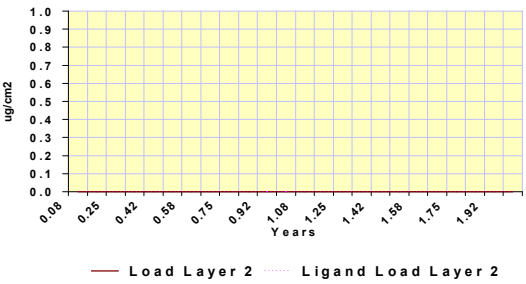
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

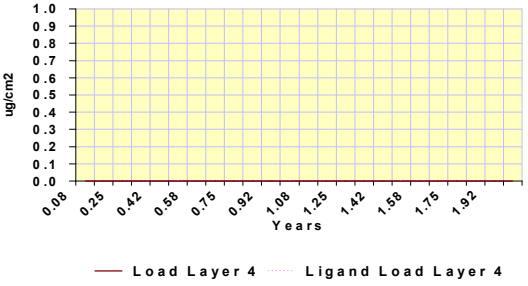
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Layer 1 (ug/g)	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

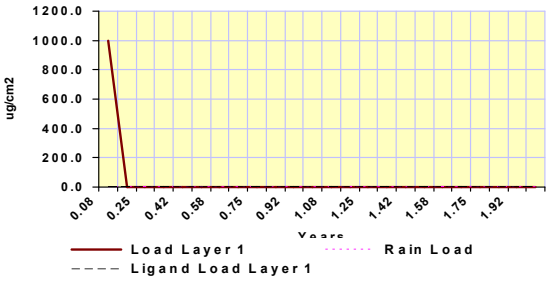
Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

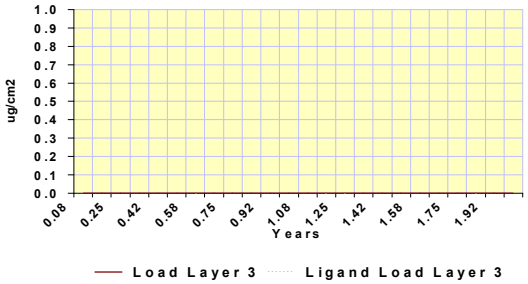
Chemical Parameters

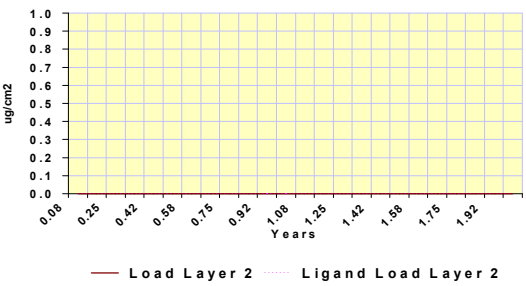
Water Solubility	(µg/mL)	1.00E+9	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	0.00	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	0.00		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	0.00	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	0.00	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	18.00	**Acid Hydrolysis** (L/mol/day)	0.00

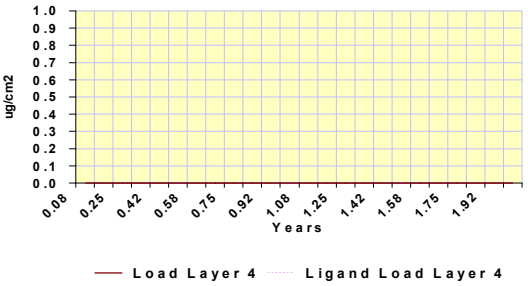
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT
Chemical File: Conservative Tracer
c:\sev7 win7\CONSERVATIVE TRACER.CHM
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Layer 1 (ug/g)	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	1800000	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	1800000	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	1800000	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	1800000	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	1.20E+4	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	0.00	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	0.00		
K_d Adsorp	(µg/g)/(µg/mL)	1800000		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	0.00	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	0.00	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	0.00	**Acid Hydrolysis** (L/mol/day)	0.00

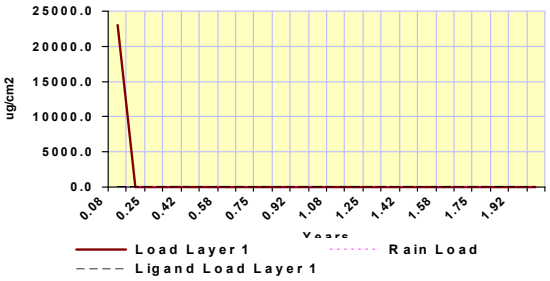
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

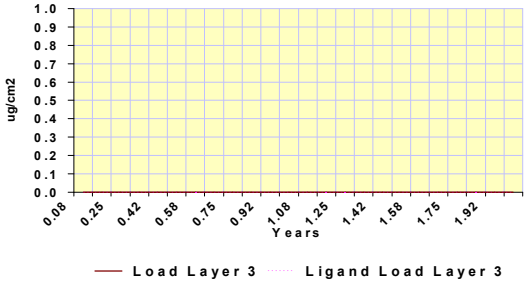
Chemical File: Chromium (III) (Insoluble Salts) (Kd)
c:\sev7 win7\CHROMIUM (III) (INSOLUBLE SALTS) (KD).CHM

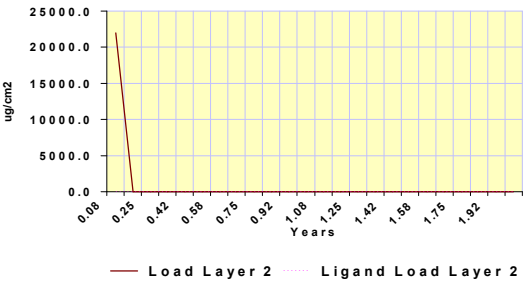
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

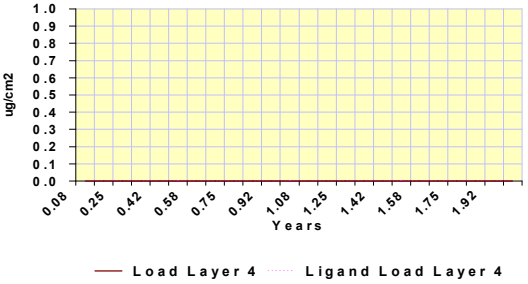
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	1	2	3	4	5	6	7	8	9	10
Layer 1 (ug/g)	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01
Layer 2 (ug/g)	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01				
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	19.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	19.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	19.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	19.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	1.20E+4	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	0.00	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	0.00		
K_d Adsorp	(µg/g)/(µg/mL)	19.00		
Valence	(g/mole)	6.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	0.00	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	0.00	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	0.00	**Acid Hydrolysis** (L/mol/day)	0.00

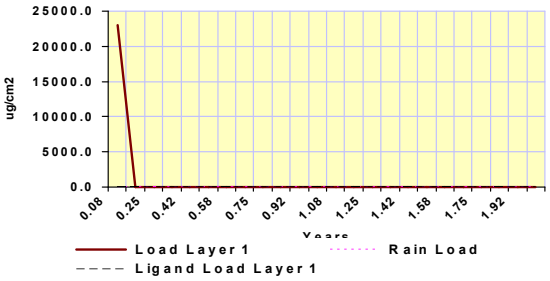
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

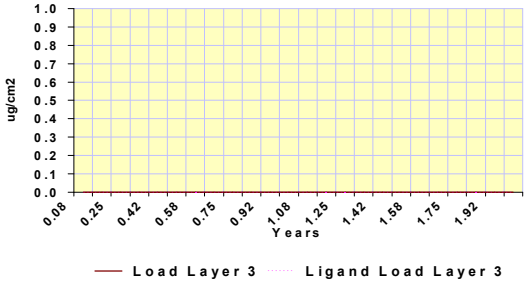
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

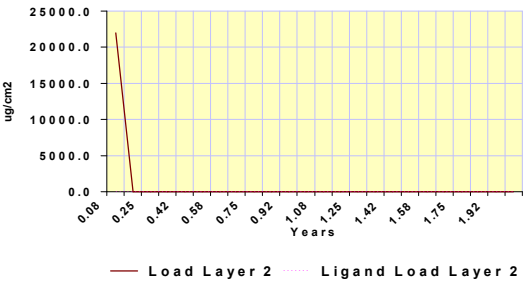
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

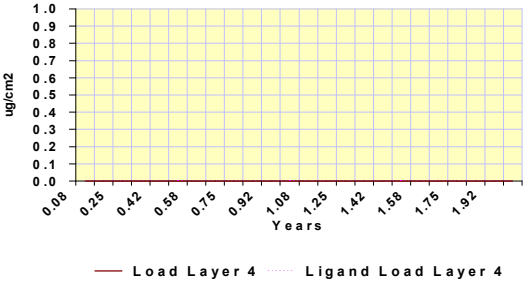
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	1	2	3	4	5	6	7	8	9	10
Layer 1 (ug/g)	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01	2.99E+01
Layer 2 (ug/g)	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01				
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	200.0	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	1.84E-2	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	265.00		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	7.20E-2	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	8.20E-6	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	166.00	**Acid Hydrolysis** (L/mol/day)	0.00

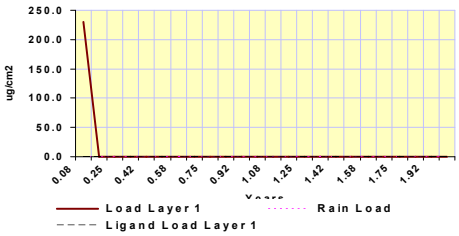
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

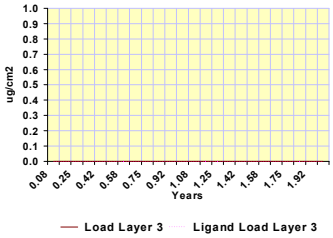
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

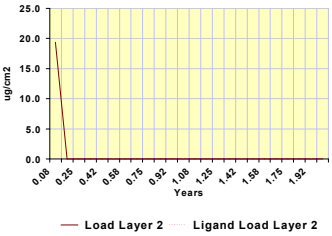
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

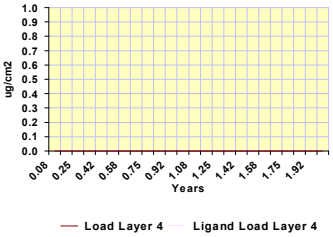
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	1	2	3	4	5	6	7	8	9	10
Layer 1 (ug/g)	2.91E-01	2.91E-01	2.91E-01	2.91E-01	2.91E-01	2.91E-01	2.91E-01	2.91E-01	2.91E-01	2.91E-01
Layer 2 (ug/g)	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02	2.50E-02				
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	µg/g / µg/mL	mEq / 100 g soil	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

Chemical Parameters

Water Solubility	(µg/mL)	1.10E+3	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	1.17E-2	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	166.00		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	7.90E-2	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	9.10E-6	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	131.00	**Acid Hydrolysis** (L/mol/day)	0.00

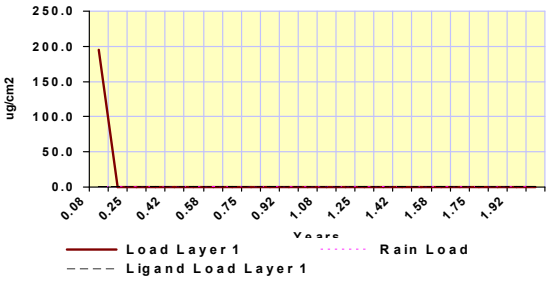
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT

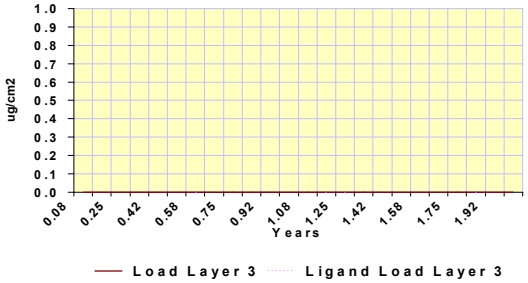
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

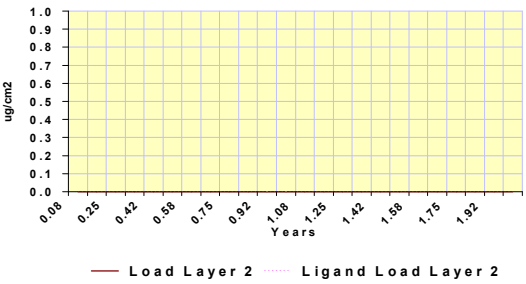
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

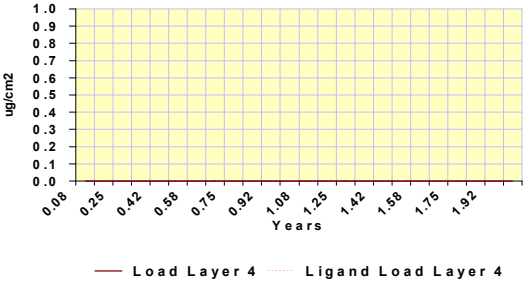
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	1	2	3	4	5	6	7	8	9	10
Layer 1 (ug/g)	2.47E-01	2.47E-01	2.47E-01	2.47E-01	2.47E-01	2.47E-01	2.47E-01	2.47E-01	2.47E-01	2.47E-01
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										









SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability	Organic Carbon Content	Adsorption Coefficient	Cation Exchange Capacity	Freundlich Exponent	Solid Phase Degradation Rate	Liquid Phase Degradation Rate	Soil pH
		cm	feet	cm^2	percent	$\frac{\mu g/g}{\mu g/mL}$	$\frac{mEq}{100\ g\ soil}$	unitless	1/day	1/day	pH
1	10	428.0	14.04	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
2	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
3	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00
4	10	873.0	28.64	1.00E-8	0.01	0.00	100.00	1.00	0.00E+00	0.00E+00	7.00

Soil Parameters

Bulk Density (g/cm^3)	1.86
Effective Porosity (fraction)	0.20
Soil Pore Disconnectedness	3.70

Application Parameters

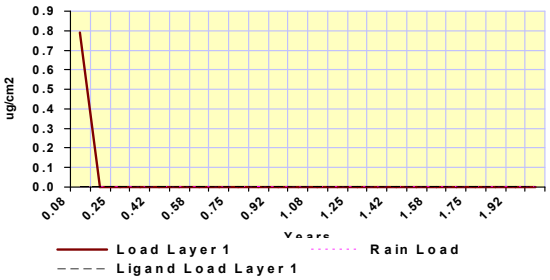
Area	cm^2	1.00E+4
	ft^2	10.76
Latitude	degrees	34.0
Spill Index		1

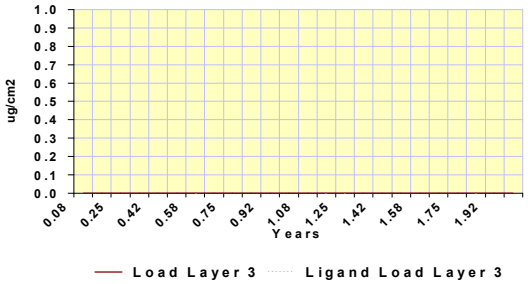
Chemical Parameters

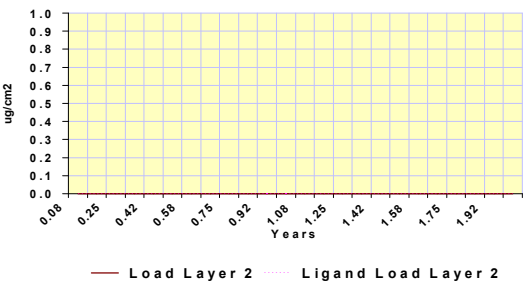
Water Solubility	(µg/mL)	2.76E+3	**Moles Ligand / Moles Chemical**	0.00
Henry's Law	(M^3-atm/mol)	2.24E-2	**Ligand Molecular Weight** (g/mol)	0.00
K_{oc} Adsorp	(µg/g)/(µg/mL)	18.60		
K_d Adsorp	(µg/g)/(µg/mL)	0.00		
Valence	(g/mole)	0.00	**Ligand Dissociation Constant**	0.00
Air Diffusion	(cm^2/sec)	.106	**Base Hydrolysis Rate** (L/mol/day)	0.00
Water Diffusion	(cm^2/sec)	1.23E-6	**Neutral Hydrolysis** (L/mol/day)	0.00
Molecular Weight	(g/mol)	62.50	**Acid Hydrolysis** (L/mol/day)	0.00

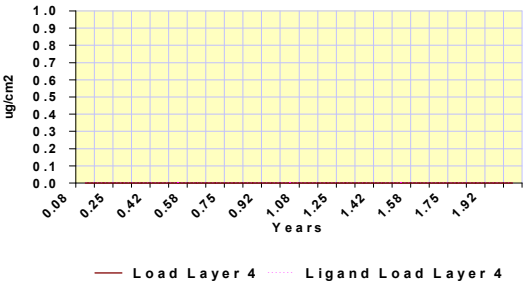
Output File: 777NFront
c:\SEV7 WIN7\S01.OUT
Chemical File: Vinyl Chloride
c:\sev7 win7\VINYL CHLORIDE.CHM
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Sublayer Loads	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Layer 1 (ug/g)	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										









Geosyntec consultants

APPENDIX C

Complete SESOIL Model Output Reports

Model Output Files
Scenario 1
Current Site Conditions

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.405E+04	88.56
In Soil Air	3.526E+00	0.02
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.380E+01	0.09
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.340E+01	0.15
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.768E+03	11.14
Total Output	1.586E+04	99.96
Total Input	1.587E+04	
Input - Output	6.008E+00	

Maximum leachate concentration: 3.886E-03 **mg/l**

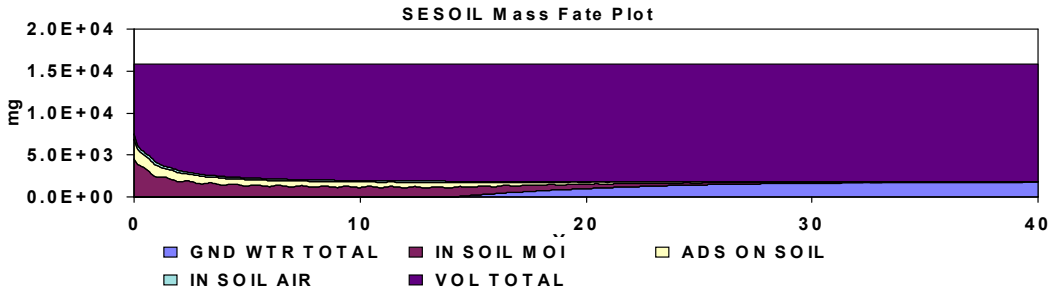
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

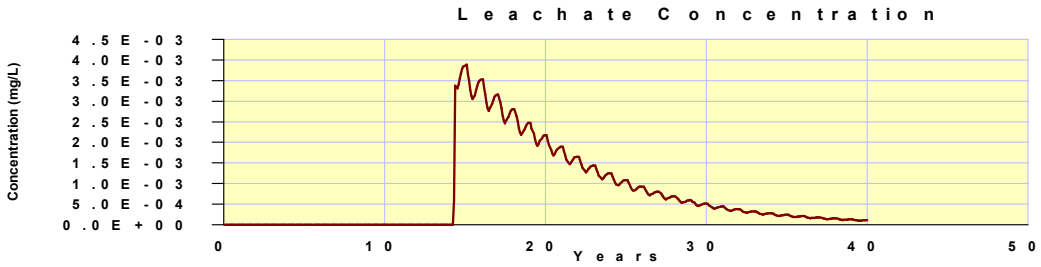
Chemical File: 1,1,2,2-Tetrachloroethane MA DEP
c:\sev7 win7\1 1 2 2-TETRACHLOROETHANE MA DEP.CHM

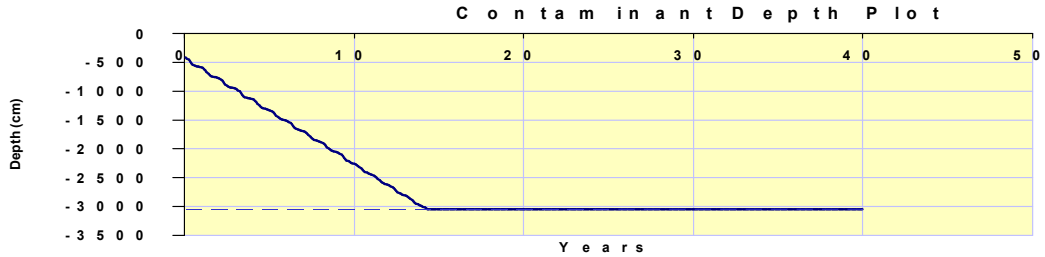
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 14.08 **years**
Starting Depth: 412.50 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.587E+04	100.04
In Soil Air	3.663E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.321E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.215E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.587E+04	100.04
Total Input	1.587E+04	
Input - Output	-5.585E+00	

Maximum leachate concentration: 0.000E+00 **mg/l**

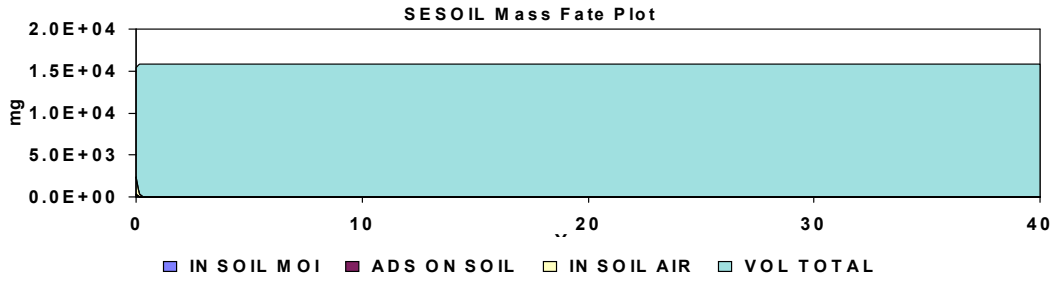
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

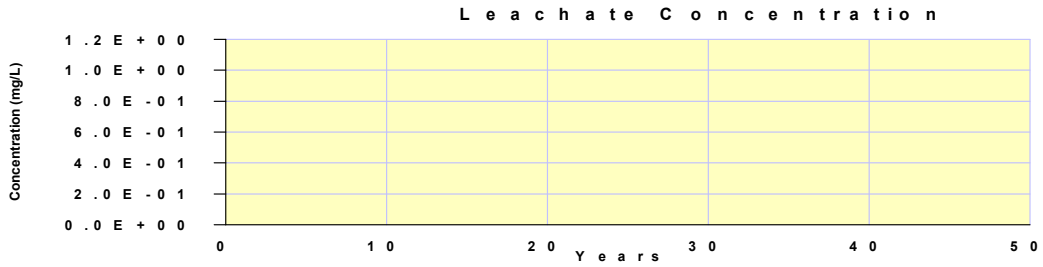
Chemical File: 1,1-Dichloroethene OEPA 2003
c:\sev7 win7\1 1-DICHLOROETHENE OEPA 2003.CHM

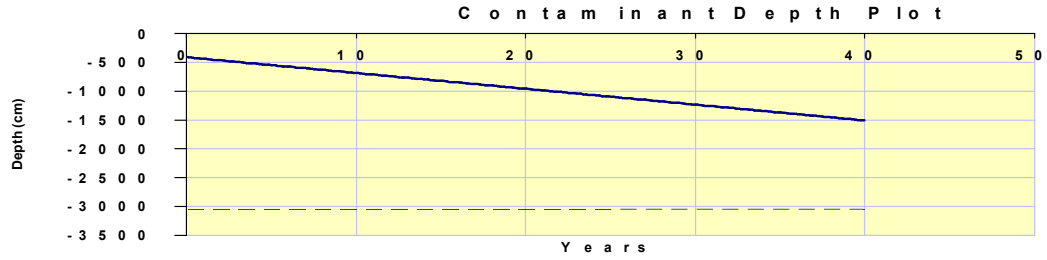
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 96.02 **years**
Starting Depth: 407.40 **cm**
Ending Depth: 1507.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.587E+04	100.02
In Soil Air	3.824E-01	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	8.166E-02	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	7.422E-01	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	4.388E+00	0.03
Total Output	1.587E+04	100.05
Total Input	1.587E+04	
Input - Output	-8.163E+00	

Maximum leachate concentration: 3.324E-06 **mg/l**

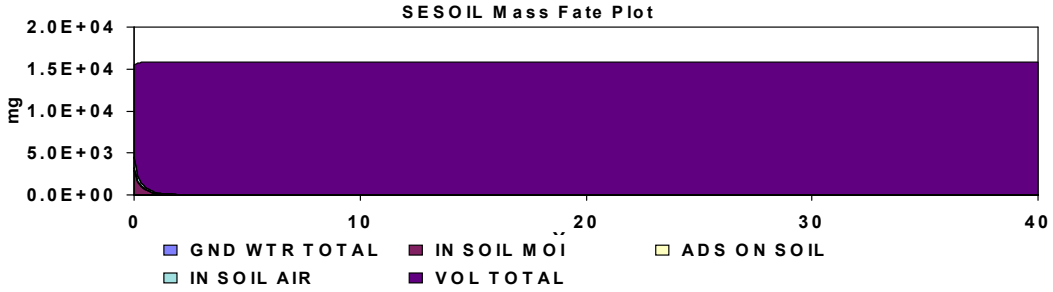
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

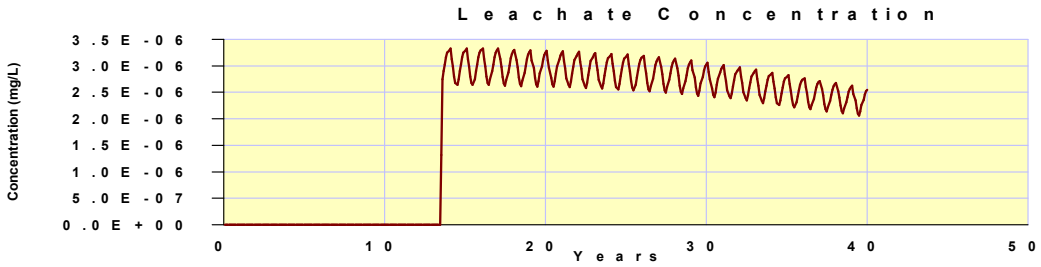
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

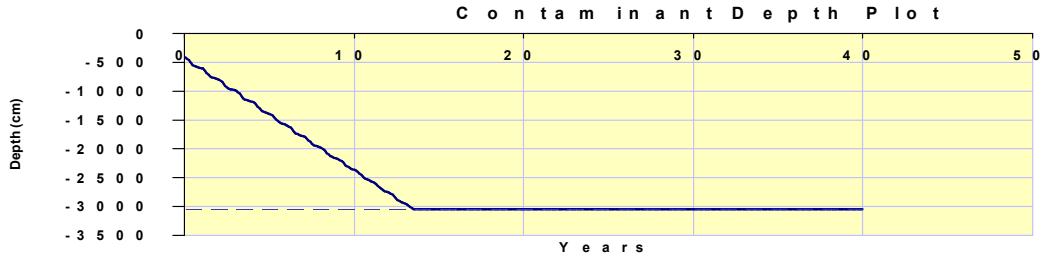
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 13.08 **years**
Starting Depth: 412.90 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.586E+04	99.97
In Soil Air	2.254E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	7.447E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.458E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	9.749E-04	0.00
Total Output	1.586E+04	99.97
Total Input	1.587E+04	
Input - Output	4.711E+00	

Maximum leachate concentration: 1.001E-09 **mg/l**

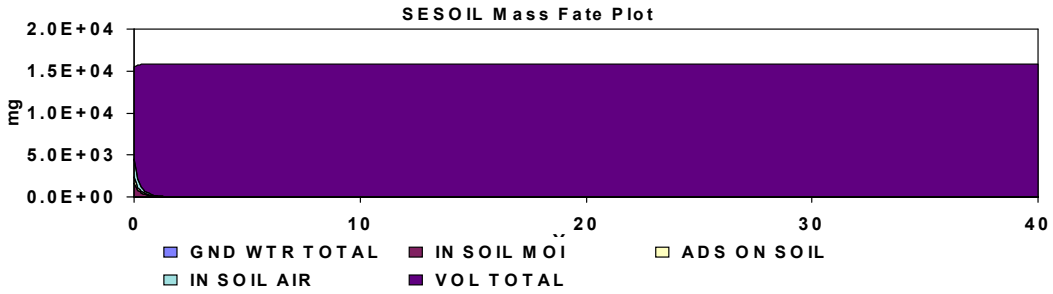
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

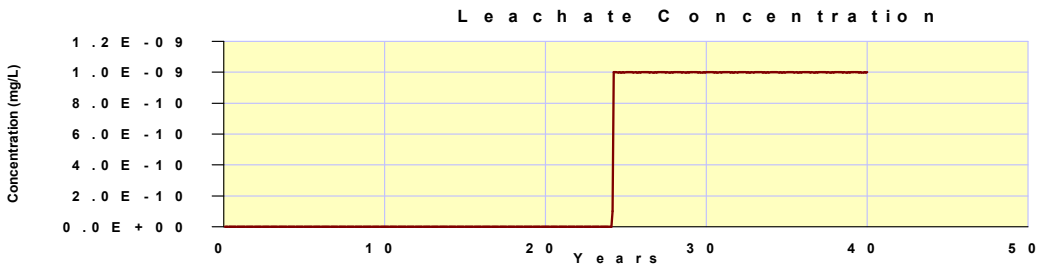
Chemical File: Dichloropropene, 1,3-
c:\sev7 win7\DICHLOROPROPENE 1 3-.CHM

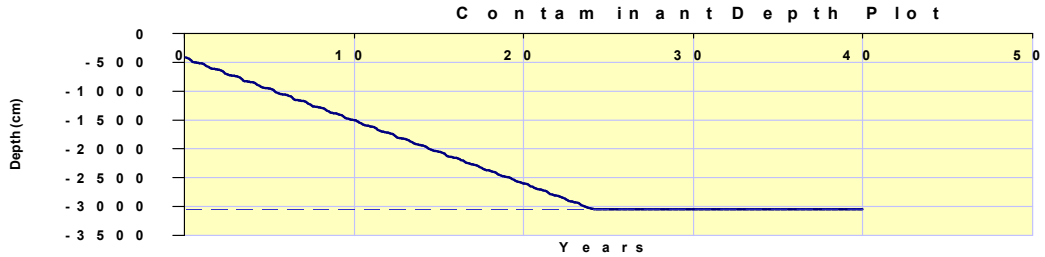
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 24.08 **years**
Starting Depth: 410.00 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.692E+04	100.01
In Soil Air	1.260E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.019E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.200E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	7.226E-04	0.00
Total Output	1.692E+04	100.01
Total Input	1.692E+04	
Input - Output	-1.146E+00	

Maximum leachate concentration: 1.001E-09 **mg/l**

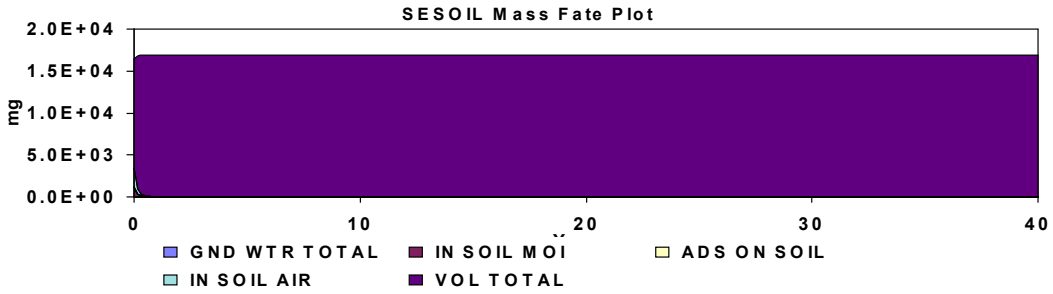
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

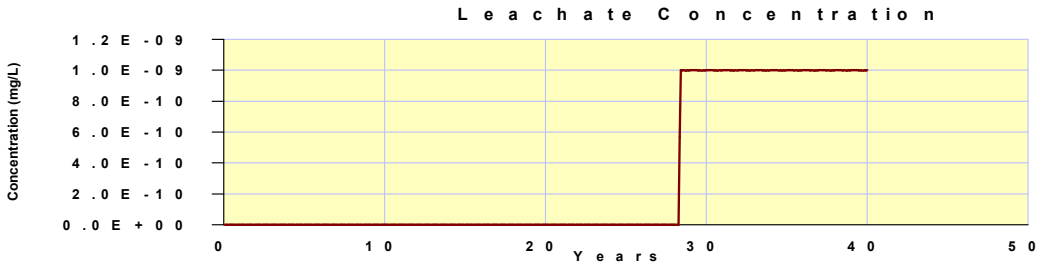
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

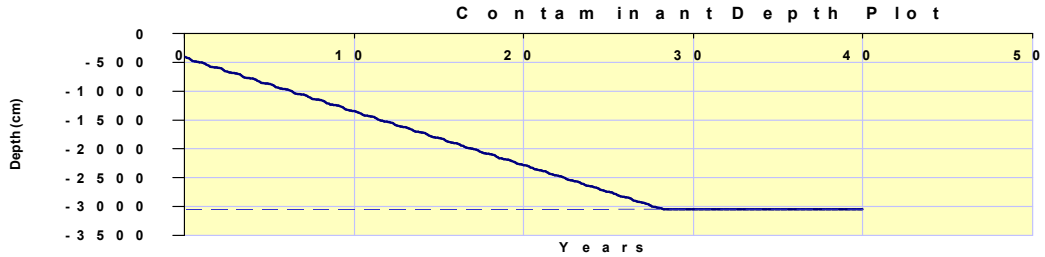
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 28.08 **years**
Starting Depth: 409.50 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	0.000E+00	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.918E+00	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	8.057E+08	99.95
Total Output	8.057E+08	99.95
Total Input	8.061E+08	
Input - Output	3.968E+05	

Maximum leachate concentration: 7.848E+03 **mg/l**

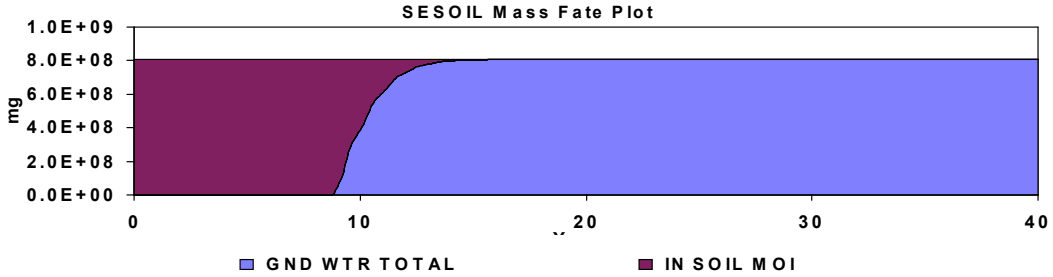
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

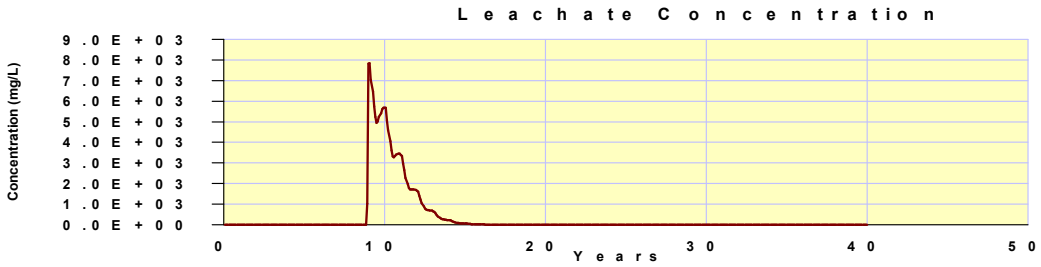
Chemical File: Conservative Tracer
c:\sev7 win7\CONSERVATIVE TRACER.CHM

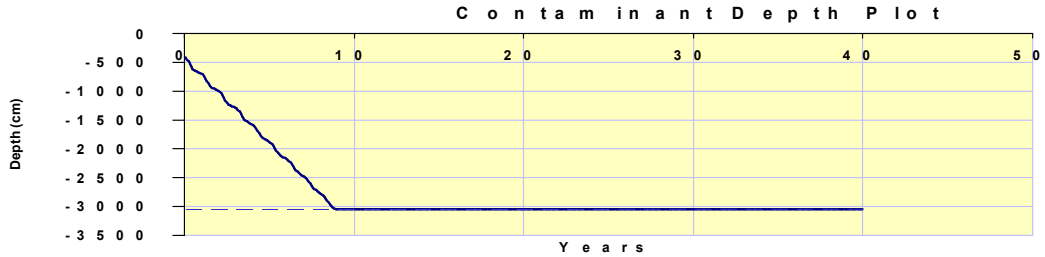
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 8.08 **years**
Starting Depth: 416.40 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**



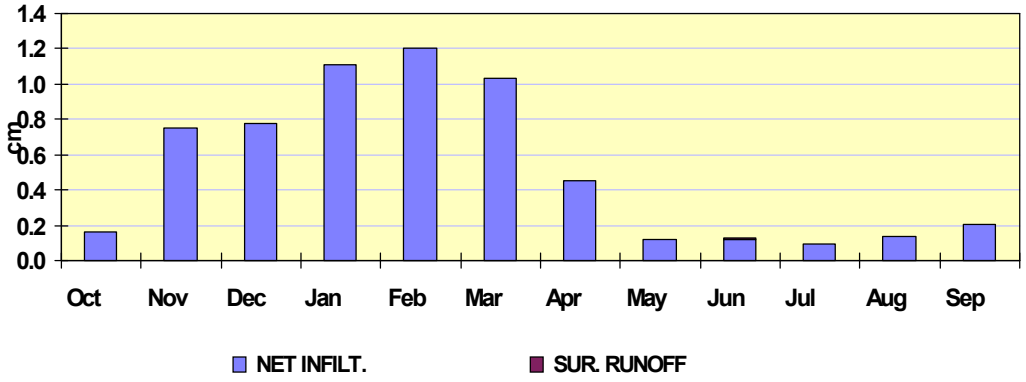


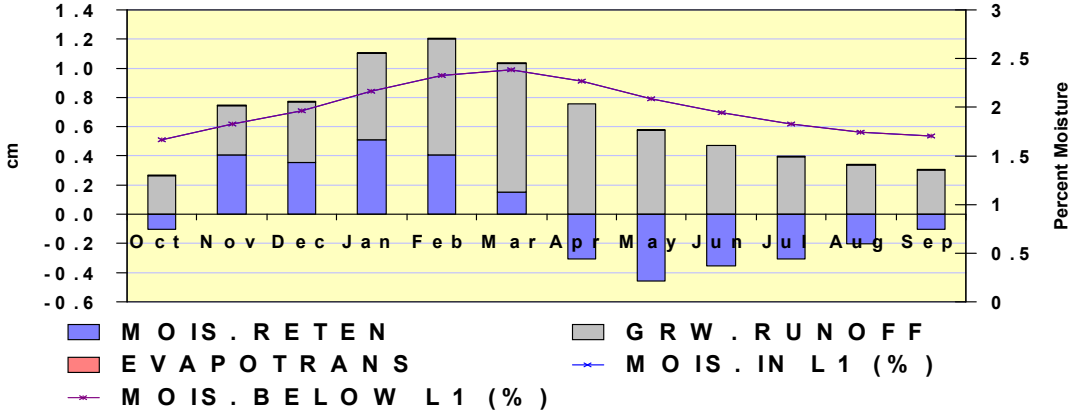


SESOIL Hydrologic Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT





	Surface Water Runoff		Net Infiltration		Evapotranspiration		Soil Moisture Retention		Groundwater Runoff (Recharge)		Soil Moisture	
											Layer 1	Below Layer 1
Units	cm	Inches	cm	Inches	cm	Inches	cm	Inches	cm	Inches	Percent	Percent
October	0.00	0.00	0.17	0.07	0.00	0.00	-0.10	-0.04	0.26	0.10	1.67	1.67
November	0.00	0.00	0.75	0.30	0.00	0.00	0.41	0.16	0.34	0.13	1.83	1.83
December	0.00	0.00	0.78	0.31	0.00	0.00	0.36	0.14	0.42	0.17	1.97	1.97
January	0.00	0.00	1.11	0.44	0.00	0.00	0.51	0.20	0.60	0.24	2.17	2.17
February	0.00	0.00	1.21	0.48	0.00	0.00	0.41	0.16	0.80	0.31	2.33	2.33
March	0.00	0.00	1.04	0.41	0.00	0.00	0.15	0.06	0.88	0.35	2.39	2.39
April	0.00	0.00	0.45	0.18	0.00	0.00	-0.31	-0.12	0.76	0.30	2.27	2.27
May	0.00	0.00	0.12	0.05	0.00	0.00	-0.46	-0.18	0.58	0.23	2.09	2.09
June	0.01	0.00	0.12	0.05	0.00	0.00	-0.36	-0.14	0.47	0.19	1.95	1.95
July	0.00	0.00	0.09	0.04	0.00	0.00	-0.31	-0.12	0.39	0.15	1.83	1.83
August	0.00	0.00	0.14	0.06	0.00	0.00	-0.20	-0.08	0.34	0.13	1.75	1.75
September	0.00	0.00	0.21	0.08	0.00	0.00	-0.10	-0.04	0.30	0.12	1.71	1.71
Total	0.01	0.00	6.17	2.43	0.04	0.01	0.00	0.00	6.13	2.41	- -	- -

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.646E+08	99.99
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	4.917E+00	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.646E+08	99.99
Total Input	9.647E+08	
Input - Output	8.999E+04	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

Chemical File: Chromium (III) (Insoluble Salts) (Kd)

c:\sev7 win7\CHROMIUM (III) (INSOLUBLE SALTS) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street

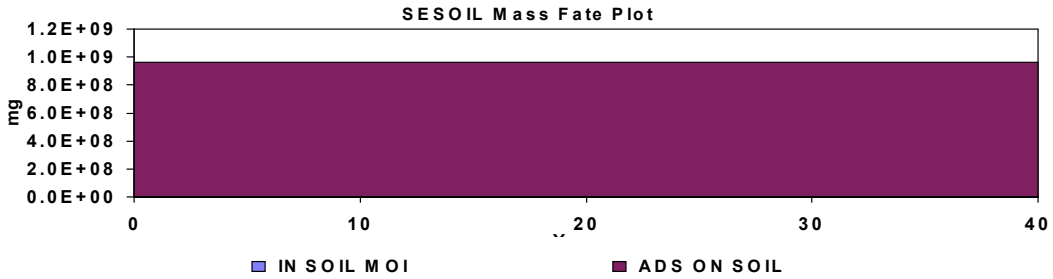
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

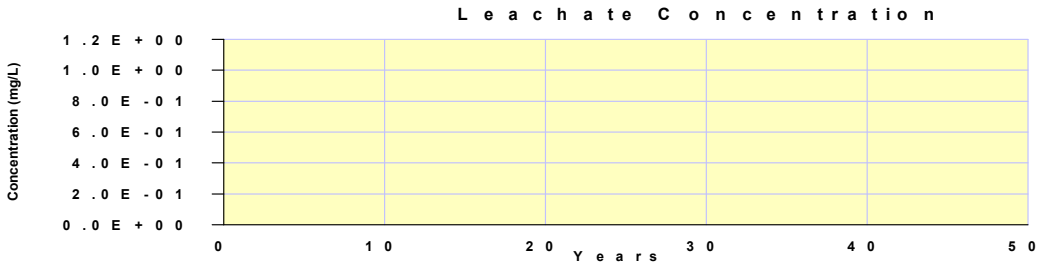
Time to Groundwater: **years**

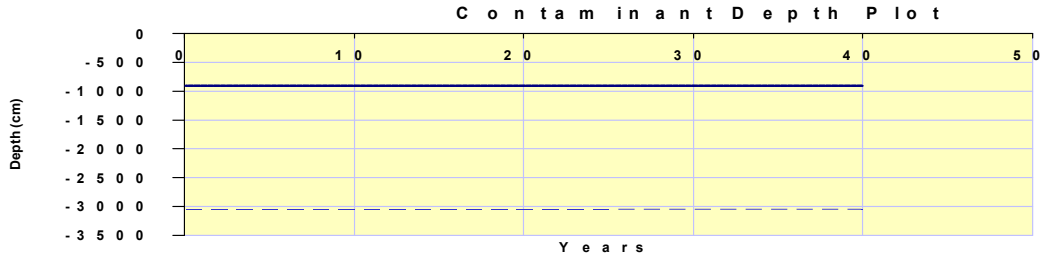
Starting Depth: 908.20 **cm**

Ending Depth: 908.20 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.611E+08	99.64
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	4.640E+05	0.05
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.616E+08	99.68
Total Input	9.647E+08	
Input - Output	3.045E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

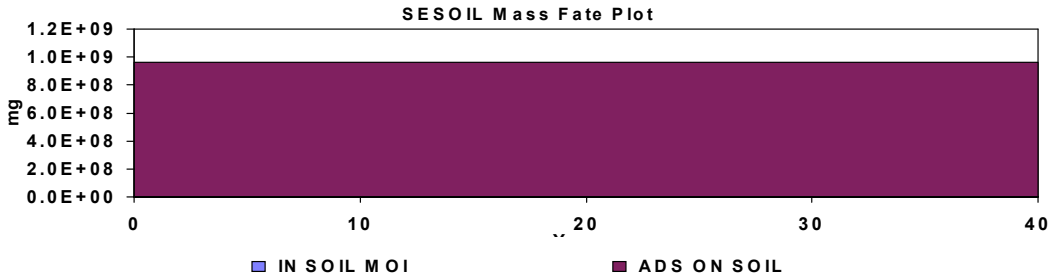
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

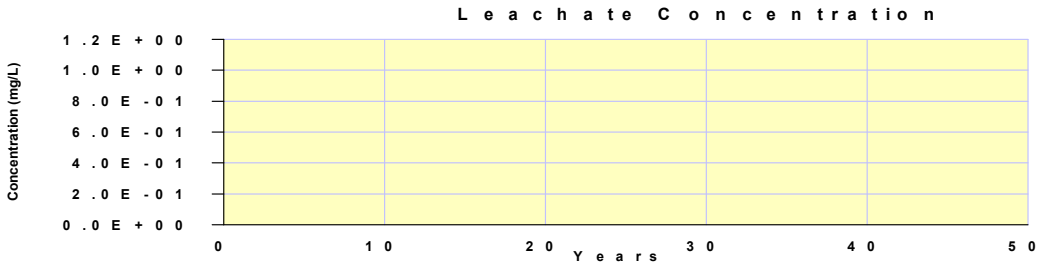
Time to Groundwater: 1.23E+04 **years**

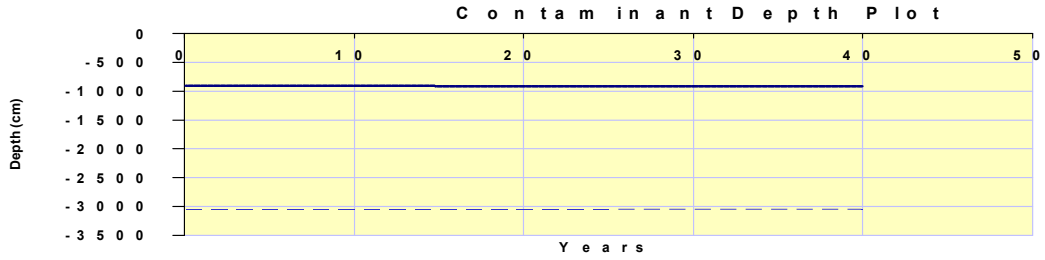
Starting Depth: 908.20 **cm**

Ending Depth: 915.10 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.01
In Soil Air	7.264E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.514E-02	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	9.041E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.01
Total Input	5.058E+06	
Input - Output	-2.713E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

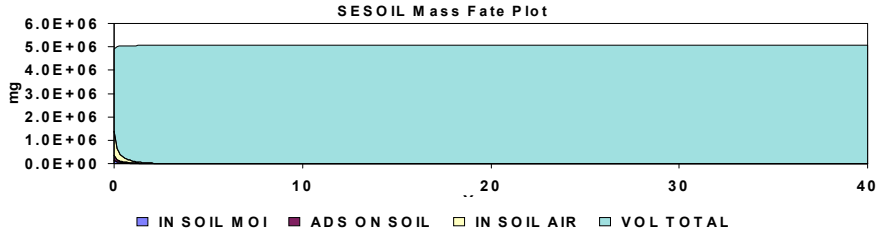
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

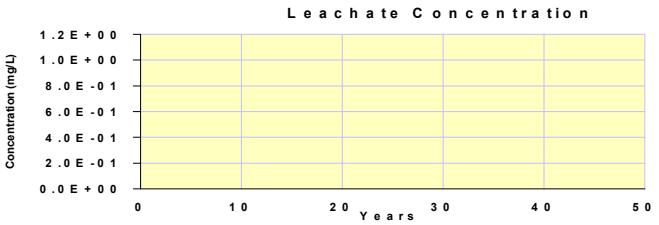
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

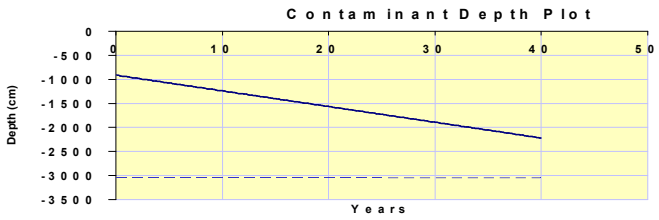
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 65.24 **years**
Starting Depth: 909.40 **cm**
Ending Depth: 2220.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.919E+06	100.01
In Soil Air	5.172E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.062E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.012E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	3.919E+06	100.01
Total Input	3.919E+06	
Input - Output	-2.285E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

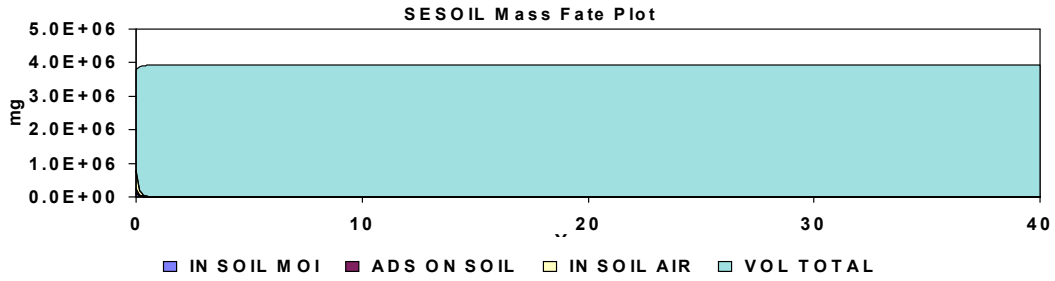
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

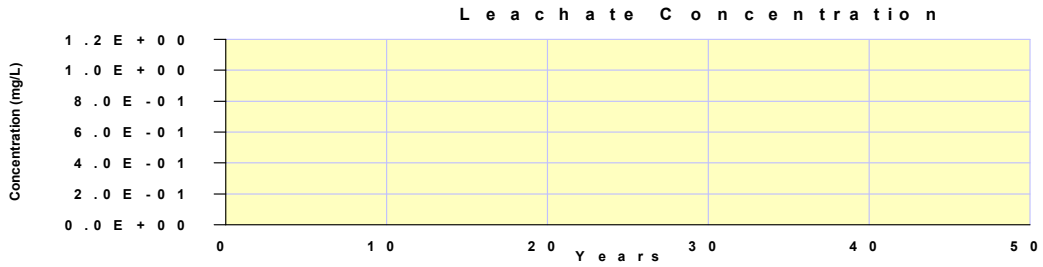
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

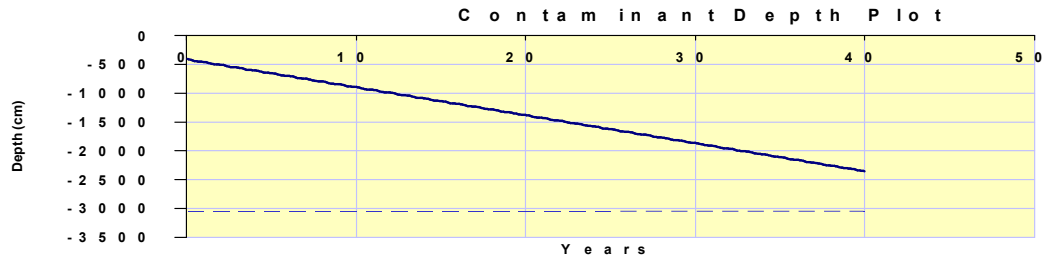
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 54.27 **years**
Starting Depth: 408.10 **cm**
Ending Depth: 2353.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.586E+04	99.99
In Soil Air	4.227E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.081E-05	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	4.321E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.586E+04	99.99
Total Input	1.587E+04	
Input - Output	1.449E+00	

Maximum leachate concentration: 0.000E+00 **mg/l**

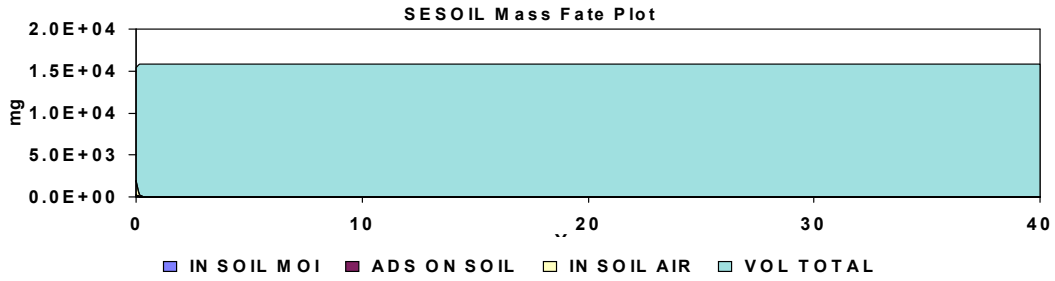
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

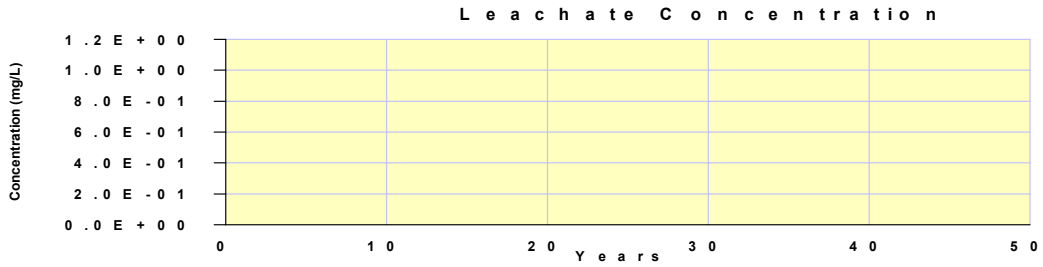
Chemical File: Vinyl Chloride
c:\sev7 win7\VINYL CHLORIDE.CHM

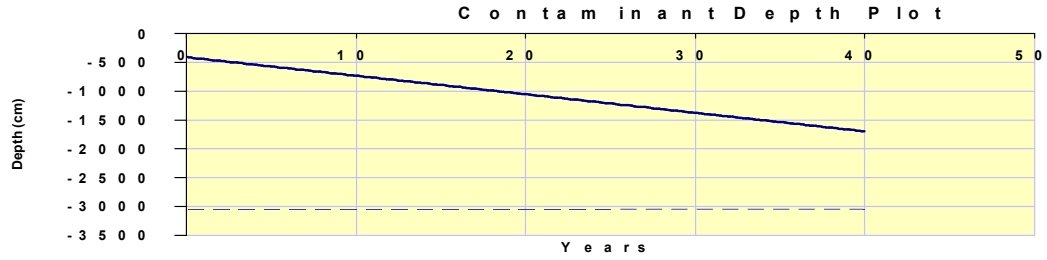
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 82.01 **years**
Starting Depth: 407.60 **cm**
Ending Depth: 1695.00 **cm**
Total Depth: 3047.00 **cm**







Model Output Files
Scenario 2
Future Site Conditions (Concrete)

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.573E+04	99.18
In Soil Air	5.376E+00	0.03
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.084E+01	0.13
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.161E+01	0.20
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	6.889E+01	0.43
Total Output	1.586E+04	99.97
Total Input	1.587E+04	
Input - Output	4.169E+00	

Maximum leachate concentration: 2.869E-04 **mg/l**

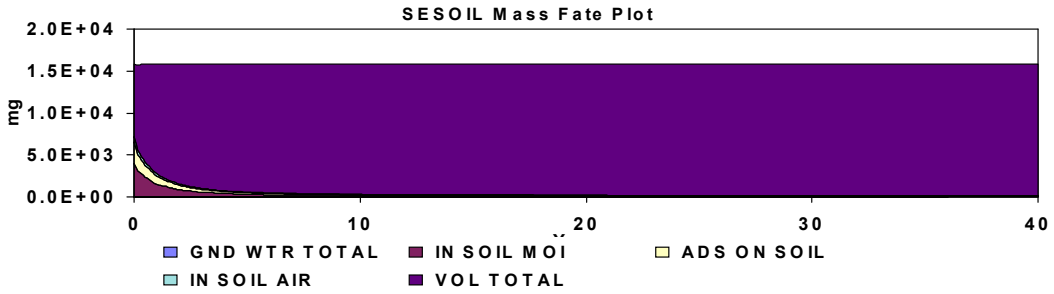
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

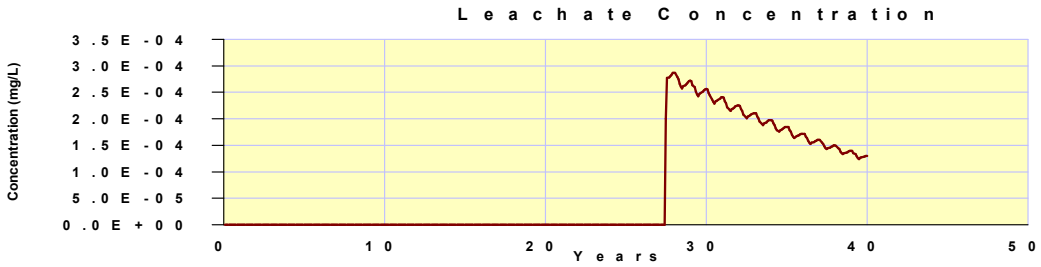
Chemical File: 1,1,2,2-Tetrachloroethane MA DEP
c:\sev7 win7\1 1 2 2-TETRACHLOROETHANE MA DEP.CHM

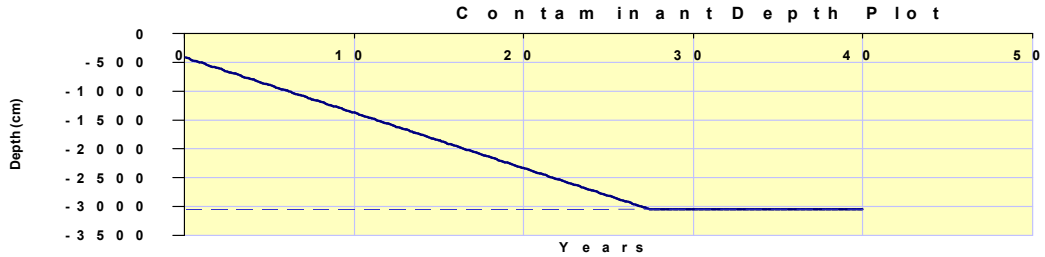
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 27.08 **years**
Starting Depth: 412.10 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.586E+04	99.99
In Soil Air	1.868E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	6.674E-06	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.452E-05	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.586E+04	99.99
Total Input	1.587E+04	
Input - Output	1.560E+00	

Maximum leachate concentration: 0.000E+00 **mg/l**

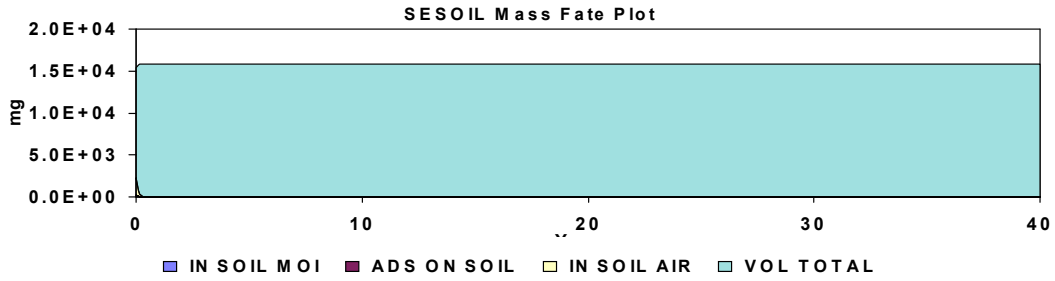
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

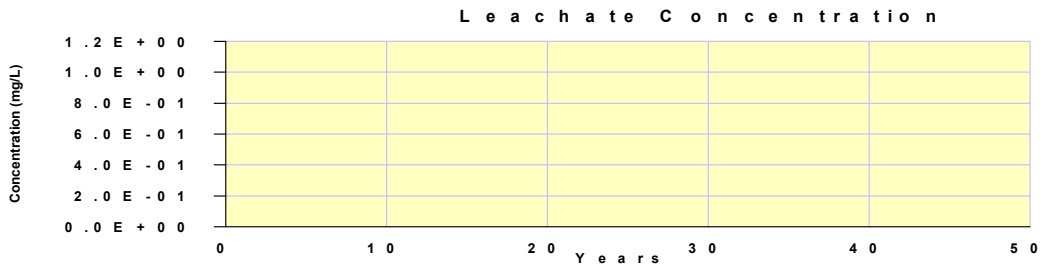
Chemical File: 1,1-Dichloroethene OEPA 2003
c:\sev7 win7\1 1-DICHLOROETHENE OEPA 2003.CHM

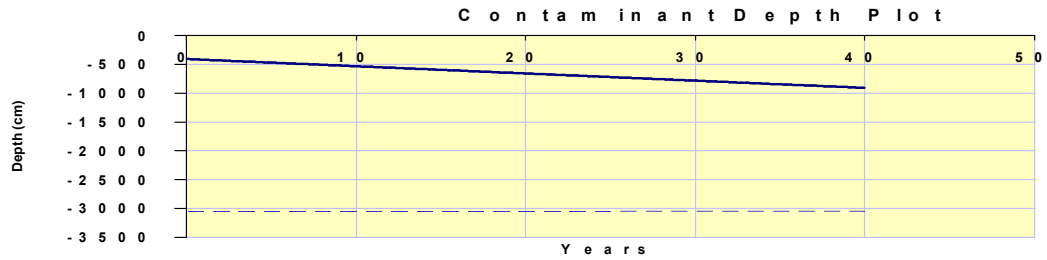
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 210.97 **years**
Starting Depth: 407.30 **cm**
Ending Depth: 907.80 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.587E+04	100.03
In Soil Air	2.821E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.965E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	4.850E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	3.957E-04	0.00
Total Output	1.587E+04	100.03
Total Input	1.587E+04	
Input - Output	-5.135E+00	

Maximum leachate concentration: 1.001E-09 **mg/l**

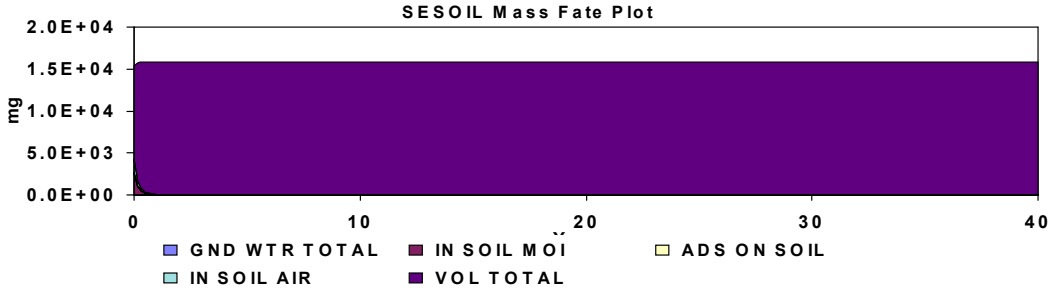
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

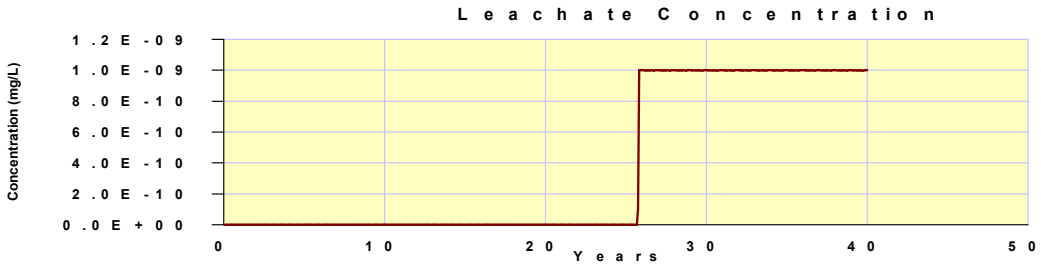
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

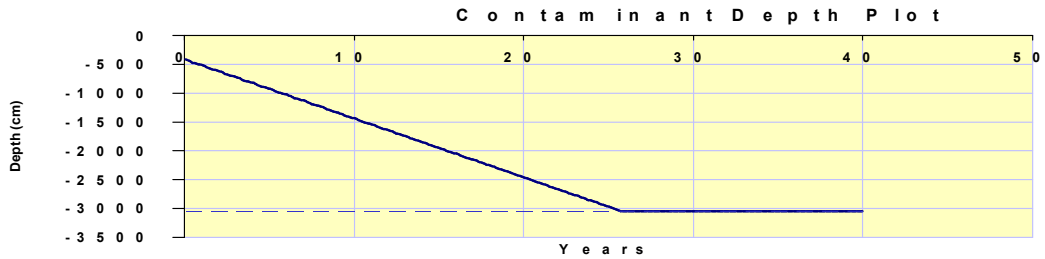
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 25.08 **years**
Starting Depth: 412.50 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.586E+04	100.00
In Soil Air	1.113E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	3.643E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.380E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.586E+04	100.00
Total Input	1.587E+04	
Input - Output	4.399E-01	

Maximum leachate concentration: 0.000E+00 **mg/l**

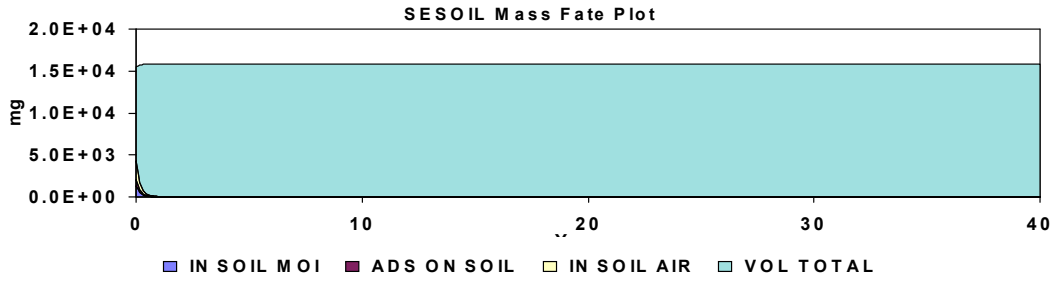
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

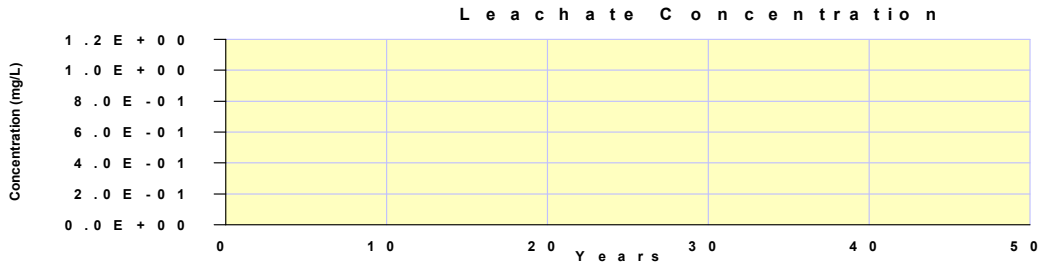
Chemical File: Dichloropropene, 1,3-
c:\sev7 win7\DICHLOROPROPENE 1 3-.CHM

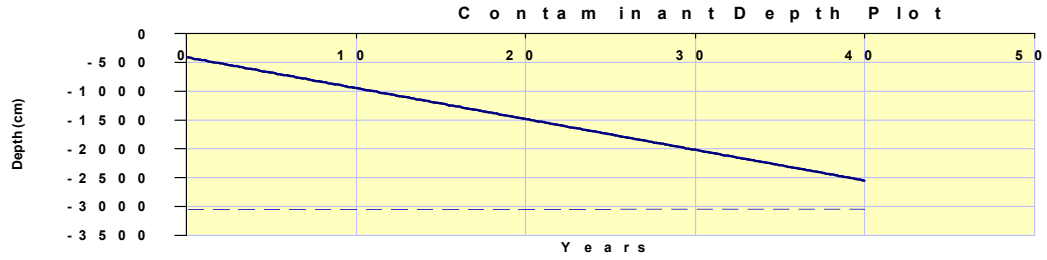
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 49.29 **years**
Starting Depth: 409.70 **cm**
Ending Depth: 2550.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.692E+04	100.02
In Soil Air	9.441E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	7.563E-05	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.450E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.692E+04	100.02
Total Input	1.692E+04	
Input - Output	-2.937E+00	

Maximum leachate concentration: 0.000E+00 **mg/l**

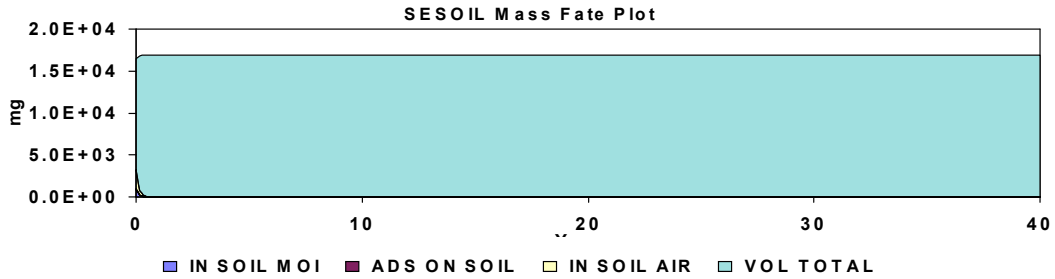
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

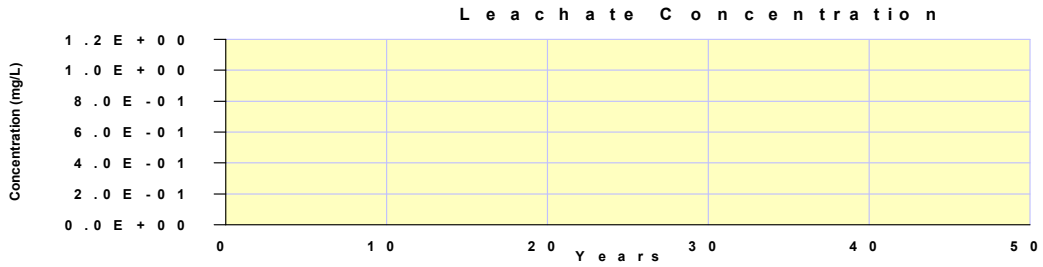
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

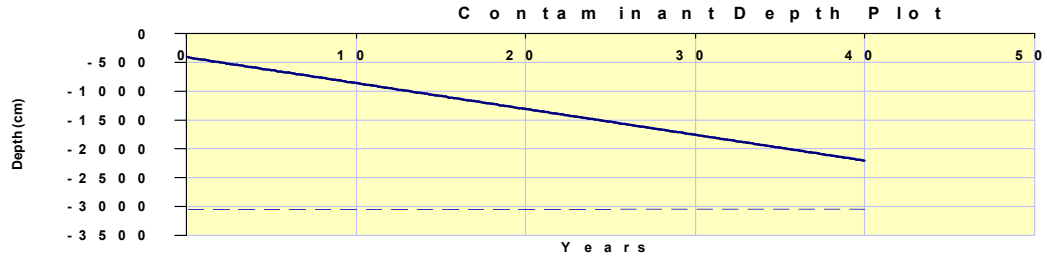
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 58.75 **years**
Starting Depth: 409.20 **cm**
Ending Depth: 2205.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.646E+08	99.99
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	4.397E+00	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.646E+08	99.99
Total Input	9.647E+08	
Input - Output	8.999E+04	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

Chemical File: Chromium (III) (Insoluble Salts) (Kd)

c:\sev7 win7\CHROMIUM (III) (INSOLUBLE SALTS) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street

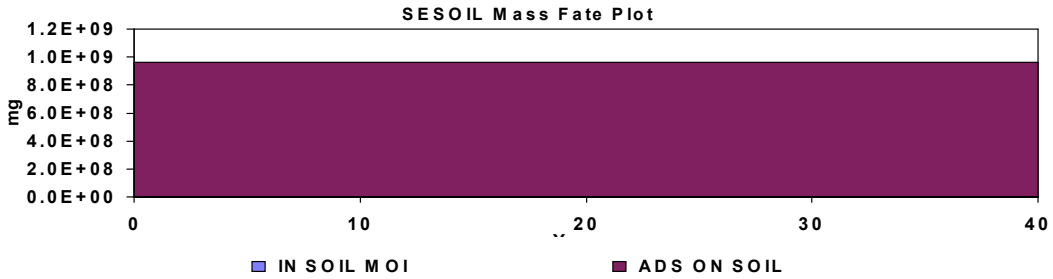
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

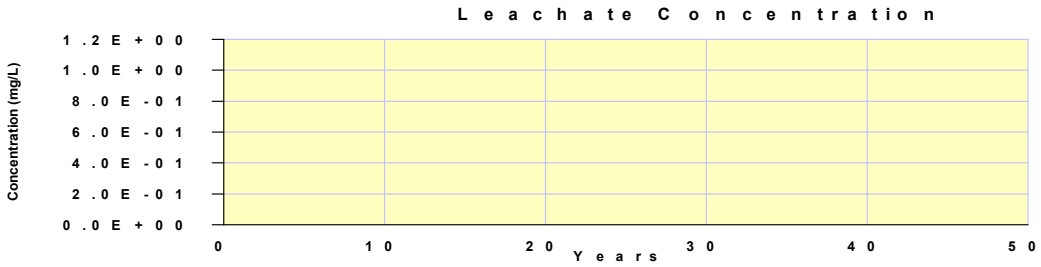
Time to Groundwater: **years**

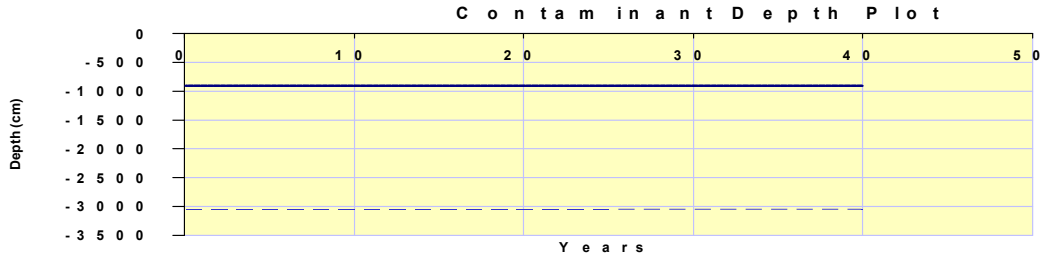
Starting Depth: 908.20 **cm**

Ending Depth: 908.20 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.620E+08	99.72
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	4.154E+05	0.04
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.624E+08	99.77
Total Input	9.647E+08	
Input - Output	2.244E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

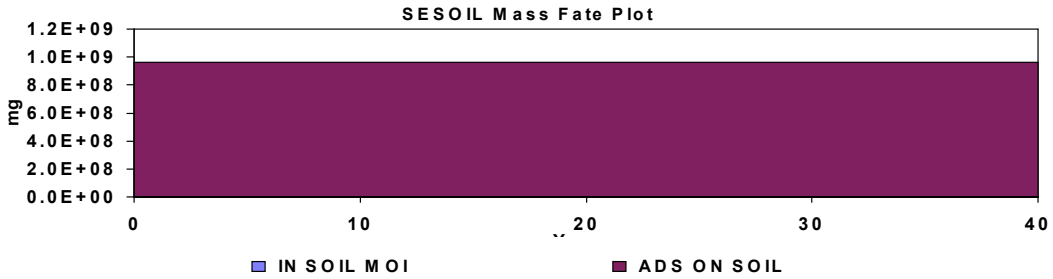
Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

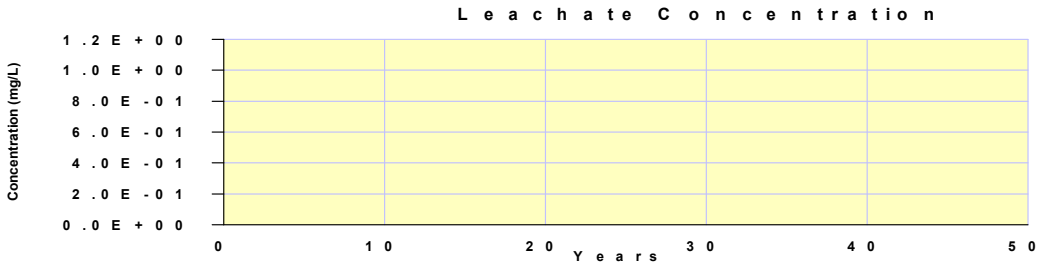
Time to Groundwater: 2.67E+04 **years**

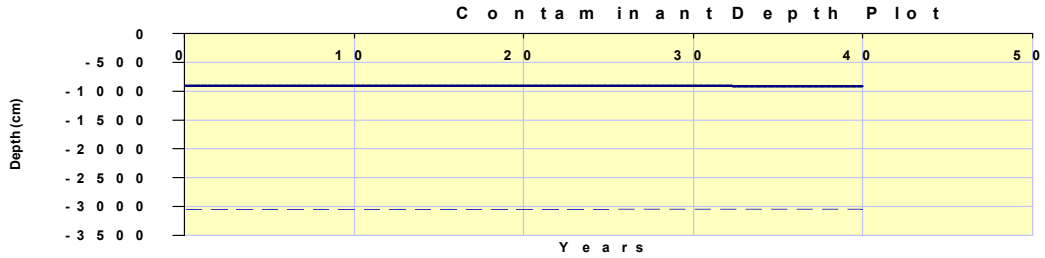
Starting Depth: 908.20 **cm**

Ending Depth: 911.40 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.00
In Soil Air	2.858E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.903E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.151E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.00
Total Input	5.058E+06	
Input - Output	-1.813E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

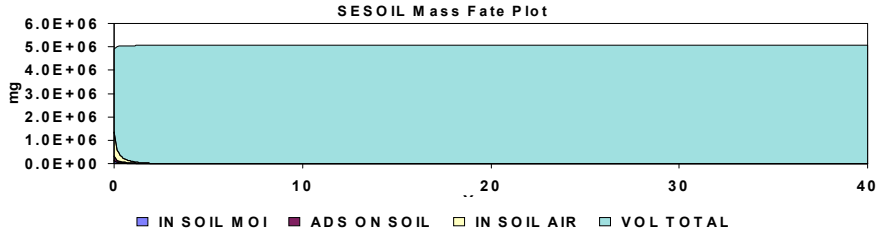
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

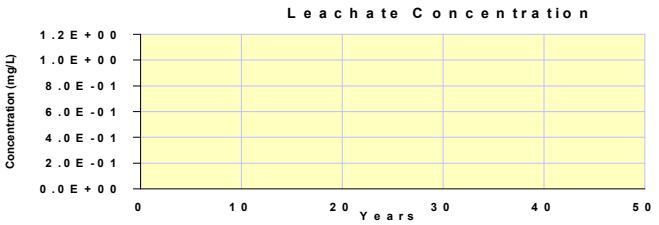
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

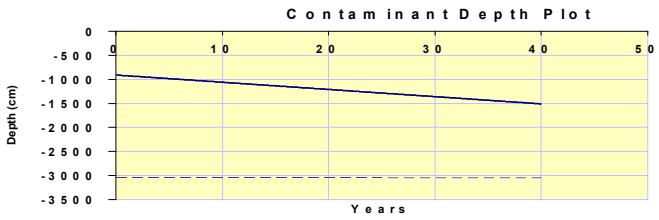
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 142.55 **years**
Starting Depth: 909.10 **cm**
Ending Depth: 1509.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.919E+06	100.01
In Soil Air	3.609E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	7.341E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.256E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	3.919E+06	100.01
Total Input	3.919E+06	
Input - Output	-5.715E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

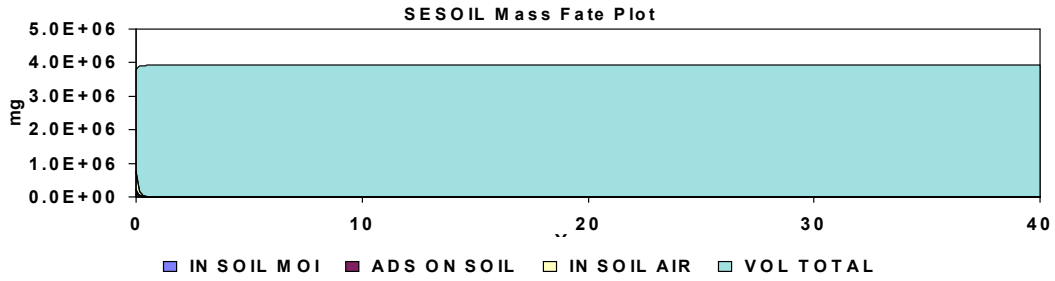
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

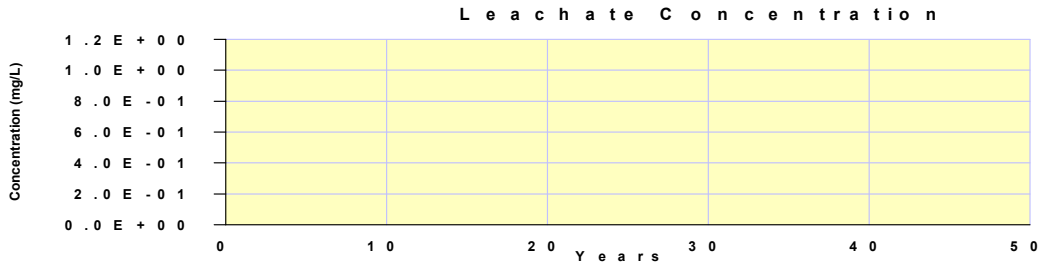
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

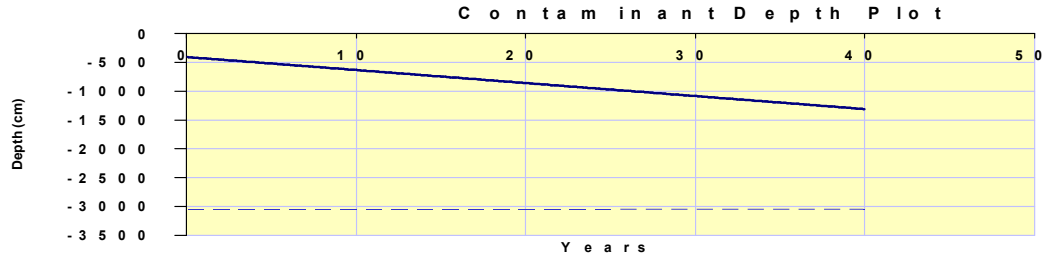
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 116.89 **years**
Starting Depth: 407.90 **cm**
Ending Depth: 1311.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.586E+04	100.00
In Soil Air	1.751E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.085E-06	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.585E-05	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.586E+04	100.00
Total Input	1.587E+04	
Input - Output	5.431E-01	

Maximum leachate concentration: 0.000E+00 **mg/l**

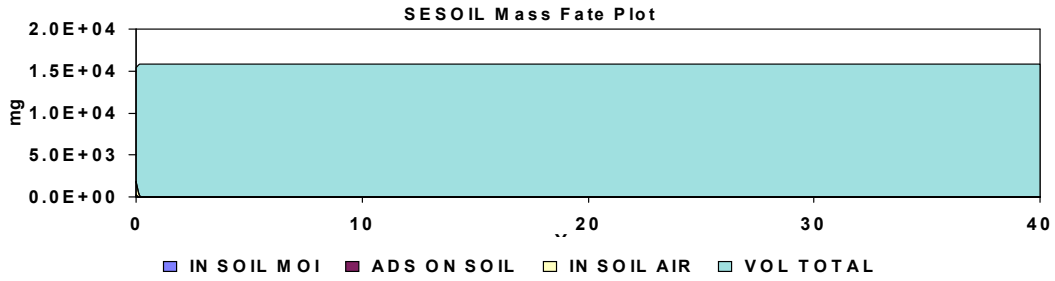
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

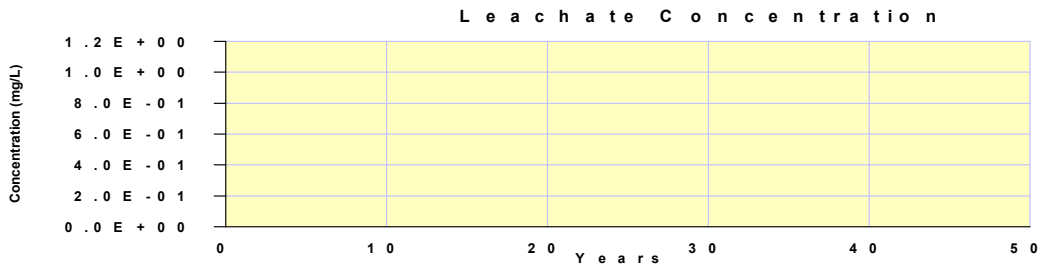
Chemical File: Vinyl Chloride
c:\sev7 win7\VINYL CHLORIDE.CHM

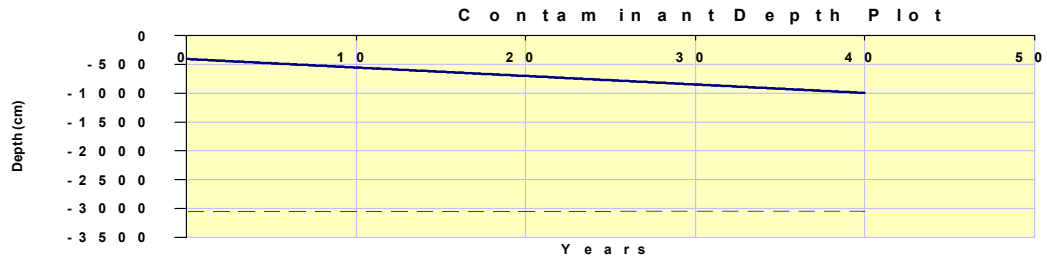
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 179.50 **years**
Starting Depth: 407.40 **cm**
Ending Depth: 995.60 **cm**
Total Depth: 3047.00 **cm**







Model Output Files
Scenario 3
Future Site Conditions (Soil)

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	7.930E+03	49.97
In Soil Air	4.914E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.958E-02	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.942E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	7.944E+03	50.06
Total Output	1.587E+04	100.03
Total Input	1.587E+04	
Input - Output	-5.051E+00	

Maximum leachate concentration: 2.639E-02 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: 1,1,2,2-Tetrachloroethane MA DEP

c:\sev7 win7\1 1 2 2-TETRACHLOROETHANE MA DEP.CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street

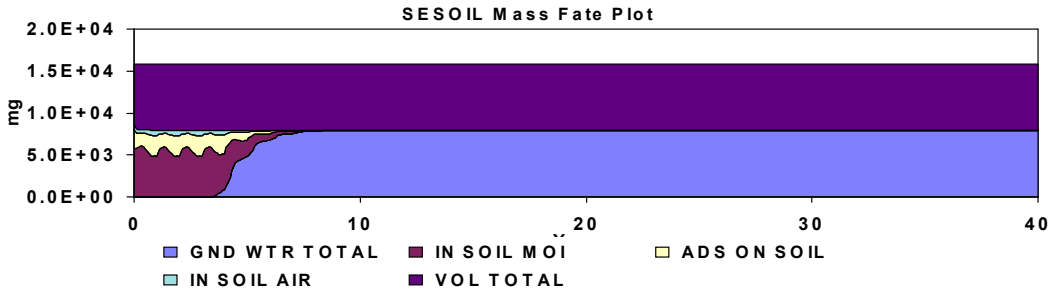
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

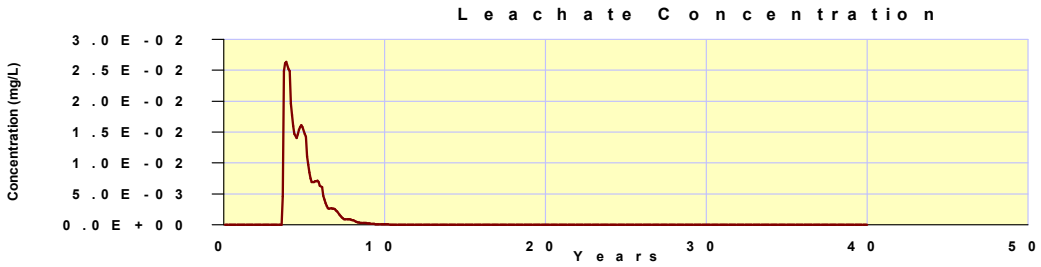
Time to Groundwater: 3.08 **years**

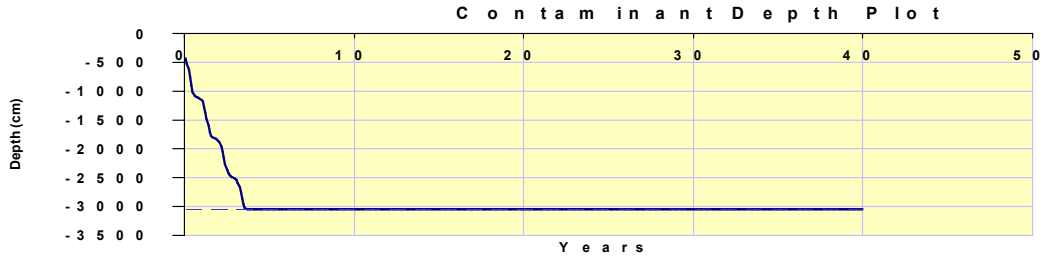
Starting Depth: 428.20 **cm**

Ending Depth: 3047.00 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.587E+04	100.00
In Soil Air	1.080E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	3.964E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.145E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	5.198E-04	0.00
Total Output	1.587E+04	100.00
Total Input	1.587E+04	
Input - Output	-5.852E-01	

Maximum leachate concentration: 1.000E-10 **mg/l**

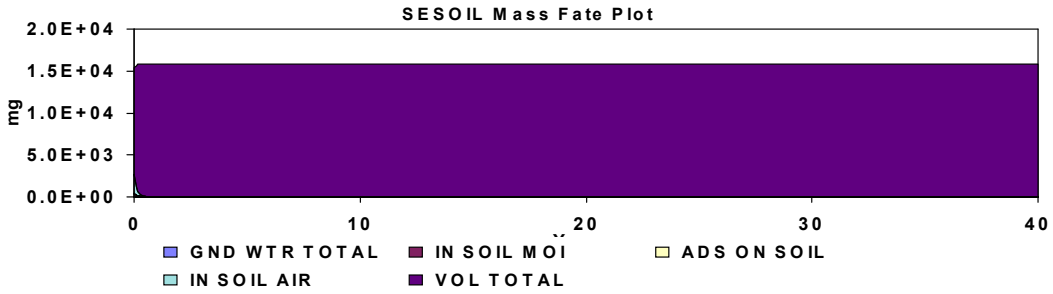
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

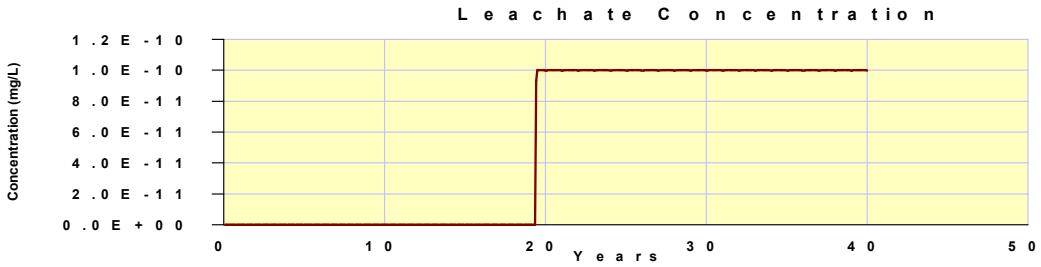
Chemical File: 1,1-Dichloroethene OEPA 2003
c:\sev7 win7\1 1-DICHLOROETHENE OEPA 2003.CHM

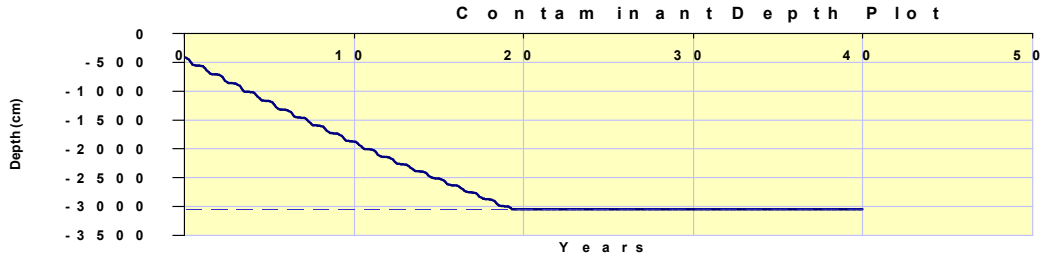
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 19.08 **years**
Starting Depth: 410.30 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.495E+04	94.24
In Soil Air	4.291E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.442E-02	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.355E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	9.076E+02	5.72
Total Output	1.586E+04	99.96
Total Input	1.587E+04	
Input - Output	7.012E+00	

Maximum leachate concentration: 1.093E-03 **mg/l**

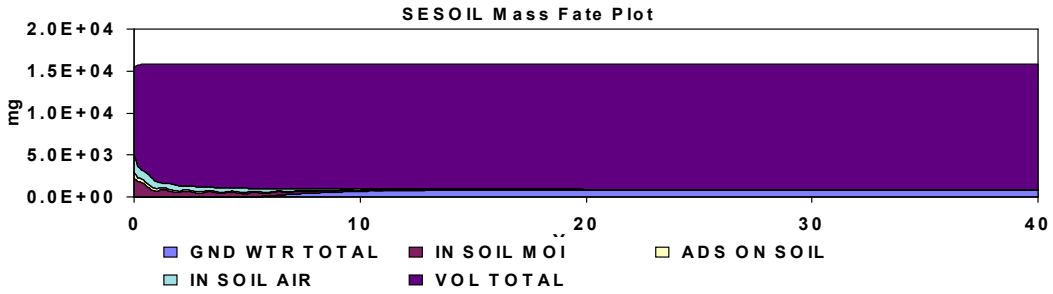
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

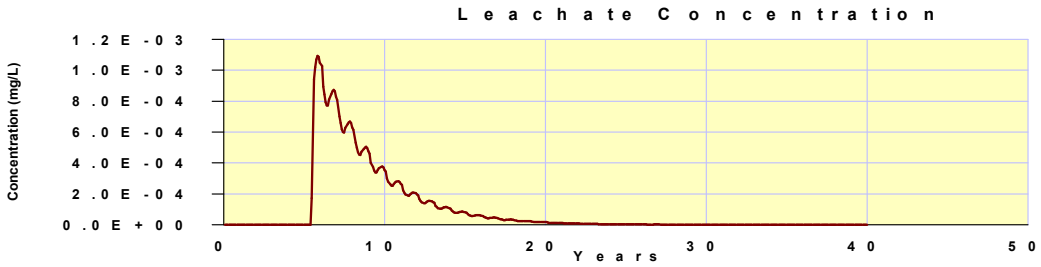
Chemical File: Dichloropropene, 1,3-
c:\sev7 win7\DICHLOROPROPENE 1 3-.CHM

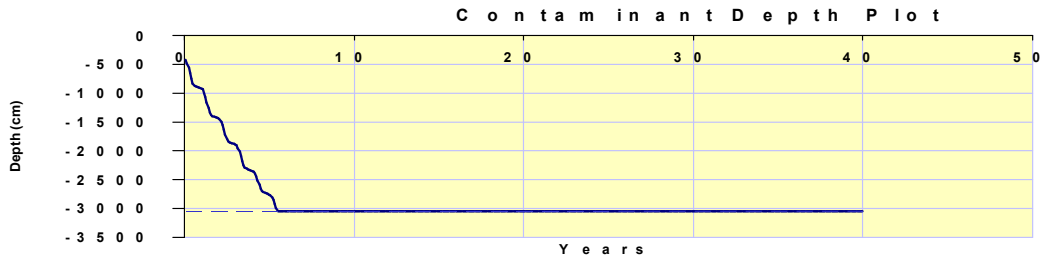
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 5.08 **years**
Starting Depth: 420.40 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.684E+04	99.57
In Soil Air	1.238E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.019E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.174E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	6.504E+01	0.38
Total Output	1.691E+04	99.95
Total Input	1.692E+04	
Input - Output	8.418E+00	

Maximum leachate concentration: 7.789E-05 **mg/l**

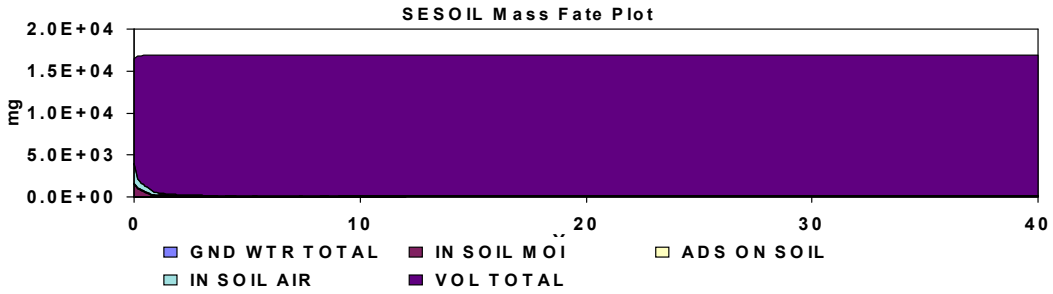
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

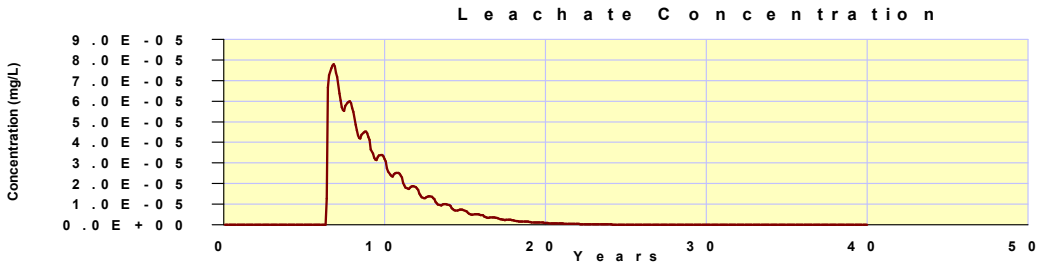
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

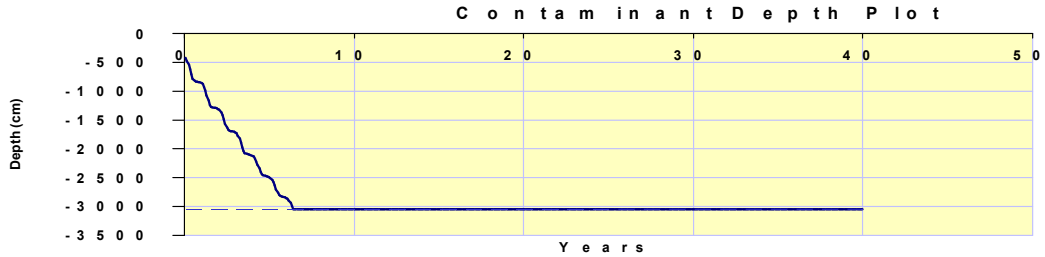
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 6.08 **years**
Starting Depth: 418.50 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.646E+08	99.99
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.838E+00	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.646E+08	99.99
Total Input	9.647E+08	
Input - Output	8.999E+04	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium (III) (Insoluble Salts) (Kd)

c:\sev7 win7\CHROMIUM (III) (INSOLUBLE SALTS) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street

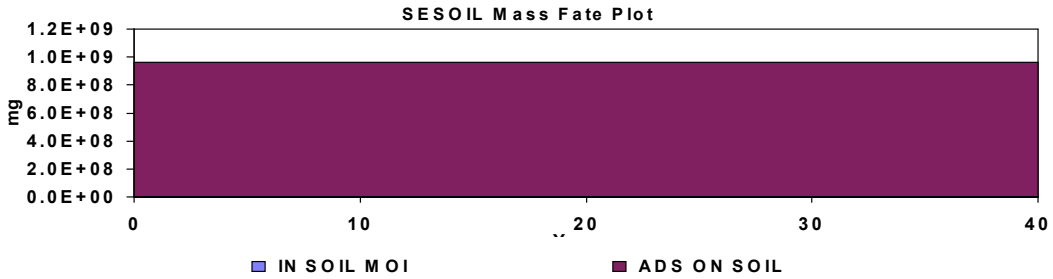
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

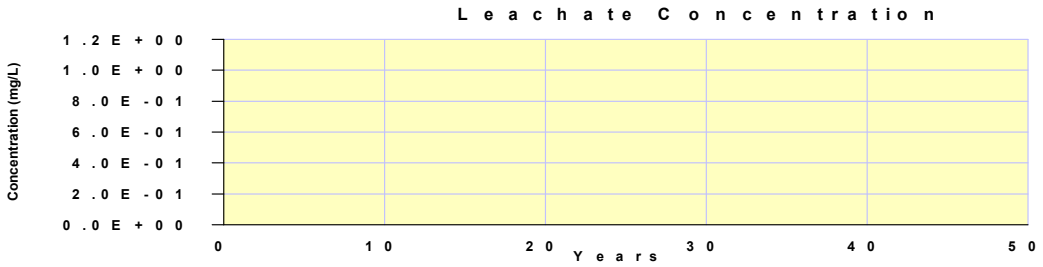
Time to Groundwater: **years**

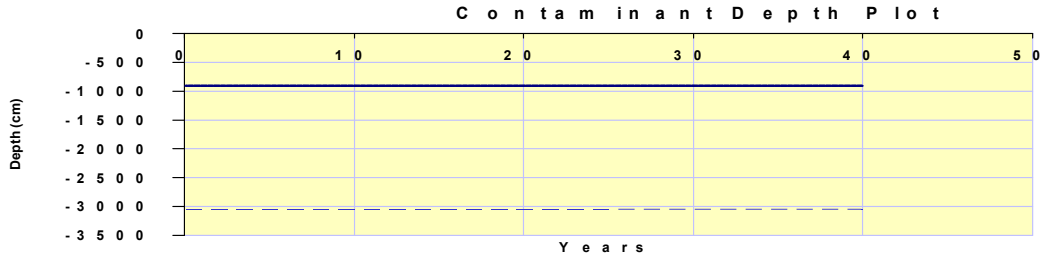
Starting Depth: 908.20 **cm**

Ending Depth: 908.20 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.615E+08	99.67
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.512E+05	0.06
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.621E+08	99.73
Total Input	9.647E+08	
Input - Output	2.598E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

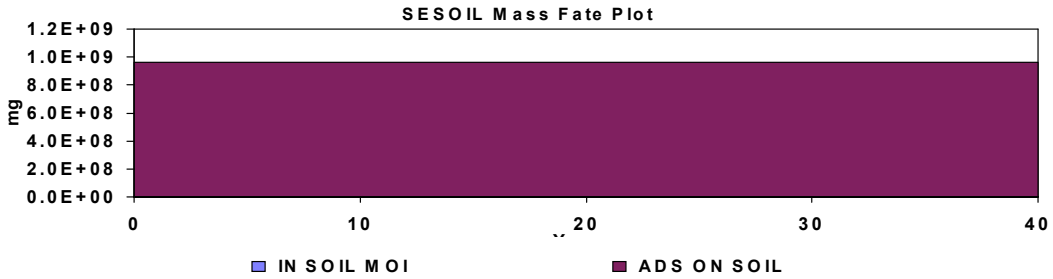
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

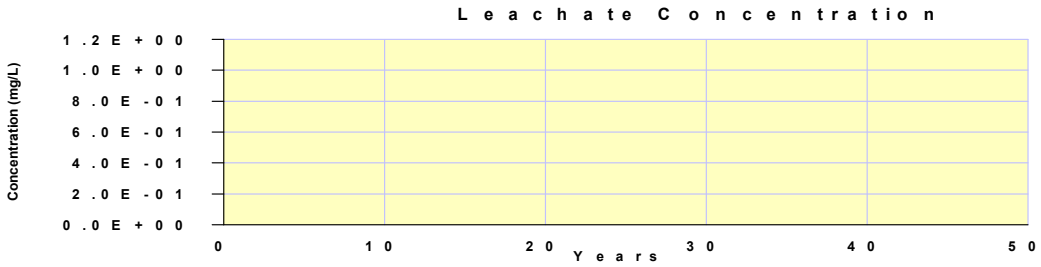
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

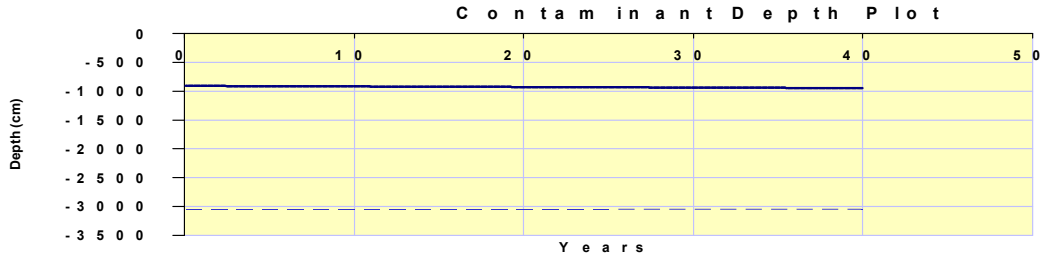
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2222.13 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 946.70 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.057E+06	100.00
In Soil Air	6.949E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.475E+00	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.045E+00	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	7.502E+02	0.01
Total Output	5.058E+06	100.01
Total Input	5.058E+06	
Input - Output	-6.937E+02	

Maximum leachate concentration: 6.198E-04 **mg/l**

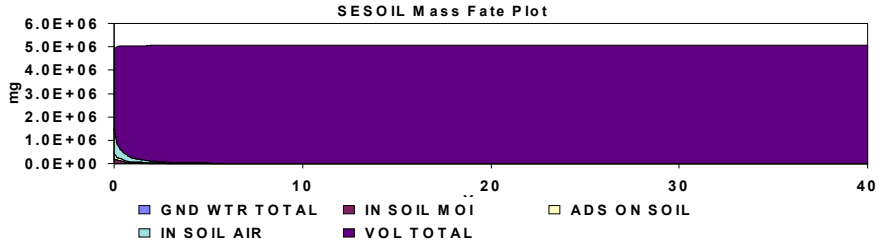
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

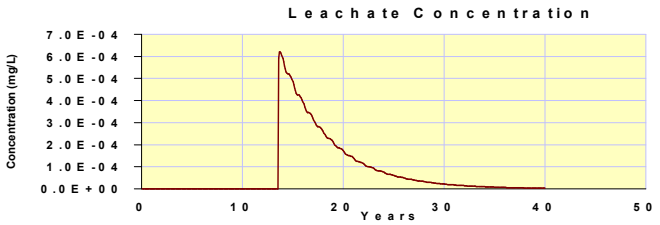
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

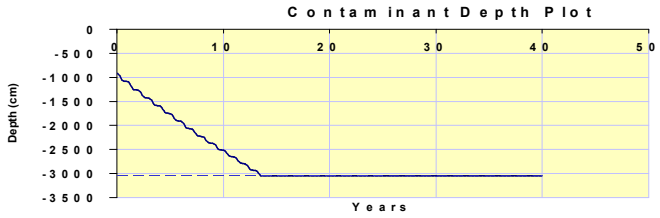
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 13.08 **years**
Starting Depth: 913.10 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.919E+06	100.02
In Soil Air	5.801E-01	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.213E-01	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.372E-01	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	3.521E+01	0.00
Total Output	3.919E+06	100.02
Total Input	3.919E+06	
Input - Output	-6.470E+02	

Maximum leachate concentration: 3.195E-05 **mg/l**

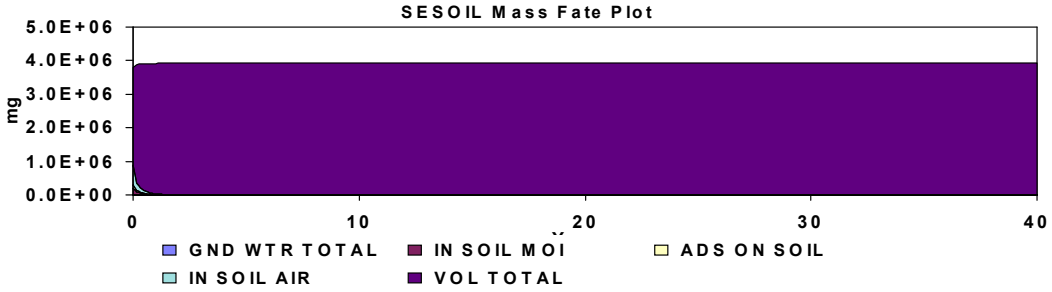
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

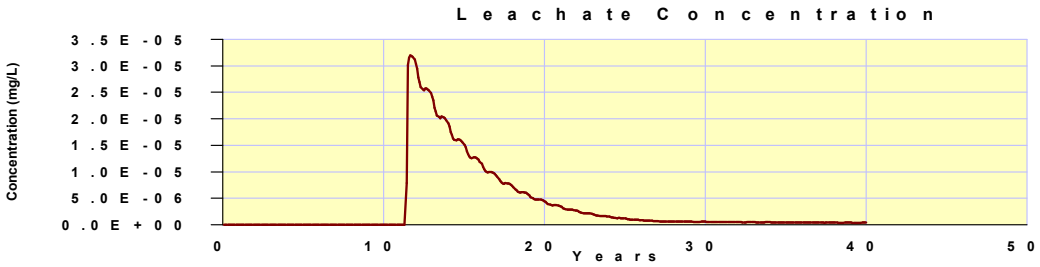
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

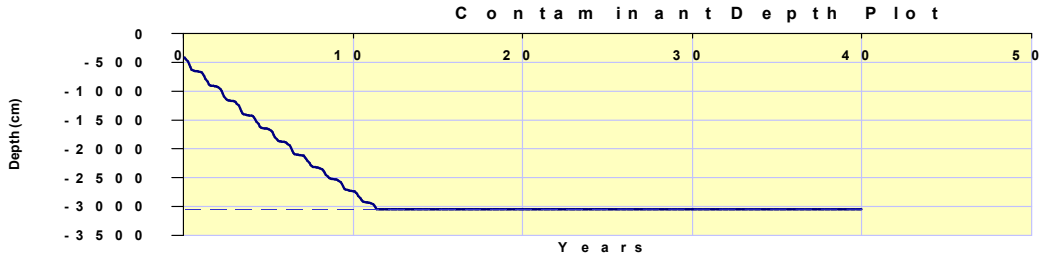
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 11.08 **years**
Starting Depth: 413.00 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.587E+04	100.04
In Soil Air	1.066E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.304E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.317E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	5.873E-04	0.00
Total Output	1.587E+04	100.04
Total Input	1.587E+04	
Input - Output	-6.694E+00	

Maximum leachate concentration: 1.000E-10 **mg/l**

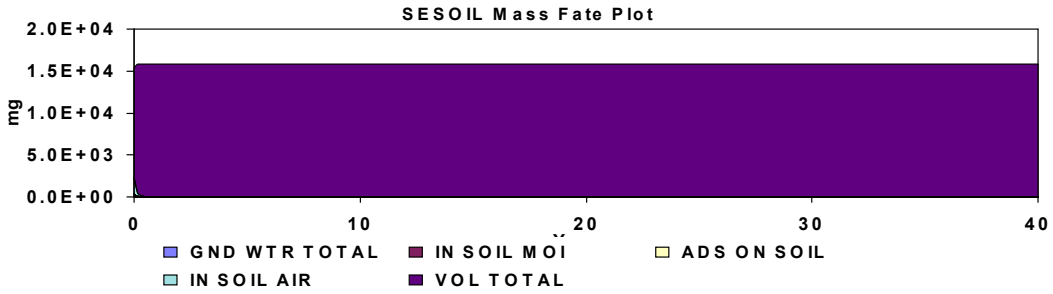
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

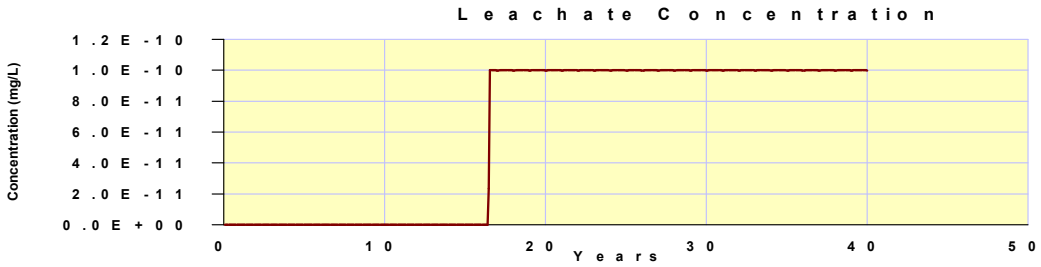
Chemical File: Vinyl Chloride
c:\sev7 win7\VINYL CHLORIDE.CHM

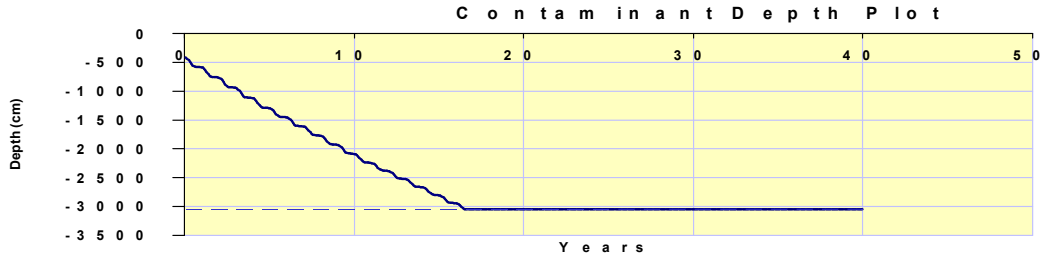
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 16.08 **years**
Starting Depth: 411.00 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







Geosyntec consultants

APPENDIX D

Sensitivity Model Output Reports

Sensitivity Analysis
Scenario 3
1,2-Dichloroethane

Intrinsic Permeability

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.417E+04	89.32
In Soil Air	2.477E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	4.997E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.674E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.701E+03	10.72
Total Output	1.587E+04	100.04
Total Input	1.587E+04	
Input - Output	-5.846E+00	

Maximum leachate concentration: 4.855E-03 **mg/l**

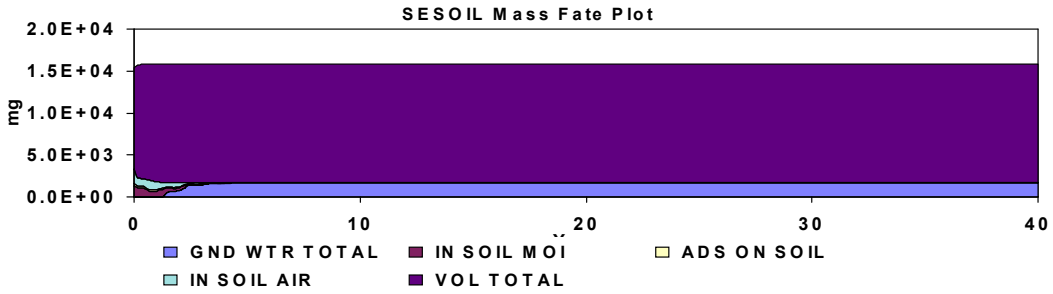
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

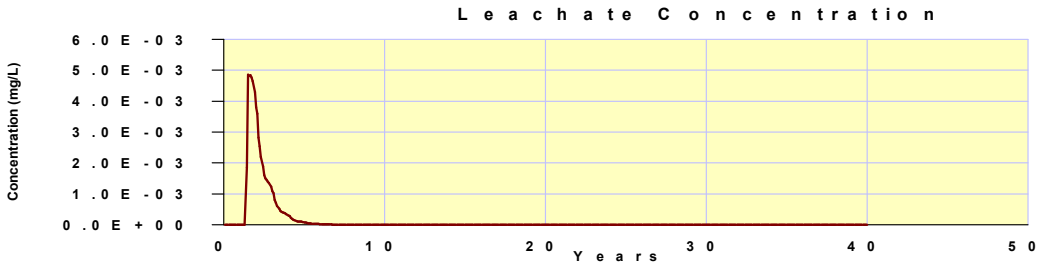
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

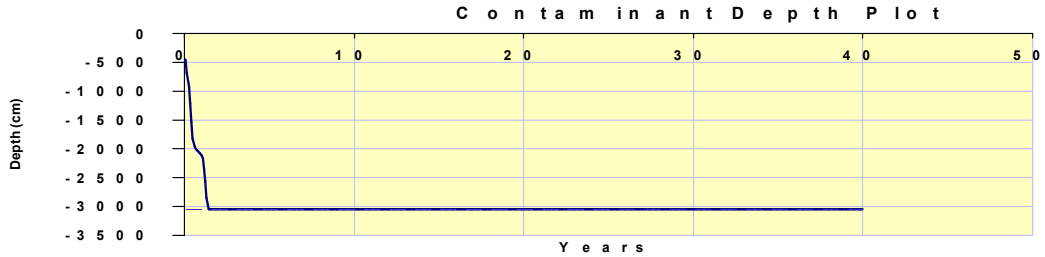
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 1.08 **years**
Starting Depth: 456.20 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.376E+04	86.71
In Soil Air	1.132E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.342E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.388E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	2.110E+03	13.30
Total Output	1.587E+04	100.01
Total Input	1.587E+04	
Input - Output	-1.450E+00	

Maximum leachate concentration: 4.290E-03 **mg/l**

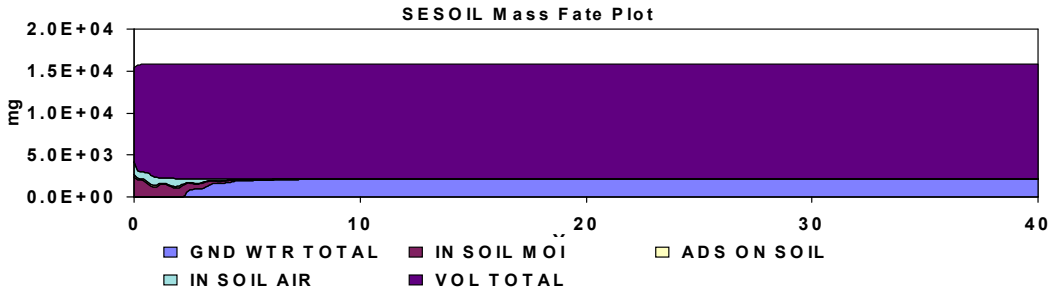
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

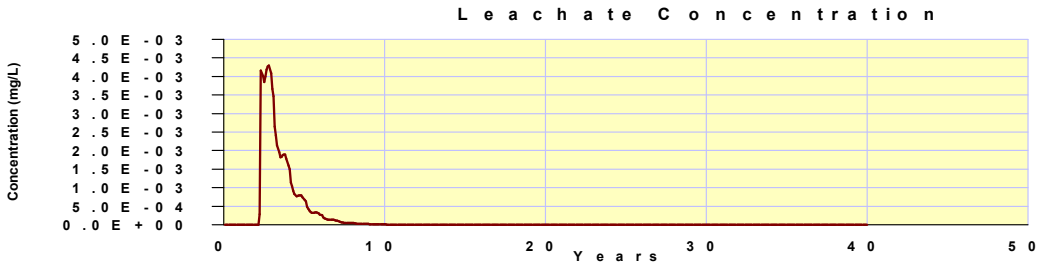
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

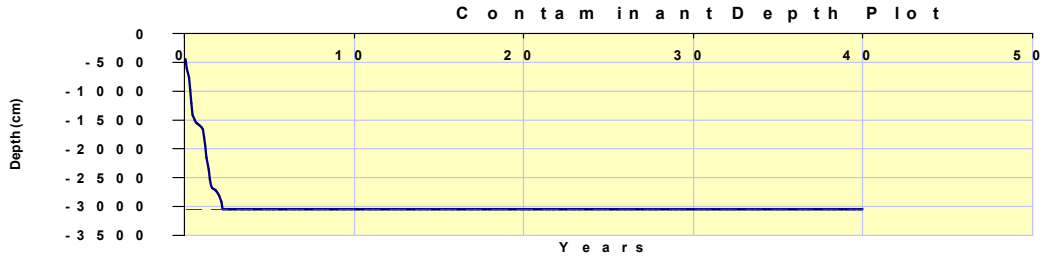
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2.08 **years**
Starting Depth: 446.10 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.200E+04	75.63
In Soil Air	1.902E-01	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	4.535E-02	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	8.735E-01	0.01
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	3.855E+03	24.29
Total Output	1.585E+04	99.93
Total Input	1.587E+04	
Input - Output	1.152E+01	

Maximum leachate concentration: 6.371E-03 **mg/l**

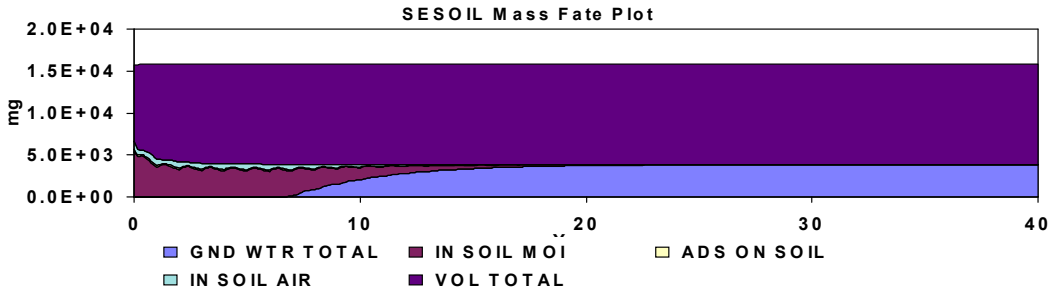
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

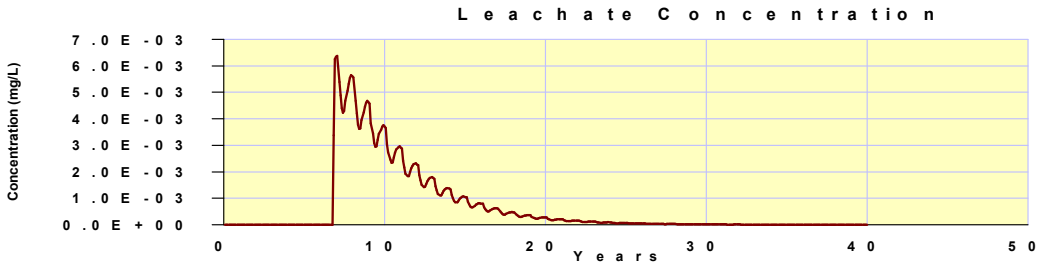
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

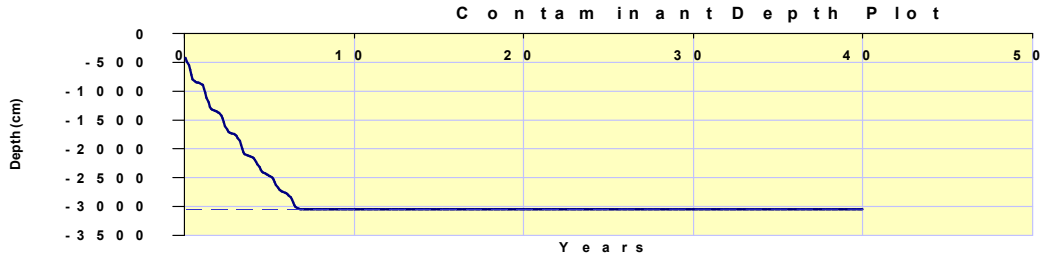
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 6.08 **years**
Starting Depth: 420.80 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.161E+04	73.19
In Soil Air	9.138E+01	0.58
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.497E+01	0.16
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	7.594E+02	4.79
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	3.358E+03	21.16
Total Output	1.584E+04	99.87
Total Input	1.587E+04	
Input - Output	2.116E+01	

Maximum leachate concentration: 5.301E-03 **mg/l**

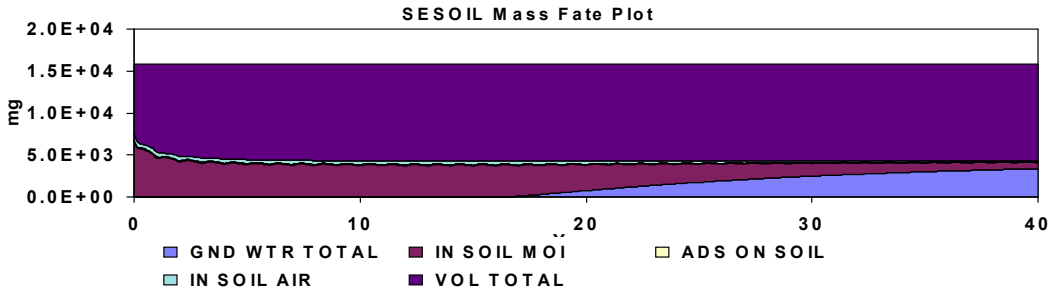
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

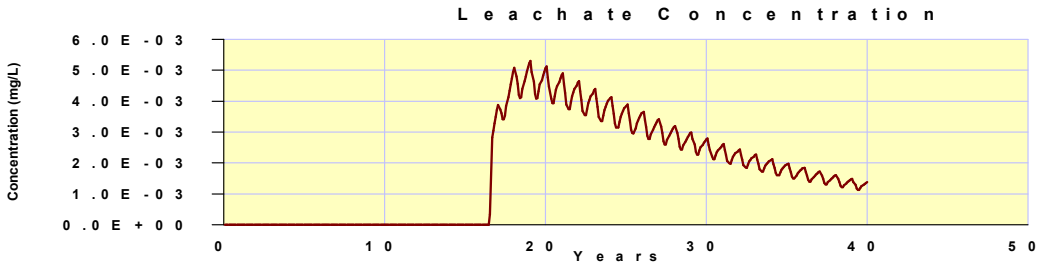
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

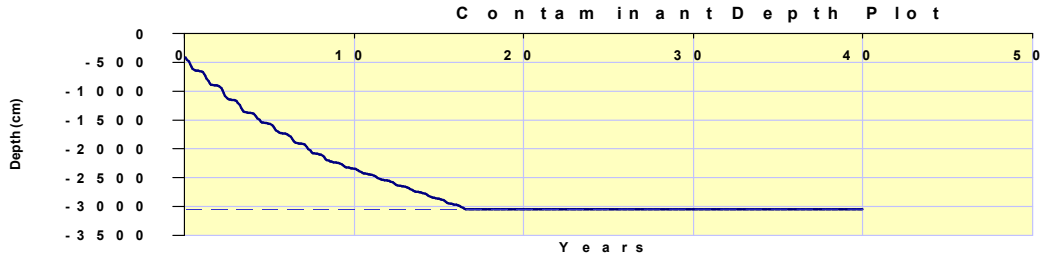
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 16.08 **years**
Starting Depth: 414.50 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







Effective Porosity

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.010E+04	63.68
In Soil Air	2.220E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.653E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.209E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	5.770E+03	36.36
Total Output	1.587E+04	100.04
Total Input	1.587E+04	
Input - Output	-6.499E+00	

Maximum leachate concentration: 3.066E-02 **mg/l**

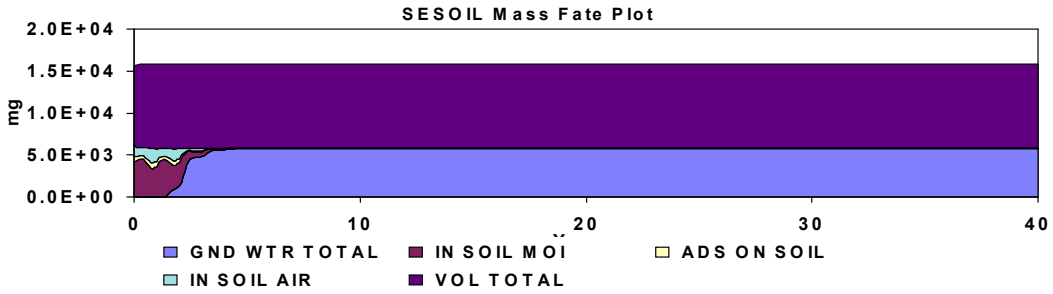
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

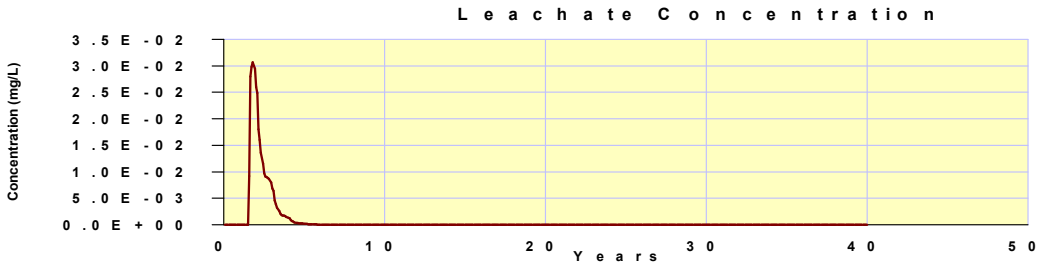
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

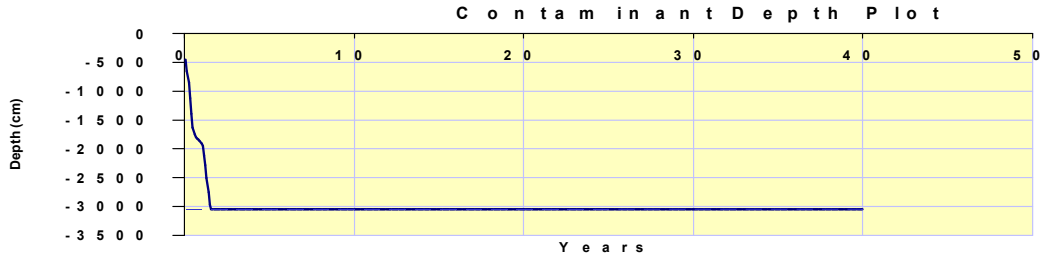
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 1.08 **years**
Starting Depth: 455.10 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.159E+04	73.07
In Soil Air	2.177E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	6.307E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.106E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	4.277E+03	26.96
Total Output	1.587E+04	100.03
Total Input	1.587E+04	
Input - Output	-4.900E+00	

Maximum leachate concentration: 1.297E-02 **mg/l**

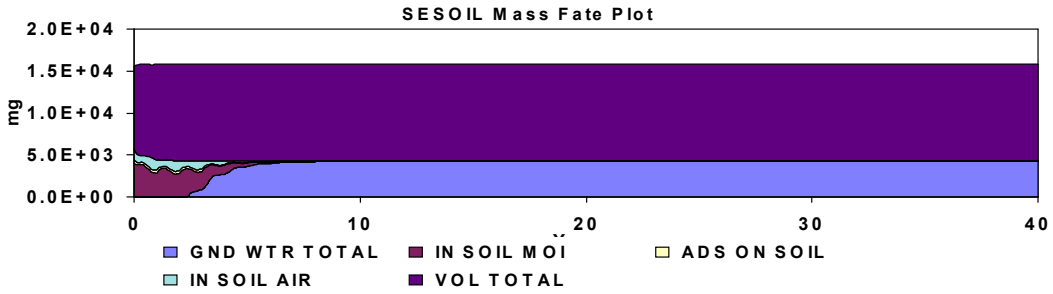
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

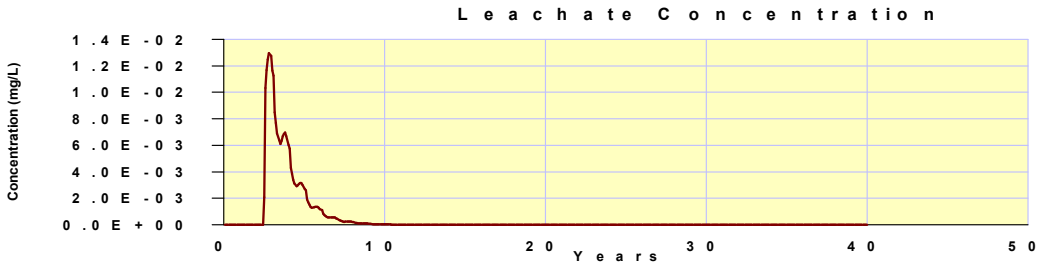
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

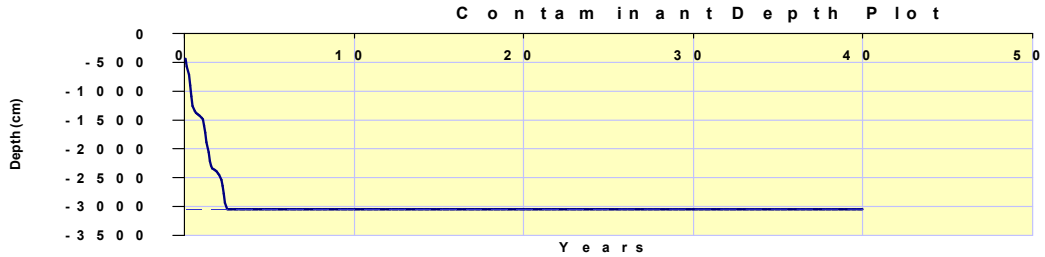
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2.08 **years**
Starting Depth: 439.00 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.420E+04	89.50
In Soil Air	2.726E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	4.750E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.536E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.655E+03	10.43
Total Output	1.585E+04	99.93
Total Input	1.587E+04	
Input - Output	1.096E+01	

Maximum leachate concentration: 2.721E-03 **mg/l**

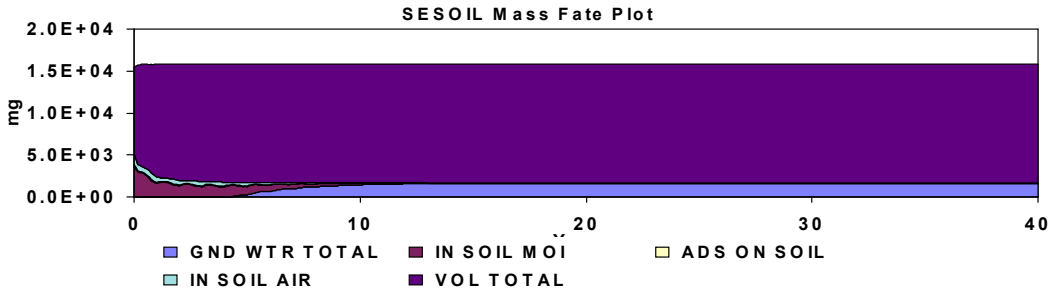
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

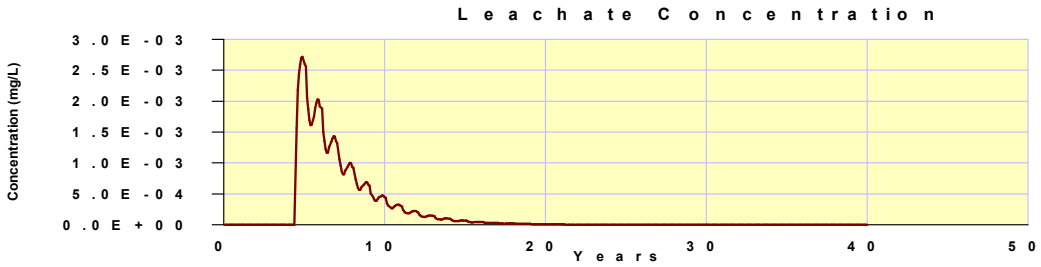
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

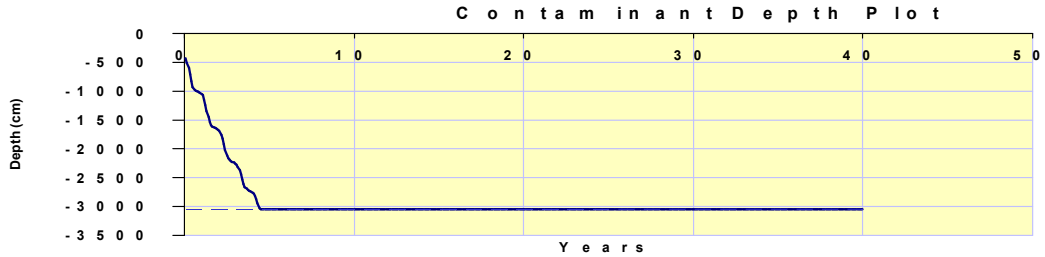
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 4.08 **years**
Starting Depth: 425.80 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.497E+04	94.36
In Soil Air	5.451E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	7.924E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.320E-01	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	8.884E+02	5.60
Total Output	1.586E+04	99.96
Total Input	1.587E+04	
Input - Output	6.333E+00	

Maximum leachate concentration: 1.218E-03 **mg/l**

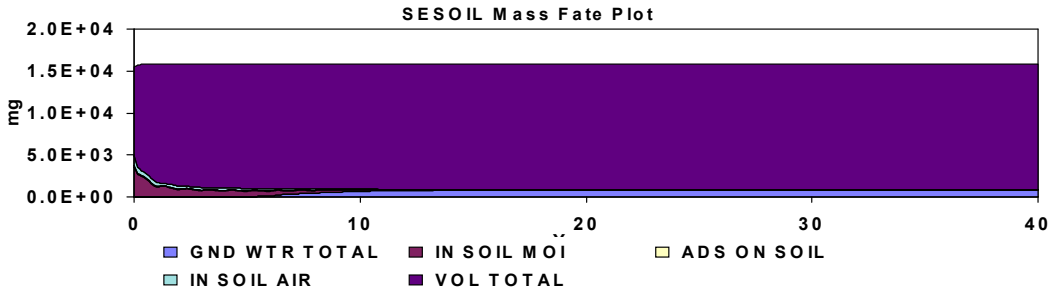
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

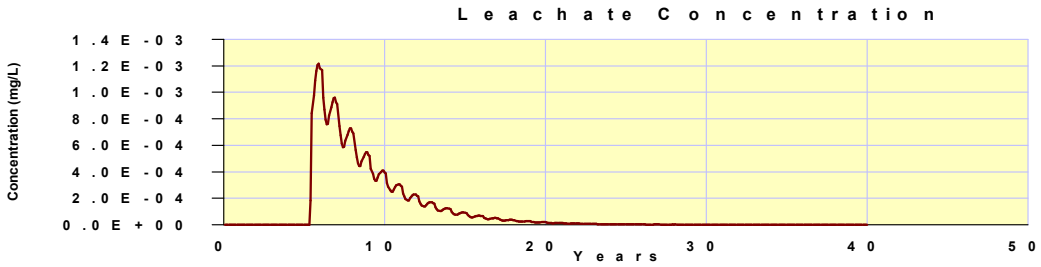
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

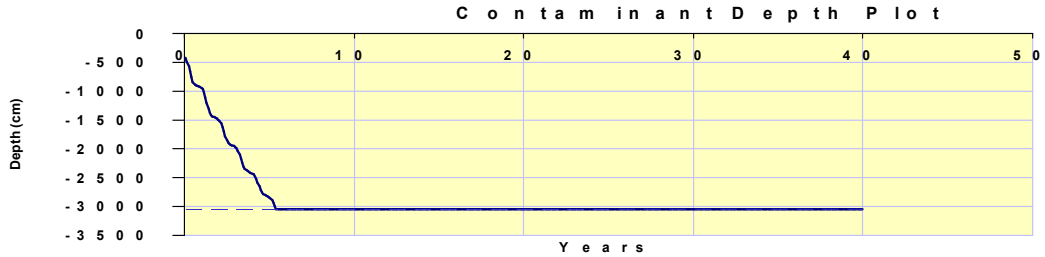
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 5.08 **years**
Starting Depth: 423.20 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







Soil Disconnectivity Index

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.321E+04	83.28
In Soil Air	1.867E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	4.014E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.906E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	2.657E+03	16.75
Total Output	1.587E+04	100.03
Total Input	1.587E+04	
Input - Output	-4.806E+00	

Maximum leachate concentration: 5.248E-03 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: 1,2-Dichloroethane (EDC)

c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street

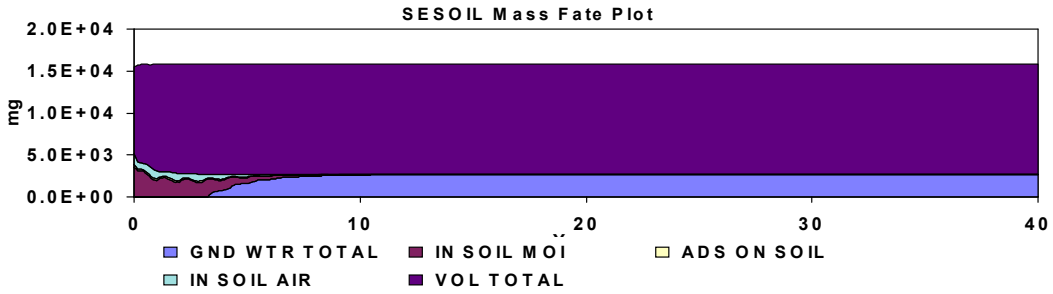
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

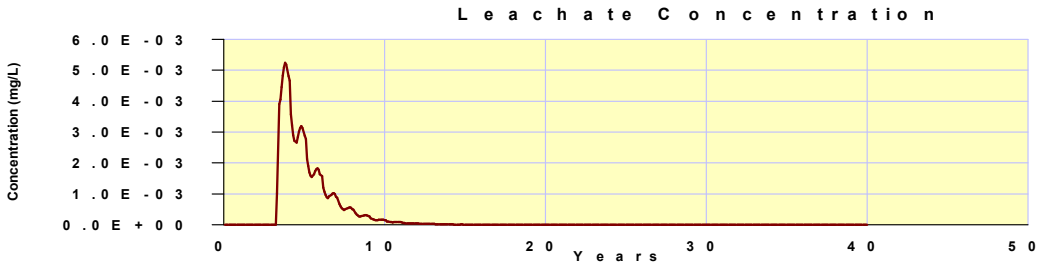
Time to Groundwater: 3.08 **years**

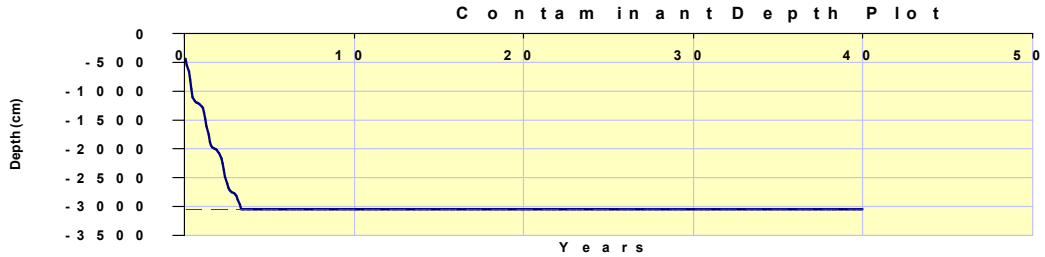
Starting Depth: 434.20 **cm**

Ending Depth: 3047.00 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.084E+04	68.36
In Soil Air	1.112E-01	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.816E-02	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.859E-01	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	5.007E+03	31.55
Total Output	1.585E+04	99.92
Total Input	1.587E+04	
Input - Output	1.305E+01	

Maximum leachate concentration: 7.263E-03 **mg/l**

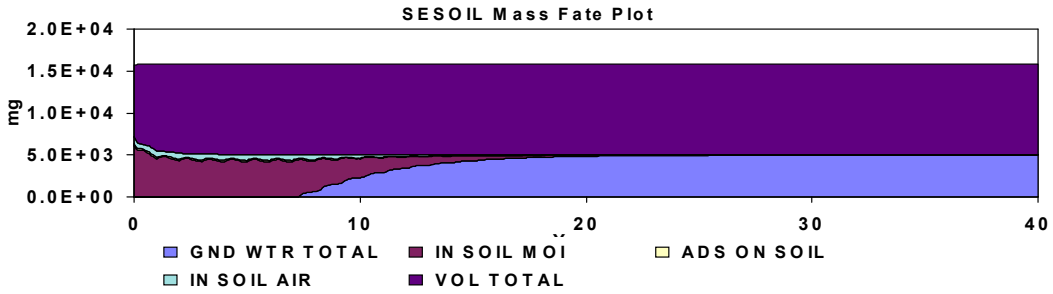
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

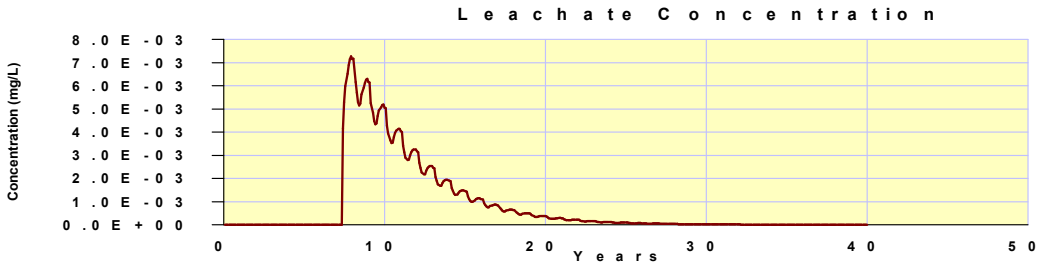
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

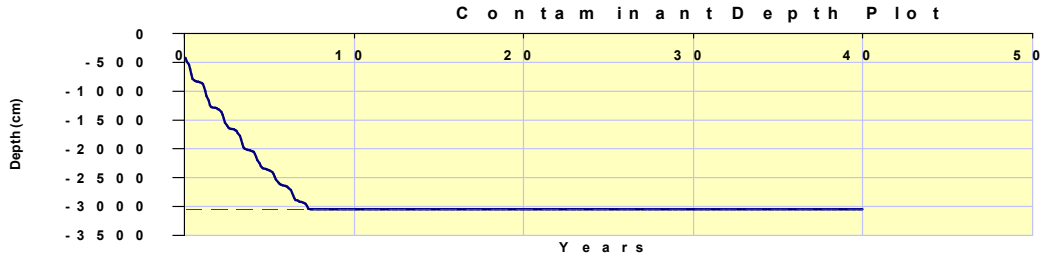
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 7.08 **years**
Starting Depth: 420.10 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	7.807E+03	49.19
In Soil Air	1.606E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.096E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.086E-01	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	8.052E+03	50.74
Total Output	1.585E+04	99.94
Total Input	1.587E+04	
Input - Output	1.030E+01	

Maximum leachate concentration: 9.722E-03 **mg/l**

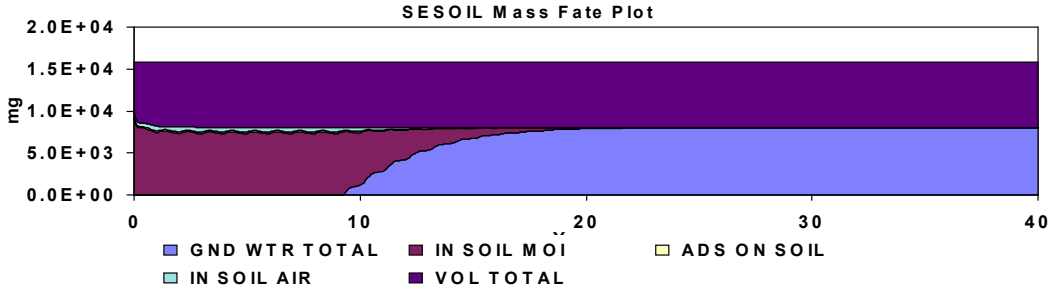
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

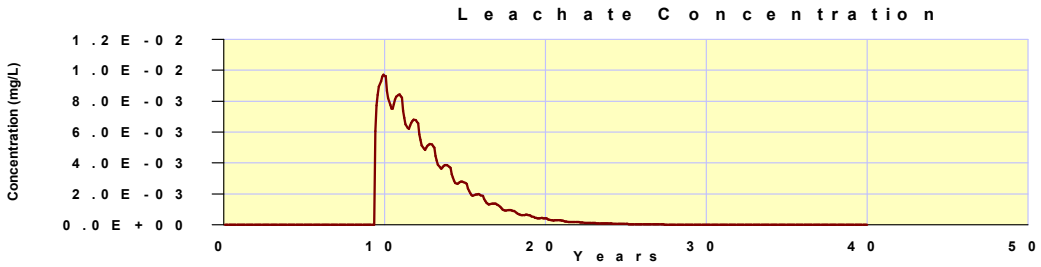
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

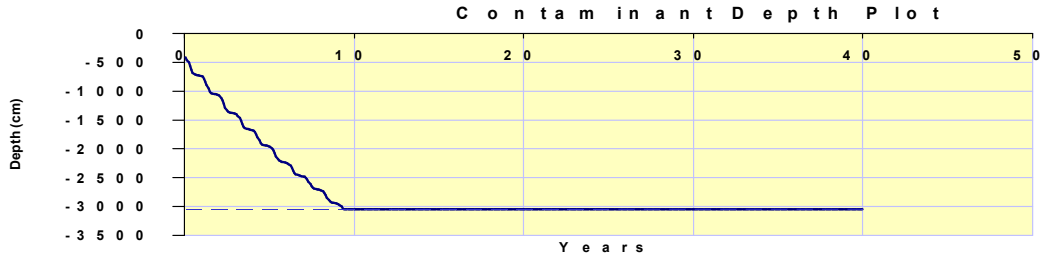
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 9.08 **years**
Starting Depth: 416.10 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	4.981E+03	31.39
In Soil Air	1.458E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.720E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.059E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.087E+04	68.54
Total Output	1.585E+04	99.93
Total Input	1.587E+04	
Input - Output	1.070E+01	

Maximum leachate concentration: 1.173E-02 **mg/l**

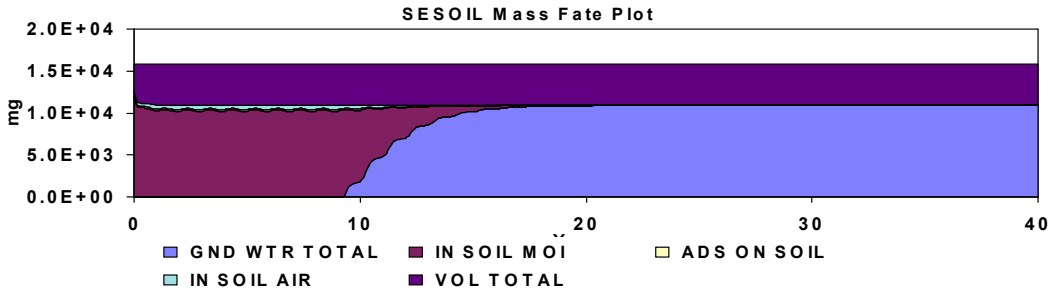
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

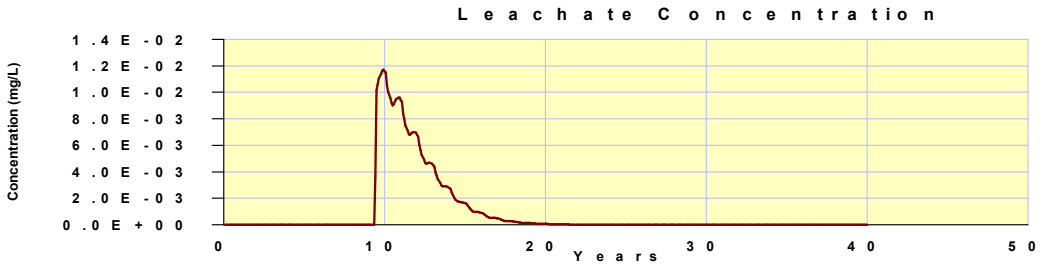
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

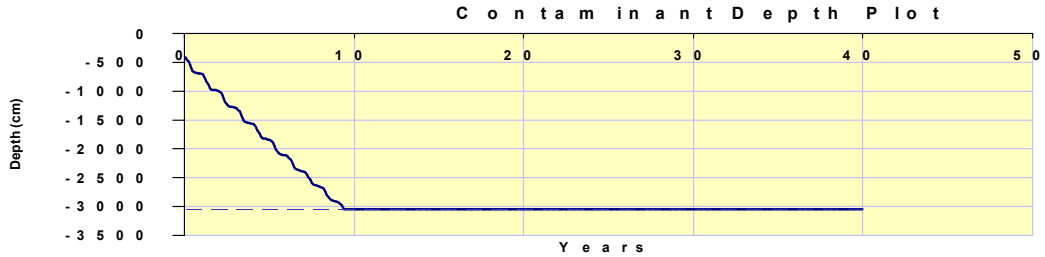
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 9.08 **years**
Starting Depth: 414.60 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







Organic Carbon Content

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.311E+04	82.66
In Soil Air	2.759E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.584E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.472E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	2.752E+03	17.34
Total Output	1.587E+04	100.00
Total Input	1.587E+04	
Input - Output	-2.947E-01	

Maximum leachate concentration: 5.915E-03 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: 1,2-Dichloroethane (EDC)

c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street

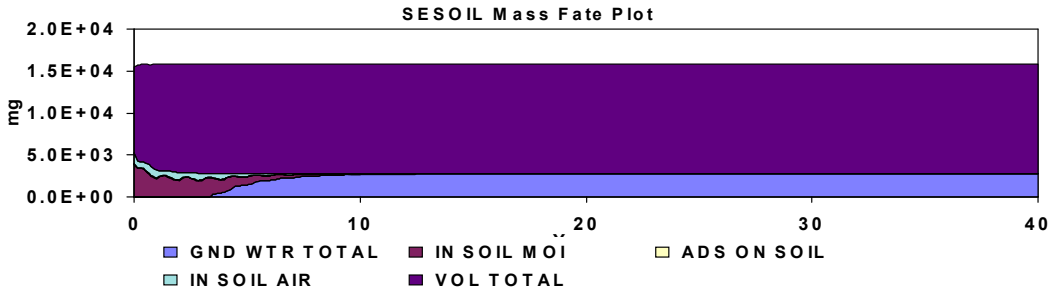
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

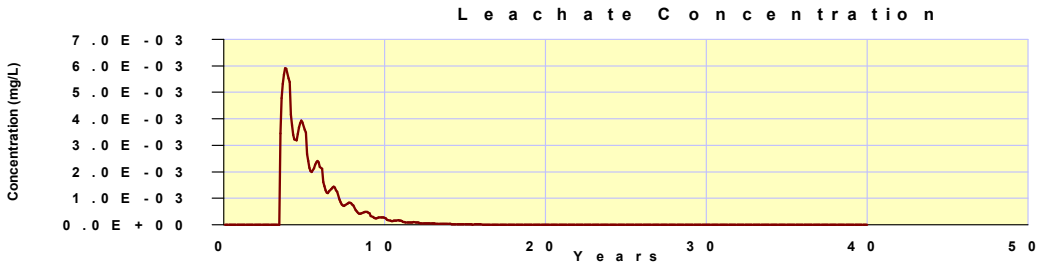
Time to Groundwater: 3.08 **years**

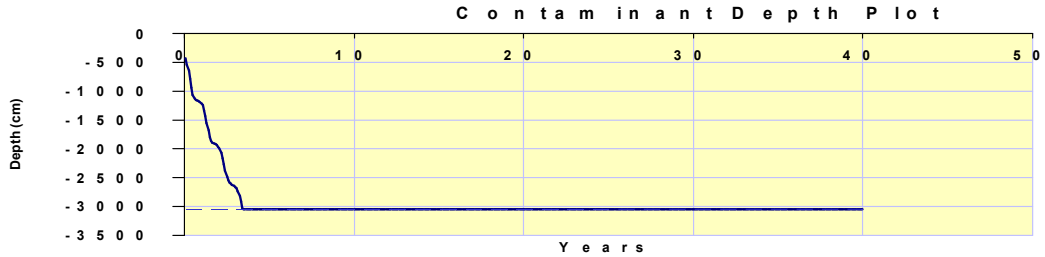
Starting Depth: 430.40 **cm**

Ending Depth: 3047.00 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.313E+04	82.75
In Soil Air	2.668E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	0.000E+00	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.259E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	2.741E+03	17.27
Total Output	1.587E+04	100.03
Total Input	1.587E+04	
Input - Output	-4.096E+00	

Maximum leachate concentration: 5.910E-03 **mg/l**

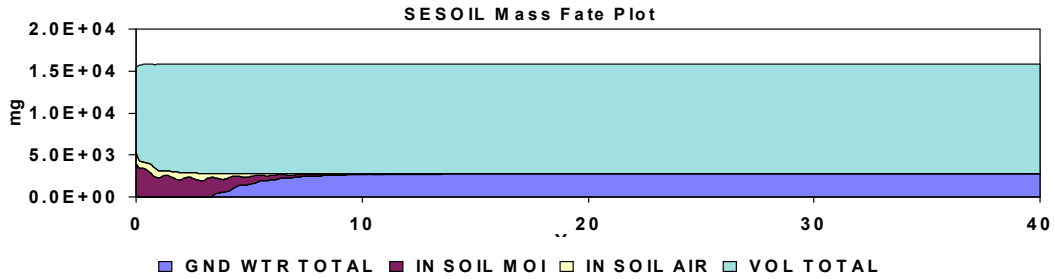
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

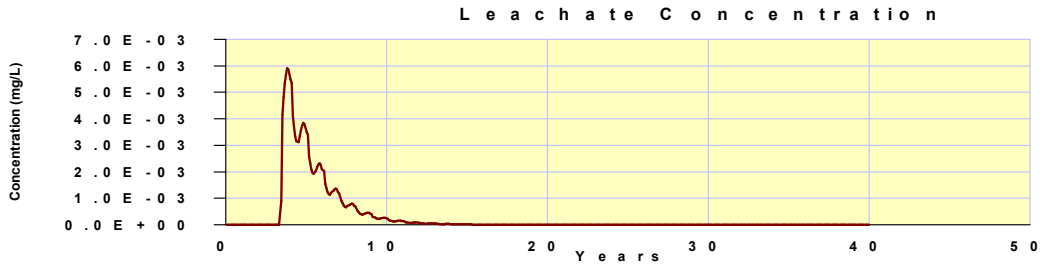
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

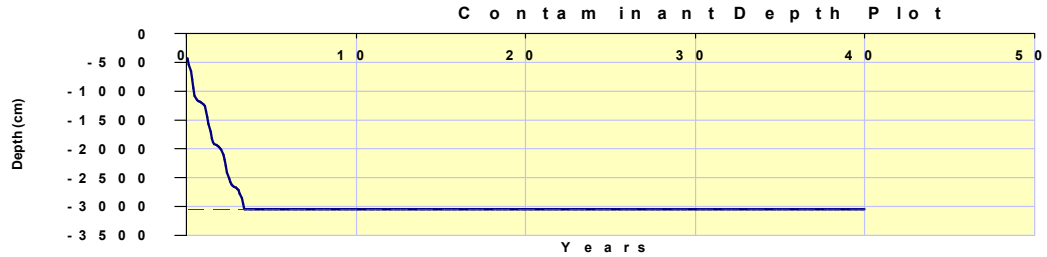
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 3.08 **years**
Starting Depth: 431.10 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.309E+04	82.50
In Soil Air	2.623E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.827E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.153E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	2.779E+03	17.52
Total Output	1.587E+04	100.02
Total Input	1.587E+04	
Input - Output	-2.911E+00	

Maximum leachate concentration: 5.903E-03 **mg/l**

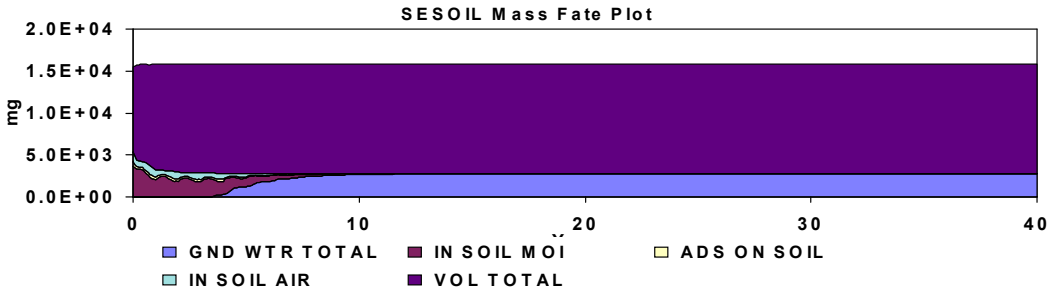
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

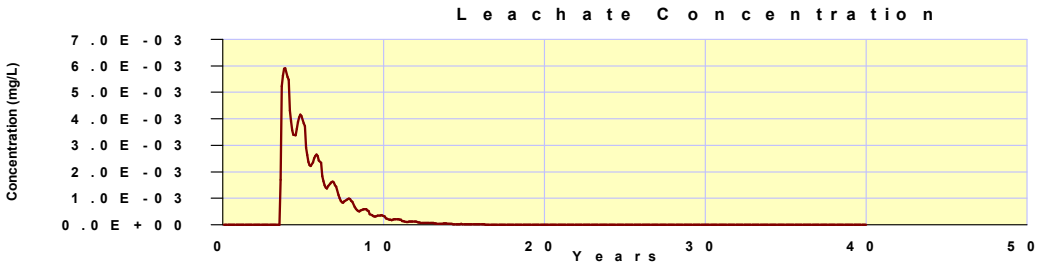
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

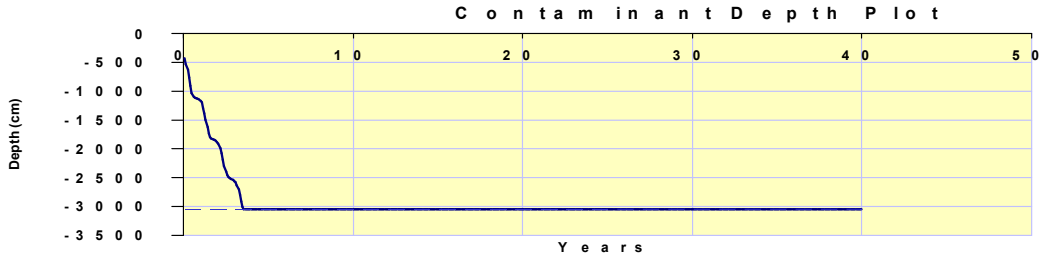
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 3.08 **years**
Starting Depth: 428.70 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.304E+04	82.21
In Soil Air	3.171E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.376E-02	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	7.439E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	2.821E+03	17.78
Total Output	1.586E+04	99.99
Total Input	1.587E+04	
Input - Output	1.707E+00	

Maximum leachate concentration: 4.433E-03 **mg/l**

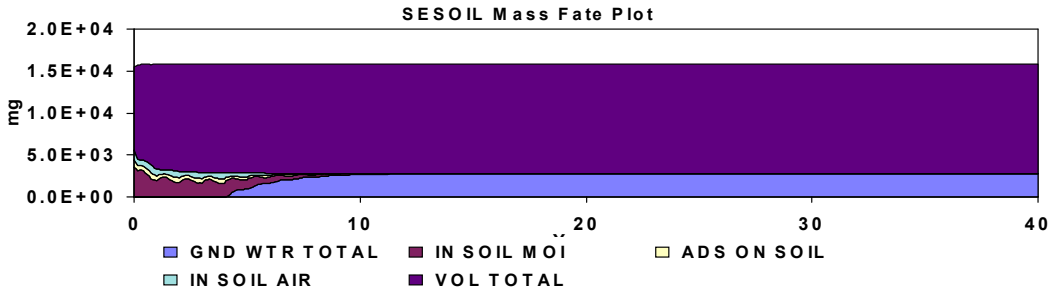
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

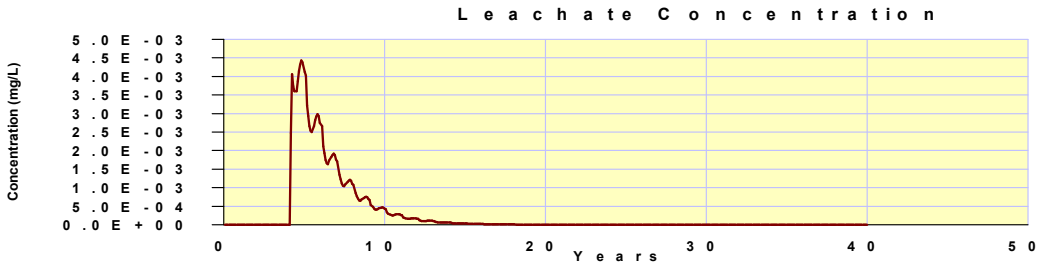
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

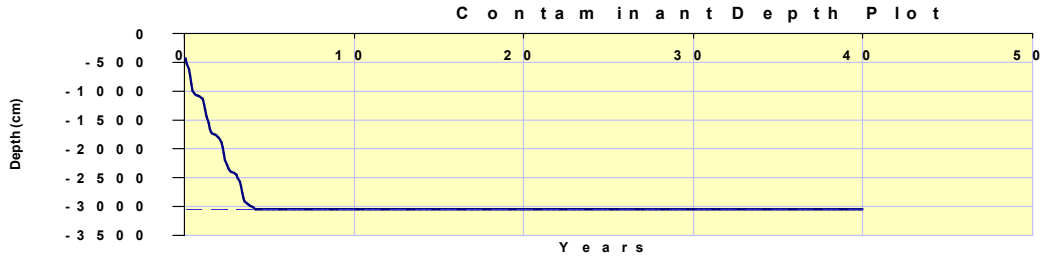
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 4.08 **years**
Starting Depth: 426.90 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







Biodegradation

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.079E+04	68.00
In Soil Air	2.632E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.720E-05	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.174E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	5.079E+03	32.01
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	9.154E-03	0.00
Total Output	1.587E+04	100.01
Total Input	1.587E+04	
Input - Output	-1.782E+00	

Maximum leachate concentration: 1.000E-09 **mg/l**

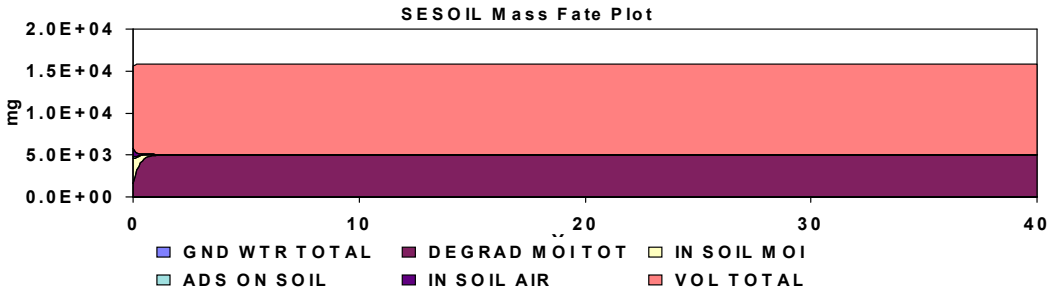
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

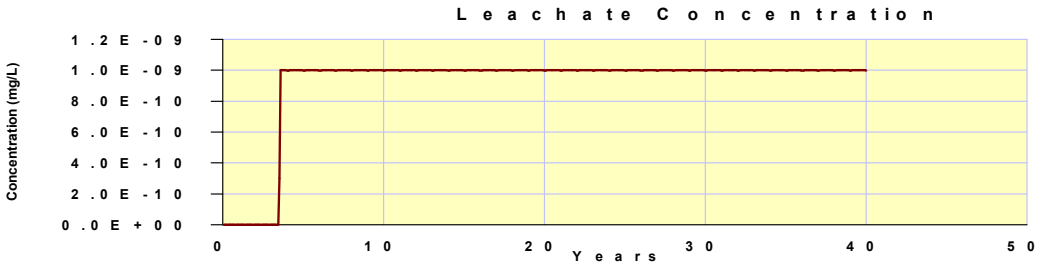
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

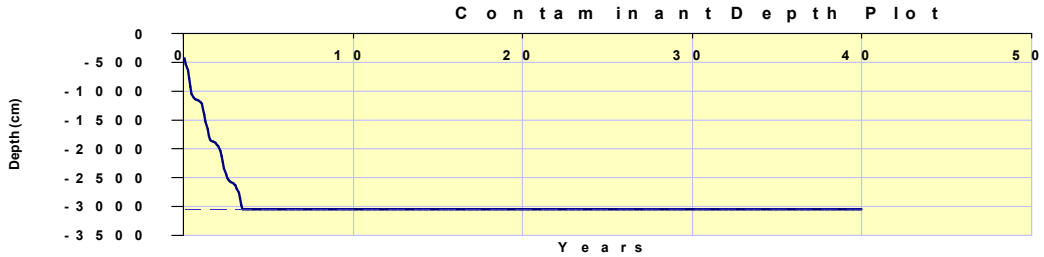
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 3.08 **years**
Starting Depth: 429.60 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.164E+04	73.39
In Soil Air	3.310E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	7.195E-05	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	7.766E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	4.210E+03	26.53
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.126E+01	0.07
Total Output	1.586E+04	99.99
Total Input	1.587E+04	
Input - Output	1.097E+00	

Maximum leachate concentration: 6.631E-05 **mg/l**

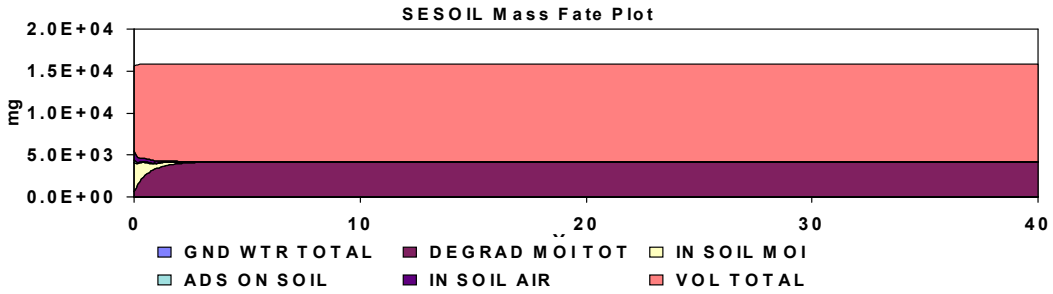
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

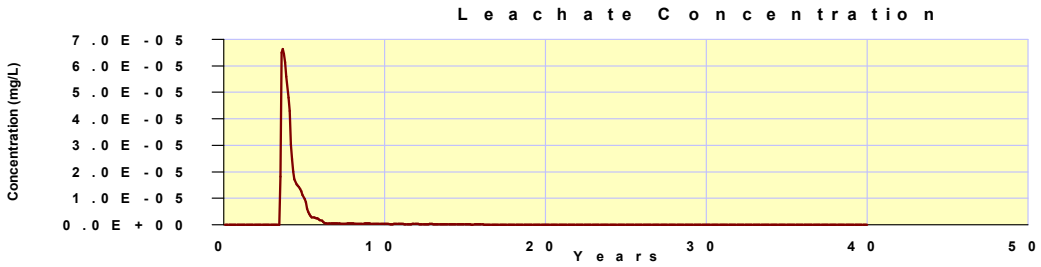
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

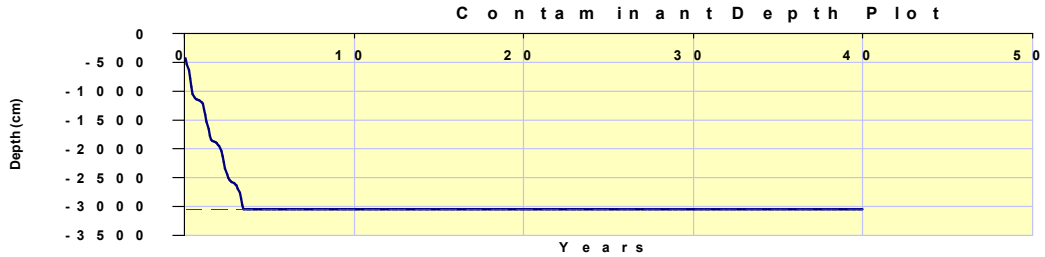
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 3.08 **years**
Starting Depth: 429.60 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.223E+04	77.09
In Soil Air	6.704E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.457E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	2.174E+02	1.37
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.572E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	3.223E+03	20.31
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.920E+02	1.21
Total Output	1.586E+04	99.98
Total Input	1.587E+04	
Input - Output	3.300E+00	

Maximum leachate concentration: 7.663E-04 **mg/l**

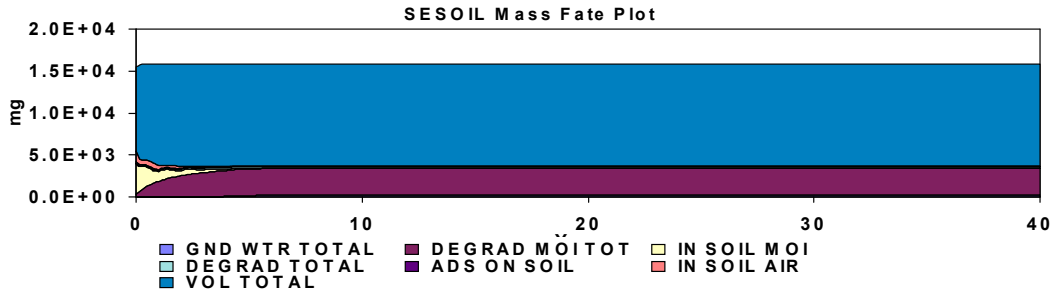
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

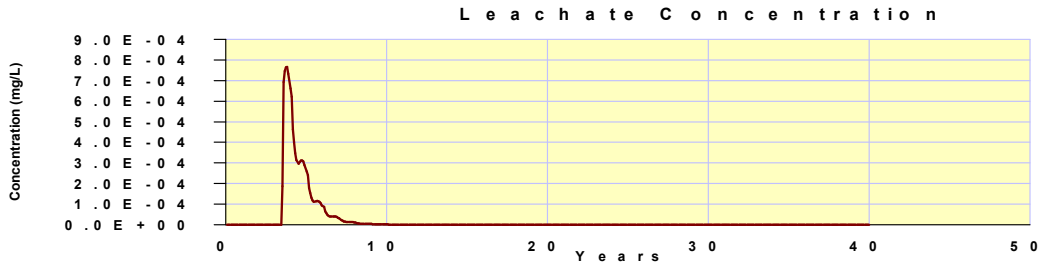
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

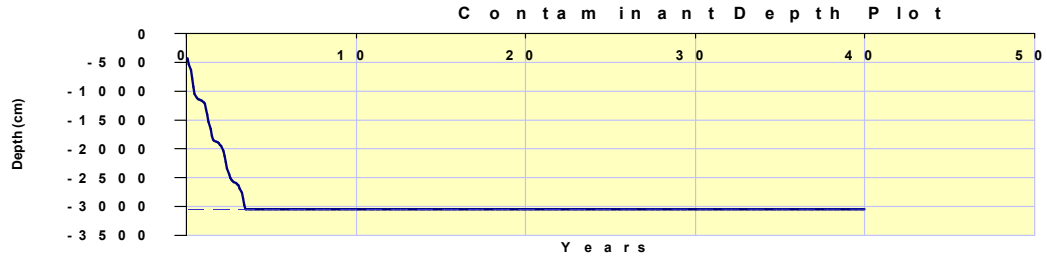
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 3.08 **years**
Starting Depth: 429.60 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.265E+04	79.77
In Soil Air	9.418E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.047E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	1.516E+02	0.96
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.209E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	2.212E+03	13.94
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	8.427E+02	5.31
Total Output	1.586E+04	99.98
Total Input	1.587E+04	
Input - Output	3.184E+00	

Maximum leachate concentration: 2.502E-03 **mg/l**

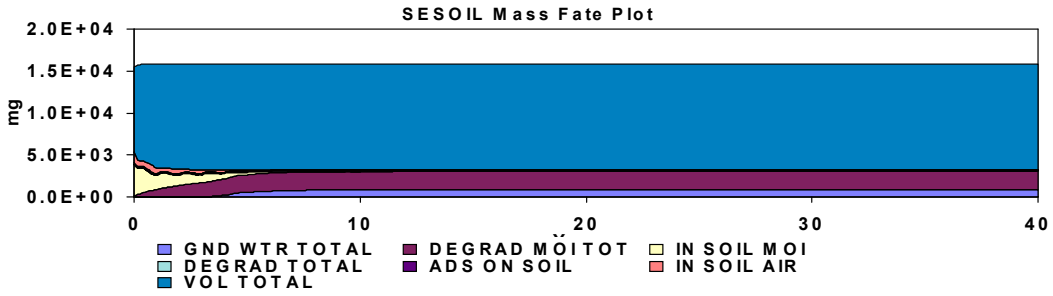
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

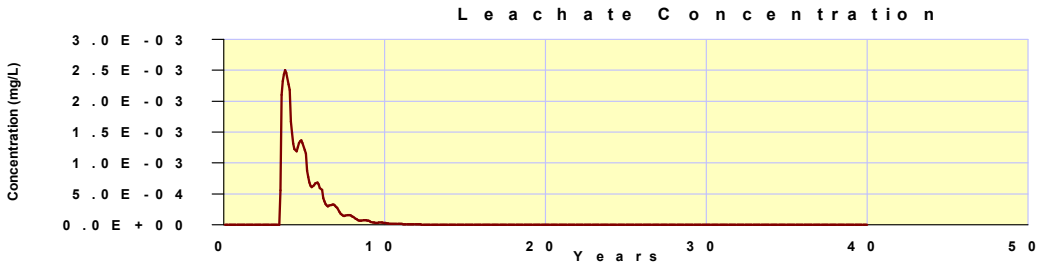
Chemical File: 1,2-Dichloroethane (EDC)
c:\sev7 win7\1 2-DICHLOROETHANE (EDC).CHM

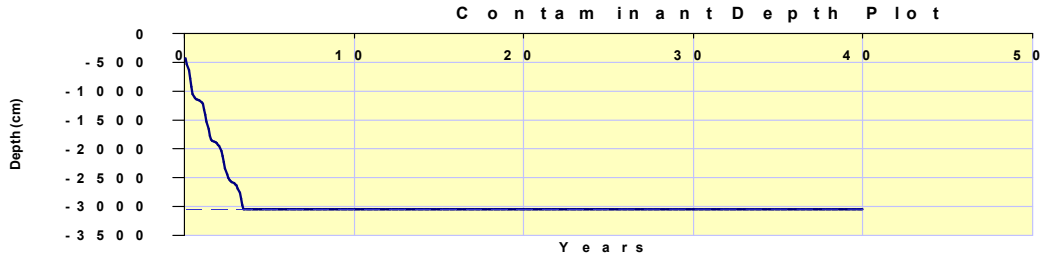
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 3.08 **years**
Starting Depth: 429.60 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







Sensitivity Analysis
Scenario 3
Chromium VI

Intrinsic Permeability

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.618E+08	99.71
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.712E+05	0.02
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.620E+08	99.73
Total Input	9.647E+08	
Input - Output	2.638E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

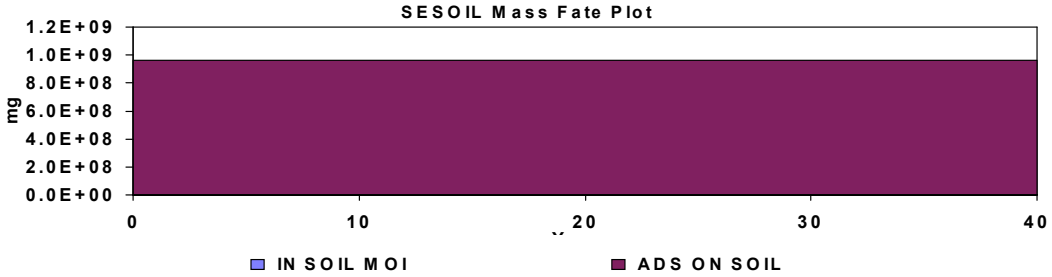
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

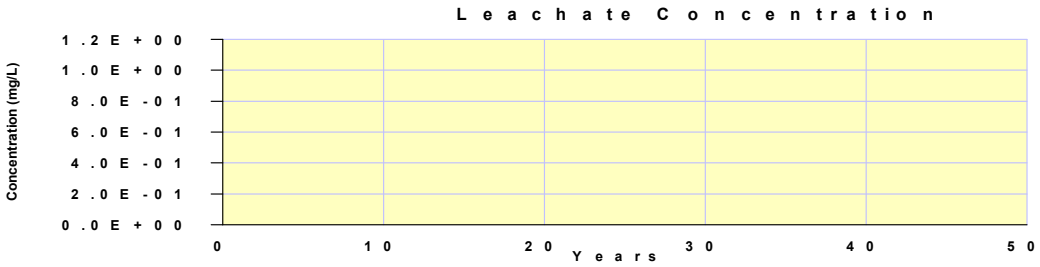
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

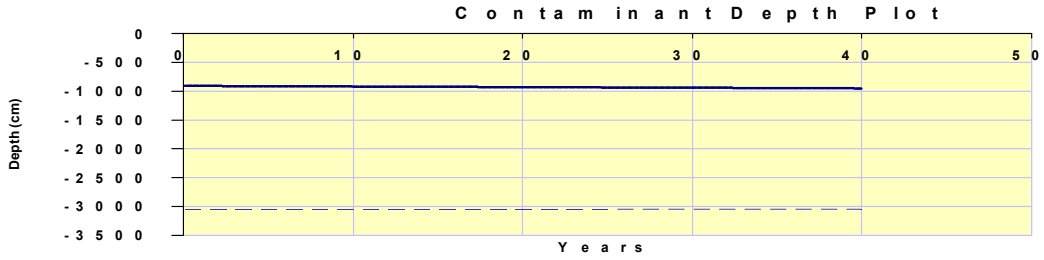
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2017.74 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 950.60 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.615E+08	99.68
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.027E+05	0.03
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.618E+08	99.71
Total Input	9.647E+08	
Input - Output	2.807E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)

c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street

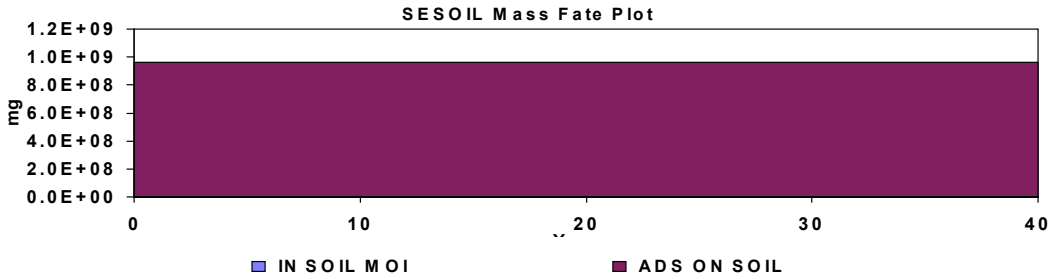
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

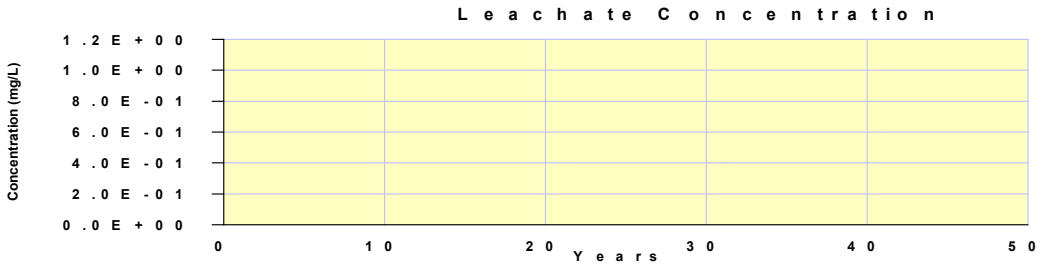
Time to Groundwater: 2086.63 **years**

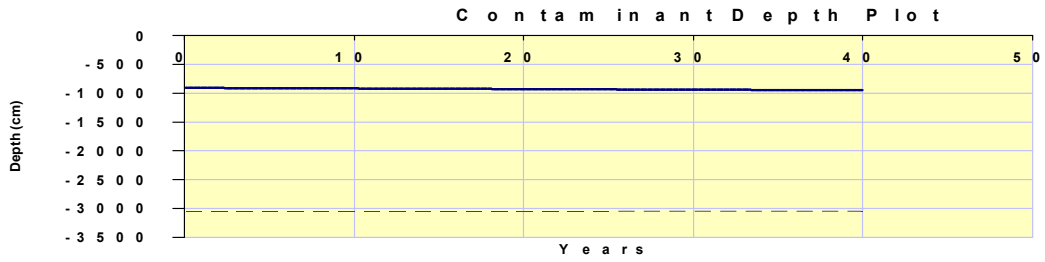
Starting Depth: 908.20 **cm**

Ending Depth: 949.20 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.608E+08	99.60
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	9.832E+05	0.10
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.618E+08	99.70
Total Input	9.647E+08	
Input - Output	2.856E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)

c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street

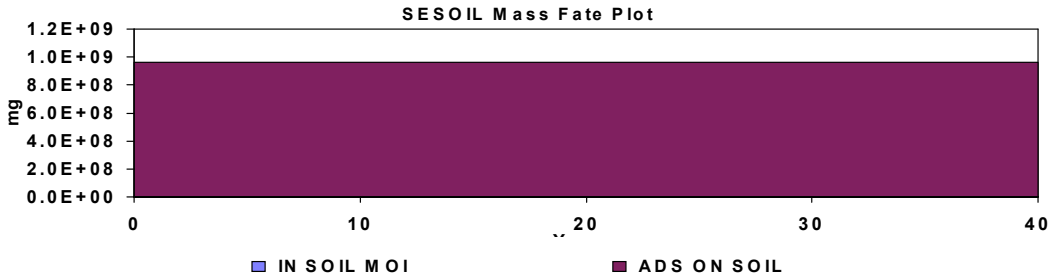
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

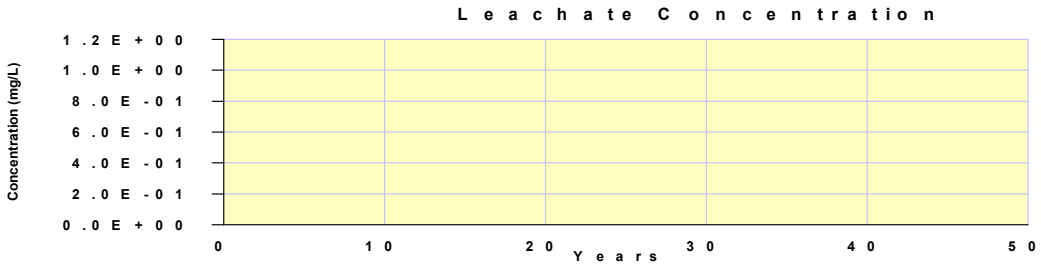
Time to Groundwater: 2553.79 **years**

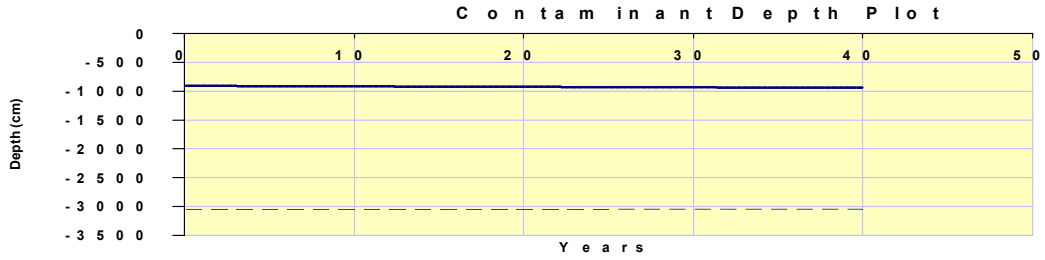
Starting Depth: 908.20 **cm**

Ending Depth: 941.70 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.601E+08	99.53
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.550E+06	0.16
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.616E+08	99.69
Total Input	9.647E+08	
Input - Output	3.019E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

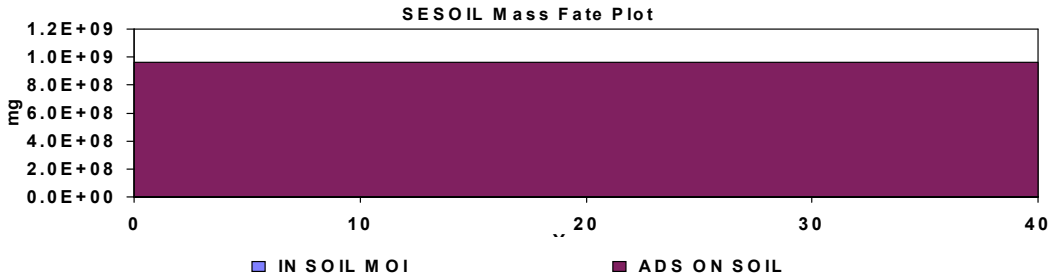
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

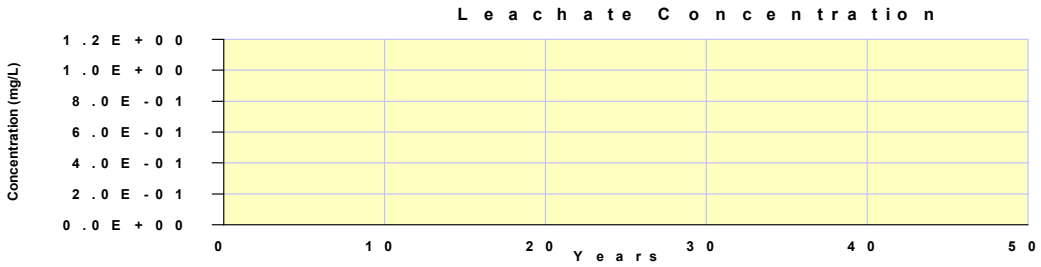
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

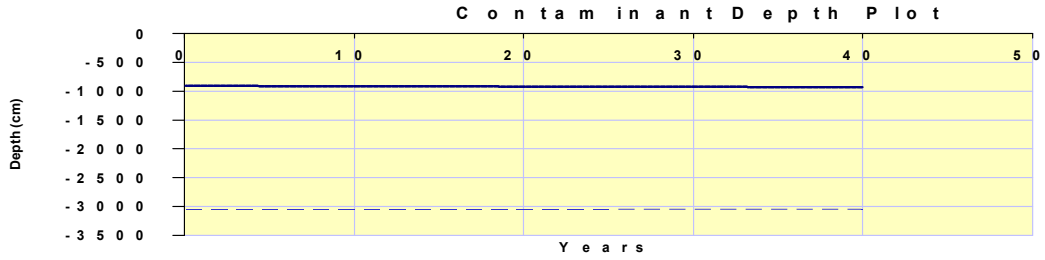
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 3819.29 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 930.60 **cm**
Total Depth: 3047.00 **cm**







Effective Porosity

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.616E+08	99.69
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.756E+05	0.03
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.619E+08	99.72
Total Input	9.647E+08	
Input - Output	2.744E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

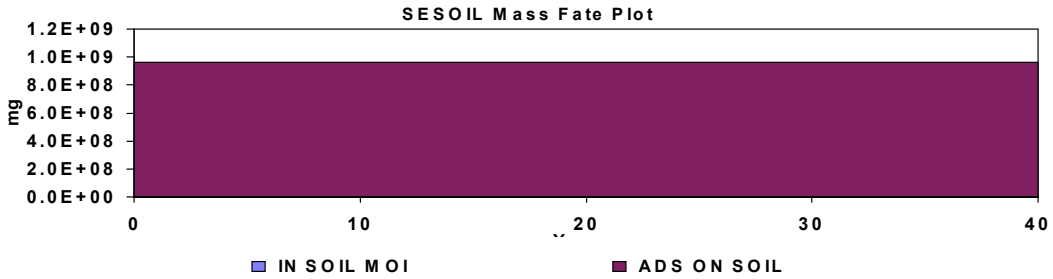
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

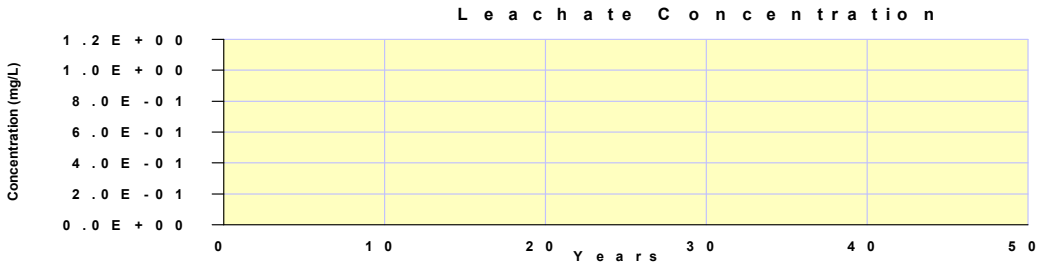
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

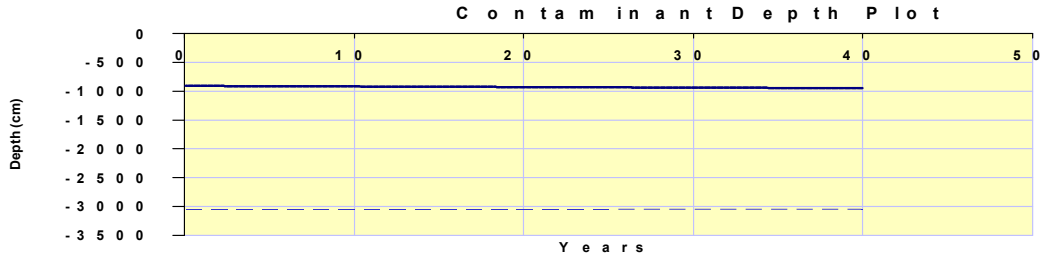
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2144.16 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 948.10 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.615E+08	99.68
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	4.134E+05	0.04
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.619E+08	99.72
Total Input	9.647E+08	
Input - Output	2.716E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

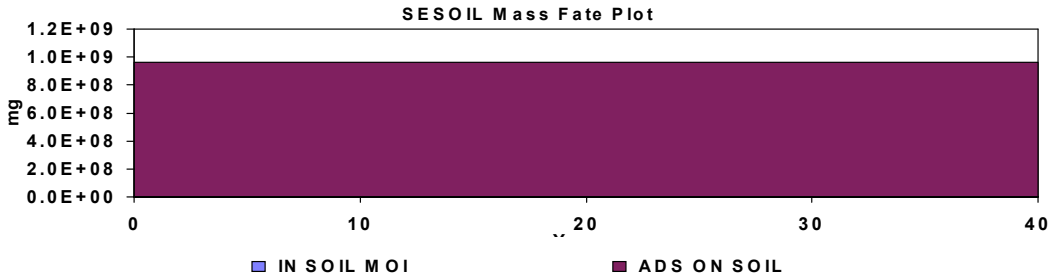
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

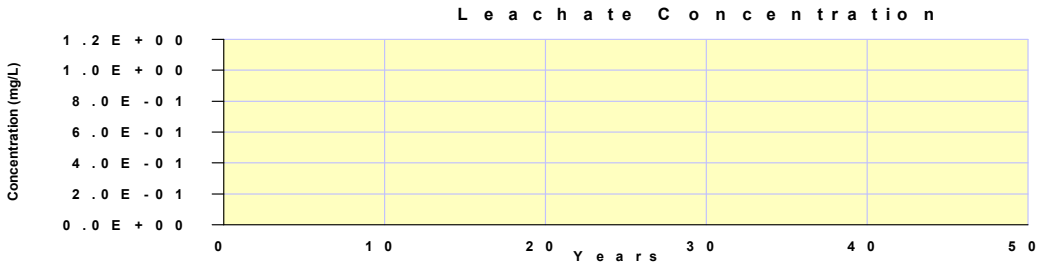
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

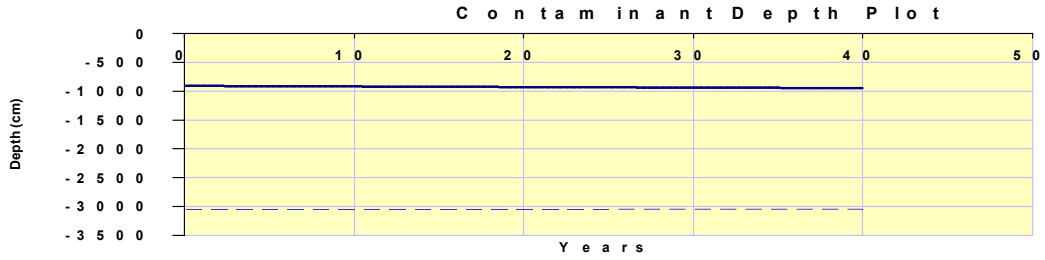
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2176.90 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 947.50 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.613E+08	99.65
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	7.025E+05	0.07
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.620E+08	99.72
Total Input	9.647E+08	
Input - Output	2.687E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

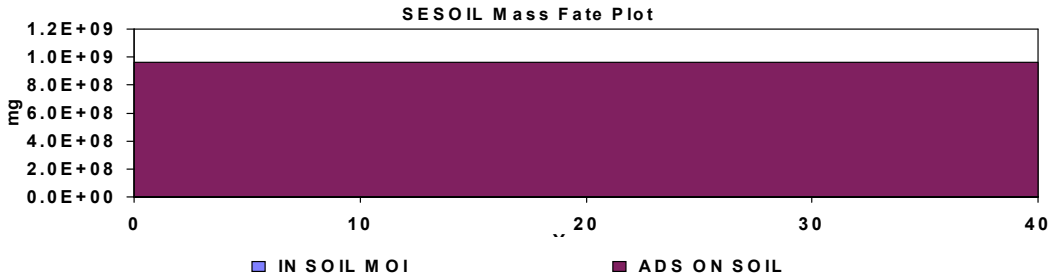
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

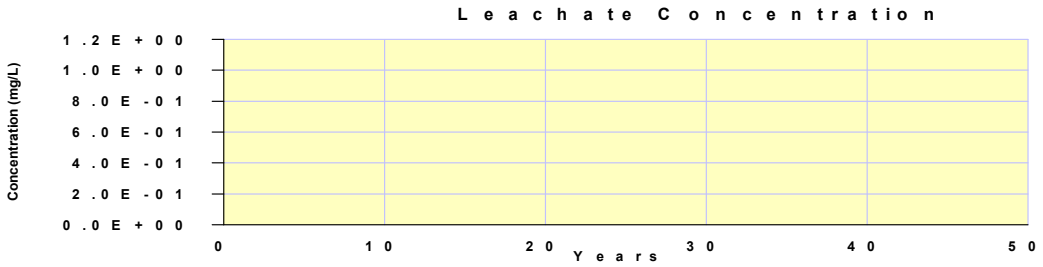
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

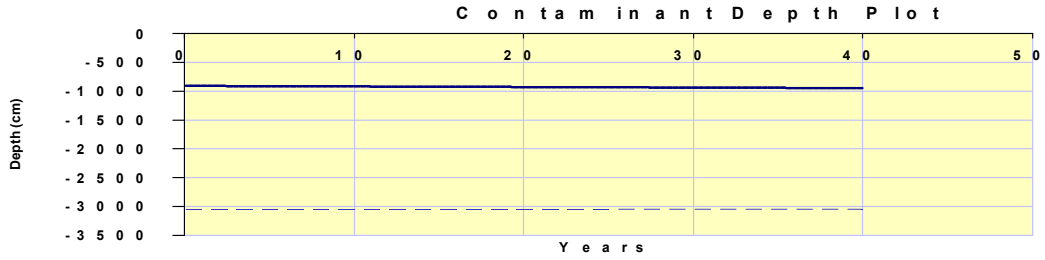
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2222.13 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 946.70 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.611E+08	99.63
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	8.511E+05	0.09
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.620E+08	99.72
Total Input	9.647E+08	
Input - Output	2.698E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

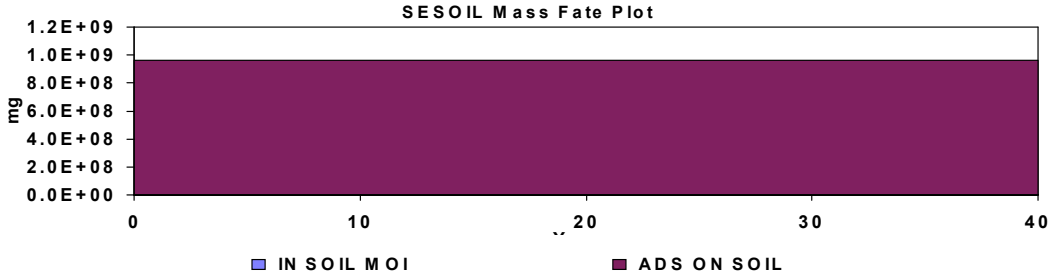
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

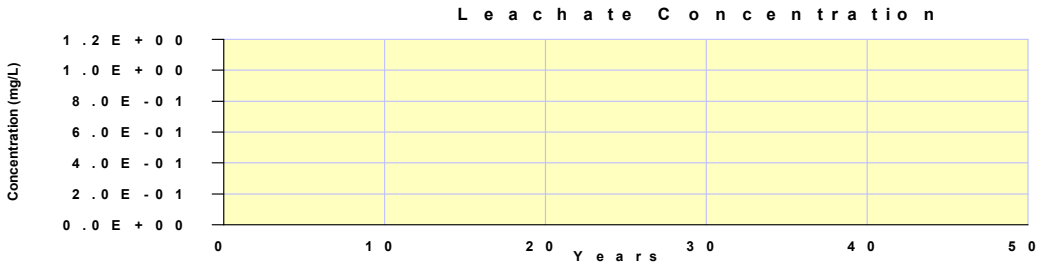
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

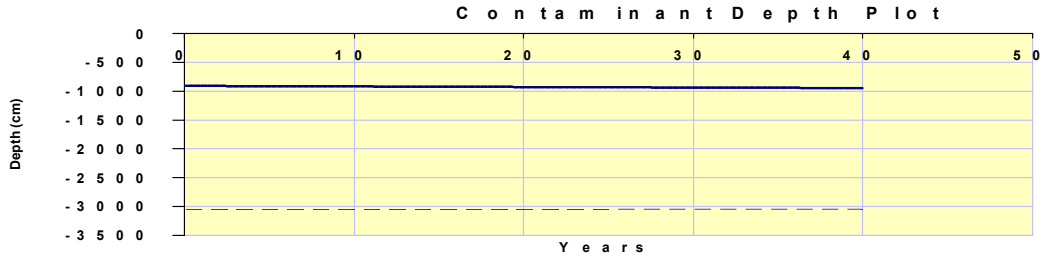
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2251.37 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 946.20 **cm**
Total Depth: 3047.00 **cm**







Soil Disconnectivity Index

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.615E+08	99.67
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	4.969E+05	0.05
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.620E+08	99.73
Total Input	9.647E+08	
Input - Output	2.643E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)

c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street

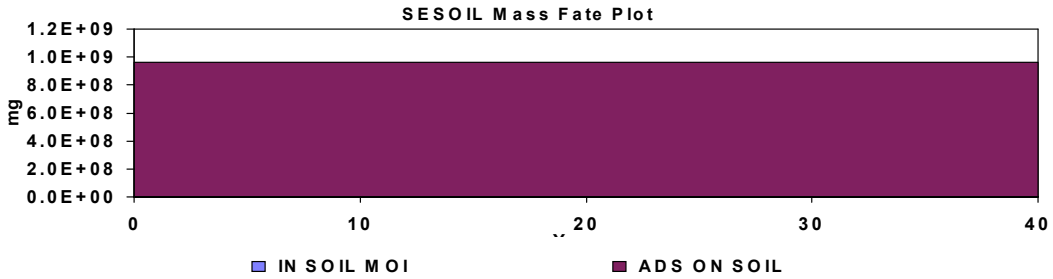
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

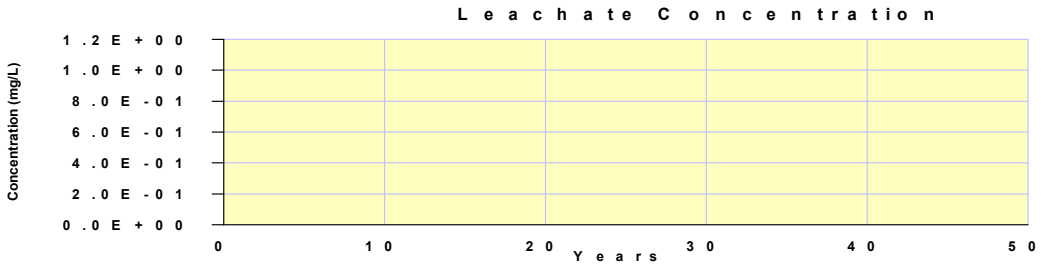
Time to Groundwater: 2176.90 **years**

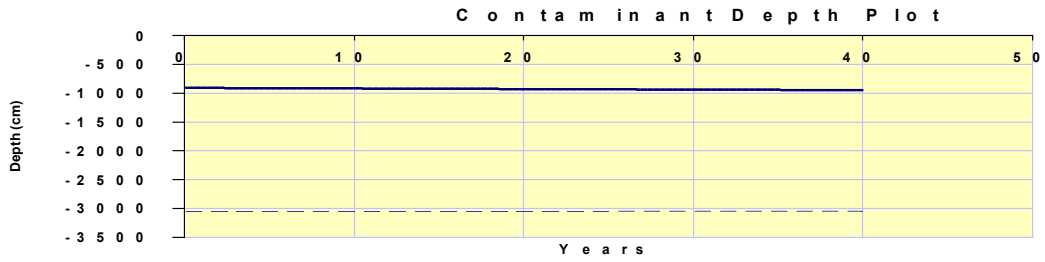
Starting Depth: 908.20 **cm**

Ending Depth: 947.50 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.607E+08	99.59
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.242E+06	0.13
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.620E+08	99.72
Total Input	9.647E+08	
Input - Output	2.687E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)

c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street

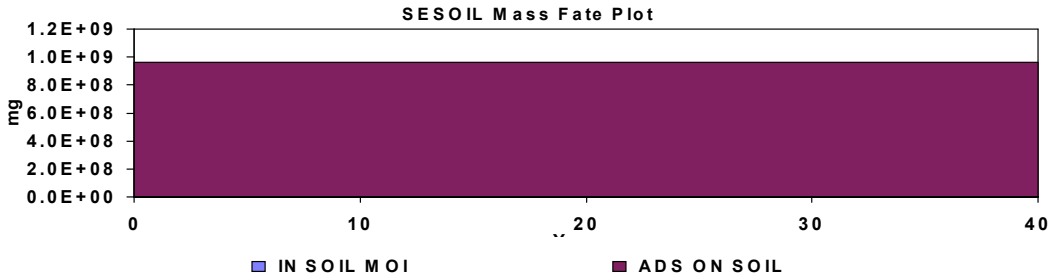
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

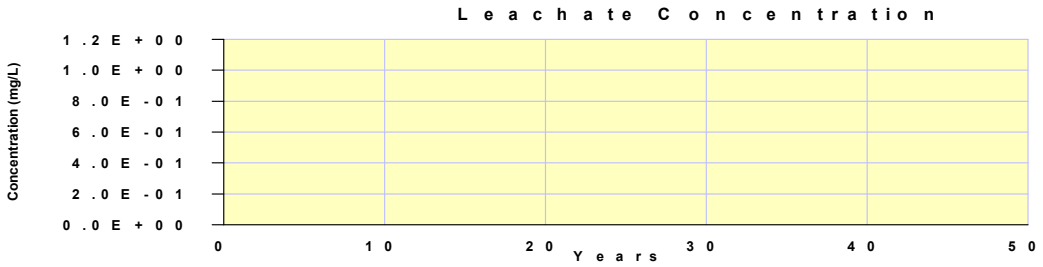
Time to Groundwater: 2403.15 **years**

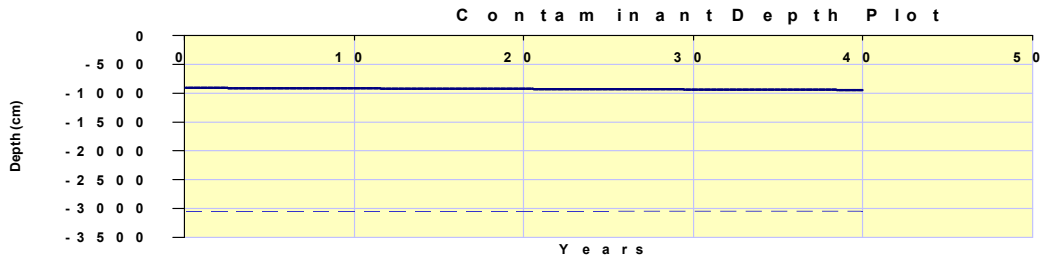
Starting Depth: 908.20 **cm**

Ending Depth: 943.80 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.598E+08	99.49
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.087E+06	0.22
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.619E+08	99.71
Total Input	9.647E+08	
Input - Output	2.792E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

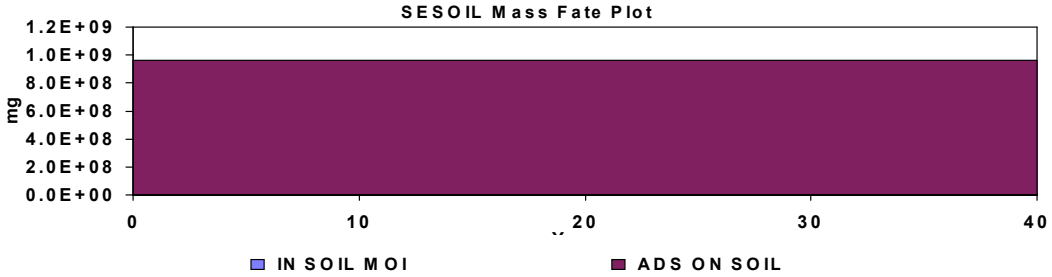
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

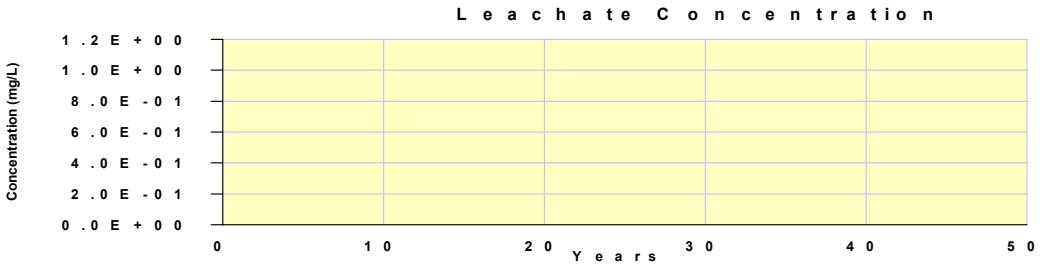
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

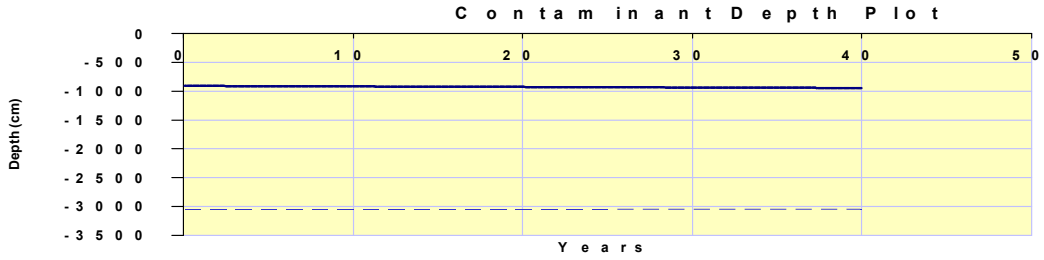
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2312.22 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 945.20 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.592E+08	99.43
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.725E+06	0.28
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.619E+08	99.71
Total Input	9.647E+08	
Input - Output	2.754E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

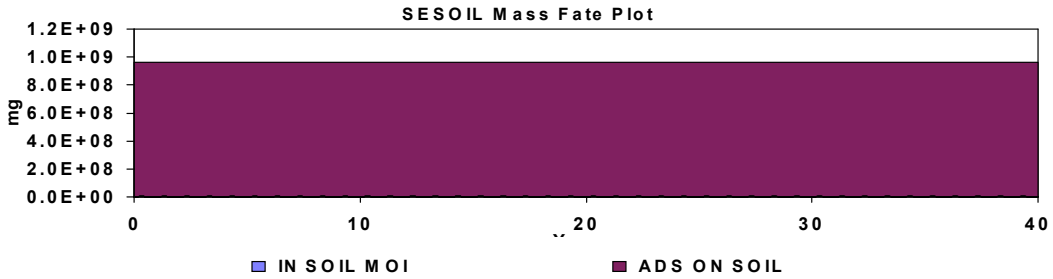
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

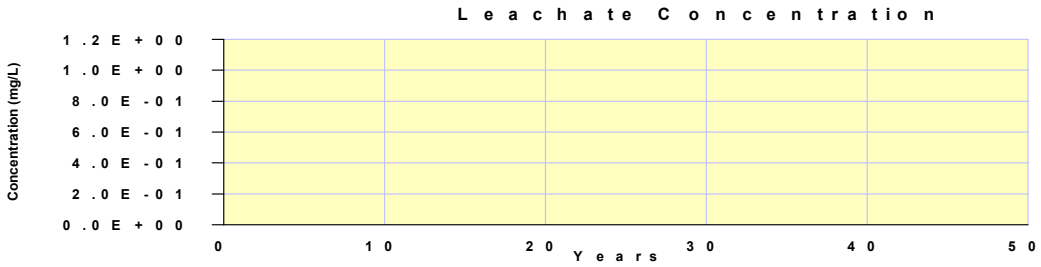
Chemical File: Chromium VI (particulates) (Kd)
c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

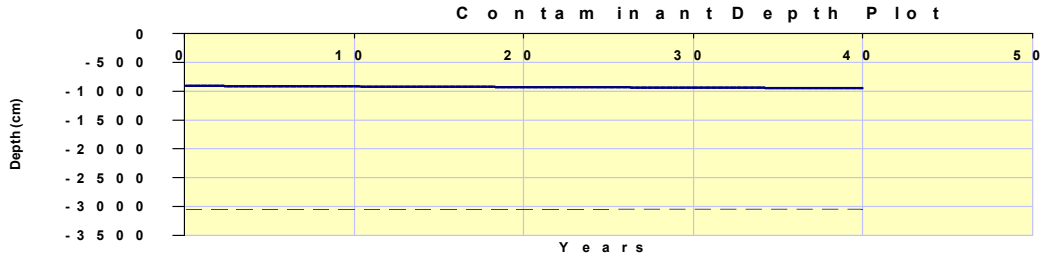
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 2122.88 **years**
Starting Depth: 908.20 **cm**
Ending Depth: 948.50 **cm**
Total Depth: 3047.00 **cm**







Organic Carbon Content

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.615E+08	99.67
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.512E+05	0.06
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.621E+08	99.73
Total Input	9.647E+08	
Input - Output	2.598E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)

c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street

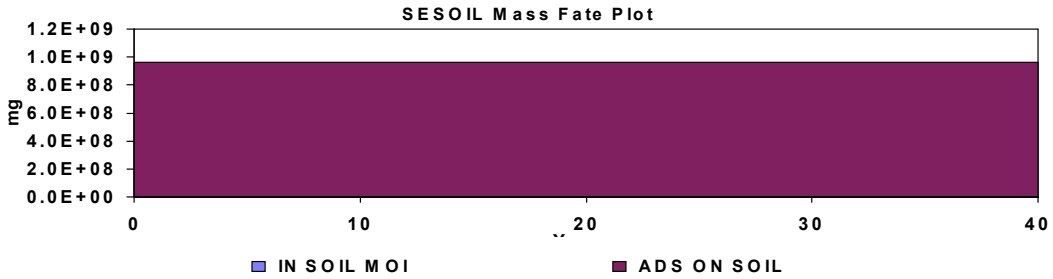
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

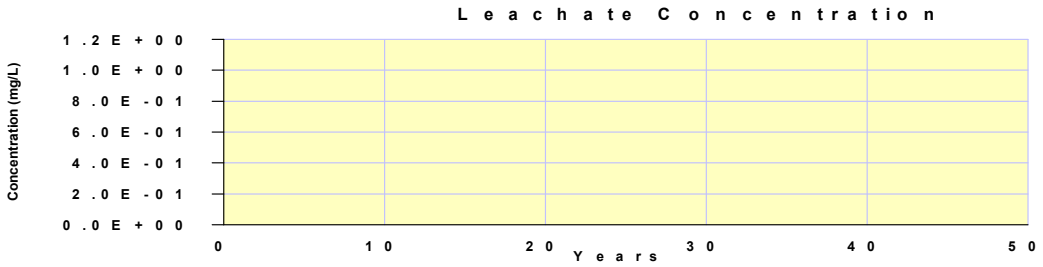
Time to Groundwater: 2222.13 **years**

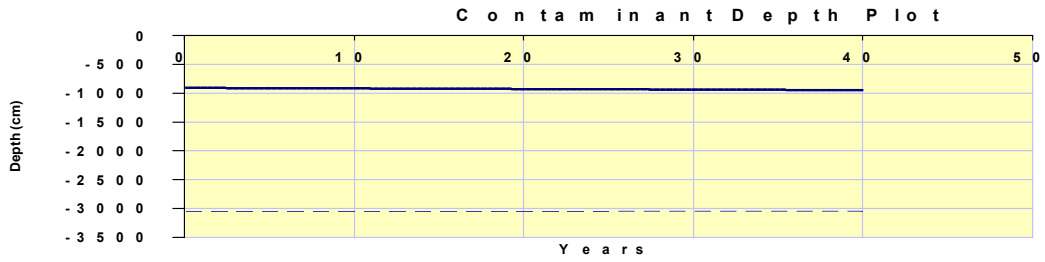
Starting Depth: 908.20 **cm**

Ending Depth: 946.70 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.615E+08	99.67
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.512E+05	0.06
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.621E+08	99.73
Total Input	9.647E+08	
Input - Output	2.598E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)

c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street

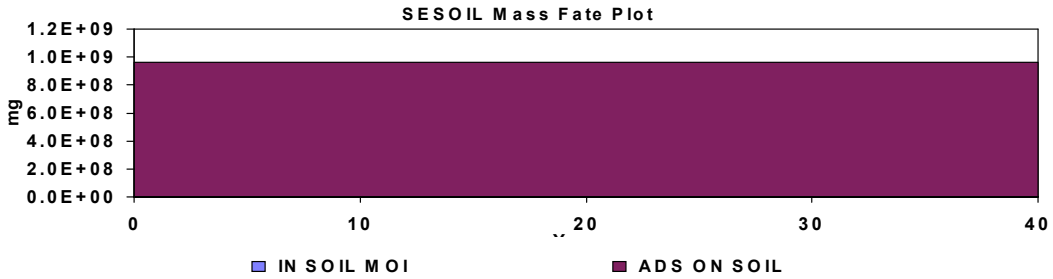
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

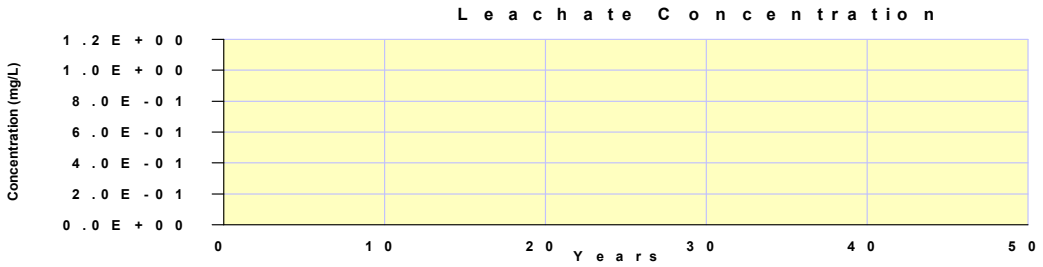
Time to Groundwater: 2222.13 **years**

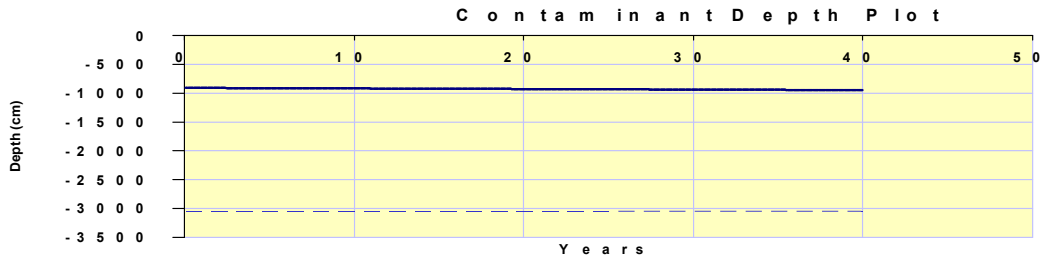
Starting Depth: 908.20 **cm**

Ending Depth: 946.70 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.615E+08	99.67
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.512E+05	0.06
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.621E+08	99.73
Total Input	9.647E+08	
Input - Output	2.598E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)

c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street

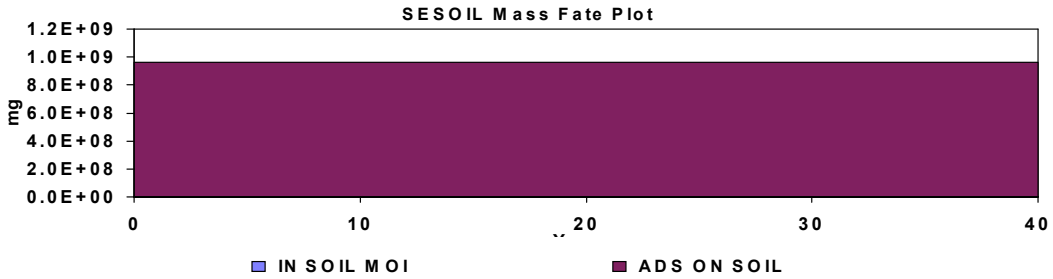
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

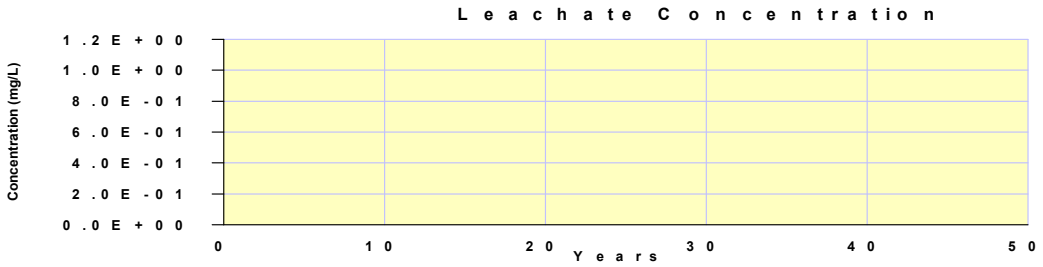
Time to Groundwater: 2222.13 **years**

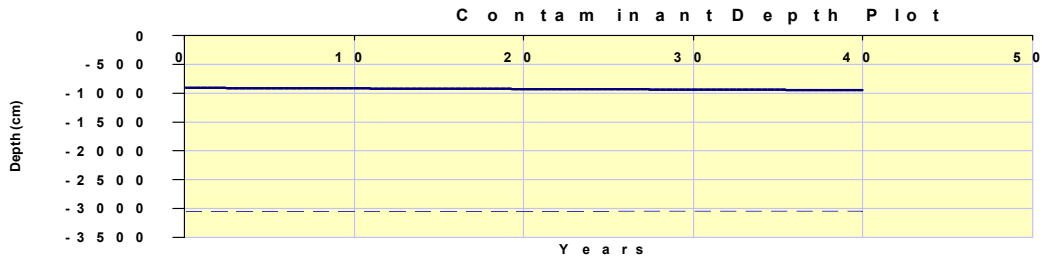
Starting Depth: 908.20 **cm**

Ending Depth: 946.70 **cm**

Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.615E+08	99.67
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	5.512E+05	0.06
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	9.621E+08	99.73
Total Input	9.647E+08	
Input - Output	2.598E+06	

Maximum leachate concentration: 0.000E+00 **mg/l**

Climate File: LOS ANGELES, CIVIC CENTER

C:\SEV7 WIN7\CALC_EP_100PRECIP.CLM

Chemical File: Chromium VI (particulates) (Kd)

c:\sev7 win7\CHROMIUM VI (PARTICULATES) (KD).CHM

Soil File: Depth weighted soil

C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street

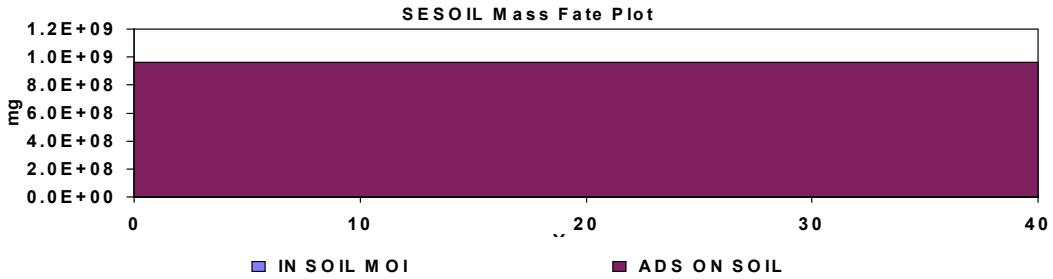
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

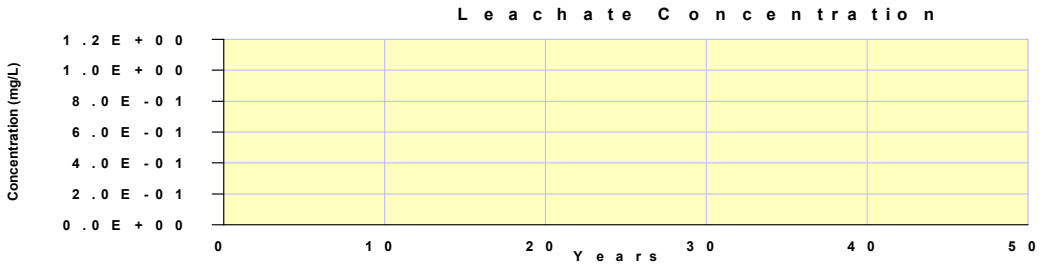
Time to Groundwater: 2222.13 **years**

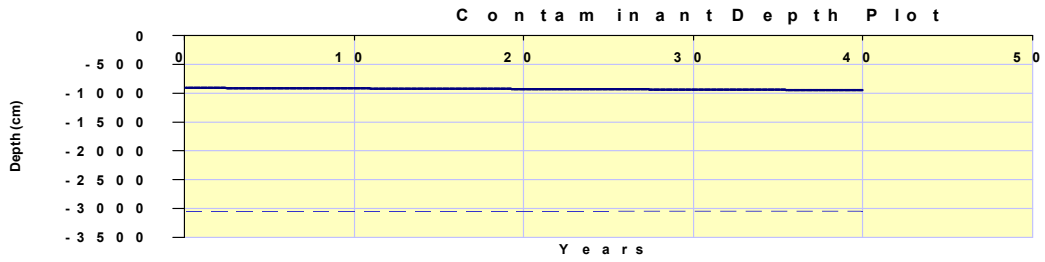
Starting Depth: 908.20 **cm**

Ending Depth: 946.70 **cm**

Total Depth: 3047.00 **cm**







Sensitivity Analysis
Scenario 1
Conservative
Parameter Values

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.918E+06	100.00
In Soil Air	1.941E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.299E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.654E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	3.918E+06	100.00
Total Input	3.919E+06	
Input - Output	5.663E+01	

Maximum leachate concentration: 0.000E+00 **mg/l**

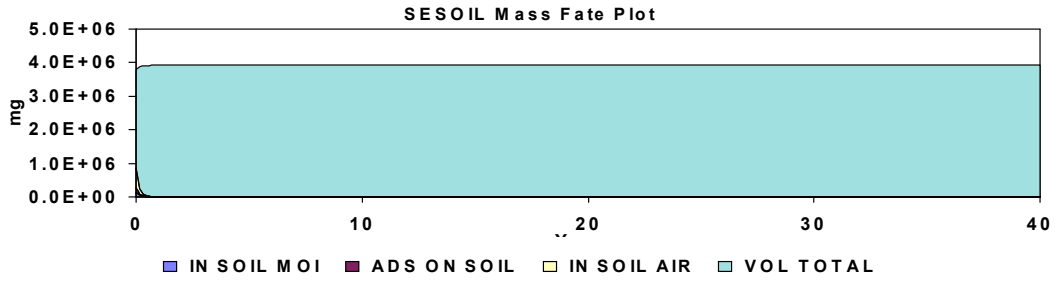
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

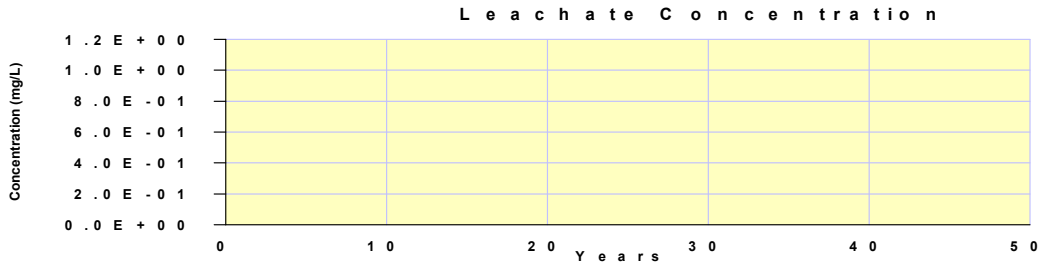
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

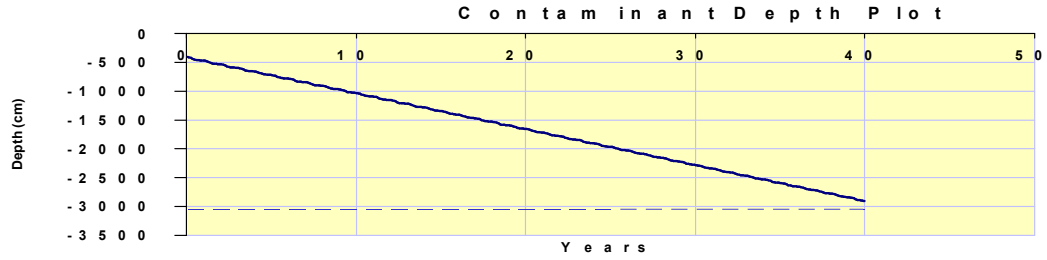
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 42.33 **years**
Starting Depth: 408.10 **cm**
Ending Depth: 2902.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.919E+06	100.00
In Soil Air	2.087E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.455E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.902E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	3.919E+06	100.00
Total Input	3.919E+06	
Input - Output	-1.208E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

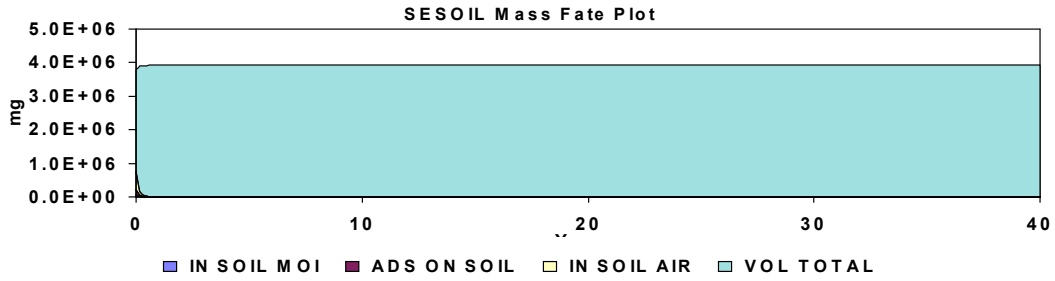
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

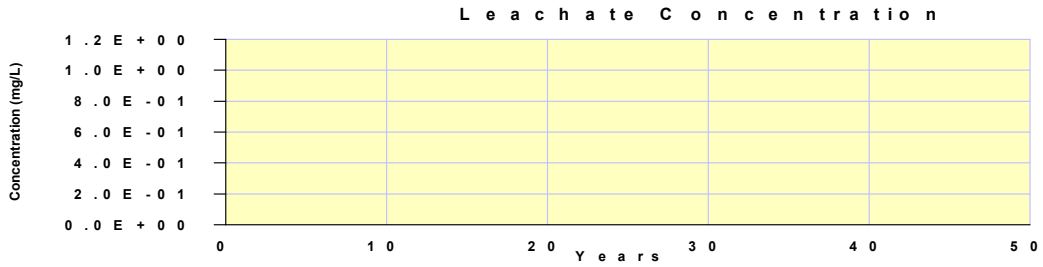
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

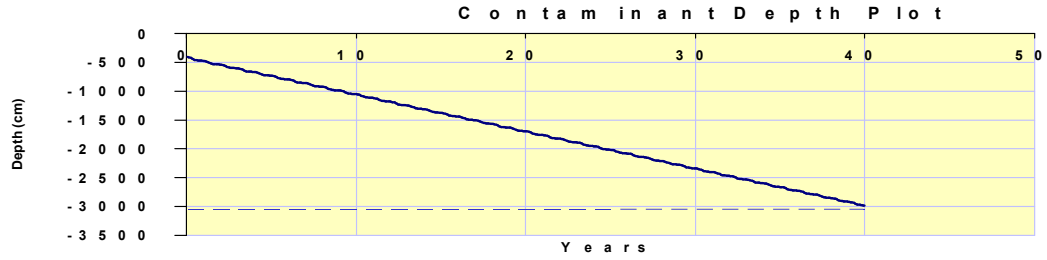
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 41.03 **years**
Starting Depth: 408.60 **cm**
Ending Depth: 2981.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.919E+06	100.01
In Soil Air	2.131E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.455E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	9.808E-05	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.101E-04	0.00
Total Output	3.919E+06	100.01
Total Input	3.919E+06	
Input - Output	-5.488E+02	

Maximum leachate concentration: 1.001E-09 **mg/l**

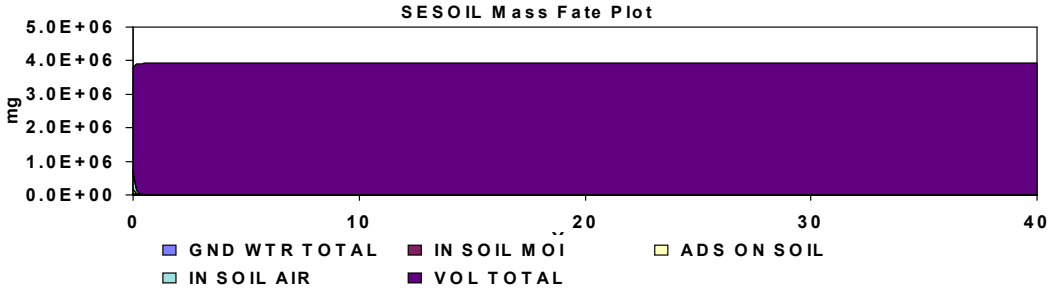
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

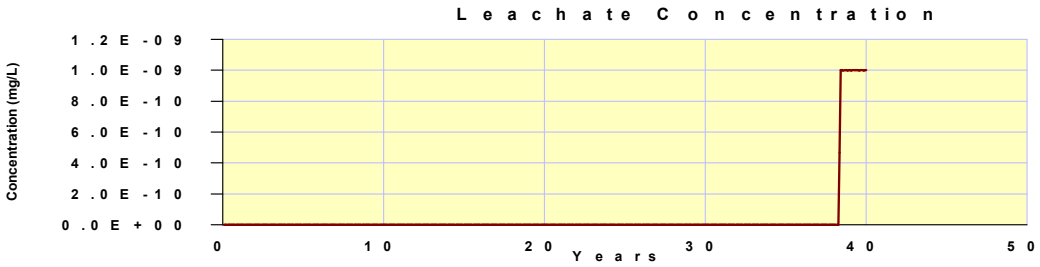
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

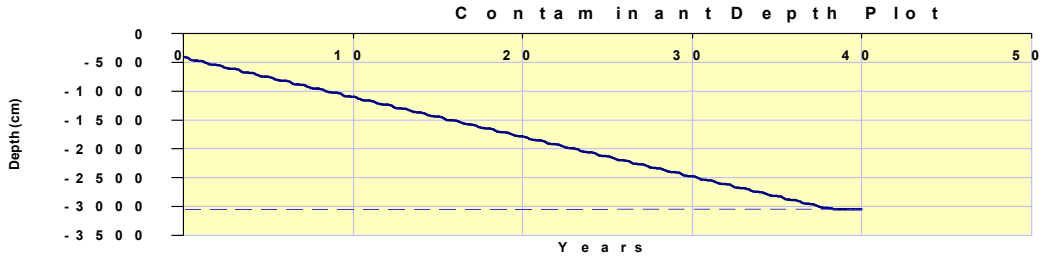
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 38.08 **years**
Starting Depth: 408.70 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.119E+06	100.00
In Soil Air	3.574E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.486E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.071E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.119E+06	100.00
Total Input	1.119E+06	
Input - Output	-3.927E+01	

Maximum leachate concentration: 0.000E+00 **mg/l**

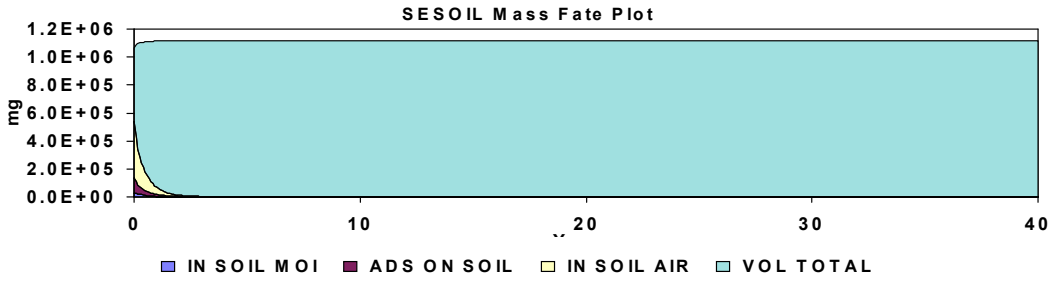
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

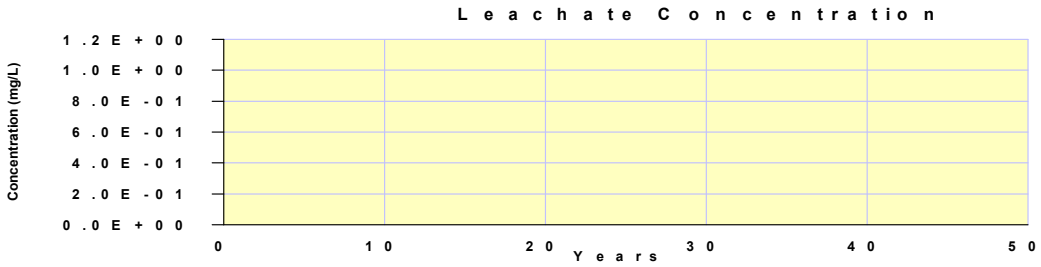
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

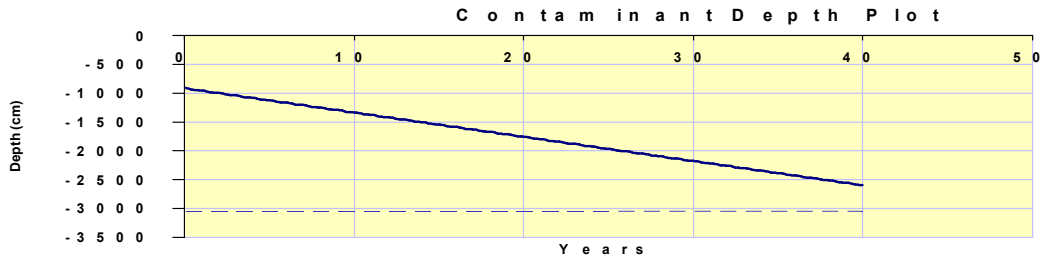
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 50.73 **years**
Starting Depth: 909.70 **cm**
Ending Depth: 2595.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.692E+04	100.00
In Soil Air	1.735E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.865E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.888E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.153E-03	0.00
Total Output	1.692E+04	100.00
Total Input	1.692E+04	
Input - Output	-2.486E-01	

Maximum leachate concentration: 1.001E-09 **mg/l**

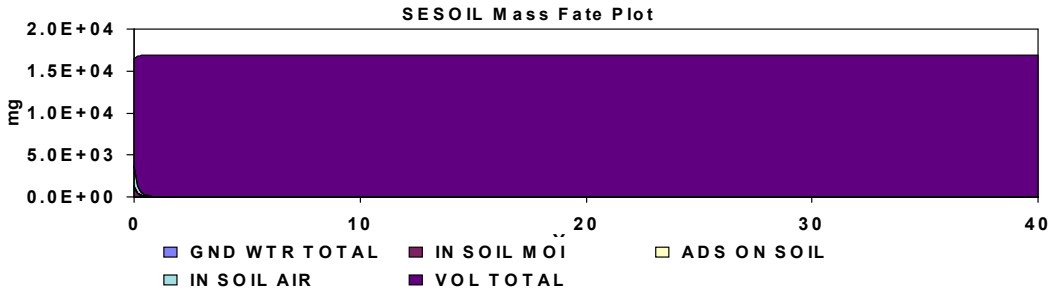
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

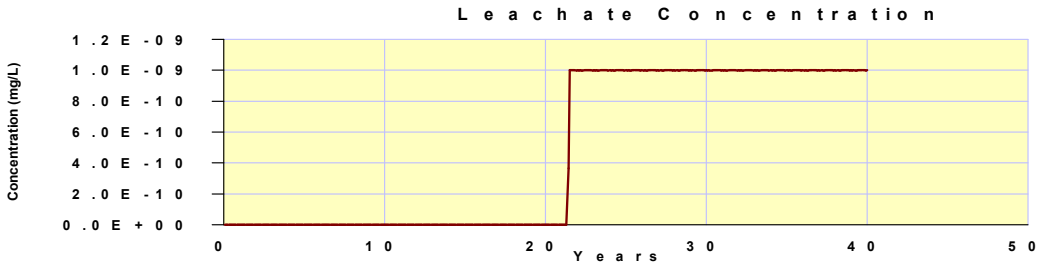
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

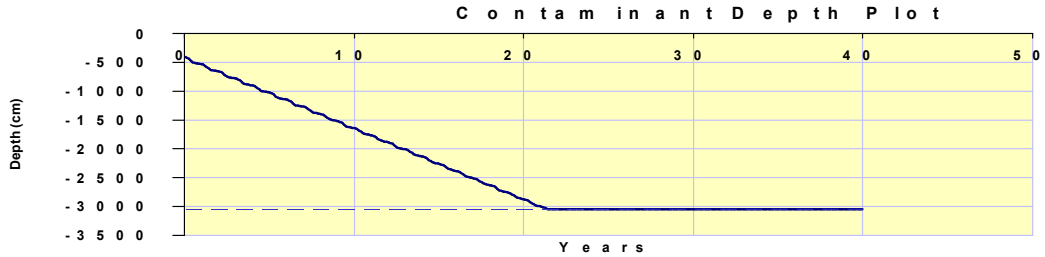
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 21.08 **years**
Starting Depth: 409.50 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.691E+04	100.00
In Soil Air	1.812E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.865E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.483E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.284E-03	0.00
Total Output	1.691E+04	100.00
Total Input	1.692E+04	
Input - Output	9.767E-02	

Maximum leachate concentration: 1.002E-09 **mg/l**

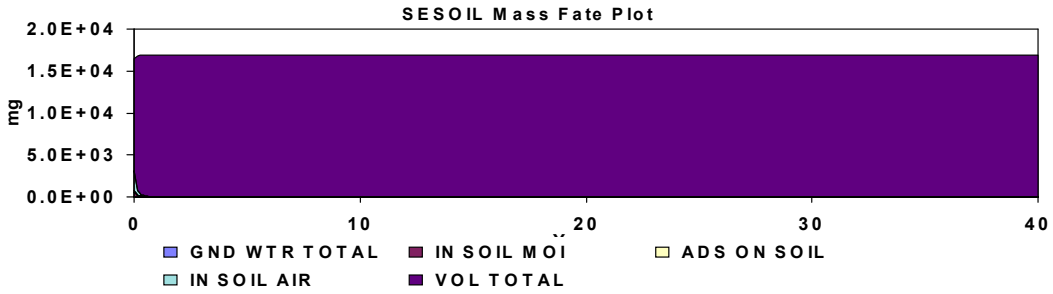
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

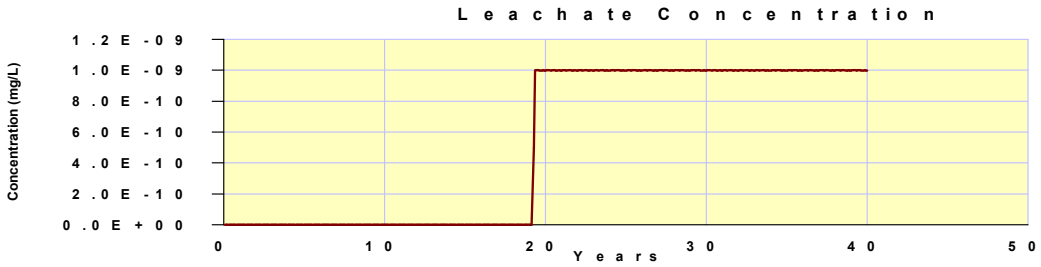
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

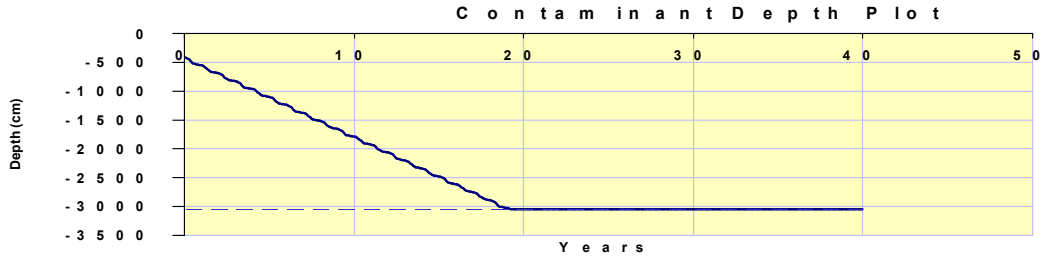
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 19.08 **years**
Starting Depth: 410.90 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.692E+04	100.04
In Soil Air	1.010E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.019E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	9.808E-05	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	1.485E-03	0.00
Total Output	1.692E+04	100.04
Total Input	1.692E+04	
Input - Output	-6.024E+00	

Maximum leachate concentration: 1.001E-09 **mg/l**

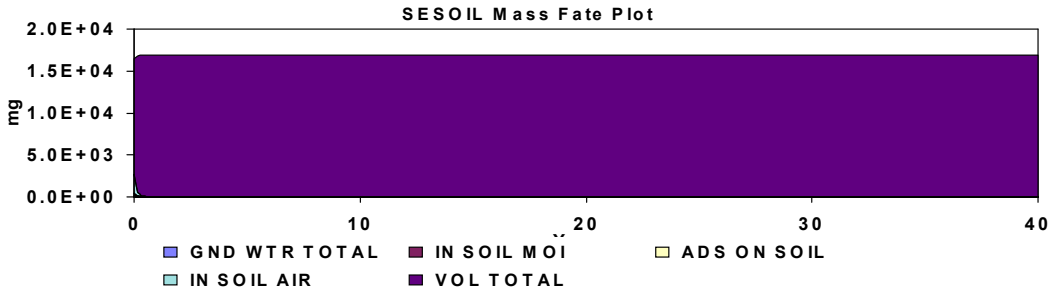
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

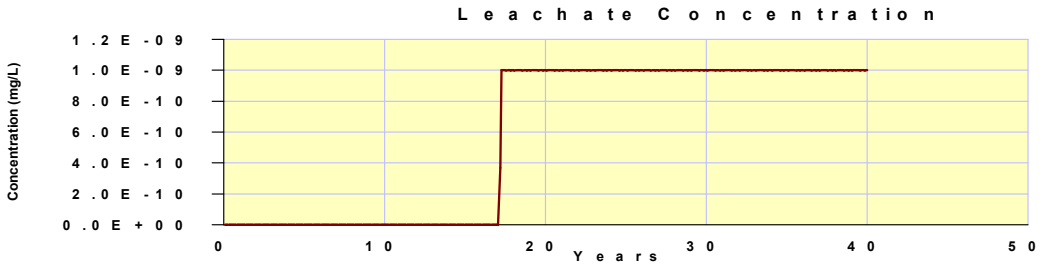
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

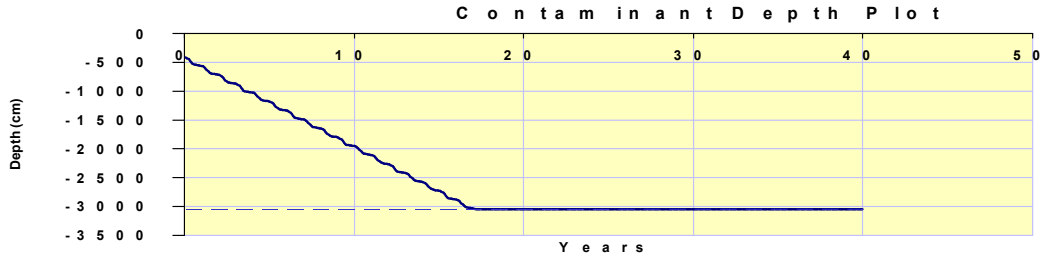
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 17.08 **years**
Starting Depth: 411.30 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.692E+04	100.02
In Soil Air	2.423E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.858E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.100E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	8.284E-04	0.00
Total Output	1.692E+04	100.02
Total Input	1.692E+04	
Input - Output	-3.194E+00	

Maximum leachate concentration: 1.000E-09 **mg/l**

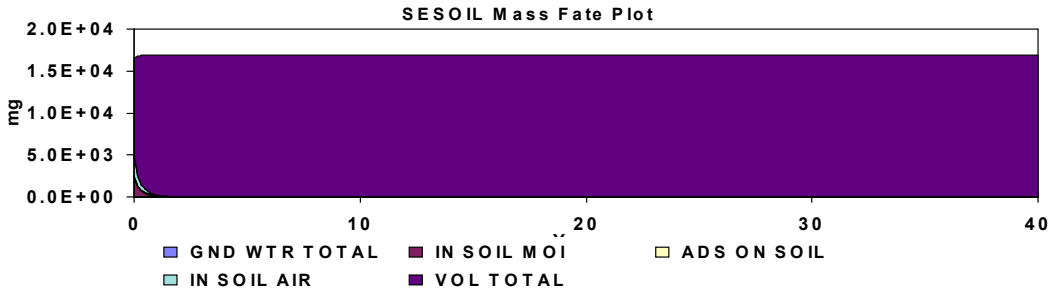
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

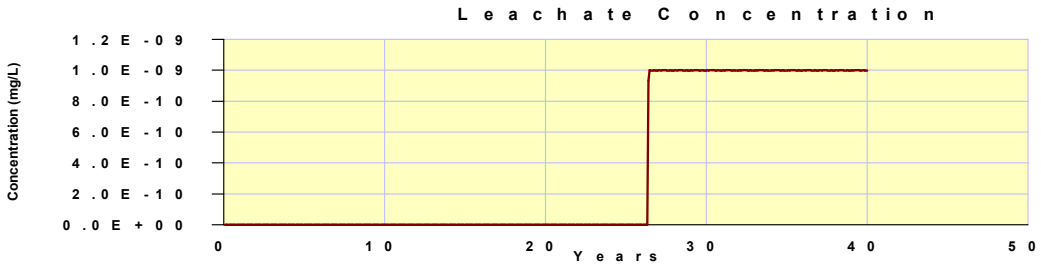
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

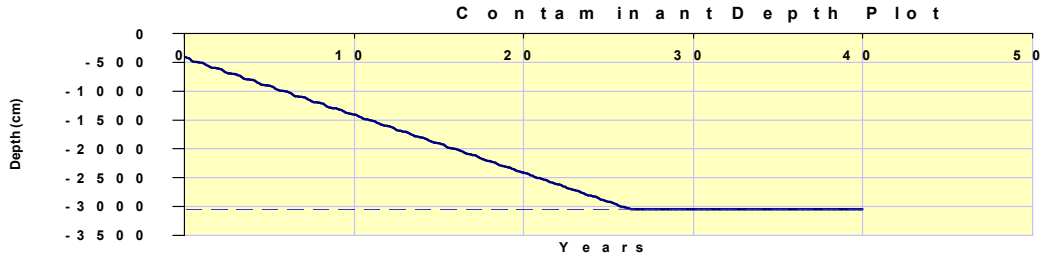
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 26.08 **years**
Starting Depth: 409.10 **cm**
Ending Depth: 3047.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.01
In Soil Air	3.498E-01	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.064E-01	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	9.144E-02	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.01
Total Input	5.058E+06	
Input - Output	-5.971E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

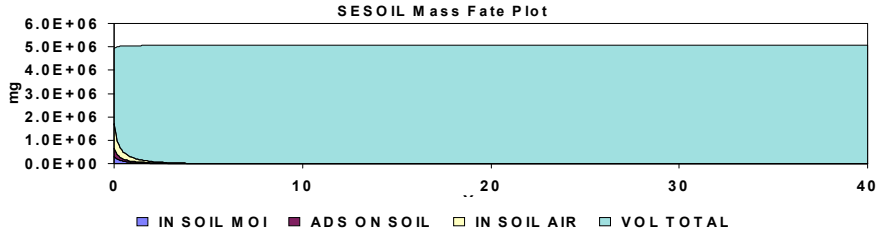
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

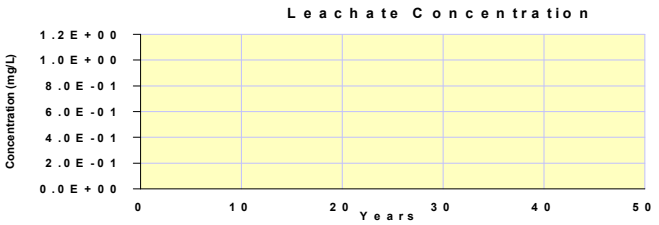
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

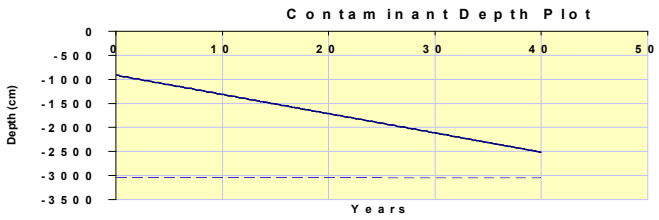
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 53.26 **years**
Starting Depth: 909.60 **cm**
Ending Depth: 2515.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.02
In Soil Air	3.734E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.910E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	2.164E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.02
Total Input	5.058E+06	
Input - Output	-8.391E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

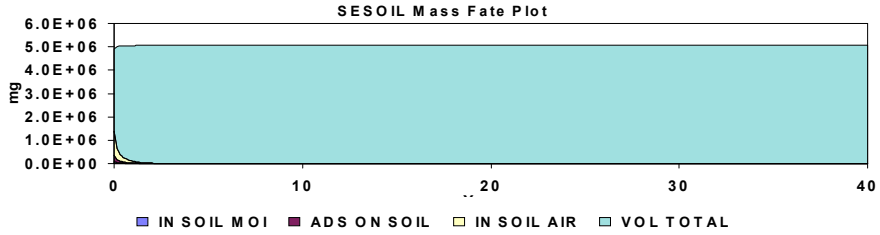
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

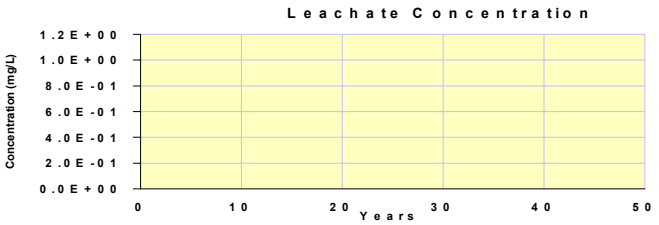
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

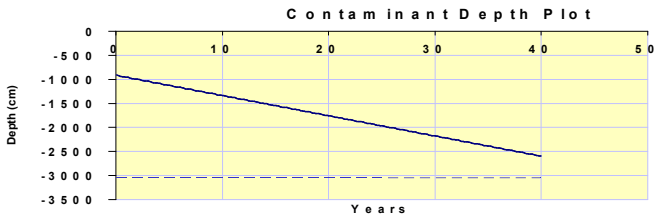
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 50.73 **years**
Starting Depth: 909.70 **cm**
Ending Depth: 2595.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.02
In Soil Air	3.441E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	8.942E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.006E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.02
Total Input	5.058E+06	
Input - Output	-7.783E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

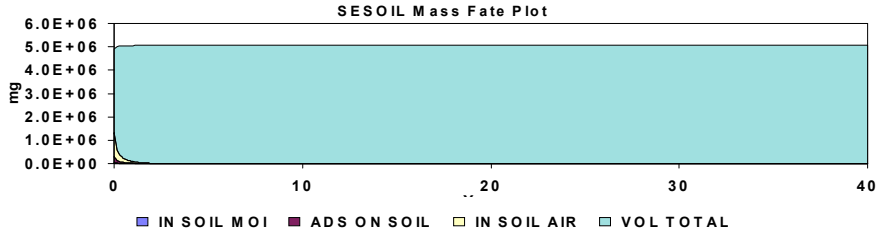
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

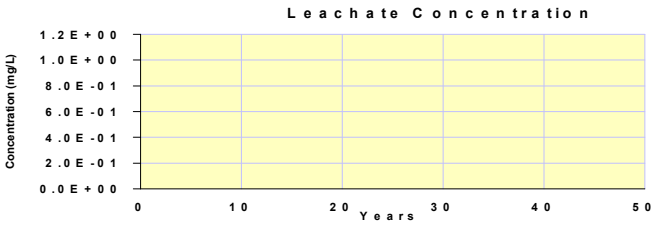
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

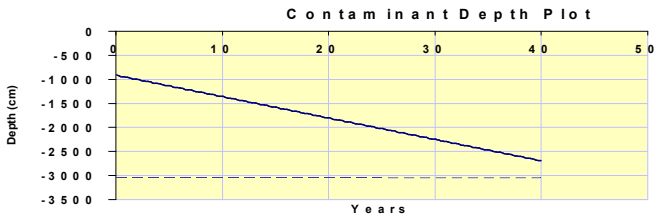
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 48.02 **years**
Starting Depth: 909.70 **cm**
Ending Depth: 2690.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.00
In Soil Air	6.531E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.809E-02	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	7.817E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.00
Total Input	5.058E+06	
Input - Output	-2.522E+01	

Maximum leachate concentration: 0.000E+00 **mg/l**

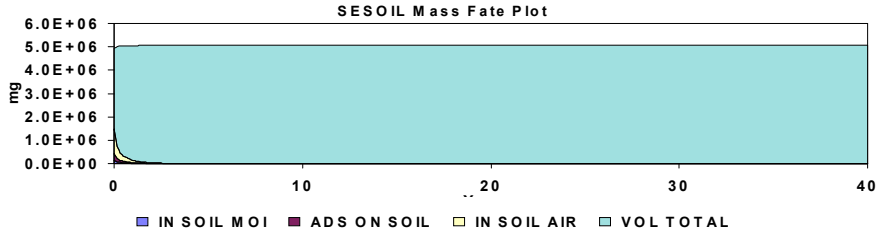
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

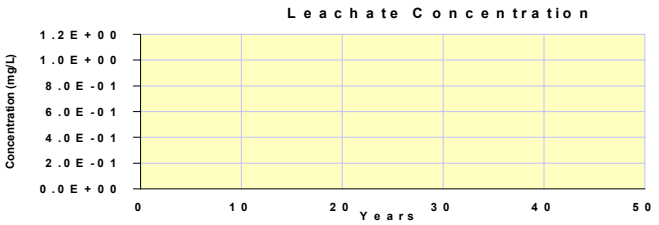
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

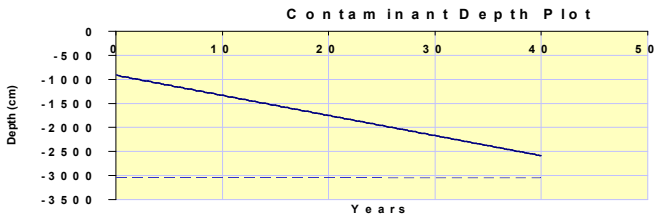
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 50.97 **years**
Starting Depth: 909.50 **cm**
Ending Depth: 2587.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.919E+06	100.00
In Soil Air	3.307E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.908E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.359E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	3.919E+06	100.00
Total Input	3.919E+06	
Input - Output	-8.216E+01	

Maximum leachate concentration: 0.000E+00 **mg/l**

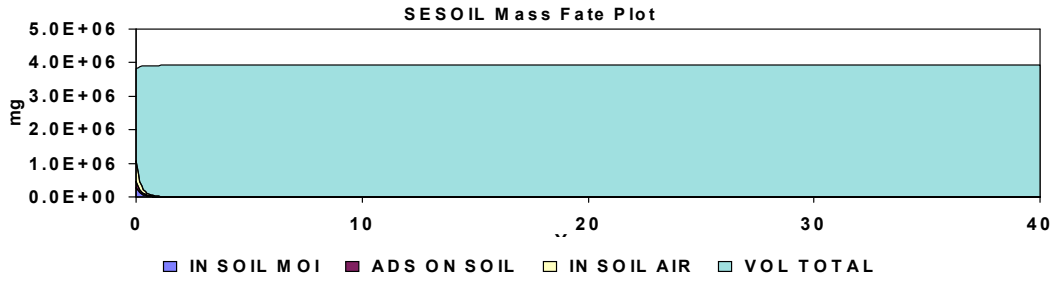
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_15PRECIP.CLM

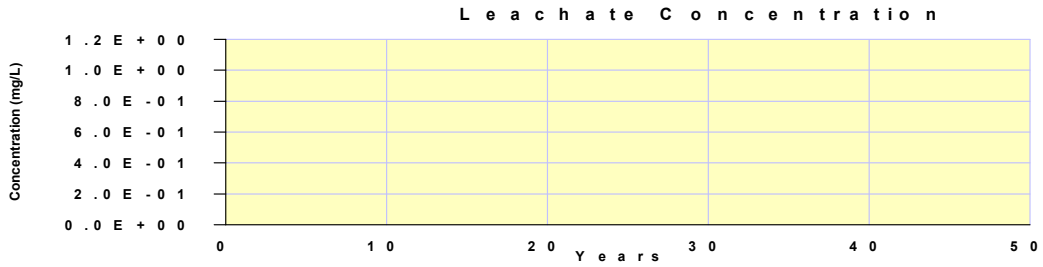
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

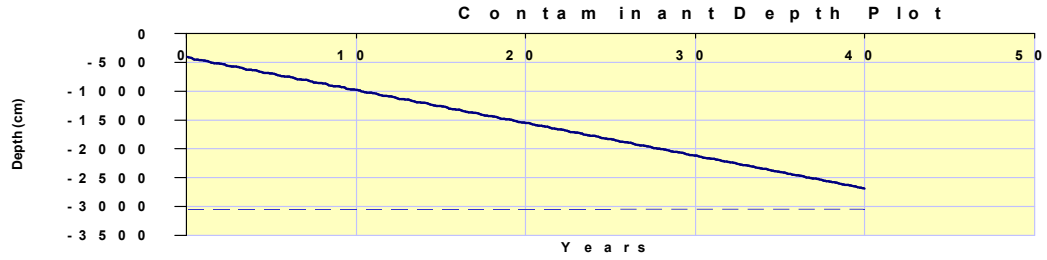
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 46.36 **years**
Starting Depth: 408.00 **cm**
Ending Depth: 2685.00 **cm**
Total Depth: 3047.00 **cm**







Sensitivity Analysis
Scenario 2
Conservative
Parameter Values

SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.919E+06	100.01
In Soil Air	1.035E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.798E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.718E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	3.919E+06	100.01
Total Input	3.919E+06	
Input - Output	-3.070E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

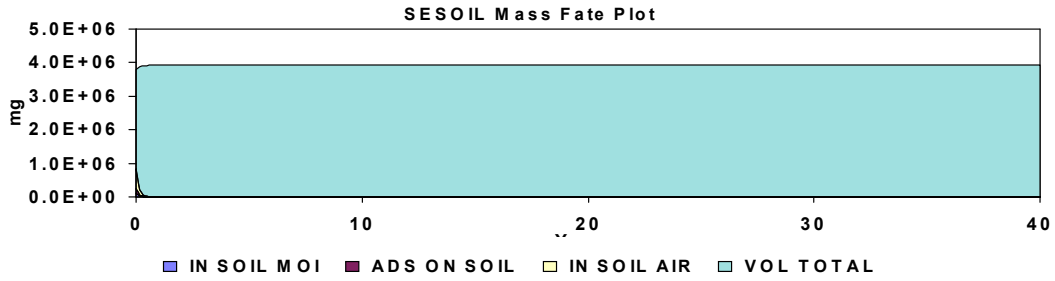
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

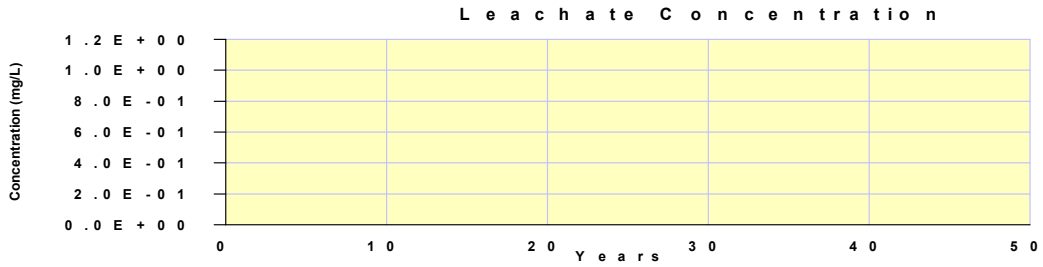
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

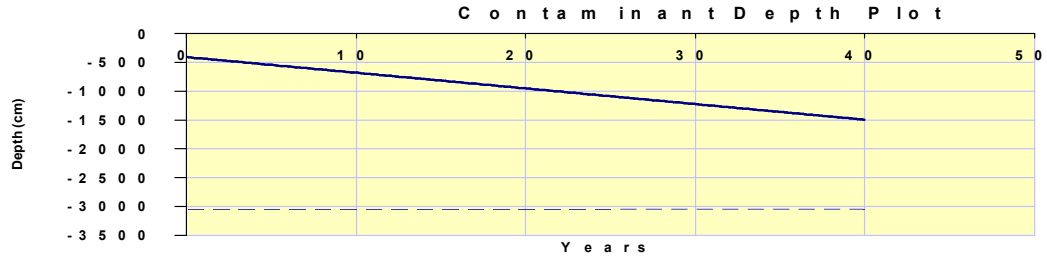
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 97.20 **years**
Starting Depth: 407.90 **cm**
Ending Depth: 1494.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.919E+06	100.00
In Soil Air	1.075E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.798E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	8.821E-05	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	3.919E+06	100.00
Total Input	3.919E+06	
Input - Output	-1.815E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

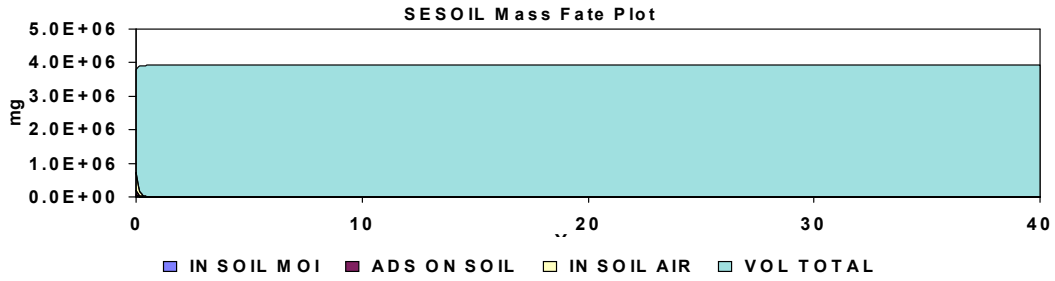
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

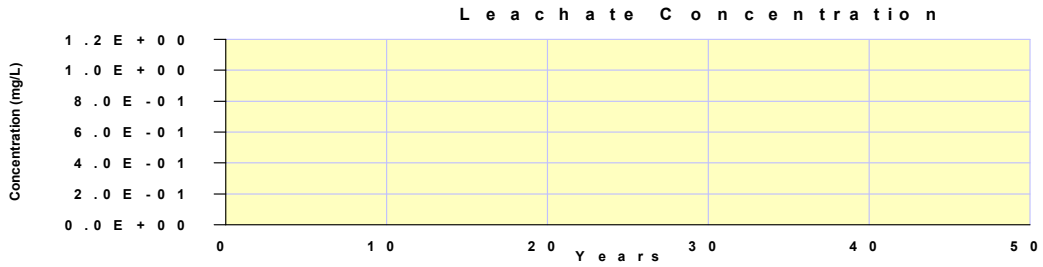
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

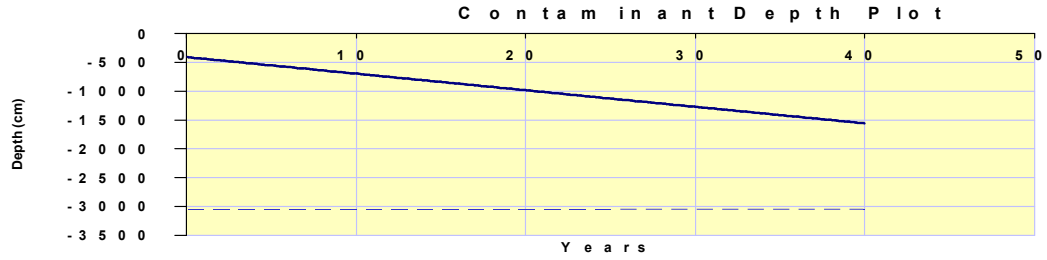
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 91.95 **years**
Starting Depth: 407.90 **cm**
Ending Depth: 1556.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.691E+04	99.99
In Soil Air	1.108E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.179E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.877E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.691E+04	99.99
Total Input	1.692E+04	
Input - Output	1.467E+00	

Maximum leachate concentration: 0.000E+00 **mg/l**

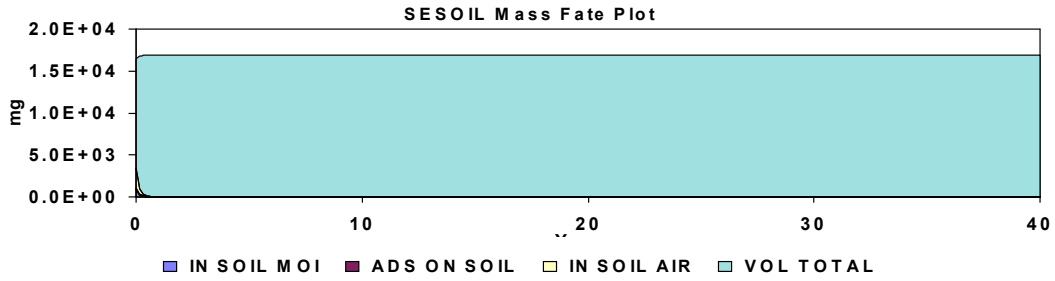
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

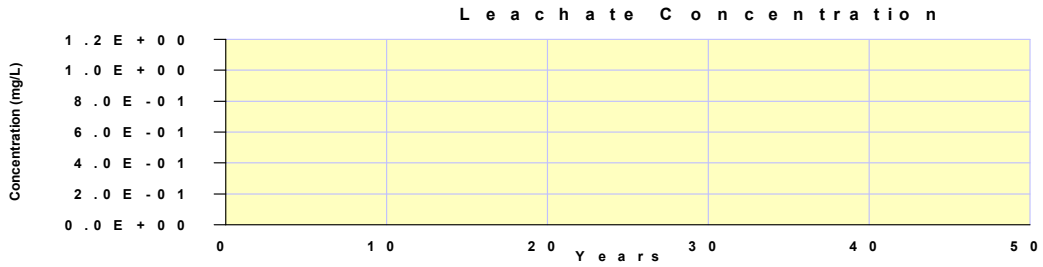
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

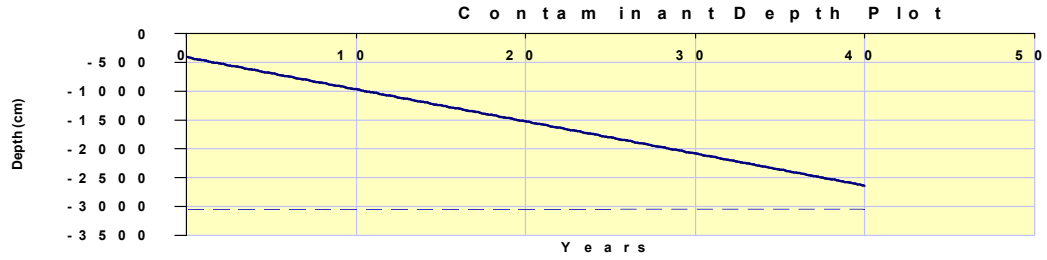
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 47.36 **years**
Starting Depth: 409.20 **cm**
Ending Depth: 2637.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.692E+04	100.02
In Soil Air	9.659E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	9.899E-05	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.670E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.692E+04	100.02
Total Input	1.692E+04	
Input - Output	-4.095E+00	

Maximum leachate concentration: 0.000E+00 **mg/l**

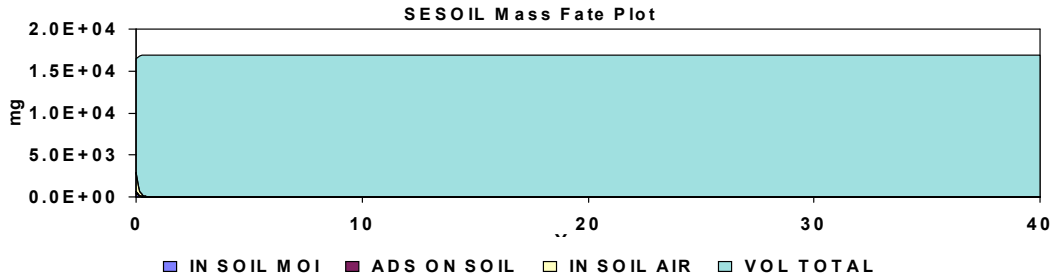
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

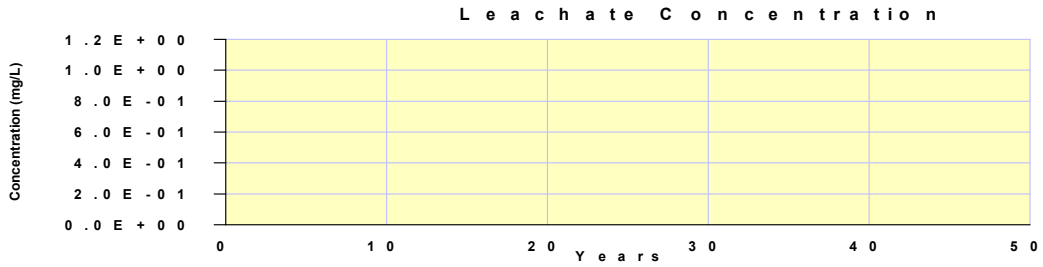
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

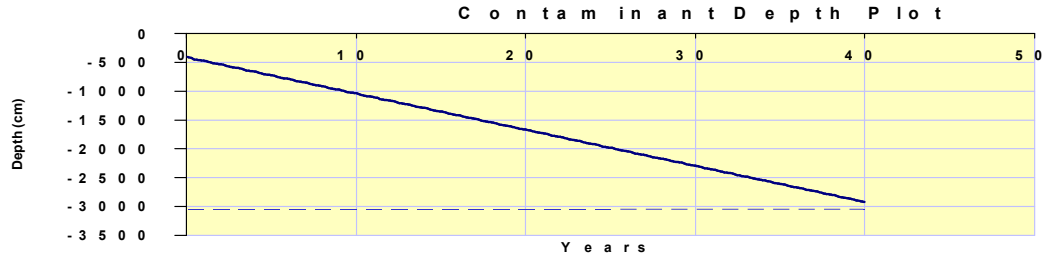
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 42.04 **years**
Starting Depth: 409.40 **cm**
Ending Depth: 2919.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	1.691E+04	100.00
In Soil Air	1.141E-03	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	1.311E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	8.279E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	1.691E+04	100.00
Total Input	1.692E+04	
Input - Output	5.721E-02	

Maximum leachate concentration: 0.000E+00 **mg/l**

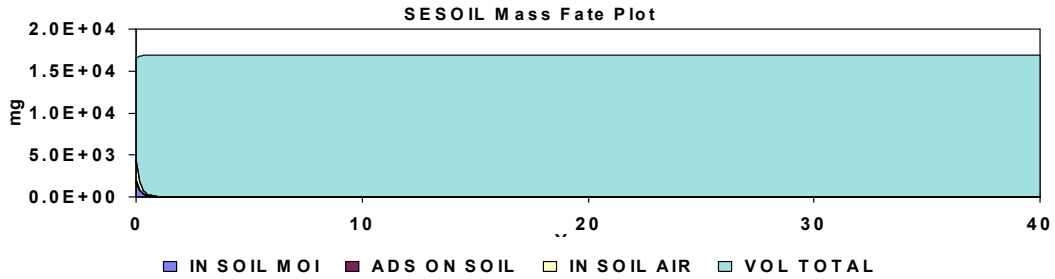
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

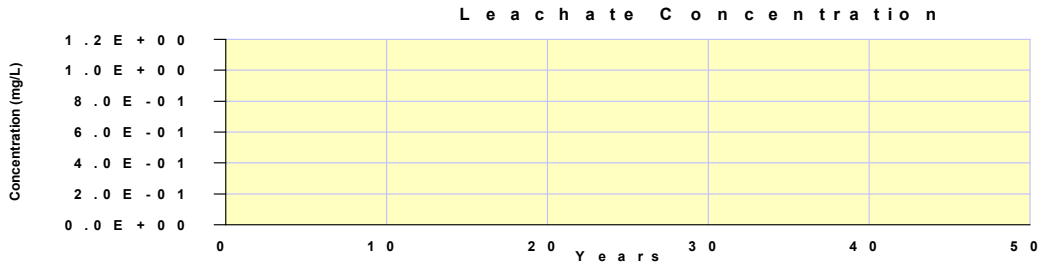
Chemical File: Benzene
c:\sev7 win7\BENZENE.CHM

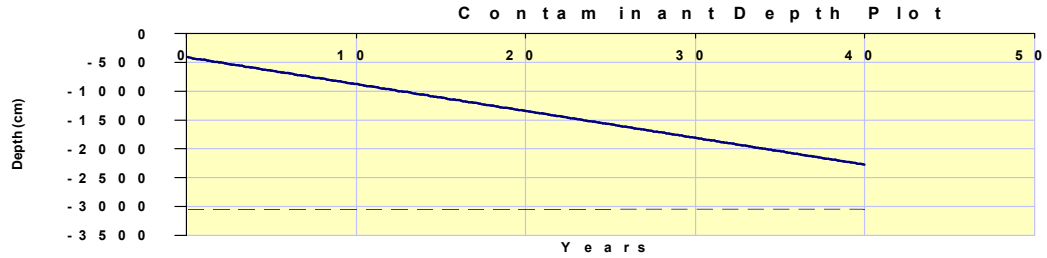
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 56.58 **years**
Starting Depth: 409.00 **cm**
Ending Depth: 2274.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	3.918E+06	100.00
In Soil Air	9.062E-04	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.642E-04	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	3.116E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	3.918E+06	100.00
Total Input	3.919E+06	
Input - Output	2.163E+01	

Maximum leachate concentration: 0.000E+00 **mg/l**

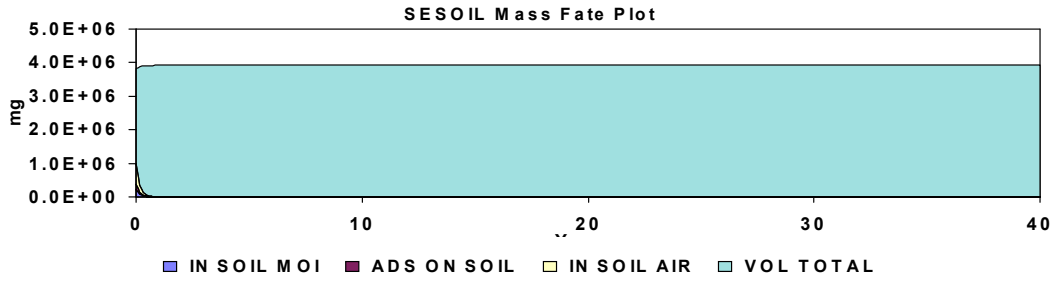
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

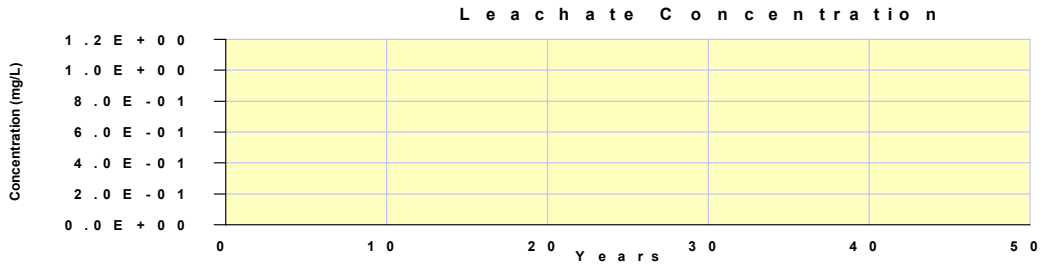
Chemical File: Trichloroethylene (TCE)
c:\sev7 win7\TRICHLOROETHYLENE (TCE).CHM

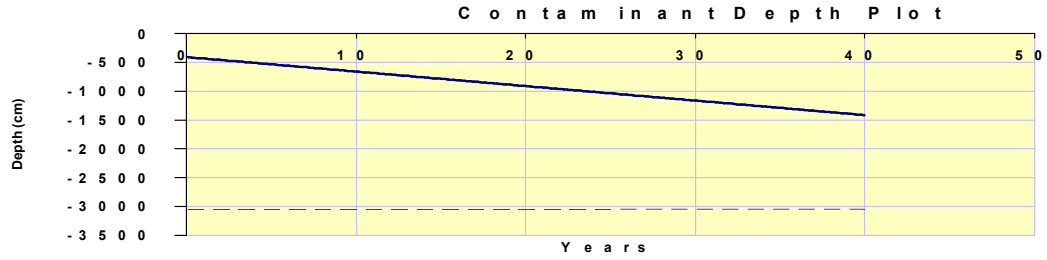
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 104.82 **years**
Starting Depth: 407.90 **cm**
Ending Depth: 1415.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.00
In Soil Air	2.923E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	8.654E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	6.393E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.00
Total Input	5.058E+06	
Input - Output	-8.876E+01	

Maximum leachate concentration: 0.000E+00 **mg/l**

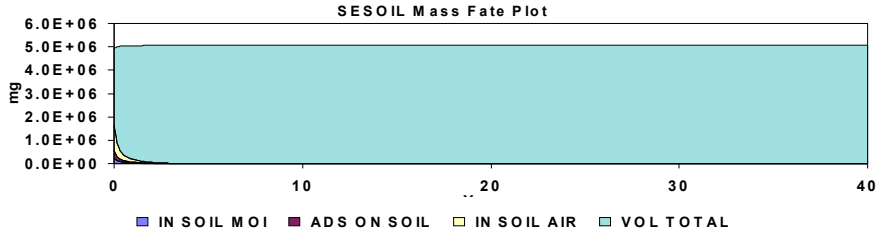
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

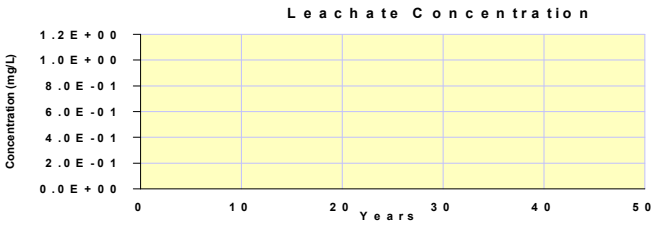
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

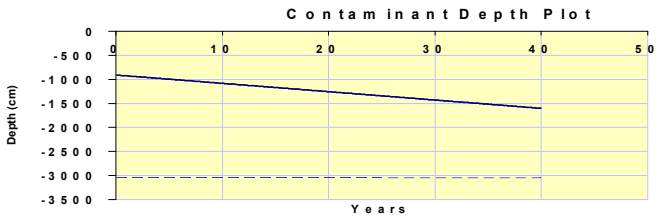
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 123.42 **years**
Starting Depth: 909.10 **cm**
Ending Depth: 1602.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.00
In Soil Air	1.900E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.023E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	9.917E-04	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.00
Total Input	5.058E+06	
Input - Output	-1.511E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

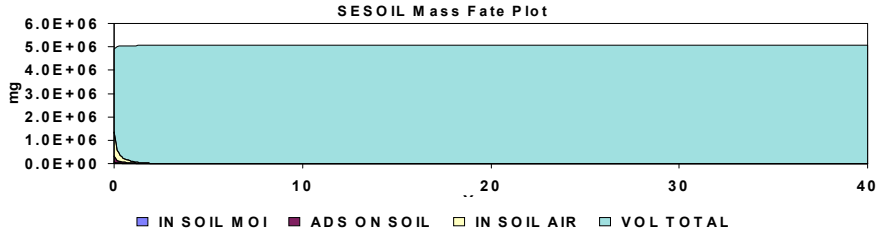
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

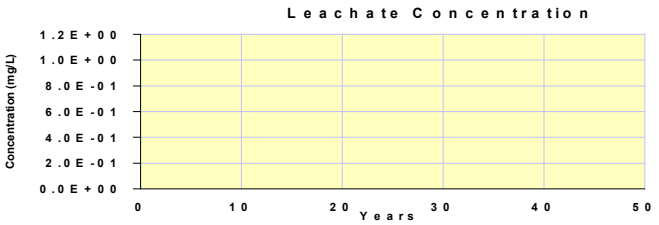
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

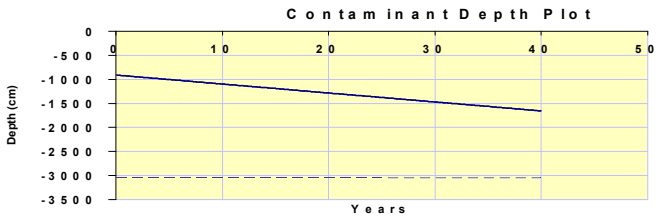
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 114.65 **years**
Starting Depth: 909.10 **cm**
Ending Depth: 1655.00 **cm**
Total Depth: 3047.00 **cm**







SESOIL Pollutant Cycle Report

Scenario Description: 777NFront

SESOIL Output File: c:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	5.058E+06	100.00
In Soil Air	1.866E-02	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	5.120E-03	0.00
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	1.969E-03	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
Total Output	5.058E+06	100.00
Total Input	5.058E+06	
Input - Output	-2.346E+02	

Maximum leachate concentration: 0.000E+00 **mg/l**

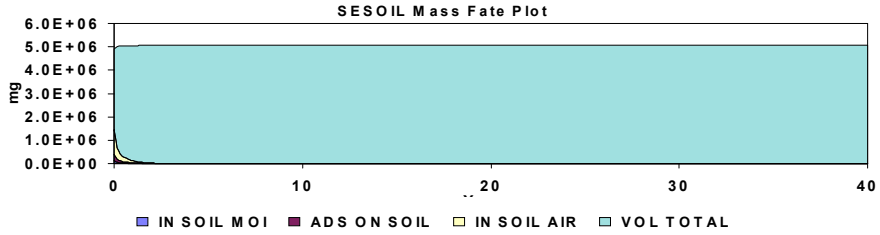
Climate File: LOS ANGELES, CIVIC CENTER
C:\SEV7 WIN7\SET_ET_05PRECIP.CLM

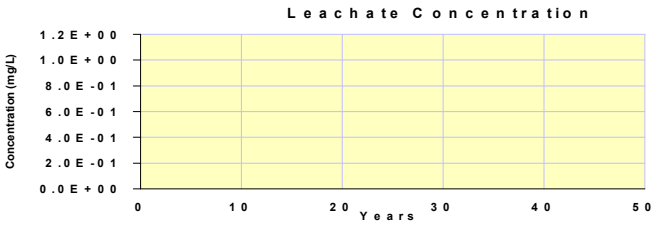
Chemical File: PCE (Tetrachloroethene) OEPA 2003
c:\sev7 win7\PCE (TETRACHLOROETHENE) OEPA 2003.CHM

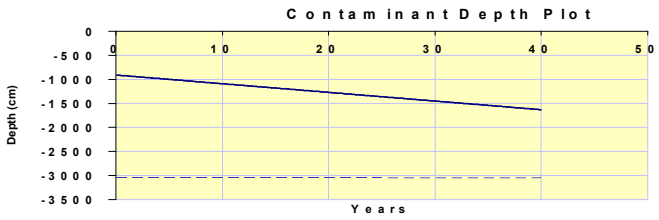
Soil File: Depth weighted soil
C:\SEV7 WIN7\DEPTH_AVG_SOIL_SA.SOI

Application File: 777 N Front Street
C:\SEV7 WIN7\777NFRONT_FINALSETUP_SA.APL

Time to Groundwater: 118.62 **years**
Starting Depth: 909.10 **cm**
Ending Depth: 1630.00 **cm**
Total Depth: 3047.00 **cm**







Prepared for

Northridge Properties, LLC
15505 Roscoe Boulevard
North Hills, California 91343

HUMAN HEALTH RISK ASSESSMENT

777 North Front Street
Burbank, California

Prepared by

Geosyntec consultants

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www.geosyntec.com

Project Number HR1305C

May 2017

HUMAN HEALTH RISK ASSESSMENT

777 North Front Street

Burbank, California

Prepared for

Northridge Properties, LLC

Geosyntec' s services were performed and this report has been prepared in accordance with generally accepted professional standards of care applicable to the scope of services authorized by the client, and no other warranty is provided in connection therewith.

Consistent with applicable professional standards of care, our opinions and recommendations were based in large part on data furnished by others. Although we were not able to independently verify such data, we did evaluate it to determine whether it was consistent with other information that was developed in the course of our performance of this scope of services.

Cathy Villaroman
Senior Risk Assessor

Eric D. Smalstig, P.E.
Senior Principal

May 2017

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LIST OF ACRONYMS

%	percent
µg/dL	micrograms per deciliter
µg/m^3	micrograms per cubic meter
µg/mg	micrograms per milligram
95UCL	95% Upper Confidence Level
AER	Air Exchange Rate
AF	Attenuation Factor, soil vapor to indoor air
bgs	below ground surface
Cal-EPA	California Environmental Protection Agency
COPC	Chemical of Potential Concern
CR	Cancer Risk
CrVI	Hexavalent Chromium
CSF	Cancer Slope Factor
CSM	Conceptual Site Model
CV	Coefficient of Variation
DRO	Diesel Range Organics
DTSC	Department of Toxic Substances Control
EPC	Exposure Point Concentration
ECF	Exposure Concentration Factor
ESL	Environmental Screening Level
ft	feet
ft bgs	feet below ground surface
GOF	Goodness of Fit
HSAA	California Hazardous Substances Account Act
HHRA	Human Health Risk Assessment
HI	Noncancer Hazard Index
HQ	Hazard Quotient
IF	Intake Factor
IRIS	Integrated Risk Information System
kg/m^3	kilograms per cubic meter
LARWQCB	Los Angeles Regional Water Quality Control Board
mg/kg	milligrams per kilogram
mg/kg-d	milligrams per kilogram per day

LIST OF ACRONYMS (Continued)

OEHHA	Office of Environmental Health Hazard Assessment
ORO	Oil Range Organics
PCB	Polychlorinated Biphenyls
PEF	Particulate Emission Factor
RBC	Risk-Based Concentration
REL	Reference Exposure Level
RfC	Reference Concentration
RfD	Reference Dose
RMEE	Reasonable Maximum Estimates of Exposure
RSL	Regional Screening Level
SSL	Soil Screening Levels
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
TF	Transfer Factor
THQ	Target Hazard Quotient
TPH	Total Petroleum Hydrocarbons
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
VF	Volatilization Factor
VOC	Volatile Organic Compound

1. INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec) has prepared this human health risk assessment (HHRA) for Northridge Properties, LLC to evaluate the potential risk to human health associated with residual concentrations of chemicals detected in soil and soil vapor samples collected from the 8-acre proposed mixed use development property located at 777 North Front Street in Burbank, California ("the Site", **Figure 1**). The lead agency providing oversight for the HHRA is the Los Angeles Regional Water Quality Control Board (LARWQCB) and the Office of Environmental Health Hazard Assessment (OEHHA).

Site data collected during the soil vapor survey and soil investigation by Leighton and Associates, Inc. in May 2016 [Leighton, 2016] were utilized in this HHRA. Additional soil data from an investigation performed by Geosyntec in June 2012 were also utilized in this HHRA.

This HHRA presents the approach and methodologies that were used to estimate potential human health risks associated with residual concentrations of chemicals detected in soil and soil vapor samples collected from the Site. This HHRA evaluates the planned use of the property as a mixed-use residential and commercial complex, from construction to tenant occupancy.

1.1 Overview

Background information regarding the Site presented in this section is summarized from the *Soil Gas Survey and Soil Investigation, Eight-Acre Proposed Mixed Use Development* by Leighton [Leighton, 2016]. The Site property is located within a commercial/industrial area of Los Angeles County in the city of Burbank (**Figure 1**). The Site is bounded by the Interstate-5 Freeway to the northeast, North Front Street to the southwest, West Burbank Boulevard to the northwest and West Magnolia Boulevard to the southeast (**Figure 2**).

From the 1930's to 1961, the Site was the location of a water heater manufacturing company with activities that included galvanizing, vulcanizing, plating, welding, and metalwork. From 1961 to 1991, the Site was owned and operated by Zero Corporation, whose operations included aluminum case drawing and washing, aluminum alodining (a metal coating process involving chromium and aluminum), chromate deoxidizing, steel phosphate coating and chromium sealing [Leighton, 2016]. Zero Corporation ceased operations on site in 1991. The buildings onsite were demolished in 2004, and there have been no significant Site uses since 1991. Northridge Properties, LLC purchased the Site in 2005, and is the current owner. The Site is currently vacant.

A number of previous environmental investigations have been performed on site and in the surrounding areas, primarily related to regional groundwater issues of elevated volatile organic

compounds (VOCs) and hexavalent chromium (CrVI) in the area. A brief summary of previous environmental investigations is included below [summarized from Leighton, 2016]:

- An initial Site investigation in 1991 by Targhee Inc. found that underlying soils in the vicinity of former clarifiers and former chemical/oils storage were impacted by VOCs and total petroleum hydrocarbons (TPH) in soils.
- A Site investigation performed in 1992 by Hydro Geo Chem, Inc., also indicated that Site soil vapor and soil were impacted by chlorinated VOCs. Additional investigations were performed to assess the extent of soil and soil vapor contamination. Remedial activities were performed by Hydro Geo Chem from 1998 to 2001, including a shallow soil vapor extraction (SVE) system and a deeper SVE system with air sparging wells.
- Soil sampling performed in 2005 by Golder & Associates in areas adjacent to potential polychlorinated biphenyl (PCB) sources did not indicate PCBs were a concern on site.
- A soil and soil vapor sampling investigation by Ninyo & Moore in 2009 of the northeastern portion of the Site indicated soil concentrations of CrVI above regional background and concentrations of VOCs in soil vapor above relevant human health screening criteria. The area of this investigation has since been deeded to CalTrans as a permanent easement in connection with an Interstate Highway No. 5 widening project.
- A soil investigation conducted by Geosyntec in 2012 found detectable levels of CrVI that were below the residential and commercial/industrial soil California Human Health Screening Levels (CHHSLs). The CrVI concentrations were above the USEPA residential soil regional screening level (RSL), but below the commercial/industrial soil RSL. Select soil samples were additionally analyzed for metals. The vertical distribution of CrVI in soil was inconsistent with historical releases of CrVI that would have affected groundwater and did not suggest that historical Site activities had contributed to the groundwater basin's regional CrVI contamination. Additional sampling in the area of Boring SS-4 (**Figure 2**) was performed in 2016 as well, with no detectable concentration of CrVI in shallow soils [Geosyntec, 2016].

The proposed redevelopment of the Site is a mixed-use residential and commercial complex. Proposed features include residential apartments, a hotel, ground floor commercial use, a park and bike hub with amphitheater style seating, multiple courtyards, and first floor (i.e., at grade) and subterranean parking structures (**Figure 6**).

1.2 Human Health Risk Assessment Approach

The overall approach that was used in this HHRA is consistent with guidelines provided by the United States Environmental Protection Agency (USEPA) and by Cal-EPA [USEPA, 1989;

1991ab; 2002; 2016; Cal-EPA 1996; 1997, 2011, 2015]. As described by the USEPA, a risk assessment is a predictive tool used to assess the potential human health risks associated with exposure to Site-related chemicals of potential concern (COPCs). There are five basic steps in the quantitative HHRA process, which are summarized briefly as follows:

- *Data Evaluation and Selection of COPCs*: COPCs at the Site (defined as potentially hazardous chemicals associated with the Site that are present at concentrations higher than background levels) are identified by reviewing environmental sampling data collected in soil and soil vapor. Site-specific physical characteristics, including soil properties and geology are also evaluated.
- *Exposure Assessment*: Potentially relevant populations that could be exposed to Site-related COPCs, based on the current and proposed land use plans, are identified. For each land use scenario, the magnitude, frequency, and duration of the exposures and the pathways by which humans could potentially be exposed to Site-related COPCs are evaluated. The exposure scenarios are summarized in the Conceptual Site Model (CSM), which includes the sources, affected media, release mechanisms, and exposure pathways for each identified receptor population.
    - Fate and Transport Modeling: Current agency-approved fate and transport models are used to estimate the movement of volatile COPCs from soil to outdoor air and soil vapor into indoor air. Both the Johnson and Ettinger Model [J&E, 1991; Cal-EPA, 2011] and the *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (Soil Screening Guidance) [USEPA, 2002] are used.
- *Toxicity Assessment:* The relationship between the magnitude of exposure and potential adverse health effects on each receptor (dose-response assessment) is presented for each COPC. Toxicity criteria for each COPC are identified and are then used to estimate the likelihood of adverse effects which potentially could occur at different exposure levels.
- *Risk Characterization:* Results of the exposure and toxicity assessments are analyzed and combined to develop COPC-specific Risk-Based Concentrations (RBCs) for each exposure scenario. The RBCs represent the concentrations of chemicals in the relevant environmental media (e.g., soil and soil vapor) that would be considered safe for current and future land uses under conservative exposure conditions. Comparison of the RBCs to the detected soil and soil vapor concentrations for a given land use can then be conducted to estimate the cumulative health risks posed by the presence of multiple COPCs. In addition, RBCs can be used in potential remedial decision-making to determine if further action is warranted.

- *Uncertainty Analysis*: The uncertainties associated with each of the previous steps are discussed to assist decision-makers in evaluating the HHRA results in the context of the assumptions and variability in the data used.

Since the Site is currently vacant, consistent with the proposed future land uses of the Site, this HHRA addresses potential onsite exposures to future residents, future commercial workers, as well as to future construction workers. Potential exposures to COPCs detected in shallow soils (i.e., generally up to 12 feet (ft) below existing grade) were evaluated for the direct contact pathways, as well as outdoor inhalation of volatile COPCs in outdoor air and nonvolatile COPCs in fugitive dust. Additionally, the potential for volatile COPCs to migrate from the subsurface into above-ground structures was also evaluated using soil vapor data. Potential exposures to VOCs migrating from groundwater, which is in excess of 100 ft below ground surface (ft bgs) at the Site [OTIE, 2016], into indoor air were not quantitatively evaluated in this HHRA. For the purposes of this HHRA, deeper zone onsite soils (i.e., generally greater than 12 ft to 30.5 ft below existing grade) are characterized by detected concentrations of VOCs in soil vapor samples. Direct contact to groundwater was not evaluated quantitatively in this HHRA as this was not determined to be a complete exposure pathway. The Site does not maintain natural resources required to support wildlife habitats; therefore, onsite ecological exposures were not evaluated quantitatively in this HHRA.

1.3 Report Outline

The remaining sections of this report are organized as follows:

- Section 2 presents the data evaluation for the HHRA, including the identification of COPCs and the evaluation of background metal concentrations in soil;
- Section 3 describes the Conceptual Site Model (CSM) for the Site, which identifies potential human receptors that could be exposed to the COPCs and the pathways through which exposures could occur. This section also presents the methodology for estimating the fate and transport of COPCs at the Site;
- Section 4 presents the COPC-specific toxicity criteria;
- Section 5 describes the methodology used to derive the RBCs, summarizes the RBCs developed for all populations included in this HHRA and presents the proposed risk management criteria;
- Section 6 presents the methodology used to evaluate cumulative cancer risk and noncancer hazard for each specific land use;
- Section 7 presents the uncertainty analysis;
- Section 8 presents the conclusions; and
- Section 9 presents the references used in this HHRA.

A summary of the analytical data used in this HHRA is provided in **Appendix A**. The background metals evaluation is presented in **Appendix B**. The calculation of Site-specific soil properties is presented in **Appendix C**. The fate and transport modeling used for the vapor intrusion pathway is presented in **Appendix D**. The RBC derivation is presented in **Appendix E**, while the details of the cumulative cancer risk and noncancer hazard calculations are presented in **Appendix F**.

2. DATA EVALUATION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

An initial step in the HHRA process is an evaluation of available data to: 1) characterize the Site; 2) develop a data set for use in the estimation of potential risks; and 3) identify media-specific COPCs. Appropriate Site data must be available to support the characterization of chemical levels and media relevant to transport processes and exposure pathways. Federal [USEPA, 1989] and state [Cal-EPA, 2014]-recommended methods were used to select chemicals with the potential to contribute to overall human health. This section discusses the data evaluation that was conducted in this HHRA, as well as the methodology that was used to identify the COPCs for the Site.

2.1 Data Evaluation

A variety of samples have been collected at the Site. However, not all chemicals detected may be attributable to an onsite release and not all data may be of acceptable quality. Previous and recent data collected were evaluated to determine which of the chemicals identified are likely to be Site-related and to assess whether the reported concentrations for these chemicals are of acceptable quality for use in this HHRA.

The data evaluation was consistent with guidance provided by USEPA in their *Risk Assessment Guidance for Superfund* (1989) and *Guidance for Data Usability in Risk Assessments* (1992). The evaluation included:

- Evaluating the appropriateness of the analytical methods employed during the Site investigations in relation to the types of industrial processes and potential COPCs;
- Evaluating the quality of data with respect to sample quantification and detection limits;
- Examining laboratory qualifiers assigned to monitoring data and evaluating potential quality assurance/quality control problems; and
- Evaluating field duplicate samples.

The analytical data were also reviewed for potential qualifiers that may impact the HHRA significantly. Site data utilized in this HHRA included VOCs, TPH as diesel range organics (DRO) and oil range organics (ORO), metals, and CrVI results collected during the Leighton [2016] investigation, as well as metals and CrVI data collected by Geosyntec in 2012.

The Geosyntec 2012 investigation included soil borings at five locations, with samples collected approximately every 5 vertical feet below grade. All samples were analyzed for CrVI and select samples were analyzed for Title 22 metals. During the Site Investigation by Leighton

[Leighton, 2016], a total of 36 soil borings were advanced and sampled at multiple depths, and soil samples were analyzed for VOCs, TPH, and metals. Soil samples with total chromium results greater than 50 milligrams per kilogram (mg/kg) were subsequently analyzed for CrVI. Soil vapor probes were installed at the bottom of all borings, at various depths. Soil vapor samples were analyzed for VOCs.

The determination was made to utilize the Leighton [2016] and Geosyntec [2012] dataset in the HHRA (**Figure 2**), including all soil vapor samples and shallow soil samples collected from depths of 0 to 12 ft bgs, based on the following considerations:

- These two datasets are the most recently collected on site and therefore best represent current Site conditions. While previous investigations have included VOC analyses of soil and soil vapor samples from the Site, historical remediation activities conducted up to 2001 and the highly mobile nature of VOCs suggest previous datasets will not represent current Site conditions.
- Results of the 2009 Ninyo & Moore Site investigation were considered for inclusion in the HHRA dataset, but were not included, as this portion of the Site had since been deeded to CalTrans as a permanent easement and is not within the proposed redevelopment Site boundary. Additionally, a review of this 2009 dataset indicated that concentrations of VOCs and metals in soils were generally higher in the 2016 dataset. While some chemicals were detected in the 2009 dataset at higher concentrations or were not analyzed for in the more recent data collection effort, such as semi-volatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs), Ninyo & Moore's investigation concluded that concentrations of VOCs, metals, PCBs, SVOCs, and TPH in soil were below the Site-specific cleanup goals approved by the LARWQCB and were therefore not at a level of significant concern [Ninyo & Moore, 2009].

Within the retained HHRA dataset, field duplicates were evaluated as part of the data evaluation procedure. Field duplicates are collected to evaluate the quality of sample collection as well as sample analysis. Field duplicate samples are usually two samples collected simultaneously from the same sampling location and are used as measures of either the homogeneity of the medium sampled in a particular location or the precision in the sampling and sample handling (in transport and/or in the laboratory) [USEPA, 1989]. For cases where a field duplicate sample result is present for the same chemical in a sample, a single representative concentration for the sample was selected as follows:

1) If there is a detection in both samples, the higher concentration was selected;
2) If there is a detection in one sample but not the other, the detected concentration was selected; and

3) If both samples are nondetects, the lowest method detection limit was selected and appropriate techniques for handling nondetect data were applied in calculating statistics later in the data evaluation.

2.2 Selection of Chemicals of Potential Concern

USEPA risk assessment guidance presents a methodology for identifying which detected chemicals should be included in a quantitative HHRA. These are defined by USEPA [1989] as chemicals potentially related to the Site whose data are of sufficient quality for use in a quantitative HHRA. USEPA guidance states that the list of chemicals should include chemicals that were:

1) Positively detected in at least one sample;
2) Detected above levels of the same chemicals found in associated blank samples;
3) Tentatively identified, but may be associated with the Site based on historical information;
4) Transformation products of detected chemicals; and
5) Detected above naturally occurring levels (background).

Data determined to be of sufficient quality were carried forward into the COPC selection process described below.

Analytical results for shallow soil samples collected between 0 and 12 ft bgs (see **Table A-1** in **Appendix A**) were used to evaluate the direct contact pathway and inhalation of fugitive dust and outdoor air vapors that may volatilize from soil. This soil interval was evaluated based on the assumption that 12 ft would be the likely maximum depth of disturbance during potential future redevelopment and Site use and maintenance activities, and is therefore the maximum depth of soil to which future receptor populations would likely be directly exposed.

Shallow zone soils are characterized by detected concentrations of VOCs and non-VOCs in soil matrix samples collected from 0 to 12 ft bgs (note: non-VOCs include inorganic constituents that exceed background concentrations, as described below). It is assumed that receptor populations may be directly exposed to VOCs and non-VOCs in shallow zone soils and that shallow zone soils contain a finite mass of VOCs available for upward diffusive and advective transport to the ground surface. This soil depth interval was evaluated for future residents and future workers (commercial and construction). Deeper zone soils and groundwater are not accessible for direct contact and were, therefore, not included in this evaluation.

Because soil vapor data are preferred over soil data for the evaluation of the vapor intrusion pathway [Cal-EPA, 2011], potential indoor air exposures estimated from soil samples were not

included in this HHRA. The potential exposure to VOCs in soil and/or underlying groundwater for the vapor intrusion pathway was evaluated through the use of the soil vapor data collected at 4, 15, 20, and 30 ft bgs (see **Table A-2** in **Appendix A**). Available soil matrix and soil vapor data were reviewed to determine their usability in this HHRA; the data were accepted.

The COPC screening process for inorganic compounds included a background metals evaluation following Cal-EPA guidance [Cal-EPA, 1997]. Metals were excluded from the HHRA if they were considered to be at or below naturally occurring background concentrations. A summary of the results of this background evaluation is discussed in the next section with the details presented in **Appendix B**. The statistical analysis conducted for metals is summarized in **Table 1**. The COPC screening process for TPH included a comparison to screening levels, which is described in Section 2.2.2 below.

The list of COPCs that were evaluated in this HHRA is summarized in **Table 2**. All organic chemicals detected in at least one sample in a given media were included as COPCs. A summary of analytical results used in this HHRA for soil and soil vapor is presented in **Appendix A**.

2.2.1 Background Metals Evaluation

Based on the results of the background metals evaluation (see **Appendix B**), concentrations of arsenic, barium, cobalt, mercury, molybdenum, nickel, and vanadium in soils were considered to be within background levels for the Site. For arsenic, the maximum concentration in soil (6.8 mg/kg) was compared to the regional background level of 12 mg/kg [Cal-EPA, 2008] and was determined to be within background. For beryllium and molybdenum, too few samples had detectable concentrations to perform robust statistical analysis; therefore, only the coefficient of variation (CV) and the presence of inflection points were considered as outlined in **Appendix B**. For molybdenum, the CV was less than one, and no inflection point could be identified; therefore, this metal was considered within background. Beryllium was carried forward as a COPC due to elevated detection limits in the dataset. For cadmium, total chromium, copper, lead, nickel, vanadium and zinc, more than one population could be distinguished (an ambient and a potentially Site-impacted population). Additionally, the plots for total chromium, copper, lead, and zinc did not indicate a goodness of fit (GOF) to a particular distribution. The CVs for cadmium, copper, lead and zinc were greater than 1. CrVI was included in the background evaluation; however, as CrVI is a known regional contaminant of concern, it was carried forward as a COPC. Therefore, concentrations of beryllium, cadmium, total chromium, CrVI, copper, lead, and zinc were considered above background or of regional concern as they relate to this Site. These metals were thus selected as COPCs to be quantitatively evaluated in this HHRA.

Details of the background metals evaluation are presented in **Appendix B**.

2.2.2 Evaluation of Total Petroleum Hydrocarbons

TPH as DRO and ORO detected in the soil matrix (see **Table A-1** in **Appendix A**) were evaluated by comparing the data to the San Francisco Bay Regional Water Quality Control Board (SFRWQCB)-approved Tier 1 Environmental Screening Levels derived for protection of residential land use [ESLs; SFRWQCB 2016].

ORO (C29-C32) was detected in soil samples collected between 0 and 12 ft bgs at concentrations ranging from nondetect to 169 mg/kg, which were all less than the TPH motor oil Tier 1 ESL of 5,100 mg/kg. DRO (C10-C28) was detected in soil between 0 and 12 ft bgs at concentrations ranging from nondetect to 241 mg/kg, with only the maximum detected concentration slightly exceeding the Tier 1 ESL of 230 mg/kg. The average DRO concentration is 13 mg/kg with the 95 percent upper confidence limit (95UCL) of the average concentration at 16.7 mg/kg. Both the average and 95UCL DRO concentrations are well below the ESL. Therefore, TPH compounds were not selected as COPCs to be quantitatively evaluated in this HHRA.

3. EXPOSURE ASSESSMENT

The exposure assessment quantifies the magnitude, frequency, and duration of COPC intake (daily intake) by receptor populations using USEPA and Cal-EPA guidelines, Site-specific information, and professional judgment, as appropriate. To determine whether the levels of COPCs present in soil and soil vapor would pose a health risk to human populations, it is necessary to identify the receptors (populations) that may potentially be exposed to these COPCs and determine the pathways by which the exposures may occur. Once the potentially exposed populations are identified, the complete exposure pathways by which the individuals may contact COPCs must be determined. A complete exposure pathway requires a source and mechanism of chemical release, a point of potential human contact within the impacted medium, and an exposure route (e.g., ingestion) at the contact point. These source-pathway-receptor relationships provide the basis for the quantitative exposure assessment. Potentially complete source-pathway-receptor relationships which were included in this HHRA are depicted in the Conceptual Site Model (CSM) discussed below.

3.1 Conceptual Site Model

The CSM identifies potential chemical sources, release mechanisms, transport media, routes of chemical migration through the environment, exposure media, and potential receptors. Potential receptors that may be exposed to Site-related chemicals are identified in the CSM to help assess the likelihood and extent of their potential exposures.

A general CSM for this HHRA was constructed based on a review of the available Site information regarding the environmental setting and chemical distribution in environmental media. The CSM, presented in **Figure 3**, represents the current understanding of the sources of COPCs, the means by which they may be released and transported within and among media, and the exposure pathways and routes by which they may contact human receptors. The major components of the CSM are discussed below.

3.1.1 Chemical Characteristics and Potential Exposure Routes

Potential exposure to COPCs detected in soil and soil vapor at the Site is partly dependent on the type of chemicals that are present and the respective exposure media. Potential exposure routes to be considered include both direct and indirect contact with soil and soil vapor. If volatile chemicals are detected in soil vapor, indirect exposures (indoor inhalation) from vapors migrating from the subsurface may occur. If metals are detected in soil, the direct contact routes of exposure, such as incidental ingestion or dermal contact, are the most relevant.

3.1.2 Identification of Potential Receptors and Exposure Pathways

The Site is currently vacant. The proposed redevelopment plans for the Site will include future residential and commercial uses. Therefore, the onsite receptors that were evaluated in this HHRA consisted of a future resident and a future commercial worker. In addition, a construction worker was evaluated for potential exposures during redevelopment activities.

Exposure pathways associated with potential domestic use of groundwater are not considered to be complete and are therefore not quantified in this HHRA. Groundwater is not currently used nor is it reasonably expected to be used in the future at the Site. Pathways associated with surface waters are not considered in the HHRA because there are no surface waters within the bounds of the Site. The concrete-lined Burbank Western Channel is off site to the west of the railroad tracks and is not considered to impact the Site.

The exposure pathways evaluated in this HHRA include indoor inhalation of volatiles from soil vapor and exposures via direct contact to soils (incidental ingestion and dermal contact with soils) and outdoor air inhalation. Outdoor air inhalation was not evaluated for soil vapor, as the indoor air pathway is the most sensitive exposure for this media and provides the most conservative evaluation of potential health risks associated with soil vapor exposure. The receptors and exposure pathways selected for evaluation in this HHRA were based on these considerations and are discussed in more detail below.

3.1.2.1 Future Resident

The proposed redevelopment for the Site includes two residential buildings expected to be 6-story structures with ground floor parking and a lobby (**Figure 6**). Conservatively, residential exposures via direct contact to soils (incidental ingestion and dermal contact with soils) and outdoor air inhalation were evaluated in this HHRA. The potential also exists for vapor migration into indoor air from COPCs detected in soil vapor; therefore, potential indoor air exposures to future residents at the Site were quantitatively evaluated in this HHRA in both a “slab-on-grade” exposure scenario and a “second floor” exposure scenario for comparison purposes.

It was also conservatively assumed that future residents will be on site for 24 hours each day, 7 days per week for 50 weeks each year (350 days per year) for 26 years.

3.1.2.2 Future Commercial Worker

The proposed redevelopment includes commercial uses of the Site such as retail shops and hospitality services. Current plans include a hotel with retail, food service and other

amenities, along with courtyards, a bike hub and park. It is anticipated that the majority of the Site will be covered by pavement and buildings following redevelopment, which reduces the potential for direct exposure to soils. However, commercial exposures via direct contact to soils (incidental ingestion and dermal contact with soils) and outdoor air inhalation were evaluated in this HHRA. The potential also exists for vapor migration into indoor air from COPCs detected in soil vapor; therefore, potential indoor air exposures to workers at the Site were quantitatively evaluated in this HHRA.

It was assumed that future commercial workers will be on site for 8 hours each day, 5 days per week for 50 weeks (250 days per year) for 25 years. In addition, workers were assumed to be either outdoors or indoors for the full exposure duration since a worker could not be both indoors and outdoors at the same time, but would likely spend a portion of the day in each location.

3.1.2.3 Future Construction Worker

Construction workers will be involved in Site grading and excavation for footings and utility lines during Site redevelopment. Due to the estimated maximum depth of typical footings and utilities, it is assumed that construction workers may potentially be exposed to COPCs in the top 12 ft of soil. Such activities may potentially expose a construction worker to COPCs in shallow soil via dermal contact and incidental ingestion. The construction worker may also be exposed via inhalation to COPCs which migrate from soil to outdoor air and to COPCs present in airborne dust generated by wind erosion and by intrusive soil-handling activities.

It was assumed that future construction workers will be on site for 8 hours each day, 5 days per week for 50 weeks during a single construction event for up to 1 year (i.e., 250 days per year of exposure). Although their exposures were evaluated in this HHRA, it is anticipated that potential exposure to construction workers would be minimized by adherence to Health and Safety plans that may potentially be required for work on the Site during potential redevelopment.

3.1.3 Exposure Assumptions

The proposed exposure parameters for the receptors identified above are listed in **Table 3** and are consistent with those recommended by Cal-EPA and USEPA.

3.1.4 Summary of Selected Exposure Pathways

An exposure pathway describes a specific environmental pathway by which an individual (receptor) can be exposed to COPCs present at or originating from a source. The following five elements comprise a complete exposure pathway:

- A source of chemical;
- A mechanism of chemical release to the environment;
- An environmental transport medium (e.g., soil or air);
- A point of potential human contact with the medium; and
- A means of entry (i.e., intake route) into the body (e.g., ingestion).

There must be a complete exposure pathway from the source of chemicals in the environment (i.e., from soil or air) to human receptors in order for chemical intake to occur. If all exposure pathways are incomplete for human receptors, no chemical intake occurs and hence, no human health effects are associated with site-related COPCs.

Given the characteristics of the COPCs and the Site conditions, several exposure pathways have been identified as potentially complete. The CSM (**Figure 3**) presents a summary of the exposure pathways for each receptor evaluated in this HHRA. The following table summarizes the receptor groups, exposure medium and potential exposure pathways that were evaluated quantitatively in this HHRA.

Receptor Population	Exposure Medium	Potentially Complete Exposure Pathway
Future Resident	Shallow Soil (0 - 12 ft bgs)	• Incidental Ingestion • Dermal Contact • Outdoor Fugitive Dust Inhalation • Outdoor Vapor Inhalation
	Soil Vapor	• Indoor Air Inhalation
Future Commercial Worker	Shallow Soil (0 - 12 ft bgs)	• Incidental Ingestion • Dermal Contact • Outdoor Fugitive Dust Inhalation • Outdoor Vapor Inhalation
	Soil Vapor	• Indoor Air Inhalation
Future Construction Worker	Shallow Soil (0 - 12 ft bgs)	• Incidental Ingestion • Dermal Contact • Outdoor Fugitive Dust Inhalation • Outdoor Vapor Inhalation

3.2 Fate and Transport Modeling

Fate and transport modeling is the quantitative analysis of how chemicals move through the environment and how they are transformed by processes such as chemical reaction and biological degradation. In the context of this HHRA, fate and transport modeling was employed to predict the movement of COPCs from impacted media (i.e., soil and soil

vapor) to points of exposure for human populations. Also adding to the conservative nature of this evaluation, with respect to fate and transport modeling, chemical transformation processes of chemical reaction and biological degradation were not evaluated in this HHRA for the Site.

Fate and transport modeling was required to assess the indirect-exposure pathways identified in the CSM (**Figure 3**). Specifically, the following are the distinct transport mechanisms for which fate and transport modeling was employed:

- Transport of particulate-phase COPCs from soil matrix to outdoor air;
- Transport of vapor-phase COPCs from soil matrix to outdoor air; and
- Transport of vapor-phase COPCs from soil vapor to indoor air (vapor intrusion pathway).

For each of these transport mechanisms, fate and transport modeling was employed to quantify the relationship between the COPC concentration in the impacted medium (soil or soil vapor) and the COPC concentration in the exposure medium (indoor or outdoor air). The relationship is expressed in the form of a "transfer factor," defined as, the ratio of the COPC concentration in the exposure medium to the COPC concentration in the impacted medium. The specific definition of the TF for each of the transport mechanisms identified above is presented in **Table 4**. The TFs were used in the intake factor and exposure concentration factor equations presented in the Sections below to derive COPC-specific RBCs. The fate and transport modeling that was used to assess the indirect-exposure pathways and the methodology for calculation of TFs are further discussed below.

3.2.1 Fugitive Dust Emissions into Outdoor Air

Metals were detected in soil at the Site at concentrations above background levels. It is assumed that these COPCs could become airborne due to fugitive dust emissions; therefore, exposure to these chemicals may occur via inhalation of fugitive dust. Inhalation exposure to non-volatile compounds is typically minor in fugitive dust when compared to direct ingestion exposure [USEPA, 2002]. Nevertheless, a relationship can be estimated between the COPC concentration in soil and the corresponding concentration in air (secondary media) attributable to fugitive dust emissions from soil.

Potential exposure to airborne dust is estimated using a TF called the particulate emission factor (PEF), which relates the chemical concentration in soil to the concentration of dust particles in outdoor air. The PEF is defined as the ratio of the COPC concentration in outdoor air to the COPC concentration in soil:

$$PEF = \frac{C_s}{C_{oa}}$$

Where:

PEF = particulate emission factor (mg/kg per mg/m^3, or m^3/kg);
C_s = concentration of COPC in soil (mg/kg); and
C_{oa} = concentration of COPC in outdoor air (mg/m^3).

The PEF is related to the concentration of particulate matter (dust) in air:

$$PEF = \frac{1}{CD}$$

Where:

CD = concentration of dust in air (kg/m^3).

The PEF represents an annual average emission rate based on wind erosion. The PEF equation can be found in the Soil Screening Guidance [USEPA, 2002]. The emissions part of the PEF equation is based on the "unlimited reservoir" model developed to estimate PM_{10} emissions (particulate matter less than 10 micrometers in diameter) due to wind erosion (Cowherd et al., 1985).

3.2.1.1 Future Resident/Future Commercial Worker PEF

For the future resident and future commercial worker, the following equation was used to estimate the PEF [USEPA, 2002]:

$$PEF_{res/commW} = \frac{(Q/C_{res/commW} \times CF)}{[0.036 \times (1 - G_{res/commW}) \times \left(\frac{U_M}{U_T}\right)^3 \times F_x]}$$

Where:

$PEF_{res/commW}$ = particulate emission factor, cubic meters per kilogram (m^3/kg);
$Q/C_{res/commW}$ = inverse of the ratio of the geometric mean air concentration to the emission flux at center of the source (g/m^2-s per kg/m^3);
CF = units conversion factor (3,600 s/hr);
0.036 = empirical constant (g/m^2-hr);
$G_{res/commW}$ = fraction of vegetative or other cover [0.5 unitless; USEPA, 2002];

U_M = mean annual wind speed [3.31 m/sec, average wind speed for Los Angeles; NCDC, 2010];

U_T = equivalent threshold value of wind speed at 7 meters above ground surface (11.32 m/sec; USEPA, 2002); and

F_x = function dependent on U_M/U_T [0.00474 unitless; USEPA, 1996].

The dispersion coefficient (Q/C) in units of grams per square meter-second per kilogram per cubic meter (g/m^2-s per kg/m^3) was generated using the Industrial Source Complex model and varies depending on the source area, city, and climatic zone. This term accounts for the dispersion of particulate matter after emission and was estimated using the following equation [USEPA, 2002]:

$$Q/C = A \times \exp\left[\frac{(\ln A_{SITE} - B)^2}{C}\right]$$

Where:

Q/C = inverse of the ratio of the geometric mean air concentration to the emission flux at center of the source (g/m^2-s per kg/m^3);

A_{SITE} = areal extent of soil impact; default 0.5-acre source in Los Angeles [USEPA, 2002];

A = coefficient; default = 11.911, based on air dispersion modeling for specific climate zones [unitless; USEPA, 2002];

B = coefficient; default = 18.4385 [unitless; USEPA, 2002]; and

C = coefficient; default = 209.7845 [unitless; USEPA, 2002].

The A_{SITE} value of 0.5 acre is based on a default source size, which is generally considered an appropriate assumption for a typical exposure unit [USEPA, 2002]. The coefficients A, B, and C are for the Los Angeles area [USEPA, 2002]. A $Q/C_{res/commW}$ value of 68.18 g/m^2-s per kg/m^3 was estimated as the inverse of the mean concentration at the center of a 0.5-acre square source. The resulting PEF for a future resident and a future commercial worker is 1.2×10^{11} m^3/kg (**Table 5**). This PEF was incorporated into the exposure concentration factor equation for outdoor inhalation of particulates in this HHRA.

3.2.1.2 Future Construction Worker PEF

A Site-specific, time-weighted PEF was used in this HHRA for the future construction worker based on the assumption that only a fraction of the construction time would have elevated dust levels. During times of intrusive activities, such as site grading, fugitive dust emissions are expected to be higher. During other times, such as building construction, fugitive dust emissions are expected to be lower and due only to wind-

blown dust. The Site-specific, time-weighted PEF was developed to account for these differences in emission mechanisms coupled with the estimated time in which intrusive or non-intrusive construction activities would take place. It is assumed that the intrusive soil-handling activities will be conducted for a portion of the exposure duration for the future construction worker (e.g., intrusive soil handling would occur for the first 60 days of construction when Site soils will be graded and the emissions during the remaining 190 working days, of the total 250 working days, would primarily be due to the more passive emission mechanisms such as wind-blown dust).

As noted above, the PEF is related to the concentration of particulate matter (dust) in air:

$$PEF = \frac{1}{CD}$$

Where:

CD = concentration of dust in air (kg/m^3).

Therefore, the Site-specific, time-weighted PEF is the sum of the contributions from the total dust concentration from intrusive activities (e.g., soil excavation, dumping, or hauling that may potentially generate relatively high levels of dust) and from non-intrusive activities (e.g., wind erosion of surface soil expected to generate lower levels of dust), as follows:

$$PEF_{constW} = \frac{1}{CD_{TOT}} = \left(CD_{INTR} + CD_{WIND}\right)^{-1}$$

Where:

CD_{TOT} = total concentration of dust in air (kg/m^3);

CD_{INTR} = concentration of airborne dust resulting from intrusive soil-handling activities (kg/m^3); and

CD_{WIND} = concentration of airborne dust resulting from wind erosion (kg/m^3).

The dust concentration resulting from intrusive work (e.g., excavation, dumping, hauling, and other soil-handling activities) is assumed to be equal to 1 mg/m^3 or 1×10^{-6} kg/m^3 [Cal-EPA, 2014][1] for the future construction worker:

[1] The respirable dust concentration of 1 mg/m^3 is based on a maximum concentration of dust in air of 10 mg/m^3 recommended by the American Conference of Governmental Industrial Hygienists (ACGIH 2004,

$$CD_{INTR} = 1 \times 10^{-6} \text{ kg/m}^3$$

The concentration of dust in air resulting from dust emissions due to unpaved road traffic and wind erosion was calculated as:

$$CD_{WIND} = \frac{0.036 \times (1 - G_{constW}) \times \left(\frac{U_M}{U_T}\right)^3 \times F_x}{CF} \times \frac{1}{\left(Q/C_{p,cw}\right)}$$

Where:

CD_{WIND}	=	concentration of airborne dust resulting from dust emissions from unpaved road traffic and wind erosion (kg/m^3);
0.036	=	empirical constant (g/m^2-hr);
G_{constW}	=	fraction of vegetative or other cover (0, unitless);
U_M	=	mean annual wind speed [3.31 m/sec, average wind speed for Los Angeles; NCDC, 2010];
U_T	=	equivalent threshold value of wind speed at 7 meters above ground surface (11.32 m/sec) [USEPA, 2002];
F_x	=	function dependent on UM/UT derived using Cowherd et al. [1985] (0.00474, unitless) [USEPA, 1996];
CF	=	units conversion factor (3,600 sec/hr); and
$Q/C_{p,cw}$	=	inverse of the ratio of the geometric mean air concentration to the emission flux at center of the source (g/m^2-sec per kg/m^3) [USEPA 2002].

The first term of the equation for CD_{WIND} represents the emission rate of particulate matter from the ground surface to air (i.e., erosion). This flux is a function of wind speed and surface vegetation. The 0% coverage assumes that source area is essentially exposed where bare soil is available for contact.

The second term of the equation for CD_{WIND} is the inverse of the ratio of the geometric mean air concentration to the emission flux along a straight road segment bisecting a square site. Therefore, the equation above accounts for both wind erosion emissions and emissions from other construction activities (e.g., traffic on unpaved roads). According

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Threshold Limit Values and Biological Exposure Indices), and the assumption that 10 percent of the mass of particles are in the respirable PM_{10} range.

to USEPA, construction traffic on impacted, unpaved roads "typically accounts for the majority of emissions, with wind erosion, excavation soil dumping, dozing, grading, and tilling operations contributing lesser emissions. The ambient air dispersion of emissions, therefore, is different for these two classes of emission sources" [USEPA, 2002]. Therefore, the equation presented above, CD_{WIND}, accounts for subchronic exposures to dust from unpaved road traffic and from other construction activities (including wind erosion). The subchronic dispersion factor ($Q/C_{p,cw}$) term of the above equation was calculated as:

$$\left(Q/C_{p,cw}\right) = A \times \exp\left[\frac{\left(\ln A_{SITE} - B\right)^2}{C}\right]$$

Where:

A_{SITE} = areal extent of soil impact (future construction worker Site-specific = 8 acres);

A = coefficient; default = 12.9351, based on air dispersion modeling [unitless; USEPA, 2002];

B = coefficient; default = 5.7383 [unitless; USEPA, 2002]; and

C = coefficient; default = 71.7711 [unitless; USEPA, 2002].

A subchronic ($Q/C_{p,cw}$) dispersion factor of 15.59 g/m^2-s per kg/m^3 was estimated as the inverse of the mean concentration at the center of the 8-acre Site for a future construction worker. The PEF_{constW} for the future onsite construction worker was estimated as a time-weighted average:

$$PEF_{constW} = \left(\frac{\left[\left(CD_{INTR}\right) \times \left(\frac{8\,hr}{8\,hr}\right) \times \left(EF_i\right)\right] + \left[\left(CD_{WIND}\right) \times \left(\frac{8\,hr}{8\,hr}\right) \times \left(EF_w\right)\right]}{EF}\right)^{-1}$$

Where:

EF_i = exposure frequency during intrusive activities (construction worker = 60 days);

EF_w = exposure frequency during the remaining wind-dispersed exposure period (construction worker = 190 days); and

EF = exposure frequency, total number of days at the Site (construction worker = 250 days).

This equation results in a Site-specific PEF_{constW} of 4.2×10^{6} m^3/kg for the future construction worker. This PEF_{constW} was incorporated into the exposure concentration factor equation for outdoor inhalation of particulates in this HHRA. The inverse of the PEF equation results in an average dust concentration (CD) of 2.4×10^{-7} kg/m^3, or 240 $\mu g/m^3$ of dust (**Table 5**).

3.2.2 Fugitive Dust Emissions into Outdoor Air

Because VOCs were detected in soil samples collected at the Site, individuals could potentially be exposed to vapors migrating through the soil to outdoor air. Therefore, outdoor air exposures were evaluated for VOCs detected in soil, as discussed below.

Potential migration of vapors from vadose zone soil to outdoor air was estimated using the volatilization factor (VF), as presented in Section 4.2.3 of the *Soil Screening Guidance* [USEPA, 2002; Equation 4-8: *Derivation of the VF*]. Site-specific soil physical property data (e.g., bulk density, porosity) for shallow soils collected between 0 to 14 ft bgs were used to derive COPC-specific VFs for the soil to outdoor air pathway (see **Table 5**) based on the geotechnical investigation performed by Geocon West dated 12 February 2016. Details of the calculation of site-specific soil properties are provided in **Appendix C**. The VF was used in this HHRA to estimate outdoor inhalation exposures for future residents, future commercial workers, and future construction workers.

3.2.2.1 Future Resident and Future Commercial Worker VF

For future residents and future commercial workers, COPC-specific VFs were derived using the following equation [USEPA, 2002]:

$$VF_{soil} = \frac{Q/C \times \left(10^{-4}\ \frac{m^2}{cm^2}\right) \times \left(3.14 \times D_A \times T\right)^{1/2}}{\left(2 \times Pb \times D_A\right)}$$

Where:

- Q/C = inverse of the ratio of the geometric mean air concentration to the emission flux at center of the source (g/m^2-sec per kg/m^3) and is the same as that calculated in Section 3.2.1.1;
- D_A = COPC-specific apparent diffusivity (cm^2/sec);
- T = exposure interval (future resident 26 years = 8.2×10^{8} commercial worker 25 years = 7.9×10^{8} sec); and
- Pb = dry soil bulk density (1.77 g/cm^3).

And where:

$$D_A = \frac{\left(\frac{D_{air} \times \theta_a^{3.33}}{\theta_T^2}\right) + \left(\frac{D_{water} \times \theta_w^{3.33}}{H \times \theta_T^2}\right)}{(Pb \times Koc \times foc) + \theta_w + (\theta_a \times H)}$$

Where:

D_{air} = COPC-specific vapor diffusion coefficient in air (cm^2/sec);
D_{water} = COPC-specific molecular diffusion coefficient in water (cm^2/sec);
θ_a = air-filled porosity (0.109 cm^3-air/cm^3-soil);
θ_w = water-filled porosity (0.224 cm^3-water/cm^3-soil);
θ_T = total soil porosity (0.333 cm^3-air/cm^3-soil);
H' = COPC-specific Henry's law coefficient (unitless);
Pb = dry soil bulk density (1.77 g/cm^3);
K_{oc} = COPC-specific soil organic carbon partition coefficient (cm^3/g); and
foc = fraction organic carbon in soil [0.006 g/g; USEPA, 2016 default].

The COPC-specific VF_{soil} for a future resident and (VF_{res}) and future commercial worker (VF_{commW}) are presented in **Table 5**. These VFs were incorporated into the exposure concentration factor equation for outdoor inhalation of VOCs detected in vadose zone soil for a future resident and future commercial worker.

3.2.2.2 Future Construction Worker VF

The Q/C term for a future construction worker is specific to sub-chronic inhalation exposures and not specific to climatic zone, which differs from the residential Q/C term. Therefore, for future construction workers, a $Q/C_{vol,cw}$ dispersion factor was estimated as the inverse of the ratio of the geometric mean air concentration to the emission flux at center of the source using the following equation [USEPA, 2002]:

$$Q/C_{vol,cw} = A \cdot \exp\left[\frac{(\ln A_{SITE} - B)^2}{C}\right]$$

Where:

A_{SITE} = areal extent of soil impact (future construction worker = 8 acres);
A = coefficient; default = 2.4538, based on air dispersion modeling [unitless; USEPA, 2002];
B = coefficient; default = 17.566 [unitless; USEPA, 2002]; and

C = coefficient; default = 189.0426 [unitless; USEPA, 2002].

A $Q/C_{vol,cw}$ of 8.73 g/m^2-s per kg/m^3 was estimated as the inverse of the mean concentration at the center of the 8-acre Site for a future construction worker. COPC-specific VF_{constW} for future construction worker exposures were derived using the following equation [USEPA, 2002]:

$$VF_{constW} = Q/C_{vol,cw} \times \left(\frac{1}{F_D}\right) \times \frac{\left(10^{-4}\ \frac{m^2}{cm^2}\right) \times \left(3.14 \times D_A \times T_{constW}\right)^{1/2}}{\left(2 \times Pb \times D_A\right)}$$

Where:

VF_{constW} = COPC-specific volatilization factor for a future construction worker (m^3/kg);

$Q/C_{vol,cw}$ = inverse of the ratio of the geometric mean air concentration to the emission flux at center of the source (g/m^2-sec per kg/m^3);

F_D = sub-chronic dispersion correction factor (unitless);

D_A = COPC-specific apparent diffusivity (cm^2/sec);

T_{constW} = exposure interval (construction worker for 1 year = 3.2×10^7 sec); and

Pb = dry soil bulk density (1.77 g/cm^3).

The subchronic dispersion correction factor, F_D, was used in the equation for a future construction worker to adjust for the shorter, 1-year construction duration. The F_D of 0.188 was estimated using the following equation [USEPA, 2002]:

$$F_D = 0.1852 + \frac{5.3537}{tc} + \frac{-9.6318}{(tc)^2}$$

Where:

0.1852 = constant [unitless, US EPA 2002];

5.3537 = constant [unitless, US EPA 2002];

9.6318 = constant [unitless, US EPA 2002]; and

t_C = duration of construction (250 days/yr × 8 hours/day = 2,000 hrs).

The COPC-specific VF_{constW} for a future construction worker are presented in **Table 5**. These VFs were incorporated into the exposure concentration factor equation for outdoor inhalation of VOCs detected in soil for a future construction worker.

3.2.3 Vapor Emissions into Indoor Air

The potential exists for VOCs to volatilize from the subsurface and migrate into indoor air. This pathway was evaluated using the Johnson and Ettinger [J&E, 1991] subsurface vapor intrusion model [USEPA, 2004] along with updated chemical physical properties from the USEPA RSL table [USEPA, 2016]. The model accounts for the diffusion of chemicals through the subsurface, the advection of chemicals through soil and concrete slabs due to pressure differentials between the soil and buildings, and the mixing in indoor air caused by heating and ventilation systems.

Soil vapor data are typically the preferred medium from which to evaluate the vapor intrusion pathway [Cal-EPA, 2011]. Therefore, potential indoor air exposure to VOCs in soil for the vapor intrusion pathway was evaluated through the use of the soil vapor data. Concentrations at each location and depth were evaluated so as to provide a complete profile of potential cancer risks and noncancer hazards associated with soil vapor at the Site. Therefore, soil vapor RBCs were derived based on modeled soil vapor attenuation factors and Site-specific sampling depths (e.g., 4, 15, 20 and 30 ft bgs).

Geotechnical data for soil samples collected at the Site were reviewed to characterize soil property parameters for use in the vapor intrusion modeling (**Appendix C**). Based on review of the geotechnical investigation report by Geocon [2016], two distinct soil layers were identified at the Site. A layer of fill materials exists from the existing Site surface to approximately 14 ft bgs. Below the fill layer is a layer of alluvial soils that continued to the maximum exploration depth of 61.5 ft bgs. Based upon the boring logs and geotechnical laboratory data [Geocon, 2016], the soils at the Site are predominantly sandy silts, silty sands, and sands with varying amounts of gravel. Bulk density, total porosity, air-filled and water-filled porosities were derived for both the upper fill material 0-14 ft bgs, and the deeper alluvium (greater than 14 ft bgs), considered as Strata A and B, respectively, in the J&E model.

The J&E vapor intrusion model requires the characterization of several building-specific parameters including building size (area and floor height), slab thickness, crack fraction (the ratio of crack area to building area), ventilation rate, and volumetric flow rate of soil vapor into the building. For a future resident, the DTSC default building dimensions (1000 centimeters, cm × 1000 cm) with a ceiling height of 8 feet (244 cm) were used in the model [Cal-EPA, 2011] along with an air exchange rate (AER) of 0.5 exchange per hour (hr^{-1}). For a future commercial worker, the DTSC default building dimensions (1000 centimeters, cm × 1000 cm) with a ceiling height of 12 feet (366 cm) were used in the model [Cal-EPA, 2011] along with an AER of 1 exchange hr^{-1}. The DTSC default volumetric flow rate of soil vapor into the building, Q_{soil}, value of 5 liters per minute (L/min) per 100 m^2 of floor space to represent the flow rate of COPCs from directly below

the building foundation into indoor air [Cal-EPA, 2011] was also used in the model. The USEPA version of the J&E spreadsheets was used to calculate the COPC-specific soil vapor to indoor air attenuation factors, $AF_{SV\text{-}IA}$ (also called indoor air transfer factors, TFs), based on the model input parameters presented in **Table 6**.

Two exposure scenarios were considered for the indoor air pathway evaluation based on the potential building designs indicated in the proposed redevelopment plans. First, a slab-on-grade scenario was evaluated to represent a reasonable maximum exposure for future residents living, and future commercial workers working, on the first floor of the building using the parameters describe above. Additionally, a second floor exposure scenario was evaluated in this HHRA based on the proposed redevelopment plans for a first floor parking garage, where residential or commercial units begin on the second floor above a ground floor parking garage. The J&E model was parameterized using assumptions for a ground floor parking garage, assuming DTSC default building dimensions (1000 cm × 1000 cm)[2] with a ceiling height of 12 feet [366 cm; Cal-EPA, 2011] along with an AER of 0.75 exchange hr^{-1}.

The J&E model was used to calculate the attenuation factor for soil vapor to ground floor indoor air (slab-on-grade scenario). For the second floor exposure scenario, a leakage factor for vapor migration between the ground floor parking garage and the second floor was then used to calculate an overall attenuation factor for future residents and future commercial workers on the second floor. A leakage factor for indoor air flow between floors was established based on published studies of air flow distribution in multi-family buildings [Feustel and Diamond, 1996 and Center for Energy and Environment, 2004]. In these studies, measured air leakage between residential units on the lower floors ranged from less than 4% to approximately 2%. These studies were conducted on multi-family buildings in colder climates (Minnesota and Massachusetts) where stack effects are likely to be more significant than in California. To account for the additional attenuation from leakage from the ground floor parking garage to the second floor residential or commercial units, the depth-specific soil vapor $AF_{SV\text{-}IA}$ were adjusted by a factor of 3%. As a result of applying a leakage factor assumption, the VOC concentrations on the second floor would be much lower than predicted for the ground floor. This attenuation value is considered to be conservative (i.e., a higher reduction is expected) given the building ventilation code requirements for new construction in California.

The indoor air TFs ($AF_{SV\text{-}IA}$) for the slab-on-grade and second floor exposure scenarios are summarized in **Table 7a** for future residents and **Table 7b** for future commercial workers.

[2] The length and width of the parking garage do not affect the AFs because then the Q_{soil} factor is scaled according to the building dimensions.

The J&E vapor intrusion model spreadsheets used in this HHRA are provided in **Appendix D**.

3.3 Estimating COPC Intake

Estimates of exposure or COPC intake were calculated based on assumptions regarding exposure pathways and exposure parameters. The COPC intake factor (IF) was estimated for the incidental ingestion and dermal contact pathways. For the inhalation pathways, USEPA [2009] recommends that when estimating cancer risk or noncancer hazard via inhalation, the concentration of the COPC in air should be used as the exposure metric (e.g., mg/m^3), rather than inhalation intake of a contaminant in air based on inhalation rate and body weight (e.g., mg/kg-day). Therefore, the COPC intake factor is replaced with an exposure concentration factor (ECF) for the soil to outdoor air inhalation pathway. For the soil vapor to indoor air inhalation pathway, indoor air screening levels (SL_{air}) were used to derive soil vapor RBCs and are based on COPC-specific toxicity criteria and target risk and hazard, which are discussed in Section 3.3.3.2 below.

The sections below present the equations used to estimate the IF, ECF, and SL_{air} for each COPC. The exposure parameters (**Table 3**) used in the IF, ECF, and SL_{air} equations are considered to be adequately conservative and are consistent with typical values recommended and approved by regulatory agencies.

3.3.1 Incidental Soil Ingestion

The rate of soil ingestion is based on the amount of soil an individual inadvertently swallows in a given day from all sources. Exposure to COPCs, via incidental ingestion of soil, was estimated using the following variables: (1) the rate of ingestion; (2) the fraction of ingested soil that is impacted; and (3) the frequency and duration of exposure. Individuals may ingest soil through incidental contact of the mouth with hands and clothing. The following equation was used to estimate the intake factor for incidental ingestion of soil (IF_{oral}):

$$IF_{oral} = \frac{IngR \times EF \times ED \times CF}{BW \times AT}$$

Where:

IngR = ingestion rate of soil (mg/day);
EF = exposure frequency (days/yr);
ED = exposure duration (yrs);
CF = conversion factor for soil (10^{-6} kg/mg);
BW = body weight (kg);

AT = averaging time (days):
cancer effects: 70 yrs x 365 days; and
noncancer effects: ED x 365 days.

The exposure parameters used to estimate IF_{oral} for incidental soil ingestion are presented in **Table 3** for a future resident, future commercial worker, and a future construction worker.

3.3.2 Dermal Contact with Soil

COPCs in soil may come into contact with skin and then become absorbed across the skin into the bloodstream. The amount of absorption into the body depends upon the amount of soil in contact with the skin, COPC concentrations in soil, the skin surface area exposed, and the potential for the chemical to be absorbed across the skin. The following equation was used to estimate the intake factor for dermal contact with soil (IF_{dermal}):

$$IF_{dermal} = \frac{SA \times AF \times EF \times ED \times CF \times ABSd}{BW \times AT}$$

Where:

SA = skin surface area exposed to soil per day (cm^2/day);
AF = soil-skin adherence factor (mg/cm^2);
EF = exposure frequency (days/yr);
ED = exposure duration (yrs);
CF = conversion factor for soil (10^{-6} kg/mg);
ABSd = percent dermal absorption (COPC-specific; unitless);
BW = body weight (kg);
AT = averaging time (days):
cancer effects: 70 yrs × 365 days; and
noncancer effects: ED × 365 days.

The exposure parameters that were used to estimate IF_{dermal} for dermal contact with soil are presented in **Table 3** for a future resident, future commercial worker, and a future construction worker.

3.3.3 Inhalation of Vapors and Fugitive Dust

Inhalation of fugitive dust-containing COPCs and volatile COPCs in outdoor air is a consideration for soil matrix exposures. Inhalation of indoor air vapors is a consideration

for soil vapor exposures. For the inhalation pathways, the IF is replaced with an ECF for soil to outdoor air and with SL_{air} for soil vapor to indoor air. The equations used to estimate the ECF and SL_{air} are presented below.

3.3.3.1 Soil to Outdoor Air Pathway

The following equation was used to estimate the ECF for the inhalation pathway for outdoor air from soil:

$$ECF_{inh,s} = \frac{EF \times ED \times ET}{AT \times (VF_{soil} \text{ or } PEF)}$$

Where:

$ECF_{inh,s}$ = exposure concentration factor of COPC in outdoor air from soil (kg/m^3);

EF = exposure frequency (days/yr);

ED = exposure duration (yrs);

ET = exposure time (8 hrs/24 hrs for workers);

AT = averaging time (days):
cancer effects: 70 yrs × 365 days;
noncancer effects: ED × 365 days;

PEF = particulate emission factor for soil (m^3/kg);
$PEF_{res/commW}$ = for a resident and commercial worker (m^3/kg);
PEF_{constW} = for a construction worker (m^3/kg);

VF_{soil} = volatilization factor for soil (m^3/kg);
$VF_{res/commW}$ = for a resident or commercial worker;
VF_{constW} = for a construction worker.

The exposure parameters used in the above ECF equations are presented in **Table 3**.

3.3.3.2 Soil Vapor to Indoor Air Pathway

The following equation was used to estimate the indoor air screening level, SL_{air} based on cancer effects:

$$SL_{air\text{-}C} = \frac{TR \times AT}{EF \times ED \times ET \times IUR}$$

SL_{air} based on noncancer health effects:

$$SL_{air\text{-}NC} = \frac{THQ \times AT \times CF}{EF \times ED \times ET \times \left(\frac{1}{RfC}\right)}$$

Where:

$SL_{air\text{-}C}$	=	indoor air screening level based on cancer health effects (µg/m^3);
TR	=	target cancer risk;
AT	=	averaging time (days): cancer effects: 25,550 days; and noncancer effects: 9,125 days.
EF	=	exposure frequency (days/yr);
ED	=	exposure duration (yrs);
ET	=	exposure time (24/24 hours for a future resident, and 8 hrs/24 hrs for a future commercial worker);
IUR	=	inhalation unit risk (µg/m^3)$^{-1}$;
$SL_{air\text{-}NC}$	=	indoor air screening level based on noncancer health effects (µg/m^3);
THQ	=	target hazard quotient;
CF	=	unit conversion factor, 1000 µg/mg; and
RfC	=	inhalation reference concentration (mg/m^3).

The exposure parameters used in the above equations are presented in **Table 3**.

4. TOXICITY ASSESSMENT

The toxicity assessment characterizes the relationship between the magnitude of exposure to a COPC and the nature and magnitude of adverse health effects that may result from such exposure. Consistent with regulatory risk assessment policy, adverse health effects resulting from potential chemical exposures are classified into two broad categories: cancer effects and noncancer effects. The basis for the selection of toxicity values in each of these categories is described in more detail below.

The two key toxicity criteria used in this HHRA are: 1) oral cancer slope factors (CSFs) and inhalation unit risk factors (IURs) for estimating long term, chronic cancer risks from exposure to carcinogens, and 2) oral reference doses (RfDs) and inhalation reference concentrations (RfCs) for estimating long term hazard from exposure to noncarcinogens. In addition, Cal-EPA has developed chronic Reference Exposure Levels (RELs) for noncancer effects from inhalation exposures. For this HHRA, toxicity criteria were selected from the following sources, in order of preference and based on availability:

1) Cal-EPA DTSC's Human Health Risk Assessment (HHRA) Note 3 [Cal-EPA, 2016a];
2) Cal-EPA Office of Environmental Health Hazard Assessment (OEHHA) Toxicity Criteria Database, online [Cal-EPA, 2016b]; and
3) USEPA Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites [USEPA, 2016].

Final selection of the appropriate toxicity criteria was based on recommendations presented in Cal-EPA DTSC's Note 3 [Cal-EPA, 2016a]. For TCE, the USEPA inhalation IUR of 4.1×10^{-6} $(\mu g/m^3)^{-1}$ and oral CSF of 4.6×10^{-2} $(mg/kg\text{-}day)^{-1}$ were used [USEPA, 2011] in this HHRA, which are the most conservative toxicity criteria for this VOC and are also recommended in the USEPA RSL table [USEPA, 2016].

At the present time, Cal-EPA and USEPA have only developed toxicity criteria for the oral and inhalation routes of exposure. In the absence of values specific to the dermal route, the oral toxicity criteria were used to evaluate dermal exposures to soil. For those COPCs for which RfCs or RELs are not available, route-to-route extrapolated values from oral RfDs were used. Route-to-route extrapolation can be considered a conservative approach as current USEPA RSL guidance does not include the route-to-route extrapolation. For those COPCs for which noncarcinogenic toxicity values are not available, a surrogate chemical approach was employed in which toxicity values developed for structurally similar compounds were assigned to the COPCs lacking toxicity criteria to avoid underestimating potential noncarcinogenic hazards (e.g. trivalent chromium for total chromium, isopropyl benzene for 4-isopropyltoluene).

A summary of the toxicity criteria for the COPCs is presented in **Table 8**.

The traditional RfD approach to evaluating COPCs is not applied to lead because most adverse human health effects data associated with exposure to lead have been correlated with concentrations of lead in blood and not with oral intake or inhalation of lead by an individual [Cal-EPA, 1996]. Blood lead concentration is an integrated measure of internal dose, reflecting total exposure from Site-related and background sources. In the absence of RfDs, Cal-EPA uses a 1 microgram per deciliter (µg/dL) benchmark for source-specific incremental change in blood lead levels for protection of school children and fetuses [Cal-EPA, 2007] as the revised health criterion for lead. This benchmark is the estimated incremental increase in a child's blood lead level that would reduce their IQ by up to 1 point. Based on this revised benchmark of 1 µg/dL, Cal-EPA has recommended a residential screening level of 80 mg/kg and an industrial screening level of 320 mg/kg [Cal-EPA, 2016a] which is considered protective of the developing child of pregnant females. Detected lead concentrations at the Site are compared to these screening levels; unlike the other COPCs, lead is not included in the quantitative evaluation of a cancer risk or a noncancer hazard.

5. RISK-BASED CONCENTRATIONS

The following section presents the methodology used to derive RBCs for future residents, future commercial workers, and future construction workers, who have the potential to be exposed to residual COPCs detected in soil or soil vapor. The RBCs include the results of the exposure assessment and toxicity assessment and represent the concentrations of COPCs in the relevant environmental media (e.g., soil and soil vapor) that would be considered safe for the various current and future land uses under conservative (i.e., protective) exposure conditions. Potential cumulative cancer risks and noncancer hazards may then be estimated by summing the ratios of measured COPC concentrations and the appropriate RBCs.

5.1 Methodology

Deriving RBCs for COPCs in soil and soil vapor requires information regarding the level of human intake of the COPC (exposure assessment), the relationship between intake of the COPC and its toxicity (toxicity assessment), and the assumed target cancer risk or noncancer hazard. The sections below present the equations used in the development of the RBCs for soil and soil vapor. The methodology is based principally on guidelines provided by the USEPA in *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A), Interim Final* [USEPA, 1989] and *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part B: Development of Risk-Based Preliminary Remediation Goals),* [USEPA, 1991a].

Various demarcations of acceptable risk have been established by regulatory agencies. The National Oil and Hazardous Substances Pollution Contingency Plan [NCP; 40 CFR 300] indicates that lifetime incremental cancer risks posed by a site should not exceed a range of one in one million (1×10^{-6}) to one hundred in one million (1×10^{-4}) and noncarcinogenic chemicals should not be present at levels expected to cause adverse health effects (i.e., a Hazard Index [HI] greater than 1). In addition, other relevant guidance [USEPA, 1991b] states that sites posing a cumulative cancer risk of less than 10^{-4} and hazard indices less than unity (1) for noncancer endpoints are generally not considered to pose a significant risk warranting remediation. The California Hazardous Substances Account Act (HSAA) incorporates the NCP by reference, and thus also incorporates the acceptable risk range set forth in the NCP. In California, the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) regulates chemical exposures to the general population and is based on an acceptable risk level of 1×10^{-5}. The DTSC considers the 1×10^{-6} risk level as the generally accepted point of departure for unrestricted land use. For evaluating worker exposures, a 1×10^{-5} risk level is commonly used for managing commercial/industrial sites in California.

Under most situations, cancer risks in the range of 10^{-6} to 10^{-4} may be considered to be acceptable with cancer risks less than 10^{-6} considered *de minimus*. These risk estimates are in

contrast to the background risk of Americans developing cancer. The background risk is one chance in three (0.3 or 3×10^{-1}) for an American female, and one chance in two (0.5 or 5×10^{-1}) for an American male of eventually developing cancer [ACS, 2016].

For future residents, Site-specific RBCs were derived using a target cancer risk level of 1×10^{-6}. For future commercial workers and future construction workers, Site-specific RBCs were derived using a target cancer risk level of 1×10^{-5}. This target risk of 1×10^{-5} for potential worker exposures has been used in many DTSC-approved risk assessments. It should be noted that the risk results presented in the risk characterization are independent of the target cancer risk used to derive the Site-specific RBCs and are therefore not affected by that assumption. The target hazard quotient (THQ) used for noncarcinogens of 1 was used for all exposure scenarios. Note that the final target cancer risk and noncancer hazard level to be considered applicable for the Site is a risk management decision. The results of the HHRA risk characterization are the starting point for risk management considerations for a site [USEPA, 1995].

5.2 RBCs Based on Cancer Health Effects

The equations below describe the derivation of soil and soil vapor RBCs based on cancer health effects.

For COPCs in soil:

$$RBC_{soil\text{-}C} = \frac{TR}{\left[CSF_{oral} \times \left(IF_{oral} + IF_{dermal}\right)\right] + \left(IUR \times ECF_{inh.s} \times CF_1\right)}$$

For COPCs in soil vapor:

$$RBC_{SV\text{-}C} = \frac{SL_{air\text{-}C}}{AF_{SV\text{-}IA}}$$

Where:

$RBC_{soil\text{-}C}$ = risk-based concentration for soil based on cancer effects (mg/kg);
TR = target cancer risk level (unitless);
CSF_{oral} = cancer slope factor for oral (ingestion and dermal-contact) exposures $(mg/kg\text{-}d)^{-1}$;
IF_{oral} = intake factor for ingestion (kg soil per kg body weight per day);
IF_{dermal} = intake factor for dermal contact (kg soil per kg body weight per day);
IUR = inhalation unit risk $(\mu g/m^3)^{-1}$;
$ECF_{inh,s}$ = exposure concentration factor for outdoor inhalation of COPCs from soil (kg/m^3);

CF_1 = conversion factor (1,000 µg/mg);

RBC_{SV-C} = risk-based concentration for soil vapor based on cancer effects (mg/m^3);

SL_{air-C} = indoor air screening level based on cancer health effects ($\mu g/m^3$); and

AF_{SV-IA} = J&E model-predicted attenuation factor for soil vapor (unitless).

The formulas used in this HHRA for developing the IFs, $ECF_{inh,s}$, and SL_{air} were presented in Section 3.3 above. The soil RBCs based on cancer health effects are presented in **Table 9**. The soil vapor RBCs based on cancer health effects for the indoor air pathway are presented in **Table 10a** for future residents and in **Table 10b** for future commercial workers for the slab-on-grade and second floor exposure scenarios. To account for the various depths at which soil vapor samples were collected, soil vapor RBCs were derived for the following depths: 4, 15, 20, and 30 ft bgs. The RBC derivation spreadsheets are presented in **Appendix E**.

5.3 RBCs Based on Noncancer Health Effects

The equations below describe the derivation of soil and soil vapor RBCs based on noncancer health effects.

For COPCs in soil:

$$RBC_{soil\text{-}NC} = \frac{THQ}{\left(\frac{IF_{oral}}{RfD_{oral}}\right) + \left(\frac{IF_{dermal}}{RfD_{oral}}\right) + \left(\frac{ECF_{inh,s}}{RfC}\right)}$$

For COPCs in soil vapor:

$$RBC_{SV\text{-}NC} = \frac{SL_{air\text{-}NC}}{AF_{SV\text{-}IA}}$$

Where:

$RBC_{soil-NC}$ = risk-based concentration for soil based on noncancer effects (mg/kg);

THQ = target noncancer hazard quotient (unitless);

RfD_{oral} = noncancer reference dose for oral (ingestion and direct-contact) exposures (mg/kg-day);

IF_{oral} = intake factor for ingestion (kg soil per kg body weight per day);

IF_{dermal} = intake factor for dermal contact (kg soil per kg body weight per day);

RfC = noncancer reference concentration for inhalation exposure (mg/m^3);

$ECF_{inh,s}$ = exposure concentration factor for outdoor inhalation of COPCs from soil (kg/m^3);

$RBC_{SV\text{-}NC}$ = risk-based concentration for soil vapor based on noncancer effects (mg/m^3);

$SL_{air\text{-}C}$ = indoor air screening level based on cancer health effects ($\mu g/m^3$); and

$AF_{SV\text{-}IA}$ = J&E model-predicted attenuation factor for soil vapor (unitless).

The soil RBCs based on noncancer health effects are presented in **Table 9**. The soil vapor RBCs based on noncancer health effects for the indoor air pathway are presented in **Table 10a** for future residents and in **Table 10b** for future commercial workers for the slab-on-grade and second floor exposure scenarios. To account for the various depths at which soil vapor samples were collected, soil vapor RBCs were derived for the following depths: 4, 15, 20, and 30 ft bgs. The RBC derivation spreadsheets are presented in **Appendix E**.

6. RISK CHARACTERIZATION

Risk characterization integrates the results of the toxicity assessment and the exposure assessment to estimate potential cancer risks and adverse noncancer health effects associated with exposure to chemicals detected at the Site. This integration provides quantitative estimates of cancer risk and noncancer hazard that are then compared to acceptable standards.

The process of a risk assessment is an iterative process where factual site, receptor, and chemical-specific data are used when available. When specific data are not available, conservative, i.e., health protective, assumptions are utilized (e.g., assuming a worker will be working at the same location for 25 years and ingesting soil at a rate of 100 mg/day). The use of repeated, conservative assumptions can lead to overly conservative estimations of cancer risk or noncancer hazard, but which provides an upper-bound estimate of the actual risk or hazard. Thus, for any site, the estimated cancer risk or noncancer hazard level reflects an upper-bound estimate of the most probable risk or hazard. The most probable cancer risk or noncancer hazard is likely to be much less, perhaps as low as zero, and probably not measurable in the potentially exposed population.

The methodology for deriving RBCs for the receptor populations and potential exposure routes were presented above. This section presents the methodology in which RBCs were used to evaluate COPC-specific and cumulative cancer risk and noncancer hazard for the receptors of concern.

6.1 Cumulative Risk Methodology

This section presents the specific approach used in comparing the concentrations of individual COPCs detected in the various environmental media to the RBCs and in estimating the cumulative cancer risk and noncancer hazard associated with exposure to all detected COPCs at the Site. This approach can be used to determine if the target risk or hazard ranges are exceeded for a given land use scenario. The cumulative cancer risk and noncancer hazard posed by the presence of all COPCs detected in soil and soil vapor at a given sampling location were estimated in this HHRA using the following equations.

Cumulative cancer risk (at a given sampling location):

$$CR_{tot} = \left[\sum_{i=1}^{n} \left(\frac{C_{S_i}}{RBC_{soil\text{-}C,i}} \right) \right] \times TR$$

$$CR_{tot} = \left[\sum_{i=1}^{n} \left(\frac{C_{SVi}}{RBC_{SV\text{-}C,i}} \right) \right] \times TR$$

Cumulative noncancer hazard index (at a given sampling location):

$$HI_{tot} = \left[\sum_{i=1}^{n} \left(\frac{C_{Si}}{RBC_{soil\text{-}NC,i}} \right) \right] \times THI$$

$$HI_{tot} = \left[\sum_{i=1}^{n} \left(\frac{C_{SVi}}{RBC_{SV\text{-}NC,i}} \right) \right] \times THI$$

Where:

CR_{tot}	=	cumulative cancer risk from all COPCs detected in specific medium at a given sampling location (unitless);
C_{Si}	=	concentration of COPC *i* detected in soil (mg/kg);
$RBC_{soil\text{-}C,i}$	=	risk-based concentration for COPC *i* in soil based on cancer effects (mg/kg);
C_{SVi}	=	concentration of COPC *i* detected in soil vapor (mg/m^3);
$RBC_{SV\text{-}C,i}$	=	risk-based concentration for COPC *i* in soil vapor based on cancer effects (mg/m^3);
TR	=	target cancer risk (unitless);
HI_{tot}	=	cumulative noncancer hazard index from all COPC detected in the specific medium at given sampling location (unitless);
$RBC_{soil\text{-}NC,i}$	=	risk-based concentration for COPC *i* in soil based on noncancer effects (mg/kg);
$RBC_{SV\text{-}NC,i}$	=	risk-based concentration for COPC *i* in soil vapor based on noncancer effects (mg/m^3);
THI	=	target noncancer hazard index (unitless); and
n	=	number of COPCs for the medium evaluated (unitless).

Using the methodology presented here, the cumulative cancer risk and noncancer hazard posed by the presence of multiple COPC can be estimated for each sample location and at each sample depth (i.e., a boring where multiple samples have been collected).

For soil vapor samples, because the vapor migration evaluation considers the vertical migration of constituents from a subsurface source toward a building foundation, the shallowest sample provides the most relevant concentration in evaluating potential cancer risk and noncancer hazard as it is closest to a building foundation. However, cumulative cancer risk and noncancer hazard estimates for all sample depths were reported to document the estimated potential cancer risk and noncancer hazard for each sample location and depth, which may be used in the risk-based decision making process.

For soil matrix samples, potential cancer risks or noncancer hazards were estimated for each soil sample location and depth within the top 12 ft. Soil matrix data were used to estimate potential cancer risk and noncancer hazard due to direct contact and outdoor inhalation exposures. Soil vapor data were used to evaluate the potential risk and hazard due to indoor air inhalation. Note however, that this approach in evaluating all soil and soil vapor data, regardless of sample location and future redevelopment plans (construction of buildings), is considered conservative. For example, if a building were to be constructed at a particular location, then direct contact with soils would not be applicable at this location, since the soils would be covered by the building, and thus only the vapor intrusion cancer risks or noncancer hazards would apply.

6.2 Additional Risk Characterization Considerations

The RBC methodology for determining cumulative cancer risks and noncancer hazards can be applied to each COPC detected in each soil matrix and soil vapor sample at the Site. However, it is not always appropriate to include every COPC in the cumulative cancer risk and noncancer hazard calculations. Background metal concentrations and nondetected chemical concentrations should not be considered in the calculations of cumulative cancer risk and noncancer hazard.

Background concentrations are those concentrations, either native or anthropogenic, that are present, but not associated with any Site activities. This HHRA took into account background concentrations, as discussed in Section 2.2.1, and only included those chemicals that were considered to be above background for the Site. Since metals are naturally occurring in the environment, background concentrations are generally applied to metals detected at a site. As discussed in Section 2.2.1, beryllium, cadmium, total chromium, CrVI, copper, lead, and zinc were considered to be above background (**Table 1**); therefore, these metals were selected as COPCs and thus, RBCs were derived for them. Note, however, that the RBCs for lead are represented by the residential screening level of 80 mg/kg and the industrial screening level of 320 mg/kg presented in the Cal-EPA Note 3 guidance [Cal-EPA, 2016a]. As a next step, for the metal COPC to be considered in the cumulative risk evaluation, its concentration detected at each sample boring location must be above its respective background concentration. If so, then the RBC approach was applied to that metal COPC and a cancer risk and/or noncancer hazard was estimated for that metal at that specific boring location.

Note that a quantitative risk evaluation of lead was not conducted, as this metal is compared to the Cal-EPA screening levels noted above (see Section 4). In other words, lead concentrations detected at this Site are not factored into the cancer risk and nonancancer hazard estimates.

6.3 Risk Characterization Results

This section presents the results of the risk characterization which integrates the results of the exposure and toxicity assessments to estimate potential cancer risks (CR) and noncancer hazard indices (HIs) associated with exposure to COPCs at the Site. As discussed in Section 5.1, various demarcations of acceptable risk have been established by regulatory agencies. Under most situations, cancer risks in the range of 10^{-6} to 10^{-4} may be considered to be acceptable with cancer risks less than 10^{-6} considered *de minimus*. The cumulative CR estimates for future residents were compared to a target cancer risk of 1×10^{-6}. The cumulative CR estimates for future commercial workers and future construction workers were compared to a target cancer risk of 1×10^{-5}, which is commonly used for managing commercial/industrial sites in California. The cumulative noncancer HI estimates were compared to a target noncancer hazard of 1.

Cumulative CRs and HIs for each soil sample location are summarized in **Table 11a** for future residents, along with a comparison of lead concentrations to the Cal-EPA residential screening level of 80 mg/kg. Cumulative CRs and HIs for each soil sample location are summarized in in **Table 11b** for future commercial workers and in **Table 11c** for future construction workers, along with a comparison of lead concentrations to the Cal-EPA industrial screening level of 320 mg/kg. Cumulative CRs and HIs for each soil vapor sample location are summarized in **Table 12a** for future residents and future commercial workers for the slab-on-grade scenario, and in **Table 12b** for the second floor scenario. The detailed cancer risk and noncancer hazard calculation spreadsheets are presented in **Appendix F**.

The results for each receptor and exposure pathway scenarios are summarized in the following subsections in relation to the target cancer risk and target noncancer hazard mentioned above.

6.3.1 Future Resident

6.3.1.1 Soil

Soil risk characterization results for future residents potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 11a** and presented in **Figure 4a**.

For the soil exposure pathways, the cumulative CR estimates for future residents ranged from 3×10^{-12} to 9×10^{-6} and exceeded the target risk of 1×10^{-6} at six sample locations (**Table 11a**). CrVI, tetrachloroethylene (PCE), and trichloroethylene (TCE) were the COPCs with CRs above the target risk of 1×10^{-6}. CrVI was detected at concentrations ranging from 0.96 mg/kg to 2.8 mg/kg with COPC-specific CRs greater than 1×10^{-6} at locations A6, SS-2, and SS-5. PCE had CRs greater than 1×10^{-6} at locations A4, A7, and B4, ranging in concentration from 2.47 mg/kg to 3.33 mg/kg. However, it is worth noting that a 95UCL of 0.33 mg/kg derived for PCE

is below its RBC of 0.86 mg/kg. TCE had a CR estimate greater than 1×10^{-6} at only one location, A7, with a 95UCL of 1.08 mg/kg below its RBC of 2.0 mg/kg.

The cumulative HI estimates ranged from 1×10^{-6} to $4\times10^{+0}$ and exceeded the target hazard of 1 at only one location (Sample A7 at 3.5 ft bgs) (**Table 11a**). Copper was the only COPC with an HI estimate greater than the target hazard; however, a 95UCL of 401 mg/kg for copper (see **Table 1**) was below its RBC of 3,100 mg/kg.

Lead concentrations at only two locations (A7 and B4) exceeded the residential soil screening level of 80 mg/kg, as indicated in **Table 11a**. The 95UCL lead concentration of 63 mg/kg is below the residential soil screening level.

6.3.1.2 Soil Vapor to Indoor Air

Soil vapor risk characterization results for future residents potentially exposed via indoor air inhalation for individual sampling locations are provided in **Table 12a** and presented in **Figure 5a** for the slab-on-grade scenario and in **Table 12b** and **Figure 5b** for the second floor exposure scenario (i.e., with a parking level between grade and the floor of the residence).

For the slab-on-grade scenario, the cumulative CR estimates for future residents ranged from 8×10^{-9} to 4×10^{-4} and exceeded the target risk of 1×10^{-6} at 10 sample locations. PCE had CR estimates above 1×10^{-6} at nine locations, while TCE had a CR estimate greater than 1×10^{-6} at only one location, A7 (**Table 12a**). The cumulative HI estimates ranging from 4×10^{-4} to 5×10^{0} were below the target hazard of 1 at all but two sample locations (A5B and LB3), with PCE as the only COPC with HI estimates greater than 1 (**Table 12a**).

For the second floor exposure scenario, the cumulative CR estimates for future residents ranged from 1×10^{-10} to 5×10^{-6} and exceeded the target risk of 1×10^{-6} at only two sample locations (A5B and LB3). PCE was the only COPC with CR estimates greater than 1×10^{-6} at both locations (**Table 12b**). The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 5×10^{-6} to 7×10^{-2} (**Table 12b**). Note that these calculations do not assume any engineering controls present within the parking area (i.e., mechanical ventilation) or liners beneath the slabs. In addition, the two specific sampling locations highlighted above (A5B and LB3) may be sufficiently separated from the second floor residents, depending on the placement of the multi-story portion of the parking structure.

6.3.2 Future Commercial Worker

6.3.2.1 Soil

Soil risk characterization results for future commercial workers potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 11b** and presented in **Figure 4b**.

For the soil exposure pathways, the cumulative CR estimates for future commercial workers were below the target cancer risk of 1×10^{-5} at all sample locations, ranging from 7×10^{-13} to 9×10^{-7}. The cumulative HI estimates were at or below the target hazard of 1 at all sample locations, ranging from 2×10^{-7} to $1\times10^{+0}$ (**Table 11b**).

Lead concentration at only one location (A7 at 3.5 ft bgs) exceeded the industrial soil screening level of 320 mg/kg, as indicated in **Table 11b**. The 95UCL lead concentration of 63 mg/kg is well below the industrial soil screening level.

6.3.2.2 Soil Vapor to Indoor Air

Soil vapor risk characterization results for future commercial workers potentially exposed via indoor air inhalation for individual sampling locations are provided in **Table 12a** and presented in **Figure 5c** for the slab-on-grade scenario and **Table 12b** and in **Figure 5d** for the second floor exposure scenario.

For the slab-on-grade scenario, the cumulative CR estimates for future commercial workers ranged from 6×10^{-10} to 3×10^{-5} and exceeded the target risk of 1×10^{-5} at only one sample location (LB3). PCE was the only COPC with a CR estimate greater than 1×10^{-5} at this location. The cumulative HI estimates were less than the target hazard of 1 at all sample locations, ranging from 3×10^{-5} to 4×10^{-1} (**Table 12a**).

For the second floor exposure scenario, the cumulative CR estimates for future commercial workers was below the target risk of 1×10^{-5} at all sample locations, ranging from 2×10^{-11} to 1×10^{-6}. The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 1×10^{-6} to 2×10^{-2} (**Table 12b**).

6.3.3 Future Construction Worker

6.3.3.1 Soil

Soil risk characterization results for future construction workers potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 11c** and presented in **Figure 4c**.

For the soil exposure pathways, the cumulative CR estimates for future construction workers were below the target risk of 1×10^{-5} at all sample locations, ranging from 1×10^{-11} to 4×10^{-7}. The cumulative HI estimates ranged from 1×10^{-6} to $4\times10^{+0}$ and exceeded the target hazard of 1 at only one sample location (A7 at 3.5 ft bgs) (**Table 11c**). Cadmium was the only COPC with an HI estimate greater than the target hazard; however, a Site 95UCL of 0.565 mg/kg for cadmium was well below its RBC of 4.5 mg/kg.

As mentioned above in Section 6.3.2.1, lead concentration at only one sample location (A7 at 3.5 ft bgs) exceeded the industrial soil screening level of 320 mg/kg (**Table 11c**).

6.3.4 Summary of Risk Characterization

The results of this HHRA indicate that cumulative cancer risks and noncancer hazards exceed the target health risks of 1×10^{-6} and 1, respectively, for a future resident at six soil sample locations (**Figure 4a**), 10 soil vapor locations based on the slab-on-grade scenario (**Figure 5a**), and only two soil vapor locations based on the second floor scenario (**Figure 5b**). Cumulative cancer risks and noncancer hazards were below the target health risks of 1×10^{-5} and 1, respectively, for a future commercial worker, with the exception of only one soil vapor location (LB3 with a CR estimate of 3×10^{-5}) based on the slab-on-grade scenario (**Figure 5c**). Cumulative cancer risks and noncancer hazards were below the target health risks of 1×10^{-5} and 1, respectively, for a future construction worker, with the exception of one soil location (A7 with an HI estimate of 4) (**Figure 4c**). Additionally, two locations had lead concentrations greater than the residential screening level, and one location had a lead concentration greater than the industrial soil screening level. However, the 95UCL lead concentration is below the soil screening levels. Overall, potential health risks on site are driven primarily by PCE and to a lesser extent based on Site development plans to CrVI, TCE, cadmium, copper, and lead.

7. UNCERTAINTY ANALYSIS

The methodology used in this HHRA is consistent with USEPA and Cal-EPA risk assessment guidance. However, the procedures used in any quantitative HHRAs are conditional estimates given the many assumptions that must be made about exposure and toxicity. Where possible, conservative (health-protective) assumptions were used for the inputs into the HHRA, which is consistent with agency guidance. Major sources of uncertainty in an HHRA may include the following:

1) Natural variability (e.g., differences in body weight in a population);
2) Lack of knowledge about basic physical, chemical, and biological properties and processes (e.g., the affinity of a chemical for soil and degradation rates);
3) Assumptions in the models used to estimate key inputs (e.g., exposure, dose response models, fate and transport models); and
4) Measurement error primarily with respect to sampling and laboratory analysis.

Site-specific factors, which this assessment incorporates, decrease uncertainty, although uncertainty may persist in even the most Site-specific HHRAs due to the inherent uncertainty in the process. However, because the assumptions used are generally health-protective and conservative in nature, the estimated health risks are likely to exceed the most probable risk posed to potential receptors at the Site.

Key uncertainties associated with this HHRA include:

- The potential for concentrations to attenuate over time were not considered in this HHRA. For example, the J&E vapor intrusion model assumes that the source of contamination is infinite (i.e., not depleting) and fixed in place (i.e., steady-state conditions are present) even though the concentrations would likely deplete over time. This depletion would be accelerated by biodegradation or other processes, which were not considered in this HHRA. Therefore, the risks and hazards estimated in this HHRA are likely to be lower than predicted, especially if biodegradation or other processes are occurring.
- Uncertainty in the toxicity assessment arises for those chemicals which rely on animal studies as the basis for determining the appropriate toxicity value for effects on humans. Toxicity values typically assume that adverse effects observed in animal toxicity experiments would also be observed in humans. In addition, the use of surrogate chemicals to represent the COPCs that appear to be structurally similar could result in an over- or under-estimation of potential cancer risk or noncancer hazard for that compound. Likewise, the use of route-to-route extrapolation for those COPCs for which inhalation toxicity criteria (RfCs or RELs) are not available could be considered

a conservative approach and thus result in an over-estimation of potential cancer risk or noncancer hazard for that compound.

- Assumed exposure durations used in this HHRA represent upper-bound estimates of the total amount of time that an individual may be either indoors or outdoors for the full duration of the exposure period. In other words, the HHRA assumptions entail the receptor staying outdoor or indoors the entire duration of the exposure period. As a result, the estimated incremental cancer risks and noncancer hazards are overestimated.
- A time-weighted PEF was developed for a construction worker assuming that only a fraction of the construction time would have elevated dust levels. It was assumed that the intrusive soil-handling activities will be conducted for the first 60 days of construction when Site soils will be graded and the emissions during the remaining 190 working days, of the total 250 working days, would primarily be due to wind-blown dust. This approach could over- or under-estimate COPC concentrations in fugitive dust as there is uncertainty as to the length and type of actual construction activities that will take place.
- Conservatively assumed 100% bare soil was available for contact, where soil is exposed to the surface with no hardscape, buildings or landscaping in place. However, when accounting for the proposed redevelopment plans for the Site, much of the soil is covered with asphalt pavement, buildings, landscaping, and hardscape. If these types of coverings were included in the soil to outdoor air fugitive dust and vapor modeling, the emissions estimates would be significantly lower, or non-existent, resulting in lower cancer risk and noncancer hazard estimates than reported. Additionally, future residents and workers would not be directly exposed to soil via ingestion and dermal contact if covered by landscape and/or hardscape (i.e., soil is inaccessible).

In summary, because a HHRA contains multiple sources of uncertainty, simplifying assumptions are often made so that potential health risks and hazards can be estimated quantitatively. Since the exact amount of uncertainty cannot be quantified, the HHRA is intended to be conservative (i.e., overestimate rather than underestimate probable cancer risk or noncancer hazard), with the results of this assessment, therefore, tending to err on the side of caution relative to being protective of health despite the inherent uncertainties in the process.

8. CONCLUSIONS

This HHRA was prepared consistent with Cal-EPA and USEPA guidance. Potential cancer risk and noncancer hazard to future residents, future commercial workers, and future construction workers were evaluated assuming exposure occurs to residual COPC concentrations detected in soil and soil vapor samples collected from the Site. Mixed residential and commercial land use is planned for this Site; therefore, both of these scenarios were evaluated in this HHRA.

The cancer risk and noncancer hazard estimates presented in this HHRA likely over-estimate the potential health risk because several conservative assumptions were used throughout the HHRA process. Moreover, no engineering or other controls were included in the assessment that would reduce or mitigate exposures post-development.

For future residents, the cumulative CR estimates for the soil exposure pathway exceeded the target risk of 1×10^{-6} at a small number of sample locations and depths. The target noncancer hazard was exceeded at only one location, and lead exceeded the residential screening level at two locations. In general, while select sample locations show elevated potential health risks, the Site-wide 95UCL concentrations were below RBCs for the COPCs with CRs or HIs greater than target risk levels, indicating that Site risks are not widespread and instead are isolated to specific sample locations. Note that the number of detections of CrVI is relatively small with a low detection frequency. Additionally, because of the proposed extensive hardscape with soils predominantly under a building footprint, it is unlikely that future residents will come into direct contact with the existing impacted soils under the proposed development scenario.

For the soil vapor to indoor air pathway under the slab-on-grade scenario, the cumulative CR estimates for future residents exceeded the target risk of 1×10^{-6} at 10 sample locations, and the cumulative HI estimates were below the target hazard of 1 at all but two sample locations. For the soil vapor to indoor air pathway under the second floor scenario, the cumulative CR estimates for future residents exceeded the target risk of 1×10^{-6} at only two sample locations, and the cumulative HI estimates were below the target hazard at all sample locations. As noted previously, no engineering controls are considered in this calculation, and the two specific locations are likely to be located below the multi-story portion of the future parking structure.

For future commercial workers, the cumulative CR and HI estimates for the soil exposure pathways were below the target risks of 1×10^{-5} and 1, respectively, at all sample locations. Only one location had a lead concentration that exceeded the industrial screening level of 320 mg/kg, sample A7 at 3.5 ft bgs. However, the 95UCL lead concentration is well below the screening level. For the soil vapor to indoor air pathway under the slab-on-grade scenario, the cumulative CR estimates for future commercial workers exceeded the target risk of 1×10^{-5} at only one sample location, and the cumulative HI estimates were below the target hazard of 1 at all sample locations. For the soil vapor to indoor air pathway under the second floor scenario, the

cumulative CR and HI estimates for future commercial workers were below the target risks of 1×10^{-5} and 1, respectively, at all sample locations.

For future construction workers, the cumulative CR estimates for the soil exposure pathways were below the target risk of 1×10^{-5} at all sample locations. The cumulative HI estimates exceeded the target hazard of 1 at one location with cadmium as the only COPC with an HI greater than 1. Note that the 95UCL concentration of cadmium is below the construction worker soil RBC. Additionally, only one location had a lead concentration that exceeded the screening level of 320 mg/kg but the 95UCL lead concentration was below 320 mg/kg.

The results of this HHRA indicate that, given planned future mixed residential and commercial land uses, residual concentrations of COPCs that remain in the subsurface are not expected to pose a significant health concern across the Site. However, select sample locations have COPC concentrations that result in exceedances of risk based thresholds and the soil and soil vapor impacts in the areas in the vicinity of these sample locations should, therefore, be considered further during development planning.

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TABLES

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Table 1
Background Metals Summary Statistics
777 North Front Street
Burbank, California

Metal	Summary Statistics												Inflection Point[4] (mg/kg)	Within Bkgd?	Selected Bkgd Level[5] (mg/kg)	Selected as a COPC[6]?
	Number of Samples[1]	Number of Detects	Number of NDs	% NDs	Minimum of Detects	Maximum of Detects	Average of Detects	Standard Deviation[2]	Skewness[2]	CV[2]	Distribution	95% UCL				
Arsenic	110	4	106	96%	2.3	6.83	4.44	2.426	0.0512	0.546	Lognormal	0.797	None	Yes	12[7]	No
Barium	110	110	0	0%	34.5	287	165.7	53.81	-0.229	0.325	Normal	174.2	None	Yes	287	No
Beryllium	110	1	109	99%	0.387	0.387	0.387	--	--	--	--[8]	--	--	No	0.387	Yes[9]
Cadmium	110	4	106	96%	0.8	6.1	2.325	2.524	1.966	1.085	Approximate Lognormal	0.565	0.8	No	0.8	Yes
Chromium	110	110	0	0%	5.2	157	27.12	15.77	5.337	0.582	None	29.62	35.7	No	35.7	Yes
Chromium, Hexavalent	13	5	8	62%	0.96	2.8	1.452	0.763	2.099	0.526	Lognormal	1.558	None	No	--	Yes[10]
Cobalt	110	110	0	0%	1.1	22.6	14.24	4.446	-0.39	0.312	Normal	14.94	None	Yes	22.6	No
Copper	110	110	0	0%	6.8	6740	123.8	667.2	9.315	5.389	None	401.1	64.4	No	64.4	Yes
Lead	110	108	2	2%	0.6	1110	19.09	107.6	9.945	5.633	None	63.06	11.9	No	11.9	Yes
Mercury	110	32	78	71%	0.02	0.13	0.0397	0.0211	2.779	0.531	Lognormal	0.0283	None	Yes	1.3	No
Molybdenum	110	2	108	98%	2.2	2.7	2.45	0.354	--	0.144	--[8]	0.356	None	Yes	2.7	No
Nickel	110	110	0	0%	2.3	47.1	18.46	6.513	0.531	0.353	Normal	19.49	26	Yes	26	No
Vanadium	110	110	0	0%	11.3	83.8	55.26	14.18	-0.407	0.257	Approximate Normal	57.5	53.8	Yes	53.8	No
Zinc	110	110	0	0%	21.7	6920	317.1	1088	5.159	3.431	None	769.3	359	No	359	Yes

Notes:

" -- " not applicable; " mg/kg " milligram per kilogram

" ND " non-detect; " CV " coefficient of variation; " n " number of samples

" 95UCL " 95% upper confidence limit

(1) Excludes duplicates

(2) Calculated based on only detections (i.e., omitting NDs from the dataset)

(3) Distribution of the data and 95 percent upper confidence limit (95UCL) of the average concentration determined using USEPA ProUCL version 5.0.00 software

(4) Cal-EPA, 2009. Arsenic Strategies. Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals for Proposed and Existing School Sites.

(5) Selected background level = inflection point from the Q-Q plots (Figures B-1 through B-18) or the maximum detected value.

(6) A Metal was selected as a COPC based on a weight of evidence approach, including if at least one of the following criteria were met:

a) Coefficient of Variation (CV) > 1

b) If the distribution can not be determined from the Q-Q plots or the Goodness of Fit (GOF) test

c) If an inflection point can be identified in the Q-Q plots (Figures B-1 to B-18)

(7) Regional background of 12 mg/kg applied.

(8) Not enough data to perform Goodness of Fit Test

(9) Be is carried forward as COPC due to elevated NDs

(10) Cr(VI) is carried forward as COPC due to known impacts in region and lack of natural sources.

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Table 2
Chemicals of Potential Concern
777 North Front Street
Burbank, California

CAS Number	Chemical of Potential Concern	Soil COPC	Soil Vapor COPC
Metals			
7440-41-7	Beryllium	X	
7440-43-9	Cadmium	X	
7440-47-3	Chromium, Total	X	
18540-29-9	Chromium, Hexavalent	X	
7440-50-8	Copper	X	
7439-92-1	Lead and compounds (inorganic)	X	
7440-66-6	Zinc	X	
Volatile Organic Compounds (VOCs)			
630-20-6	1,1,1,2-Tetrachloroethane		X
71-55-6	1,1,1-Trichloroethane	X	X
75-34-3	1,1-Dichloroethane		X
75-35-4	1,1-Dichloroethene		X
95-63-6	1,2,4-Trimethylbenzene		X
108-67-8	1,3,5-Trimethylbenzene		X
99-87-6	4-Isopropyltoluene		X
71-43-2	Benzene	X	X
108-90-7	Chlorobenzene		X
67-66-3	Chloroform		X
156-59-2	cis-1,2-Dichloroethene		X
75-71-8	Dichlorodifluoromethane		X
100-41-4	Ethylbenzene	X	X
76-13-1	Freon 113		X
104-51-8	n-Butylbenzene		X
103-65-1	n-Propylbenzene		X
127-18-4	Tetrachloroethylene	X	X
108-88-3	Toluene	X	X
156-60-5	trans-1,2-Dichloroethene	X	
79-01-6	Trichloroethylene	X	X
75-69-4	Trichlorofluoromethane		X
1330-20-7	Xylenes		X

Notes:

COPC - chemical of potential concern

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Table 3
Exposure Parameters
777 North Front Street
Burbank, California

Exposure Parameters	Units	Future Resident			Future Commercial Worker		Future Construction Worker	
		Adult	Child	Source	Adult	Source	Adult	Source
Soil Ingestion Rate (IngR)	mg/day	100	200	1	100	1	330	1
Skin Surface Area (SA)	cm^2/day	6,032	2,900	1	6,032	1	6,032	1
Percent Dermal Absorption (ABSd)	unitless	--	--	COPC-specific; 2	--	COPC-specific; 2	--	COPC-specific; 2
Soil Adherence Factor (AF)	mg/cm^2	0.07	0.2	1	0.2	1	0.8	1
Exposure Frequency (EF)	days/year	350	350	1	250	1	250	1
Exposure Duration (ED)	years	20	6	1	25	1	1	1
Exposure Time (ET)	hours/day	24	24	1	8	1	8	1
Body Weight (BW)	kg	80	15	1	80	1	80	1
Averaging Time for Noncarcinogens (AT_n)	days	7,300	2,190	1	9,125	1	365	1
Averaging Time for Carcinogens (AT_c)	days	25,550	25,550	1	25,550	1	25,550	1

Notes:

"--" not applicable

Sources:

(1) Cal-EPA 2014. Human Health Risk Assessment (HHRA) Note. HERO Note #1. Recommended DTSC Default Exposure Factors for Use in Risk Assessment at California Hazardous Waste Sites and Permitted Facilities. September 30.

(2) USEPA 2016. Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites. May. www.epa.gov/region09/superfund/prg/index.html

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Table 4
Definition of Transfer Factors
777 North Front Street
Burbank, California

Exposure Route	Transfer Factor	Definition
Inhalation of particulates in outdoor air	Particulate emission factor (PEF) (kg/m^3)	Ratio of chemical concentration in outdoor air (mg/m^3) to chemical concentration in soil (mg/kg)
Inhalation of vapors in outdoor air	Soil-to-air volatilization factor (VF_{Soil}) (kg/m^3)	Ratio of chemical concentration in outdoor air (mg/m^3) to chemical concentration in soil (mg/kg)
Inhalation of vapors in indoor air	Soil vapor-to-indoor air attenuation factor (AF_{SV-IA}) (unitless)	Ratio of chemical concentration in indoor air (mg/m^3) to chemical concentration in soil vapor (mg/m^3)

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Table 5
Outdoor Air Transfer Factors for Soil
777 North Front Street
Burbank, California

Parameter			Value	Units	Reference
Water-filled soil porosity (θw)			0.224	(Lwater-Lsoil)	Site-specific, see Attachment A.
Total soil porosity (θ_T)			0.333	(Lpore-Lsoil)	Site-specific, see Attachment A.
Air-filled soil porosity (θa)			0.109	(Lair-Lsoil)	Site-specific, see Attachment A.
Soil bulk density (Pb)			1.77	g/cm^3	Site-specific, see Attachment A.
Fraction organic carbon in soil (foc)			0.006	unitless	USEPA 2016 RSL default
Mean annual windspeed		Um	3.31	m/s	Average for Los Angeles, 7.4 mph (USEPA 2002)
Equivalent threshold value of windspeed at 7m		Ut	11.32	m/s	Default (USEPA 2002)
Windspeed distribution function dependent on Um/Ut		Fx	4.74E-03	unitless	Los Angeles-Specific (Appendix D, Table 2 in USEPA 1996)
Dispersion correction factor, construction		F_D	0.188	unitless	assumes 1-yr construction (eqn E-16, US EPA 2002)
Exposure interval	residential	T_{res}	8.2E+08	sec	26 year exposure duration
	commercial	T_{commW}	7.9E+08	sec	25 year exposure duration
	construction	T_{constW}	3.2E+07	sec	1 year exposure duration
Inverse of mean concentration	residential/commercial	$Q/C_{res/commW}$	68.18	(g/m^2-s per kg/m^3)	Calculated for a 0.5-acre site in Los Angeles (USEPA 2002)
	construction, particulates	$Q/C_{p,cw}$	15.59	(g/m^2-s per kg/m^3)	Estimated for an 8-acre site (eqn E-19, USEPA 2002)
	construction, volatiles	$Q/C_{vol,cw}$	8.73	(g/m^2-s per kg/m^3)	Estimated for an 8-acre site, subchronic (eqn E-15, USEPA 2002)
Fraction of vegetative cover	residential/commercial	$G_{res/commW}$	0.5	unitless	Default (USEPA 2002)
	construction	G_{cw}	0	unitless	Professional Judgment
Particulate Emission Factor	residential/commercial	$PEF_{res/commW}$	1.2E+11	(m^3/kg)	Estimated for a limited area, 0.5-acre (USEPA 2002)
	construction	PEF_{constW}	4.2E+06	(m^3/kg)	Estimated for an 8-acre site, = approximately 240 µg/m^3 of dust

Notes:

Particulate Emission Factor; PEF (USEPA 2002): PEF = [(Q/C * 3600) / (0.036 * (1-G) * $(Um/Ut)^3$ * Fx)]

Sources:

USEPA 1996. Soil Screening Guidance: Technical Background Document. Office of Solid Waste and Emergency Response. Second Edition. EPA/540/R95/128. May.

USEPA 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. Peer Review Draft. OSWER 9355.4 24.

USEPA 2016. Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites. May. www.epa.gov/region09/superfund/prg/index.html

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Table 5
Outdoor Air Transfer Factors for Soil
777 North Front Street
Burbank, California

CAS Number	Chemical of Potential Concern	Diffusivity in Air (Dair) (cm^2/s)	Henry's Law Constant (H')	Diffusivity in Water (Dw) (cm^2/s)	Soil organic carbon partition coeff (Koc) (L/kg)	Soil-water partition coefficient (Kd)	Apparent Diffusivity (Da)	Future Resident VF_{soil} (m^3/kg)	Future Commercial Worker VF_{soil} (m^3/kg)	Future Construction Worker VF_{soil} (m^3/kg)
71-55-6	1,1,1-Trichloroethane	6.5E-02	7.0E-01	9.6E-06	4.4E+01	2.1E-01	9.5E+04	1.0E-07	5.0E-08	2.7E-04
71-43-2	Benzene	9.0E-02	2.3E-01	1.0E-05	1.5E+02	6.9E-01	2.7E+04	2.0E-07	9.5E-08	5.2E-04
156-59-2	cis-1,2-Dichloroethene	8.8E-02	1.7E-01	1.1E-05	4.0E+01	1.9E-01	4.5E+04	1.5E-07	7.3E-08	4.0E-04
100-41-4	Ethylbenzene	6.8E-02	3.2E-01	8.5E-06	4.5E+02	2.1E+00	1.1E+04	3.1E-07	1.5E-07	8.0E-04
127-18-4	Tetrachloroethene	5.0E-02	7.2E-01	9.5E-06	9.5E+01	4.5E-01	5.3E+04	1.4E-07	6.7E-08	3.7E-04
108-88-3	Toluene	7.8E-02	2.7E-01	9.2E-06	2.3E+02	1.1E+00	1.9E+04	2.4E-07	1.1E-07	6.2E-04
156-60-5	trans-1,2-Dichloroethene	8.8E-02	3.8E-01	1.1E-05	4.0E+01	1.9E-01	8.8E+04	1.1E-07	5.2E-08	2.8E-04
79-01-6	Trichloroethene	6.9E-02	4.0E-01	1.0E-05	6.1E+01	2.9E-01	5.9E+04	1.3E-07	6.4E-08	3.5E-04

Notes:

Volatilization Factor; VF (USEPA 2002): $VF = Q/C * ((3.14 * Da * T)^{1/2} * 10^{-4})/(2 * Pb * Da))$

Sources:

USEPA 2016. Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites. May. www.epa.gov/region09/superfund/prg/index.html

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Table 6
Model Input Parameters
777 North Front Street
Burbank, California

Model Input Parameter		Value Used	Rationale
General and Soil Physical Property Assumptions			
Average Soil Temperature (Ts), ^{o}C		19	Area-specific average
Depth below grade to bottom of enclosed space floor (L_F), cm		15	Slab construction
Soil gas sampling depth below grade (Ls), cm		sample-specific	Actual sample depths: 4-; 15-, 20-; and 30-ft bgs
Soil stratum A SCS soil type		S	Sand based on boring logs & grain texture distribution
Thickness of soil stratum A (h_A), cm		0 to 14 ft bgs	Based on Site boring logs and soil physical properties
Used to Derive 0 to 14-ft RBCs	Stratum A soil dry bulk density, gm/cm^3	1.77	Based on soil physical properties; see Appendix C
	Stratum A soil total porosity, unitless	0.333	
	Stratum A soil water-filled porosity, cm^3/cm^3	0.224	
	Stratum A soil air-filled porosity, cm^3/cm^3	0.109	
Soil stratum B SCS soil type		SL	Sandy loam based on boring logs & grain texture distribution
Thickness of soil stratum B (h_B), cm		14 to 61.5 ft bgs	Based on Site boring logs and soil physical properties
Used to Derive >14-ft RBCs	Stratum B soil dry bulk density, gm/cm^3	1.87	Based on soil physical properties; see Appendix C
	Stratum B soil total porosity, unitless	0.294	
	Stratum B soil water-filled porosity, cm^3/cm^3	0.159	
	Stratum B soil air-filled porosity, cm^3/cm^3	0.135	
Crack-to-total-area ratio (η), unitless		0.005	Default building dimension (Cal-EPA, 2011)
Floor-wall seam crack width (w), cm		0.1	Default building dimension (Cal-EPA, 2011)
Enclosed space floor thickness (L_{crack}), cm		15	Default building dimension (Cal-EPA, 2011)
Soil building pressure differential (ΔP), g/cm-sec^2		40	Default building dimension (Cal-EPA, 2011)
Average vapor flow rate into building (Qsoil), L/m		5	Based on 5 L/min per 100 m^2 of building floor space
Future Residential Building Parameters			
Enclosed space floor length (L_B), cm		1000	Default building dimension (Cal-EPA, 2011)
Enclosed space floor width (W_B), cm		1000	Default building dimension (Cal-EPA, 2011)
Enclosed space height (H_B), cm		244	Default ceiling height, 8 feet (Cal-EPA, 2011)
Indoor air exchange rate (ER), hour^{-1}		0.5	Default residential building assumption (Cal-EPA, 2011)
Future Commercial Building Parameters			
Enclosed space floor length (L_B), cm		1000	Default building dimension (Cal-EPA, 2011)
Enclosed space floor width (W_B), cm		1000	Default building dimension (Cal-EPA, 2011)
Enclosed space height (H_B), cm		366	Proposed ceiling height (12 feet or 3.66 meters)
Indoor air exchange rate (ER), hour^{-1}		1	Default commercial building assumption
First Floor Parking Garage Parameters			
Enclosed space floor length (L_B), cm		1000	Default building dimension (Cal-EPA, 2011)
Enclosed space floor width (W_B), cm		1000	Default building dimension (Cal-EPA, 2011)
Enclosed space height (H_B), cm		366	Proposed garage ceiling height (12 feet or 3.66 meters)
Indoor air exchange rate (ER), hour^{-1}		0.75	Default garage building assumption (CEES, 2013)
Leakage Factor (LF), %		3	Average air leakage to account for vapor migration between the ground floor use and the second floor (CEE, 2004)

Notes:

ft bgs - feet below ground surface

CEE, 2004. Reduction of Environmental Tobacco Smoke Transfer in Minnesota Multifamily Buildings Using Air Sealing and Ventilation Treatments. Center for Energy and Environment. November.

Cal-EPA, 2011. Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. Final. October 2011.

California Energy Efficiency Standards (CEES), 2013 which lists a garage ventilation rate of 0.15 ft3/ft2. When converted using a ceiling height of 12 feet, we get an AER of 0.75 per hour = (0.15 ft3/ft2-min) x (60 min/hour) x (1/12 ft) = 0.75 per hour

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Table 7a
Soil Vapor to Indoor Air Attenuation Factors
Future Resident
777 North Front Street
Burbank, California

CAS Number	Chemical of Potential Concern	Future Resident AF_{SV-IA}							
		Slab-on-Grade Scenario				Second Floor Scenario			
		4 ft bgs	15 ft bgs	20 ft bgs	30 ft bgs	4 ft bgs	15 ft bgs	20 ft bgs	30 ft bgs
630-20-6	1,1,1,2-Tetrachloroethane	7.5E-05	1.9E-05	1.7E-05	1.4E-05	9.9E-07	2.6E-07	2.3E-07	1.8E-07
71-55-6	1,1,1-Trichloroethane	9.7E-05	2.5E-05	2.2E-05	1.8E-05	1.3E-06	3.4E-07	3.0E-07	2.4E-07
75-34-3	1,1-Dichloroethane	1.2E-04	3.3E-05	2.9E-05	2.3E-05	1.7E-06	4.3E-07	3.8E-07	3.1E-07
75-35-4	1,1-Dichloroethene	1.3E-04	3.3E-05	2.9E-05	2.4E-05	1.7E-06	4.5E-07	3.9E-07	3.2E-07
95-63-6	1,2,4-Trimethylbenzene	9.1E-05	2.4E-05	2.1E-05	1.7E-05	1.2E-06	3.2E-07	2.8E-07	2.2E-07
108-67-8	1,3,5-Trimethylbenzene	9.0E-05	2.3E-05	2.1E-05	1.7E-05	1.2E-06	3.1E-07	2.8E-07	2.2E-07
99-87-6	4-Isopropyltoluene	9.5E-05	2.5E-05	2.2E-05	1.8E-05	1.3E-06	3.3E-07	2.9E-07	2.3E-07
71-43-2	Benzene	1.3E-04	3.5E-05	3.1E-05	2.5E-05	1.8E-06	4.6E-07	4.1E-07	3.3E-07
108-90-7	Chlorobenzene	1.1E-04	2.8E-05	2.5E-05	2.0E-05	1.4E-06	3.8E-07	3.3E-07	2.7E-07
67-66-3	Chloroform	1.2E-04	3.0E-05	2.6E-05	2.1E-05	1.5E-06	4.0E-07	3.5E-07	2.8E-07
156-59-2	cis-1,2-Dichloroethene	1.3E-04	3.4E-05	3.0E-05	2.4E-05	1.7E-06	4.6E-07	4.0E-07	3.3E-07
75-71-8	Dichlorodifluoromethane	1.1E-04	2.9E-05	2.6E-05	2.1E-05	1.5E-06	3.9E-07	3.5E-07	2.8E-07
100-41-4	Ethylbenzene	1.0E-04	2.7E-05	2.3E-05	1.9E-05	1.4E-06	3.6E-07	3.1E-07	2.5E-07
76-13-1	Freon 113	5.7E-05	1.5E-05	1.3E-05	1.0E-05	7.6E-07	1.9E-07	1.7E-07	1.4E-07
104-51-8	n-Butylbenzene	7.9E-05	2.1E-05	1.8E-05	1.5E-05	1.1E-06	2.7E-07	2.4E-07	1.9E-07
103-65-1	n-Propylbenzene	9.0E-05	2.3E-05	2.1E-05	1.7E-05	1.2E-06	3.1E-07	2.7E-07	2.2E-07
127-18-4	Tetrachloroethylene	7.6E-05	2.0E-05	1.7E-05	1.4E-05	1.0E-06	2.6E-07	2.3E-07	1.9E-07
108-88-3	Toluene	1.2E-04	3.0E-05	2.7E-05	2.1E-05	1.5E-06	4.0E-07	3.6E-07	2.9E-07
79-01-6	Trichloroethylene	1.0E-04	2.7E-05	2.4E-05	1.9E-05	1.4E-06	3.6E-07	3.1E-07	2.5E-07
75-69-4	Trichlorofluoromethane	9.7E-05	2.5E-05	2.2E-05	1.8E-05	1.3E-06	3.4E-07	3.0E-07	2.4E-07
1330-20-7	Xylenes	1.0E-04	2.7E-05	2.3E-05	1.9E-05	1.4E-06	3.6E-07	3.1E-07	2.5E-07

Notes:

ft bgs - feet below ground surface

AF_{SV-IA} - Soil vapor to indoor air attenuation factor

AF_{SV-IA} = J&E-modeled AF x 3% leakage factor (Center for Energy and Environment, 2004)

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Table 7b
Soil Vapor to Indoor Air Attenuation Factors
Future Commercial Worker
777 North Front Street
Burbank, California

CAS Number	Chemical of Potential Concern	Future Commercial Worker AF_{SV-IA}							
		Slab-on-Grade Scenario				Second Floor Scenario			
		4 ft bgs	15 ft bgs	20 ft bgs	30 ft bgs	4 ft bgs	15 ft bgs	20 ft bgs	30 ft bgs
630-20-6	1,1,1,2-Tetrachloroethane	2.5E-05	6.4E-06	5.6E-06	4.5E-06	9.9E-07	2.6E-07	2.3E-07	1.8E-07
71-55-6	1,1,1-Trichloroethane	3.2E-05	8.4E-06	7.4E-06	6.0E-06	1.3E-06	3.4E-07	3.0E-07	2.4E-07
75-34-3	1,1-Dichloroethane	4.1E-05	1.1E-05	9.5E-06	7.7E-06	1.7E-06	4.3E-07	3.8E-07	3.1E-07
75-35-4	1,1-Dichloroethene	4.2E-05	1.1E-05	9.8E-06	7.9E-06	1.7E-06	4.5E-07	3.9E-07	3.2E-07
95-63-6	1,2,4-Trimethylbenzene	3.0E-05	7.9E-06	7.0E-06	5.6E-06	1.2E-06	3.2E-07	2.8E-07	2.2E-07
108-67-8	1,3,5-Trimethylbenzene	3.0E-05	7.8E-06	6.9E-06	5.5E-06	1.2E-06	3.1E-07	2.8E-07	2.2E-07
99-87-6	4-Isopropyltoluene	3.2E-05	8.2E-06	7.2E-06	5.8E-06	1.3E-06	3.3E-07	2.9E-07	2.3E-07
71-43-2	Benzene	4.4E-05	1.2E-05	1.0E-05	8.2E-06	1.8E-06	4.6E-07	4.1E-07	3.3E-07
108-90-7	Chlorobenzene	3.6E-05	9.4E-06	8.3E-06	6.7E-06	1.4E-06	3.8E-07	3.3E-07	2.7E-07
67-66-3	Chloroform	3.8E-05	1.0E-05	8.8E-06	7.1E-06	1.5E-06	4.0E-07	3.5E-07	2.8E-07
156-59-2	cis-1,2-Dichloroethene	4.4E-05	1.1E-05	1.0E-05	8.1E-06	1.7E-06	4.6E-07	4.0E-07	3.3E-07
75-71-8	Dichlorodifluoromethane	3.7E-05	9.8E-06	8.6E-06	7.0E-06	1.5E-06	3.9E-07	3.5E-07	2.8E-07
100-41-4	Ethylbenzene	3.4E-05	8.9E-06	7.8E-06	6.3E-06	1.4E-06	3.6E-07	3.1E-07	2.5E-07
76-13-1	Freon 113	1.9E-05	4.9E-06	4.3E-06	3.5E-06	7.6E-07	1.9E-07	1.7E-07	1.4E-07
104-51-8	n-Butylbenzene	2.6E-05	6.9E-06	6.0E-06	4.9E-06	1.1E-06	2.7E-07	2.4E-07	1.9E-07
103-65-1	n-Propylbenzene	3.0E-05	7.8E-06	6.9E-06	5.5E-06	1.2E-06	3.1E-07	2.7E-07	2.2E-07
127-18-4	Tetrachloroethylene	2.5E-05	6.6E-06	5.8E-06	4.6E-06	1.0E-06	2.6E-07	2.3E-07	1.9E-07
108-88-3	Toluene	3.9E-05	1.0E-05	8.9E-06	7.2E-06	1.5E-06	4.0E-07	3.6E-07	2.9E-07
79-01-6	Trichloroethylene	3.4E-05	8.9E-06	7.8E-06	6.3E-06	1.4E-06	3.6E-07	3.1E-07	2.5E-07
75-69-4	Trichlorofluoromethane	3.2E-05	8.4E-06	7.4E-06	6.0E-06	1.3E-06	3.4E-07	3.0E-07	2.4E-07
1330-20-7	Xylenes	3.4E-05	8.9E-06	7.8E-06	6.3E-06	1.4E-06	3.6E-07	3.1E-07	2.5E-07

Notes:

ft bgs - feet below ground surface

AF_{SV-IA} - Soil vapor to indoor air attenuation factor

AF_{SV-IA} = J&E-modeled AF x 3% leakage factor (Center for Energy and Environment, 2004)

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Table 8
Chronic Toxicity Criteria
777 North Front Street
Burbank, California

CAS Number	Chemical of Potential Concern	GI ABS	Dermal ABS	Toxicity Criteria based on Cancer Effects					Toxicity Criteria based on Noncancer Effects			
				IUR $(\mu g/m^3)^{-1}$	Source	CSF_{oral} $(mg/kg\text{-}day)^{-1}$	Source		RfC (mg/m^3)	Source	RfD_{oral} (mg/kg-day)	Source
	Metals											
7440-41-7	Beryllium	1	0.01	2.4E-03	1	NC			7.0E-06	1	2.0E-04	1
7440-43-9	Cadmium	0.025	0.001	1.8E-03	1	NC			1.0E-05	1	6.3E-06	1
18540-29-9	Chromium, Hexavalent	0.025		1.5E-01	1	5.0E-01	2		1.0E-04	1	3.0E-03	3
7440-47-3	Chromium, Total	0.013	0.01	NC		NC			NA		1.5E+00	1b
7440-50-8	Copper	1		NC		NC			NA		4.0E-02	3
7439-92-1	Lead	1		NC		NC			NA		NA	
7440-66-6	Zinc	1		NC		NC			NA		3.0E-01	3
	Volatile Organic Compounds (VOCs)											
630-20-6	1,1,1,2-Tetrachloroethane	1		7.4E-06		2.6E-02	1		1.2E-01	1	3.0E-02	1
71-55-6	1,1,1-Trichloroethane	1		NC		NC			1.0E+00	1	2.0E+00	1
75-34-3	1,1-Dichloroethane	1		1.6E-06	1	5.7E-03	1		8.0E-01	1a	2.0E-01	1
75-35-4	1,1-Dichloroethene	1		NC		NC			7.0E-02	1	5.0E-02	3
95-63-6	1,2,4-Trimethylbenzene	1		NC		NC			7.0E-03	3	NA	
108-67-8	1,3,5-Trimethylbenzene	1		NC		NC			4.0E-02	1a	1.0E-02	1
99-87-6	4-Isopropyltoluene	1		NC		NC			4.0E-01	3c	1.0E-01	3c
71-43-2	Benzene	1		2.9E-05	1	1.0E-01	1		3.0E-03	1	4.0E-03	1
108-90-7	Chlorobenzene	1		NC		NC			5.0E-02	3	2.0E-02	3
67-66-3	Chloroform	1		5.3E-06	2	3.1E-02	2		9.8E-02	3	1.0E-02	3
156-59-2	cis-1,2-Dichloroethene	1		NC		NC			8.0E-03	1a	2.0E-03	1
75-71-8	Dichlorodifluoromethane	1		NC		NC			1.0E-01	3	2.0E-01	3
100-41-4	Ethylbenzene	1		2.5E-06	2	1.1E-02	2		1.0E+00	3	1.0E-01	3
76-13-1	Freon 113	1		NC		NC			3.0E+01	3	3.0E+01	3
104-51-8	n-Butylbenzene	1		NC		NC			2.0E-01	1a	5.0E-02	1
103-65-1	n-Propylbenzene	1		NC		NC			1.0E+00	3	1.0E-01	3

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Table 8
Chronic Toxicity Criteria
777 North Front Street
Burbank, California

CAS Number	Chemical of Potential Concern	GI ABS	Dermal ABS	Toxicity Criteria based on Cancer Effects					Toxicity Criteria based on Noncancer Effects			
				IUR $(\mu g/m^3)^{-1}$	Source	CSF_{oral} $(mg/kg\text{-}day)^{-1}$	Source		RfC (mg/m^3)	Source	RfD_{oral} (mg/kg-day)	Source
127-18-4	Tetrachloroethylene	1		6.1E-06	4	5.4E-01	1		3.5E-02	1	6.0E-03	1
108-88-3	Toluene	1		NC		NC			3.0E-01	1	8.0E-02	1
156-60-5	trans-1,2-Dichloroethene	1		NC		NC			8.0E-02	1a	2.0E-02	1
79-01-6	Trichloroethylene	1		4.1E-06	3	4.6E-02	3		2.0E-03	3	5.0E-04	3
75-69-4	Trichlorofluoromethane	1		NC		NC			1.2E+00	1a	3.0E-01	1
1330-20-7	Xylenes	1		NC		NC			1.0E-01	3	2.0E-01	3

Notes:

IUR - inhalation unit risk

CSF_{oral} - cancer slope factor, oral

RfC - reference concentration

RfD_{oral} - reference dose, oral

NA - not available; route-specific toxicity value for this chemical is not available

NC - not considered to be a carcinogen via this route

ABS - absorption

a - Route-to-route extrapolation

b - Surrogate value - assumes toxicity for trivalent chromium

c - Surrogate value - assumes toxicity for cumene (isopropylbenzene)

Sources:

(1) Human Health Risk Assessment (HHRA) Note Number: 3. DTSC-modified Screening Levels (DTSC-SLs). June 2016 (Cal-EPA DTSC).

(2) Cal-EPA (2016) OEHHA, Toxicity Criteria Database www.oehha.ca.gov/risk/chemicalDB/index.asp

(3) USEPA, 2016: USEPA (2015) Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites. May. www.epa.gov/region09/superfund/prg

(4) Human Health Risk Assessment (HHRA) Note Number: 7. Updated OEHHA Inhalation Cancer Toxicity Criteria for Tetrachloroethylene (PCE) and DTSC Recommended Ambient Air and Soil Gas Screening Levels (DTSCSLs). October 2016 (Cal-EPA DTSC).

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Table 9
Risk-Based Concentrations for Soil
777 North Front Street
Burbank, California

CAS Number	Chemical of Potential Concern	Note	Future Resident		Future Commercial Worker		Future Construction Worker	
			$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)
Metals								
7440-41-7	Beryllium		1.6E+02	1.3E+05	2.1E+02	5.9E+06	4.2E+01	5.3E+03
7440-43-9	Cadmium		5.2E+00	1.8E+05	7.3E+00	7.8E+06	2.2E+00	7.1E+03
18540-29-9	Chromium, Hexavalent	M	2.3E+02	3.1E-01	3.5E+03	6.5E+01	6.7E+02	7.3E+01
7440-47-3	Chromium, Total		3.6E+04	--	1.7E+05	--	4.3E+04	--
7440-50-8	Copper		3.1E+03	--	4.7E+04	--	1.4E+04	--
7440-66-6	Zinc		2.3E+04	--	3.5E+05	--	1.1E+05	--
Volatile Organic Compounds (VOCs)								
71-55-6	1,1,1-Trichloroethane		5.4E+03	--	2.3E+04	--	3.1E+03	--
71-43-2	Benzene		3.4E+01	1.0E+00	1.5E+02	4.4E+01	2.1E+01	1.6E+02
156-59-2	cis-1,2-Dichloroethene		5.0E+01	--	2.7E+02	--	3.9E+01	--
100-41-4	Ethylbenzene		5.7E+03	1.6E+01	4.9E+04	7.2E+02	8.7E+03	2.8E+03
127-18-4	Tetrachloroethylene		1.8E+02	9.5E-01	1.0E+03	4.3E+01	1.5E+02	2.4E+02
108-88-3	Toluene		2.7E+03	--	1.6E+04	--	2.4E+03	--
156-60-5	trans-1,2-Dichloroethene		3.7E+02	--	1.9E+03	--	2.7E+02	--
79-01-6	Trichloroethylene	M	1.1E+01	2.5E+00	5.8E+01	1.7E+02	8.4E+00	6.6E+02

Notes:

" -- " not applicable

" M " mutagen. Mutagenic equations (USEPA RSL 2016) were used to derive RBCs for future residents.

RBC_{soil-C} - risk-based concentration based on cancer effects; $RBC_{soil-NC}$ based on noncancer effects

RBCs based on target cancer risk = 10^{-5} for workers and 10^{-6} for residents and target noncancer hazard = 1

Table 10a
Risk-Based Concentrations for Soil Vapor
Future Resident
777 North Front Street
Burbank, California

Geosyntec consultants

CAS Number	Chemical of Potential Concern	Note	Future Resident															
			Slab-on-Grade Scenario								Second Floor Scenario							
			4 ft bgs		15 ft bgs		20 ft bgs		30 ft bgs		4 ft bgs		15 ft bgs		20 ft bgs		30 ft bgs	
			RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)
630-20-6	1,1,1,2-Tetrachloroethane		5.1E+03	1.7E+06	2.0E+04	6.5E+06	2.2E+04	7.4E+06	2.8E+04	9.2E+06	3.8E+05	1.3E+08	1.5E+06	4.9E+08	1.7E+06	5.6E+08	2.1E+06	6.9E+08
71-55-6	1,1,1-Trichloroethane		--	1.1E+07	--	4.1E+07	--	4.7E+07	--	5.8E+07	--	8.1E+08	--	3.1E+09	--	3.5E+09	--	4.4E+09
75-34-3	1,1-Dichloroethane		1.4E+04	6.7E+06	5.4E+04	2.6E+07	6.1E+04	2.9E+07	7.6E+04	3.6E+07	1.1E+06	5.0E+08	4.0E+06	1.9E+09	4.6E+06	2.2E+09	5.7E+06	2.7E+09
75-35-4	1,1-Dichloroethene		--	5.7E+05	--	2.2E+06	--	2.5E+06	--	3.1E+06	--	4.3E+07	--	1.6E+08	--	1.9E+08	--	2.3E+08
95-63-6	1,2,4-Trimethylbenzene		--	8.0E+04	--	3.1E+05	--	3.5E+05	--	4.3E+05	--	6.0E+06	--	2.3E+07	--	2.6E+07	--	3.3E+07
108-67-8	1,3,5-Trimethylbenzene		--	4.6E+05	--	1.8E+06	--	2.0E+06	--	2.5E+06	--	3.5E+07	--	1.3E+08	--	1.5E+08	--	1.9E+08
99-87-6	4-Isopropyltoluene		--	4.4E+06	--	1.7E+07	--	1.9E+07	--	2.4E+07	--	3.3E+08	--	1.3E+09	--	1.4E+09	--	1.8E+09
71-43-2	Benzene		7.3E+02	2.4E+04	2.8E+03	9.0E+04	3.2E+03	1.0E+05	3.9E+03	1.3E+05	5.5E+04	1.8E+06	2.1E+05	6.7E+06	2.4E+05	7.7E+06	2.9E+05	9.5E+06
108-90-7	Chlorobenzene		--	4.8E+05	--	1.8E+06	--	2.1E+06	--	2.6E+06	--	3.6E+07	--	1.4E+08	--	1.6E+08	--	2.0E+08
67-66-3	Chloroform		1.1E+03	8.9E+05	4.1E+03	3.4E+06	4.6E+03	3.9E+06	5.7E+03	4.8E+06	8.0E+04	6.7E+07	3.0E+05	2.5E+08	3.5E+05	2.9E+08	4.3E+05	3.6E+08
156-59-2	cis-1,2-Dichloroethene		--	6.4E+04	--	2.4E+05	--	2.8E+05	--	3.4E+05	--	4.8E+06	--	1.8E+07	--	2.1E+07	--	2.6E+07
75-71-8	Dichlorodifluoromethane		--	9.3E+05	--	3.5E+06	--	4.0E+06	--	5.0E+06	--	7.0E+07	--	2.7E+08	--	3.0E+08	--	3.7E+08
100-41-4	Ethylbenzene		1.1E+04	1.0E+07	4.2E+04	3.9E+07	4.8E+04	4.4E+07	5.9E+04	5.5E+07	8.2E+05	7.6E+08	3.2E+06	2.9E+09	3.6E+06	3.3E+09	4.5E+06	4.1E+09
76-13-1	Freon 113		--	5.5E+08	--	2.1E+09	--	2.4E+09	--	3.0E+09	--	4.1E+10	--	1.6E+11	--	1.8E+11	--	2.3E+11
104-51-8	n-Butylbenzene		--	2.6E+06	--	1.0E+07	--	1.2E+07	--	1.4E+07	--	2.0E+08	--	7.6E+08	--	8.7E+08	--	1.1E+09
103-65-1	n-Propylbenzene		--	1.2E+07	--	4.5E+07	--	5.1E+07	--	6.3E+07	--	8.7E+08	--	3.3E+09	--	3.8E+09	--	4.7E+09
127-18-4	Tetrachloroethylene		6.0E+03	4.8E+05	2.3E+04	1.9E+06	2.7E+04	2.1E+06	3.3E+04	2.6E+06	4.5E+05	3.6E+07	1.8E+06	1.4E+08	2.0E+06	1.6E+08	2.5E+06	2.0E+08
108-88-3	Toluene		--	2.7E+06	--	1.0E+07	--	1.2E+07	--	1.5E+07	--	2.0E+08	--	7.8E+08	--	8.8E+08	--	1.1E+09
79-01-6	Trichloroethylene	M	4.7E+03	2.0E+04	1.8E+04	7.8E+04	2.0E+04	8.9E+04	2.5E+04	1.1E+05	3.5E+05	1.5E+06	1.3E+06	5.9E+06	1.5E+06	6.7E+06	1.9E+06	8.3E+06
75-69-4	Trichlorofluoromethane		--	1.3E+07	--	4.9E+07	--	5.6E+07	--	7.0E+07	--	9.6E+08	--	3.7E+09	--	4.2E+09	--	5.2E+09
1330-20-7	Xylenes		--	1.0E+06	--	3.9E+06	--	4.4E+06	--	5.5E+06	--	7.6E+07	--	2.9E+08	--	3.3E+08	--	4.1E+08

Notes:

" -- " not applicable

$\mu g/m^3$ - micrograms per cubic meter; ft bgs - feet below ground surface

M - mutagen. Mutagenic equations (USEPA RSL 2016) were used to derive the residential RBCs.

RBC_{SV-C} - risk-based concentration based on cancer effects; RBC_{SV-NC} based on noncancer effects

RBCs based on target cancer risk = 10^{-6} for future residents and target noncancer hazard = 1

Table 10b
Risk-Based Concentrations for Soil Vapor
Future Commercial Worker
777 North Front Street
Burbank, California

CAS Number	Chemical of Potential Concern	Future Commercial Worker															
		Slab-on-Grade Scenario								Second Floor Scenario							
		4 ft bgs		15 ft bgs		20 ft bgs		30 ft bgs		4 ft bgs		15 ft bgs		20 ft bgs		30 ft bgs	
		RBC_{SV-C} (μg/m^3)	RBC_{SV-NC} (μg/m^3)	RBC_{SV-C} (μg/m^3)	RBC_{SV-NC} (μg/m^3)	RBC_{SV-C} (μg/m^3)	RBC_{SV-NC} (μg/m^3)	RBC_{SV-C} (μg/m^3)	RBC_{SV-NC} (μg/m^3)	RBC_{SV-C} (μg/m^3)	RBC_{SV-NC} (μg/m^3)	RBC_{SV-C} (μg/m^3)	RBC_{SV-NC} (μg/m^3)	RBC_{SV-C} (μg/m^3)	RBC_{SV-NC} (μg/m^3)	RBC_{SV-C} (μg/m^3)	RBC_{SV-NC} (μg/m^3)
630-20-6	1,1,1,2-Tetrachloroethane	6.7E+05	2.1E+07	2.6E+06	8.2E+07	2.9E+06	9.3E+07	3.7E+06	1.2E+08	1.7E+07	5.3E+08	6.5E+07	2.0E+09	7.4E+07	2.3E+09	9.2E+07	2.9E+09
71-55-6	1,1,1-Trichloroethane	--	1.4E+08	--	5.2E+08	--	5.9E+08	--	7.4E+08	--	3.4E+09	--	1.3E+10	--	1.5E+10	--	1.8E+10
75-34-3	1,1-Dichloroethane	1.9E+06	8.5E+07	7.1E+06	3.2E+08	8.0E+06	3.7E+08	1.0E+07	4.6E+08	4.6E+07	2.1E+09	1.8E+08	8.1E+09	2.0E+08	9.2E+09	2.5E+08	1.1E+10
75-35-4	1,1-Dichloroethene	--	7.2E+06	--	2.8E+07	--	3.1E+07	--	3.9E+07	--	1.8E+08	--	6.9E+08	--	7.8E+08	--	9.7E+08
95-63-6	1,2,4-Trimethylbenzene	--	1.0E+06	--	3.9E+06	--	4.4E+06	--	5.5E+06	--	2.5E+07	--	9.7E+07	--	1.1E+08	--	1.4E+08
108-67-8	1,3,5-Trimethylbenzene	--	5.8E+06	--	2.2E+07	--	2.5E+07	--	3.2E+07	--	1.5E+08	--	5.6E+08	--	6.4E+08	--	7.9E+08
99-87-6	4-Isopropyltoluene	--	5.5E+07	--	2.1E+08	--	2.4E+08	--	3.0E+08	--	1.4E+09	--	5.3E+09	--	6.0E+09	--	7.5E+09
71-43-2	Benzene	9.6E+04	3.0E+05	3.6E+05	1.1E+06	4.1E+05	1.3E+06	5.1E+05	1.6E+06	2.4E+06	7.5E+06	9.1E+06	2.8E+07	1.0E+07	3.2E+07	1.3E+07	4.0E+07
108-90-7	Chlorobenzene	--	6.1E+06	--	2.3E+07	--	2.6E+07	--	3.3E+07	--	1.5E+08	--	5.8E+08	--	6.6E+08	--	8.2E+08
67-66-3	Chloroform	1.4E+05	1.1E+07	5.3E+05	4.3E+07	6.0E+05	4.9E+07	7.5E+05	6.0E+07	3.5E+06	2.8E+08	1.3E+07	1.1E+09	1.5E+07	1.2E+09	1.9E+07	1.5E+09
156-59-2	cis-1,2-Dichloroethene	--	8.0E+05	--	3.0E+06	--	3.5E+06	--	4.3E+06	--	2.0E+07	--	7.6E+07	--	8.7E+07	--	1.1E+08
75-71-8	Dichlorodifluoromethane	--	1.2E+07	--	4.5E+07	--	5.1E+07	--	6.3E+07	--	2.9E+08	--	1.1E+09	--	1.3E+09	--	1.6E+09
100-41-4	Ethylbenzene	1.4E+06	1.3E+08	5.5E+06	4.9E+08	6.3E+06	5.6E+08	7.8E+06	7.0E+08	3.6E+07	3.2E+09	1.4E+08	1.2E+10	1.6E+08	1.4E+10	1.9E+08	1.7E+10
76-13-1	Freon 113	--	6.9E+09	--	2.7E+10	--	3.1E+10	--	3.8E+10	--	1.7E+11	--	6.7E+11	--	7.7E+11	--	9.5E+11
104-51-8	n-Butylbenzene	--	3.3E+07	--	1.3E+08	--	1.5E+08	--	1.8E+08	--	8.3E+08	--	3.2E+09	--	3.6E+09	--	4.5E+09
103-65-1	n-Propylbenzene	--	1.5E+08	--	5.6E+08	--	6.4E+08	--	7.9E+08	--	3.6E+09	--	1.4E+10	--	1.6E+10	--	2.0E+10
127-18-4	Tetrachloroethylene	7.9E+05	6.0E+06	3.1E+06	2.3E+07	3.5E+06	2.7E+07	4.3E+06	3.3E+07	2.0E+07	1.5E+08	7.7E+07	5.8E+08	8.7E+07	6.6E+08	1.1E+08	8.2E+08
108-88-3	Toluene	--	3.4E+07	--	1.3E+08	--	1.5E+08	--	1.8E+08	--	8.5E+08	--	3.3E+09	--	3.7E+09	--	4.6E+09
79-01-6	Trichloroethylene	8.8E+05	2.6E+05	3.4E+06	9.8E+05	3.8E+06	1.1E+06	4.7E+06	1.4E+06	2.2E+07	6.4E+06	8.4E+07	2.5E+07	9.5E+07	2.8E+07	1.2E+08	3.5E+07
75-69-4	Trichlorofluoromethane	--	1.6E+08	--	6.2E+08	--	7.1E+08	--	8.8E+08	--	4.0E+09	--	1.6E+10	--	1.8E+10	--	2.2E+10
1330-20-7	Xylenes	--	1.3E+07	--	4.9E+07	--	5.6E+07	--	6.9E+07	--	3.2E+08	--	1.2E+09	--	1.4E+09	--	1.7E+09

Notes:
" -- " not applicable
μg/m^3 - micrograms per cubic meter; ft bgs - feet below ground surface
RBC_{SV-C} - risk-based concentration based on cancer effects; RBC_{SV-NC} based on noncancer effects
RBCs based on target cancer risk = 10^{-5} for workers and target noncancer hazard = 1

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Table 11a
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Resident
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
A1	1	7.1	-- [(a)]	-- [(a)]		
	4.5	3.9	-- [(a)]	-- [(a)]		
	8.5	4.2	--	1E-03		
A2	1	3.2	9E-09	5E-05		
	4.5	3.1	2E-09	1E-05		
	8.5	0.6	-- [(a)]	-- [(a)]		
A3	1	26.1	9E-09	6E-01		
	4.5	3.4	1E-08	6E-05		
	8.5	2.8	1E-08	6E-05		
A4	1	14.8	**3E-06**	2E-01	PCE	
	4.5	0.8	5E-08	3E-04		
	8.5	0.8	1E-07	9E-04		
A5	1.25	2.8	9E-07	5E-03		
	4.5	1.5	3E-08	2E-04		
A5B	1	74.9	3E-07	5E-01		
	4.5	1.4	4E-08	2E-04		
	8.5	1.6	2E-08	9E-05		
A6	1	1.5	-- [(a)]	-- [(a)]		
	4.5	74.5	**4E-06**	5E-01	CrVI	
	8.5	59.5	**9E-06**	2E-01	CrVI	
A7	1	15.9	5E-08	6E-03		
	3.5	**1110**	**4E-06**	**4E+00**	PCE; TCE	Copper
	8.5	**99.5**	2E-09	2E-01		
A8	1	4.1	2E-08	3E-04		
	4.5	4.2	1E-08	6E-05		
	8.5	1.4	2E-09	8E-06		
A9	1	4	7E-09	1E-04		
	4.5	3	5E-09	3E-05		
	8.5	1.3	-- [(a)]	-- [(a)]		
A10	1	6.2	7E-09	4E-05		
A11	1	9.6	--	3E-02		
	4.5	2.2	-- [(a)]	-- [(a)]		
	8.5	3.1	-- [(a)]	-- [(a)]		
A12	1	6.8	-- [(a)]	-- [(a)]		
	5	4.2	--	1E-03		
	11	4.2	-- [(a)]	-- [(a)]		
A13	1	4	-- [(a)]	-- [(a)]		
	5	4.1	-- [(a)]	-- [(a)]		
	11	3.2	-- [(a)]	-- [(a)]		
B1	1	6.8	-- [(a)]	-- [(a)]		
	4.5	5.5	3E-08	2E-04		
	8.5	6.5	2E-09	1E-05		

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Table 11a
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Resident
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
B2	1	3	1E-08	7E-05		
	4.5	4.1	2E-09	1E-05		
	8.5	1.2	-- [(a)]	-- [(a)]		
B3	1	19.1	2E-08	5E-02		
	4.5	2.1	8E-09	4E-05		
	8.5	2.6	1E-09	7E-06		
B4	1	**108**	**4E-06**	3E-01	PCE	
	4.5	2.7	3E-08	4E-02		
	8.5	0.7	2E-08	1E-04		
B5	1	ND	3E-08	2E-04		
	4.5	1.1	2E-07	8E-04		
	8.5	2.4	2E-07	9E-04		
B6	1	2.2	3E-08	2E-04		
	4.5	1	3E-08	2E-04		
	8.5	5.1	2E-08	1E-04		
B7	1	59.6	8E-09	2E-04		
	4.5	3.8	3E-08	1E-03		
	8.5	0.7	-- [(a)]	-- [(a)]		
B8	1	2.5	3E-08	2E-03		
	4.5	2.8	4E-09	1E-04		
	8.5	1.9	7E-09	2E-04		
B9	1	4.7	2E-09	1E-05		
	4.5	3	2E-09	1E-05		
	8.5	2.1	2E-09	1E-05		
B10	1	5.2	2E-09	1E-05		
	4.5	3.1	5E-09	2E-05		
	8.5	3.4	3E-09	2E-05		
B11	1	3.3	-- [(a)]	-- [(a)]		
	4.5	2.8	8E-09	4E-05		
	8.5	3.1	3E-09	1E-05		
B12	1	5.8	2E-08	3E-04		
	5	3.4	3E-09	2E-05		
	11	2.7	1E-09	7E-06		
B13	1	8.5	-- [(a)]	-- [(a)]		
	5	10.6	2E-09	1E-05		
	11	3.2	1E-09	7E-06		
B14	1	23.9	--	1E-03		
	5	ND	-- [(a)]	-- [(a)]		
	11	2.1	-- [(a)]	-- [(a)]		
B15	1	7.8	--	1E-03		
	4	6.2	-- [(a)]	-- [(a)]		
	5	3.6	2E-10	1E-06		

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Table 11a
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Resident
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
LB1	1	5.6	3E-09	2E-05		
	4.5	4.1	2E-09	9E-06		
	8.5	2	2E-09	1E-05		
LB2	1	0.8	3E-08	3E-04		
	4.5	1.4	2E-09	1E-05		
	8.5	2.7	2E-09	1E-05		
LB3	1	40.3	5E-08	6E-02		
	4.5	4.2	2E-08	1E-04		
	8.5	0.9	9E-09	5E-05		
LB4	1	11.9	5E-09	3E-02		
	4.5	1.6	3E-08	1E-04		
	8.5	1.6	6E-09	3E-05		
LB5	1	4.9	-- (a)	-- (a)		
	4.5	2.7	2E-08	6E-04		
	8.5	4.6	4E-09	2E-05		
LB6	1	4.2	1E-09	1E-03		
	5	2.7	-- (a)	-- (a)		
	11	3.2	-- (a)	-- (a)		
LB7	1	5.2	4E-09	2E-05		
	5	3.1	-- (a)	-- (a)		
	11	2.4	1E-09	6E-06		
LB8	1	8.2	2E-07	1E-03		
	5	4.2	2E-08	1E-04		
	11	2.7	3E-09	2E-05		
SS-1	5	--	-- (a)	-- (a)		
	10	--	-- (a)	-- (a)		
SS-2	5	--	**4E-06**	5E-03	CrVI	
	10	1.67	**3E-06**	1E-01	CrVI	
SS-3	5	--	-- (a)	-- (a)		
	10	1.89	3E-12	2E-03		
SS-4	5	--	-- (a)	-- (a)		
	10	--	-- (a)	-- (a)		
SS-5	5	--	**4E-06**	6E-03	CrVI	
	10	--	-- (a)	-- (a)		

Notes:

" -- " not applicable; ft bgs - feet below ground surface; " ND " not detected above method detection limit

PCE - tetrachloroethylene; TCE - trichloroethylene; CrVI - hexavalent chromium

* Lead is not quantitatively evaluated as part of the cancer risk and noncancer hazard estimates. Lead concentrations are compared to Cal-EPA DTSC 2016 Note 3 residential Screening Level (SL) of 80 mg/kg.

(a): No chemicals were detected and/or all metals considered within background.

Target cancer risk (CR) = 10^{-6} and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk, cumulative hazard > target hazard; and/or Pb concentration > SL

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

Geosyntec consultants

Table 11b
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Commercial Worker
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
A1	1	7.1	-- [(a)]	-- [(a)]		
	4.5	3.9	-- [(a)]	-- [(a)]		
	8.5	4.2	--	3E-04		
A2	1	3.2	2E-09	8E-06		
	4.5	3.1	5E-10	2E-06		
	8.5	0.6	-- [(a)]	-- [(a)]		
A3	1	26.1	2E-09	4E-02		
	4.5	3.4	2E-09	1E-05		
	8.5	2.8	3E-09	1E-05		
A4	1	14.8	6E-07	1E-02		
	4.5	0.8	1E-08	5E-05		
	8.5	0.8	3E-08	2E-04		
A5	1.25	2.8	2E-07	9E-04		
	4.5	1.5	7E-09	3E-05		
A5B	1	74.9	6E-08	2E-01		
	4.5	1.4	9E-09	4E-05		
	8.5	1.6	4E-09	2E-05		
A6	1	1.5	-- [(a)]	-- [(a)]		
	4.5	74.5	2E-07	2E-01		
	8.5	59.5	4E-07	1E-02		
A7	1	15.9	9E-09	1E-03		
	3.5	**1110**	9E-07	1E+00		
	8.5	99.5	5E-10	1E-02		
A8	1	4.1	5E-09	6E-05		
	4.5	4.2	3E-09	1E-05		
	8.5	1.4	3E-10	1E-06		
A9	1	4	2E-09	2E-05		
	4.5	3	1E-09	4E-06		
	8.5	1.3	-- [(a)]	-- [(a)]		
A10	1	6.2	2E-09	7E-06		
A11	1	9.6	--	2E-03		
	4.5	2.2	-- [(a)]	-- [(a)]		
	8.5	3.1	-- [(a)]	-- [(a)]		
A12	1	6.8	-- [(a)]	-- [(a)]		
	5	4.2	--	2E-04		
	11	4.2	-- [(a)]	-- [(a)]		
A13	1	4	-- [(a)]	-- [(a)]		
	5	4.1	-- [(a)]	-- [(a)]		
	11	3.2	-- [(a)]	-- [(a)]		
B1	1	6.8	-- [(a)]	-- [(a)]		
	4.5	5.5	6E-09	3E-05		
	8.5	6.5	5E-10	2E-06		

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Table 11b
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Commercial Worker
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
B2	1	3	3E-09	1E-05		
	4.5	4.1	4E-10	2E-06		
	8.5	1.2	-- [(a)]	-- [(a)]		
B3	1	19.1	5E-09	3E-03		
	4.5	2.1	2E-09	8E-06		
	8.5	2.6	3E-10	1E-06		
B4	1	108	8E-07	1E-01		
	4.5	2.7	6E-09	3E-03		
	8.5	0.7	5E-09	2E-05		
B5	1	ND	7E-09	3E-05		
	4.5	1.1	3E-08	1E-04		
	8.5	2.4	4E-08	2E-04		
B6	1	2.2	7E-09	3E-05		
	4.5	1	8E-09	3E-05		
	8.5	5.1	5E-09	2E-05		
B7	1	59.6	2E-09	4E-05		
	4.5	3.8	6E-09	3E-04		
	8.5	0.7	-- [(a)]	-- [(a)]		
B8	1	2.5	5E-09	4E-04		
	4.5	2.8	8E-10	2E-05		
	8.5	1.9	1E-09	3E-05		
B9	1	4.7	4E-10	2E-06		
	4.5	3	5E-10	2E-06		
	8.5	2.1	5E-10	2E-06		
B10	1	5.2	5E-10	2E-06		
	4.5	3.1	1E-09	4E-06		
	8.5	3.4	6E-10	3E-06		
B11	1	3.3	-- [(a)]	-- [(a)]		
	4.5	2.8	2E-09	7E-06		
	8.5	3.1	6E-10	2E-06		
B12	1	5.8	5E-09	5E-05		
	5	3.4	6E-10	3E-06		
	11	2.7	3E-10	1E-06		
B13	1	8.5	-- [(a)]	-- [(a)]		
	5	10.6	5E-10	2E-06		
	11	3.2	3E-10	1E-06		
B14	1	23.9	--	3E-04		
	5	ND	-- [(a)]	-- [(a)]		
	11	2.1	-- [(a)]	-- [(a)]		
B15	1	7.8	--	3E-04		
	4	6.2	-- [(a)]	-- [(a)]		
	5	3.6	4E-11	2E-07		

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Table 11b
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Commercial Worker
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
LB1	1	5.6	7E-10	3E-06		
	4.5	4.1	4E-10	2E-06		
	8.5	2	4E-10	2E-06		
LB2	1	0.8	7E-09	5E-05		
	4.5	1.4	5E-10	2E-06		
	8.5	2.7	5E-10	2E-06		
LB3	1	40.3	1E-08	4E-03		
	4.5	4.2	5E-09	2E-05		
	8.5	0.9	2E-09	8E-06		
LB4	1	11.9	1E-09	2E-03		
	4.5	1.6	6E-09	3E-05		
	8.5	1.6	1E-09	5E-06		
LB5	1	4.9	-- (a)	-- (a)		
	4.5	2.7	5E-09	1E-04		
	8.5	4.6	9E-10	4E-06		
LB6	1	4.2	2E-10	2E-04		
	5	2.7	-- (a)	-- (a)		
	11	3.2	-- (a)	-- (a)		
LB7	1	5.2	8E-10	3E-06		
	5	3.1	-- (a)	-- (a)		
	11	2.4	2E-10	1E-06		
LB8	1	8.2	4E-08	2E-04		
	5	4.2	5E-09	2E-05		
	11	2.7	7E-10	3E-06		
SS-1	5	--	-- (a)	-- (a)		
	10	--	-- (a)	-- (a)		
SS-2	5	--	2E-07	3E-04		
	10	1.67	1E-07	8E-03		
SS-3	5	--	-- (a)	-- (a)		
	10	1.89	7E-13	2E-03		
SS-4	5	--	-- (a)	-- (a)		
	10	--	-- (a)	-- (a)		
SS-5	5	--	2E-07	4E-04		
	10	--	-- (a)	-- (a)		

Notes:

" -- " not applicable; ft bgs - feet below ground surface; " ND " not detected above method detection limit

* Lead is not quantitatively evaluated as part of the cancer risk and noncancer hazard estimates. Lead concentrations are compared to Cal-EPA DTSC 2016 Note 3 industrial worker Screening Level (SL) for Lead of 320 mg/kg.

(a): No chemicals were detected and/or all metals considered within background.

Target cancer risk (CR) = 10^{-5} and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk, cumulative hazard > target hazard; and/or Pb concentration > SL

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

Geosyntec consultants

Table 11c
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Construction Worker
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
A1	1	7.1	-- (a)	-- (a)		
	4.5	3.9	-- (a)	-- (a)		
	8.5	4.2	--	1E-03		
A2	1	3.2	3E-10	6E-05		
	4.5	3.1	9E-11	1E-05		
	8.5	0.6	-- (a)	-- (a)		
A3	1	26.1	4E-10	1E-01		
	4.5	3.4	4E-10	7E-05		
	8.5	2.8	5E-10	8E-05		
A4	1	14.8	1E-07	5E-02		
	4.5	0.8	2E-09	3E-04		
	8.5	0.8	5E-09	1E-03		
A5	1.25	2.8	3E-08	6E-03		
	4.5	1.5	1E-09	2E-04		
A5B	1	74.9	1E-08	6E-01		
	4.5	1.4	2E-09	3E-04		
	8.5	1.6	7E-10	1E-04		
A6	1	1.5	-- (a)	-- (a)		
	4.5	74.5	2E-07	6E-01		
	8.5	59.5	4E-07	4E-02		
A7	1	15.9	2E-09	8E-03		
	3.5	**1110**	2E-07	**4E+00**		Cadmium
	8.5	99.5	1E-10	5E-02		
A8	1	4.1	9E-10	4E-04		
	4.5	4.2	5E-10	8E-05		
	8.5	1.4	6E-11	1E-05		
A9	1	4	4E-10	2E-04		
	4.5	3	2E-10	3E-05		
	8.5	1.3	-- (a)	-- (a)		
A10	1	6.2	3E-10	5E-05		
A11	1	9.6	--	7E-03		
	4.5	2.2	-- (a)	-- (a)		
	8.5	3.1	-- (a)	-- (a)		
A12	1	6.8	-- (a)	-- (a)		
	5	4.2	--	9E-04		
	11	4.2	-- (a)	-- (a)		
A13	1	4	-- (a)	-- (a)		
	5	4.1	-- (a)	-- (a)		
	11	3.2	-- (a)	-- (a)		
B1	1	6.8	-- (a)	-- (a)		
	4.5	5.5	1E-09	2E-04		
	8.5	6.5	9E-11	1E-05		

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Table 11c
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Construction Worker
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
B2	1	3	5E-10	9E-05		
	4.5	4.1	7E-11	1E-05		
	8.5	1.2	-- [(a)]	-- [(a)]		
B3	1	19.1	9E-10	1E-02		
	4.5	2.1	3E-10	5E-05		
	8.5	2.6	5E-11	8E-06		
B4	1	108	1E-07	4E-01		
	4.5	2.7	1E-09	8E-03		
	8.5	0.7	9E-10	2E-04		
B5	1	ND	1E-09	2E-04		
	4.5	1.1	6E-09	1E-03		
	8.5	2.4	7E-09	1E-03		
B6	1	2.2	1E-09	2E-04		
	4.5	1	1E-09	2E-04		
	8.5	5.1	9E-10	1E-04		
B7	1	59.6	4E-10	3E-04		
	4.5	3.8	1E-09	2E-03		
	8.5	0.7	-- [(a)]	-- [(a)]		
B8	1	2.5	1E-09	3E-03		
	4.5	2.8	1E-10	1E-04		
	8.5	1.9	3E-10	2E-04		
B9	1	4.7	7E-11	1E-05		
	4.5	3	9E-11	2E-05		
	8.5	2.1	8E-11	1E-05		
B10	1	5.2	8E-11	1E-05		
	4.5	3.1	2E-10	3E-05		
	8.5	3.4	1E-10	2E-05		
B11	1	3.3	-- [(a)]	-- [(a)]		
	4.5	2.8	3E-10	5E-05		
	8.5	3.1	1E-10	2E-05		
B12	1	5.8	1E-09	3E-04		
	5	3.4	1E-10	2E-05		
	11	2.7	5E-11	9E-06		
B13	1	8.5	-- [(a)]	-- [(a)]		
	5	10.6	9E-11	1E-05		
	11	3.2	5E-11	8E-06		
B14	1	23.9	--	1E-03		
	5	ND	-- [(a)]	-- [(a)]		
	11	2.1	-- [(a)]	-- [(a)]		
B15	1	7.8	--	1E-03		
	4	6.2	-- [(a)]	-- [(a)]		
	5	3.6	1E-11	1E-06		

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Table 11c
Cumulative Cancer Risk and Noncancer Hazard, Soil
and Summary of Lead (Pb) Concentrations
Future Construction Worker
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Lead Concentrations (mg/kg) *	Cancer Risk	Noncancer Hazard	Cancer Risk Drivers	Noncancer Hazard Drivers
LB1	1	5.6	1E-10	2E-05		
	4.5	4.1	7E-11	1E-05		
	8.5	2	7E-11	1E-05		
LB2	1	0.8	1E-09	4E-04		
	4.5	1.4	9E-11	1E-05		
	8.5	2.7	9E-11	1E-05		
LB3	1	40.3	2E-09	1E-02		
	4.5	4.2	8E-10	1E-04		
	8.5	0.9	3E-10	6E-05		
LB4	1	11.9	2E-10	6E-03		
	4.5	1.6	1E-09	2E-04		
	8.5	1.6	2E-10	4E-05		
LB5	1	4.9	-- (a)	-- (a)		
	4.5	2.7	9E-10	8E-04		
	8.5	4.6	2E-10	3E-05		
LB6	1	4.2	4E-11	8E-04		
	5	2.7	-- (a)	-- (a)		
	11	3.2	-- (a)	-- (a)		
LB7	1	5.2	1E-10	2E-05		
	5	3.1	-- (a)	-- (a)		
	11	2.4	4E-11	7E-06		
LB8	1	8.2	8E-09	1E-03		
	5	4.2	9E-10	1E-04		
	11	2.7	1E-10	2E-05		
SS-1	5	--	-- (a)	-- (a)		
	10	--	-- (a)	-- (a)		
SS-2	5	--	2E-07	2E-03		
	10	1.67	1E-07	3E-02		
SS-3	5	--	-- (a)	-- (a)		
	10	1.89	7E-10	9E-03		
SS-4	5	--	-- (a)	-- (a)		
	10	--	-- (a)	-- (a)		
SS-5	5	--	2E-07	2E-03		
	10	--	-- (a)	-- (a)		

Notes:

" -- " not applicable; ft bgs - feet below ground surface; " ND " not detected above method detection limit

* Lead is not quantitatively evaluated as part of the cancer risk and noncancer hazard estimates. Lead concentrations are compared to Cal-EPA DTSC 2016 Note 3 industrial worker Screening Level (SL) for Lead of 320 mg/kg.

(a): No chemicals were detected and/or all metals considered within background.

Target cancer risk (CR) = 10^{-5} and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk, cumulative hazard > target hazard; and/or Pb concentration > SL

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

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Table 12a
Cumulative Cancer Risk and Noncancer Hazard
Soil Vapor to Indoor Air, Slab-on-Grade Scenario
777 North Front Street
Burbank, California

Boring ID	Sample Depth (ft bgs)	Future Commercial Worker		Future Resident		Cancer Risk and/or Noncancer Hazard Drivers
		Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard	
A1	16	3E-08	7E-04	4E-07	8E-03	
A2	16	2E-08	5E-04	3E-07	6E-03	
A3	20.5	2E-07	2E-03	**2E-06**	3E-02	PCE
A4	20.5	3E-06	4E-02	**4E-05**	6E-01	PCE
A5B	20.5	9E-06	1E-01	**1E-04**	**2E+00**	PCE
A6	20.5	3E-07	6E-03	**4E-06**	7E-02	PCE
A7	20.5	2E-07	4E-02	**3E-06**	5E-01	TCE
A8	20.5	4E-08	2E-03	6E-07	3E-02	
A9	30.5	2E-08	2E-03	3E-07	2E-02	
A10	30.5	2E-08	9E-04	3E-07	1E-02	
A11	20.5	5E-09	1E-04	7E-08	1E-03	
A12	17	3E-09	1E-04	5E-08	2E-03	
A13	17	4E-09	3E-04	6E-08	4E-03	
B1	-- [a]					
B2	16.5	1E-08	3E-04	2E-07	4E-03	
B3	17	4E-08	9E-04	5E-07	1E-02	
B4	19	3E-06	4E-02	**4E-05**	5E-01	PCE
B5	20	4E-06	5E-02	**5E-05**	7E-01	PCE
B6	-- [a]					
B7	-- [a]					
B8	20.5	6E-08	6E-03	9E-07	8E-02	
B9	30.5	5E-08	6E-03	8E-07	8E-02	
B10	30.5	4E-08	4E-03	6E-07	5E-02	
B11	20.5	1E-08	2E-04	1E-07	2E-03	
B12	17	2E-08	3E-04	2E-07	3E-03	
B13	17	1E-09	3E-05	1E-08	4E-04	
B14	17	6E-10	5E-05	8E-09	6E-04	
B15	4	3E-09	2E-04	4E-08	2E-03	
LB1	15	1E-09	6E-05	2E-08	7E-04	
	20.5	3E-08	7E-04	4E-07	9E-03	
LB2	19.5	2E-07	2E-03	**2E-06**	3E-02	PCE
LB3	20	**3E-05**	4E-01	**4E-04**	**5E+00**	PCE
LB4	20.5	2E-06	2E-02	**2E-05**	3E-01	PCE
LB5	14.5	4E-08	1E-03	6E-07	2E-02	
	20.5	4E-08	2E-03	6E-07	2E-02	
LB6	17	6E-09	2E-04	7E-08	2E-03	
LB7	17	1E-08	2E-04	1E-07	2E-03	
LB8	17	5E-08	8E-04	6E-07	1E-02	

Notes:

[a]: Soil vapor sampling was attempted at this location; however, not enough flow to collect a sample (Leighton, 2016).

ft bgs - feet below ground surface

PCE - tetrachloroethylene; TCE - trichloroethylene

Target cancer risk (CR) = 10^{-6} for residents and 10^{-5} for workers and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk and/or cumulative hazard > target hazard

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

Geosyntec consultants

Table 12b
Cumulative Cancer Risk and Noncancer Hazard
Soil Vapor to Indoor Air, Second Floor Scenario
777 North Front Street
Burbank, California

Boring ID	Sample Depth (ft bgs)	Future Commercial Worker		Future Resident		Cancer Risk and/or Noncancer Hazard Drivers
		Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard	
A1	16	1E-09	3E-05	6E-09	1E-04	
A2	16	9E-10	2E-05	4E-09	9E-05	
A3	20.5	6E-09	9E-05	3E-08	4E-04	
A4	20.5	1E-07	2E-03	5E-07	7E-03	
A5B	20.5	4E-07	5E-03	**2E-06**	2E-02	PCE
A6	20.5	1E-08	2E-04	5E-08	1E-03	
A7	20.5	9E-09	2E-03	5E-08	6E-03	
A8	20.5	2E-09	9E-05	8E-09	4E-04	
A9	30.5	9E-10	7E-05	4E-09	3E-04	
A10	30.5	9E-10	3E-05	4E-09	1E-04	
A11	20.5	2E-10	4E-06	9E-10	2E-05	
A12	17	1E-10	6E-06	6E-10	2E-05	
A13	17	2E-10	1E-05	8E-10	6E-05	
B1	-- [a]					
B2	16.5	5E-10	1E-05	2E-09	6E-05	
B3	17	2E-09	4E-05	7E-09	2E-04	
B4	19	1E-07	2E-03	5E-07	7E-03	
B5	20	2E-07	2E-03	7E-07	9E-03	
B6	-- [a]					
B7	-- [a]					
B8	20.5	2E-09	3E-04	1E-08	1E-03	
B9	30.5	2E-09	3E-04	1E-08	1E-03	
B10	30.5	2E-09	1E-04	8E-09	6E-04	
B11	20.5	4E-10	6E-06	2E-09	3E-05	
B12	17	8E-10	1E-05	3E-09	4E-05	
B13	17	4E-11	1E-06	2E-10	5E-06	
B14	17	2E-11	2E-06	1E-10	8E-06	
B15	4	1E-10	7E-06	6E-10	3E-05	
LB1	15	6E-11	2E-06	3E-10	1E-05	
	20.5	1E-09	3E-05	6E-09	1E-04	
LB2	19.5	7E-09	1E-04	3E-08	4E-04	
LB3	20	1E-06	2E-02	**5E-06**	7E-02	PCE
LB4	20.5	6E-08	8E-04	3E-07	4E-03	
LB5	14.5	2E-09	6E-05	7E-09	2E-04	
	20.5	2E-09	7E-05	7E-09	3E-04	
LB6	17	2E-10	7E-06	1E-09	3E-05	
LB7	17	4E-10	8E-06	2E-09	3E-05	
LB8	17	2E-09	3E-05	8E-09	1E-04	

Notes:

[a]: Soil vapor sampling was attempted at this location; however, not enough flow to collect a sample (Leighton, 2016).

ft bgs - feet below ground surface

PCE - tetrachloroethylene

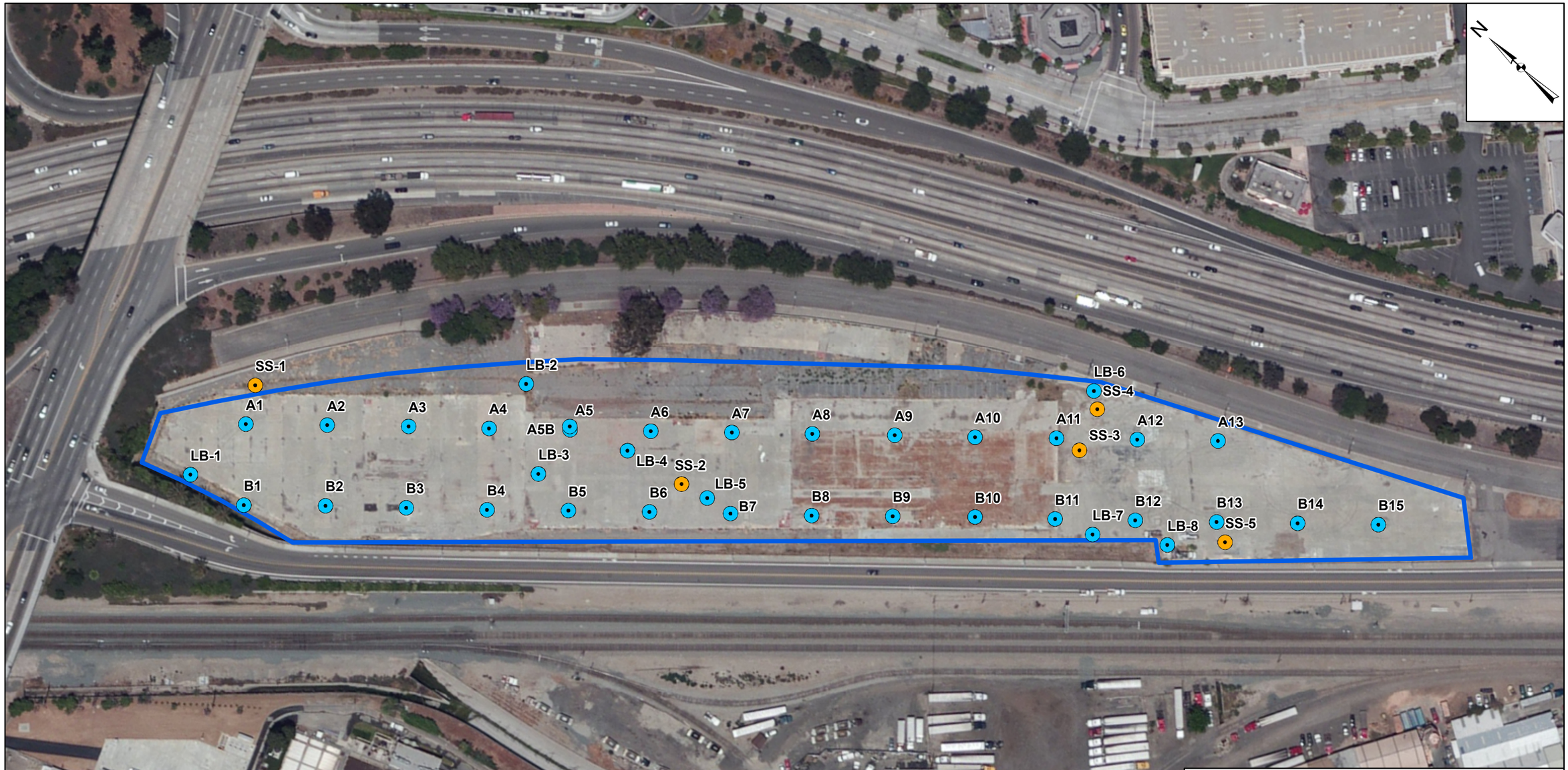
Target cancer risk (CR) = 10^{-6} for residents and 10^{-5} for workers and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk and/or cumulative hazard > target hazard

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

FIGURES

C:\Users\jsneider\Desktop\HR1305\Fig1.mxd 12/28/2016 7:45:22 AM



Legend

- Soil Sample Location (Geosyntec, 2012)
- Soil and Soil Vapor Sample Location (Leighton, 2016)
- Site Boundary

Notes:
A5 met refusal after 5 feet below ground surface and was moved to location A5B.
Only soil samples were taken from A5.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Soil and Soil Vapor Sample Locations
777 North Front Street
Burbank, California

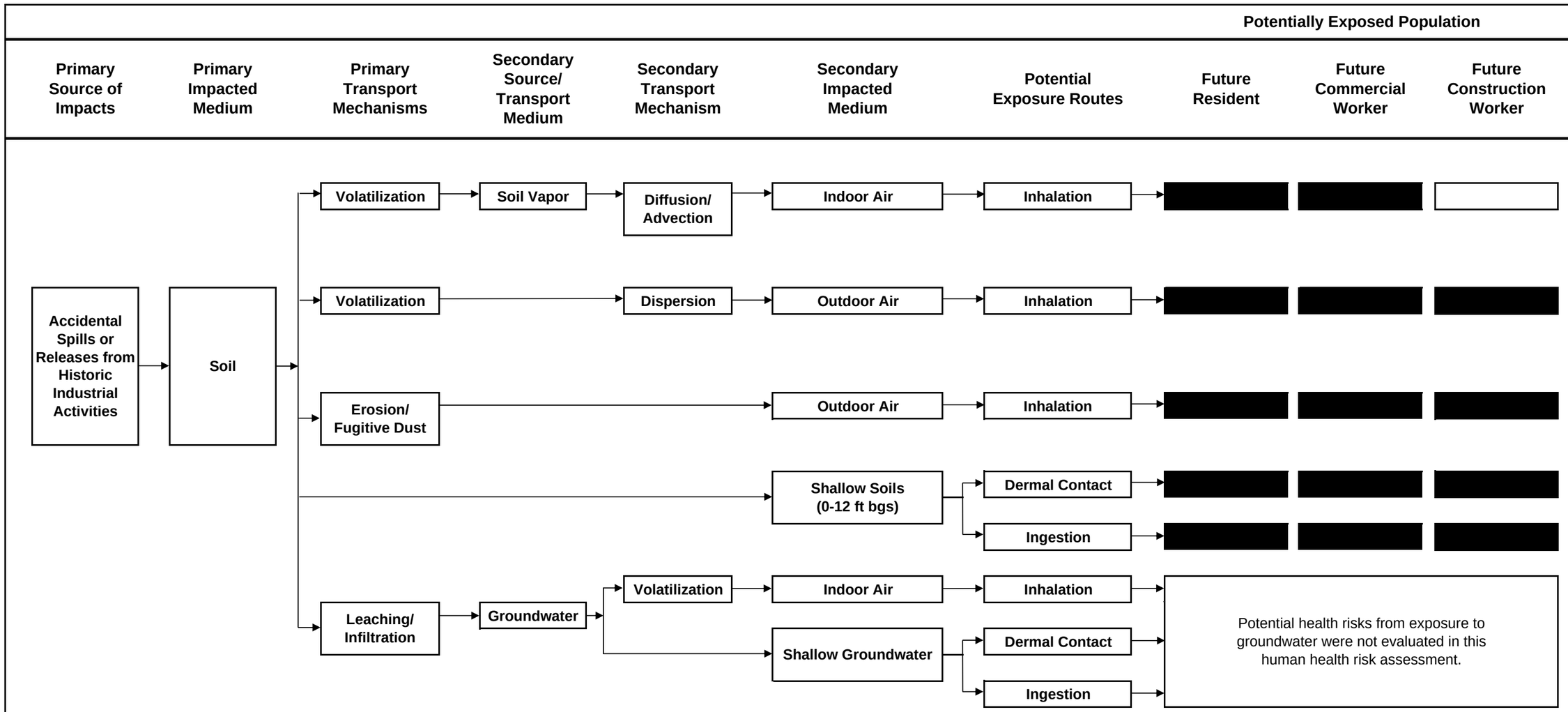
100 50 0 100 200 Feet

Geosyntec consultants

Project No: HR1305C | January 2017

Figure **2**

Path: author dd-mmm-yyyy; ProjNum-Task-Phase; Document Number, etc.



Potentially complete exposure pathway; quantitatively evaluated in the human health risk assessment

Incomplete exposure pathway, not quantitatively evaluated in the human health risk assessment

ft bgs: feet below ground surface

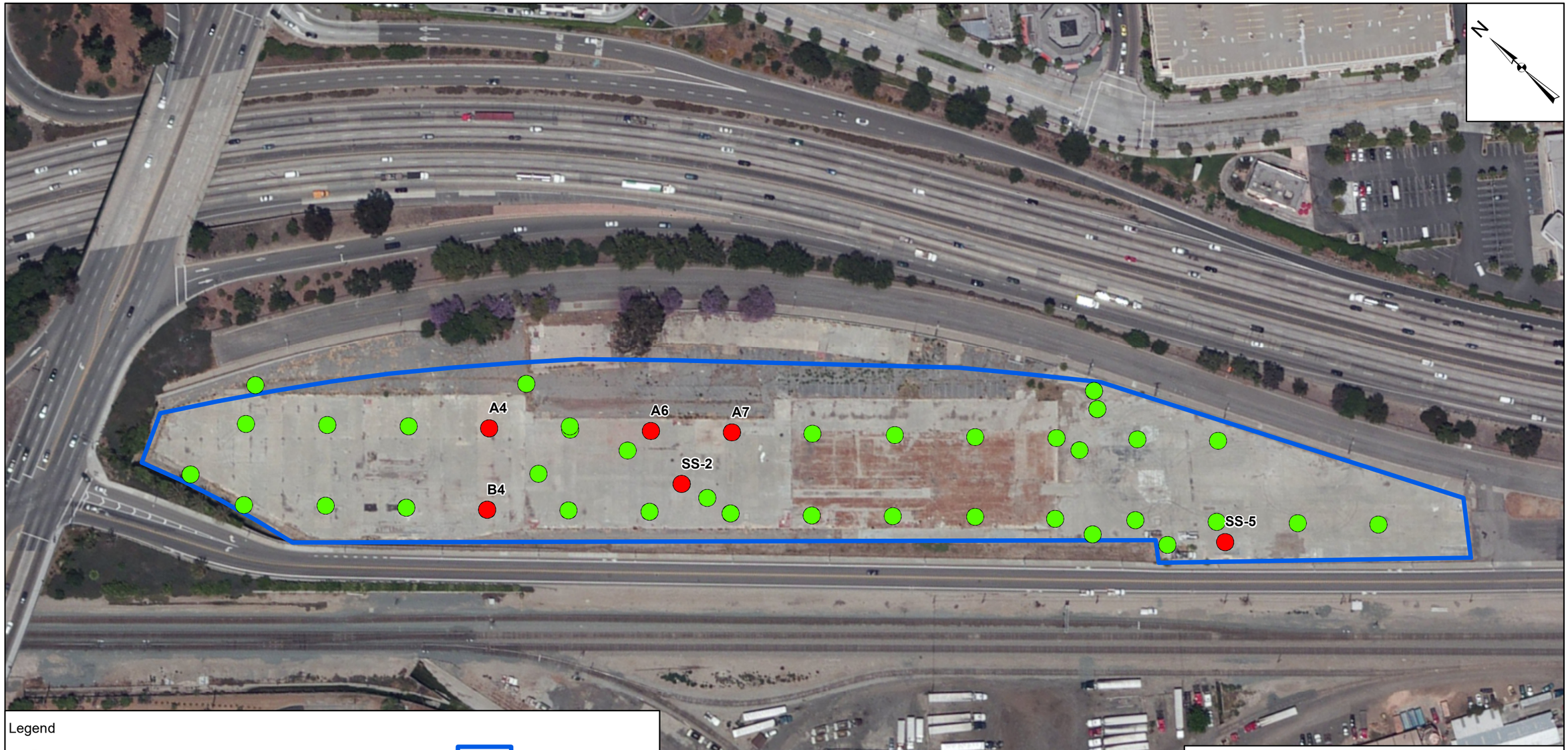
CONCEPTUAL SITE MODEL
777 North Front Street
Burbank, California

Geosyntec consultants

January 2017

Figure 3

CSM_Figure 3.xlsx



Legend

Soil Sample Location

Site Boundary

Risk Code

CR > 1E-6; HI > 1; and/or Lead > SL

CR ≤ 1E-6; HI ≤ 1; metals within background

Notes:
CR = Cancer Risk
HI = Noncancer Hazard Index
ft bgs = feet below ground surface
SL = DTSC Note 3 residential soil screening level of 80 mg/kg
For multiple depths, the highest CR and HI results are represented.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Cumulative Risk Evaluation
Future Resident
Shallow Soil 0 to 12 ft bgs
777 North Front Street
Burbank, California

100 50 0 100 200 Feet

Geosyntec consultants

Project No: HR1305C | January 2017

Figure **4a**

Path: author: dd-mmm-yyyy; ProjNum-Task-Phase-Document Number, etc.

Legend

Soil Sample Location

Site Boundary

Risk Code

Lead > SL

CR ≤ 1E-5; HI ≤ 1; metals within background

Notes:
CR = Cancer Risk
HI = Noncancer Hazard Index
ft bgs = feet below ground surface
SL = DTSC Note 3 worker soil screening level of 320 mg/kg
For multiple depths, the highest CR and HI results are represented.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Cumulative Risk Evaluation
Future Commercial Worker
Shallow Soil 0 to 12 ft bgs
777 North Front Street
Burbank, California

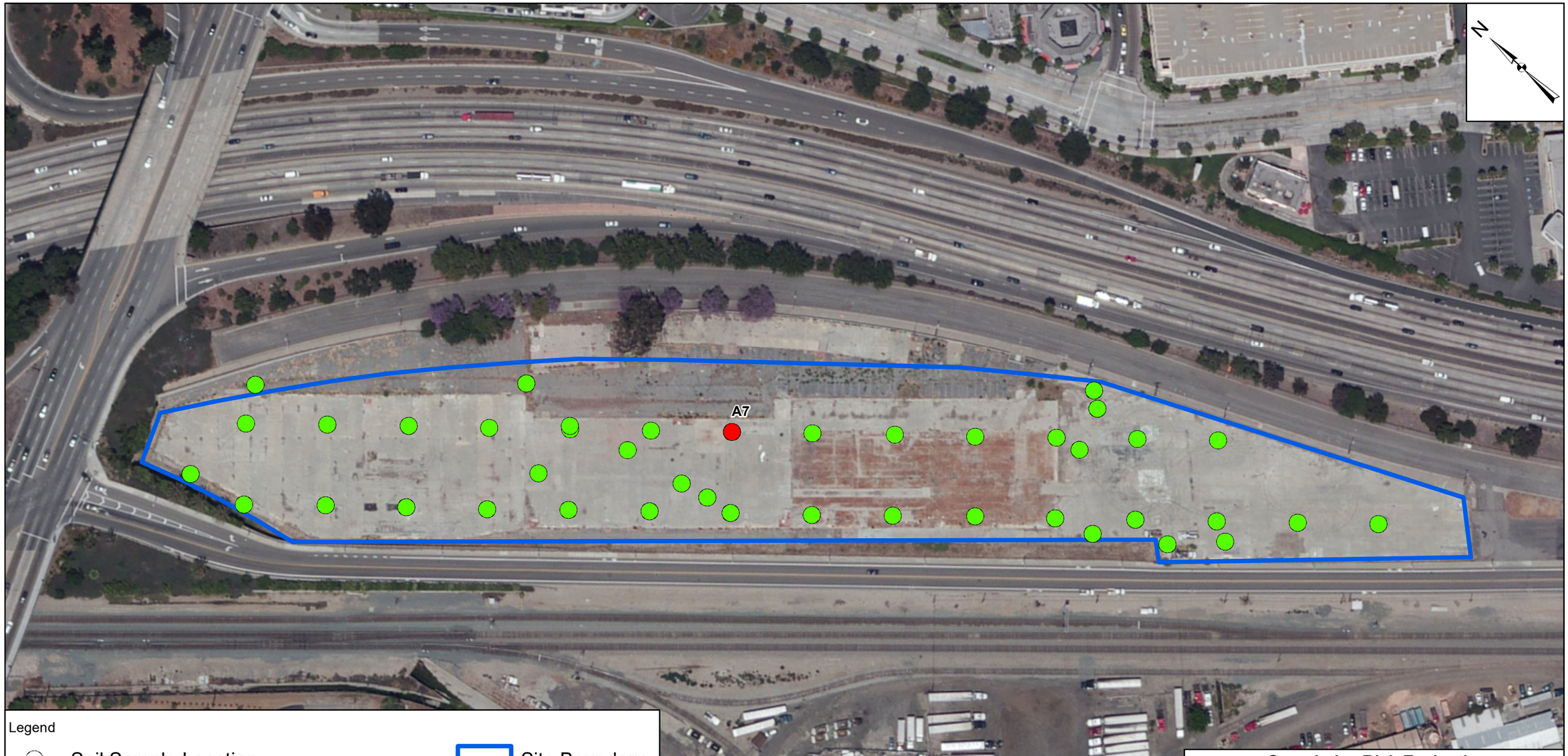
100 50 0 100 200
Feet

Geosyntec consultants

Project No: HR1305C | January 2017

Figure **4b**

Path: author; dd-mmm-yyyy; ProjNum-Task-Phase; Document Number, etc.



Legend

Soil Sample Location

Site Boundary

Risk Code

CR > 1E-5; HI > 1; and/or Lead > SL

CR ≤ 1E-5; HI ≤ 1; metals within background

Notes:
CR = Cancer Risk
HI = Noncancer Hazard Index
ft bgs = feet below ground surface
SL = DTSC Note 3 worker soil screening level of 320 mg/kg
For multiple depths, the highest CR and HI results are represented.

Cumulative Risk Evaluation
Future Construction Worker
Shallow Soil 0 to 12 ft bgs
777 North Front Street
Burbank, California

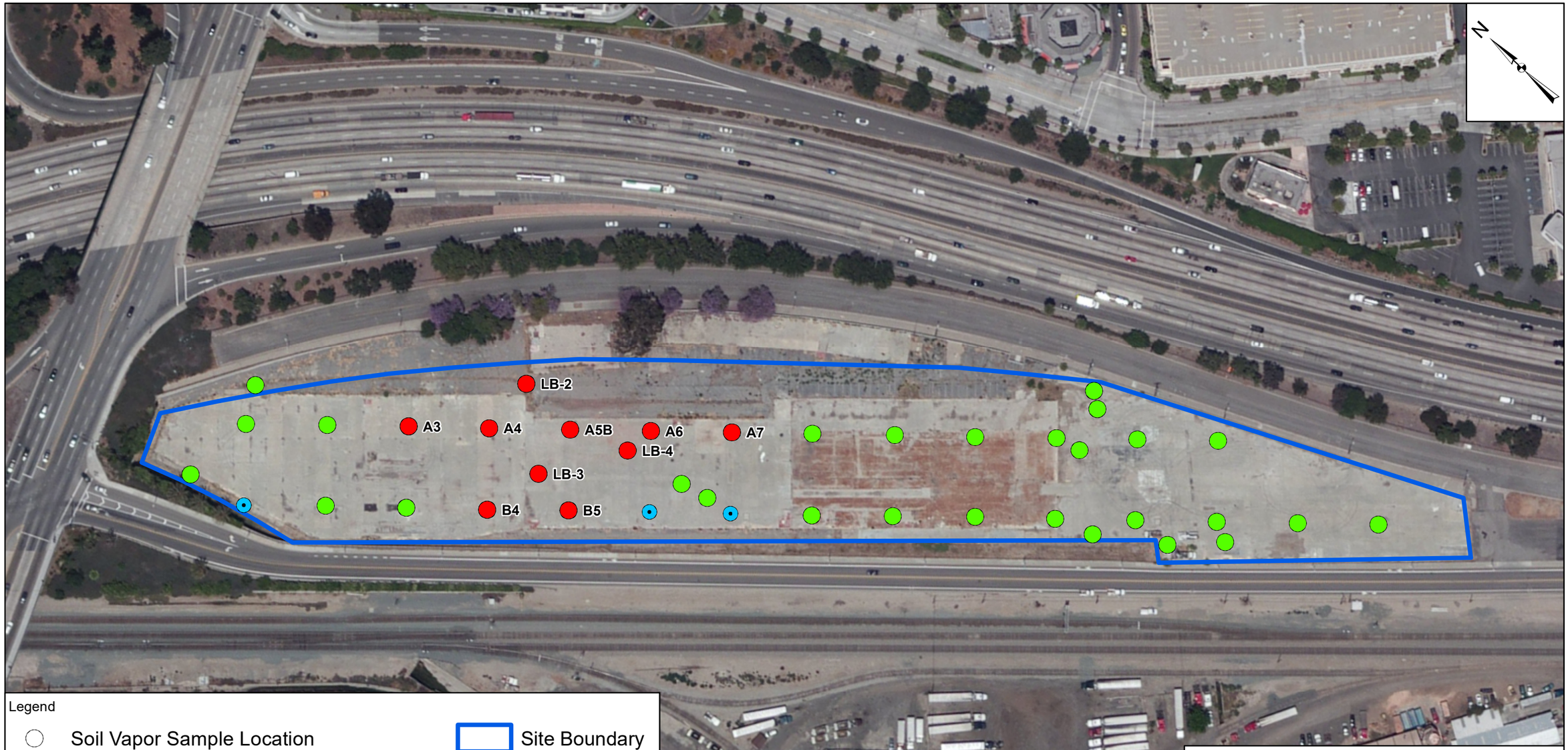
100 50 0 100 200
Feet

Geosyntec consultants

Project No: HR1305C | January 2017

Figure **4c**

Path: author dd-mmm-yyyy; ProjNum-Task-Phase-Document Number, etc.



Legend

Soil Vapor Sample Location

Soil Vapor Sample Not Collected*

Site Boundary

Risk Code

CR > 1E-6 and/or HI > 1

CR ≤ 1E-6; HI ≤ 1

Notes:
CR = Cancer Risk
HI = Noncancer Hazard Index
For multiple depths, the highest CR and HI results are represented.
*Soil vapor sampling was attempted at this location; however, not enough flow to collect a sample (Leighton, 2016)

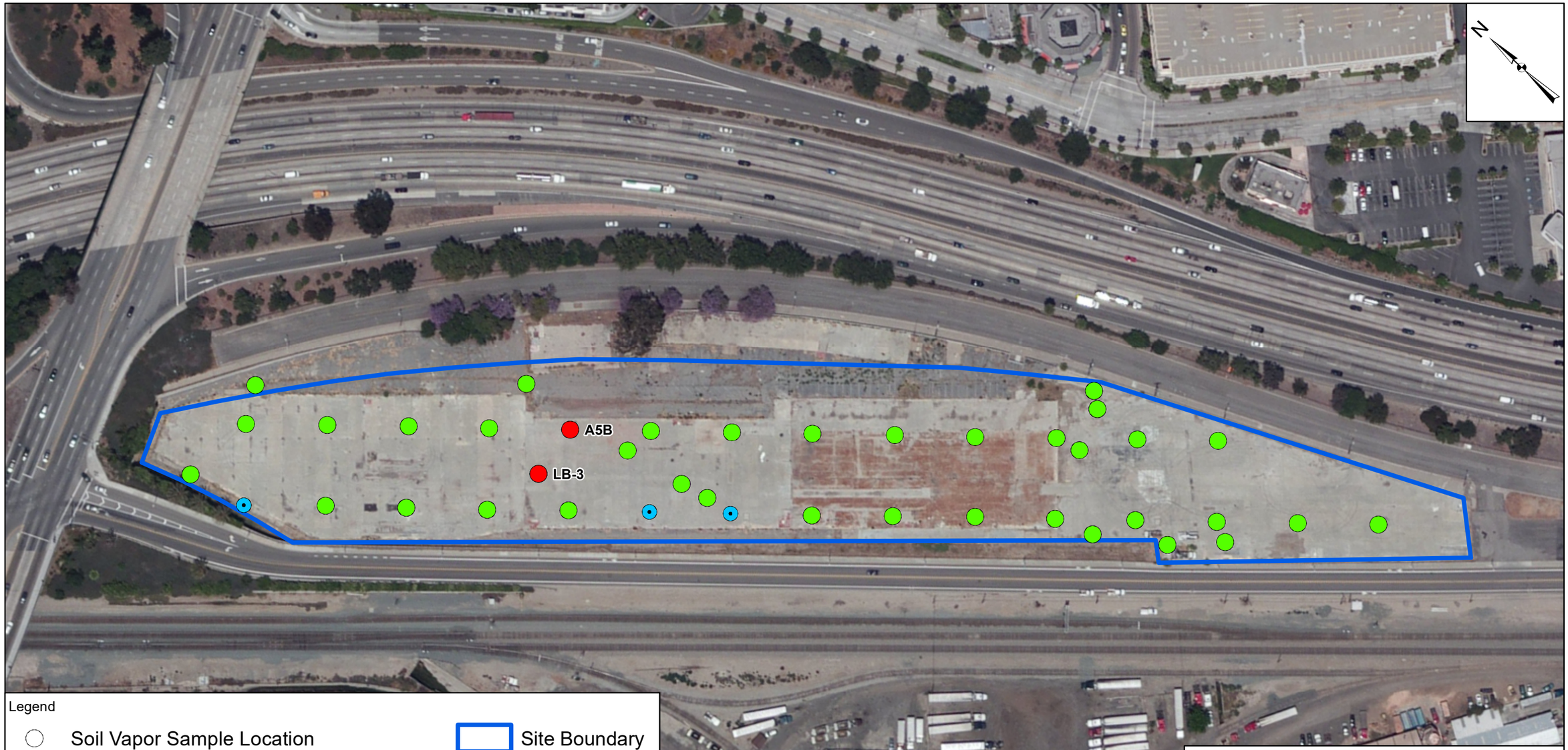
Cumulative Risk Evaluation
Future Resident
Soil Vapor to Indoor Air, Slab-on-Grade
777 North Front Street
Burbank, California

100 50 0 100 200 Feet

Geosyntec consultants

Project No: HR1305C | January 2017

Figure **5a**



Legend

Soil Vapor Sample Location

Soil Vapor Sample Not Collected*

Site Boundary

Risk Code

CR > 1E-6 and/or HI > 1

CR ≤ 1E-6; HI ≤ 1

Notes:
CR = Cancer Risk
HI = Noncancer Hazard Index
For multiple depths, the highest CR and HI results are represented.
*Soil vapor sampling was attempted at this location; however, not enough flow to collect a sample (Leighton, 2016)

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Cumulative Risk Evaluation
Future Resident
Soil Vapor to Indoor Air, Second Floor
777 North Front Street
Burbank, California

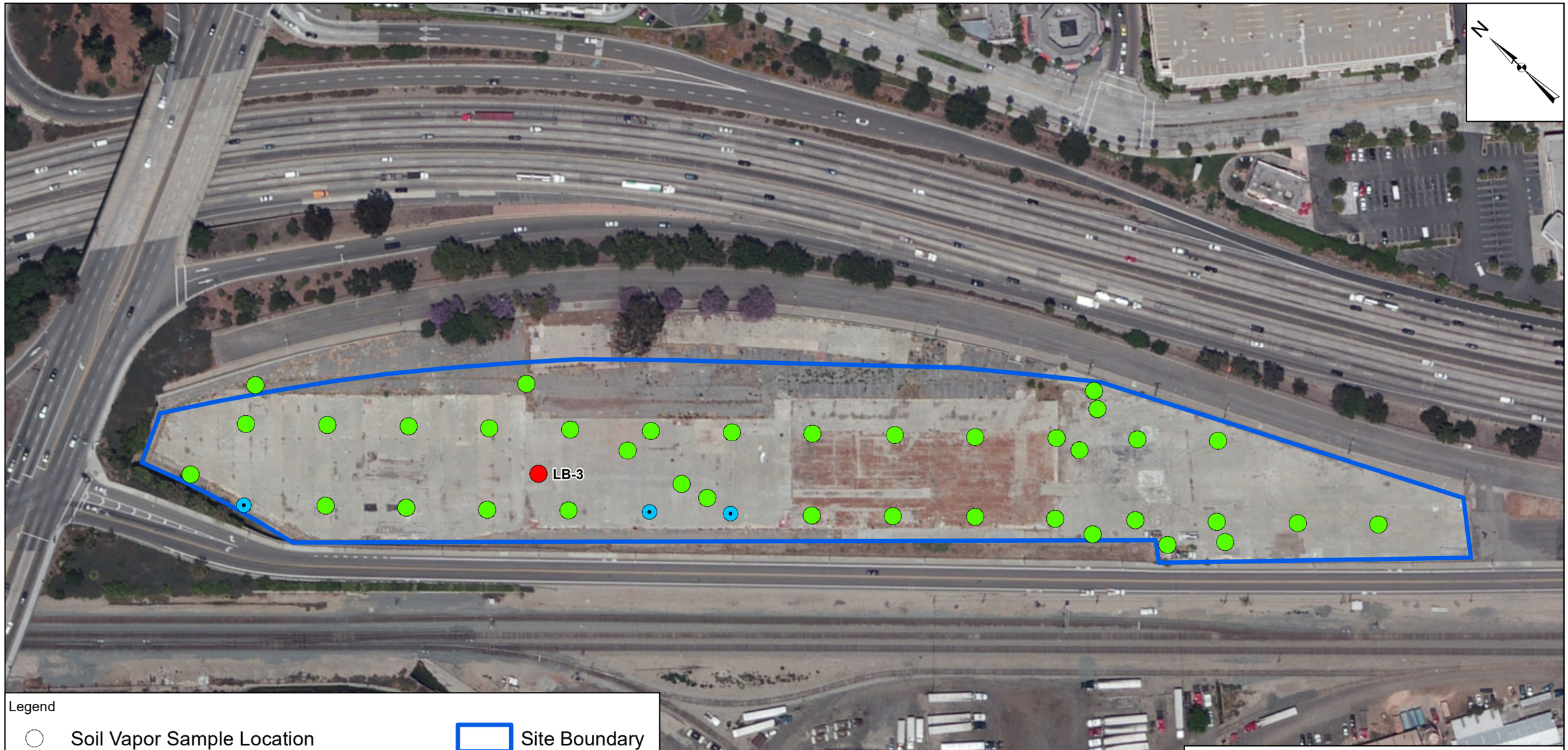
100 50 0 100 200 Feet

Geosyntec consultants

Project No: HR1305C | January 2017

Figure **5b**

Path: author: dd-mmm-yyyy; ProjNum-Task-Phase-Document Number, etc.



Legend

Soil Vapor Sample Location

Soil Vapor Sample Not Collected*

Site Boundary

Risk Code

CR > 1E-5 and/or HI > 1

CR ≤ 1E-5; HI ≤ 1

Notes:
CR = Cancer Risk
HI = Noncancer Hazard Index
For multiple depths, the highest CR and HI results are represented.
*Soil vapor sampling was attempted at this location; however, not enough flow to collect a sample (Leighton, 2016)

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Cumulative Risk Evaluation
Future Commercial Worker
Soil Vapor to Indoor Air, Slab-on-Grade
777 North Front Street
Burbank, California

100 50 0 100 200 Feet

Geosyntec consultants

Project No: HR1305C | January 2017

Figure **5c**

Path: author: dd-mmm-yyyy; ProjNum-Task-Phase-Document Number, etc.

Legend

Soil Vapor Sample Location

Soil Vapor Sample Not Collected*

Site Boundary

Risk Code

CR > 1E-5 and/or HI > 1

CR ≤ 1E-5; HI ≤ 1

Notes:
CR = Cancer Risk
HI = Noncancer Hazard Index
For multiple depths, the highest CR and HI results are represented.
*Soil vapor sampling was attempted at this location; however, not enough flow to collect a sample (Leighton, 2016)

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Cumulative Risk Evaluation
Future Commercial Worker
Soil Vapor to Indoor Air, Second Floor
777 North Front Street
Burbank, California

100 50 0 100 200 Feet

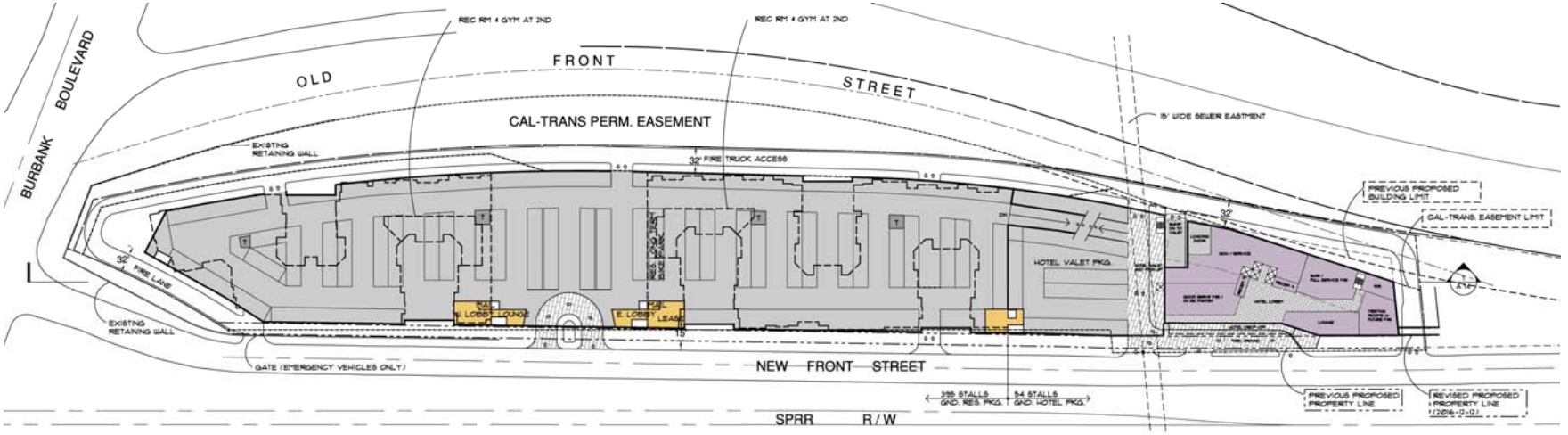
Geosyntec consultants

Project No: HR1305C

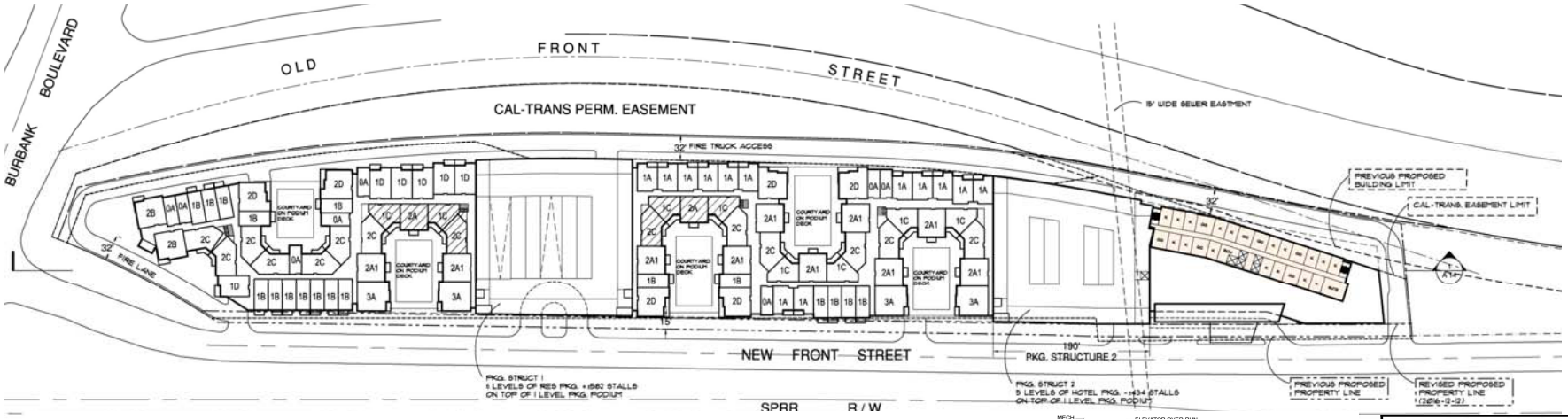
January 2017

Figure **5d**

Path: author: dd-mmm-yyyy; ProjNum-Task-Phase-Document Number, etc.

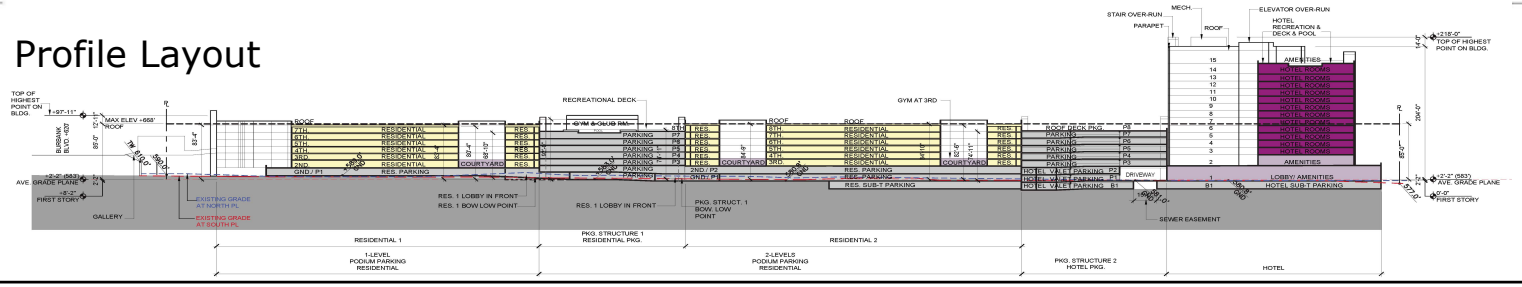


Ground Floor



1st Floor

Profile Layout



Preliminary Development Plan
Building Sections – The Line @ Burbank
777 North Front Street
Burbank, California

Geosyntec consultants

Figure **6**

Project No: HR1305C | February 2017

Geosyntec
consultants

APPENDICES

Geosyntec
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APPENDIX A
Summary of Analytical Data

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A1	1	A1-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-39-3	Barium, Ba	287	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-48-4	Cobalt, Co	11.1	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-47-3	Chromium, Cr	15.9	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-50-8	Copper, Cu	33.9	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-02-0	Nickel, Ni	10.6	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7439-92-1	Lead, Pb	7.1	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-62-2	Vanadium, V	38.1	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7440-66-6	Zinc, Zn	99.1	mg/kg	0.5
A1	1	A1-1'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A1	1	A1-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A1	1	A1-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A1	1	A1-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A1	1	A1-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A1	1	A1-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A1	1	A1-1'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A1	1	A1-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A1	1	A1-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A1	1	A1-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A1	1	A1-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A1	1	A1-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A1	1	A1-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A1	1	A1-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A1	1	A1-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-39-3	Barium, Ba	225	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-48-4	Cobalt, Co	19.5	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-47-3	Chromium, Cr	33.7	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-50-8	Copper, Cu	41.7	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-02-0	Nickel, Ni	25.8	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7439-92-1	Lead, Pb	3.9	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-62-2	Vanadium, V	71.9	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	7440-66-6	Zinc, Zn	76.1	mg/kg	0.5
A1	4.5	A1-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A1	4.5	A1-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A1	4.5	A1-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A1	4.5	A1-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A1	4.5	A1-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A1	4.5	A1-4.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A1	4.5	A1-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A1	4.5	A1-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A1	4.5	A1-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A1	4.5	A1-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A1	4.5	A1-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A1	4.5	A1-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A1	4.5	A1-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A1	4.5	A1-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	7439-97-6	Mercury, Hg	0.027	mg/kg	0.02
A1	8.5	A1-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-39-3	Barium, Ba	246	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-48-4	Cobalt, Co	22.6	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-47-3	Chromium, Cr	43.2	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-50-8	Copper, Cu	47.3	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-02-0	Nickel, Ni	32.6	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7439-92-1	Lead, Pb	4.2	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-62-2	Vanadium, V	78.4	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7440-66-6	Zinc, Zn	94.9	mg/kg	0.5
A1	8.5	A1-8.5'	5/4/2016	7439-97-6	Mercury, Hg	0.038	mg/kg	0.02
A1	8.5	A1-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A1	8.5	A1-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A1	8.5	A1-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A1	8.5	A1-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A1	8.5	A1-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A1	8.5	A1-8.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A1	8.5	A1-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A1	8.5	A1-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A1	8.5	A1-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A1	8.5	A1-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A1	8.5	A1-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A1	8.5	A1-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A1	8.5	A1-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A1	8.5	A1-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-39-3	Barium, Ba	188	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-48-4	Cobalt, Co	15.5	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-47-3	Chromium, Cr	28.5	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-50-8	Copper, Cu	33.8	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-02-0	Nickel, Ni	19.7	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7439-92-1	Lead, Pb	3.2	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-62-2	Vanadium, V	58.2	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7440-66-6	Zinc, Zn	66.7	mg/kg	0.5
A2	1	A2-1'	5/4/2016	7439-97-6	Mercury, Hg	0.051	mg/kg	0.02
A2	1	A2-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A2	1	A2-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A2	1	A2-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A2	1	A2-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A2	1	A2-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A2	1	A2-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A2	1	A2-1'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A2	1	A2-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A2	1	A2-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A2	1	A2-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A2	1	A2-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A2	1	A2-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	127-18-4	Tetrachloroethylene	8.2	µg/kg	1
A2	1	A2-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A2	1	A2-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A2	1	A2-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-39-3	Barium, Ba	152	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-48-4	Cobalt, Co	13.4	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-47-3	Chromium, Cr	31.8	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-50-8	Copper, Cu	30.4	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-02-0	Nickel, Ni	21.5	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7439-92-1	Lead, Pb	3.1	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-62-2	Vanadium, V	52.5	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7440-66-6	Zinc, Zn	62.5	mg/kg	0.5
A2	4.5	A2-4.5'	5/4/2016	7439-97-6	Mercury, Hg	0.038	mg/kg	0.02
A2	4.5	A2-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A2	4.5	A2-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A2	4.5	A2-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A2	4.5	A2-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A2	4.5	A2-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A2	4.5	A2-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A2	4.5	A2-4.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A2	4.5	A2-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A2	4.5	A2-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A2	4.5	A2-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A2	4.5	A2-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A2	4.5	A2-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	2.1	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A2	4.5	A2-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A2	4.5	A2-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-39-3	Barium, Ba	111	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-48-4	Cobalt, Co	8.4	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-47-3	Chromium, Cr	18.3	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-50-8	Copper, Cu	16.4	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-02-0	Nickel, Ni	9.5	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7439-92-1	Lead, Pb	0.6	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-62-2	Vanadium, V	39.9	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7440-66-6	Zinc, Zn	38.8	mg/kg	0.5
A2	8.5	A2-8.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A2	8.5	A2-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A2	8.5	A2-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A2	8.5	A2-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A2	8.5	A2-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A2	8.5	A2-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A2	8.5	A2-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A2	8.5	A2-8.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A2	8.5	A2-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A2	8.5	A2-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A2	8.5	A2-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A2	8.5	A2-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A2	8.5	A2-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A2	8.5	A2-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A2	8.5	A2-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-39-3	Barium, Ba	91.9	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-48-4	Cobalt, Co	5.6	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-47-3	Chromium, Cr	10.3	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-50-8	Copper, Cu	1980	mg/kg	5
A3	1	A3-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-02-0	Nickel, Ni	13.4	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7439-92-1	Lead, Pb	26.1	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-62-2	Vanadium, V	28.9	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7440-66-6	Zinc, Zn	114	mg/kg	0.5
A3	1	A3-1'	5/4/2016	7439-97-6	Mercury, Hg	0.074	mg/kg	0.02
A3	1	A3-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A3	1	A3-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A3	1	A3-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A3	1	A3-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A3	1	A3-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A3	1	A3-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A3	1	A3-1'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A3	1	A3-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A3	1	A3-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A3	1	A3-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A3	1	A3-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A3	1	A3-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	127-18-4	Tetrachloroethylene	8.9	µg/kg	1
A3	1	A3-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A3	1	A3-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A3	1	A3-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-39-3	Barium, Ba	218	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-48-4	Cobalt, Co	18.3	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-47-3	Chromium, Cr	32.9	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-50-8	Copper, Cu	48.8	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-02-0	Nickel, Ni	24.1	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7439-92-1	Lead, Pb	3.4	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-62-2	Vanadium, V	70.4	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7440-66-6	Zinc, Zn	72.5	mg/kg	0.5
A3	4.5	A3-4.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A3	4.5	A3-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A3	4.5	A3-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A3	4.5	A3-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A3	4.5	A3-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A3	4.5	A3-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A3	4.5	A3-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A3	4.5	A3-4.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A3	4.5	A3-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A3	4.5	A3-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A3	4.5	A3-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A3	4.5	A3-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A3	4.5	A3-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	10.5	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A3	4.5	A3-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A3	4.5	A3-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-39-3	Barium, Ba	231	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-48-4	Cobalt, Co	18.6	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-47-3	Chromium, Cr	33.3	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-50-8	Copper, Cu	37.9	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-02-0	Nickel, Ni	24.2	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7439-92-1	Lead, Pb	2.8	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-62-2	Vanadium, V	70.4	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7440-66-6	Zinc, Zn	76.8	mg/kg	0.5
A3	8.5	A3-8.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A3	8.5	A3-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A3	8.5	A3-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A3	8.5	A3-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A3	8.5	A3-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A3	8.5	A3-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A3	8.5	A3-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A3	8.5	A3-8.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A3	8.5	A3-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A3	8.5	A3-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A3	8.5	A3-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A3	8.5	A3-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A3	8.5	A3-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	11.4	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A3	8.5	A3-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A3	8.5	A3-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A3	8.5D	A3-8.5D	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-39-3	Barium, Ba	84.5	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-48-4	Cobalt, Co	3.7	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-47-3	Chromium, Cr	11.5	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-50-8	Copper, Cu	7.5	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7439-98-7	Molybdenum, Mo	2.7	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-02-0	Nickel, Ni	2.4	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7439-92-1	Lead, Pb	ND	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-62-2	Vanadium, V	16.8	mg/kg	0.5
A3	8.5D	A3-8.5D	5/4/2016	7440-66-6	Zinc, Zn	43.9	mg/kg	0.5
A3	8.5D	A3-8.5'-D	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A3	8.5D	A3-8.5'-D	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A3	8.5D	A3-8.5'-D	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A3	8.5D	A3-8.5'-D	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A3	8.5D	A3-8.5'-D	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A3	8.5D	A3-8.5'-D	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A3	8.5D	A3-8.5'-D	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A3	8.5D	A3-8.5'-D	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A3	8.5D	A3-8.5'-D	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A3	8.5D	A3-8.5'-D	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A3	8.5D	A3-8.5'-D	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A3	8.5D	A3-8.5'-D	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	127-18-4	Tetrachloroethylene	6.6	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A3	8.5D	A3-8.5'-D	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A3	8.5D	A3-8.5'-D	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A4	1	A4-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-39-3	Barium, Ba	109	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-48-4	Cobalt, Co	6.9	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-47-3	Chromium, Cr	5.2	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-50-8	Copper, Cu	509	mg/kg	5
A4	1	A4-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-02-0	Nickel, Ni	6.1	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7439-92-1	Lead, Pb	14.8	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A4	1	A4-1'	5/4/2016	7440-62-2	Vanadium, V	38.2	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7440-66-6	Zinc, Zn	108	mg/kg	0.5
A4	1	A4-1'	5/4/2016	7439-97-6	Mercury, Hg	0.13	mg/kg	0.02
A4	1	A4-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A4	1	A4-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A4	1	A4-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A4	1	A4-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A4	1	A4-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A4	1	A4-1'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A4	1	A4-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A4	1	A4-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A4	1	A4-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A4	1	A4-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A4	1	A4-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	127-18-4	Tetrachloroethylene	2540	µg/kg	1
A4	1	A4-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	79-01-6	Trichloroethylene	11.5	µg/kg	1
A4	1	A4-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A4	1	A4-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A4	1	A4-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-39-3	Barium, Ba	97.4	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-48-4	Cobalt, Co	8.6	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.4	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-50-8	Copper, Cu	20.3	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A4	4.5	A4-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-02-0	Nickel, Ni	11.3	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7439-92-1	Lead, Pb	0.8	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-62-2	Vanadium, V	37	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7440-66-6	Zinc, Zn	39.7	mg/kg	0.5
A4	4.5	A4-4.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A4	4.5	A4-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A4	4.5	A4-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A4	4.5	A4-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A4	4.5	A4-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A4	4.5	A4-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A4	4.5	A4-4.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A4	4.5	A4-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A4	4.5	A4-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A4	4.5	A4-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A4	4.5	A4-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A4	4.5	A4-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	46.9	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A4	4.5	A4-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A4	4.5	A4-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A4	8.5	A4-8.5'	5/4/2016	7440-39-3	Barium, Ba	88.5	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-48-4	Cobalt, Co	6.3	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-47-3	Chromium, Cr	13.9	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-50-8	Copper, Cu	16.1	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-02-0	Nickel, Ni	7.6	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7439-92-1	Lead, Pb	0.8	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-62-2	Vanadium, V	31.8	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7440-66-6	Zinc, Zn	307	mg/kg	0.5
A4	8.5	A4-8.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A4	8.5	A4-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A4	8.5	A4-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A4	8.5	A4-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A4	8.5	A4-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A4	8.5	A4-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A4	8.5	A4-8.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
A4	8.5	A4-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A4	8.5	A4-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A4	8.5	A4-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A4	8.5	A4-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A4	8.5	A4-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	118	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A4	8.5	A4-8.5'	5/4/2016	79-01-6	Trichloroethylene	2.7	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A4	8.5	A4-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
A4	8.5	A4-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-39-3	Barium, Ba	181	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-48-4	Cobalt, Co	16.5	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-47-3	Chromium, Cr	29	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-50-8	Copper, Cu	30.8	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-02-0	Nickel, Ni	19.7	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7439-92-1	Lead, Pb	2.8	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-62-2	Vanadium, V	67.8	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7440-66-6	Zinc, Zn	68.5	mg/kg	0.5
A5	1.25	A5-1.25'	5/4/2016	7439-97-6	Mercury, Hg	0.024	mg/kg	0.02
A5	1.25	A5-1.25'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A5	1.25	A5-1.25'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A5	1.25	A5-1.25'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A5	1.25	A5-1.25'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A5	1.25	A5-1.25'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A5	1.25	A5-1.25'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A5	1.25	A5-1.25'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A5	1.25	A5-1.25'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A5	1.25	A5-1.25'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A5	1.25	A5-1.25'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	127-18-4	Tetrachloroethylene	810	µg/kg	10
A5	1.25	A5-1.25'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A5	1.25	A5-1.25'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	79-01-6	Trichloroethylene	2.8	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A5	1.25	A5-1.25'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A5	1.25	A5-1.25'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-39-3	Barium, Ba	114	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-48-4	Cobalt, Co	10.4	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-47-3	Chromium, Cr	21.3	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-50-8	Copper, Cu	19.5	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-02-0	Nickel, Ni	12.6	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7439-92-1	Lead, Pb	1.5	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-62-2	Vanadium, V	49.9	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7440-66-6	Zinc, Zn	47.8	mg/kg	0.5
A5	4.5	A5-4.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A5	4.5	A5-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A5	4.5	A5-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A5	4.5	A5-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A5	4.5	A5-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A5	4.5	A5-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A5	4.5	A5-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A5	4.5	A5-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A5	4.5	A5-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A5	4.5	A5-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A5	4.5	A5-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A5	4.5	A5-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	32.2	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A5	4.5	A5-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A5	4.5	A5-4.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A5	4.5	A5-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-39-3	Barium, Ba	147	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-43-9	Cadmium, Cd	1.2	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-48-4	Cobalt, Co	9.9	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-47-3	Chromium, Cr	14.3	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-50-8	Copper, Cu	124	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-02-0	Nickel, Ni	16.1	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7439-92-1	Lead, Pb	74.9	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-62-2	Vanadium, V	46.9	mg/kg	0.5
A5B	1	A5B-1'	5/4/2016	7440-66-6	Zinc, Zn	6040	mg/kg	50
A5B	1	A5B-1'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A5B	1	A5B-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A5B	1	A5B-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A5B	1	A5B-1'	5/4/2016	N/A	DRO (C10-C28)	241	µg/kg	10
A5B	1	A5B-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A5B	1	A5B-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A5B	1	A5B-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A5B	1	A5B-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	N/A	ORO (C29-C32)	169	µg/kg	10
A5B	1	A5B-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A5B	1	A5B-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A5B	1	A5B-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	127-18-4	Tetrachloroethylene	253	µg/kg	9
A5B	1	A5B-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A5B	1	A5B-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A5B	1	A5B-1'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A5B	1	A5B-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-39-3	Barium, Ba	137	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-48-4	Cobalt, Co	11.9	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-47-3	Chromium, Cr	18.3	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-50-8	Copper, Cu	18.5	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-02-0	Nickel, Ni	12	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7439-92-1	Lead, Pb	1.4	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-62-2	Vanadium, V	53.1	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7440-66-6	Zinc, Zn	55.9	mg/kg	0.5
A5B	4.5	A5B-4.5'	5/4/2016	7439-97-6	Mercury, Hg	0.059	mg/kg	0.02
A5B	4.5	A5B-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A5B	4.5	A5B-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A5B	4.5	A5B-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A5B	4.5	A5B-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A5B	4.5	A5B-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A5B	4.5	A5B-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A5B	4.5	A5B-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A5B	4.5	A5B-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A5B	4.5	A5B-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A5B	4.5	A5B-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A5B	4.5	A5B-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	39.8	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A5B	4.5	A5B-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A5B	4.5	A5B-4.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A5B	4.5	A5B-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-39-3	Barium, Ba	152	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-48-4	Cobalt, Co	12	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-47-3	Chromium, Cr	24.9	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-50-8	Copper, Cu	21.8	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-02-0	Nickel, Ni	14.3	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7439-92-1	Lead, Pb	1.6	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-62-2	Vanadium, V	53.8	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7440-66-6	Zinc, Zn	53.1	mg/kg	0.5
A5B	8.5	A5B-8.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A5B	8.5	A5B-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A5B	8.5	A5B-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A5B	8.5	A5B-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A5B	8.5	A5B-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A5B	8.5	A5B-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A5B	8.5	A5B-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
A5B	8.5	A5B-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A5B	8.5	A5B-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A5B	8.5	A5B-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A5B	8.5	A5B-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A5B	8.5	A5B-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	16	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A5B	8.5	A5B-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A5B	8.5	A5B-8.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A5B	8.5	A5B-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-39-3	Barium, Ba	45.9	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-48-4	Cobalt, Co	13.6	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-47-3	Chromium, Cr	22.5	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-50-8	Copper, Cu	11.9	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-02-0	Nickel, Ni	18.4	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7439-92-1	Lead, Pb	1.5	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-62-2	Vanadium, V	33.1	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7440-66-6	Zinc, Zn	28.5	mg/kg	0.5
A6	1	A6-1'	5/5/2016	7439-97-6	Mercury, Hg	0.026	mg/kg	0.02
A6	1	A6-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A6	1	A6-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A6	1	A6-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A6	1	A6-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A6	1	A6-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A6	1	A6-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A6	1	A6-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A6	1	A6-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A6	1	A6-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A6	1	A6-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A6	1	A6-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A6	1	A6-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A6	1	A6-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A6	1	A6-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-39-3	Barium, Ba	136	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	1.2	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-48-4	Cobalt, Co	19.7	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-47-3	Chromium, Cr	157	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-50-8	Copper, Cu	39	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-02-0	Nickel, Ni	14.9	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7439-92-1	Lead, Pb	74.5	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-62-2	Vanadium, V	45.7	mg/kg	0.5
A6	4.5	A6-4.5'	5/5/2016	7440-66-6	Zinc, Zn	6260	mg/kg	10
A6	4.5	A6-4.5'	5/5/2016	7439-97-6	Mercury, Hg	0.03	mg/kg	0.02
A6	4.5	A6-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A6	4.5	A6-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A6	4.5	A6-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A6	4.5	A6-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A6	4.5	A6-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A6	4.5	A6-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A6	4.5	A6-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A6	4.5	A6-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A6	4.5	A6-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A6	4.5	A6-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A6	4.5	A6-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	13.7	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A6	4.5	A6-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A6	4.5	A6-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A6	4.5	A6-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-39-3	Barium, Ba	166	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-48-4	Cobalt, Co	20.1	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-47-3	Chromium, Cr	73.4	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-50-8	Copper, Cu	100	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-02-0	Nickel, Ni	18.5	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7439-92-1	Lead, Pb	59.5	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-62-2	Vanadium, V	57.6	mg/kg	0.5
A6	8.5	A6-8.5'	5/5/2016	7440-66-6	Zinc, Zn	3240	mg/kg	5
A6	8.5	A6-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A6	8.5	A6-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A6	8.5	A6-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A6	8.5	A6-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A6	8.5	A6-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A6	8.5	A6-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A6	8.5	A6-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A6	8.5	A6-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A6	8.5	A6-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A6	8.5	A6-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A6	8.5	A6-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A6	8.5	A6-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	2	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A6	8.5	A6-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A6	8.5	A6-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A6	8.5	A6-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-39-3	Barium, Ba	131	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-48-4	Cobalt, Co	9.6	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-47-3	Chromium, Cr	25.8	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-50-8	Copper, Cu	35.2	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7439-98-7	Molybdenum, Mo	2.2	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-02-0	Nickel, Ni	21.4	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7439-92-1	Lead, Pb	15.9	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-62-2	Vanadium, V	58.3	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7440-66-6	Zinc, Zn	154	mg/kg	0.5
A7	1	A7-1'	5/5/2016	7439-97-6	Mercury, Hg	0.035	mg/kg	0.02
A7	1	A7-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A7	1	A7-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A7	1	A7-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A7	1	A7-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A7	1	A7-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A7	1	A7-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A7	1	A7-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A7	1	A7-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A7	1	A7-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A7	1	A7-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A7	1	A7-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	127-18-4	Tetrachloroethylene	22.1	µg/kg	1
A7	1	A7-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A7	1	A7-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	79-01-6	Trichloroethylene	64.7	µg/kg	1
A7	1	A7-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A7	1	A7-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A7	1	A7-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-38-2	Arsenic, As	2.4	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-39-3	Barium, Ba	34.5	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-43-9	Cadmium, Cd	6.1	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-48-4	Cobalt, Co	1.1	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-47-3	Chromium, Cr	7.9	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-50-8	Copper, Cu	6740	mg/kg	10
A7	3.5	A7-3.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-02-0	Nickel, Ni	47.1	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7439-92-1	Lead, Pb	1110	mg/kg	5
A7	3.5	A7-3.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-62-2	Vanadium, V	11.3	mg/kg	0.5
A7	3.5	A7-3.5'	5/5/2016	7440-66-6	Zinc, Zn	6920	mg/kg	10

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A7	3.5	A7-3.5'	5/5/2016	7439-97-6	Mercury, Hg	0.029	mg/kg	0.02
A7	3.5	A7-3.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A7	3.5	A7-3.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A7	3.5	A7-3.5'	5/5/2016	N/A	DRO (C10-C28)	21.8	µg/kg	10
A7	3.5	A7-3.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A7	3.5	A7-3.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A7	3.5	A7-3.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A7	3.5	A7-3.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A7	3.5	A7-3.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A7	3.5	A7-3.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A7	3.5	A7-3.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	127-18-4	Tetrachloroethylene	2470	µg/kg	23
A7	3.5	A7-3.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A7	3.5	A7-3.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	79-01-6	Trichloroethylene	4800	µg/kg	23
A7	3.5	A7-3.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A7	3.5	A7-3.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A7	3.5	A7-3.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-39-3	Barium, Ba	176	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-48-4	Cobalt, Co	16.7	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-47-3	Chromium, Cr	34.3	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-50-8	Copper, Cu	609	mg/kg	5
A7	8.5	A7-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-02-0	Nickel, Ni	28.1	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A7	8.5	A7-8.5'	5/5/2016	7439-92-1	Lead, Pb	99.5	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-62-2	Vanadium, V	64.8	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7440-66-6	Zinc, Zn	359	mg/kg	0.5
A7	8.5	A7-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A7	8.5	A7-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A7	8.5	A7-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A7	8.5	A7-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A7	8.5	A7-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A7	8.5	A7-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A7	8.5	A7-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A7	8.5	A7-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A7	8.5	A7-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A7	8.5	A7-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A7	8.5	A7-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	1.4	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A7	8.5	A7-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	79-01-6	Trichloroethylene	2.6	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A7	8.5	A7-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A7	8.5	A7-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-39-3	Barium, Ba	131	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A8	1	A8-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-48-4	Cobalt, Co	12.2	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-47-3	Chromium, Cr	18.5	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-50-8	Copper, Cu	25.1	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-02-0	Nickel, Ni	12.2	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7439-92-1	Lead, Pb	4.1	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-62-2	Vanadium, V	45.8	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7440-66-6	Zinc, Zn	62.2	mg/kg	0.5
A8	1	A8-1'	5/5/2016	7439-97-6	Mercury, Hg	0.022	mg/kg	0.02
A8	1	A8-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A8	1	A8-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A8	1	A8-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A8	1	A8-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A8	1	A8-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A8	1	A8-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A8	1	A8-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A8	1	A8-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A8	1	A8-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A8	1	A8-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	127-18-4	Tetrachloroethylene	21.9	µg/kg	1
A8	1	A8-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A8	1	A8-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	79-01-6	Trichloroethylene	2.1	µg/kg	1
A8	1	A8-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A8	1	A8-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A8	1	A8-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-39-3	Barium, Ba	220	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-48-4	Cobalt, Co	20.3	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-47-3	Chromium, Cr	34.5	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-50-8	Copper, Cu	42.6	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-02-0	Nickel, Ni	25.7	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7439-92-1	Lead, Pb	4.2	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-62-2	Vanadium, V	74.4	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7440-66-6	Zinc, Zn	46.8	mg/kg	0.5
A8	4.5	A8-4.5'	5/5/2016	7439-97-6	Mercury, Hg	0.03	mg/kg	0.02
A8	4.5	A8-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A8	4.5	A8-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A8	4.5	A8-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	11.4	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A8	4.5	A8-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A8	4.5	A8-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-39-3	Barium, Ba	129	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-48-4	Cobalt, Co	11.3	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-47-3	Chromium, Cr	21.5	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-50-8	Copper, Cu	24.3	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-02-0	Nickel, Ni	13.9	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.4	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-62-2	Vanadium, V	49.7	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7440-66-6	Zinc, Zn	45.6	mg/kg	0.5
A8	8.5	A8-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A8	8.5	A8-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A8	8.5	A8-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A8	8.5	A8-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A8	8.5	A8-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A8	8.5	A8-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A8	8.5	A8-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A8	8.5	A8-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A8	8.5	A8-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A8	8.5	A8-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A8	8.5	A8-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	1.5	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A8	8.5	A8-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A8	8.5	A8-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A8	8.5	A8-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-39-3	Barium, Ba	126	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-48-4	Cobalt, Co	12.3	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-47-3	Chromium, Cr	17.7	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-50-8	Copper, Cu	22.4	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-02-0	Nickel, Ni	11.4	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7439-92-1	Lead, Pb	4	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-62-2	Vanadium, V	45.2	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7440-66-6	Zinc, Zn	59.6	mg/kg	0.5
A9	1	A9-1'	5/5/2016	7439-97-6	Mercury, Hg	0.022	mg/kg	0.02
A9	1	A9-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	71-43-2	Benzene	3	µg/kg	1
A9	1	A9-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A9	1	A9-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A9	1	A9-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A9	1	A9-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A9	1	A9-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A9	1	A9-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A9	1	A9-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A9	1	A9-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A9	1	A9-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A9	1	A9-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A9	1	A9-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	127-18-4	Tetrachloroethylene	4.3	µg/kg	1
A9	1	A9-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A9	1	A9-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A9	1	A9-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A9	1	A9-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-39-3	Barium, Ba	189	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-48-4	Cobalt, Co	16.1	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-47-3	Chromium, Cr	31.1	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-50-8	Copper, Cu	35.5	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-02-0	Nickel, Ni	20	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7439-92-1	Lead, Pb	3	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-62-2	Vanadium, V	66.1	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7440-66-6	Zinc, Zn	63.8	mg/kg	0.5
A9	4.5	A9-4.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A9	4.5	A9-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A9	4.5	A9-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A9	4.5	A9-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A9	4.5	A9-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A9	4.5	A9-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A9	4.5	A9-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A9	4.5	A9-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A9	4.5	A9-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A9	4.5	A9-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A9	4.5	A9-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	4.5	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A9	4.5	A9-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A9	4.5	A9-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A9	4.5	A9-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-39-3	Barium, Ba	115	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-48-4	Cobalt, Co	11.4	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-47-3	Chromium, Cr	20.3	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-50-8	Copper, Cu	21.2	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-02-0	Nickel, Ni	12.9	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.3	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-62-2	Vanadium, V	47.2	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7440-66-6	Zinc, Zn	43.4	mg/kg	0.5
A9	8.5	A9-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A9	8.5	A9-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A9	8.5	A9-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A9	8.5	A9-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A9	8.5	A9-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A9	8.5	A9-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A9	8.5	A9-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A9	8.5	A9-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A9	8.5	A9-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A9	8.5	A9-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A9	8.5	A9-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A9	8.5	A9-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A9	8.5	A9-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A9	8.5	A9-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A9	8.5	A9-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-39-3	Barium, Ba	145	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-48-4	Cobalt, Co	15	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-47-3	Chromium, Cr	21.6	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-50-8	Copper, Cu	22.6	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-02-0	Nickel, Ni	15.4	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7439-92-1	Lead, Pb	6.2	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-62-2	Vanadium, V	47.9	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7440-66-6	Zinc, Zn	66.6	mg/kg	0.5
A10	1	A10-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A10	1	A10-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A10	1	A10-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A10	1	A10-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A10	1	A10-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A10	1	A10-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A10	1	A10-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A10	1	A10-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A10	1	A10-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A10	1	A10-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A10	1	A10-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A10	1	A10-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	127-18-4	Tetrachloroethylene	6.8	µg/kg	1
A10	1	A10-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A10	1	A10-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A10	1	A10-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A10	1	A10-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-39-3	Barium, Ba	196	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-48-4	Cobalt, Co	15.8	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-47-3	Chromium, Cr	28.2	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-50-8	Copper, Cu	106	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-02-0	Nickel, Ni	19.9	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7439-92-1	Lead, Pb	9.6	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-62-2	Vanadium, V	62.2	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7440-66-6	Zinc, Zn	161	mg/kg	0.5
A11	1	A11-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A11	1	A11-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A11	1	A11-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A11	1	A11-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A11	1	A11-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A11	1	A11-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A11	1	A11-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A11	1	A11-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A11	1	A11-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A11	1	A11-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A11	1	A11-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A11	1	A11-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A11	1	A11-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A11	1	A11-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A11	1	A11-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-39-3	Barium, Ba	126	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-48-4	Cobalt, Co	11.6	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-47-3	Chromium, Cr	21.9	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-50-8	Copper, Cu	22.8	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-02-0	Nickel, Ni	14.4	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7439-92-1	Lead, Pb	2.2	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-62-2	Vanadium, V	47.3	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7440-66-6	Zinc, Zn	49.3	mg/kg	0.5
A11	4.5	A11-4.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A11	4.5	A11-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A11	4.5	A11-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A11	4.5	A11-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A11	4.5	A11-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A11	4.5	A11-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A11	4.5	A11-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A11	4.5	A11-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A11	4.5	A11-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A11	4.5	A11-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A11	4.5	A11-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A11	4.5	A11-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A11	4.5	A11-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A11	4.5	A11-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A11	4.5	A11-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-39-3	Barium, Ba	205	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-48-4	Cobalt, Co	18.1	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-47-3	Chromium, Cr	31.6	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-50-8	Copper, Cu	31.3	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-02-0	Nickel, Ni	22.3	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7439-92-1	Lead, Pb	3.1	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-62-2	Vanadium, V	67	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7440-66-6	Zinc, Zn	73.6	mg/kg	0.5
A11	8.5	A11-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A11	8.5	A11-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A11	8.5	A11-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A11	8.5	A11-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A11	8.5	A11-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A11	8.5	A11-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A11	8.5	A11-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A11	8.5	A11-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A11	8.5	A11-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A11	8.5	A11-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A11	8.5	A11-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A11	8.5	A11-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A11	8.5	A11-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A11	8.5	A11-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A11	8.5	A11-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-39-3	Barium, Ba	123	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-48-4	Cobalt, Co	10.2	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-47-3	Chromium, Cr	19.1	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-50-8	Copper, Cu	23.2	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-02-0	Nickel, Ni	13.2	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7439-92-1	Lead, Pb	1.5	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-62-2	Vanadium, V	42.8	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7440-66-6	Zinc, Zn	44.4	mg/kg	0.5
A11	8.5D	A11-8.5'-D	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A11	8.5D	A11-8.5'-D	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A11	8.5D	A11-8.5'-D	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A11	8.5D	A11-8.5'-D	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A11	8.5D	A11-8.5'-D	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A11	8.5D	A11-8.5'-D	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A11	8.5D	A11-8.5'-D	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A11	8.5D	A11-8.5'-D	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A11	8.5D	A11-8.5'-D	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A11	8.5D	A11-8.5'-D	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A11	8.5D	A11-8.5'-D	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A11	8.5D	A11-8.5'-D	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A11	8.5D	A11-8.5'-D	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A11	8.5D	A11-8.5'-D	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A11	8.5D	A11-8.5'-D	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-39-3	Barium, Ba	228	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-48-4	Cobalt, Co	19.7	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-47-3	Chromium, Cr	33.5	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-50-8	Copper, Cu	38.9	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-02-0	Nickel, Ni	25.6	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7439-92-1	Lead, Pb	6.8	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A12	1	A12-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-62-2	Vanadium, V	72.9	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7440-66-6	Zinc, Zn	90.5	mg/kg	0.5
A12	1	A12-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A12	1	A12-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A12	1	A12-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A12	1	A12-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A12	1	A12-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A12	1	A12-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A12	1	A12-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A12	1	A12-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A12	1	A12-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A12	1	A12-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A12	1	A12-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A12	1	A12-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A12	1	A12-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A12	1	A12-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-39-3	Barium, Ba	246	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-48-4	Cobalt, Co	20.6	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A12	5	A12-5'	5/5/2016	7440-47-3	Chromium, Cr	37.7	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-50-8	Copper, Cu	45.5	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-02-0	Nickel, Ni	27.9	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7439-92-1	Lead, Pb	4.2	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-62-2	Vanadium, V	75	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7440-66-6	Zinc, Zn	79.2	mg/kg	0.5
A12	5	A12-5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A12	5	A12-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A12	5	A12-5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A12	5	A12-5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A12	5	A12-5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A12	5	A12-5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A12	5	A12-5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A12	5	A12-5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A12	5	A12-5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A12	5	A12-5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A12	5	A12-5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A12	5	A12-5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A12	5	A12-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A12	5	A12-5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A12	11	A12-11'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-39-3	Barium, Ba	241	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-48-4	Cobalt, Co	20	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-47-3	Chromium, Cr	35.5	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-50-8	Copper, Cu	42.4	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-02-0	Nickel, Ni	25.7	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7439-92-1	Lead, Pb	4.2	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-62-2	Vanadium, V	77.9	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7440-66-6	Zinc, Zn	84.5	mg/kg	0.5
A12	11	A12-11'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A12	11	A12-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A12	11	A12-11'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A12	11	A12-11'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A12	11	A12-11'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A12	11	A12-11'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A12	11	A12-11'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A12	11	A12-11'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A12	11	A12-11'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A12	11	A12-11'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A12	11	A12-11'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A12	11	A12-11'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A12	11	A12-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A12	11	A12-11'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-39-3	Barium, Ba	210	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-48-4	Cobalt, Co	17.6	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-47-3	Chromium, Cr	30.2	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-50-8	Copper, Cu	36.2	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-02-0	Nickel, Ni	21.8	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7439-92-1	Lead, Pb	4	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-62-2	Vanadium, V	66.6	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7440-66-6	Zinc, Zn	77.5	mg/kg	0.5
A13	1	A13-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A13	1	A13-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A13	1	A13-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A13	1	A13-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A13	1	A13-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A13	1	A13-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A13	1	A13-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A13	1	A13-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A13	1	A13-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A13	1	A13-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A13	1	A13-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A13	1	A13-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A13	1	A13-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A13	1	A13-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A13	1	A13-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-39-3	Barium, Ba	248	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-48-4	Cobalt, Co	21	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-47-3	Chromium, Cr	35.4	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-50-8	Copper, Cu	41.8	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-02-0	Nickel, Ni	27.4	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7439-92-1	Lead, Pb	4.1	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-62-2	Vanadium, V	75.1	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7440-66-6	Zinc, Zn	81.8	mg/kg	0.5
A13	5	A13-5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A13	5	A13-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A13	5	A13-5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A13	5	A13-5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A13	5	A13-5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A13	5	A13-5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A13	5	A13-5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A13	5	A13-5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A13	5	A13-5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A13	5	A13-5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A13	5	A13-5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A13	5	A13-5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A13	5	A13-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A13	5	A13-5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-39-3	Barium, Ba	211	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-48-4	Cobalt, Co	18.5	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-47-3	Chromium, Cr	31.8	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-50-8	Copper, Cu	33.6	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-02-0	Nickel, Ni	22.8	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7439-92-1	Lead, Pb	3.2	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-62-2	Vanadium, V	68.4	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7440-66-6	Zinc, Zn	76.7	mg/kg	0.5
A13	11	A13-11'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
A13	11	A13-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
A13	11	A13-11'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
A13	11	A13-11'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
A13	11	A13-11'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
A13	11	A13-11'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
A13	11	A13-11'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
A13	11	A13-11'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
A13	11	A13-11'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
A13	11	A13-11'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
A13	11	A13-11'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
A13	11	A13-11'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
A13	11	A13-11'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
A13	11	A13-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
A13	11	A13-11'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-39-3	Barium, Ba	151	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-48-4	Cobalt, Co	11.9	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-47-3	Chromium, Cr	21.4	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-50-8	Copper, Cu	27	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-02-0	Nickel, Ni	15.3	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7439-92-1	Lead, Pb	6.8	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-62-2	Vanadium, V	47.2	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7440-66-6	Zinc, Zn	64.7	mg/kg	0.5
B1	1	B1-1'	5/4/2016	7439-97-6	Mercury, Hg	0.02	mg/kg	0.02
B1	1	B1-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B1	1	B1-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B1	1	B1-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B1	1	B1-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B1	1	B1-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B1	1	B1-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B1	1	B1-1'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B1	1	B1-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B1	1	B1-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B1	1	B1-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B1	1	B1-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B1	1	B1-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B1	1	B1-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B1	1	B1-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-39-3	Barium, Ba	128	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-48-4	Cobalt, Co	10.4	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-47-3	Chromium, Cr	20.1	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-50-8	Copper, Cu	22.9	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-02-0	Nickel, Ni	14.1	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7439-92-1	Lead, Pb	5.5	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-62-2	Vanadium, V	42.9	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7440-66-6	Zinc, Zn	55.2	mg/kg	0.5
B1	4.5	B1-4.5'	5/4/2016	7439-97-6	Mercury, Hg	0.037	mg/kg	0.02
B1	4.5	B1-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B1	4.5	B1-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B1	4.5	B1-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B1	4.5	B1-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B1	4.5	B1-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B1	4.5	B1-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B1	4.5	B1-4.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B1	4.5	B1-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B1	4.5	B1-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B1	4.5	B1-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B1	4.5	B1-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B1	4.5	B1-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	27	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B1	4.5	B1-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B1	4.5	B1-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-39-3	Barium, Ba	156	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-48-4	Cobalt, Co	14	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-47-3	Chromium, Cr	27.3	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-50-8	Copper, Cu	24.6	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-02-0	Nickel, Ni	17.9	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7439-92-1	Lead, Pb	6.5	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-62-2	Vanadium, V	57.5	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7440-66-6	Zinc, Zn	63.2	mg/kg	0.5
B1	8.5	B1-8.5'	5/4/2016	7439-97-6	Mercury, Hg	0.05	mg/kg	0.02
B1	8.5	B1-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B1	8.5	B1-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B1	8.5	B1-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B1	8.5	B1-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B1	8.5	B1-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B1	8.5	B1-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B1	8.5	B1-8.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B1	8.5	B1-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B1	8.5	B1-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B1	8.5	B1-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B1	8.5	B1-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B1	8.5	B1-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	2.1	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B1	8.5	B1-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B1	8.5	B1-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-39-3	Barium, Ba	155	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-48-4	Cobalt, Co	14.3	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-47-3	Chromium, Cr	23.4	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-50-8	Copper, Cu	23.5	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-02-0	Nickel, Ni	16.3	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7439-92-1	Lead, Pb	3	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-62-2	Vanadium, V	50.6	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7440-66-6	Zinc, Zn	62.4	mg/kg	0.5
B2	1	B2-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B2	1	B2-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B2	1	B2-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B2	1	B2-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B2	1	B2-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B2	1	B2-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B2	1	B2-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B2	1	B2-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B2	1	B2-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B2	1	B2-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B2	1	B2-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B2	1	B2-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	127-18-4	Tetrachloroethylene	12.7	µg/kg	1
B2	1	B2-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B2	1	B2-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B2	1	B2-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B2	1	B2-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-39-3	Barium, Ba	235	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-48-4	Cobalt, Co	19.1	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-47-3	Chromium, Cr	33.3	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-50-8	Copper, Cu	38.5	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-02-0	Nickel, Ni	24	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7439-92-1	Lead, Pb	4.1	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-62-2	Vanadium, V	69.6	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7440-66-6	Zinc, Zn	76.1	mg/kg	0.5
B2	4.5	B2-4.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B2	4.5	B2-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B2	4.5	B2-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B2	4.5	B2-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B2	4.5	B2-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B2	4.5	B2-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B2	4.5	B2-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B2	4.5	B2-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B2	4.5	B2-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B2	4.5	B2-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B2	4.5	B2-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B2	4.5	B2-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	1.7	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B2	4.5	B2-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B2	4.5	B2-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B2	4.5	B2-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-39-3	Barium, Ba	111	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-48-4	Cobalt, Co	10.4	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-47-3	Chromium, Cr	19	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-50-8	Copper, Cu	16.5	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-02-0	Nickel, Ni	12.6	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.2	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-62-2	Vanadium, V	43.3	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7440-66-6	Zinc, Zn	43	mg/kg	0.5
B2	8.5	B2-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B2	8.5	B2-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B2	8.5	B2-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B2	8.5	B2-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B2	8.5	B2-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B2	8.5	B2-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B2	8.5	B2-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B2	8.5	B2-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B2	8.5	B2-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B2	8.5	B2-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B2	8.5	B2-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B2	8.5	B2-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B2	8.5	B2-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B2	8.5	B2-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B2	8.5	B2-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-39-3	Barium, Ba	163	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-48-4	Cobalt, Co	12.9	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-47-3	Chromium, Cr	23.1	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-50-8	Copper, Cu	145	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-02-0	Nickel, Ni	17.6	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7439-92-1	Lead, Pb	19.1	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B3	1	B3-1'	5/4/2016	7440-62-2	Vanadium, V	51.7	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7440-66-6	Zinc, Zn	136	mg/kg	0.5
B3	1	B3-1'	5/4/2016	7439-97-6	Mercury, Hg	0.033	mg/kg	0.02
B3	1	B3-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B3	1	B3-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B3	1	B3-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B3	1	B3-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B3	1	B3-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B3	1	B3-1'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B3	1	B3-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B3	1	B3-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B3	1	B3-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B3	1	B3-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B3	1	B3-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	127-18-4	Tetrachloroethylene	21.8	µg/kg	1
B3	1	B3-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B3	1	B3-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B3	1	B3-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-39-3	Barium, Ba	136	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-48-4	Cobalt, Co	12.2	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-47-3	Chromium, Cr	23.7	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-50-8	Copper, Cu	34.5	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B3	4.5	B3-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-02-0	Nickel, Ni	17.5	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7439-92-1	Lead, Pb	2.1	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-62-2	Vanadium, V	49.4	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7440-66-6	Zinc, Zn	54.3	mg/kg	0.5
B3	4.5	B3-4.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B3	4.5	B3-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B3	4.5	B3-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B3	4.5	B3-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B3	4.5	B3-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B3	4.5	B3-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B3	4.5	B3-4.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B3	4.5	B3-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B3	4.5	B3-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B3	4.5	B3-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B3	4.5	B3-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B3	4.5	B3-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	7.9	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B3	4.5	B3-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B3	4.5	B3-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B3	8.5	B3-8.5'	5/4/2016	7440-39-3	Barium, Ba	122	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-48-4	Cobalt, Co	10.3	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-47-3	Chromium, Cr	19.8	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-50-8	Copper, Cu	19.7	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-02-0	Nickel, Ni	12.8	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7439-92-1	Lead, Pb	2.6	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-62-2	Vanadium, V	46	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7440-66-6	Zinc, Zn	43.4	mg/kg	0.5
B3	8.5	B3-8.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B3	8.5	B3-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B3	8.5	B3-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B3	8.5	B3-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B3	8.5	B3-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B3	8.5	B3-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B3	8.5	B3-8.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B3	8.5	B3-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B3	8.5	B3-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B3	8.5	B3-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B3	8.5	B3-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B3	8.5	B3-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	1.2	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B3	8.5	B3-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B3	8.5	B3-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B3	8.5	B3-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-38-2	Arsenic, As	2.3	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-39-3	Barium, Ba	182	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-43-9	Cadmium, Cd	0.8	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-48-4	Cobalt, Co	11.7	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-47-3	Chromium, Cr	25.9	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-50-8	Copper, Cu	133	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-02-0	Nickel, Ni	19.7	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7439-92-1	Lead, Pb	108	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-62-2	Vanadium, V	44.3	mg/kg	0.5
B4	1	B4-1'	5/4/2016	7440-66-6	Zinc, Zn	1580	mg/kg	5
B4	1	B4-1'	5/4/2016	7439-97-6	Mercury, Hg	0.027	mg/kg	0.02
B4	1	B4-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	5	µg/kg	1
B4	1	B4-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B4	1	B4-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B4	1	B4-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B4	1	B4-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B4	1	B4-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B4	1	B4-1'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B4	1	B4-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B4	1	B4-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B4	1	B4-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B4	1	B4-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B4	1	B4-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	127-18-4	Tetrachloroethylene	3330*	µg/kg	1
B4	1	B4-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	2.3	µg/kg	1
B4	1	B4-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	79-01-6	Trichloroethylene	153	µg/kg	1
B4	1	B4-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B4	1	B4-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B4	1	B4-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-39-3	Barium, Ba	151	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-48-4	Cobalt, Co	13.7	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-47-3	Chromium, Cr	26.4	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-50-8	Copper, Cu	32.3	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-02-0	Nickel, Ni	17.7	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7439-92-1	Lead, Pb	2.7	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-62-2	Vanadium, V	58.8	mg/kg	0.5
B4	4.5	B4-4.5'	5/4/2016	7440-66-6	Zinc, Zn	880	mg/kg	5
B4	4.5	B4-4.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B4	4.5	B4-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B4	4.5	B4-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B4	4.5	B4-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B4	4.5	B4-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B4	4.5	B4-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B4	4.5	B4-4.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B4	4.5	B4-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B4	4.5	B4-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B4	4.5	B4-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B4	4.5	B4-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B4	4.5	B4-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B4	4.5	B4-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	24	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B4	4.5	B4-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B4	4.5	B4-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-39-3	Barium, Ba	91.6	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-48-4	Cobalt, Co	8	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-47-3	Chromium, Cr	14.5	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-50-8	Copper, Cu	15.1	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-02-0	Nickel, Ni	9.2	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7439-92-1	Lead, Pb	0.7	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-62-2	Vanadium, V	37.2	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7440-66-6	Zinc, Zn	38.2	mg/kg	0.5
B4	8.5	B4-8.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B4	8.5	B4-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B4	8.5	B4-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B4	8.5	B4-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B4	8.5	B4-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B4	8.5	B4-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B4	8.5	B4-8.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B4	8.5	B4-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B4	8.5	B4-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B4	8.5	B4-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B4	8.5	B4-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B4	8.5	B4-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	22.4	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B4	8.5	B4-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B4	8.5	B4-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-39-3	Barium, Ba	97.6	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-48-4	Cobalt, Co	5.8	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-47-3	Chromium, Cr	6.7	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-50-8	Copper, Cu	20.6	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-02-0	Nickel, Ni	3.5	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7439-92-1	Lead, Pb	0.8	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-62-2	Vanadium, V	29.2	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7440-66-6	Zinc, Zn	233	mg/kg	0.5
B4	4.5D	B4-4.5D	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B4	4.5D	B4-4.5D	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B4	4.5D	B4-4.5D	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B4	4.5D	B4-4.5D	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B4	4.5D	B4-4.5D	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B4	4.5D	B4-4.5D	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B4	4.5D	B4-4.5D	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B4	4.5D	B4-4.5D	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B4	4.5D	B4-4.5D	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B4	4.5D	B4-4.5D	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B4	4.5D	B4-4.5D	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B4	4.5D	B4-4.5D	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B4	4.5D	B4-4.5D	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	127-18-4	Tetrachloroethylene	21.2	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B4	4.5D	B4-4.5D	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B4	4.5D	B4-4.5D	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-39-3	Barium, Ba	66.2	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-48-4	Cobalt, Co	10.4	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-47-3	Chromium, Cr	16.4	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-50-8	Copper, Cu	10.7	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-02-0	Nickel, Ni	8.7	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7439-92-1	Lead, Pb	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-62-2	Vanadium, V	27.4	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7440-66-6	Zinc, Zn	37.6	mg/kg	0.5
B5	1	B5-1'	5/4/2016	7439-97-6	Mercury, Hg	0.038	mg/kg	0.02
B5	1	B5-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B5	1	B5-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B5	1	B5-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B5	1	B5-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B5	1	B5-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B5	1	B5-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B5	1	B5-1'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B5	1	B5-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B5	1	B5-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B5	1	B5-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B5	1	B5-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B5	1	B5-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	127-18-4	Tetrachloroethylene	29.6	µg/kg	1
B5	1	B5-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B5	1	B5-1'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B5	1	B5-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-39-3	Barium, Ba	215	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-48-4	Cobalt, Co	10.6	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.2	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-50-8	Copper, Cu	17.2	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-02-0	Nickel, Ni	11.1	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7439-92-1	Lead, Pb	1.1	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-62-2	Vanadium, V	45	mg/kg	0.5
B5	4.5	B5-4.5'	5/4/2016	7440-66-6	Zinc, Zn	45.4	mg/kg	5
B5	4.5	B5-4.5'	5/4/2016	7439-97-6	Mercury, Hg	0.047	mg/kg	0.02
B5	4.5	B5-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B5	4.5	B5-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B5	4.5	B5-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B5	4.5	B5-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B5	4.5	B5-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B5	4.5	B5-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B5	4.5	B5-4.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B5	4.5	B5-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B5	4.5	B5-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B5	4.5	B5-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B5	4.5	B5-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B5	4.5	B5-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	148	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B5	4.5	B5-4.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B5	4.5	B5-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-39-3	Barium, Ba	162	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-48-4	Cobalt, Co	13.8	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-47-3	Chromium, Cr	25.3	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-50-8	Copper, Cu	28	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-02-0	Nickel, Ni	18.1	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7439-92-1	Lead, Pb	2.4	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-62-2	Vanadium, V	52.9	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7440-66-6	Zinc, Zn	56.8	mg/kg	0.5
B5	8.5	B5-8.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B5	8.5	B5-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-chloropropane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B5	8.5	B5-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	56-23-5	Carbon tetrachloride	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B5	8.5	B5-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B5	8.5	B5-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B5	8.5	B5-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B5	8.5	B5-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B5	8.5	B5-8.5'	5/4/2016	N/A	Gasoline Range Organics	ND	µg/kg	0.2
B5	8.5	B5-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-09-2	Methylene chloride	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B5	8.5	B5-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B5	8.5	B5-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B5	8.5	B5-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B5	8.5	B5-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	161	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B5	8.5	B5-8.5'	5/4/2016	75-01-4	Vinyl chloride	ND	µg/kg	1
B5	8.5	B5-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-39-3	Barium, Ba	153	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-48-4	Cobalt, Co	13.5	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-47-3	Chromium, Cr	24	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-50-8	Copper, Cu	24.6	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-02-0	Nickel, Ni	16	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7439-92-1	Lead, Pb	2.2	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-62-2	Vanadium, V	52.8	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7440-66-6	Zinc, Zn	58.2	mg/kg	0.5
B6	1	B6-1'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B6	1	B6-1'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B6	1	B6-1'	5/4/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B6	1	B6-1'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B6	1	B6-1'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B6	1	B6-1'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B6	1	B6-1'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B6	1	B6-1'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B6	1	B6-1'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B6	1	B6-1'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B6	1	B6-1'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B6	1	B6-1'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	127-18-4	Tetrachloroethylene	28.7	µg/kg	1
B6	1	B6-1'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B6	1	B6-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B6	1	B6-1'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B6	1	B6-1'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-39-3	Barium, Ba	125	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-48-4	Cobalt, Co	10.1	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.1	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-50-8	Copper, Cu	17.9	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-02-0	Nickel, Ni	11.4	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7439-92-1	Lead, Pb	1	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-62-2	Vanadium, V	43.2	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7440-66-6	Zinc, Zn	41.1	mg/kg	0.5
B6	4.5	B6-4.5'	5/4/2016	7439-97-6	Mercury, Hg	0.044	mg/kg	0.02
B6	4.5	B6-4.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B6	4.5	B6-4.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B6	4.5	B6-4.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B6	4.5	B6-4.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B6	4.5	B6-4.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B6	4.5	B6-4.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B6	4.5	B6-4.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B6	4.5	B6-4.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B6	4.5	B6-4.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B6	4.5	B6-4.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B6	4.5	B6-4.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	33.1	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B6	4.5	B6-4.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B6	4.5	B6-4.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B6	4.5	B6-4.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-39-3	Barium, Ba	197	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-48-4	Cobalt, Co	18.7	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-47-3	Chromium, Cr	31.8	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-50-8	Copper, Cu	37.9	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-02-0	Nickel, Ni	23.6	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7439-92-1	Lead, Pb	5.1	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-62-2	Vanadium, V	67.3	mg/kg	0.5
B6	8.5	B6-8.5'	5/4/2016	7440-66-6	Zinc, Zn	78	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B6	8.5	B6-8.5'	5/4/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B6	8.5	B6-8.5'	5/4/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	71-43-2	Benzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-25-2	Bromoform	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	67-66-3	Chloroform	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B6	8.5	B6-8.5'	5/4/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B6	8.5	B6-8.5'	5/4/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B6	8.5	B6-8.5'	5/4/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B6	8.5	B6-8.5'	5/4/2016	76-13-1	Freon 113	ND	µg/kg	5
B6	8.5	B6-8.5'	5/4/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B6	8.5	B6-8.5'	5/4/2016	91-20-3	Naphthalene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B6	8.5	B6-8.5'	5/4/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	100-42-5	Styrene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B6	8.5	B6-8.5'	5/4/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B6	8.5	B6-8.5'	5/4/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	22.1	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	108-88-3	Toluene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B6	8.5	B6-8.5'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B6	8.5	B6-8.5'	5/4/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B6	8.5	B6-8.5'	5/4/2016	108-38-3	Xylenes	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-39-3	Barium, Ba	128	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-48-4	Cobalt, Co	11	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-47-3	Chromium, Cr	17.9	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-50-8	Copper, Cu	22.6	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-02-0	Nickel, Ni	10.8	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B7	1	B7-1'	5/5/2016	7439-92-1	Lead, Pb	59.6	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-62-2	Vanadium, V	41.1	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7440-66-6	Zinc, Zn	62.8	mg/kg	0.5
B7	1	B7-1'	5/5/2016	7439-97-6	Mercury, Hg	0.03	mg/kg	0.02
B7	1	B7-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	71-43-2	Benzene	1.7	µg/kg	1
B7	1	B7-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B7	1	B7-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B7	1	B7-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B7	1	B7-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B7	1	B7-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B7	1	B7-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B7	1	B7-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B7	1	B7-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B7	1	B7-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B7	1	B7-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	127-18-4	Tetrachloroethylene	5.8	µg/kg	1
B7	1	B7-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B7	1	B7-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	79-01-6	Trichloroethylene	1.6	µg/kg	1
B7	1	B7-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B7	1	B7-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B7	1	B7-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-39-3	Barium, Ba	189	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B7	4.5	B7-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-48-4	Cobalt, Co	16.9	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.7	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-50-8	Copper, Cu	33.4	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-02-0	Nickel, Ni	20.5	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7439-92-1	Lead, Pb	3.8	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-62-2	Vanadium, V	63.5	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7440-66-6	Zinc, Zn	70.5	mg/kg	0.5
B7	4.5	B7-4.5'	5/5/2016	7439-97-6	Mercury, Hg	0.036	mg/kg	0.02
B7	4.5	B7-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B7	4.5	B7-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B7	4.5	B7-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B7	4.5	B7-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B7	4.5	B7-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B7	4.5	B7-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B7	4.5	B7-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B7	4.5	B7-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B7	4.5	B7-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B7	4.5	B7-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	22.1	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B7	4.5	B7-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	79-01-6	Trichloroethylene	13.6	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B7	4.5	B7-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B7	4.5	B7-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-39-3	Barium, Ba	81.2	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-48-4	Cobalt, Co	8	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-47-3	Chromium, Cr	17.8	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-50-8	Copper, Cu	19.7	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-02-0	Nickel, Ni	16.9	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7439-92-1	Lead, Pb	0.7	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-62-2	Vanadium, V	33.8	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7440-66-6	Zinc, Zn	32.3	mg/kg	0.5
B7	8.5	B7-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B7	8.5	B7-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B7	8.5	B7-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B7	8.5	B7-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B7	8.5	B7-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B7	8.5	B7-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B7	8.5	B7-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B7	8.5	B7-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B7	8.5	B7-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B7	8.5	B7-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B7	8.5	B7-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B7	8.5	B7-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B7	8.5	B7-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B7	8.5	B7-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B7	8.5	B7-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-39-3	Barium, Ba	87.8	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-48-4	Cobalt, Co	7.6	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-47-3	Chromium, Cr	10.2	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-50-8	Copper, Cu	12.3	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-02-0	Nickel, Ni	6.8	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7439-92-1	Lead, Pb	2.5	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-62-2	Vanadium, V	28.2	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7440-66-6	Zinc, Zn	40.4	mg/kg	0.5
B8	1	B8-1'	5/5/2016	7439-97-6	Mercury, Hg	0.022	mg/kg	0.02
B8	1	B8-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	71-43-2	Benzene	4.3	µg/kg	1
B8	1	B8-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B8	1	B8-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B8	1	B8-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B8	1	B8-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B8	1	B8-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B8	1	B8-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B8	1	B8-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B8	1	B8-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B8	1	B8-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B8	1	B8-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	127-18-4	Tetrachloroethylene	13.9	µg/kg	1
B8	1	B8-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B8	1	B8-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	79-01-6	Trichloroethylene	19.8	µg/kg	1
B8	1	B8-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B8	1	B8-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B8	1	B8-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-39-3	Barium, Ba	184	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-48-4	Cobalt, Co	17	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.5	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-50-8	Copper, Cu	32	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-02-0	Nickel, Ni	20.8	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7439-92-1	Lead, Pb	2.8	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-62-2	Vanadium, V	64.3	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7440-66-6	Zinc, Zn	67.8	mg/kg	0.5
B8	4.5	B8-4.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B8	4.5	B8-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B8	4.5	B8-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B8	4.5	B8-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B8	4.5	B8-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B8	4.5	B8-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B8	4.5	B8-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B8	4.5	B8-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B8	4.5	B8-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B8	4.5	B8-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B8	4.5	B8-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B8	4.5	B8-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	3.3	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B8	4.5	B8-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	79-01-6	Trichloroethylene	1	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B8	4.5	B8-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B8	4.5	B8-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-39-3	Barium, Ba	153	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-48-4	Cobalt, Co	13.8	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-47-3	Chromium, Cr	22.4	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-50-8	Copper, Cu	25.2	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-02-0	Nickel, Ni	15.5	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.8	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-62-2	Vanadium, V	52.9	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7440-66-6	Zinc, Zn	50.6	mg/kg	0.5
B8	8.5	B8-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B8	8.5	B8-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B8	8.5	B8-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B8	8.5	B8-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B8	8.5	B8-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B8	8.5	B8-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B8	8.5	B8-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B8	8.5	B8-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B8	8.5	B8-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B8	8.5	B8-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B8	8.5	B8-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	5.5	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B8	8.5	B8-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	79-01-6	Trichloroethylene	1.2	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B8	8.5	B8-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B8	8.5	B8-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-39-3	Barium, Ba	131	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-48-4	Cobalt, Co	13.2	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-47-3	Chromium, Cr	21.8	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-50-8	Copper, Cu	23.7	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-02-0	Nickel, Ni	15.3	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7439-92-1	Lead, Pb	1.9	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-62-2	Vanadium, V	50.5	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7440-66-6	Zinc, Zn	48.9	mg/kg	0.5
B8	8.5D	B8-8.5D	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B8	8.5D	B8-8.5D	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B8	8.5D	B8-8.5D	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B8	8.5D	B8-8.5D	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	76-13-1	Freon 113	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B8	8.5D	B8-8.5D	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	127-18-4	Tetrachloroethylene	6	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	79-01-6	Trichloroethylene	1.3	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B8	8.5D	B8-8.5D	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-39-3	Barium, Ba	116	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-48-4	Cobalt, Co	10	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-47-3	Chromium, Cr	14.3	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-50-8	Copper, Cu	18	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-02-0	Nickel, Ni	9.8	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7439-92-1	Lead, Pb	4.7	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-62-2	Vanadium, V	37.2	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7440-66-6	Zinc, Zn	57	mg/kg	0.5
B9	1	B9-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B9	1	B9-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B9	1	B9-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B9	1	B9-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B9	1	B9-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B9	1	B9-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B9	1	B9-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B9	1	B9-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B9	1	B9-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B9	1	B9-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B9	1	B9-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B9	1	B9-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	127-18-4	Tetrachloroethylene	1.8	µg/kg	1
B9	1	B9-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B9	1	B9-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B9	1	B9-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B9	1	B9-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-39-3	Barium, Ba	190	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-48-4	Cobalt, Co	16.7	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.5	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-50-8	Copper, Cu	33.3	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-02-0	Nickel, Ni	21	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7439-92-1	Lead, Pb	3	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-62-2	Vanadium, V	62.8	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7440-66-6	Zinc, Zn	68.4	mg/kg	0.5
B9	4.5	B9-4.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B9	4.5	B9-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B9	4.5	B9-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B9	4.5	B9-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B9	4.5	B9-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B9	4.5	B9-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B9	4.5	B9-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B9	4.5	B9-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B9	4.5	B9-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B9	4.5	B9-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B9	4.5	B9-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B9	4.5	B9-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	2.3	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B9	4.5	B9-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B9	4.5	B9-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B9	4.5	B9-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-39-3	Barium, Ba	158	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-48-4	Cobalt, Co	14.2	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-47-3	Chromium, Cr	25.7	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-50-8	Copper, Cu	25.8	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-02-0	Nickel, Ni	17.7	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7439-92-1	Lead, Pb	2.1	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-62-2	Vanadium, V	56	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7440-66-6	Zinc, Zn	56.1	mg/kg	0.5
B9	8.5	B9-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B9	8.5	B9-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B9	8.5	B9-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B9	8.5	B9-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B9	8.5	B9-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B9	8.5	B9-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B9	8.5	B9-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B9	8.5	B9-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B9	8.5	B9-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B9	8.5	B9-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B9	8.5	B9-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B9	8.5	B9-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	2	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B9	8.5	B9-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B9	8.5	B9-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B9	8.5	B9-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B10	1	B10-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-39-3	Barium, Ba	169	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-48-4	Cobalt, Co	14.1	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-47-3	Chromium, Cr	24.6	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-50-8	Copper, Cu	25.6	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-02-0	Nickel, Ni	16.7	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7439-92-1	Lead, Pb	5.2	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-62-2	Vanadium, V	56.1	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7440-66-6	Zinc, Zn	69.3	mg/kg	0.5
B10	1	B10-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B10	1	B10-1'	5/7/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B10	1	B10-1'	5/7/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	71-43-2	Benzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-25-2	Bromoform	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	67-66-3	Chloroform	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B10	1	B10-1'	5/7/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B10	1	B10-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B10	1	B10-1'	5/7/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B10	1	B10-1'	5/7/2016	76-13-1	Freon 113	ND	µg/kg	5
B10	1	B10-1'	5/7/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B10	1	B10-1'	5/7/2016	91-20-3	Naphthalene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B10	1	B10-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B10	1	B10-1'	5/7/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	100-42-5	Styrene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B10	1	B10-1'	5/7/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B10	1	B10-1'	5/7/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	127-18-4	Tetrachloroethylene	2	µg/kg	1
B10	1	B10-1'	5/7/2016	108-88-3	Toluene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B10	1	B10-1'	5/7/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B10	1	B10-1'	5/7/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B10	1	B10-1'	5/7/2016	108-38-3	Xylenes	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-39-3	Barium, Ba	221	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-48-4	Cobalt, Co	18.1	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.6	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-50-8	Copper, Cu	36.5	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-02-0	Nickel, Ni	22	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7439-92-1	Lead, Pb	3.1	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-62-2	Vanadium, V	66.7	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7440-66-6	Zinc, Zn	73.7	mg/kg	0.5
B10	4.5	B10-4.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B10	4.5	B10-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B10	4.5	B10-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B10	4.5	B10-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B10	4.5	B10-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B10	4.5	B10-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B10	4.5	B10-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B10	4.5	B10-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B10	4.5	B10-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B10	4.5	B10-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B10	4.5	B10-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B10	4.5	B10-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	4.3	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B10	4.5	B10-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B10	4.5	B10-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B10	4.5	B10-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-39-3	Barium, Ba	236	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-48-4	Cobalt, Co	19.6	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-47-3	Chromium, Cr	34.6	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-50-8	Copper, Cu	39.3	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-02-0	Nickel, Ni	24.9	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7439-92-1	Lead, Pb	3.4	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B10	8.5	B10-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-62-2	Vanadium, V	72.6	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7440-66-6	Zinc, Zn	77.3	mg/kg	0.5
B10	8.5	B10-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B10	8.5	B10-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B10	8.5	B10-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B10	8.5	B10-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B10	8.5	B10-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B10	8.5	B10-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B10	8.5	B10-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B10	8.5	B10-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B10	8.5	B10-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B10	8.5	B10-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B10	8.5	B10-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	2.8	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B10	8.5	B10-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B10	8.5	B10-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B10	8.5	B10-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-39-3	Barium, Ba	152	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-48-4	Cobalt, Co	12.7	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B11	1	B11-1'	5/5/2016	7440-47-3	Chromium, Cr	22.3	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-50-8	Copper, Cu	29.4	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-02-0	Nickel, Ni	15.9	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7439-92-1	Lead, Pb	3.3	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-62-2	Vanadium, V	50	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7440-66-6	Zinc, Zn	122	mg/kg	0.5
B11	1	B11-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B11	1	B11-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B11	1	B11-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B11	1	B11-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B11	1	B11-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B11	1	B11-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B11	1	B11-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B11	1	B11-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B11	1	B11-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B11	1	B11-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B11	1	B11-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B11	1	B11-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B11	1	B11-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B11	1	B11-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B11	4.5	B11-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-39-3	Barium, Ba	206	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-48-4	Cobalt, Co	17.1	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-47-3	Chromium, Cr	30.2	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-50-8	Copper, Cu	30.5	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-02-0	Nickel, Ni	20.7	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7439-92-1	Lead, Pb	2.8	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-62-2	Vanadium, V	64.8	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7440-66-6	Zinc, Zn	77.6	mg/kg	0.5
B11	4.5	B11-4.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B11	4.5	B11-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B11	4.5	B11-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B11	4.5	B11-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B11	4.5	B11-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B11	4.5	B11-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B11	4.5	B11-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B11	4.5	B11-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B11	4.5	B11-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B11	4.5	B11-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B11	4.5	B11-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	7.3	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B11	4.5	B11-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B11	4.5	B11-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B11	4.5	B11-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-39-3	Barium, Ba	221	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-48-4	Cobalt, Co	18.7	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-47-3	Chromium, Cr	33.9	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-50-8	Copper, Cu	42.7	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-02-0	Nickel, Ni	24.6	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7439-92-1	Lead, Pb	3.1	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-62-2	Vanadium, V	71.7	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7440-66-6	Zinc, Zn	77	mg/kg	0.5
B11	8.5	B11-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B11	8.5	B11-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B11	8.5	B11-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B11	8.5	B11-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B11	8.5	B11-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B11	8.5	B11-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B11	8.5	B11-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B11	8.5	B11-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B11	8.5	B11-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B11	8.5	B11-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B11	8.5	B11-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B11	8.5	B11-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	2.4	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B11	8.5	B11-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B11	8.5	B11-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B11	8.5	B11-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-39-3	Barium, Ba	221	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-48-4	Cobalt, Co	21.3	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-47-3	Chromium, Cr	32.8	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-50-8	Copper, Cu	35.6	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-02-0	Nickel, Ni	23.4	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7439-92-1	Lead, Pb	5.8	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-62-2	Vanadium, V	73.1	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7440-66-6	Zinc, Zn	86.3	mg/kg	0.5
B12	1	B12-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B12	1	B12-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B12	1	B12-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B12	1	B12-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B12	1	B12-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	127-18-4	Tetrachloroethylene	22.8	µg/kg	1
B12	1	B12-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	79-01-6	Trichloroethylene	1.6	µg/kg	1
B12	1	B12-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B12	1	B12-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-39-3	Barium, Ba	218	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-48-4	Cobalt, Co	18.2	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-47-3	Chromium, Cr	32.4	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-50-8	Copper, Cu	34.3	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-02-0	Nickel, Ni	23.3	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7439-92-1	Lead, Pb	3.1	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-62-2	Vanadium, V	68	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7440-66-6	Zinc, Zn	75.4	mg/kg	0.5
B12	5	B12-5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B12	5	B12-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B12	5	B12-5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B12	5	B12-5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B12	5	B12-5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B12	5	B12-5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B12	5	B12-5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B12	5	B12-5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B12	5	B12-5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B12	5	B12-5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B12	5	B12-5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B12	5	B12-5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	127-18-4	Tetrachloroethylene	2.4	µg/kg	1
B12	5	B12-5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B12	5	B12-5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B12	5	B12-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B12	5	B12-5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-39-3	Barium, Ba	218	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-48-4	Cobalt, Co	18.8	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-47-3	Chromium, Cr	34.2	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-50-8	Copper, Cu	36	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-02-0	Nickel, Ni	23.3	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7439-92-1	Lead, Pb	2.7	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-62-2	Vanadium, V	70.3	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7440-66-6	Zinc, Zn	78.6	mg/kg	0.5
B12	11	B12-11'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B12	11	B12-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B12	11	B12-11'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B12	11	B12-11'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B12	11	B12-11'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B12	11	B12-11'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B12	11	B12-11'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B12	11	B12-11'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B12	11	B12-11'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B12	11	B12-11'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B12	11	B12-11'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B12	11	B12-11'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	127-18-4	Tetrachloroethylene	1.3	µg/kg	1
B12	11	B12-11'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B12	11	B12-11'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B12	11	B12-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B12	11	B12-11'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-39-3	Barium, Ba	252	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-48-4	Cobalt, Co	19.5	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-47-3	Chromium, Cr	34.5	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-50-8	Copper, Cu	37.2	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-02-0	Nickel, Ni	24.7	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7439-92-1	Lead, Pb	3.4	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-62-2	Vanadium, V	72.9	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7440-66-6	Zinc, Zn	79.9	mg/kg	0.5
B12	5D	B12-5'D	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B12	5D	B12-5'D	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B12	5D	B12-5'D	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B12	5D	B12-5'D	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B12	5D	B12-5'D	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B12	5D	B12-5'D	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B12	5D	B12-5'D	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
B12	5D	B12-5'D	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B12	5D	B12-5'D	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B12	5D	B12-5'D	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B12	5D	B12-5'D	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B12	5D	B12-5'D	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	127-18-4	Tetrachloroethylene	2.8	µg/kg	1
B12	5D	B12-5'D	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B12	5D	B12-5'D	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B12	5D	B12-5'D	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B12	5D	B12-5'D	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-39-3	Barium, Ba	181	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-48-4	Cobalt, Co	16.1	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-47-3	Chromium, Cr	30.7	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-50-8	Copper, Cu	29.8	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-02-0	Nickel, Ni	19.2	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7439-92-1	Lead, Pb	8.5	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-62-2	Vanadium, V	65.3	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7440-66-6	Zinc, Zn	83.1	mg/kg	0.5
B13	1	B13-1'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B13	1	B13-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B13	1	B13-1'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B13	1	B13-1'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B13	1	B13-1'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B13	1	B13-1'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B13	1	B13-1'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
B13	1	B13-1'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B13	1	B13-1'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B13	1	B13-1'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B13	1	B13-1'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B13	1	B13-1'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B13	1	B13-1'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B13	1	B13-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B13	1	B13-1'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-39-3	Barium, Ba	226	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-48-4	Cobalt, Co	20.9	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-47-3	Chromium, Cr	35.3	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-50-8	Copper, Cu	48.2	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-02-0	Nickel, Ni	28.3	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7439-92-1	Lead, Pb	10.6	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-62-2	Vanadium, V	75.3	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7440-66-6	Zinc, Zn	236	mg/kg	0.5
B13	5	B13-5'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B13	5	B13-5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B13	5	B13-5'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B13	5	B13-5'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B13	5	B13-5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B13	5	B13-5'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B13	5	B13-5'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
B13	5	B13-5'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B13	5	B13-5'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B13	5	B13-5'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B13	5	B13-5'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B13	5	B13-5'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	127-18-4	Tetrachloroethylene	2.1	µg/kg	1
B13	5	B13-5'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B13	5	B13-5'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B13	5	B13-5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B13	5	B13-5'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-39-3	Barium, Ba	226	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-48-4	Cobalt, Co	20.6	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-47-3	Chromium, Cr	32.8	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-50-8	Copper, Cu	37	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-02-0	Nickel, Ni	24.3	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7439-92-1	Lead, Pb	3.2	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-62-2	Vanadium, V	71.1	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7440-66-6	Zinc, Zn	82	mg/kg	0.5
B13	11	B13-11'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B13	11	B13-11'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B13	11	B13-11'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B13	11	B13-11'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B13	11	B13-11'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B13	11	B13-11'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B13	11	B13-11'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
B13	11	B13-11'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B13	11	B13-11'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B13	11	B13-11'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B13	11	B13-11'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B13	11	B13-11'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	127-18-4	Tetrachloroethylene	1.2	µg/kg	1
B13	11	B13-11'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B13	11	B13-11'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B13	11	B13-11'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B13	11	B13-11'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-39-3	Barium, Ba	88.8	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-48-4	Cobalt, Co	15.2	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-47-3	Chromium, Cr	52.2	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-50-8	Copper, Cu	26.5	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-02-0	Nickel, Ni	28.5	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7439-92-1	Lead, Pb	23.9	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-62-2	Vanadium, V	60.8	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7440-66-6	Zinc, Zn	68.8	mg/kg	0.5
B14	1	B14-1'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B14	1	B14-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B14	1	B14-1'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B14	1	B14-1'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B14	1	B14-1'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B14	1	B14-1'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B14	1	B14-1'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
B14	1	B14-1'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B14	1	B14-1'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B14	1	B14-1'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B14	1	B14-1'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B14	1	B14-1'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B14	1	B14-1'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B14	1	B14-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B14	1	B14-1'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
B14	5	B14-5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-39-3	Barium, Ba	84.3	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-48-4	Cobalt, Co	5.6	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-47-3	Chromium, Cr	6.7	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-50-8	Copper, Cu	10.3	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-02-0	Nickel, Ni	2.3	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7439-92-1	Lead, Pb	ND	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B14	5	B14-5'	5/6/2016	7440-62-2	Vanadium, V	38.7	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7440-66-6	Zinc, Zn	21.7	mg/kg	0.5
B14	5	B14-5'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B14	5	B14-5'	5/8/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	71-43-2	Benzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-25-2	Bromoform	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	67-66-3	Chloroform	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B14	5	B14-5'	5/8/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B14	5	B14-5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B14	5	B14-5'	5/8/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B14	5	B14-5'	5/8/2016	76-13-1	Freon 113	ND	µg/kg	5
B14	5	B14-5'	5/8/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B14	5	B14-5'	5/8/2016	91-20-3	Naphthalene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B14	5	B14-5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B14	5	B14-5'	5/8/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	100-42-5	Styrene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B14	5	B14-5'	5/8/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B14	5	B14-5'	5/8/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	108-88-3	Toluene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B14	5	B14-5'	5/8/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B14	5	B14-5'	5/8/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B14	5	B14-5'	5/8/2016	108-38-3	Xylenes	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-39-3	Barium, Ba	179	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-48-4	Cobalt, Co	15.2	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-47-3	Chromium, Cr	26.7	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-50-8	Copper, Cu	28.8	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B14	11	B14-11'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-02-0	Nickel, Ni	18.9	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7439-92-1	Lead, Pb	2.1	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-62-2	Vanadium, V	57.1	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7440-66-6	Zinc, Zn	63.5	mg/kg	0.5
B14	11	B14-11'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B14	11	B14-11'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B14	11	B14-11'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B14	11	B14-11'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B14	11	B14-11'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B14	11	B14-11'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
B14	11	B14-11'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B14	11	B14-11'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B14	11	B14-11'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B14	11	B14-11'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B14	11	B14-11'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B14	11	B14-11'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B14	11	B14-11'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B14	11	B14-11'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B15	1	B15-1'	5/6/2016	7440-39-3	Barium, Ba	47.5	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-48-4	Cobalt, Co	16	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-47-3	Chromium, Cr	45.4	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-50-8	Copper, Cu	19.5	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-02-0	Nickel, Ni	27.5	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7439-92-1	Lead, Pb	7.8	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-62-2	Vanadium, V	51.6	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7440-66-6	Zinc, Zn	52.6	mg/kg	0.5
B15	1	B15-1'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B15	1	B15-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B15	1	B15-1'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B15	1	B15-1'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B15	1	B15-1'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B15	1	B15-1'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
B15	1	B15-1'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B15	1	B15-1'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B15	1	B15-1'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B15	1	B15-1'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B15	1	B15-1'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B15	1	B15-1'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B15	1	B15-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B15	1	B15-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B15	1	B15-1'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-39-3	Barium, Ba	253	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-48-4	Cobalt, Co	13	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-47-3	Chromium, Cr	24.4	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-50-8	Copper, Cu	23.8	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-02-0	Nickel, Ni	24.3	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7439-92-1	Lead, Pb	6.2	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-62-2	Vanadium, V	69.2	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7440-66-6	Zinc, Zn	62.4	mg/kg	0.5
B15	4	B15-4'	5/6/2016	7439-97-6	Mercury, Hg	0.042	mg/kg	0.02
B15	4	B15-4'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B15	4	B15-4'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B15	4	B15-4'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B15	4	B15-4'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B15	4	B15-4'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
B15	4	B15-4'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B15	4	B15-4'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B15	4	B15-4'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B15	4	B15-4'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B15	4	B15-4'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B15	4	B15-4'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B15	4	B15-4'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B15	4	B15-4'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-39-3	Barium, Ba	130	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-48-4	Cobalt, Co	6.9	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-47-3	Chromium, Cr	27.8	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-50-8	Copper, Cu	15.5	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-02-0	Nickel, Ni	20.5	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7439-92-1	Lead, Pb	3.6	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-62-2	Vanadium, V	48.8	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7440-66-6	Zinc, Zn	35.1	mg/kg	0.5
B15	5	B15-5'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
B15	5	B15-5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
B15	5	B15-5'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
B15	5	B15-5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
B15	5	B15-5'	5/6/2016	100-41-4	Ethylbenzene	3	µg/kg	1
B15	5	B15-5'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
B15	5	B15-5'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
B15	5	B15-5'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
B15	5	B15-5'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
B15	5	B15-5'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
B15	5	B15-5'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
B15	5	B15-5'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
B15	5	B15-5'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	108-88-3	Toluene	1.8	µg/kg	1
B15	5	B15-5'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
B15	5	B15-5'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
B15	5	B15-5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
B15	5	B15-5'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB	4.5	LB-4.5'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB	4.5	LB-4.5'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB	4.5	LB-4.5'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB	4.5	LB-4.5'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB	4.5	LB-4.5'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB	4.5	LB-4.5'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB	4.5	LB-4.5'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	2.2	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB	4.5	LB-4.5'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB	4.5	LB-4.5'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB	4.5	LB-4.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB	4.5	LB-4.5'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-39-3	Barium, Ba	148	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-48-4	Cobalt, Co	12.8	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-47-3	Chromium, Cr	24.9	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-50-8	Copper, Cu	26.1	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-02-0	Nickel, Ni	17.1	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7439-92-1	Lead, Pb	5.6	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-62-2	Vanadium, V	46.7	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7440-66-6	Zinc, Zn	65.9	mg/kg	0.5
LB1	1	LB1-1'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB1	1	LB1-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB1	1	LB1-1'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB1	1	LB1-1'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB1	1	LB1-1'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB1	1	LB1-1'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB1	1	LB1-1'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB1	1	LB1-1'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB1	1	LB1-1'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB1	1	LB1-1'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB1	1	LB1-1'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB1	1	LB1-1'	5/6/2016	127-18-4	Tetrachloroethylene	2.9	µg/kg	1
LB1	1	LB1-1'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB1	1	LB1-1'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB1	1	LB1-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB1	1	LB1-1'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-39-3	Barium, Ba	145	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-48-4	Cobalt, Co	13.1	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-47-3	Chromium, Cr	22.8	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-50-8	Copper, Cu	26.9	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-02-0	Nickel, Ni	15.4	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7439-92-1	Lead, Pb	4.1	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-62-2	Vanadium, V	51.7	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7440-66-6	Zinc, Zn	60.9	mg/kg	0.5
LB1	4.5	LB1-4.5'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB1	4.5	LB1-4.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB1	4.5	LB1-4.5'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB1	4.5	LB1-4.5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB1	4.5	LB1-4.5'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB1	4.5	LB1-4.5'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB1	4.5	LB1-4.5'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB1	4.5	LB1-4.5'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB1	4.5	LB1-4.5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB1	4.5	LB1-4.5'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB1	4.5	LB1-4.5'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB1	4.5	LB1-4.5'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	1.6	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB1	4.5	LB1-4.5'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB1	4.5	LB1-4.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB1	4.5	LB1-4.5'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-39-3	Barium, Ba	210	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-48-4	Cobalt, Co	17.2	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-47-3	Chromium, Cr	28.7	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-50-8	Copper, Cu	28.5	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-02-0	Nickel, Ni	20.6	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7439-92-1	Lead, Pb	2	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-62-2	Vanadium, V	62.5	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7440-66-6	Zinc, Zn	74.7	mg/kg	0.5
LB1	8.5	LB1-8.5'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB1	8.5	LB1-8.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB1	8.5	LB1-8.5'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB1	8.5	LB1-8.5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB1	8.5	LB1-8.5'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB1	8.5	LB1-8.5'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB1	8.5	LB1-8.5'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB1	8.5	LB1-8.5'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB1	8.5	LB1-8.5'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB1	8.5	LB1-8.5'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB1	8.5	LB1-8.5'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB1	8.5	LB1-8.5'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	1.8	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB1	8.5	LB1-8.5'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB1	8.5	LB1-8.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB1	8.5	LB1-8.5'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-39-3	Barium, Ba	59.5	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-48-4	Cobalt, Co	4.5	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-47-3	Chromium, Cr	7	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-50-8	Copper, Cu	9.3	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-02-0	Nickel, Ni	14	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7439-92-1	Lead, Pb	0.8	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-62-2	Vanadium, V	37.5	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7440-66-6	Zinc, Zn	27.4	mg/kg	0.5
LB2	1	LB2-1'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB2	1	LB2-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB2	1	LB2-1'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB2	1	LB2-1'	5/6/2016	N/A	DRO (C10-C28)	66.6	µg/kg	10
LB2	1	LB2-1'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB2	1	LB2-1'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB2	1	LB2-1'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB2	1	LB2-1'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	N/A	ORO (C29-C32)	128	µg/kg	10
LB2	1	LB2-1'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB2	1	LB2-1'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB2	1	LB2-1'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	127-18-4	Tetrachloroethylene	28	µg/kg	1
LB2	1	LB2-1'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB2	1	LB2-1'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	79-01-6	Trichloroethylene	1.4	µg/kg	1
LB2	1	LB2-1'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB2	1	LB2-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB2	1	LB2-1'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB2	4.5	LB2-4.5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-39-3	Barium, Ba	246	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-48-4	Cobalt, Co	19.2	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-47-3	Chromium, Cr	8.1	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-50-8	Copper, Cu	17.9	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-02-0	Nickel, Ni	8.2	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7439-92-1	Lead, Pb	1.4	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-62-2	Vanadium, V	83.8	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7440-66-6	Zinc, Zn	58.6	mg/kg	0.5
LB2	4.5	LB2-4.5'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB2	4.5	LB2-4.5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB2	4.5	LB2-4.5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB2	8.5	LB2-8.5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-39-3	Barium, Ba	188	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-48-4	Cobalt, Co	17.3	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-47-3	Chromium, Cr	27.4	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-50-8	Copper, Cu	30.7	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-02-0	Nickel, Ni	17.9	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7439-92-1	Lead, Pb	2.7	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-62-2	Vanadium, V	65.6	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7440-66-6	Zinc, Zn	71.5	mg/kg	0.5
LB2	8.5	LB2-8.5'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB2	8.5	LB2-8.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB2	8.5	LB2-8.5'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB2	8.5	LB2-8.5'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB2	8.5	LB2-8.5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB2	8.5	LB2-8.5'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB2	8.5	LB2-8.5'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB2	8.5	LB2-8.5'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB2	8.5	LB2-8.5'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB2	8.5	LB2-8.5'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB2	8.5	LB2-8.5'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB2	8.5	LB2-8.5'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	2.2	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB2	8.5	LB2-8.5'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB2	8.5	LB2-8.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB2	8.5	LB2-8.5'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-39-3	Barium, Ba	146	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-48-4	Cobalt, Co	11	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-47-3	Chromium, Cr	26.4	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-50-8	Copper, Cu	64.4	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-02-0	Nickel, Ni	15.6	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7439-92-1	Lead, Pb	40.3	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-62-2	Vanadium, V	41	mg/kg	0.5
LB3	1	LB3-1'	5/6/2016	7440-66-6	Zinc, Zn	985	mg/kg	5
LB3	1	LB3-1'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB3	1	LB3-1'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB3	1	LB3-1'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB3	1	LB3-1'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB3	1	LB3-1'	5/6/2016	N/A	DRO (C10-C28)	22.5	µg/kg	10
LB3	1	LB3-1'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB3	1	LB3-1'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB3	1	LB3-1'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB3	1	LB3-1'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	N/A	ORO (C29-C32)	42.1	µg/kg	10
LB3	1	LB3-1'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB3	1	LB3-1'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB3	1	LB3-1'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	127-18-4	Tetrachloroethylene	43.9	µg/kg	1
LB3	1	LB3-1'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB3	1	LB3-1'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB3	1	LB3-1'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB3	1	LB3-1'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-39-3	Barium, Ba	184	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-48-4	Cobalt, Co	17.5	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-47-3	Chromium, Cr	32.4	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-50-8	Copper, Cu	38.3	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-02-0	Nickel, Ni	24	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7439-92-1	Lead, Pb	4.2	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-62-2	Vanadium, V	66.3	mg/kg	0.5
LB3	4.5	LB3-4.5'	5/6/2016	7440-66-6	Zinc, Zn	77.2	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB3	4.5	LB3-4.5'	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB3	4.5	LB3-4.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB3	4.5	LB3-4.5'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB3	4.5	LB3-4.5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB3	4.5	LB3-4.5'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB3	4.5	LB3-4.5'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB3	4.5	LB3-4.5'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB3	4.5	LB3-4.5'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB3	4.5	LB3-4.5'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB3	4.5	LB3-4.5'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB3	4.5	LB3-4.5'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	19.6	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB3	4.5	LB3-4.5'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB3	4.5	LB3-4.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB3	4.5	LB3-4.5'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-39-3	Barium, Ba	94.4	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-48-4	Cobalt, Co	6.3	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-47-3	Chromium, Cr	6.6	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-50-8	Copper, Cu	6.8	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-02-0	Nickel, Ni	5.1	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB3	8.5	LB3-8.5'	5/6/2016	7439-92-1	Lead, Pb	0.9	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-62-2	Vanadium, V	22	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7440-66-6	Zinc, Zn	56.4	mg/kg	0.5
LB3	8.5	LB3-8.5'	5/6/2016	7439-97-6	Mercury, Hg	0.046	mg/kg	0.02
LB3	8.5	LB3-8.5'	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB3	8.5	LB3-8.5'	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB3	8.5	LB3-8.5'	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB3	8.5	LB3-8.5'	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB3	8.5	LB3-8.5'	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB3	8.5	LB3-8.5'	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB3	8.5	LB3-8.5'	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB3	8.5	LB3-8.5'	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB3	8.5	LB3-8.5'	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB3	8.5	LB3-8.5'	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	8.2	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB3	8.5	LB3-8.5'	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB3	8.5	LB3-8.5'	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB3	8.5	LB3-8.5'	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-39-3	Barium, Ba	194	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB3	1D	LB3-1'-D	5/6/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-48-4	Cobalt, Co	16.2	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-47-3	Chromium, Cr	28.7	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-50-8	Copper, Cu	37.2	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-02-0	Nickel, Ni	21.2	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7439-92-1	Lead, Pb	5.4	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-62-2	Vanadium, V	63.1	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7440-66-6	Zinc, Zn	104	mg/kg	0.5
LB3	1D	LB3-1'-D	5/6/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB3	1D	LB3-1'-D	5/6/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	71-43-2	Benzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-25-2	Bromoform	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	67-66-3	Chloroform	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB3	1D	LB3-1'-D	5/6/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB3	1D	LB3-1'-D	5/6/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB3	1D	LB3-1'-D	5/6/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB3	1D	LB3-1'-D	5/6/2016	76-13-1	Freon 113	ND	µg/kg	5
LB3	1D	LB3-1'-D	5/6/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB3	1D	LB3-1'-D	5/6/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB3	1D	LB3-1'-D	5/6/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	100-42-5	Styrene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB3	1D	LB3-1'-D	5/6/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB3	1D	LB3-1'-D	5/6/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	127-18-4	Tetrachloroethylene	46.7	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	108-88-3	Toluene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB3	1D	LB3-1'-D	5/6/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB3	1D	LB3-1'-D	5/6/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB3	1D	LB3-1'-D	5/6/2016	108-38-3	Xylenes	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-39-3	Barium, Ba	159	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-48-4	Cobalt, Co	10.3	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-47-3	Chromium, Cr	19.1	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-50-8	Copper, Cu	61.3	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-02-0	Nickel, Ni	17.9	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7439-92-1	Lead, Pb	11.9	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-62-2	Vanadium, V	45.8	mg/kg	0.5
LB4	1	LB4-1'	5/5/2016	7440-66-6	Zinc, Zn	684	mg/kg	5
LB4	1	LB4-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB4	1	LB4-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB4	1	LB4-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB4	1	LB4-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB4	1	LB4-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB4	1	LB4-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB4	1	LB4-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB4	1	LB4-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB4	1	LB4-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB4	1	LB4-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB4	1	LB4-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	127-18-4	Tetrachloroethylene	4.4	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB4	1	LB4-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB4	1	LB4-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB4	1	LB4-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB4	1	LB4-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-39-3	Barium, Ba	126	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-48-4	Cobalt, Co	10.4	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-47-3	Chromium, Cr	18.4	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-50-8	Copper, Cu	21.7	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-02-0	Nickel, Ni	12.3	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7439-92-1	Lead, Pb	1.6	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-62-2	Vanadium, V	44.2	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7440-66-6	Zinc, Zn	48	mg/kg	0.5
LB4	4.5	LB4-4.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB4	4.5	LB4-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB4	4.5	LB4-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB4	4.5	LB4-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB4	4.5	LB4-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB4	4.5	LB4-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB4	4.5	LB4-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB4	4.5	LB4-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB4	4.5	LB4-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB4	4.5	LB4-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB4	4.5	LB4-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	25.6	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB4	4.5	LB4-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB4	4.5	LB4-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB4	4.5	LB4-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-39-3	Barium, Ba	120	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-48-4	Cobalt, Co	9.8	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-47-3	Chromium, Cr	19.6	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-50-8	Copper, Cu	22.2	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-02-0	Nickel, Ni	12.1	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.6	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-62-2	Vanadium, V	42.8	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7440-66-6	Zinc, Zn	46.1	mg/kg	0.5
LB4	8.5	LB4-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB4	8.5	LB4-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB4	8.5	LB4-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB4	8.5	LB4-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB4	8.5	LB4-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB4	8.5	LB4-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB4	8.5	LB4-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB4	8.5	LB4-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB4	8.5	LB4-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB4	8.5	LB4-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB4	8.5	LB4-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB4	8.5	LB4-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	5.4	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB4	8.5	LB4-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB4	8.5	LB4-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB4	8.5	LB4-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-39-3	Barium, Ba	183	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-48-4	Cobalt, Co	15.6	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-47-3	Chromium, Cr	27.2	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-50-8	Copper, Cu	33.4	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-02-0	Nickel, Ni	19.5	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7439-92-1	Lead, Pb	4.9	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-62-2	Vanadium, V	57.7	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7440-66-6	Zinc, Zn	87.7	mg/kg	0.5
LB5	1	LB5-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB5	1	LB5-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB5	1	LB5-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB5	1	LB5-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB5	1	LB5-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB5	1	LB5-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB5	1	LB5-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB5	1	LB5-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB5	1	LB5-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB5	1	LB5-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB5	1	LB5-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB5	1	LB5-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB5	1	LB5-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB5	1	LB5-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-39-3	Barium, Ba	189	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-48-4	Cobalt, Co	16.2	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-47-3	Chromium, Cr	26.9	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-50-8	Copper, Cu	30.9	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-02-0	Nickel, Ni	19.2	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7439-92-1	Lead, Pb	2.7	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-62-2	Vanadium, V	59	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7440-66-6	Zinc, Zn	65.2	mg/kg	0.5
LB5	4.5	LB5-4.5'	5/5/2016	7439-97-6	Mercury, Hg	0.052	mg/kg	0.02
LB5	4.5	LB5-4.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB5	4.5	LB5-4.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB5	4.5	LB5-4.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB5	4.5	LB5-4.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB5	4.5	LB5-4.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB5	4.5	LB5-4.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB5	4.5	LB5-4.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB5	4.5	LB5-4.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB5	4.5	LB5-4.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB5	4.5	LB5-4.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB5	4.5	LB5-4.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	21.2	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB5	4.5	LB5-4.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	79-01-6	Trichloroethylene	5.3	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB5	4.5	LB5-4.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB5	4.5	LB5-4.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-39-3	Barium, Ba	209	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-48-4	Cobalt, Co	20.3	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-47-3	Chromium, Cr	35.4	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-50-8	Copper, Cu	37.6	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-02-0	Nickel, Ni	24.8	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7439-92-1	Lead, Pb	4.6	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-62-2	Vanadium, V	70.6	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7440-66-6	Zinc, Zn	79.2	mg/kg	0.5
LB5	8.5	LB5-8.5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB5	8.5	LB5-8.5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB5	8.5	LB5-8.5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB5	8.5	LB5-8.5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB5	8.5	LB5-8.5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB5	8.5	LB5-8.5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB5	8.5	LB5-8.5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB5	8.5	LB5-8.5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB5	8.5	LB5-8.5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB5	8.5	LB5-8.5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB5	8.5	LB5-8.5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB5	8.5	LB5-8.5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	3.9	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB5	8.5	LB5-8.5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB5	8.5	LB5-8.5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB5	8.5	LB5-8.5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-39-3	Barium, Ba	41.4	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-48-4	Cobalt, Co	9.8	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-47-3	Chromium, Cr	22.7	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-50-8	Copper, Cu	10.5	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-02-0	Nickel, Ni	21.3	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7439-92-1	Lead, Pb	1.3	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-62-2	Vanadium, V	31.8	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7440-66-6	Zinc, Zn	28.4	mg/kg	0.5
LB5	1D	LB5-1D	5/5/2016	7439-97-6	Mercury, Hg	0.026	mg/kg	0.02
LB5	1D	LB5-1D	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB5	1D	LB5-1D	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB5	1D	LB5-1D	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB5	1D	LB5-1D	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB5	1D	LB5-1D	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB5	1D	LB5-1D	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB5	1D	LB5-1D	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB5	1D	LB5-1D	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB5	1D	LB5-1D	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB5	1D	LB5-1D	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB5	1D	LB5-1D	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB5	1D	LB5-1D	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB5	1D	LB5-1D	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB5	1D	LB5-1D	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-39-3	Barium, Ba	260	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-48-4	Cobalt, Co	19.9	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-47-3	Chromium, Cr	35.7	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-50-8	Copper, Cu	45.6	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-02-0	Nickel, Ni	26	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7439-92-1	Lead, Pb	4.2	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-62-2	Vanadium, V	75.1	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7440-66-6	Zinc, Zn	81.7	mg/kg	0.5
LB6	1	LB6-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB6	1	LB6-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB6	1	LB6-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB6	1	LB6-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB6	1	LB6-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB6	1	LB6-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB6	1	LB6-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB6	1	LB6-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB6	1	LB6-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB6	1	LB6-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB6	1	LB6-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB6	1	LB6-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	127-18-4	Tetrachloroethylene	1	µg/kg	1
LB6	1	LB6-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB6	1	LB6-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB6	1	LB6-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB6	1	LB6-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-39-3	Barium, Ba	205	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-48-4	Cobalt, Co	17.1	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-47-3	Chromium, Cr	30.1	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-50-8	Copper, Cu	32.6	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-02-0	Nickel, Ni	21.6	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7439-92-1	Lead, Pb	2.7	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-62-2	Vanadium, V	65.4	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7440-66-6	Zinc, Zn	73.7	mg/kg	0.5
LB6	5	LB6-5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB6	5	LB6-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB6	5	LB6-5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB6	5	LB6-5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB6	5	LB6-5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB6	5	LB6-5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB6	5	LB6-5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB6	5	LB6-5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB6	5	LB6-5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB6	5	LB6-5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB6	5	LB6-5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB6	5	LB6-5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB6	5	LB6-5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB6	5	LB6-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB6	5	LB6-5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-39-3	Barium, Ba	190	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-48-4	Cobalt, Co	16.3	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-47-3	Chromium, Cr	28.7	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-50-8	Copper, Cu	33.3	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-02-0	Nickel, Ni	20.6	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7439-92-1	Lead, Pb	3.2	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-62-2	Vanadium, V	63.2	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7440-66-6	Zinc, Zn	68.8	mg/kg	0.5
LB6	11	LB6-11'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB6	11	LB6-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB6	11	LB6-11'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB6	11	LB6-11'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB6	11	LB6-11'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB6	11	LB6-11'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB6	11	LB6-11'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB6	11	LB6-11'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB6	11	LB6-11'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB6	11	LB6-11'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB6	11	LB6-11'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB6	11	LB6-11'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB6	11	LB6-11'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB6	11	LB6-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB6	11	LB6-11'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-39-3	Barium, Ba	166	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-48-4	Cobalt, Co	14.8	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-47-3	Chromium, Cr	24.7	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-50-8	Copper, Cu	25.8	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-02-0	Nickel, Ni	17.4	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7439-92-1	Lead, Pb	5.2	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB7	1	LB7-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-62-2	Vanadium, V	53.4	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7440-66-6	Zinc, Zn	73.2	mg/kg	0.5
LB7	1	LB7-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB7	1	LB7-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB7	1	LB7-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB7	1	LB7-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB7	1	LB7-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB7	1	LB7-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB7	1	LB7-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB7	1	LB7-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB7	1	LB7-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB7	1	LB7-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB7	1	LB7-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	127-18-4	Tetrachloroethylene	3.5	µg/kg	1
LB7	1	LB7-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB7	1	LB7-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB7	1	LB7-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB7	1	LB7-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-39-3	Barium, Ba	201	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-48-4	Cobalt, Co	16.2	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB7	5	LB7-5'	5/5/2016	7440-47-3	Chromium, Cr	29.1	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-50-8	Copper, Cu	30.2	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-02-0	Nickel, Ni	20.5	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7439-92-1	Lead, Pb	3.1	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-62-2	Vanadium, V	62.3	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7440-66-6	Zinc, Zn	74.5	mg/kg	0.5
LB7	5	LB7-5'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB7	5	LB7-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB7	5	LB7-5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB7	5	LB7-5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB7	5	LB7-5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB7	5	LB7-5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB7	5	LB7-5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB7	5	LB7-5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB7	5	LB7-5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB7	5	LB7-5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB7	5	LB7-5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	127-18-4	Tetrachloroethylene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB7	5	LB7-5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB7	5	LB7-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB7	5	LB7-5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB7	11	LB7-11'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-39-3	Barium, Ba	161	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-48-4	Cobalt, Co	14.2	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-47-3	Chromium, Cr	27.3	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-50-8	Copper, Cu	26.8	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-02-0	Nickel, Ni	18.8	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7439-92-1	Lead, Pb	2.4	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-62-2	Vanadium, V	56.9	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7440-66-6	Zinc, Zn	57.8	mg/kg	0.5
LB7	11	LB7-11'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB7	11	LB7-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB7	11	LB7-11'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB7	11	LB7-11'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB7	11	LB7-11'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB7	11	LB7-11'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB7	11	LB7-11'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB7	11	LB7-11'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB7	11	LB7-11'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB7	11	LB7-11'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB7	11	LB7-11'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	127-18-4	Tetrachloroethylene	1	µg/kg	1
LB7	11	LB7-11'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB7	11	LB7-11'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB7	11	LB7-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB7	11	LB7-11'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-39-3	Barium, Ba	179	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-48-4	Cobalt, Co	14.8	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-47-3	Chromium, Cr	27.7	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-50-8	Copper, Cu	29.4	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-02-0	Nickel, Ni	19.1	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7439-92-1	Lead, Pb	8.2	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-62-2	Vanadium, V	58.1	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7440-66-6	Zinc, Zn	83.4	mg/kg	0.5
LB8	1	LB8-1'	5/5/2016	7439-97-6	Mercury, Hg	ND	mg/kg	0.02
LB8	1	LB8-1'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	20.9	µg/kg	1
LB8	1	LB8-1'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB8	1	LB8-1'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB8	1	LB8-1'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB8	1	LB8-1'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB8	1	LB8-1'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB8	1	LB8-1'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB8	1	LB8-1'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB8	1	LB8-1'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB8	1	LB8-1'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB8	1	LB8-1'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB8	1	LB8-1'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	127-18-4	Tetrachloroethylene	187	µg/kg	1
LB8	1	LB8-1'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB8	1	LB8-1'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	79-01-6	Trichloroethylene	1.7	µg/kg	1
LB8	1	LB8-1'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB8	1	LB8-1'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB8	1	LB8-1'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-39-3	Barium, Ba	227	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-48-4	Cobalt, Co	20	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-47-3	Chromium, Cr	35.1	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-50-8	Copper, Cu	38.2	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-02-0	Nickel, Ni	25.4	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7439-92-1	Lead, Pb	4.2	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-62-2	Vanadium, V	74.6	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7440-66-6	Zinc, Zn	82	mg/kg	0.5
LB8	5	LB8-5'	5/5/2016	7439-97-6	Mercury, Hg	0.062	mg/kg	0.02
LB8	5	LB8-5'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	4.1	µg/kg	1
LB8	5	LB8-5'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB8	5	LB8-5'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB8	5	LB8-5'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB8	5	LB8-5'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB8	5	LB8-5'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB8	5	LB8-5'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB8	5	LB8-5'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB8	5	LB8-5'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB8	5	LB8-5'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB8	5	LB8-5'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	127-18-4	Tetrachloroethylene	21.5	µg/kg	1
LB8	5	LB8-5'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB8	5	LB8-5'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB8	5	LB8-5'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB8	5	LB8-5'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	7440-22-4	Silver, Ag	ND	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-38-2	Arsenic, As	ND	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-39-3	Barium, Ba	211	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-41-7	Beryllium, Be	ND	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-43-9	Cadmium, Cd	ND	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-48-4	Cobalt, Co	16.4	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-47-3	Chromium, Cr	30	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-50-8	Copper, Cu	31.3	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7439-98-7	Molybdenum, Mo	ND	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-02-0	Nickel, Ni	20	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7439-92-1	Lead, Pb	2.7	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-36-0	Antimony, Sb	ND	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7782-49-2	Selenium, Se	ND	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-28-0	Thallium, Tl	ND	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-62-2	Vanadium, V	64.8	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7440-66-6	Zinc, Zn	71.7	mg/kg	0.5
LB8	11	LB8-11'	5/5/2016	7439-97-6	Mercury, Hg	0.023	mg/kg	0.02
LB8	11	LB8-11'	5/5/2016	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	71-55-6	1,1,1-Trichloroethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	79-00-5	1,1,2-Trichloroethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-34-3	1,1-Dichloroethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-35-4	1,1-Dichloroethene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	563-58-6	1,1-Dichloropropene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	87-61-6	1,2,3-Trichlorobenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	96-18-4	1,2,3-Trichloropropane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	120-82-1	1,2,4-Trichlorobenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	95-63-6	1,2,4-Trimethylbenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	95-50-1	1,2-Dichlorobenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	107-06-2	1,2-Dichloroethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	78-87-5	1,2-Dichloropropane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	108-67-8	1,3,5-Trimethylbenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	541-73-1	1,3-Dichlorobenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	142-28-9	1,3-Dichloropropane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	106-46-7	1,4-Dichlorobenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	594-20-7	2,2-Dichloropropane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	95-49-8	2-Chlorotoluene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	106-43-4	4-Chlorotoluene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	99-87-6	4-Isopropyltoluene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	71-43-2	Benzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	108-86-1	Bromobenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-27-4	Bromodichloromethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-25-2	Bromoform	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	56-23-5	Carbon Tetrachloride	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	108-90-7	Chlorobenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	67-66-3	Chloroform	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	156-59-2	cis-1,2-Dichloroethene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	10061-01-5	cis-1,3-Dichloropropene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	124-48-1	Dibromochloromethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	74-95-3	Dibromomethane	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-71-8	Dichlorodifluoromethane	ND	µg/kg	5
LB8	11	LB8-11'	5/5/2016	108-20-3	Di-isopropylether (DIPE)	ND	µg/kg	5
LB8	11	LB8-11'	5/5/2016	N/A	DRO (C10-C28)	ND	µg/kg	10
LB8	11	LB8-11'	5/5/2016	100-41-4	Ethylbenzene	ND	µg/kg	1

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
LB8	11	LB8-11'	5/5/2016	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/kg	5
LB8	11	LB8-11'	5/5/2016	76-13-1	Freon 113	ND	µg/kg	5
LB8	11	LB8-11'	5/5/2016	87-68-3	Hexachlorobutadiene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	98-82-8	Isopropylbenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-09-2	Methylene Chloride	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/kg	5
LB8	11	LB8-11'	5/5/2016	91-20-3	Naphthalene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	104-51-8	n-Butylbenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	103-65-1	n-Propylbenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	N/A	ORO (C29-C32)	ND	µg/kg	10
LB8	11	LB8-11'	5/5/2016	135-98-8	sec-Butylbenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	100-42-5	Styrene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/kg	50
LB8	11	LB8-11'	5/5/2016	994-05-8	Tert-amylmethylether (TAME)	ND	µg/kg	5
LB8	11	LB8-11'	5/5/2016	98-06-6	tert-Butylbenzene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	127-18-4	Tetrachloroethylene	3	µg/kg	1
LB8	11	LB8-11'	5/5/2016	108-88-3	Toluene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	N/A	TPH Gasoline Range	ND	µg/kg	0.2
LB8	11	LB8-11'	5/5/2016	156-60-5	trans-1,2-Dichloroethene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	10061-02-6	trans-1,3-Dichloropropene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	79-01-6	Trichloroethylene	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	75-69-4	Trichlorofluoromethane	ND	µg/kg	5
LB8	11	LB8-11'	5/5/2016	75-01-4	Vinyl Chloride	ND	µg/kg	1
LB8	11	LB8-11'	5/5/2016	108-38-3	Xylenes	ND	µg/kg	1
SS-1	5	SS-1--5	6/28/2012	18540-29-9	Chromium, Hexavalent	ND	µg/kg	400
SS-1	10	SS-1-10	6/28/2012	18540-29-9	Chromium, Hexavalent	ND	µg/kg	400
SS-2	5	SS-2--5	6/28/2012	18540-29-9	Chromium, Hexavalent	1100	µg/kg	400
SS-2	10	SS-2-10	6/28/2012	7439-97-6	Mercury	ND	mg/kg	0.0835
SS-2	10	SS-2-10	6/28/2012	7440-36-0	Antimony	ND	mg/kg	0.75
SS-2	10	SS-2-10	6/28/2012	7440-38-2	Arsenic	6.23	mg/kg	0.75
SS-2	10	SS-2-10	6/28/2012	7440-39-3	Barium	75.7	mg/kg	0.5
SS-2	10	SS-2-10	6/28/2012	7440-41-7	Beryllium	ND	mg/kg	0.25
SS-2	10	SS-2-10	6/28/2012	7440-43-9	Cadmium	ND	mg/kg	0.5
SS-2	10	SS-2-10	6/28/2012	7440-47-3	Chromium	33	mg/kg	0.25
SS-2	10	SS-2-10	6/28/2012	7440-48-4	Cobalt	7.02	mg/kg	0.25
SS-2	10	SS-2-10	6/28/2012	7440-50-8	Copper	244	mg/kg	0.5
SS-2	10	SS-2-10	6/28/2012	7439-92-1	Lead	1.67	mg/kg	0.5
SS-2	10	SS-2-10	6/28/2012	7439-98-7	Molybdenum	ND	mg/kg	0.25
SS-2	10	SS-2-10	6/28/2012	7440-02-0	Nickel	10.8	mg/kg	0.25
SS-2	10	SS-2-10	6/28/2012	7782-49-2	Selenium	ND	mg/kg	0.75
SS-2	10	SS-2-10	6/28/2012	7440-22-4	Silver	ND	mg/kg	0.25
SS-2	10	SS-2-10	6/28/2012	7440-28-0	Thallium	ND	mg/kg	0.75
SS-2	10	SS-2-10	6/28/2012	7440-62-2	Vanadium	31.1	mg/kg	0.25
SS-2	10	SS-2-10	6/28/2012	7440-66-6	Zinc	753	mg/kg	1
SS-2	10	SS-2-10	6/28/2012	18540-29-9	Chromium, Hexavalent	960	µg/kg	400
SS-3	5	SS-3--5	6/28/2012	18540-29-9	Chromium, Hexavalent	ND	µg/kg	400
SS-3	10	SS-3-10	6/28/2012	7439-97-6	Mercury	ND	mg/kg	0.0835
SS-3	10	SS-3-10	6/28/2012	7440-36-0	Antimony	ND	mg/kg	0.75
SS-3	10	SS-3-10	6/28/2012	7440-38-2	Arsenic	6.83	mg/kg	0.75
SS-3	10	SS-3-10	6/28/2012	7440-39-3	Barium	168	mg/kg	0.5
SS-3	10	SS-3-10	6/28/2012	7440-41-7	Beryllium	0.387	mg/kg	0.25
SS-3	10	SS-3-10	6/28/2012	7440-43-9	Cadmium	ND	mg/kg	0.5
SS-3	10	SS-3-10	6/28/2012	7440-47-3	Chromium	22.6	mg/kg	0.25
SS-3	10	SS-3-10	6/28/2012	7440-48-4	Cobalt	14.2	mg/kg	0.25
SS-3	10	SS-3-10	6/28/2012	7440-50-8	Copper	23.9	mg/kg	0.5
SS-3	10	SS-3-10	6/28/2012	7439-92-1	Lead	1.89	mg/kg	0.5
SS-3	10	SS-3-10	6/28/2012	7439-98-7	Molybdenum	ND	mg/kg	0.25
SS-3	10	SS-3-10	6/28/2012	7440-02-0	Nickel	17.6	mg/kg	0.25
SS-3	10	SS-3-10	6/28/2012	7782-49-2	Selenium	ND	mg/kg	0.75
SS-3	10	SS-3-10	6/28/2012	7440-22-4	Silver	ND	mg/kg	0.25
SS-3	10	SS-3-10	6/28/2012	7440-28-0	Thallium	ND	mg/kg	0.75
SS-3	10	SS-3-10	6/28/2012	7440-62-2	Vanadium	44.5	mg/kg	0.25
SS-3	10	SS-3-10	6/28/2012	7440-66-6	Zinc	63.8	mg/kg	1
SS-3	10	SS-3-10	6/28/2012	18540-29-9	Chromium, Hexavalent	ND	µg/kg	400
SS-4	5	SS-4--5	6/28/2012	18540-29-9	Chromium, Hexavalent	ND	µg/kg	400
SS-4	10	SS-4-10	6/28/2012	18540-29-9	Chromium, Hexavalent	ND	µg/kg	400
SS-5	5	SS-5--5	6/28/2012	18540-29-9	Chromium, Hexavalent	1300	µg/kg	400
SS-5	10	SS-5-10	6/28/2012	18540-29-9	Chromium, Hexavalent	ND	µg/kg	400
SS-6	10	SS-6-10	6/28/2012	7439-97-6	Mercury	ND	mg/kg	0.0835
SS-6	10	SS-6-10	6/28/2012	7440-36-0	Antimony	ND	mg/kg	0.75
SS-6	10	SS-6-10	6/28/2012	7440-38-2	Arsenic	6.59	mg/kg	0.75
SS-6	10	SS-6-10	6/28/2012	7440-39-3	Barium	166	mg/kg	0.5
SS-6	10	SS-6-10	6/28/2012	7440-41-7	Beryllium	0.337	mg/kg	0.25
SS-6	10	SS-6-10	6/28/2012	7440-43-9	Cadmium	ND	mg/kg	0.5

Location	Depth (ft. bgs)	Sample ID	Sample Date	CAS Number	Analyte	Result	Unit	Detection Limit
SS-6	10	SS-6-10	6/28/2012	7440-47-3	Chromium	19	mg/kg	0.25
SS-6	10	SS-6-10	6/28/2012	7440-48-4	Cobalt	12.5	mg/kg	0.25
SS-6	10	SS-6-10	6/28/2012	7440-50-8	Copper	21.2	mg/kg	0.5
SS-6	10	SS-6-10	6/28/2012	7439-92-1	Lead	1.7	mg/kg	0.5
SS-6	10	SS-6-10	6/28/2012	7439-98-7	Molybdenum	ND	mg/kg	0.25
SS-6	10	SS-6-10	6/28/2012	7440-02-0	Nickel	15.1	mg/kg	0.25
SS-6	10	SS-6-10	6/28/2012	7782-49-2	Selenium	ND	mg/kg	0.75
SS-6	10	SS-6-10	6/28/2012	7440-22-4	Silver	ND	mg/kg	0.25
SS-6	10	SS-6-10	6/28/2012	7440-28-0	Thallium	ND	mg/kg	0.75
SS-6	10	SS-6-10	6/28/2012	7440-62-2	Vanadium	37.8	mg/kg	0.25
SS-6	10	SS-6-10	6/28/2012	7440-66-6	Zinc	55	mg/kg	1
SS-6	10	SS-6-10	6/28/2012	18540-29-9	Chromium, Hexavalent	ND	µg/kg	400

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A1-16'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	203	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	288	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	144	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	51.8	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	110	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A1-16'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	84.2	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A1-16'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
A1-16'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A1-16'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	11	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	16.2	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A1-16'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A1-16'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A1-16'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	9860	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	108-88-3	Toluene	281	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	143	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A1-16'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	550	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	182	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	329	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	174	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	50	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	111	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A2-16'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	85.8	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A2-16'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
A2-16'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A2-16'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A2-16'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	16.4	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A2-16'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A2-16'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	6680	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	108-88-3	Toluene	244	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	110	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A2-16'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	590	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	109	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A3-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A3-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
A3-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A3-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A3-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A3-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	56500	µg/m^3	80	D
A3-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	15	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	59.8	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A3-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	243	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	11	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	18.8	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A4-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	47.4	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	191	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A4-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A4-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
A4-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A4-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A4-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A4-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	1080000	µg/m^3	2000	D
A4-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	9.4	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	4350	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A4-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	8	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	847	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	26.6	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A5-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	20.2	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	9	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	121	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	331	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A5-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A5-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	66.4	µg/m^3	40	
A5-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A5-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A5-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A5-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	3120000	µg/m^3	2000	D
A5-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	84	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	8400	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A5-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	10.8	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	31.8	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A6-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	20.8	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	34.8	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	505	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A6-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	34.2	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A6-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	124	µg/m^3	40	
A6-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A6-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A6-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A6-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	105000	µg/m^3	80	D
A6-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	234	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	2020	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A6-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	187	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	22.2	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A7-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	101	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	21.6	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	978	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A7-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A7-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	290	µg/m^3	40	
A7-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A7-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A7-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A7-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	38000	µg/m^3	80	D
A7-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	40500	µg/m^3	80	D

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A7-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	29.4	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A7-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	15	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	47.6	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	38.8	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	29	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	21.8	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	326	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A8-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	35.4	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A8-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	90.2	µg/m^3	40	
A8-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A8-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A8-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A8-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A8-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	12900	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	204	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	1820	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A8-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	213	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	345	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	29.2	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	454	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A9-30.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A9-30.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	122	µg/m^3	40	
A9-30.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A9-30.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A9-30.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A9-30.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A9-30.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	8010	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	2140	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A9-30.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	19.4	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A10-30.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	307	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A10-30.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A10-30.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	94.4	µg/m^3	40	
A10-30.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A10-30.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A10-30.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A10-30.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	8810	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	60.6	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	801	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A10-30.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	31.4	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	25.8	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	22.2	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A11-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	66	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A11-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A11-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
A11-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A11-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A11-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A11-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	1800	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	67.6	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	30.8	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A11-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	59	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	146	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A12-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	38.8	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A12-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A12-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
A12-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A12-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A12-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A12-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	972	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	72	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	94.4	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A12-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	32.2	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	6060	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	909	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A13-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	22.2	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A13-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A13-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
A13-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A13-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A13-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A13-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	845	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	52.4	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	82.6	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A13-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	5880	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A13-17' REP	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	907	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	23.6	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
A13-17' REP	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
A13-17' REP	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
A13-17' REP	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
A13-17' REP	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
A13-17' REP	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
A13-17' REP	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	1070	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	108-88-3	Toluene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
A13-17' REP	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	243	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
A13-17' REP	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	67.6	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	124	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	31.8	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	23.2	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	65	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	116	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B2-16.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	105	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B2-16.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
B2-16.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B2-16.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B2-16.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B2-16.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B2-16.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	3310	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	574	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	78.4	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	10.8	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B2-16.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	628	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	28.2	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	619	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	177	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	4050	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	124	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	32.8	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B3-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	335	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B3-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
B3-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B3-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	67.6	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B3-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B3-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	11300	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	1290	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	69.6	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B3-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	1850	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	48.2	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	56.9	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	20.4	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	60.6	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	71-43-2	Benzene	20.8	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B4-19'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	90.8	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B4-19'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	30.5	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B4-19'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
B4-19'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B4-19'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	24.2	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B4-19'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B4-19'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	1030000	µg/m^3	8	D
B4-19'	5/6/2016	EPA 8260B	108-88-3	Toluene	127	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	431	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B4-19'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	182	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	103	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	20	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B5-20'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	27.9	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	71-43-2	Benzene	13.4	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	269	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B5-20'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	72.4	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B5-20'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
B5-20'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B5-20'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B5-20'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B5-20'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	1410000	µg/m^3	800	D
B5-20'	5/6/2016	EPA 8260B	108-88-3	Toluene	72.5	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	373	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B5-20'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	85.2	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	20.2	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	341	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B8-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	58.7	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	3060	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B8-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B8-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	390	µg/m^3	40	
B8-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B8-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B8-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B8-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	14600	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	11.3	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	6380	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B8-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	21.2	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	449	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B9-30.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	71.1	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	26.2	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	36.3	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	33	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	78.6	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	2400	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B9-30.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	40.1	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B9-30.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	385	µg/m^3	40	
B9-30.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B9-30.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	24.8	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B9-30.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B9-30.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	14400	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	171	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	8270	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B9-30.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B9-30.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	235	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	424	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	55.2	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	1730	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B10-30.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B10-30.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	297	µg/m^3	40	
B10-30.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B10-30.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B10-30.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B10-30.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	13300	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	11.9	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	4540	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B10-30.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	417	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	67-66-3	Chloroform	54.5	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	1690	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B10-30.5' REP	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B10-30.5' REP	5/6/2016	EPA 8260B	76-13-1	Freon 113	296	µg/m^3	40	
B10-30.5' REP	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B10-30.5' REP	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B10-30.5' REP	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B10-30.5' REP	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	13800	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	108-88-3	Toluene	16.1	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	4400	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B10-30.5' REP	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	44.3	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	22.6	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	312	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B11-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B11-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B11-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	89	µg/m^3	40	
B11-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B11-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B11-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B11-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	3630	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	19.1	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B11-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	491	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	71.4	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B12-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B12-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B12-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
B12-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B12-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B12-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B12-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	5790	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B12-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	107	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B13-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	11.6	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B13-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B13-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
B13-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B13-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B13-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B13-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	323	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	10	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	17	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B13-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	14.4	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B14-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	8.2	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B14-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B14-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
B14-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B14-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B14-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B14-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	143	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	80.6	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	41.4	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B14-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	27	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B15-4'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	16.6	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
B15-4'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
B15-4'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
B15-4'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
B15-4'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
B15-4'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
B15-4'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	222	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	108-88-3	Toluene	18.4	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
B15-4'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	31.8	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
B15-4'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	39.2	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	43.4	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB1-15'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB1-15'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
LB1-15'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB1-15'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB1-15'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB1-15'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB1-15'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	423	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	108-88-3	Toluene	76	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	38	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB1-15'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	11.6	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	167	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	33	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB1-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB1-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
LB1-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB1-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB1-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB1-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB1-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	11000	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	45.4	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	332	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB1-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	15.2	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB2-19.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	99.2	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB2-19.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB2-19.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
LB2-19.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB2-19.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB2-19.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB2-19.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	63200	µg/m^3	80	D
LB2-19.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	68.2	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	110	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB2-19.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	635	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	8	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	242	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	71-43-2	Benzene	26.9	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB3-20'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	67-66-3	Chloroform	67	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	200	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB3-20'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	35.7	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB3-20'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
LB3-20'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB3-20'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB3-20'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB3-20'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	10600000	µg/m^3	8000	D
LB3-20'	5/6/2016	EPA 8260B	108-88-3	Toluene	114	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	4930	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB3-20'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	35.3	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	10.6	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	10.6	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB4-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	18.3	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	25.2	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	698	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB4-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	32	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB4-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	107	µg/m^3	40	
LB4-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB4-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB4-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB4-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	544000	µg/m^3	800	D
LB4-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	175	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	648	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB4-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	156	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB5-14.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	754	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB5-14.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB5-14.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	141	µg/m^3	40	
LB5-14.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB5-14.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB5-14.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB5-14.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	11800	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	54.7	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	881	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB5-14.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	21.4	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB5-20.5'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	12.3	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	16.9	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	71-43-2	Benzene	27.4	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	67-66-3	Chloroform	14.2	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	927	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB5-20.5'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	23.2	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB5-20.5'	5/6/2016	EPA 8260B	76-13-1	Freon 113	186	µg/m^3	40	
LB5-20.5'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB5-20.5'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB5-20.5'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB5-20.5'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	12400	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB5-20.5'	5/6/2016	EPA 8260B	108-88-3	Toluene	169	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	1500	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB5-20.5'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	115	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	17.4	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	67.6	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB6-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB6-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
LB6-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB6-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB6-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB6-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB6-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	1590	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	115	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB6-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	85.6	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	67.3	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	185	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB7-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB7-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB7-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	53.2	µg/m^3	40	
LB7-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB7-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB7-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB7-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	3280	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	42	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB7-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	630-20-6	1,1,1,2-Tetrachloroethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	71-55-6	1,1,1-Trichloroethane	1630	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	79-34-5	1,1,2,2-Tetrachloroethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	79-00-5	1,1,2-Trichloroethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-34-3	1,1-Dichloroethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-35-4	1,1-Dichloroethene	937	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	563-58-6	1,1-Dichloropropene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	87-61-6	1,2,3-Trichlorobenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	96-18-4	1,2,3-Trichloropropane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	120-82-1	1,2,4-Trichlorobenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	95-63-6	1,2,4-Trimethylbenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	96-12-8	1,2-Dibromo-3-Chloropropane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	106-93-4	1,2-Dibromoethane (EDB)	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	95-50-1	1,2-Dichlorobenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	107-06-2	1,2-Dichloroethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	78-87-5	1,2-Dichloropropane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	108-67-8	1,3,5-Trimethylbenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	541-73-1	1,3-Dichlorobenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	142-28-9	1,3-Dichloropropane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	106-46-7	1,4-Dichlorobenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	594-20-7	2,2-Dichloropropane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	95-49-8	2-Chlorotoluene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	106-43-4	4-Chlorotoluene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	99-87-6	4-Isopropyltoluene	8.6	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	71-43-2	Benzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	108-86-1	Bromobenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-27-4	Bromodichloromethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-25-2	Bromoform	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	56-23-5	Carbon Tetrachloride	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	108-90-7	Chlorobenzene	ND	µg/m^3	8	

Sample Name	Sample Date	Analytical Method	CAS Number	Analyte	Result	Unit	Detection Limit	Lab Qualifier
LB8-17'	5/6/2016	EPA 8260B	67-66-3	Chloroform	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	156-59-2	cis-1,2-Dichloroethene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	10061-01-5	cis-1,3-Dichloropropene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	124-48-1	Dibromochloromethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	74-95-3	Dibromomethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-71-8	Dichlorodifluoromethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	108-20-3	Di-isopropylether (DIPE)	ND	µg/m^3	40	
LB8-17'	5/6/2016	EPA 8260B	100-41-4	Ethylbenzene	17.8	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	637-92-3	Ethyl-tert-butylether (ETBE)	ND	µg/m^3	40	
LB8-17'	5/6/2016	EPA 8260B	76-13-1	Freon 113	ND	µg/m^3	40	
LB8-17'	5/6/2016	EPA 8260B	87-68-3	Hexachlorobutadiene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	98-82-8	Isopropylbenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-09-2	Methylene Chloride	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND	µg/m^3	40	
LB8-17'	5/6/2016	EPA 8260B	91-20-3	Naphthalene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	104-51-8	n-Butylbenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	109-66-0	n-Pentane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	103-65-1	n-Propylbenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	135-98-8	sec-Butylbenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	100-42-5	Styrene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-65-0	Tert- Butylalcohol (TBA)	ND	µg/m^3	400	
LB8-17'	5/6/2016	EPA 8260B	994-05-8	Tert-amylmethylether (TAME)	ND	µg/m^3	40	
LB8-17'	5/6/2016	EPA 8260B	98-06-6	tert-Butylbenzene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	127-18-4	Tetrachloroethylene	14600	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	108-88-3	Toluene	97.4	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	156-60-5	trans-1,2-Dichloroethene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	10061-02-6	trans-1,3-Dichloropropene	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	79-01-6	Trichloroethylene	173	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-69-4	Trichlorofluoromethane	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	75-01-4	Vinyl Chloride	ND	µg/m^3	8	
LB8-17'	5/6/2016	EPA 8260B	1330-20-7	Xylenes	89.1	µg/m^3	8	

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APPENDIX B
Background Metals Evaluation

B.1 INTRODUCTION

For naturally occurring chemicals such as metals, an evaluation of background concentrations was performed to determine whether the metals concentrations at the Site are naturally occurring, and whether they should be considered Site COPCs to be further evaluated in a human health risk assessment (HHRA). Typically, if concentrations of a metal are within background for an area, the metal is not selected as a COPC for the Site and therefore is not carried forward in a HHRA.

Cal-EPA (1997) defines background levels of metals as including both pristine conditions (e.g., natural geological composition at locations unaffected by human activity) and ambient conditions (i.e., chemical concentrations in the vicinity of the Site that are unaffected by Site-related activity). Therefore, background levels of metals can be from both natural and anthropogenic sources, since they are characterized in the context of "pristine conditions" and "ambient conditions".

For this Site, an evaluation of the analytical data was conducted to assess the background concentrations for each metal detected at the Site. Site-specific background metals concentrations were derived from existing Site data following the approach described in the Cal-EPA DTSC guidance documents entitled "*Arsenic Strategies. Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals*" (Cal-EPA, 2009) and "*Selecting Inorganic Constituents as Potential Chemicals of Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities*" (Cal-EPA, 1997).

B.2 APPROACH

The Site metals data were evaluated to determine whether more than one population could be discriminated (e.g., an ambient population and a Site-impacted population) using methods described in Cal-EPA guidance (1997, 2009). If metals data from the Site demonstrated the presence of two or more separate populations, this in itself provided evidence for impacts above ambient conditions (i.e., the lower population representative of local background conditions and the other considered impacted by Site-related activities). The impacted soil sample population, if present, is characterized by higher concentrations, relative to background, of those metals. Cal-EPA recognizes that the dataset analyzed might include data from areas that are possibly contaminated, and refers to this dataset as the "expanded dataset".

Cal-EPA (1997) recommends a "weight-of-evidence" approach where indicators of background exceedance are considered. The three indicators, or **criteria**, include:

1) the degree to which the Site data distributions are fit by a normal, lognormal, or other distribution[1];
2) a graphical assessment (probability, or quantile-quantile plots, against the normal, lognormal, or other distribution) to identify breaks or nonlinearity indicative of more than a single population; and
3) the skewness of the data as indicated by the coefficient of variation (CV = standard deviation ÷ average).

Although these three criteria provide related information about distribution shape, each focuses on different aspects of the distribution fit, and consideration of all these criteria (not just one) is recommended by Cal-EPA when evaluating whether or not non-ambient data are present.

B.3 STATISTICAL EVALUATION

The Site soil dataset was statistically analyzed to determine whether one or more populations could be identified and distinguished, and to estimate the maximum concentration of each metal that could be attributed to the background population. The statistical evaluation included:

- Computation and review of summary statistics for concentrations of each metal;
- Construction and review of quantile-quantile (Q-Q) plots of concentrations of each metal to determine whether the dataset more closely follows a normal or lognormal distribution, to identify whether more than one population is evident, and to estimate the maximum concentration associated with the background population;
- CV comparison.

Statistical software (ProUCL version 5.1.00), available from the USEPA (USEPA, 2015), was used to test each dataset for normal or lognormal distributions, to compute the raw statistics, and to plot the metal concentrations. The summary statistics are presented in **Table B-1**. The 95 percent upper confidence limits (95UCLs) of the average concentrations for each metal were derived using ProUCL and are presented in **Attachment B-1**.

Each of the three criteria mentioned above for the "weight-of-evidence" approach (Cal-EPA, 1997) was evaluated as providing or not providing evidence for multiple populations (e.g., ambient versus non-ambient) as follows. According to Cal-EPA (1997), distributions that contain multiple populations or a high proportion of non-detects will generally fail the goodness-of-fit (GOF) test for both normality and lognormality. ProUCL software was used to

[1] Cal-EPA (1997) states that ambient metals concentrations tend to follow a normal or lognormal distribution.

determine the type of distribution for the detected results in each dataset as indicated in the Q-Q plots presented in **Figures B-1** through **B-14**. The Q-Q plots and the ProUCL GOF evaluation indicated a normal or lognormal distribution for arsenic, barium, cadmium, cobalt, mercury, nickel, and vanadium. Too few samples had detectable concentrations of beryllium and molybdenum to evaluate a distribution. The plots and GOF evaluation for the remaining metals did not indicate a GOF, which is considered evidence for the presence of multiple populations or concentrations that were above ambient conditions on the Site.

In addition to determining the types of distribution for each metal (Criterion 1), ambient versus non-ambient breakpoints were developed by evaluating the Q-Q plots (Criterion 2) in **Figures B-1** through **B-14** to determine if multiple distributions are present. These plots are constructed by plotting the sorted data against the quantiles of the best-fitting normal or lognormal distribution for the data with large data points being detected values and small data points being non-detected values. In these plots, data points should fall approximately along a diagonal line if the distribution assumption is accurate (small deviations are to be expected and are not significant). Significant breaks or bends in the plots indicate departures from the assumed distribution and suggest multiple populations or outliers.

The Q-Q plots for seven metals (cadmium, total chromium, copper, lead, nickel, vanadium, and zinc) indicated the presence of one or more inflection points (breaks or bends), which suggest the possibility of non-background sources. The second portion of the curve with a change in slope represented a relatively smaller portion of the total number of samples. The population nearest the origin was taken as the background population and the second portion of the curve with a change in slope was thought to represent metals above local background (see **Figures B-1** through **B-14**). The other metals (barium, cobalt, mercury) exhibited a single distribution with no significant inflection points.

The inflection points (breaks in slope on the Q-Q plot) are identified on the Q-Q plots and are also listed in **Table B-1**. These inflection points may potentially be considered preliminary background concentrations for the Site. For arsenic, the regional background value of 12 was applied instead of identifying an inflection point (Cal-EPA 2008). Additionally, an inflection point could not be identified for beryllium due to elevated detection limits, and was therefore carried through as a COPC.

Criterion 3 mentioned above involves the comparison suggested by the Cal-EPA (1997) of the coefficient of variation (CV) of the data with the values typically displayed by ambient distributions of metals. Cal-EPA (1997) states that metals data drawn from just one population typically display a CV of no more than 1. Therefore, if the CV was greater than 1, the data were considered to be from multiple populations, whereas a CV less than 1 implies that the underlying distribution had low skewness and the concentrations may be within background.

The CV was equal to or greater than 1 for cadmium, copper, lead, and zinc, which indicates the relatively high skewness of their datasets and therefore the potential presence of more than one population.

The summary statistics are presented in **Table B-1**.

B.4 CONCLUSIONS

Based on the results of this evaluation, concentrations of barium, cobalt, mercury, molybdenum, and nickel in soils were considered to be within background levels for the Site. For arsenic, beryllium and molybdenum, too few samples had detectable concentrations to perform robust statistical analysis. For arsenic the maximum concentration in soil was compared to the regional background level of 12 mg/kg and was determined to be within background. For molybdenum, the maximum concentration was compared to the range in Bradford et al. (1996) for California soils (0.1 to 9.6 mg/kg) and determined to be within background. Beryllium was carried forward as a COPC due to elevated detection limits in the data set. For cadmium, copper, total chromium, copper, lead, nickel vanadium and zinc, more than one population could be distinguished (an ambient and a potentially Site-impacted population). Additionally, the plots for total chromium, copper, lead, and zinc did not indicate a GOF. The CVs for cadmium, copper, lead and zinc were greater than 1. Hexavalent chromium was included in the background evaluation, however as hexavalent chromium is not naturally occurring and is a known regional contaminant of concern, it was carried forward as a COPC. Therefore, beryllium, cadmium, total chromium, hexavalent chromium, copper, lead, and zinc are considered above background for the Site.

B.5 REFERENCES

G.R. Bradford, A.C. Chang, A.L. Page, D. Bakhtar, J.A. Frampton, and H. Wright. 1996. Background Concentrations of Trace and Major Elements in California Soils. Kearney Foundation of Soil Science, University of California. March.

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Cal-EPA, 1997. Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities. Final Policy. Human and Ecological Risk Division. DTSC. February.

Cal-EPA 2008. Determination of a Southern California Regional Background Arsenic Concentration in Soil. March.

United States Environmental Protection Agency (USEPA), 2015. ProUCL Version 5.1 Technical Guide Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations. EPA/600/R-07/041. October.

Attachments

Table B-1: Summary of Background Metal Concentrations in Soil

Figures B-1 through **B-14**: Q-Q Plots of Metals

Attachment B-1: 95UCL Concentrations for Metals

Table B-1
Background Metals Summary Statistics
777 North Front Street
Burbank, CA

Metal	Summary Statistics												Inflection Point[4] (mg/kg)	Within Background?	Selected Background Level[5] (mg/kg)	Selected as a COPC[6]?
	n [1]	Number of Detects	Number of NDs	% NDs	Minimum of Detects	Maximum of Detects	Average of Detects	Standard Deviation [2]	Skewness [2]	CV [2]	Distribution	95% UCL				
As	110	4	106	96%	2.3	6.83	4.44	2.426	0.0512	0.546	Lognormal	0.797	None	Yes	12 [7]	No
Ba	110	110	0	0%	34.5	287	165.7	53.81	-0.229	0.325	Normal	174.2	None	Yes	287	No
Be	110	1	109	99%	0.387	0.387	0.387	--	--	--	-- [8]	--	--	No	0.387	Yes [9]
Cd	110	4	106	96%	0.8	6.1	2.325	2.524	1.966	1.085	Approx. Lognormal	0.565	0.8	No	0.8	Yes
Cr	110	110	0	0%	5.2	157	27.12	15.77	5.337	0.582	None	29.62	35.7	No	35.7	Yes
Cr(VI)	13	5	8	62%	0.96	2.8	1.452	0.763	2.099	0.526	Lognormal/Approx. Gamma	1.558	None	No	--	Yes [10]
Co	110	110	0	0%	1.1	22.6	14.24	4.446	-0.39	0.312	Normal	14.94	None	Yes	22.6	No
Cu	110	110	0	0%	6.8	6740	123.8	667.2	9.315	5.389	None	401.1	64.4	No	64.4	Yes
Pb	110	108	2	2%	0.6	1110	19.09	107.6	9.945	5.633	None	63.06	11.9	No	11.9	Yes
Hg	110	32	78	71%	0.02	0.13	0.0397	0.0211	2.779	0.531	Lognormal/Approx. Gamma	0.0283	None	Yes	1.3	No
Mo	110	2	108	98%	2.2	2.7	2.45	0.354	--	0.144	-- [8]	0.356	None	Yes	2.7	No
Ni	110	110	0	0%	2.3	47.1	18.46	6.513	0.531	0.353	Normal	19.49	26	Yes	26	No
V	110	110	0	0%	11.3	83.8	55.26	14.18	-0.407	0.257	Approx. Normal	57.5	53.8	Yes	53.8	No
Zn	110	110	0	0%	21.7	6920	317.1	1088	5.159	3.431	None	769.3	359	No	359	Yes

Notes:

-- not applicable

mg/kg milligram per kilogram

ND = non-detect

CV = coefficient of variation

95UCL = 95% upper confidence limit

(1) Excludes duplicates

(2) Calculated based on only detections (i.e., omitting NDs from the dataset)

(3) Distribution of the data and 95 percent upper confidence limit (95UCL) of the average concentration determined using USEPA ProUCL version 5.0.00 software

(4) Cal-EPA, 2009. Arsenic Strategies. Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals for Proposed and Existing School Sites.

(5) Selected background level = inflection point from the Q-Q plots (Figures B-1 through B-18) or the maximum detected value.

(6) A Metal was selected as a COPC based on a weight of evidence approach, including if at least one of the following criteria were met:

a) Coefficient of Variation (CV) > 1

b) If the distribution can not be determined from the Q-Q plots or the Goodness of Fit (GOF) test

c) If an inflection point can be identified in the Q-Q plots (Figures B-1 to B-18)

(7) Regional background of 12 mg/kg applied.

(8) Not enough data to perform Goodness of Fit Test

(9) Be is carried forward as COPC due to elevated NDs

(10) Cr(VI) is carried forward as COPC due to known impacts in region and lack of natural sources.

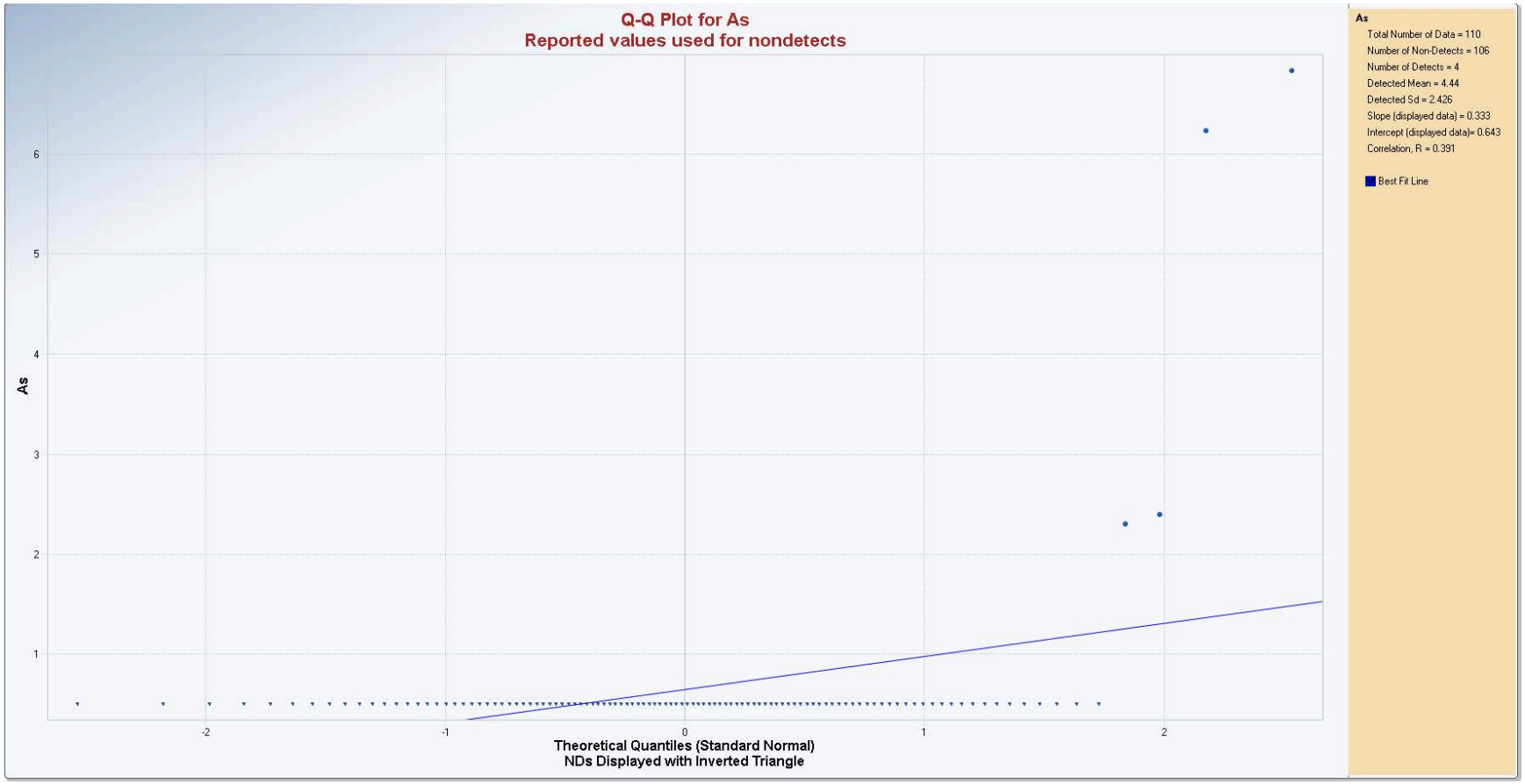

Figure B-1: Arsenic

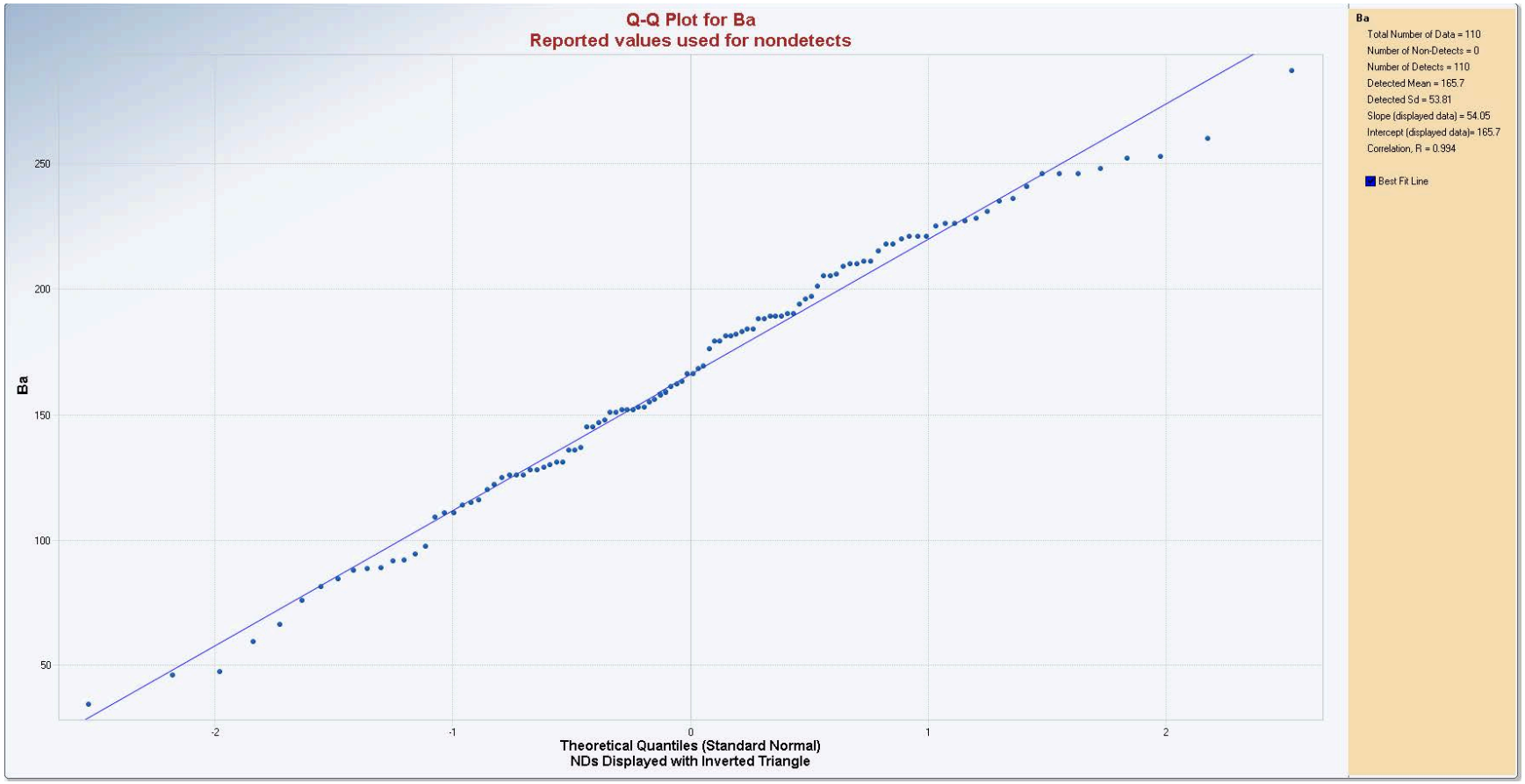

Figure B-2: Barium

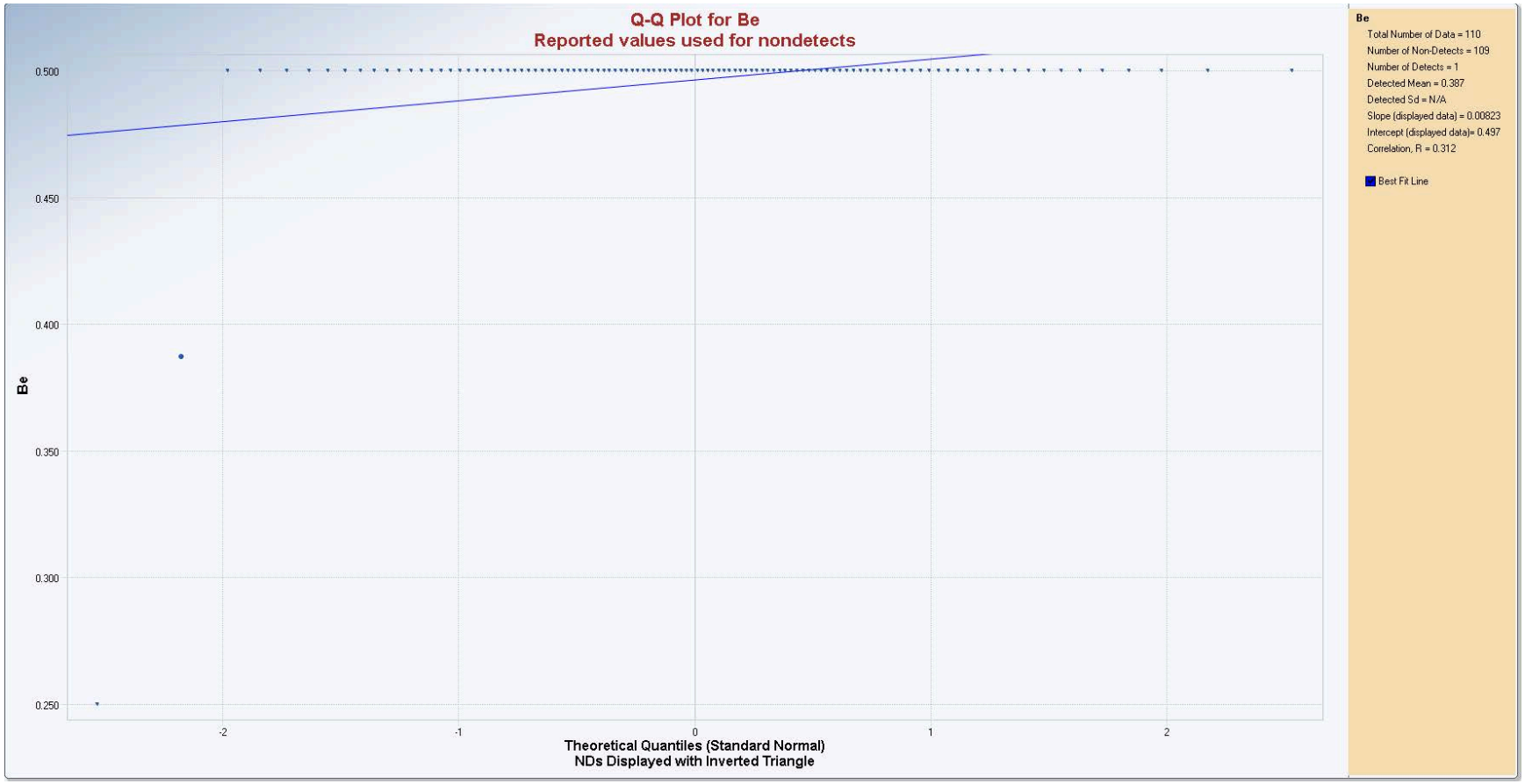

Figure B-3: Beryllium

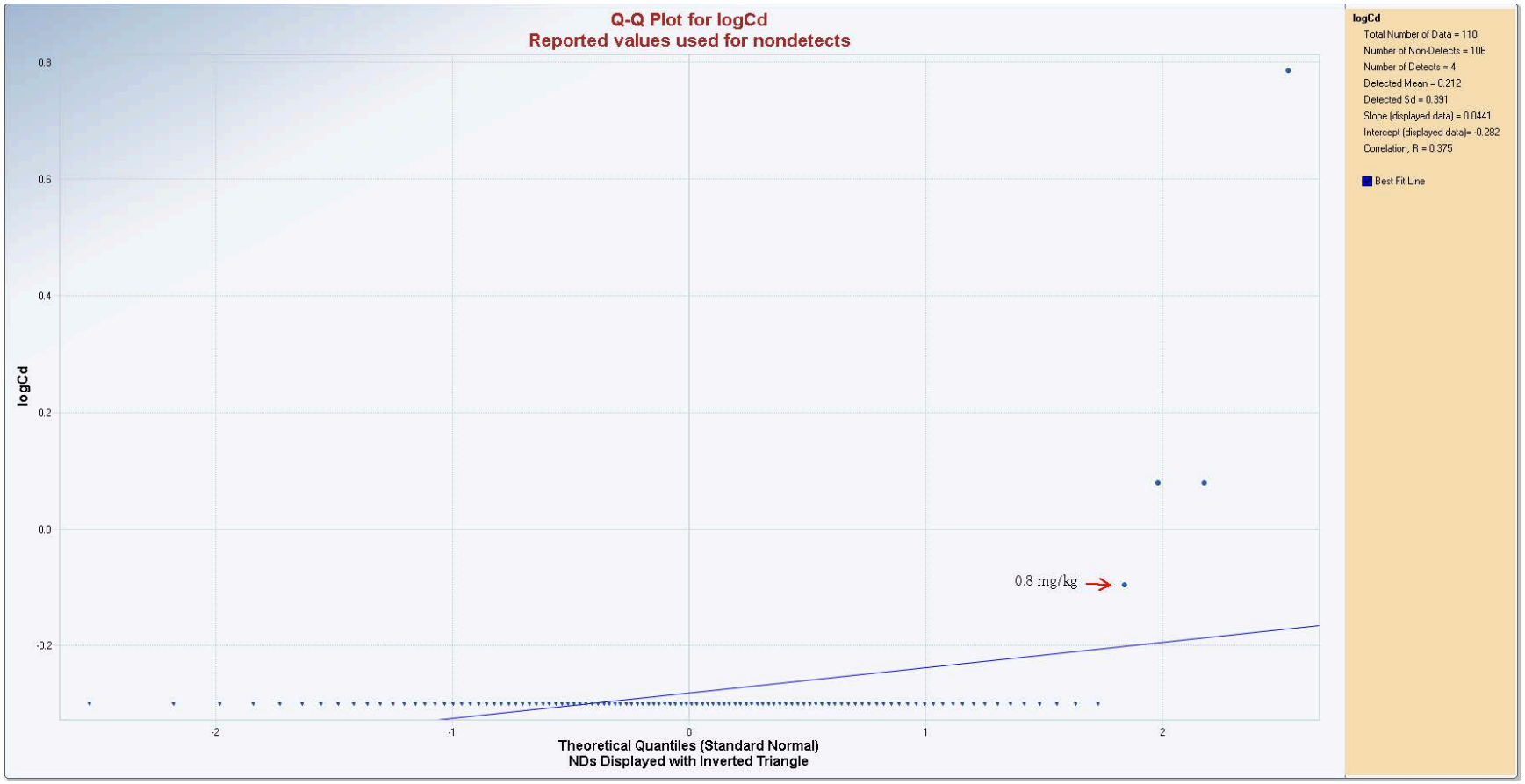

Figure B-4: Cadmium

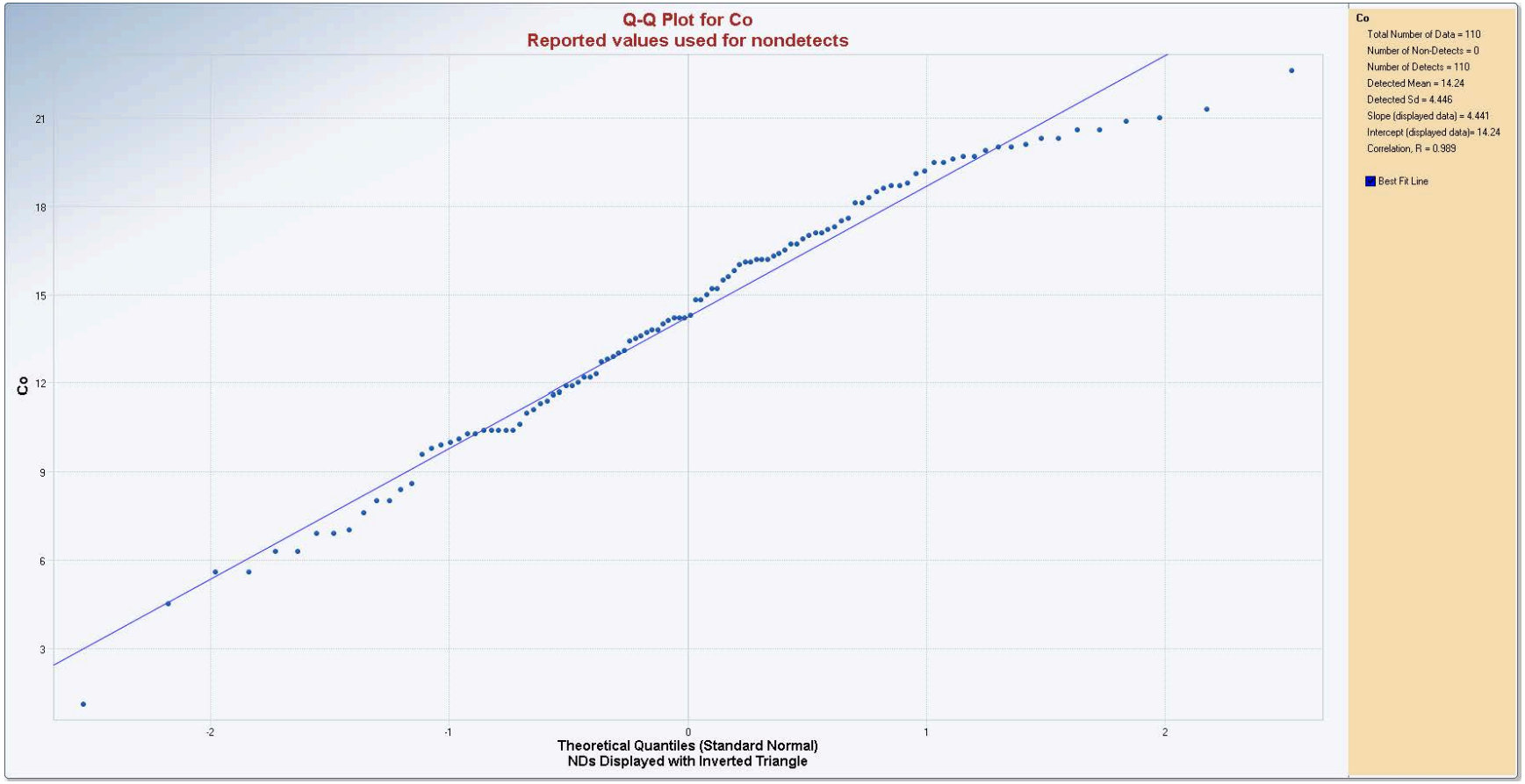

Figure B-5: Cobalt

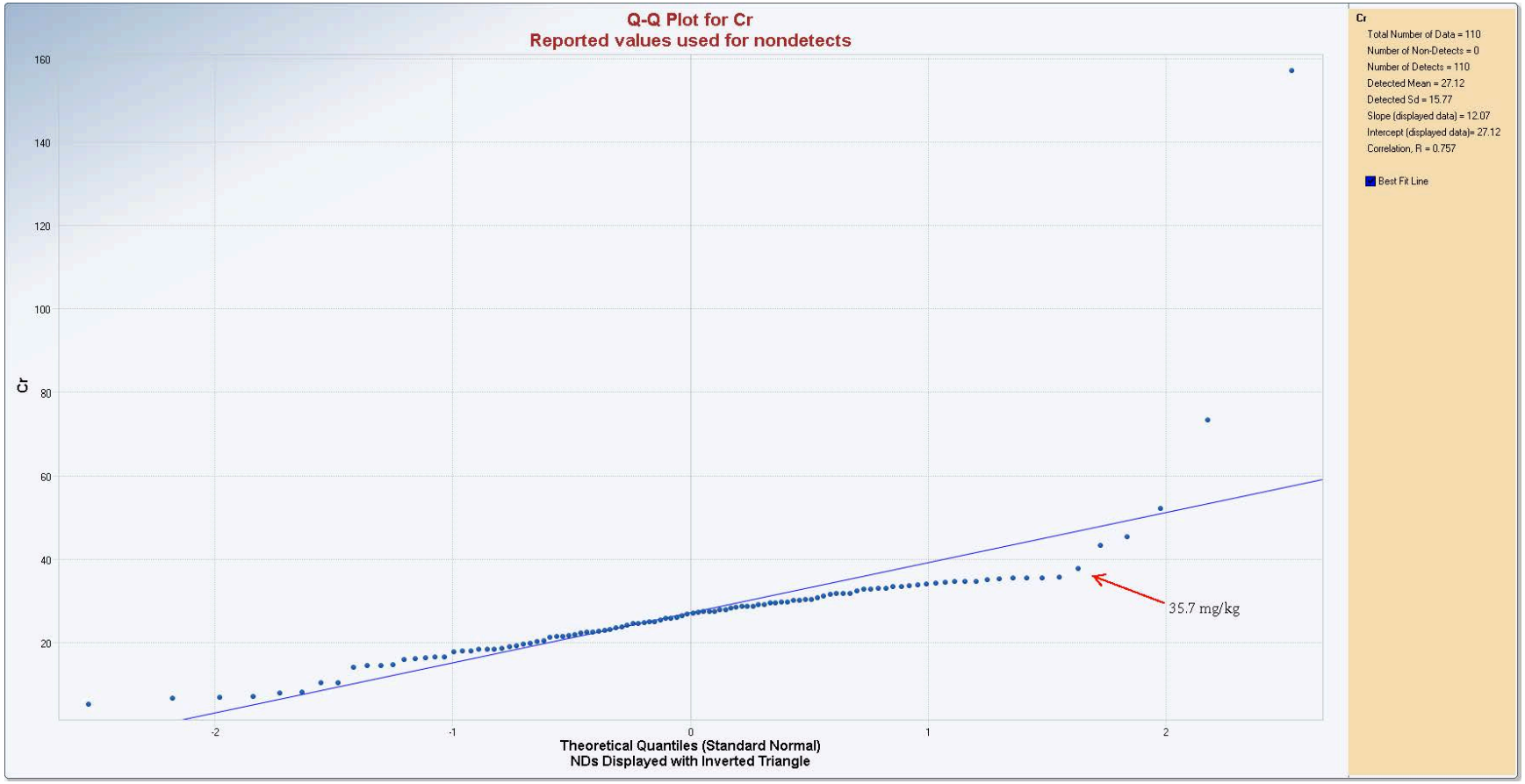

Figure B-6: Chromium

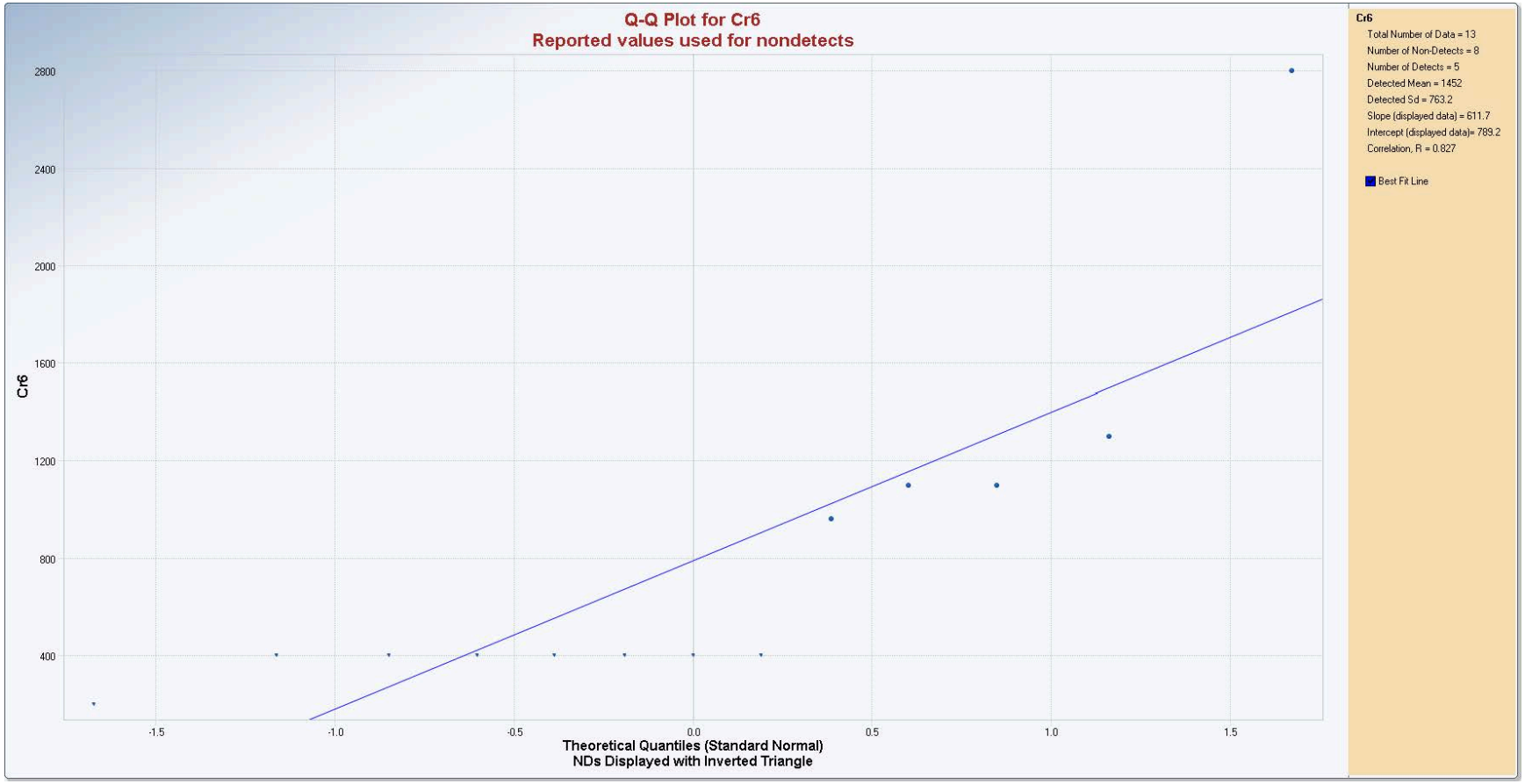

Figure B-7: Hexavalent Chromium

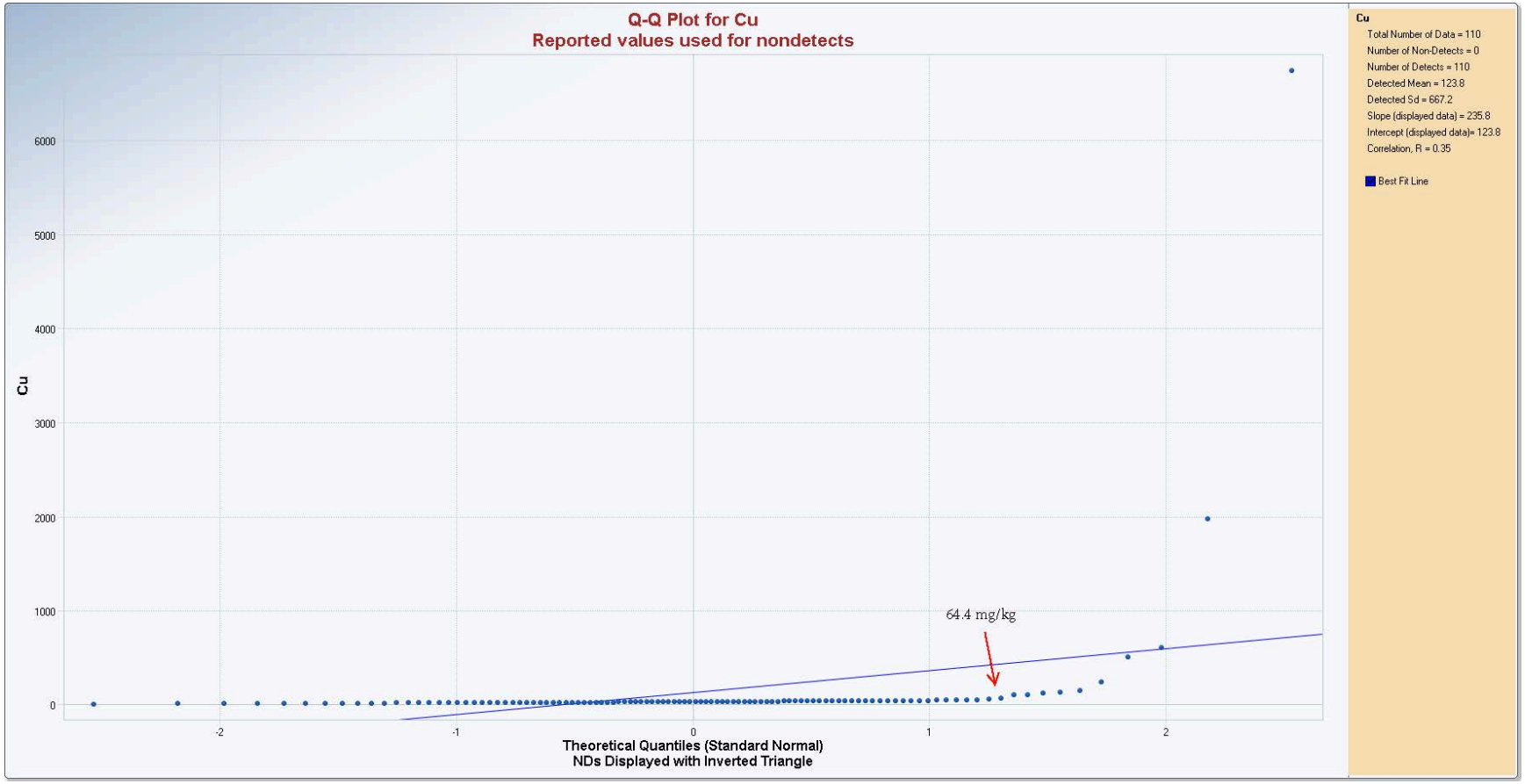

Figure B-8: Copper

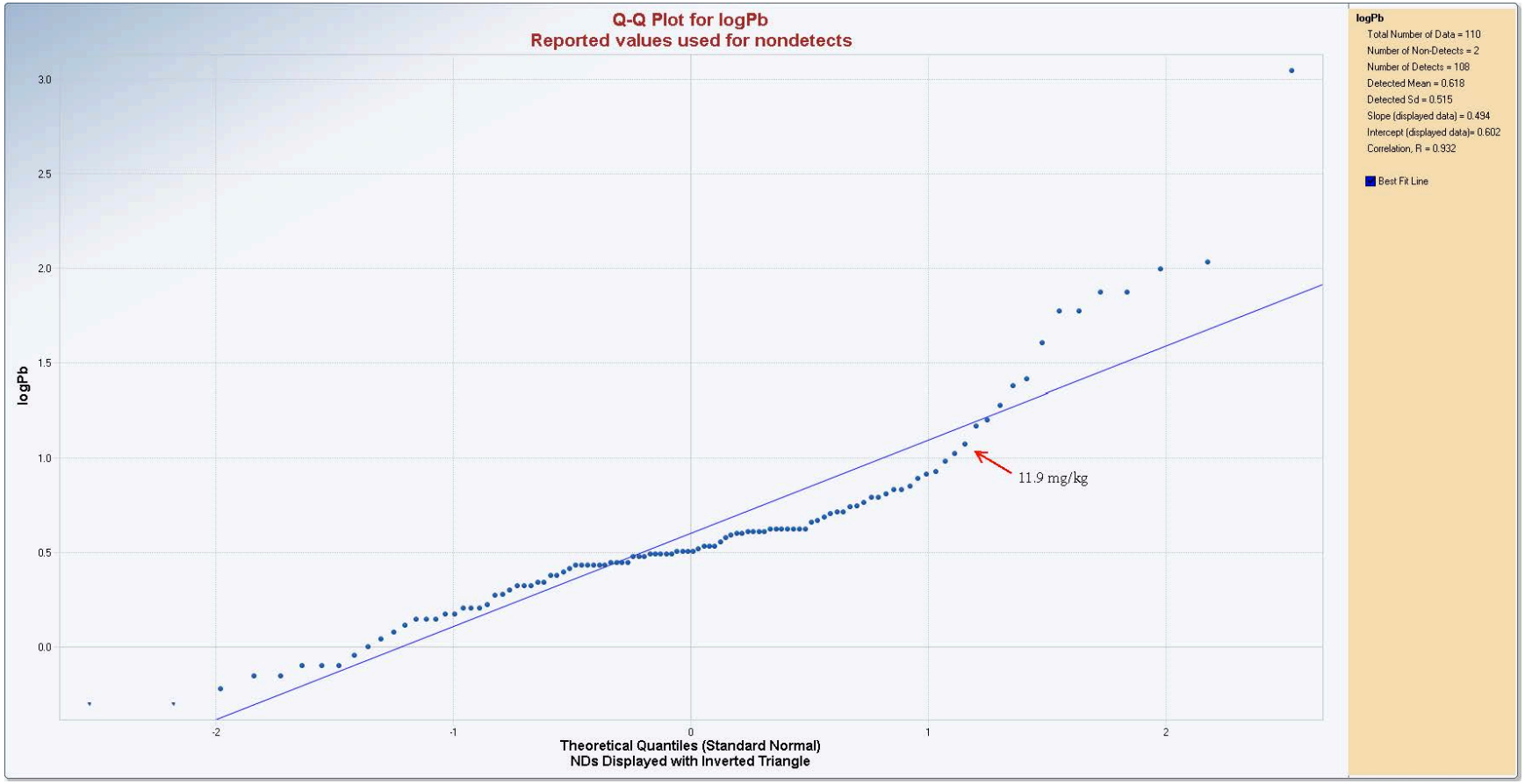

Figure B-9: Lead

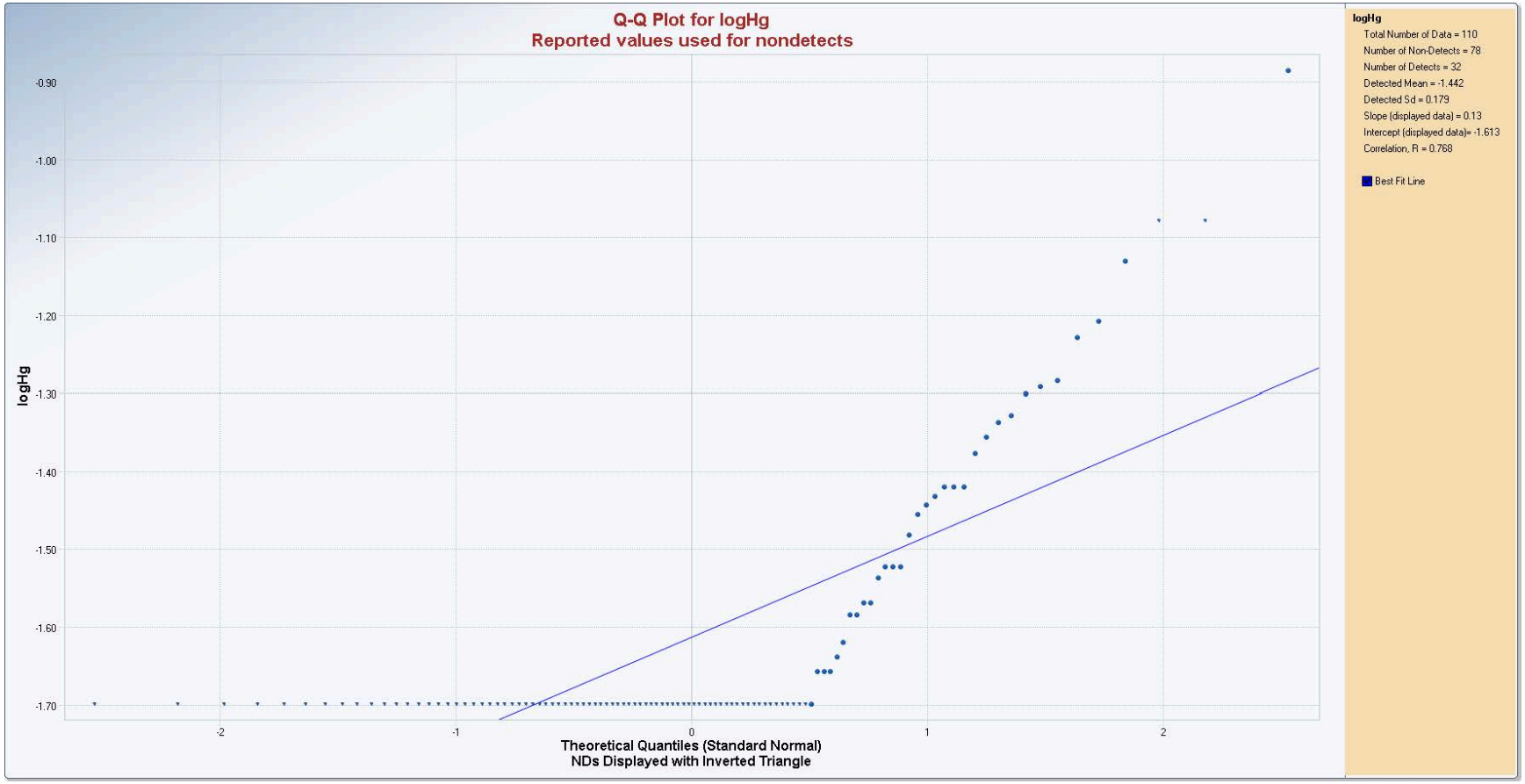

Figure B-10: Mercury

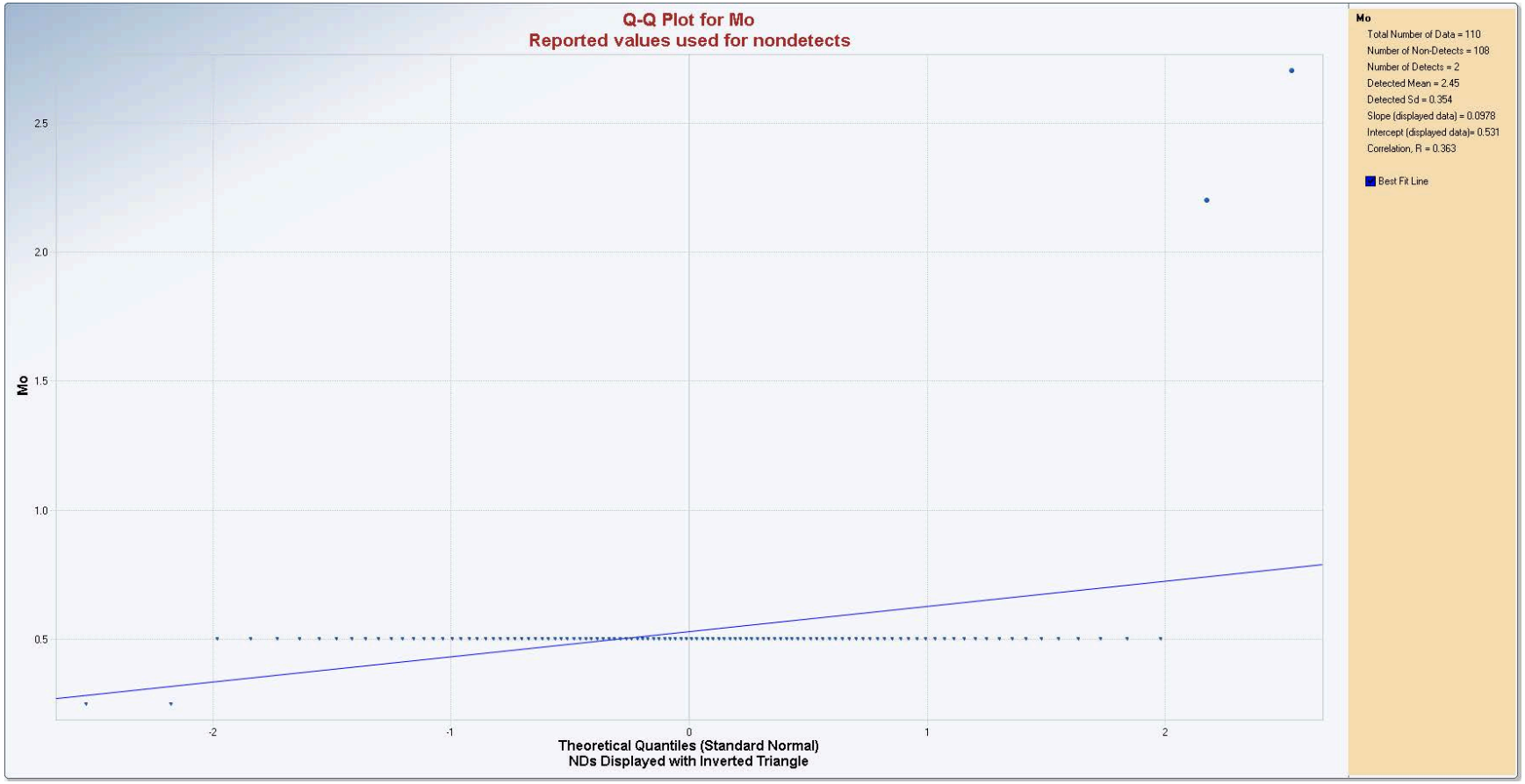

Figure B-11: Molybdenum

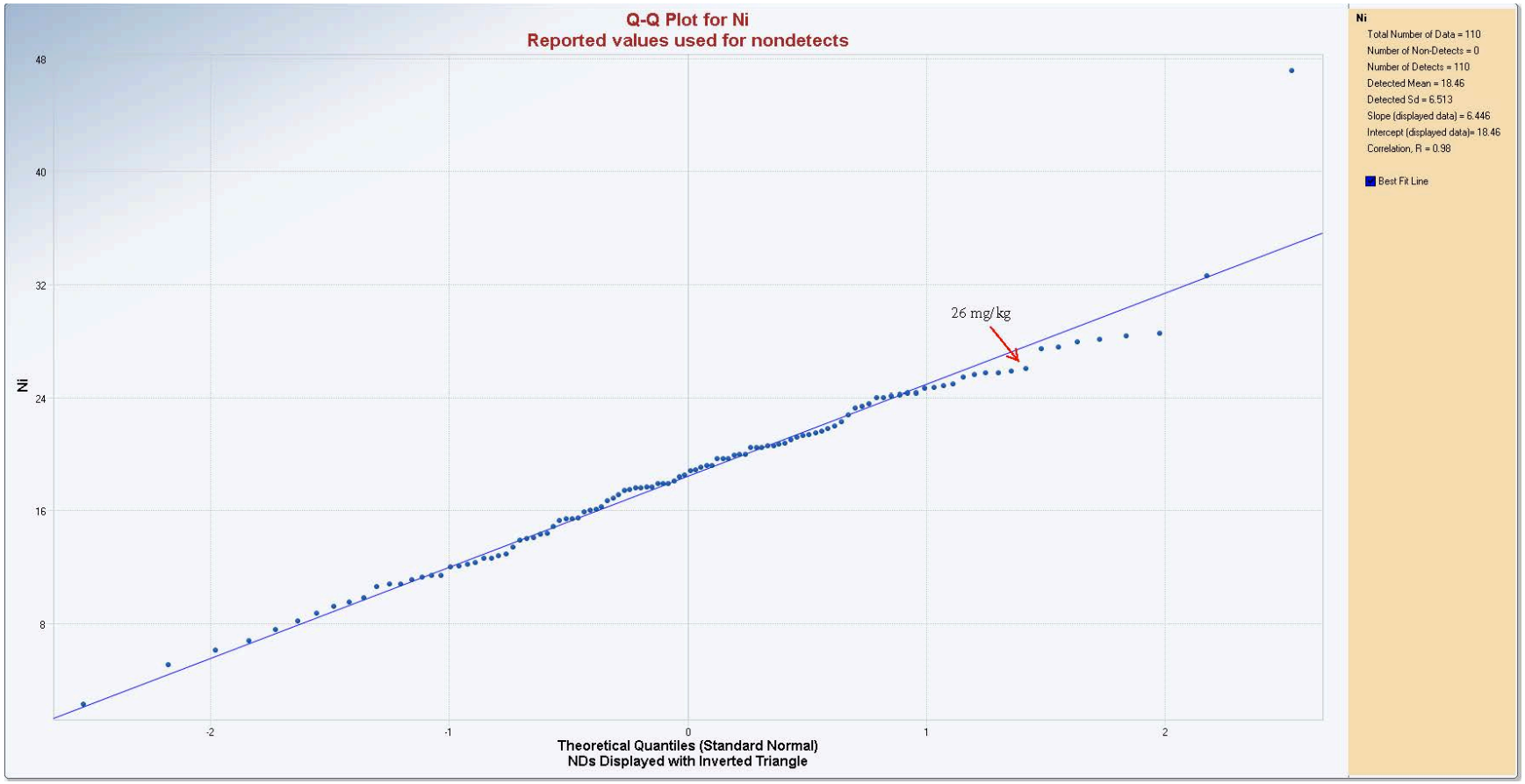

Figure B-12: Nickel

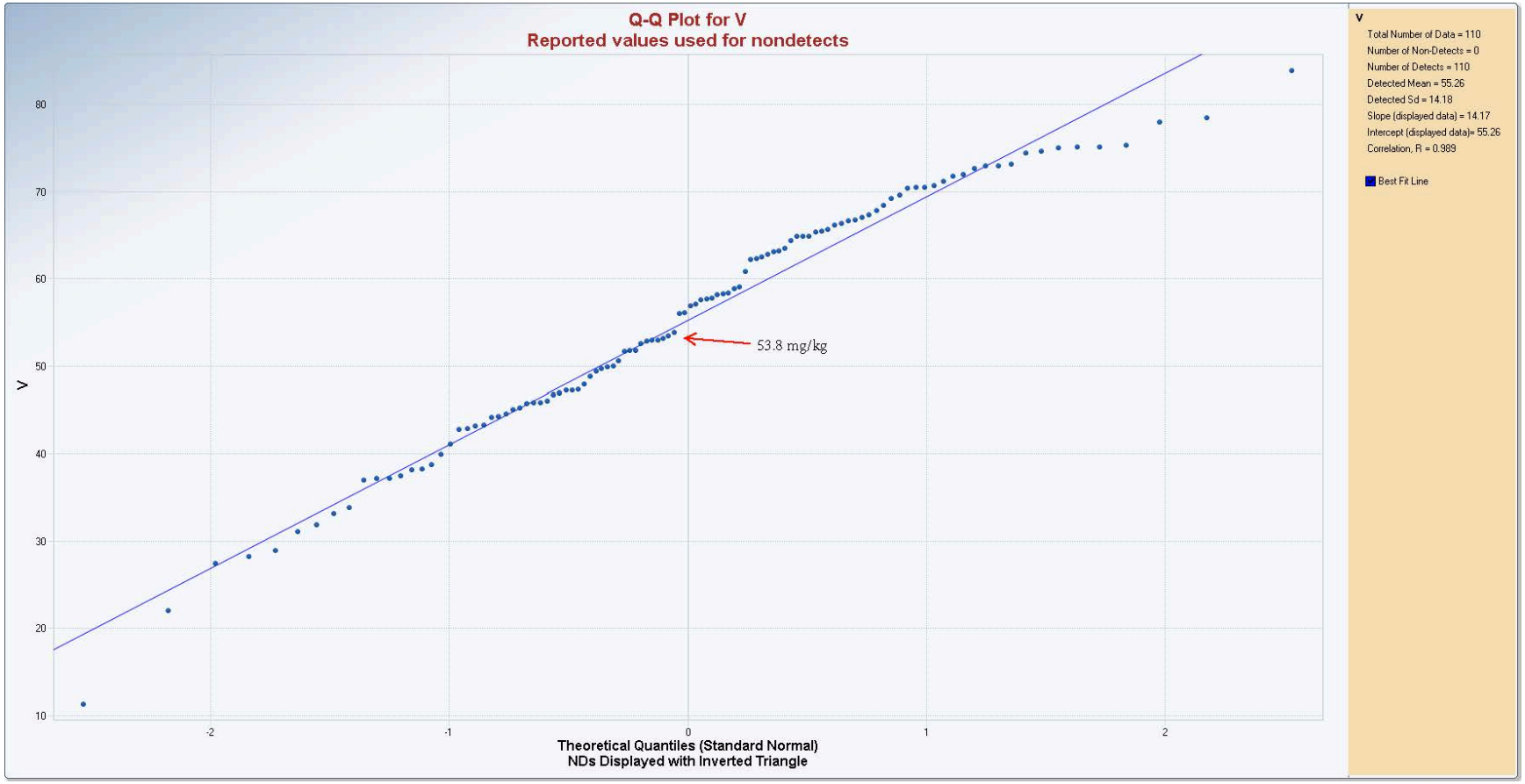

Figure B-13: Vanadium

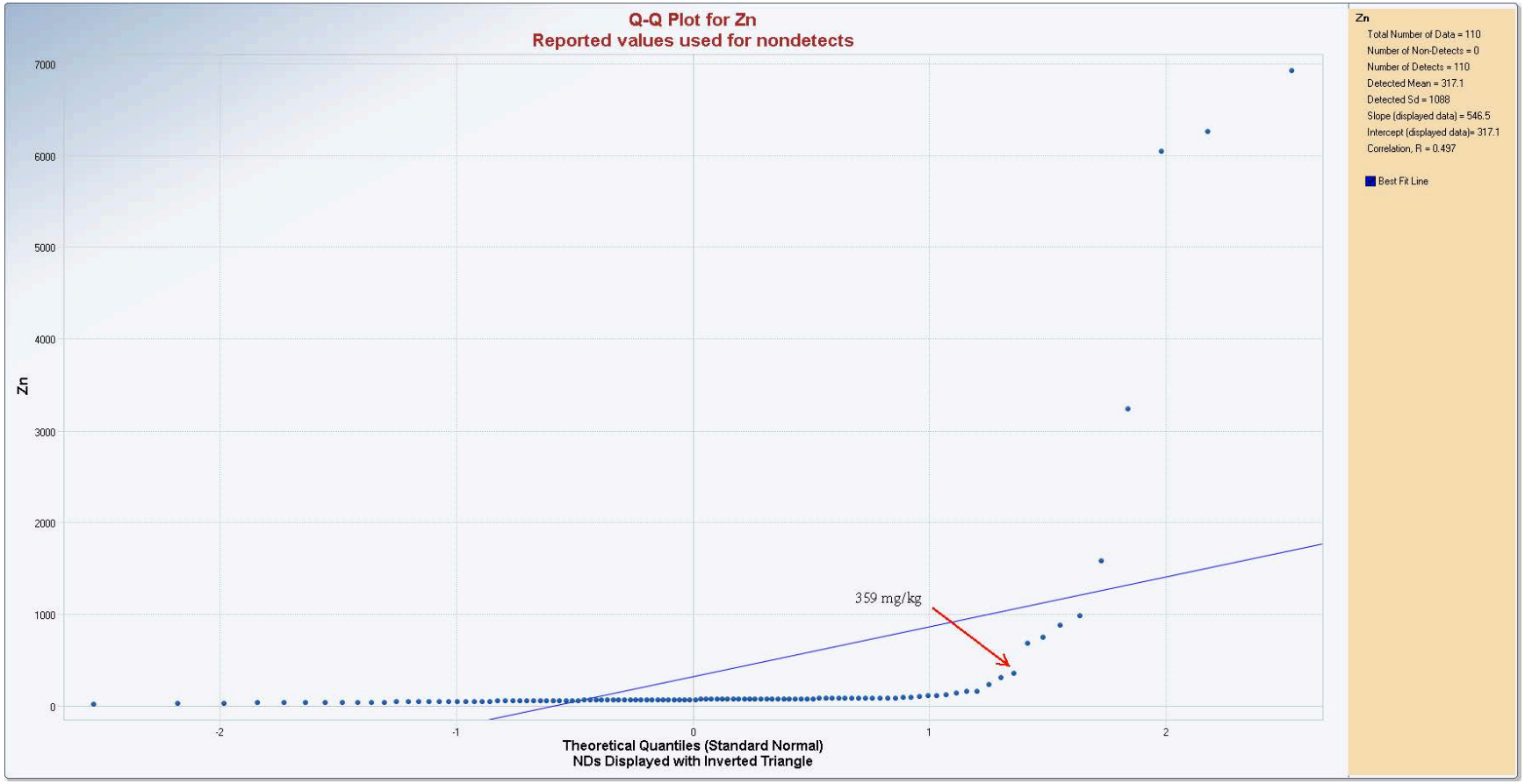

Figure B-14: Zinc

Attachment B-1: 95UCL Concentrations for Metals

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.112/15/2016 1:44:01 PM
From File	Bkg Metals Evaluation Data_c.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	110	Number of Distinct Observations	5
Number of Detects	4	Number of Non-Detects	106
Number of Distinct Detects	4	Number of Distinct Non-Detects	1
Minimum Detect	2.3	Minimum Non-Detect	0.5
Maximum Detect	6.83	Maximum Non-Detect	0.5
Variance Detects	5.886	Percent Non-Detects	96.36%
Mean Detects	4.44	SD Detects	2.426
Median Detects	4.315	CV Detects	0.546
Skewness Detects	0.0512	Kurtosis Detects	-5.688
Mean of Logged Detects	1.365	SD of Logged Detects	0.591

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.799	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.748	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.3	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.375	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.643	KM Standard Error of Mean	0.0924
KM SD	0.839	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.797	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.795	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.92	95% KM Chebyshev UCL	1.046
97.5% KM Chebyshev UCL	1.22	99% KM Chebyshev UCL	1.563

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.598	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.659	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.332	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.396	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	4.131	k star (bias corrected MLE)	1.199
Theta hat (MLE)	1.075	Theta star (bias corrected MLE)	3.702
nu hat (MLE)	33.05	nu star (bias corrected)	9.596
Mean (detects)	4.44		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.176
Maximum	6.83	Median	0.01
SD	0.926	CV	5.266
k hat (MLE)	0.269	k star (bias corrected MLE)	0.267
Theta hat (MLE)	0.654	Theta star (bias corrected MLE)	0.658
nu hat (MLE)	59.1	nu star (bias corrected)	58.82
Adjusted Level of Significance (β)	0.0478		
Approximate Chi Square Value (58.82, α)	42.19	Adjusted Chi Square Value (58.82, β)	42
95% Gamma Approximate UCL (use when n>=50)	0.245	95% Gamma Adjusted UCL (use when n<50)	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.643	SD (KM)	0.839
Variance (KM)	0.704	SE of Mean (KM)	0.0924
k hat (KM)	0.587	k star (KM)	0.577
nu hat (KM)	129.2	nu star (KM)	127
theta hat (KM)	1.095	theta star (KM)	1.114
80% gamma percentile (KM)	1.06	90% gamma percentile (KM)	1.687
95% gamma percentile (KM)	2.347	99% gamma percentile (KM)	3.947

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (127.03, α)	102	Adjusted Chi Square Value (127.03, β)	101.7
95% Gamma Approximate KM-UCL (use when n>=50)	0.801	95% Gamma Adjusted KM-UCL (use when n<50)	0.803

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.787	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.748	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.296	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.375	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.287	Mean in Log Scale	-3.414
SD in Original Scale	0.937	SD in Log Scale	2.185
95% t UCL (assumes normality of ROS data)	0.435	95% Percentile Bootstrap UCL	0.442
95% BCA Bootstrap UCL	0.5	95% Bootstrap t UCL	0.613
95% H-UCL (Log ROS)	0.751		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.618	KM Geo Mean	0.539
KM SD (logged)	0.397	95% Critical H Value (KM-Log)	1.779
KM Standard Error of Mean (logged)	0.0438	95% H-UCL (KM -Log)	0.624
KM SD (logged)	0.397	95% Critical H Value (KM-Log)	1.779
KM Standard Error of Mean (logged)	0.0438		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.402	Mean in Log Scale	-1.286
SD in Original Scale	0.885	SD in Log Scale	0.527
95% t UCL (Assumes normality)	0.542	95% H-Stat UCL	0.348

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.797

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Beryllium

General Statistics

Total Number of Observations	110	Number of Distinct Observations	3
Number of Detects	1	Number of Non-Detects	109
Number of Distinct Detects	1	Number of Distinct Non-Detects	2

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Be was not processed!

Cadmium

General Statistics

Total Number of Observations	110	Number of Distinct Observations	4
Number of Detects	4	Number of Non-Detects	106
Number of Distinct Detects	3	Number of Distinct Non-Detects	1
Minimum Detect	0.8	Minimum Non-Detect	0.5
Maximum Detect	6.1	Maximum Non-Detect	0.5
Variance Detects	6.369	Percent Non-Detects	96.36%
Mean Detects	2.325	SD Detects	2.524
Median Detects	1.2	CV Detects	1.085
Skewness Detects	1.966	Kurtosis Detects	3.895
Mean of Logged Detects	0.487	SD of Logged Detects	0.901

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.694	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.748	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.422	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.375	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.566	KM Standard Error of Mean	0.0593
KM SD	0.539	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.665	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.664	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.744	95% KM Chebyshev UCL	0.825
97.5% KM Chebyshev UCL	0.937	99% KM Chebyshev UCL	1.157

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.683	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.662	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.427	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.399	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.549	k star (bias corrected MLE)	0.554
Theta hat (MLE)	1.501	Theta star (bias corrected MLE)	4.197
nu hat (MLE)	12.39	nu star (bias corrected)	4.431
Mean (detects)	2.325		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.0942
Maximum	6.1	Median	0.01
SD	0.604	CV	6.413
k hat (MLE)	0.33	k star (bias corrected MLE)	0.327
Theta hat (MLE)	0.285	Theta star (bias corrected MLE)	0.288
nu hat (MLE)	72.6	nu star (bias corrected)	71.95
Adjusted Level of Significance (β)	0.0478		
Approximate Chi Square Value (71.95, α)	53.42	Adjusted Chi Square Value (71.95, β)	53.21
95% Gamma Approximate UCL (use when n>=50)	0.127	95% Gamma Adjusted UCL (use when n<50)	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.566	SD (KM)	0.539
Variance (KM)	0.29	SE of Mean (KM)	0.0593
k hat (KM)	1.105	k star (KM)	1.08
nu hat (KM)	243	nu star (KM)	237.7
theta hat (KM)	0.513	theta star (KM)	0.524
80% gamma percentile (KM)	0.906	90% gamma percentile (KM)	1.279
95% gamma percentile (KM)	1.651	99% gamma percentile (KM)	2.509

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (237.70, α)	203	Adjusted Chi Square Value (237.70, β)	202.6
95% Gamma Approximate KM-UCL (use when n>=50)	0.663	95% Gamma Adjusted KM-UCL (use when n<50)	0.665

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.8	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.748	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.383	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.375	Detected Data Not Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.101	Mean in Log Scale	-7.075
SD in Original Scale	0.605	SD in Log Scale	3.457
95% t UCL (assumes normality of ROS data)	0.196	95% Percentile Bootstrap UCL	0.204
95% BCA Bootstrap UCL	0.279	95% Bootstrap t UCL	0.476

95% H-UCL (Log ROS)	1.869

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.65	KM Geo Mean	0.522
KM SD (logged)	0.266	95% Critical H Value (KM-Log)	1.722
KM Standard Error of Mean (logged)	0.0293	95% H-UCL (KM -Log)	0.565
KM SD (logged)	0.266	95% Critical H Value (KM-Log)	1.722
KM Standard Error of Mean (logged)	0.0293		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.325	Mean in Log Scale	-1.318
SD in Original Scale	0.572	SD in Log Scale	0.383
95% t UCL (Assumes normality)	0.416	95% H-Stat UCL	0.307

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL	0.565

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead

General Statistics

Total Number of Observations	110	Number of Distinct Observations	65
Number of Detects	108	Number of Non-Detects	2
Number of Distinct Detects	64	Number of Distinct Non-Detects	1
Minimum Detect	0.6	Minimum Non-Detect	0.5
Maximum Detect	1110	Maximum Non-Detect	0.5
Variance Detects	11569	Percent Non-Detects	1.818%
Mean Detects	19.09	SD Detects	107.6
Median Detects	3.25	CV Detects	5.633
Skewness Detects	9.945	Kurtosis Detects	101.5
Mean of Logged Detects	1.424	SD of Logged Detects	1.186

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.165	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.432	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0855	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	18.76	KM Standard Error of Mean	10.16
KM SD	106.1	95% KM (BCA) UCL	39.84
95% KM (t) UCL	35.62	95% KM (Percentile Bootstrap) UCL	38.46
95% KM (z) UCL	35.48	95% KM Bootstrap t UCL	110.4
90% KM Chebyshev UCL	49.25	95% KM Chebyshev UCL	63.06

97.5% KM Chebyshev UCL	82.23	99% KM Chebyshev UCL	119.9

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	17.36	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.837	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.333	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.0933	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.427	k star (bias corrected MLE)	0.421
Theta hat (MLE)	44.73	Theta star (bias corrected MLE)	45.33
nu hat (MLE)	92.21	nu star (bias corrected)	90.99
Mean (detects)	19.09		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	18.75
Maximum	1110	Median	3.2
SD	106.6	CV	5.686
k hat (MLE)	0.406	k star (bias corrected MLE)	0.401
Theta hat (MLE)	46.17	Theta star (bias corrected MLE)	46.75
nu hat (MLE)	89.33	nu star (bias corrected)	88.23
Adjusted Level of Significance (β)	0.0478		
Approximate Chi Square Value (88.23, α)	67.57	Adjusted Chi Square Value (88.23, β)	67.34
95% Gamma Approximate UCL (use when n>=50)	24.48	95% Gamma Adjusted UCL (use when n<50)	24.56

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	18.76	SD (KM)	106.1
Variance (KM)	11260	SE of Mean (KM)	10.16
k hat (KM)	0.0312	k star (KM)	0.0365
nu hat (KM)	6.873	nu star (KM)	8.019
theta hat (KM)	600.3	theta star (KM)	514.5
80% gamma percentile (KM)	0.654	90% gamma percentile (KM)	17.06
95% gamma percentile (KM)	84.91	99% gamma percentile (KM)	457.2

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (8.02, α)	2.746	Adjusted Chi Square Value (8.02, β)	2.705
95% Gamma Approximate KM-UCL (use when n>=50)	54.77	95% Gamma Adjusted KM-UCL (use when n<50)	55.59

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.866	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	2.298E-14	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.181	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0855	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	18.75	Mean in Log Scale	1.372
SD in Original Scale	106.6	SD in Log Scale	1.237

95% t UCL (assumes normality of ROS data)	35.61	95% Percentile Bootstrap UCL	38.41
95% BCA Bootstrap UCL	49.76	95% Bootstrap t UCL	105.2
95% H-UCL (Log ROS)	11.31		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.386	KM Geo Mean	3.997
KM SD (logged)	1.203	95% Critical H Value (KM-Log)	2.41
KM Standard Error of Mean (logged)	0.115	95% H-UCL (KM -Log)	10.88
KM SD (logged)	1.203	95% Critical H Value (KM-Log)	2.41
KM Standard Error of Mean (logged)	0.115		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	18.75	Mean in Log Scale	1.373
SD in Original Scale	106.6	SD in Log Scale	1.234
95% t UCL (Assumes normality)	35.61	95% H-Stat UCL	11.28

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	63.06

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Mercury

General Statistics

Total Number of Observations	110	Number of Distinct Observations	25
Number of Detects	32	Number of Non-Detects	78
Number of Distinct Detects	24	Number of Distinct Non-Detects	2
Minimum Detect	0.02	Minimum Non-Detect	0.02
Maximum Detect	0.13	Maximum Non-Detect	0.0835
Variance Detects	4.4345E-4	Percent Non-Detects	70.91%
Mean Detects	0.0397	SD Detects	0.0211
Median Detects	0.0355	CV Detects	0.531
Skewness Detects	2.779	Kurtosis Detects	10.45
Mean of Logged Detects	-3.32	SD of Logged Detects	0.411

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.74	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.93	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.188	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.154	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0258	KM Standard Error of Mean	0.0014
KM SD	0.0144	95% KM (BCA) UCL	0.0283
95% KM (t) UCL	0.0281	95% KM (Percentile Bootstrap) UCL	0.0283

95% KM (z) UCL	0.0281	95% KM Bootstrap t UCL	0.0293
90% KM Chebyshev UCL	0.03	95% KM Chebyshev UCL	0.0319
97.5% KM Chebyshev UCL	0.0345	99% KM Chebyshev UCL	0.0397

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.771	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.748	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.139	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.156	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	5.493	k star (bias corrected MLE)	4.999
Theta hat (MLE)	0.00723	Theta star (bias corrected MLE)	0.00794
nu hat (MLE)	351.5	nu star (bias corrected)	319.9
Mean (detects)	0.0397		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.0188
Maximum	0.13	Median	0.01
SD	0.0175	CV	0.929
k hat (MLE)	2.218	k star (bias corrected MLE)	2.163
Theta hat (MLE)	0.0085	Theta star (bias corrected MLE)	0.00871
nu hat (MLE)	487.9	nu star (bias corrected)	475.9
Adjusted Level of Significance (β)	0.0478		
Approximate Chi Square Value (475.92, α)	426.3	Adjusted Chi Square Value (475.92, β)	425.7
95% Gamma Approximate UCL (use when n>=50)	0.021	95% Gamma Adjusted UCL (use when n<50)	0.0211

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.0258	SD (KM)	0.0144
Variance (KM)	2.0629E-4	SE of Mean (KM)	0.0014
k hat (KM)	3.231	k star (KM)	3.149
nu hat (KM)	710.7	nu star (KM)	692.7
theta hat (KM)	0.00799	theta star (KM)	0.0082
80% gamma percentile (KM)	0.0366	90% gamma percentile (KM)	0.0453
95% gamma percentile (KM)	0.0534	99% gamma percentile (KM)	0.071

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (692.68, α)	632.6	Adjusted Chi Square Value (692.68, β)	631.9
95% Gamma Approximate KM-UCL (use when n>=50)	0.0283	95% Gamma Adjusted KM-UCL (use when n<50)	0.0283

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.938	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.93	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.112	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.154	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.0191	Mean in Log Scale	-4.281
SD in Original Scale	0.0179	SD in Log Scale	0.809
95% t UCL (assumes normality of ROS data)	0.022	95% Percentile Bootstrap UCL	0.022
95% BCA Bootstrap UCL	0.0229	95% Bootstrap t UCL	0.0226
95% H-UCL (Log ROS)	0.0225		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.737	KM Geo Mean	0.0238
KM SD (logged)	0.348	95% Critical H Value (KM-Log)	1.756
KM Standard Error of Mean (logged)	0.034	95% H-UCL (KM -Log)	0.0268
KM SD (logged)	0.348	95% Critical H Value (KM-Log)	1.756
KM Standard Error of Mean (logged)	0.034		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.0192	Mean in Log Scale	-4.205
SD in Original Scale	0.0178	SD in Log Scale	0.639
95% t UCL (Assumes normality)	0.022	95% H-Stat UCL	0.0206

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	0.0283	95% GROS Approximate Gamma UCL	0.021

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Molybdenum

General Statistics

Total Number of Observations	110	Number of Distinct Observations	4
Number of Detects	2	Number of Non-Detects	108
Number of Distinct Detects	2	Number of Distinct Non-Detects	2
Minimum Detect	2.2	Minimum Non-Detect	0.25
Maximum Detect	2.7	Maximum Non-Detect	0.5
Variance Detects	0.125	Percent Non-Detects	98.18%
Mean Detects	2.45	SD Detects	0.354
Median Detects	2.45	CV Detects	0.144
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	0.891	SD of Logged Detects	0.145

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.29	KM Standard Error of Mean	0.0399
KM SD	0.296	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.356	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.356	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.41	95% KM Chebyshev UCL	0.464
97.5% KM Chebyshev UCL	0.539	99% KM Chebyshev UCL	0.687

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	95.71	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.0256	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	382.8	nu star (bias corrected)	N/A
Mean (detects)	2.45		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.29	SD (KM)	0.296
Variance (KM)	0.0875	SE of Mean (KM)	0.0399
k hat (KM)	0.961	k star (KM)	0.941
nu hat (KM)	211.4	nu star (KM)	206.9
theta hat (KM)	0.302	theta star (KM)	0.308
80% gamma percentile (KM)	0.469	90% gamma percentile (KM)	0.678
95% gamma percentile (KM)	0.888	99% gamma percentile (KM)	1.378

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0478
Approximate Chi Square Value (206.93, α)	174.6	Adjusted Chi Square Value (206.93, β)	174.3
95% Gamma Approximate KM-UCL (use when n>=50)	0.344	95% Gamma Adjusted KM-UCL (use when n<50)	0.344

Lognormal GOF Test on Detected Observations Only

Not Enough Data to Perform GOF Test

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.487	Mean in Log Scale	-1.017
SD in Original Scale	0.427	SD in Log Scale	0.776
95% t UCL (assumes normality of ROS data)	0.555	95% Percentile Bootstrap UCL	0.556
95% BCA Bootstrap UCL	0.56	95% Bootstrap t UCL	0.569
95% H-UCL (Log ROS)	0.568		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.345	KM Geo Mean	0.261
KM SD (logged)	0.305	95% Critical H Value (KM-Log)	1.738
KM Standard Error of Mean (logged)	0.0411	95% H-UCL (KM -Log)	0.287
KM SD (logged)	0.305	95% Critical H Value (KM-Log)	1.738
KM Standard Error of Mean (logged)	0.0411		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.288	Mean in Log Scale	-1.357
SD in Original Scale	0.298	SD in Log Scale	0.321
95% t UCL (Assumes normality)	0.335	95% H-Stat UCL	0.286

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.356	KM H-UCL	0.287
95% KM (BCA) UCL	N/A		

Warning: One or more Recommended UCL(s) not available!

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.112/15/2016 1:46:59 PM
From File	Bkg Metals Evaluation Data_c.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Barium

General Statistics

Total Number of Observations	110	Number of Distinct Observations	82
		Number of Missing Observations	0
Minimum	34.5	Mean	165.7
Maximum	287	Median	166
SD	53.81	Std. Error of Mean	5.131
Coefficient of Variation	0.325	Skewness	-0.229

Normal GOF Test

Shapiro Wilk Test Statistic	0.974	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.223	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.0612	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0848	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	174.2	95% Adjusted-CLT UCL (Chen-1995)	174
		95% Modified-t UCL (Johnson-1978)	174.2

Gamma GOF Test

A-D Test Statistic	1.39	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.753	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0955	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.0869	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	7.747	k star (bias corrected MLE)	7.542
Theta hat (MLE)	21.39	Theta star (bias corrected MLE)	21.97
nu hat (MLE)	1704	nu star (bias corrected)	1659
MLE Mean (bias corrected)	165.7	MLE Sd (bias corrected)	60.34
		Approximate Chi Square Value (0.05)	1566
Adjusted Level of Significance	0.0478	Adjusted Chi Square Value	1564

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	175.6	95% Adjusted Gamma UCL (use when n<50)	175.8

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.906	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	3.5234E-9	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.109	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	3.541	Mean of logged Data	5.044
Maximum of Logged Data	5.659	SD of logged Data	0.394

Assuming Lognormal Distribution

95% H-UCL	179.3	90% Chebyshev (MVUE) UCL	187.1
95% Chebyshev (MVUE) UCL	195.9	97.5% Chebyshev (MVUE) UCL	208.2
99% Chebyshev (MVUE) UCL	232.3		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	174.2	95% Jackknife UCL	174.2
95% Standard Bootstrap UCL	174.2	95% Bootstrap-t UCL	174
95% Hall's Bootstrap UCL	174.2	95% Percentile Bootstrap UCL	174
95% BCA Bootstrap UCL	174.1		
90% Chebyshev(Mean, Sd) UCL	181.1	95% Chebyshev(Mean, Sd) UCL	188.1
97.5% Chebyshev(Mean, Sd) UCL	197.8	99% Chebyshev(Mean, Sd) UCL	216.8

Suggested UCL to Use

95% Student's-t UCL	174.2

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

Chromium

General Statistics

Total Number of Observations	110	Number of Distinct Observations	95

		Number of Missing Observations	0
Minimum	5.2	Mean	27.12
Maximum	157	Median	26.8
SD	15.77	Std. Error of Mean	1.504
Coefficient of Variation	0.582	Skewness	5.337

Normal GOF Test

Shapiro Wilk Test Statistic	0.631	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.239	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	29.62	95% Adjusted-CLT UCL (Chen-1995)	30.42
		95% Modified-t UCL (Johnson-1978)	29.75

Gamma GOF Test

A-D Test Statistic	3.07	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.755	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.163	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.087	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	4.794	k star (bias corrected MLE)	4.669
Theta hat (MLE)	5.658	Theta star (bias corrected MLE)	5.809
nu hat (MLE)	1055	nu star (bias corrected)	1027
MLE Mean (bias corrected)	27.12	MLE Sd (bias corrected)	12.55
		Approximate Chi Square Value (0.05)	953.8
Adjusted Level of Significance	0.0478	Adjusted Chi Square Value	952.9

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	29.21	95% Adjusted Gamma UCL (use when n<50)	29.24

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.908	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	7.4415E-9	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.152	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.649	Mean of logged Data	3.193
Maximum of Logged Data	5.056	SD of logged Data	0.468

Assuming Lognormal Distribution

95% H-UCL	29.47	90% Chebyshev (MVUE) UCL	30.95
95% Chebyshev (MVUE) UCL	32.68	97.5% Chebyshev (MVUE) UCL	35.08
99% Chebyshev (MVUE) UCL	39.78		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	29.6	95% Jackknife UCL	29.62
95% Standard Bootstrap UCL	29.64	95% Bootstrap-t UCL	30.9
95% Hall's Bootstrap UCL	42.01	95% Percentile Bootstrap UCL	29.89
95% BCA Bootstrap UCL	30.51		
90% Chebyshev(Mean, Sd) UCL	31.64	95% Chebyshev(Mean, Sd) UCL	33.68
97.5% Chebyshev(Mean, Sd) UCL	36.52	99% Chebyshev(Mean, Sd) UCL	42.09

Suggested UCL to Use

95% Student's-t UCL	29.62	or 95% Modified-t UCL	29.75

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Cobalt

General Statistics

Total Number of Observations	110	Number of Distinct Observations	82
		Number of Missing Observations	0
Minimum	1.1	Mean	14.24
Maximum	22.6	Median	14.25
SD	4.446	Std. Error of Mean	0.424
Coefficient of Variation	0.312	Skewness	-0.39

Normal GOF Test

Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.0502	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.0724	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0848	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	14.94	95% Adjusted-CLT UCL (Chen-1995)	14.92
		95% Modified-t UCL (Johnson-1978)	14.94

Gamma GOF Test

A-D Test Statistic	1.843	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.753	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0914	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.0869	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	7.626	k star (bias corrected MLE)	7.424
Theta hat (MLE)	1.867	Theta star (bias corrected MLE)	1.918
nu hat (MLE)	1678	nu star (bias corrected)	1633
MLE Mean (bias corrected)	14.24	MLE Sd (bias corrected)	5.225
		Approximate Chi Square Value (0.05)	1540
Adjusted Level of Significance	0.0478	Adjusted Chi Square Value	1539

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	15.09	95% Adjusted Gamma UCL (use when n<50)	15.11

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.838	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.121	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	0.0953	Mean of logged Data	2.589
Maximum of Logged Data	3.118	SD of logged Data	0.418

Assuming Lognormal Distribution

95% H-UCL	15.61	90% Chebyshev (MVUE) UCL	16.32
95% Chebyshev (MVUE) UCL	17.13	97.5% Chebyshev (MVUE) UCL	18.27
99% Chebyshev (MVUE) UCL	20.49		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	14.93	95% Jackknife UCL	14.94
95% Standard Bootstrap UCL	14.92	95% Bootstrap-t UCL	14.94
95% Hall's Bootstrap UCL	14.93	95% Percentile Bootstrap UCL	14.91
95% BCA Bootstrap UCL	14.87		
90% Chebyshev(Mean, Sd) UCL	15.51	95% Chebyshev(Mean, Sd) UCL	16.08
97.5% Chebyshev(Mean, Sd) UCL	16.88	99% Chebyshev(Mean, Sd) UCL	18.45

Suggested UCL to Use

95% Student's-t UCL	14.94

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

Copper

General Statistics

Total Number of Observations	110	Number of Distinct Observations	99
		Number of Missing Observations	0
Minimum	6.8	Mean	123.8
Maximum	6740	Median	30.6
SD	667.2	Std. Error of Mean	63.62
Coefficient of Variation	5.389	Skewness	9.315

Normal GOF Test

Shapiro Wilk Test Statistic	0.165	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.445	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	229.3	95% Adjusted-CLT UCL (Chen-1995)	288.8
		95% Modified-t UCL (Johnson-1978)	238.8

Gamma GOF Test

A-D Test Statistic	24.71	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.82	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.419	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.0919	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.496	k star (bias corrected MLE)	0.489
Theta hat (MLE)	249.5	Theta star (bias corrected MLE)	253.3
nu hat (MLE)	109.2	nu star (bias corrected)	107.5
MLE Mean (bias corrected)	123.8	MLE Sd (bias corrected)	177.1
		Approximate Chi Square Value (0.05)	84.59
Adjusted Level of Significance	0.0478	Adjusted Chi Square Value	84.32

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	157.4	95% Adjusted Gamma UCL (use when n<50)	157.9

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.723	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.252	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.917	Mean of logged Data	3.537
Maximum of Logged Data	8.816	SD of logged Data	0.922

Assuming Lognormal Distribution

95% H-UCL	63.54	90% Chebyshev (MVUE) UCL	68.5
95% Chebyshev (MVUE) UCL	75.84	97.5% Chebyshev (MVUE) UCL	86.02
99% Chebyshev (MVUE) UCL	106		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	228.4	95% Jackknife UCL	229.3
95% Standard Bootstrap UCL	226.2	95% Bootstrap-t UCL	991.2
95% Hall's Bootstrap UCL	713.5	95% Percentile Bootstrap UCL	247.4
95% BCA Bootstrap UCL	338.9		
90% Chebyshev(Mean, Sd) UCL	314.6	95% Chebyshev(Mean, Sd) UCL	401.1

97.5% Chebyshev(Mean, Sd) UCL	521.1	99% Chebyshev(Mean, Sd) UCL	756.8

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	401.1

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Nickel

General Statistics

Total Number of Observations	110	Number of Distinct Observations	92
		Number of Missing Observations	0
Minimum	2.3	Mean	18.46
Maximum	47.1	Median	18.65
SD	6.513	Std. Error of Mean	0.621
Coefficient of Variation	0.353	Skewness	0.531

Normal GOF Test

Shapiro Wilk Test Statistic	0.977	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.331	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.0509	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0848	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	19.49	95% Adjusted-CLT UCL (Chen-1995)	19.52
		95% Modified-t UCL (Johnson-1978)	19.5

Gamma GOF Test

A-D Test Statistic	1.223	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.754	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0979	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.0869	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	6.974	k star (bias corrected MLE)	6.79
Theta hat (MLE)	2.648	Theta star (bias corrected MLE)	2.719
nu hat (MLE)	1534	nu star (bias corrected)	1494
MLE Mean (bias corrected)	18.46	MLE Sd (bias corrected)	7.086
		Approximate Chi Square Value (0.05)	1405
Adjusted Level of Significance	0.0478	Adjusted Chi Square Value	1404

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	19.63	95% Adjusted Gamma UCL (use when n<50)	19.65

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.92	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	3.1724E-7	Data Not Lognormal at 5% Significance Level	

Lilliefors Test Statistic	0.122	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	0.833	Mean of logged Data	2.842
Maximum of Logged Data	3.852	SD of logged Data	0.418

Assuming Lognormal Distribution

95% H-UCL	20.11	90% Chebyshev (MVUE) UCL	21.03
95% Chebyshev (MVUE) UCL	22.09	97.5% Chebyshev (MVUE) UCL	23.55
99% Chebyshev (MVUE) UCL	26.42		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	19.49	95% Jackknife UCL	19.49
95% Standard Bootstrap UCL	19.47	95% Bootstrap-t UCL	19.53
95% Hall's Bootstrap UCL	19.62	95% Percentile Bootstrap UCL	19.48
95% BCA Bootstrap UCL	19.53		
90% Chebyshev(Mean, Sd) UCL	20.33	95% Chebyshev(Mean, Sd) UCL	21.17
97.5% Chebyshev(Mean, Sd) UCL	22.34	99% Chebyshev(Mean, Sd) UCL	24.64

Suggested UCL to Use

95% Student's-t UCL	19.49

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Vanadium

General Statistics

Total Number of Observations	110	Number of Distinct Observations	100
		Number of Missing Observations	0
Minimum	11.3	Mean	55.26
Maximum	83.8	Median	56.5
SD	14.18	Std. Error of Mean	1.352
Coefficient of Variation	0.257	Skewness	-0.407

Normal GOF Test

Shapiro Wilk Test Statistic	0.97	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.106	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.0878	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Normal at 5% Significance Level	

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	57.5	95% Adjusted-CLT UCL (Chen-1995)	57.43
		95% Modified-t UCL (Johnson-1978)	57.49

Gamma GOF Test

A-D Test Statistic	1.389	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.751	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.099	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.0868	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	12.59	k star (bias corrected MLE)	12.25
Theta hat (MLE)	4.389	Theta star (bias corrected MLE)	4.51
nu hat (MLE)	2770	nu star (bias corrected)	2696
MLE Mean (bias corrected)	55.26	MLE Sd (bias corrected)	15.79
		Approximate Chi Square Value (0.05)	2576
Adjusted Level of Significance	0.0478	Adjusted Chi Square Value	2575

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	57.82	95% Adjusted Gamma UCL (use when n<50)	57.86

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.896	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	1.718E-10	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0995	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0848	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	2.425	Mean of logged Data	3.972
Maximum of Logged Data	4.428	SD of logged Data	0.306

Assuming Lognormal Distribution

95% H-UCL	58.54	90% Chebyshev (MVUE) UCL	60.58
95% Chebyshev (MVUE) UCL	62.83	97.5% Chebyshev (MVUE) UCL	65.96
99% Chebyshev (MVUE) UCL	72.1		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	57.48	95% Jackknife UCL	57.5
95% Standard Bootstrap UCL	57.53	95% Bootstrap-t UCL	57.49
95% Hall's Bootstrap UCL	57.43	95% Percentile Bootstrap UCL	57.5
95% BCA Bootstrap UCL	57.42		
90% Chebyshev(Mean, Sd) UCL	59.31	95% Chebyshev(Mean, Sd) UCL	61.15
97.5% Chebyshev(Mean, Sd) UCL	63.7	99% Chebyshev(Mean, Sd) UCL	68.71

Suggested UCL to Use

95% Student's-t UCL	57.5

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

Zinc

General Statistics

Total Number of Observations	110	Number of Distinct Observations	102
		Number of Missing Observations	0
Minimum	21.7	Mean	317.1
Maximum	6920	Median	69.05
SD	1088	Std. Error of Mean	103.7
Coefficient of Variation	3.431	Skewness	5.159

Normal GOF Test

Shapiro Wilk Test Statistic	0.272	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.448	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	489.2	95% Adjusted-CLT UCL (Chen-1995)	542.3
		95% Modified-t UCL (Johnson-1978)	497.7

Gamma GOF Test

A-D Test Statistic	24.91	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.819	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.412	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.0919	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.498	k star (bias corrected MLE)	0.491
Theta hat (MLE)	636.3	Theta star (bias corrected MLE)	646.1
nu hat (MLE)	109.6	nu star (bias corrected)	108
MLE Mean (bias corrected)	317.1	MLE Sd (bias corrected)	452.6
		Approximate Chi Square Value (0.05)	85
Adjusted Level of Significance	0.0478	Adjusted Chi Square Value	84.73

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	402.9	95% Adjusted Gamma UCL (use when n<50)	404.1

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.656	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.313	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0848	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	3.077	Mean of logged Data	4.484
Maximum of Logged Data	8.842	SD of logged Data	1.058

Assuming Lognormal Distribution

95% H-UCL	195.3	90% Chebyshev (MVUE) UCL	210.9
95% Chebyshev (MVUE) UCL	236.7	97.5% Chebyshev (MVUE) UCL	272.5
99% Chebyshev (MVUE) UCL	342.9		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	487.8	95% Jackknife UCL	489.2
95% Standard Bootstrap UCL	489.1	95% Bootstrap-t UCL	592.1
95% Hall's Bootstrap UCL	477.5	95% Percentile Bootstrap UCL	491.2
95% BCA Bootstrap UCL	541.2		
90% Chebyshev(Mean, Sd) UCL	628.4	95% Chebyshev(Mean, Sd) UCL	769.3
97.5% Chebyshev(Mean, Sd) UCL	965	99% Chebyshev(Mean, Sd) UCL	1349

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	769.3

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Cr6

General Statistics

Total Number of Observations	13	Number of Distinct Observations	6
Number of Detects	5	Number of Non-Detects	8
Number of Distinct Detects	4	Number of Distinct Non-Detects	2
Minimum Detect	960	Minimum Non-Detect	200
Maximum Detect	2800	Maximum Non-Detect	400
Variance Detects	582520	Percent Non-Detects	61.54%
Mean Detects	1452	SD Detects	763.2
Median Detects	1100	CV Detects	0.526
Skewness Detects	2.099	Kurtosis Detects	4.494
Mean of Logged Detects	7.196	SD of Logged Detects	0.428

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.693	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.762	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.379	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.343	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	681.5	KM Standard Error of Mean	230
KM SD	741.8	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1091	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1060	95% KM Bootstrap t UCL	N/A

90% KM Chebyshev UCL	1372	95% KM Chebyshev UCL	1684
97.5% KM Chebyshev UCL	2118	99% KM Chebyshev UCL	2970

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.768	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.68	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.352	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.358	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	6.073	k star (bias corrected MLE)	2.563
Theta hat (MLE)	239.1	Theta star (bias corrected MLE)	566.6
nu hat (MLE)	60.73	nu star (bias corrected)	25.63
Mean (detects)	1452		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	574.4
Maximum	2800	Median	0.01
SD	847.8	CV	1.476
k hat (MLE)	0.138	k star (bias corrected MLE)	0.157
Theta hat (MLE)	4174	Theta star (bias corrected MLE)	3655
nu hat (MLE)	3.578	nu star (bias corrected)	4.085
Adjusted Level of Significance (β)	0.0301		
Approximate Chi Square Value (4.09, α)	0.756	Adjusted Chi Square Value (4.09, β)	0.579
95% Gamma Approximate UCL (use when n>=50)	3105	95% Gamma Adjusted UCL (use when n<50)	4049

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	681.5	SD (KM)	741.8
Variance (KM)	550244	SE of Mean (KM)	230
k hat (KM)	0.844	k star (KM)	0.701
nu hat (KM)	21.95	nu star (KM)	18.22
theta hat (KM)	807.4	theta star (KM)	972.7
80% gamma percentile (KM)	1120	90% gamma percentile (KM)	1710
95% gamma percentile (KM)	2319	99% gamma percentile (KM)	3772

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (18.22, α)	9.548	Adjusted Chi Square Value (18.22, β)	8.666
95% Gamma Approximate KM-UCL (use when n>=50)	1300	95% Gamma Adjusted KM-UCL (use when n<50)	1433

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.771	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.762	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.324	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.343	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	777.3	Mean in Log Scale	6.327

SD in Original Scale	718.3	SD in Log Scale	0.837
95% t UCL (assumes normality of ROS data)	1132	95% Percentile Bootstrap UCL	1115
95% BCA Bootstrap UCL	1243	95% Bootstrap t UCL	1387
95% H-UCL (Log ROS)	1481		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	6.028	KM Geo Mean	415
KM SD (logged)	0.953	95% Critical H Value (KM-Log)	2.768
KM Standard Error of Mean (logged)	0.296	95% H-UCL (KM -Log)	1400
KM SD (logged)	0.953	95% Critical H Value (KM-Log)	2.768
KM Standard Error of Mean (logged)	0.296		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	673.8	Mean in Log Scale	5.975
SD in Original Scale	777.7	SD in Log Scale	1.052
95% t UCL (Assumes normality)	1058	95% H-Stat UCL	1669

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Adjusted Gamma UCL	1433	95% GROS Adjusted Gamma UCL	4049

Warning: Recommended UCL exceeds the maximum observation

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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APPENDIX C
Soil Properties Summary Report

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COMPUTATION COVER SHEET

Client: **4Terra** Project: **777 North Front Street Burbank, CA** Project No.: **HR1305C**

Title of Computations: **SOIL DRY BULK DENSITY AND POROSITY**

Computations by:	Signature		2016-12-06
	Printed Name	Gauen Alexander, E.I.T.	Date
	Title	Staff Engineer	
Peer Review by:	Signature		2016-12-06
	Printed Name	Cory Russell, E.I.T.	Date
	Title	Senior Staff Engineer	
Computations Checked by:	Signature		2016-12-06
	Printed Name	Cory Russell, E.I.T.	Date
	Title	Senior Engineer	
Computations backchecked by: (originator)	Signature		2016-12-06
	Printed Name	Gauen Alexander, E.I.T.	Date
	Title	Staff Engineer	
Approved by: (pm or designate)	Signature		2016-12-07
	Printed Name	Chris Conkle, P.E.	Date
	Title	Senior Engineer	

Approval notes:

Revisions (number and initial all revisions)

No.	Sheet	Date	By	Checked by	Approval

Written by:	G. Alexander	Date:	12/6/2016	Reviewed by:	C. Conkle	Date:	12/6/2016
Client:	4Terra	Project:	777 N. Front Street Burbank, CA	Project No.:	HR1305C	Phase:	04

SOIL DRY BULK DENSITY AND POROSITY
BKK CLASS I LANDFILL
WEST COVINA, CALIFORNIA

1. INTRODUCTION

A multi-family residential development and hotel is proposed for construction at 777 North Front Street in Burbank, California (Site). Geosyntec Consultants (Geosyntec) is providing consulting services on this project including soil vapor intrusion modeling. In support of the soil vapor intrusion modeling, this calculation package presents geotechnical data, calculations, and estimates of the dry bulk density, total porosity, air filled porosity, and water filled porosity of the existing soils at the Site in the existing conditions described by the Geotechnical Report to a depth of 30 feet below ground surface (ft bgs). The geotechnical data for this calculation package are presented in a geotechnical investigation report prepared by Geocon West dated 12 February 2016 (Geotechnical Report).

2. APPROACH

2.1 Soil Layers

Two distinct soil layers are identified in the Geotechnical Report. A layer of fill materials exists from the existing site surface to approximately 14 ft bgs. Below the fill layer is a layer of alluvial soils that continued to the maximum exploration depth of 61.5 ft bgs. Based upon the boring logs and laboratory data presented in the Geotechnical Report, the soils at the site are predominantly sandy silts, silty sands, and sands with varying amounts of gravel.

2.2 Specific Gravity

A specific gravity of soil solids of 2.65 is assumed for this calculation.

2.3 Dry Unit Weight and Moisture Content

The Geotechnical Report contains dry unit weight data for 9 samples in the fill soil and 16 samples in the alluvial soil. The Geotechnical Report also contains moisture content data for 14 samples in the fill soil and 28 samples in the alluvial soil. The average dry unit weight and moisture content for the fill soil are 110 pounds per cubic foot (pcf) and 12.7% (percent by dry mass). The average dry unit weight and moisture content for the alluvial soil are approximately 117 pcf and 8.5%. See Table 1.

2.4 Void Ratio and Porosity Values

Void ratio and porosity can be computed from specific gravity and dry unit weight according to the following equations [Holtz et al., 2011]:

$$Equation\ (2)\quad \gamma_d = \frac{\gamma_s}{1+e} \Rightarrow e = \frac{G_s\gamma_w}{\gamma_d} - 1 \quad and \quad Equation\ (3)\quad n = \frac{e}{1+e}$$

The void ratio and porosity of the cover soils were computed based upon the calculated average dry unit weights of 110 pcf and 117 pcf and the assumed specific gravity value of 2.65. The void ratio and porosity values for the fill soil calculated by this method are 0.499 and 0.333, respectively. The void ratio and porosity values for the alluvial soil calculated by this method are 0.416 and 0.294, respectively. See Table 1.

2.5 Saturation Value

The saturation value of a soil is defined as the percentage of voids occupied by water [Lambe and Whitman, 1969]:

$$Equation\ (4)\quad S = \frac{V_w}{V_v}$$

$$S = saturation\ (\%)$$

$$V_w = volume\ of\ water$$

$$V_v = volume\ of\ voids$$

Saturation can also be computed from specific gravity, moisture content, and void ratio [Lambe and Whitman, 1969]

$$Equation\ (5)\quad S = \frac{G_s w}{e}$$

Saturation values of 67% and 54% were calculated for the fill soil and alluvial soil, respectively, using the assumed specific gravity and calculated average moisture content and void ratio. See Table 1.

2.6 Air-Filled and Water-Filled Porosity Values

Water-filled porosity is the porosity which is occupied by water, which can be calculated as:

$$n_w = Sn$$

$$n_w = water\ filled\ porosity$$

Air-filled porosity is the porosity which is occupied by air. Given the water-filled porosity, the air-filled porosity can be calculated as:

$$n_a = n - n_w$$

$$n_a = air\ filled\ porosity$$

For the fill soil, the water filled porosity is 0.224 and the air filled porosity is 0.109. For the alluvial soil, the water filled porosity is 0.159 and the air filled porosity is 0.135. See Table 1.

3. SUMMARY AND CONCLUSIONS

Values of void ratio, porosity, saturation, water filled porosity, and air filled porosity have been calculated based upon mean values of dry unit weight and moisture content as provided by the Geotechnical Report, and an assumed specific gravity for the cover soil at the Site. These values are summarized and presented in Table 1.

Table 1: Calculated Soil Properties

	Fill Soil	Alluvial Soil
Dry Unit Weight (pcf)	110	117
Gravimetric Moisture Content (%)	12.7	8.5
Void Ratio	0.499	0.416
Porosity	0.333	0.294
Saturation (%)	67	54
Water Filled Porosity	0.224	0.159
Air Filled Porosity	0.109	0.135

4. REFERENCES

Holtz, R.D.; Kovacs, W.D.; Sheahan, T.C.; 2011. *An Introduction to Geotechnical Engineering*. Second Edition. Pearson Education. Upper Saddle River, NJ.

Geocon West, Inc.; 2016. *Geotechnical Investigation: Proposed Multi-Family Residential Development and Hotel, 777 North Front Street, Burbank, California.* Project Number A9377-06-01. February 12.

Lambe, T.W.; Whitman, R.; 1969. *Soil Mechanics*. Massachusetts Institute of Technology. John Wiley and Sons, New York, NY.

ATTACHMENTS

Attachment A: Selections from *An Introduction to Geotechnical Engineering* by Holtz et al. [2011]

Attachment B: Selections from *Soil Mechanics* by Lambe and Whitman [1969]

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ATTACHMENT A

Selections from *An Introduction to Geotechnical Engineering* by Holtz et al. [2011]

AN INTRODUCTION TO GEOTECHNICAL ENGINEERING

Second Edition

Robert D. Holtz | William D. Kovacs | Thomas C. Sheahan

Symbol	Dimension	Unit	Definition
Pc	—	—	Phnarg coefficient
PI or I_P	—	—	Plasticity index - Eq. (2.39)
PL or w_P	—	—	Plastic limit - Eq. (2.37)
S	—	(%)	Degree of saturation - Eq. (2.4)
SL or w_S	—	(%)	Shrinkage limit
V_a	L^3	m^3	Volume of air
V_s	L^3	m^3	Volume of solids
V_t	L^3	m^3	Total volume
V_v	L^3	m^3	Volume of voids
V_w	L^3	M^3	Volume of water
W	M	kg	Weight (Sec. 2.3.1)
W'	M	kg	Submerged (net) weight (Sec. 2.3.1)
w	—	(%)	Water content - Eq. (2.5)
γ_d	$ML^{-2}T^{-2}$	kN/m^3	Dry unit weight - Eq. (2.28)
γ_m or γ_t or γ	$ML^{-2}T^{-2}$	kN/m^3	Moist or total unit weight - Eqs. (2.20), (2.30)
γ_s	$ML^{-2}T^{-2}$	kN/m^3	Solids unit weight - Eq. (2.22)
γ_{sat}	$ML^{-2}T^{-2}$	kN/m^3	Saturated unit weight - Eq. (2.33)
γ_w	$ML^{-2}T^{-2}$	kN/m^3	Water unit weight - Eq. (2.23)
γ'	$ML^{-2}T^{-2}$	kN/m^3	Buoyant unit weight - Eq. (2.34)
ρ	M/L^3	kg/m^3	Total, wet, or moist density - Eq. (2.6)
ρ'	M/L^3	kg/m^3	Buoyant density - Eq. (2.11)
ρ_d	M/L^3	kg/m^3	Dry density - Eq. (2.9)
ρ_s	M/L^3	kg/m^3	Density of solids - Eq. (2.7)
ρ_{sat}	M/L^3	kg/m^3	Saturated density - Eq. (2.10)
ρ_w	M/L^3	kg/m^3	Density of water - Eq. (2.8)

In this list, L = length, M = mass, and T = time. When densities of soils and water are expressed in kg/m^3, the numbers are rather large. For instance, the density of water ρ_w is 1000 kg/m^3. Since 1000 kg = 1 Mg, to make the numbers more manageable, we will often use Mg/m^3 for densities. If you are unfamiliar with SI metric units and their conversion factors, it would be a good idea to read Appendix A before proceeding with the rest of this chapter.

For each of the ρ notations, there is a corresponding γ notation, which denotes unit weight, rather than density. This γ notation should be used when units of force (F) are used (for example, lb or kN) instead of units of mass. This is described further in Sec. 2.3.2.

2.2 BASIC DEFINITIONS AND PHASE RELATIONS FOR SOILS

In general, any mass of soil consists of solid particles with voids in between. The solids are small grains of different minerals, whereas the voids can be filled with either water or other fluid (for example, a contaminant) or with air (or other gas), or filled partly with some of each (Fig. 2.1). Also, as noted in the introduction, while we can have units of either mass or weight, we will assume that our problems are in mass units.

So, the total volume V_t of the soil mass consists of the volume of soil solids V_s and the volume of voids V_v. The volume of voids is in general made up of the volume of water V_w and the volume of air V_a.

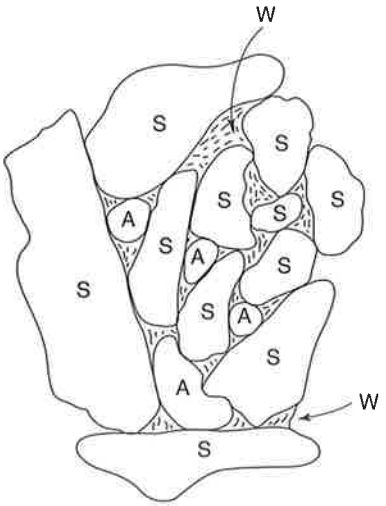

FIGURE 2.1 Soil skeleton containing solid particles (S) and voids with air (A) and water (W).

A *phase diagram* (Fig. 2.2) shows the three phases separately. It's as if we could "melt down" all the solids into a single layer at the bottom, then have the water sit on top of that, and finally have the air in a single layer at the top. The phase diagram helps us solve problems involving soil phase relationships. On the left side we usually indicate the volumes of the three phases; on the right side we show the corresponding masses. Even though the diagram is two dimensional, it is understood that the volume shown is in units of L^3, such as cm^3 or ft^3. Also, since we're not chemists or physicists, we assume that the mass of air is zero.

In engineering practice, we usually measure the total volume V_t, the mass of water M_w, and the mass of dry solids M_s. Then we calculate the rest of the values and the mass-volume relationships that we need. Most of these relationships are independent of sample size, and they are often dimensionless. They are very simple and easy to remember, especially if you draw the phase diagram.

Three volumetric ratios that are very useful in geotechnical engineering can be determined directly from the phase diagram (Fig. 2.2).

1. The *void ratio*[1] e is defined as

$$e = \frac{V_v}{V_s} \tag{2.1}$$

where V_v = volume of the voids, and
V_s = volume of the solids.

The void ratio e is normally expressed as a *decimal* rather than a *percentage*. The maximum possible range of e is between 0 and ∞. However, typical values of void ratios for sands may range from 0.4 to about 1.0; typical values for clays vary from 0.3 to 1.5 and even higher for some organic soils.

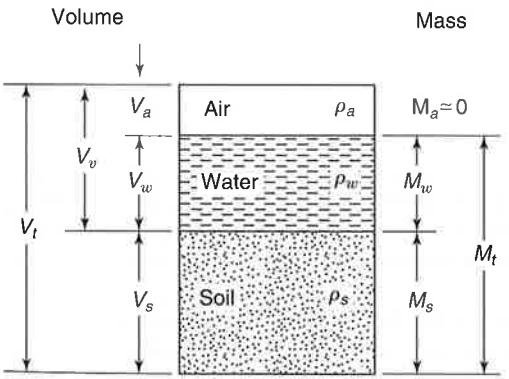

FIGURE 2.2 Volumetric and mass relationships for a soil shown in a phase diagram.

[1]Readers with British backgrounds will note that the correct terminology is *voids ratio*.

2. The *porosity* n is defined as

$$n = \frac{V_v}{V_t} \times 100(\%) \tag{2.2}$$

where V_v = volume of voids, and
V_t = total volume of soil sample.

Porosity is traditionally expressed as a *percentage*. The maximum range of n is between 0 and 100%.

From Fig. 2.2 and Eqs. (2.1) and (2.2), it can be shown that

$$n = \frac{e}{1 + e} \tag{2.3a}$$

and

$$e = \frac{n}{1 - n} \tag{2.3b}$$

3. The *degree of saturation* S is defined as

$$S = \frac{V_w}{V_v} \times 100(\%) \tag{2.4}$$

The degree of saturation tells us what *percentage* of the total void space contains water. If the soil is completely dry, then $S = 0\%$, and if the pores are completely full of water, then the soil is fully saturated and $S = 100\%$.

Now let us look at the other side, the mass side, of the phase diagram in Fig. 2.2. First, we define a mass ratio that is probably the single most important thing we need to know about a soil. It is also the only strictly mass-based parameter that we'll define for phase relationships. We want to know how much water is present in the voids relative to the amount of solids in the soil, so we define a ratio called the *water content* w as

$$w = \frac{M_w}{M_s} \times 100(\%) \tag{2.5}$$

where M_w = mass of water, and
M_s = mass of soil solids.

The ratio of the amount of water present in a soil volume to the amount of soil grains is based on the *dry mass* of the soil and not on the total mass. The water content, which is usually expressed as a *percentage*, can range from zero (dry soil) to several hundred percent. The natural water content for most soils is well under 100%, although in some marine and organic soils it can range up to 500% or higher.

The water content is easily determined in the laboratory. The standard procedure is detailed in ASTM (2010) standard D 2216. A representative sample of soil is selected and its total or wet mass is determined. Then it is dried to constant mass in a convection oven at 110°C. Normally a constant mass is obtained after the sample is left in the oven overnight. The mass of the drying dish must,

of course, be subtracted from both the wet and dry masses. Then the water content is calculated according to Eq. (2.5). Example 2.1 illustrates how the calculations for water content are actually done in practice.

Example 2.1

Given:

A specimen of wet soil in a drying dish has a mass of 462 g. After drying in an oven at 110°C overnight, the sample and dish have a mass of 364 g. The mass of the dish alone is 39 g.

Required:

Determine the water content of the soil.

Solution: Set up the following calculation scheme; fill in the "given" or measured quantities **a**, **b**, and **d**, and make the calculations as indicated for **c**, **e**, and **f**.

- **a.** Mass of total (wet) sample + dish = 462 g
- **b.** Mass of dry sample + dish = 364 g
- **c.** Mass of water (**a** − **b**) = 98 g
- **d.** Mass of dish = 39 g
- **e.** Mass of dry soil (**b** − **d**) = 325 g
- **f.** Water content (**c**/**e**) × 100% = 30.2%

In the laboratory, masses are usually determined in grams (g) on an ordinary balance. The required sensitivity of the balance depends on the size of the specimen, and ASTM D 2216 gives some recommendations.

The water content may also be determined using an ordinary microwave oven. ASTM (2010) standard D 4643 explains the procedure. To avoid overheating the soil specimen, microwave energy is applied for only brief intervals and repeated until the mass becomes nearly constant. A heat sink, such as a glass beaker filled with water, helps to prevent overheating of the soil by absorbing microwave energy after water has been removed from the soil pores. Otherwise, the water content is determined exactly as indicated above. Note that the microwave water content is not a replacement for the oven dry (D 2216) water content but is used when the water content is needed quickly. Other methods sometimes used in the field for water content determination are described in Chapter 5, Sec. 5.7.

It is easy to be confused by the concepts of *mass* and *weight*. From physics, you know that the mass of an object is a measure of how much matter the object contains, while the weight of an object is determined by the gravitational force that causes its downward acceleration. Recall that weight W equals mass m times g, the acceleration due to gravity, or $W = mg$. As noted in Appendix A, when we weigh something in the laboratory, we really are determining its mass—either by comparing two masses on a balance or by using a device calibrated against objects of known mass. It is basically an English-language problem; we really should say "we massed it" when we determine the mass of an

object in the laboratory. Another very useful concept in geotechnical engineering is *density*. You know from physics that density is mass per unit volume, so its units are kg/m^3. (See Appendix A for the corresponding units in the cgs and British engineering systems.) The density is the ratio that connects the volumetric side of the phase diagram with the mass side. Several densities are commonly used in geotechnical engineering practice. First, we define the total, wet, or moist density ρ; the density of the particles, solid density ρ_s; and the density of water ρ_w. Or, in terms of the basic masses and volumes of Fig. 2.2:

$$\rho = \frac{M_t}{V_t} = \frac{M_s + M_w}{V_t} \tag{2.6}$$

$$\rho_s = \frac{M_s}{V_s} \tag{2.7}$$

$$\rho_w = \frac{M_w}{V_w} \tag{2.8}$$

In natural soils, the magnitude of the total density ρ will depend on how much water happens to be in the voids as well as the density of the mineral grains themselves. Thus, ρ can range from slightly above 1000 kg/m^3 to as high as 2400 kg/m^3 (1.0 to 2.4 Mg/m^3).

Typical values of ρ_s for most soils range from 2500 to 2800 kg/m^3 (2.5 to 2.8 Mg/m^3). Most sands have ρ_s ranging between 2.6 and 2.7 Mg/m^3. For example, a common mineral in sands is quartz; its ρ_s = 2.65 Mg/m^3. Most clay soils have a value of ρ_s between 2.65 and 2.80 Mg/m^3, depending on the predominant mineral in the soil, whereas organic soils may have a ρ_s as low as 2.5 Mg/m^3. Consequently, for most phase problems, unless a specific value of ρ_s is given, it is usually close enough for geotechnical work to *assume* a ρ_s of 2.65 or 2.70 Mg/m^3. The density of water varies slightly, depending on the temperature. At 4°C, when water is at its densest, ρ_w exactly equals 1000 kg/m^3 (1 g/cm^3), and this density is sometimes designated by the symbol ρ_o. For ordinary engineering work, it is sufficiently accurate to take $\rho_w \approx \rho_o$ = 1000 kg/m^3 = 1 Mg/m^3.

Three other densities very useful in soils engineering are the *dry density* ρ_d, the *saturated density* ρ_{sat}, and the *submerged* or *buoyant density* ρ' or ρ_b.

$$\rho_d = \frac{M_s}{V_t} \tag{2.9}$$

$$\rho_{sat} = \frac{M_s + M_w}{V_t} (V_a = 0, S = 100\%) \tag{2.10}$$

$$\rho' = \rho_{sat} - \rho_w \tag{2.11}$$

Among other uses, the dry density ρ_d is a common basis for judging a soil's degree of compaction after we have applied some mechanical energy to it, for example by using a roller or vibratory plate (Chapter 5). The saturated density ρ_{sat}, as the name implies, is the total density of the soil when 100% of its pores are filled with water; in this special case, $\rho = \rho_{sat}$. The concept of submerged or buoyant density ρ' is often difficult for students to understand, so it is discussed later after we have done a few example problems. However, you may be familiar with this concept from studying aggregates, where a "basket" of aggregate is weighed while it is submerged under water. Typical values of ρ_d, ρ_{sat}, and ρ' for several soil types are shown in Table 2.1.

From the basic definitions provided in this section, other useful relationships can be derived, as we show in the examples in the next section.

TABLE 2.1 Some Typical Values for Different Densities of Some Common Soil Materials

Soil Type	Density (Mg/m^3)		
	ρ_{sat}	ρ_d	ρ'
Sands and gravels	1.9–2.4	1.5–2.3	0.9–1.4
Silts and clays	1.4–2.1	0.6–1.8	0.4–1.1
Glacial tills	2.1–2.4	1.7–2.3	1.1–1.4
Crushed rock	1.9–2.2	1.5–2.0	0.9–1.2
Peats	1.0–1.1	0.1–0.3	0.0–0.1
Organic silts and clays	1.3–1.8	0.5–1.5	0.3–0.8

Modified after Hansbo (1975).

2.3 SOLUTION OF PHASE PROBLEMS

Phase problems are very important in soils engineering. In this section, with the help of some numerical examples, we illustrate how most phase problems are solved. As in many disciplines, practice helps; the more problems you solve, the simpler they are and the more proficient you become. Also, with practice you soon memorize most of the important definitions and relationships, so you save time by not having to look them up.

Probably the single most important thing you can do in solving phase problems is to *draw a phase diagram*. This is especially true for the beginner. Don't spend time searching for the right formula to plug into. Instead, always draw a phase diagram and show both the given values and the unknowns of the problem. For some problems, simply doing this leads almost immediately to the solution; at least the correct approach to the problem is usually indicated. Also, you should note that there often are alternative approaches to the solution of the same problem, as illustrated in Example 2.2. The following steps are recommended to solve these problems:

1. List the information you know (from the problem narrative).
2. Draw phase diagram, fill in the knowns and the unknowns.
3. Try to avoid big formulas.
4. If no masses or volumes are given, you can assume either one volume or one mass.
5. Fill in one side of the diagram until you get stuck or completely solve it, then "cross over" to the other side using one of the ρ's or G_s.
6. Write out equations in symbol form. Then place the numerical value along with its **units** in the same order, and solve.
7. Check units and reasonableness of your answer.

Example 2.2

Given:

$\rho = 1.76\ Mg/m^3$ (total density)

$w = 10\%$ (water content)

$\rho_s = 2.70$ (assumed)

and $M_s = \rho_s V_s$ [from Eq. (2.7)]. So

$$\rho_d = \frac{\rho_s V_s}{V_t} = \frac{\rho_s}{1 + e}, \qquad \text{since } V_s = 1 \text{ m}^3 \text{ in Fig. Ex. 2.4}$$

$$= \frac{2.65 \text{ Mg}}{(1 + 0.62) \text{ m}^3} = 1.636 \text{ Mg/m}^3$$

Note: The relationship

$$\rho_d = \frac{\rho_s}{1 + e} \tag{2.12}$$

is often very useful in phase problems.

b. Now for ρ:

$$\rho = \frac{M_t}{V_t} = \frac{(M_s + M_w) \text{ Mg}}{V_t \text{ m}^3}$$

We know that

$$M_w = wM_s \text{ [from Eq. (2.5)] and } M_s = \rho_s V_s$$

$$\rho = \frac{\rho_s V_s + w\rho_s V_s}{V_t} = \frac{\rho_s(1 + w)}{1 + e}, \qquad \text{since } V_s = 1 \text{ m}^3$$

Plug in the numbers.

$$\rho = \frac{2.65 \text{ Mg } (1 + 0.15)}{(1 + 0.62) \text{ m}^3} = 1.88 \text{ Mg/m}^3$$

The following relationship is often useful to know.

$$\rho = \frac{\rho_s(1 + w)}{(1 + e)} \tag{2.13}$$

Check:

$$\rho_d = \frac{\rho}{1 + w}$$

$$= \frac{1.88}{1.15} = 1.63 \text{ Mg/m}^3 \tag{2.14}$$

You should verify that $\rho_d = \rho/(1 + w)$, which is another very useful relationship to remember.

c. Water content for $S = 100\%$:

From Eq. (2.4), we know that $V_w = V_v = 0.62 \text{ m}^3$. From Eq. (2.8), $M_w = V_w\rho_w = 0.62 \text{ m}^3 \times (1 \text{ Mg/m}^3) = 0.62 \text{ Mg}$. Therefore w for $S = 100\%$ must be

$$w_{(s=100\%)} = \frac{M_w}{M_s} = \frac{0.62}{2.65} = 0.234 \text{ or } 23.4\%$$

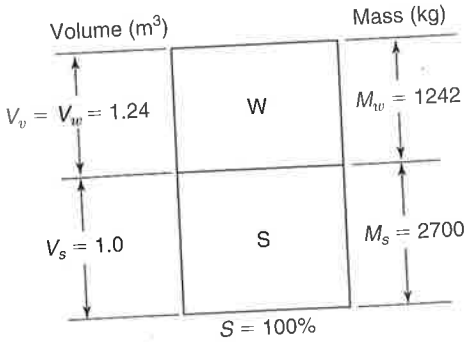

FIGURE Ex. 2.7

Assume $V_s = 1\ m^3$; therefore $M_s = V_s\rho_s = 2700$ kg. From Eq. (2.15a), we can solve for e directly:

$$e = \frac{w\rho_s}{\rho_w S} = \frac{0.46 \times 2700\ kg/m^3}{1000\ kg/m^3 \times 1.0} = 1.242$$

But e also equals V_v, since $V_s = 1.0$; likewise $M_w = 1242$ kg, since M_w is numerically equal to V_w, because $\rho_w = 1000\ kg/m^3$. Now that all the unknowns have been found, we may readily calculate the saturated density [Eq. (2.10)]:

$$\rho_{sat} = \frac{M_t}{V_t} = \frac{M_w + M_s}{1 + e} = \frac{(1242 + 2700)\ kg}{(1 + 1.24)\ m^3} = 1758\ kg/m^3$$

We could also use Eq. (2.17) directly:

$$\rho_{sat} = \frac{\rho_s + \rho_w e}{1 + e} = \frac{[2700 + 1000(1.242)]\ kg}{(1 + 1.242)\ m^3} = 1758\ kg/m^3$$

The buoyant density ρ' from Eq. (2.11) is:

$$\rho' = \rho_{sat} - \rho_w = 1758\ kg/m^3 - 1000\ kg/m^3 = 758\ kg/m^3$$

In this example, ρ' is less than the density of water. Go back and look at Table 2.1 for typical values of ρ'. The submerged or buoyant density of soil will be very important later on in our discussion of consolidation, settlement, and strength properties of soils.

2.3.2 Unit Weight and Specific Gravity

In geotechnical practice it is often convenient to use *unit weight* rather than density in engineering calculations. Unit weight γ is simply weight per unit volume; thus its SI units are N/m^3, because the Newton (N) is the SI unit of force, and in British units it is typically expressed in lb/ft^3, sometimes abbreviated pcf. Recall that the weight of an object is due to the force exerted by the earth's gravitational field, or $W = mg$, where g is the acceleration due to gravity. Then to get unit weight γ we simply divide the weight by the unit volume V, or:

$$\gamma = \frac{W}{V} = \frac{m}{V}g = \rho g \qquad (2.20)$$

As noted in Appendix A, the value of g varies slightly with latitude and elevation, but for ordinary engineering purposes we usually assume it is a constant (standard $g = 9.807\ \text{m/s}^2$) for most places on the Earth.

The unit weights analogous to the densities described earlier [Eqs. (2.6), (2.7), and (2.8)] are the total, wet, or moist unit weight γ, the unit weight of solids γ_s, and the unit weight of water γ_w. In terms of the basic weights and volumes, they are

$$\gamma = \frac{W_t}{V_t} \tag{2.21}$$

$$\gamma_s = \frac{W_s}{V_s} \tag{2.22}$$

$$\gamma_w = \frac{W_w}{V_w} \tag{2.23}$$

To convert between density and unit weight, use Eq. (2.20) and $g = 9.81\ \text{m/s}^2$. If you round off g to $10\ \text{m/s}^2$, the error is only 2%.

Example 2.8

Given:

The densities ρ_s, ρ_{sat}, and ρ' in Example 2.7.

Required:

Compute the equivalent unit weights, using

a. SI units,

b. British engineering units.

Solution:

a. SI units:

From Example 2.7:

$$\rho_s = 2700\ \text{kg/m}^3 = 2.7\ \text{Mg/m}^3$$
$$\rho_{\text{sat}} = 1758\ \text{kg/m}^3 = 1.76\ \text{Mg/m}^3$$
$$\rho' = 758\ \text{kg/m}^3 = 0.76\ \text{Mg/m}^3$$

From Eq. (2.20), $\gamma = \rho g$, we obtain:

$$\gamma_s = 2.7\ \text{Mg/m}^3 \times 9.81\ \text{m/s}^2 = 26.5\ \text{kN/m}^3 \text{ (Note: 1 kg} \times \text{m/s}^2 = 1\ \text{N)}$$
$$\gamma_{\text{sat}} = 1.76\ \text{Mg/m}^3 \times 9.81\ \text{m/s}^2 = 17.2\ \text{kN/m}^3$$
$$\gamma' = 0.76\ \text{Mg/m}^3 \times 9.81\ \text{m/s}^2 = 7.4\ \text{kN/m}^3$$

If you use the rounded-off value of $g = 10\ \text{m/s}^2$, the values of γ_s, γ_{sat}, and γ' are, respectively, 27, 17.6, and 7.6 kN/m^3. As mentioned, the difference is only about 2% and normally negligible.

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ATTACHMENT B

Selections from *Soil Mechanics* by Lambe and Whitman [1969]

Soil Mechanics

T. William Lambe • Robert V. Whitman

Massachusetts Institute of Technology

1969

John Wiley & Sons, Inc.

New York London Sydney Toronto

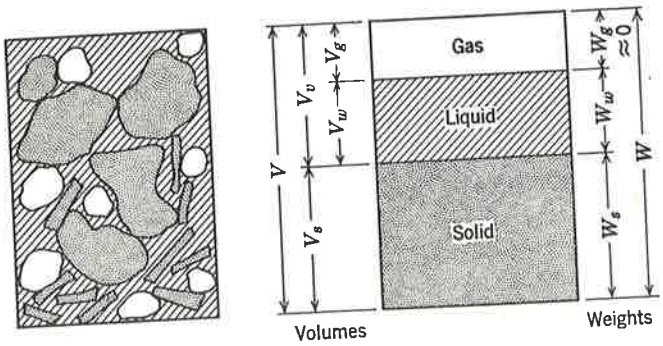

Fig. 3.1 Relationships among soil phases. (*a*) Element of natural soil. (*b*) Element separated into phases.

Volume

Porosity:

$$n = \frac{V_v}{V}$$

Void ratio:

$$e = \frac{V_v}{V_s}$$

Degree of saturation:

$$S = \frac{V_w}{V_v}$$

$$n = \frac{e}{1 + e}; \qquad e = \frac{n}{1 - n}$$

Weight

Water content:

$$w = \frac{W_w}{W_s}$$

Specific Gravity

Mass:

$$G_m = \frac{\gamma_t}{\gamma_0}$$

Water:

$$G_w = \frac{\gamma_w}{\gamma_0}$$

Solids:

$$G = \frac{\gamma_s}{\gamma_0}$$

γ_0 = Unit weight of water at 4°C $\approx \gamma_w$

Note that $Gw = Se$

Unit Weight

Total:

$$\gamma_t = \frac{W}{V} = \frac{G + Se}{1 + e}\gamma_w = \frac{1 + w}{1 + e}G\gamma_w$$

Solids:

$$\gamma_s = \frac{W_s}{V_s}$$

Water:

$$\gamma_w = \frac{W_w}{V_w}$$

Dry:

$$\gamma_d = \frac{W_s}{V} = \frac{G}{1 + e}\gamma_w = \frac{G\gamma_w}{1 + wG/S} = \frac{\gamma_t}{1 + w}$$

Submerged (buoyant):

$$\gamma_b = \gamma_t - \gamma_w = \frac{G - 1 - e(1 - S)}{1 + e}\gamma_w$$

Submerged (saturated soil):

$$\gamma_b = \gamma_t - \gamma_w = \frac{G - 1}{1 + e}\gamma_w$$

Specific gravity is the unit weight divided by the unit weight of water. Values of specific gravity of solids G for a selected group of minerals[3] are given in Table 3.1.

Table 3.1 Specific Gravities of Minerals

Quartz	2.65
K-Feldspars	2.54–2.57
Na–Ca-Feldspars	2.62–2.76
Calcite	2.72
Dolomite	2.85
Muscovite	2.7–3.1
Biotite	2.8–3.2
Chlorite	2.6–2.9
Pyrophyllite	2.84
Serpentine	2.2–2.7
Kaolinite	2.61[a]
	2.64 ± 0.02
Halloysite (2 H_2O)	2.55
Illite	2.84[a]
	2.60–2.86
Montmorillonite	2.74[a]
	2.75–2.78
Attapulgite	2.30

[a] Calculated from crystal structure.

The expression $Gw = Se$ is useful to check computations of the various relationships.

The student in soil mechanics must understand the meanings of the relationships in Fig. 3.1, convince himself once and for all that they are correct, and add these terms to his active vocabulary. These relationships are basic to most computations in soil mechanics and thus are an essential part of soil mechanics.

Typical Values of Phase Relationships for Granular Soils

Figure 3.2 shows two of the many possible ways that a system of equal-sized spheres can be packed. The dense packings represent the densest possible state for such a system. Looser systems than the simple cubic packing can be obtained by carefully constructing arches within the packing, but the simple cubic packing is the loosest of the stable arrangements. The void ratio and porosity of

[3] Chapter 4 discusses the common soil minerals.

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APPENDIX D
J&E Vapor Intrusion Model Spreadsheets

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	122	19	122			S		
	4 ft bgs		4 ft bgs					

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type (Lookup Soil Parameters)	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type (Lookup Soil Parameters)	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type (Lookup Soil Parameters)
S	1.77	0.333	0.224					

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)		Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	366	0.1	1		5

ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, AT_C (yrs)	Averaging time for noncarcinogens, AT_{NC} (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	25	25	250

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Molecular weight, MW (g/mol)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
4.8E-02	9.1E-06	2.5E-03	25	9,768	403.50	624.00	167.85	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
6.5E-02	9.6E-06	1.7E-02	25	7,136	347.24	545.00	133.41			1,1,1-Trichloroethane
8.4E-02	1.1E-05	5.6E-03	25	6,895	330.55	523.00	98.96			1,1-Dichloroethane
8.6E-02	1.1E-05	2.6E-02	25	6,247	304.75	576.05	96.94			1,1-Dichloroethylene (1,1-DCE)
6.1E-02	7.9E-06	6.2E-03	25	9,369	442.30	649.17	120.20			1,2,4-Trimethylbenzene
6.0E-02	7.8E-06	8.8E-03	25	9,321	437.89	637.25	120.20			1,3,5-Trimethylbenzene
6.4E-02	0.0E+00	1.1E-02	25	0	450.00	0.00	134.22			p-Isopropyltoluene (p-cymene)
9.0E-02	1.0E-05	5.6E-03	25	7,342	353.24	562.16	78.12			Benzene
7.2E-02	9.5E-06	3.1E-03	25	8,410	404.87	632.40	112.56			Chlorobenzene
7.7E-02	1.1E-05	3.7E-03	25	6,988	334.32	536.40	119.38			Chloroform
8.8E-02	1.1E-05	4.1E-03	25	7,192	333.65	544.00	96.94			cis-1,2-Dichloroethylene
7.6E-02	1.1E-05	3.4E-01	25	9,421	243.20	384.95	120.91			Dichlorodifluoromethane
6.8E-02	8.5E-06	7.9E-03	25	8,501	409.34	617.20	106.17			Ethylbenzene
3.8E-02	8.6E-06	5.3E-01	25	6,463	320.70	487.30	187.38			1,1,2-Trichloro-1,2,2-trifluoroethane
5.3E-02	7.3E-06	1.6E-02	25	9,290	456.46	660.50	134.22			n-Butylbenzene
6.0E-02	7.8E-06	1.1E-02	25	9,123	432.20	630.00	120.20			n-Propylbenzene
5.0E-02	9.5E-06	1.8E-02	25	8,288	394.40	620.20	165.83			Tetrachloroethylene (PCE)
7.8E-02	9.2E-06	6.6E-03	25	7,930	383.78	591.79	92.14			Toluene
6.9E-02	1.0E-05	9.9E-03	25	7,505	360.36	544.20	131.39			Trichloroethylene (TCE)
6.5E-02	1.0E-05	9.7E-02	25	5,999	296.70	471.00	137.37			Trichlorofluoromethane
6.9E-02	8.5E-06	6.6E-03	25	8,523	412.15	617.05	106.17			Xylene (total)

4 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,1,2-Tetrachloroethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,1-Trichloroethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1-Dichloroethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1-Dichloroethylene (1,1-DCE
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,2,4-Trimethylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,3,5-Trimethylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	p-Isopropyltoluene (p-cymene)
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Benzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Chlorobenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Chloroform
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	cis-1,2-Dichloroethylene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Dichlorodifluoromethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Ethylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,2-Trichloro-1,2,2-trifluoroet
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	n-Butylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	n-Propylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Tetrachloroethylene (PCE)
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Toluene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Trichloroethylene (TCE)
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Trichlorofluoromethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Xylene (total)

4 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	0.0E+00	0.0E+00	2.8E-04	107	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	0.0E+00	0.0E+00	3.7E-04	107	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	0.0E+00	0.0E+00	4.7E-04	107	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	0.0E+00	0.0E+00	4.9E-04	107	1,1-Dichloroethylene (1,1-DCE
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	0.0E+00	0.0E+00	3.6E-04	107	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	0.0E+00	0.0E+00	5.1E-04	107	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	0.0E+00	0.0E+00	4.1E-04	107	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	0.0E+00	0.0E+00	4.4E-04	107	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	0.0E+00	0.0E+00	5.0E-04	107	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	0.0E+00	0.0E+00	4.3E-04	107	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	0.0E+00	0.0E+00	2.1E-04	107	1,1,2-Trichloro-1,2,2-trifluoroet
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	0.0E+00	0.0E+00	3.0E-04	107	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	0.0E+00	0.0E+00	2.8E-04	107	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	0.0E+00	0.0E+00	4.4E-04	107	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	0.0E+00	0.0E+00	3.7E-04	107	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Xylene (total)

4 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**2.5E-05**	2.5E-05	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**3.2E-05**	3.2E-05			1,1,1-Trichloroethane
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**4.1E-05**	4.1E-05			1,1-Dichloroethane
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**4.2E-05**	4.2E-05			1,1-Dichloroethylene (1,1-DCE)
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**3.0E-05**	3.0E-05			1,2,4-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**3.0E-05**	3.0E-05			1,3,5-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**3.2E-05**	3.2E-05			p-Isopropyltoluene (p-cymene)
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**4.4E-05**	4.4E-05			Benzene
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**3.6E-05**	3.6E-05			Chlorobenzene
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**3.8E-05**	3.8E-05			Chloroform
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**4.4E-05**	4.4E-05			cis-1,2-Dichloroethylene
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**3.7E-05**	3.7E-05			Dichlorodifluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**3.4E-05**	3.4E-05			Ethylbenzene
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**1.9E-05**	1.9E-05			1,1,2-Trichloro-1,2,2-trifluoroethane
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**2.6E-05**	2.6E-05			n-Butylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**3.0E-05**	3.0E-05			n-Propylbenzene
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**2.5E-05**	2.5E-05			Tetrachloroethylene (PCE)
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**3.9E-05**	3.9E-05			Toluene
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**3.4E-05**	3.4E-05			Trichloroethylene (TCE)
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**3.2E-05**	3.2E-05			Trichlorofluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**3.4E-05**	3.4E-05			Xylene (total)

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	122	19	122			S		
	4 ft bgs		4 ft bgs					

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type (Lookup Soil Parameters)	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type (Lookup Soil Parameters)	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type (Lookup Soil Parameters)
S	1.77	0.333	0.224					

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)		Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	244	0.1	0.5		5

ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, AT_C (yrs)	Averaging time for noncarcinogens, AT_{NC} (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	26	26	350

4 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,1,2-Tetrachloroethane
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,1-Trichloroethane
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1-Dichloroethane
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1-Dichloroethylene (1,1-DCE
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,2,4-Trimethylbenzene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,3,5-Trimethylbenzene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	p-Isopropyltoluene (p-cymene)
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Benzene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Chlorobenzene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Chloroform
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	cis-1,2-Dichloroethylene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Dichlorodifluoromethane
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Ethylbenzene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,2-Trichloro-1,2,2-trifluoroet
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	n-Butylbenzene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	n-Propylbenzene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Tetrachloroethylene (PCE)
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Toluene
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Trichloroethylene (TCE)
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Trichlorofluoromethane
8.2E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Xylene (total)

4 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	0.0E+00	0.0E+00	2.8E-04	107	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	0.0E+00	0.0E+00	3.7E-04	107	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	0.0E+00	0.0E+00	4.7E-04	107	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	0.0E+00	0.0E+00	4.9E-04	107	1,1-Dichloroethylene (1,1-DCE
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	0.0E+00	0.0E+00	3.6E-04	107	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	0.0E+00	0.0E+00	5.1E-04	107	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	0.0E+00	0.0E+00	4.1E-04	107	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	0.0E+00	0.0E+00	4.4E-04	107	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	0.0E+00	0.0E+00	5.0E-04	107	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	0.0E+00	0.0E+00	4.3E-04	107	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	0.0E+00	0.0E+00	2.1E-04	107	1,1,2-Trichloro-1,2,2-trifluoroet
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	0.0E+00	0.0E+00	3.0E-04	107	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	0.0E+00	0.0E+00	2.8E-04	107	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	0.0E+00	0.0E+00	4.4E-04	107	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	0.0E+00	0.0E+00	3.7E-04	107	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Xylene (total)

4 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**7.5E-05**	7.5E-05	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**9.7E-05**	9.7E-05			1,1,1-Trichloroethane
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**1.2E-04**	1.2E-04			1,1-Dichloroethane
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**1.3E-04**	1.3E-04			1,1-Dichloroethylene (1,1-DCE)
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**9.1E-05**	9.1E-05			1,2,4-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**9.0E-05**	9.0E-05			1,3,5-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**9.5E-05**	9.5E-05			p-Isopropyltoluene (p-cymene)
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**1.3E-04**	1.3E-04			Benzene
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**1.1E-04**	1.1E-04			Chlorobenzene
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**1.2E-04**	1.2E-04			Chloroform
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**1.3E-04**	1.3E-04			cis-1,2-Dichloroethylene
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**1.1E-04**	1.1E-04			Dichlorodifluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**1.0E-04**	1.0E-04			Ethylbenzene
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**5.7E-05**	5.7E-05			1,1,2-Trichloro-1,2,2-trifluoroethane
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**7.9E-05**	7.9E-05			n-Butylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**9.0E-05**	9.0E-05			n-Propylbenzene
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**7.6E-05**	7.6E-05			Tetrachloroethylene (PCE)
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**1.2E-04**	1.2E-04			Toluene
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**1.0E-04**	1.0E-04			Trichloroethylene (TCE)
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**9.7E-05**	9.7E-05			Trichlorofluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**1.0E-04**	1.0E-04			Xylene (total)

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Error Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Error stratum A SCS soil type (used to estimate soil vapor permeability)	Error OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	457.5	19	427	30.5		S		
	15 ft bgs		14 ft bgs	1 ft bgs				

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type (Lookup Soil Parameters)	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type (Lookup Soil Parameters)	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type (Lookup Soil Parameters)
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)		Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	366	0.1	1		5

ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, AT_C (yrs)	Averaging time for noncarcinogens, AT_{NC} (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	25	25	250

15 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,1,2-Tetrachloroethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,1-Trichloroethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1-Dichloroethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1-Dichloroethylene (1,1-DCE
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,2,4-Trimethylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,3,5-Trimethylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	p-Isopropyltoluene (p-cymene)
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Benzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Chlorobenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Chloroform
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	cis-1,2-Dichloroethylene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Dichlorodifluoromethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Ethylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,2-Trichloro-1,2,2-trifluoroet
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	n-Butylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	n-Propylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Tetrachloroethylene (PCE)
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Toluene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Trichloroethylene (TCE)
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Trichlorofluoromethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Xylene (total)

15 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	2.9E-04	442.5	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	3.8E-04	442.5	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	4.9E-04	442.5	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	5.1E-04	442.5	1,1-Dichloroethylene (1,1-DCE
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	3.6E-04	442.5	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	3.6E-04	442.5	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	3.7E-04	442.5	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	5.3E-04	442.5	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	4.3E-04	442.5	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	4.6E-04	442.5	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	5.2E-04	442.5	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	4.5E-04	442.5	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.0E-04	442.5	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	2.2E-04	442.5	1,1,2-Trichloro-1,2,2-trifluoroet
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	3.1E-04	442.5	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	3.5E-04	442.5	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	3.0E-04	442.5	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	4.6E-04	442.5	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.1E-04	442.5	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	3.8E-04	442.5	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.0E-04	442.5	Xylene (total)

15 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**6.4E-06**	6.4E-06	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**8.4E-06**	8.4E-06			1,1,1-Trichloroethane
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**1.1E-05**	1.1E-05			1,1-Dichloroethane
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**1.1E-05**	1.1E-05			1,1-Dichloroethylene (1,1-DCE)
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**7.9E-06**	7.9E-06			1,2,4-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**7.8E-06**	7.8E-06			1,3,5-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**8.2E-06**	8.2E-06			p-Isopropyltoluene (p-cymene)
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**1.2E-05**	1.2E-05			Benzene
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**9.4E-06**	9.4E-06			Chlorobenzene
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**1.0E-05**	1.0E-05			Chloroform
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**1.1E-05**	1.1E-05			cis-1,2-Dichloroethylene
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**9.8E-06**	9.8E-06			Dichlorodifluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**8.9E-06**	8.9E-06			Ethylbenzene
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**4.9E-06**	4.9E-06			1,1,2-Trichloro-1,2,2-trifluoroethane
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**6.9E-06**	6.9E-06			n-Butylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**7.8E-06**	7.8E-06			n-Propylbenzene
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**6.6E-06**	6.6E-06			Tetrachloroethylene (PCE)
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**1.0E-05**	1.0E-05			Toluene
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**8.9E-06**	8.9E-06			Trichloroethylene (TCE)
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**8.4E-06**	8.4E-06			Trichlorofluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**8.9E-06**	8.9E-06			Xylene (total)

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	457.5	19	427	30.5		S		
	15 ft bgs		14 ft bgs	1 ft bgs				

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type Lookup Soil Parameters	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type Lookup Soil Parameters	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type Lookup Soil Parameters
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)	Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	244	0.1	0.5	5

ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, AT_C (yrs)	Averaging time for noncarcinogens, AT_{NC} (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	26	26	350

15 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,1,2-Tetrachloroethane
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,1-Trichloroethane
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1-Dichloroethane
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1-Dichloroethylene (1,1-DCE
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,2,4-Trimethylbenzene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,3,5-Trimethylbenzene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	p-Isopropyltoluene (p-cymene)
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Benzene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Chlorobenzene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Chloroform
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	cis-1,2-Dichloroethylene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Dichlorodifluoromethane
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Ethylbenzene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,2-Trichloro-1,2,2-trifluoroet
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	n-Butylbenzene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	n-Propylbenzene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Tetrachloroethylene (PCE)
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Toluene
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Trichloroethylene (TCE)
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Trichlorofluoromethane
8.2E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Xylene (total)

15 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	2.9E-04	442.5	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	3.8E-04	442.5	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	4.9E-04	442.5	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	5.1E-04	442.5	1,1-Dichloroethylene (1,1-DCE
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	3.6E-04	442.5	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	3.6E-04	442.5	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	3.7E-04	442.5	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	5.3E-04	442.5	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	4.3E-04	442.5	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	4.6E-04	442.5	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	5.2E-04	442.5	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	4.5E-04	442.5	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.0E-04	442.5	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	2.2E-04	442.5	1,1,2-Trichloro-1,2,2-trifluoroet
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	3.1E-04	442.5	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	3.5E-04	442.5	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	3.0E-04	442.5	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	4.6E-04	442.5	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.1E-04	442.5	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	3.8E-04	442.5	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.0E-04	442.5	Xylene (total)

15 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**1.9E-05**	1.9E-05	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**2.5E-05**	2.5E-05			1,1,1-Trichloroethane
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**3.3E-05**	3.3E-05			1,1-Dichloroethane
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**3.3E-05**	3.3E-05			1,1-Dichloroethylene (1,1-DCE)
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**2.4E-05**	2.4E-05			1,2,4-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**2.3E-05**	2.3E-05			1,3,5-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**2.5E-05**	2.5E-05			p-Isopropyltoluene (p-cymene)
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**3.5E-05**	3.5E-05			Benzene
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**2.8E-05**	2.8E-05			Chlorobenzene
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**3.0E-05**	3.0E-05			Chloroform
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**3.4E-05**	3.4E-05			cis-1,2-Dichloroethylene
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**2.9E-05**	2.9E-05			Dichlorodifluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**2.7E-05**	2.7E-05			Ethylbenzene
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**1.5E-05**	1.5E-05			1,1,2-Trichloro-1,2,2-trifluoroethane
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**2.1E-05**	2.1E-05			n-Butylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**2.3E-05**	2.3E-05			n-Propylbenzene
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**2.0E-05**	2.0E-05			Tetrachloroethylene (PCE)
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**3.0E-05**	3.0E-05			Toluene
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**2.7E-05**	2.7E-05			Trichloroethylene (TCE)
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**2.5E-05**	2.5E-05			Trichlorofluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**2.7E-05**	2.7E-05			Xylene (total)

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Error Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Error stratum A SCS soil type (used to estimate soil vapor permeability)	Error OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	610	19	427	183		S		
	20 ft bgs		14 ft bgs	6 ft bgs				

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type Lookup Soil Parameters	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type Lookup Soil Parameters	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type Lookup Soil Parameters
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)		Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	366	0.1	1		5

ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, AT_C (yrs)	Averaging time for noncarcinogens, AT_{NC} (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	25	25	250

20 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,1,2-Tetrachloroethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,1-Trichloroethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1-Dichloroethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1-Dichloroethylene (1,1-DCE
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,2,4-Trimethylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,3,5-Trimethylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	p-Isopropyltoluene (p-cymene)
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Benzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Chlorobenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Chloroform
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	cis-1,2-Dichloroethylene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Dichlorodifluoromethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Ethylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,2-Trichloro-1,2,2-trifluoroet
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	n-Butylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	n-Propylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Tetrachloroethylene (PCE)
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Toluene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Trichloroethylene (TCE)
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Trichlorofluoromethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Xylene (total)

20 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	3.4E-04	595	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	4.5E-04	595	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	5.8E-04	595	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	6.0E-04	595	1,1-Dichloroethylene (1,1-DCE
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	4.2E-04	595	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	4.2E-04	595	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	4.4E-04	595	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	6.3E-04	595	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	5.1E-04	595	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	5.4E-04	595	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	6.2E-04	595	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	5.3E-04	595	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	2.6E-04	595	1,1,2-Trichloro-1,2,2-trifluoroet
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	3.7E-04	595	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	4.2E-04	595	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	3.5E-04	595	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	5.4E-04	595	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	4.5E-04	595	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Xylene (total)

20 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**5.6E-06**	5.6E-06	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**7.4E-06**	7.4E-06			1,1,1-Trichloroethane
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**9.5E-06**	9.5E-06			1,1-Dichloroethane
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**9.8E-06**	9.8E-06			1,1-Dichloroethylene (1,1-DCE)
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**7.0E-06**	7.0E-06			1,2,4-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**6.9E-06**	6.9E-06			1,3,5-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**7.2E-06**	7.2E-06			p-Isopropyltoluene (p-cymene)
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**1.0E-05**	1.0E-05			Benzene
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**8.3E-06**	8.3E-06			Chlorobenzene
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**8.8E-06**	8.8E-06			Chloroform
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**1.0E-05**	1.0E-05			cis-1,2-Dichloroethylene
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**8.6E-06**	8.6E-06			Dichlorodifluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**7.8E-06**	7.8E-06			Ethylbenzene
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**4.3E-06**	4.3E-06			1,1,2-Trichloro-1,2,2-trifluoroethane
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**6.0E-06**	6.0E-06			n-Butylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**6.9E-06**	6.9E-06			n-Propylbenzene
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**5.8E-06**	5.8E-06			Tetrachloroethylene (PCE)
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**8.9E-06**	8.9E-06			Toluene
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**7.8E-06**	7.8E-06			Trichloroethylene (TCE)
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**7.4E-06**	7.4E-06			Trichlorofluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**7.8E-06**	7.8E-06			Xylene (total)

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	610	19	427	183		S		
	20 ft bgs		14 ft bgs	6 ft bgs				

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type (Lookup Soil Parameters)	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type (Lookup Soil Parameters)	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type (Lookup Soil Parameters)
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP (g/cm-s^2)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)	Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	244	0.1	0.5	5

ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, AT_C (yrs)	Averaging time for noncarcinogens, AT_{NC} (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	26	26	350

20 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,1,2-Tetrachloroethane
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,1-Trichloroethane
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1-Dichloroethane
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1-Dichloroethylene (1,1-DCE
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,2,4-Trimethylbenzene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,3,5-Trimethylbenzene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	p-Isopropyltoluene (p-cymene)
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Benzene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Chlorobenzene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Chloroform
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	cis-1,2-Dichloroethylene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Dichlorodifluoromethane
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Ethylbenzene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,2-Trichloro-1,2,2-trifluoroet
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	n-Butylbenzene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	n-Propylbenzene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Tetrachloroethylene (PCE)
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Toluene
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Trichloroethylene (TCE)
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Trichlorofluoromethane
8.2E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Xylene (total)

20 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	3.4E-04	595	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	4.5E-04	595	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	5.8E-04	595	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	6.0E-04	595	1,1-Dichloroethylene (1,1-DCE
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	4.2E-04	595	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	4.2E-04	595	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	4.4E-04	595	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	6.3E-04	595	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	5.1E-04	595	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	5.4E-04	595	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	6.2E-04	595	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	5.3E-04	595	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	2.6E-04	595	1,1,2-Trichloro-1,2,2-trifluoroet
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	3.7E-04	595	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	4.2E-04	595	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	3.5E-04	595	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	5.4E-04	595	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	4.5E-04	595	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Xylene (total)

20 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**1.7E-05**	1.7E-05	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**2.2E-05**	2.2E-05			1,1,1-Trichloroethane
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**2.9E-05**	2.9E-05			1,1-Dichloroethane
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**2.9E-05**	2.9E-05			1,1-Dichloroethylene (1,1-DCE)
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**2.1E-05**	2.1E-05			1,2,4-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**2.1E-05**	2.1E-05			1,3,5-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**2.2E-05**	2.2E-05			p-Isopropyltoluene (p-cymene)
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**3.1E-05**	3.1E-05			Benzene
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**2.5E-05**	2.5E-05			Chlorobenzene
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**2.6E-05**	2.6E-05			Chloroform
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**3.0E-05**	3.0E-05			cis-1,2-Dichloroethylene
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**2.6E-05**	2.6E-05			Dichlorodifluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**2.3E-05**	2.3E-05			Ethylbenzene
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**1.3E-05**	1.3E-05			1,1,2-Trichloro-1,2,2-trifluoroethane
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**1.8E-05**	1.8E-05			n-Butylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**2.1E-05**	2.1E-05			n-Propylbenzene
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**1.7E-05**	1.7E-05			Tetrachloroethylene (PCE)
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**2.7E-05**	2.7E-05			Toluene
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**2.4E-05**	2.4E-05			Trichloroethylene (TCE)
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**2.2E-05**	2.2E-05			Trichlorofluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**2.3E-05**	2.3E-05			Xylene (total)

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Error Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Error stratum A SCS soil type (used to estimate soil vapor permeability)	Error OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	915	19	427	488		S		

	30 ft bgs		14 ft bgs	16 ft bgs				
ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type (Lookup Soil Parameters)	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type (Lookup Soil Parameters)	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type (Lookup Soil Parameters)
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP (g/cm-s^2)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)	Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	366	0.1	1	5

ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, AT_C (yrs)	Averaging time for noncarcinogens, AT_{NC} (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	25	25	250

30 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,1,2-Tetrachloroethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,1-Trichloroethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1-Dichloroethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1-Dichloroethylene (1,1-DCE
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,2,4-Trimethylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,3,5-Trimethylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	p-Isopropyltoluene (p-cymene)
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Benzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Chlorobenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Chloroform
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	cis-1,2-Dichloroethylene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Dichlorodifluoromethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Ethylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	1,1,2-Trichloro-1,2,2-trifluoroet
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	n-Butylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	n-Propylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Tetrachloroethylene (PCE)
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Toluene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Trichloroethylene (TCE)
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Trichlorofluoromethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	1.0E+05	Xylene (total)

30 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	4.2E-04	900	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	5.5E-04	900	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	7.1E-04	900	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	7.3E-04	900	1,1-Dichloroethylene (1,1-DCE
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	5.2E-04	900	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	5.1E-04	900	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	5.4E-04	900	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	7.6E-04	900	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	6.2E-04	900	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	6.6E-04	900	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	7.5E-04	900	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	6.4E-04	900	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	3.2E-04	900	1,1,2-Trichloro-1,2,2-trifluoroet
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	4.5E-04	900	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	5.1E-04	900	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	4.3E-04	900	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	6.6E-04	900	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	5.5E-04	900	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Xylene (total)

30 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**4.5E-06**	4.5E-06	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**6.0E-06**	6.0E-06			1,1,1-Trichloroethane
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**7.7E-06**	7.7E-06			1,1-Dichloroethane
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**7.9E-06**	7.9E-06			1,1-Dichloroethylene (1,1-DCE)
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**5.6E-06**	5.6E-06			1,2,4-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**5.5E-06**	5.5E-06			1,3,5-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**5.8E-06**	5.8E-06			p-Isopropyltoluene (p-cymene)
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**8.2E-06**	8.2E-06			Benzene
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**6.7E-06**	6.7E-06			Chlorobenzene
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**7.1E-06**	7.1E-06			Chloroform
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**8.1E-06**	8.1E-06			cis-1,2-Dichloroethylene
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**7.0E-06**	7.0E-06			Dichlorodifluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**6.3E-06**	6.3E-06			Ethylbenzene
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**3.5E-06**	3.5E-06			1,1,2-Trichloro-1,2,2-trifluoroethane
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**4.9E-06**	4.9E-06			n-Butylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**5.5E-06**	5.5E-06			n-Propylbenzene
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**4.6E-06**	4.6E-06			Tetrachloroethylene (PCE)
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**7.2E-06**	7.2E-06			Toluene
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**6.3E-06**	6.3E-06			Trichloroethylene (TCE)
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**6.0E-06**	6.0E-06			Trichlorofluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**6.3E-06**	6.3E-06			Xylene (total)

Soil Gas Concentration Data

SG-ADV
Version 3.1; 02/04

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	915	19	427	488		S		
	30 ft bgs		14 ft bgs	16 ft bgs				

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type (Lookup Soil Parameters)	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type (Lookup Soil Parameters)	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type (Lookup Soil Parameters)
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP (g/cm-s^2)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)	Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	244	0.1	0.5	5

ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, AT_C (yrs)	Averaging time for noncarcinogens, AT_{NC} (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	26	26	350

30 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,1,2-Tetrachloroethane
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,1-Trichloroethane
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1-Dichloroethane
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1-Dichloroethylene (1,1-DCE
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,2,4-Trimethylbenzene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,3,5-Trimethylbenzene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	p-Isopropyltoluene (p-cymene)
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Benzene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Chlorobenzene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Chloroform
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	cis-1,2-Dichloroethylene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Dichlorodifluoromethane
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Ethylbenzene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	1,1,2-Trichloro-1,2,2-trifluoroet
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	n-Butylbenzene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	n-Propylbenzene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Tetrachloroethylene (PCE)
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Toluene
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Trichloroethylene (TCE)
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Trichlorofluoromethane
8.2E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	3.4E+04	Xylene (total)

30 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	4.2E-04	900	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	5.5E-04	900	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	7.1E-04	900	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	7.3E-04	900	1,1-Dichloroethylene (1,1-DCE
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	5.2E-04	900	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	5.1E-04	900	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	5.4E-04	900	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	7.6E-04	900	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	6.2E-04	900	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	6.6E-04	900	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	7.5E-04	900	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	6.4E-04	900	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	3.2E-04	900	1,1,2-Trichloro-1,2,2-trifluoroet
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	4.5E-04	900	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	5.1E-04	900	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	4.3E-04	900	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	6.6E-04	900	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	5.5E-04	900	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Xylene (total)

30 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**1.4E-05**	1.4E-05	see Table 8	see Table 8	1,1,1,2-Tetrachloroethane
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**1.8E-05**	1.8E-05			1,1,1-Trichloroethane
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**2.3E-05**	2.3E-05			1,1-Dichloroethane
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**2.4E-05**	2.4E-05			1,1-Dichloroethylene (1,1-DCE)
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**1.7E-05**	1.7E-05			1,2,4-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**1.7E-05**	1.7E-05			1,3,5-Trimethylbenzene
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**1.8E-05**	1.8E-05			p-Isopropyltoluene (p-cymene)
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**2.5E-05**	2.5E-05			Benzene
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**2.0E-05**	2.0E-05			Chlorobenzene
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**2.1E-05**	2.1E-05			Chloroform
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**2.4E-05**	2.4E-05			cis-1,2-Dichloroethylene
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**2.1E-05**	2.1E-05			Dichlorodifluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**1.9E-05**	1.9E-05			Ethylbenzene
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**1.0E-05**	1.0E-05			1,1,2-Trichloro-1,2,2-trifluoroethane
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**1.5E-05**	1.5E-05			n-Butylbenzene
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**1.7E-05**	1.7E-05			n-Propylbenzene
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**1.4E-05**	1.4E-05			Tetrachloroethylene (PCE)
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**2.1E-05**	2.1E-05			Toluene
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**1.9E-05**	1.9E-05			Trichloroethylene (TCE)
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**1.8E-05**	1.8E-05			Trichlorofluoromethane
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**1.9E-05**	1.9E-05			Xylene (total)

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	122	19	122			S		
	4 ft bgs		4 ft bgs					

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type (Lookup Soil Parameters)	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type (Lookup Soil Parameters)	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type (Lookup Soil Parameters)
S	1.77	0.333	0.224					

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)		Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	366	0.1	0.75		5

4 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,1,2-Tetrachloroethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,1-Trichloroethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1-Dichloroethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1-Dichloroethylene (1,1-DCE)
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,2,4-Trimethylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,3,5-Trimethylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	p-Isopropyltoluene (p-cymene)
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Benzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Chlorobenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Chloroform
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	cis-1,2-Dichloroethylene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Dichlorodifluoromethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Ethylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,2-Trichloro-1,2,2-trifluoroethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	n-Butylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	n-Propylbenzene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Tetrachloroethylene (PCE)
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Toluene
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Trichloroethylene (TCE)
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Trichlorofluoromethane
7.9E+08	107	0.109	ERROR		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Xylene (total)

4 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	0.0E+00	0.0E+00	2.8E-04	107	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	0.0E+00	0.0E+00	3.7E-04	107	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	0.0E+00	0.0E+00	4.7E-04	107	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	0.0E+00	0.0E+00	4.9E-04	107	1,1-Dichloroethylene (1,1-DCE)
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	0.0E+00	0.0E+00	3.6E-04	107	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	0.0E+00	0.0E+00	5.1E-04	107	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	0.0E+00	0.0E+00	4.1E-04	107	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	0.0E+00	0.0E+00	4.4E-04	107	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	0.0E+00	0.0E+00	5.0E-04	107	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	0.0E+00	0.0E+00	4.3E-04	107	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	0.0E+00	0.0E+00	2.1E-04	107	1,1,2-Trichloro-1,2,2-trifluoroethane
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	0.0E+00	0.0E+00	3.0E-04	107	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	0.0E+00	0.0E+00	3.4E-04	107	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	0.0E+00	0.0E+00	2.8E-04	107	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	0.0E+00	0.0E+00	4.4E-04	107	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	0.0E+00	0.0E+00	3.7E-04	107	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	107	Xylene (total)

4 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)		***[α * (0.03)]*** **2nd Floor AF**
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**3.3E-05**	3.3E-05			1,1,1,2-Tetrachloroethane	**9.9E-07**
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**4.3E-05**	4.3E-05			1,1,1-Trichloroethane	**1.3E-06**
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**5.5E-05**	5.5E-05			1,1-Dichloroethane	**1.7E-06**
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**5.6E-05**	5.6E-05			1,1-Dichloroethylene (1,1-DCE)	**1.7E-06**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**4.1E-05**	4.1E-05			1,2,4-Trimethylbenzene	**1.2E-06**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**4.0E-05**	4.0E-05			1,3,5-Trimethylbenzene	**1.2E-06**
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**4.2E-05**	4.2E-05			p-Isopropyltoluene (p-cymene)	**1.3E-06**
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**5.9E-05**	5.9E-05			Benzene	**1.8E-06**
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**4.8E-05**	4.8E-05			Chlorobenzene	**1.4E-06**
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**5.1E-05**	5.1E-05			Chloroform	**1.5E-06**
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**5.8E-05**	5.8E-05	see Table 8	see Table 8	cis-1,2-Dichloroethylene	**1.7E-06**
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**5.0E-05**	5.0E-05			Dichlorodifluoromethane	**1.5E-06**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**4.5E-05**	4.5E-05			Ethylbenzene	**1.4E-06**
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**2.5E-05**	2.5E-05			1,1,2-Trichloro-1,2,2-trifluoroethane	**7.6E-07**
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**3.5E-05**	3.5E-05			n-Butylbenzene	**1.1E-06**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**4.0E-05**	4.0E-05			n-Propylbenzene	**1.2E-06**
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**3.4E-05**	3.4E-05			Tetrachloroethylene (PCE)	**1.0E-06**
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**5.1E-05**	5.1E-05			Toluene	**1.5E-06**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**4.6E-05**	4.6E-05			Trichloroethylene (TCE)	**1.4E-06**
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**4.3E-05**	4.3E-05			Trichlorofluoromethane	**1.3E-06**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**4.6E-05**	4.6E-05			Xylene (total)	**1.4E-06**

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	457.5	19	427	30.5		S		
	15 ft bgs		14 ft bgs	1 ft bgs				

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type Lookup Soil Parameters	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type Lookup Soil Parameters	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type Lookup Soil Parameters
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)	Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	366	0.1	0.75	5

15 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,1,2-Tetrachloroethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,1-Trichloroethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1-Dichloroethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1-Dichloroethylene (1,1-DCE)
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,2,4-Trimethylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,3,5-Trimethylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	p-Isopropyltoluene (p-cymene)
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Benzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Chlorobenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Chloroform
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	cis-1,2-Dichloroethylene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Dichlorodifluoromethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Ethylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,2-Trichloro-1,2,2-trifluoroethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	n-Butylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	n-Propylbenzene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Tetrachloroethylene (PCE)
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Toluene
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Trichloroethylene (TCE)
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Trichlorofluoromethane
7.9E+08	442.5	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Xylene (total)

15 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	2.9E-04	442.5	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	3.8E-04	442.5	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	4.9E-04	442.5	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	5.1E-04	442.5	1,1-Dichloroethylene (1,1-DCE)
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	3.6E-04	442.5	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	3.6E-04	442.5	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	3.7E-04	442.5	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	5.3E-04	442.5	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	4.3E-04	442.5	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	4.6E-04	442.5	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	5.2E-04	442.5	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	4.5E-04	442.5	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.0E-04	442.5	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	2.2E-04	442.5	1,1,2-Trichloro-1,2,2-trifluoroethane
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	3.1E-04	442.5	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	3.5E-04	442.5	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	3.0E-04	442.5	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	4.6E-04	442.5	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.1E-04	442.5	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	3.8E-04	442.5	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.0E-04	442.5	Xylene (total)

15 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)		***[α * (0.03)]*** **2nd Floor AF**
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**8.6E-06**	8.6E-06			1,1,1,2-Tetrachloroethane	**2.6E-07**
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**1.1E-05**	1.1E-05			1,1,1-Trichloroethane	**3.4E-07**
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**1.4E-05**	1.4E-05			1,1-Dichloroethane	**4.3E-07**
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**1.5E-05**	1.5E-05			1,1-Dichloroethylene (1,1-DCE)	**4.5E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**1.1E-05**	1.1E-05			1,2,4-Trimethylbenzene	**3.2E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**1.0E-05**	1.0E-05			1,3,5-Trimethylbenzene	**3.1E-07**
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**1.1E-05**	1.1E-05			p-Isopropyltoluene (p-cymene)	**3.3E-07**
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**1.5E-05**	1.5E-05			Benzene	**4.6E-07**
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**1.3E-05**	1.3E-05			Chlorobenzene	**3.8E-07**
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**1.3E-05**	1.3E-05			Chloroform	**4.0E-07**
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**1.5E-05**	1.5E-05	see Table 8	see Table 8	cis-1,2-Dichloroethylene	**4.6E-07**
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**1.3E-05**	1.3E-05			Dichlorodifluoromethane	**3.9E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**1.2E-05**	1.2E-05			Ethylbenzene	**3.6E-07**
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**6.5E-06**	6.5E-06			1,1,2-Trichloro-1,2,2-trifluoroethane	**1.9E-07**
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**9.1E-06**	9.1E-06			n-Butylbenzene	**2.7E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**1.0E-05**	1.0E-05			n-Propylbenzene	**3.1E-07**
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**8.7E-06**	8.7E-06			Tetrachloroethylene (PCE)	**2.6E-07**
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**1.3E-05**	1.3E-05			Toluene	**4.0E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**1.2E-05**	1.2E-05			Trichloroethylene (TCE)	**3.6E-07**
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**1.1E-05**	1.1E-05			Trichlorofluoromethane	**3.4E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**1.2E-05**	1.2E-05			Xylene (total)	**3.6E-07**

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Depth below grade to bottom of enclosed space floor, L_F (cm)	Soil gas sampling depth below grade, L_s (cm)	Average soil temperature, T_S (^oC)	Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)	Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permeability, k_v (cm2)
15	610	19	427	183		S		
	20 ft bgs		14 ft bgs	6 ft bgs				

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type (Lookup Soil Parameters)	Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	Stratum A soil total porosity, n^A (unitless)	Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	Stratum B SCS soil type (Lookup Soil Parameters)	Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	Stratum B soil total porosity, n^B (unitless)	Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	Stratum C SCS soil type (Lookup Soil Parameters)
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Enclosed space floor thickness, L_{crack} (cm)	Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	Enclosed space floor length, L_B (cm)	Enclosed space floor width, W_B (cm)	Enclosed space height, H_B (cm)	Floor-wall seam crack width, w (cm)	Indoor air exchange rate, ER (1/h)		Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	366	0.1	0.75		5

20 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,1,2-Tetrachloroethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,1-Trichloroethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1-Dichloroethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1-Dichloroethylene (1,1-DCE)
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,2,4-Trimethylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,3,5-Trimethylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	p-Isopropyltoluene (p-cymene)
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Benzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Chlorobenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Chloroform
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	cis-1,2-Dichloroethylene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Dichlorodifluoromethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Ethylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,2-Trichloro-1,2,2-trifluoroethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	n-Butylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	n-Propylbenzene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Tetrachloroethylene (PCE)
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Toluene
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Trichloroethylene (TCE)
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Trichlorofluoromethane
7.9E+08	595	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Xylene (total)

20 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	3.4E-04	595	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	4.5E-04	595	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	5.8E-04	595	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	6.0E-04	595	1,1-Dichloroethylene (1,1-DCE)
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	4.2E-04	595	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	4.2E-04	595	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	4.4E-04	595	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	6.3E-04	595	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	5.1E-04	595	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	5.4E-04	595	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	6.2E-04	595	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	5.3E-04	595	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	2.6E-04	595	1,1,2-Trichloro-1,2,2-trifluoroethane
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	3.7E-04	595	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	4.2E-04	595	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	3.5E-04	595	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	5.4E-04	595	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	4.5E-04	595	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	4.8E-04	595	Xylene (total)

20 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)		***[α * (0.03)]*** **2nd Floor AF**
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**7.5E-06**	7.5E-06			1,1,1,2-Tetrachloroethane	**2.3E-07**
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**9.8E-06**	9.8E-06			1,1,1-Trichloroethane	**3.0E-07**
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**1.3E-05**	1.3E-05			1,1-Dichloroethane	**3.8E-07**
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**1.3E-05**	1.3E-05			1,1-Dichloroethylene (1,1-DCE)	**3.9E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**9.3E-06**	9.3E-06			1,2,4-Trimethylbenzene	**2.8E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**9.2E-06**	9.2E-06			1,3,5-Trimethylbenzene	**2.8E-07**
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**9.7E-06**	9.7E-06			p-Isopropyltoluene (p-cymene)	**2.9E-07**
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**1.4E-05**	1.4E-05			Benzene	**4.1E-07**
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**1.1E-05**	1.1E-05			Chlorobenzene	**3.3E-07**
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**1.2E-05**	1.2E-05			Chloroform	**3.5E-07**
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**1.3E-05**	1.3E-05	see Table 8	see Table 8	cis-1,2-Dichloroethylene	**4.0E-07**
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**1.2E-05**	1.2E-05			Dichlorodifluoromethane	**3.5E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**1.0E-05**	1.0E-05			Ethylbenzene	**3.1E-07**
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**5.7E-06**	5.7E-06			1,1,2-Trichloro-1,2,2-trifluoroethane	**1.7E-07**
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**8.0E-06**	8.0E-06			n-Butylbenzene	**2.4E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**9.2E-06**	9.2E-06			n-Propylbenzene	**2.7E-07**
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**7.7E-06**	7.7E-06			Tetrachloroethylene (PCE)	**2.3E-07**
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**1.2E-05**	1.2E-05			Toluene	**3.6E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**1.0E-05**	1.0E-05			Trichloroethylene (TCE)	**3.1E-07**
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**9.9E-06**	9.9E-06			Trichlorofluoromethane	**3.0E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**1.0E-05**	1.0E-05			Xylene (total)	**3.1E-07**

SG-ADV
Version 3.1; 02/04

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
630206	1			1,1,1,2-Tetrachloroethane
71556	1			1,1,1-Trichloroethane
75343	1			1,1-Dichloroethane
75354	1			1,1-Dichloroethylene (1,1-DCE)
95636	1			1,2,4-Trimethylbenzene
108678	1			1,3,5-Trimethylbenzene
99876	1			p-Isopropyltoluene (p-cymene)
71432	1			Benzene
108907	1			Chlorobenzene
67663	1			Chloroform
156592	1			cis-1,2-Dichloroethylene
75718	1			Dichlorodifluoromethane
100414	1			Ethylbenzene
76131	1			1,1,2-Trichloro-1,2,2-trifluoroethane
104518	1			n-Butylbenzene
103651	1			n-Propylbenzene
127184	1			Tetrachloroethylene (PCE)
108883	1			Toluene
79016	1			Trichloroethylene (TCE)
75694	1			Trichlorofluoromethane
1330207	1			Xylene (total)

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm2)
			Totals must add up to value of Ls (cell F24)					
15	915	19	427	488		S		
	30 ft bgs		14 ft bgs	16 ft bgs				

ENTER Stratum A SCS soil type Lookup Soil Parameters	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type Lookup Soil Parameters
S	1.77	0.333	0.224	SL	1.87	0.294	0.159	

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1000	1000	366	0.1	0.75	5

30 ft bgs

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (ug/m^3)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,1,2-Tetrachloroethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,1-Trichloroethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1-Dichloroethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1-Dichloroethylene (1,1-DCE)
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,2,4-Trimethylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,3,5-Trimethylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	p-Isopropyltoluene (p-cymene)
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Benzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Chlorobenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Chloroform
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	cis-1,2-Dichloroethylene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Dichlorodifluoromethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Ethylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	1,1,2-Trichloro-1,2,2-trifluoroethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	n-Butylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	n-Propylbenzene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Tetrachloroethylene (PCE)
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Toluene
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Trichloroethylene (TCE)
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Trichlorofluoromethane
7.9E+08	900	0.109	0.135		0.611	1.01E-07	0.250	2.5E-08	4,000	1.0E+00	7.6E+04	Xylene (total)

30 ft bgs

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	
1.0E+06	5.0E-03	15	11,329	1.7E-03	7.0E-02	1.8E-04	2.8E-04	7.1E-04	0.0E+00	4.2E-04	900	1,1,1,2-Tetrachloroethane
1.0E+06	5.0E-03	15	7,787	1.3E-02	5.5E-01	1.8E-04	3.7E-04	9.5E-04	0.0E+00	5.5E-04	900	1,1,1-Trichloroethane
1.0E+06	5.0E-03	15	7,351	4.4E-03	1.8E-01	1.8E-04	4.7E-04	1.2E-03	0.0E+00	7.1E-04	900	1,1-Dichloroethane
1.0E+06	5.0E-03	15	6,333	2.1E-02	8.7E-01	1.8E-04	4.9E-04	1.3E-03	0.0E+00	7.3E-04	900	1,1-Dichloroethylene (1,1-DCE)
1.0E+06	5.0E-03	15	11,579	4.1E-03	1.7E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	5.2E-04	900	1,2,4-Trimethylbenzene
1.0E+06	5.0E-03	15	11,561	5.9E-03	2.5E-01	1.8E-04	3.4E-04	8.9E-04	0.0E+00	5.1E-04	900	1,3,5-Trimethylbenzene
1.0E+06	5.0E-03	15	0	1.1E-02	4.6E-01	1.8E-04	3.6E-04	9.4E-04	0.0E+00	5.4E-04	900	p-Isopropyltoluene (p-cymene)
1.0E+06	5.0E-03	15	8,030	4.2E-03	1.8E-01	1.8E-04	5.1E-04	1.3E-03	0.0E+00	7.6E-04	900	Benzene
1.0E+06	5.0E-03	15	9,712	2.2E-03	9.3E-02	1.8E-04	4.1E-04	1.1E-03	0.0E+00	6.2E-04	900	Chlorobenzene
1.0E+06	5.0E-03	15	7,461	2.8E-03	1.2E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	6.6E-04	900	Chloroform
1.0E+06	5.0E-03	15	7,643	3.1E-03	1.3E-01	1.8E-04	5.0E-04	1.3E-03	0.0E+00	7.5E-04	900	cis-1,2-Dichloroethylene
1.0E+06	5.0E-03	15	8,118	2.6E-01	1.1E+01	1.8E-04	4.3E-04	1.1E-03	0.0E+00	6.4E-04	900	Dichlorodifluoromethane
1.0E+06	5.0E-03	15	10,052	5.6E-03	2.3E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Ethylbenzene
1.0E+06	5.0E-03	15	6,853	4.1E-01	1.7E+01	1.8E-04	2.1E-04	5.5E-04	0.0E+00	3.2E-04	900	1,1,2-Trichloro-1,2,2-trifluoroethane
1.0E+06	5.0E-03	15	11,734	1.1E-02	4.4E-01	1.8E-04	3.0E-04	7.8E-04	0.0E+00	4.5E-04	900	n-Butylbenzene
1.0E+06	5.0E-03	15	11,251	7.1E-03	3.0E-01	1.8E-04	3.4E-04	8.8E-04	0.0E+00	5.1E-04	900	n-Propylbenzene
1.0E+06	5.0E-03	15	9,462	1.3E-02	5.3E-01	1.8E-04	2.8E-04	7.4E-04	0.0E+00	4.3E-04	900	Tetrachloroethylene (PCE)
1.0E+06	5.0E-03	15	9,056	4.9E-03	2.0E-01	1.8E-04	4.4E-04	1.1E-03	0.0E+00	6.6E-04	900	Toluene
1.0E+06	5.0E-03	15	8,445	7.4E-03	3.1E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Trichloroethylene (TCE)
1.0E+06	5.0E-03	15	6,053	7.9E-02	3.3E+00	1.8E-04	3.7E-04	9.6E-04	0.0E+00	5.5E-04	900	Trichlorofluoromethane
1.0E+06	5.0E-03	15	10,147	4.7E-03	1.9E-01	1.8E-04	3.9E-04	1.0E-03	0.0E+00	5.8E-04	900	Xylene (total)

30 ft bgs

Convection path length, L_p (cm)	Source vapor conc., C_{source} (ug/m^3)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	**Infinite source indoor attenuation coefficient, α (unitless)**	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(ug/m^3)^{-1}$	Reference conc., RfC (mg/m^3)		***[α * (0.03)]*** **2nd Floor AF**
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**6.0E-06**	6.0E-06			1,1,1,2-Tetrachloroethane	**1.8E-07**
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	1.5E+297	**7.9E-06**	7.9E-06			1,1,1-Trichloroethane	**2.4E-07**
15	1.0E+00	1.25	8.3E+01	4.7E-04	5.0E+03	1.6E+229	**1.0E-05**	1.0E-05			1,1-Dichloroethane	**3.1E-07**
15	1.0E+00	1.25	8.3E+01	4.9E-04	5.0E+03	3.0E+223	**1.1E-05**	1.1E-05			1,1-Dichloroethylene (1,1-DCE)	**3.2E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**7.5E-06**	7.5E-06			1,2,4-Trimethylbenzene	**2.2E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**7.4E-06**	7.4E-06			1,3,5-Trimethylbenzene	**2.2E-07**
15	1.0E+00	1.25	8.3E+01	3.6E-04	5.0E+03	1.9E+303	**7.8E-06**	7.8E-06			p-Isopropyltoluene (p-cymene)	**2.3E-07**
15	1.0E+00	1.25	8.3E+01	5.1E-04	5.0E+03	1.7E+214	**1.1E-05**	1.1E-05			Benzene	**3.3E-07**
15	1.0E+00	1.25	8.3E+01	4.1E-04	5.0E+03	5.2E+263	**8.9E-06**	8.9E-06			Chlorobenzene	**2.7E-07**
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	7.7E+247	**9.5E-06**	9.5E-06			Chloroform	**2.8E-07**
15	1.0E+00	1.25	8.3E+01	5.0E-04	5.0E+03	1.6E+216	**1.1E-05**	1.1E-05	see Table 8	see Table 8	cis-1,2-Dichloroethylene	**3.3E-07**
15	1.0E+00	1.25	8.3E+01	4.3E-04	5.0E+03	1.2E+254	**9.3E-06**	9.3E-06			Dichlorodifluoromethane	**2.8E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	3.4E+280	**8.4E-06**	8.4E-06			Ethylbenzene	**2.5E-07**
15	1.0E+00	1.25	8.3E+01	2.1E-04	5.0E+03	#NUM!	**4.6E-06**	4.6E-06			1,1,2-Trichloro-1,2,2-trifluoroethane	**1.4E-07**
15	1.0E+00	1.25	8.3E+01	3.0E-04	5.0E+03	#NUM!	**6.5E-06**	6.5E-06			n-Butylbenzene	**1.9E-07**
15	1.0E+00	1.25	8.3E+01	3.4E-04	5.0E+03	#NUM!	**7.4E-06**	7.4E-06			n-Propylbenzene	**2.2E-07**
15	1.0E+00	1.25	8.3E+01	2.8E-04	5.0E+03	#NUM!	**6.2E-06**	6.2E-06			Tetrachloroethylene (PCE)	**1.9E-07**
15	1.0E+00	1.25	8.3E+01	4.4E-04	5.0E+03	5.2E+246	**9.5E-06**	9.5E-06			Toluene	**2.9E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	7.4E+279	**8.4E-06**	8.4E-06			Trichloroethylene (TCE)	**2.5E-07**
15	1.0E+00	1.25	8.3E+01	3.7E-04	5.0E+03	2.8E+295	**8.0E-06**	8.0E-06			Trichlorofluoromethane	**2.4E-07**
15	1.0E+00	1.25	8.3E+01	3.9E-04	5.0E+03	1.0E+280	**8.4E-06**	8.4E-06			Xylene (total)	**2.5E-07**

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APPENDIX E
Derivation of Risk-Based Concentrations

CAS Number	Chemical of Potential Concern	Note	Noncancer Effects							Cancer Effects						
			Ingestion		Dermal Contact		Outdoor Inhalation		$RBC_{soil\text{-}NC}$ (mg/kg)	Ingestion		Dermal Contact		Outdoor Inhalation		$RBC_{soil\text{-}C}$ (mg/kg)
			IF_{oral} (mg/kg-day)	Reference Dose (mg/kg-day)	IF_{dermal} (mg/kg-day)	Reference Dose (mg/kg-day)	$ECF_{inh,soil}$ (mg/m^3-mg/kg)	Reference Concentration (mg/m^3)		IF_{oral} (mg/kg-day)	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	IF_{dermal} (mg/kg-day)	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	$ECF_{inh,soil}$ (mg/m^3-mg/kg)	Inhalation Unit Risk $(\mu g/m^3)^{-1}$	
Metals																
7440-41-7	Beryllium		1.2E-06	2.0E-04	5.1E-08	2.0E-04	8.3E-12	7.0E-06	**1.6E+02**	1.4E-06	NC	4.6E-08	NC	3.1E-12	2.4E-03	**1.3E+05**
7440-43-9	Cadmium		1.2E-06	6.3E-06	5.1E-09	6.3E-06	8.3E-12	1.0E-05	**5.2E+00**	1.4E-06	NC	4.6E-09	NC	3.1E-12	1.8E-03	**1.8E+05**
18540-29-9	Chromium, Hexavalent	M	1.3E-05	3.0E-03	--	NA	8.3E-12	1.0E-04	**2.3E+02**	6.5E-06	5.0E-01	--	NA	8.6E-12	1.5E-01	**3.1E-01**
7440-47-3	Chromium, Total		1.3E-05	1.5E+00	3.7E-07	2.0E-02	8.3E-12	NA	**3.6E+04**	1.4E-06	NC	4.6E-08	NC	3.1E-12	NC	**--**
7440-50-8	Copper		1.3E-05	4.0E-02	--	NA	8.3E-12	NA	**3.1E+03**	1.4E-06	NC	--	NA	3.1E-12	NC	**--**
7440-66-6	Zinc		1.3E-05	3.0E-01	--	NA	8.3E-12	NA	**2.3E+04**	1.4E-06	NC	--	NC	3.1E-12	NC	**--**
Volatile Organic Compounds (VOCs)																
71-55-6	1,1,1-Trichloroethane		1.3E-05	2.0E+00	--	NA	1.8E-04	1.0E+00	**5.4E+03**	1.4E-06	NC	--	NC	6.6E-05	NC	**--**
71-43-2	Benzene		1.3E-05	4.0E-03	--	NA	7.8E-05	3.0E-03	**3.4E+01**	1.4E-06	1.0E-01	--	NC	2.9E-05	2.9E-05	**1.0E+00**
156-59-2	cis-1,2-Dichloroethene		1.3E-05	2.0E-03	--	NA	1.1E-04	8.0E-03	**5.0E+01**	1.4E-06	NC	--	NC	4.1E-05	NC	**--**
100-41-4	Ethylbenzene		1.3E-05	1.0E-01	--	NA	4.9E-05	1.0E+00	**5.7E+03**	1.4E-06	1.1E-02	--	NC	1.8E-05	2.5E-06	**1.6E+01**
127-18-4	Tetrachloroethylene		1.3E-05	6.0E-03	--	NA	1.2E-04	3.5E-02	**1.8E+02**	1.4E-06	5.4E-01	--	NC	4.5E-05	6.1E-06	**9.5E-01**
108-88-3	Toluene		1.3E-05	8.0E-02	--	NA	6.5E-05	3.0E-01	**2.7E+03**	1.4E-06	NC	--	NC	2.4E-05	NC	**--**
156-60-5	trans-1,2-Dichloroethene		1.3E-05	2.0E-02	--	NA	1.6E-04	8.0E-02	**3.7E+02**	1.4E-06	NC	--	NC	6.0E-05	NC	**--**
79-01-6	Trichloroethylene	M	1.3E-05	5.0E-04	--	NA	1.3E-04	2.0E-03	**1.1E+01**	2.5E-06	4.6E-02	--	NC	6.8E-05	4.1E-06	**2.5E+00**

Notes:

" -- " not applicable; " NA " not available; " NC " not carcinogenic via this route

" IF " intake factor; " ECF " exposure concentration factor

" M " COPC considered a mutagen; therefore, the equations provided in the USEPA Regional Screening Level guide (USEPA, 2016) were used.

RBCnc: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBCc: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-6}

CAS Number	Chemical of Potential Concern	Noncancer Effects							Cancer Effects						
		Ingestion		Dermal Contact		Outdoor Inhalation		$RBC_{soil\text{-}nc}$ (mg/kg)	Ingestion		Dermal Contact		Outdoor Inhalation		$RBC_{soil\text{-}c}$ (mg/kg)
		IF_{oral} (mg/kg-day)	Reference Dose (mg/kg-day)	IF_{dermal} (mg/kg-day)	Reference Dose (mg/kg-day)	$ECF_{inh,soil}$ (mg/m^3-mg/kg)	Reference Concentration (mg/m^3)		IF_{oral} (mg/kg-day)	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	IF_{dermal} (mg/kg-day)	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	$ECF_{inh,soil}$ (mg/m^3-mg/kg)	Inhalation Unit Risk $(\mu g/m^3)^{-1}$	
Metals															
7440-41-7	Beryllium	8.6E-07	2.0E-04	1.0E-07	2.0E-04	2.0E-12	7.0E-06	**2.1E+02**	3.1E-07	NC	3.7E-08	NC	7.1E-13	2.4E-03	**5.9E+06**
7440-43-9	Cadmium	8.6E-07	6.3E-06	1.0E-08	6.3E-06	2.0E-12	1.0E-05	**7.3E+00**	3.1E-07	NC	3.7E-09	NC	7.1E-13	1.8E-03	**7.8E+06**
18540-29-9	Chromium, Hexavalent	8.6E-07	3.0E-03	--	NA	2.0E-12	1.0E-04	**3.5E+03**	3.1E-07	5.0E-01	--	NA	7.1E-13	1.5E-01	**6.5E+01**
7440-47-3	Chromium, Total	8.6E-07	1.5E+00	1.0E-07	2.0E-02	2.0E-12	NA	**1.7E+05**	3.1E-07	NC	3.7E-08	NC	7.1E-13	NC	**--**
7440-50-8	Copper	8.6E-07	4.0E-02	--	NA	2.0E-12	NA	**4.7E+04**	3.1E-07	NC	--	NA	7.1E-13	NC	**--**
7440-66-6	Zinc	8.6E-07	3.0E-01	--	NA	2.0E-12	NA	**3.5E+05**	3.1E-07	NC	--	NC	7.1E-13	NC	**--**
Volatile Organic Compounds (VOCs)															
71-55-6	1,1,1-Trichloroethane	8.6E-07	2.0E+00	--	NA	4.3E-05	1.0E+00	**2.3E+04**	3.1E-07	NC	--	NC	1.6E-05	NC	**--**
71-43-2	Benzene	8.6E-07	4.0E-03	--	NA	1.9E-05	3.0E-03	**1.5E+02**	3.1E-07	1.0E-01	--	NC	6.8E-06	2.9E-05	**4.4E+01**
156-59-2	cis-1,2-Dichloroethene	8.6E-07	2.0E-03	--	NA	2.7E-05	8.0E-03	**2.7E+02**	3.1E-07	NC	--	NC	9.5E-06	NC	**--**
100-41-4	Ethylbenzene	8.6E-07	1.0E-01	--	NA	1.2E-05	1.0E+00	**4.9E+04**	3.1E-07	1.1E-02	--	NC	4.2E-06	2.5E-06	**7.2E+02**
127-18-4	Tetrachloroethylene	8.6E-07	6.0E-03	--	NA	3.0E-05	3.5E-02	**1.0E+03**	3.1E-07	5.4E-01	--	NC	1.1E-05	6.1E-06	**4.3E+01**
108-88-3	Toluene	8.6E-07	8.0E-02	--	NA	1.6E-05	3.0E-01	**1.6E+04**	3.1E-07	NC	--	NC	5.6E-06	NC	**--**
156-60-5	trans-1,2-Dichloroethene	8.6E-07	2.0E-02	--	NA	3.9E-05	8.0E-02	**1.9E+03**	3.1E-07	NC	--	NC	1.4E-05	NC	**--**
79-01-6	Trichloroethylene	8.6E-07	5.0E-04	--	NA	3.1E-05	2.0E-03	**5.8E+01**	3.1E-07	4.6E-02	--	NC	1.1E-05	4.1E-06	**1.7E+02**

Notes:

" -- " not applicable; " NA " not available; " NC " not carcinogenic via this route

" IF " intake factor; " ECF " exposure concentration factor

RBCnc: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBCc: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-5}

CAS Number	Chemical of Potential Concern	Noncancer Effects							Cancer Effects						
		Ingestion		Dermal Contact		Outdoor Inhalation		$RBC_{soil\text{-}nc}$ (mg/kg)	Ingestion		Dermal Contact		Outdoor Inhalation		$RBC_{soil\text{-}c}$ (mg/kg)
		IF_{oral} (mg/kg-day)	Reference Dose (mg/kg-day)	IF_{dermal} (mg/kg-day)	Reference Dose (mg/kg-day)	$ECF_{inh,soil}$ (mg/m^3-mg/kg)	Reference Concentration (mg/m^3)		IF_{oral} (mg/kg-day)	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	IF_{dermal} (mg/kg-day)	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	$ECF_{inh,soil}$ (mg/m^3-mg/kg)	Inhalation Unit Risk $(\mu g/m^3)^{-1}$	
Metals															
7440-41-7	Beryllium	2.8E-06	2.0E-04	4.1E-07	2.0E-04	5.5E-08	7.0E-06	**4.2E+01**	4.0E-08	NC	5.9E-09	NC	7.8E-10	2.4E-03	**5.3E+03**
7440-43-9	Cadmium	2.8E-06	6.3E-06	4.1E-08	6.3E-06	5.5E-08	1.0E-05	**2.2E+00**	4.0E-08	NC	5.9E-10	NC	7.8E-10	1.8E-03	**7.1E+03**
18540-29-9	Chromium, Hexavalent	2.8E-06	3.0E-03	--	NA	5.5E-08	1.0E-04	**6.7E+02**	4.0E-08	5.0E-01	--	NA	7.8E-10	1.5E-01	**7.3E+01**
7440-47-3	Chromium, Total	2.8E-06	1.5E+00	4.1E-07	2.0E-02	5.5E-08	NA	**4.3E+04**	4.0E-08	NC	5.9E-09	NC	7.8E-10	NC	**--**
7440-50-8	Copper	2.8E-06	4.0E-02	--	NA	5.5E-08	NA	**1.4E+04**	4.0E-08	NC	--	NA	7.8E-10	NC	**--**
7440-66-6	Zinc	2.8E-06	3.0E-01	--	NA	5.5E-08	NA	**1.1E+05**	4.0E-08	NC	--	NC	7.8E-10	NC	**--**
Volatile Organic Compounds (VOCs)															
71-55-6	1,1,1-Trichloroethane	2.8E-06	2.0E+00	--	NA	3.2E-04	1.0E+00	**3.1E+03**	4.0E-08	NC	--	NC	4.6E-06	NC	**--**
71-43-2	Benzene	2.8E-06	4.0E-03	--	NA	1.4E-04	3.0E-03	**2.1E+01**	4.0E-08	1.0E-01	--	NC	2.0E-06	2.9E-05	**1.6E+02**
156-59-2	cis-1,2-Dichloroethene	2.8E-06	2.0E-03	--	NA	2.0E-04	8.0E-03	**3.9E+01**	4.0E-08	NC	--	NC	2.8E-06	NC	**--**
100-41-4	Ethylbenzene	2.8E-06	1.0E-01	--	NA	8.7E-05	1.0E+00	**8.7E+03**	4.0E-08	1.1E-02	--	NC	1.2E-06	2.5E-06	**2.8E+03**
127-18-4	Tetrachloroethylene	2.8E-06	6.0E-03	--	NA	2.2E-04	3.5E-02	**1.5E+02**	4.0E-08	5.4E-01	--	NC	3.1E-06	6.1E-06	**2.4E+02**
108-88-3	Toluene	2.8E-06	8.0E-02	--	NA	1.1E-04	3.0E-01	**2.4E+03**	4.0E-08	NC	--	NC	1.6E-06	NC	**--**
156-60-5	trans-1,2-Dichloroethene	2.8E-06	2.0E-02	--	NA	2.9E-04	8.0E-02	**2.7E+02**	4.0E-08	NC	--	NC	4.1E-06	NC	**--**
79-01-6	Trichloroethylene	2.8E-06	5.0E-04	--	NA	2.3E-04	2.0E-03	**8.4E+00**	4.0E-08	4.6E-02	--	NC	3.3E-06	4.1E-06	**6.6E+02**

Notes:

" -- " not applicable; " NA " not available; " NC " not carcinogenic via this route

" IF " intake factor; " ECF " exposure concentration factor

RBCnc: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBCc: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-5}

CAS Number	Chemical of Potential Concern	Note	Future Resident		Future Commercial Worker		Future Construction Worker	
			$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)
Metals								
7440-41-7	Beryllium		1.6E+02	1.3E+05	2.1E+02	5.9E+06	4.2E+01	5.3E+03
7440-43-9	Cadmium		5.2E+00	1.8E+05	7.3E+00	7.8E+06	2.2E+00	7.1E+03
18540-29-9	Chromium, Hexavalent	M	2.3E+02	3.1E-01	3.5E+03	6.5E+01	6.7E+02	7.3E+01
7440-47-3	Chromium, Total		3.6E+04	--	1.7E+05	--	4.3E+04	--
7440-50-8	Copper		3.1E+03	--	4.7E+04	--	1.4E+04	--
7440-66-6	Zinc		2.3E+04	--	3.5E+05	--	1.1E+05	--
Volatile Organic Compounds (VOCs)								
71-55-6	1,1,1-Trichloroethane		5.4E+03	--	2.3E+04	--	3.1E+03	--
71-43-2	Benzene		3.4E+01	1.0E+00	1.5E+02	4.4E+01	2.1E+01	1.6E+02
156-59-2	cis-1,2-Dichloroethene		5.0E+01	--	2.7E+02	--	3.9E+01	--
100-41-4	Ethylbenzene		5.7E+03	1.6E+01	4.9E+04	7.2E+02	8.7E+03	2.8E+03
127-18-4	Tetrachloroethylene		1.8E+02	9.5E-01	1.0E+03	4.3E+01	1.5E+02	2.4E+02
108-88-3	Toluene		2.7E+03	--	1.6E+04	--	2.4E+03	--
156-60-5	trans-1,2-Dichloroethene		3.7E+02	--	1.9E+03	--	2.7E+02	--
79-01-6	Trichloroethylene	M	1.1E+01	2.5E+00	5.8E+01	1.7E+02	8.4E+00	6.6E+02

Notes:

"--" - not applicable

" M " COPC considered a mutagen; therefore, the equations provided in the USEPA Regional Screening Level guide (USEPA, 2016) were used for Residential RBCs

RBC - risk-based concentration

"nc" - RBC based on noncancer effects; "c" - RBC based on cancer effects

RBCs based on target cancer risk = 10^{-5} for workers and 10^{-6} for residents and target noncancer hazard = 1

CAS Number	Chemical of Potential Concern	4-ft AF_{SV-IA}	15-ft AF_{SV-IA}	20-ft AF_{SV-IA}	30-ft AF_{SV-IA}	Future Resident									
						Cancer-Based					Noncancer-Based				
						SL_{air-C} (µg/m^3)	4-ft RBC_{SV-C} (µg/m^3)	15-ft RBC_{SV-C} (µg/m^3)	20-ft RBC_{SV-C} (µg/m^3)	30-ft RBC_{SV-C} (µg/m^3)	SL_{air-NC} (µg/m^3)	4-ft RBC_{SV-NC} (µg/m^3)	15-ft RBC_{SV-NC} (µg/m^3)	20-ft RBC_{SV-NC} (µg/m^3)	30-ft RBC_{SV-NC} (µg/m^3)
630-20-6	1,1,1,2-Tetrachloroethane	7.5E-05	1.9E-05	1.7E-05	1.4E-05	3.8E-01	5.1E+03	2.0E+04	2.2E+04	2.8E+04	1.3E+02	1.7E+06	6.5E+06	7.4E+06	9.2E+06
71-55-6	1,1,1-Trichloroethane	9.7E-05	2.5E-05	2.2E-05	1.8E-05	--	--	--	--	--	1.0E+03	1.1E+07	4.1E+07	4.7E+07	5.8E+07
75-34-3	1,1-Dichloroethane	1.2E-04	3.3E-05	2.9E-05	2.3E-05	1.8E+00	1.4E+04	5.4E+04	6.1E+04	7.6E+04	8.3E+02	6.7E+06	2.6E+07	2.9E+07	3.6E+07
75-35-4	1,1-Dichloroethene	1.3E-04	3.3E-05	2.9E-05	2.4E-05	--	--	--	--	--	7.3E+01	5.7E+05	2.2E+06	2.5E+06	3.1E+06
95-63-6	1,2,4-Trimethylbenzene	9.1E-05	2.4E-05	2.1E-05	1.7E-05	--	--	--	--	--	7.3E+00	8.0E+04	3.1E+05	3.5E+05	4.3E+05
108-67-8	1,3,5-Trimethylbenzene	9.0E-05	2.3E-05	2.1E-05	1.7E-05	--	--	--	--	--	4.2E+01	4.6E+05	1.8E+06	2.0E+06	2.5E+06
99-87-6	4-Isopropyltoluene	9.5E-05	2.5E-05	2.2E-05	1.8E-05	--	--	--	--	--	4.2E+02	4.4E+06	1.7E+07	1.9E+07	2.4E+07
71-43-2	Benzene	1.3E-04	3.5E-05	3.1E-05	2.5E-05	9.7E-02	7.3E+02	2.8E+03	3.2E+03	3.9E+03	3.1E+00	2.4E+04	9.0E+04	1.0E+05	1.3E+05
108-90-7	Chlorobenzene	1.1E-04	2.8E-05	2.5E-05	2.0E-05	--	--	--	--	--	5.2E+01	4.8E+05	1.8E+06	2.1E+06	2.6E+06
67-66-3	Chloroform	1.2E-04	3.0E-05	2.6E-05	2.1E-05	1.2E-01	1.1E+03	4.1E+03	4.6E+03	5.7E+03	1.0E+02	8.9E+05	3.4E+06	3.9E+06	4.8E+06
156-59-2	cis-1,2-Dichloroethene	1.3E-04	3.4E-05	3.0E-05	2.4E-05	--	--	--	--	--	8.3E+00	6.4E+04	2.4E+05	2.8E+05	3.4E+05
75-71-8	Dichlorodifluoromethane	1.1E-04	2.9E-05	2.6E-05	2.1E-05	--	--	--	--	--	1.0E+02	9.3E+05	3.5E+06	4.0E+06	5.0E+06
100-41-4	Ethylbenzene	1.0E-04	2.7E-05	2.3E-05	1.9E-05	1.1E+00	1.1E+04	4.2E+04	4.8E+04	5.9E+04	1.0E+03	1.0E+07	3.9E+07	4.4E+07	5.5E+07
76-13-1	Freon 113	5.7E-05	1.5E-05	1.3E-05	1.0E-05	--	--	--	--	--	3.1E+04	5.5E+08	2.1E+09	2.4E+09	3.0E+09
104-51-8	n-Butylbenzene	7.9E-05	2.1E-05	1.8E-05	1.5E-05	--	--	--	--	--	2.1E+02	2.6E+06	1.0E+07	1.2E+07	1.4E+07
103-65-1	n-Propylbenzene	9.0E-05	2.3E-05	2.1E-05	1.7E-05	--	--	--	--	--	1.0E+03	1.2E+07	4.5E+07	5.1E+07	6.3E+07
127-18-4	Tetrachloroethylene	7.6E-05	2.0E-05	1.7E-05	1.4E-05	4.6E-01	6.0E+03	2.3E+04	2.7E+04	3.3E+04	3.7E+01	4.8E+05	1.9E+06	2.1E+06	2.6E+06
108-88-3	Toluene	1.2E-04	3.0E-05	2.7E-05	2.1E-05	--	--	--	--	--	3.1E+02	2.7E+06	1.0E+07	1.2E+07	1.5E+07
79-01-6	Trichloroethylene	1.0E-04	2.7E-05	2.4E-05	1.9E-05	4.8E-01	4.7E+03	1.8E+04	2.0E+04	2.5E+04	2.1E+00	2.0E+04	7.8E+04	8.9E+04	1.1E+05
75-69-4	Trichlorofluoromethane	9.7E-05	2.5E-05	2.2E-05	1.8E-05	--	--	--	--	--	1.3E+03	1.3E+07	4.9E+07	5.6E+07	7.0E+07
1330-20-7	Xylenes	1.0E-04	2.7E-05	2.3E-05	1.9E-05	--	--	--	--	--	1.0E+02	1.0E+06	3.9E+06	4.4E+06	5.5E+06

Notes:

" -- " not applicable

Soil vapor-to-indoor air attenuation factor (AF_{SV-IA}) (unitless)

SL_{air}: Indoor air screening level

RBC_{SV-NC}: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBC_{SV-C}: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-6}

CAS Number	Chemical of Potential Concern	4-ft AF_{SV-IA}	15-ft AF_{SV-IA}	20-ft AF_{SV-IA}	30-ft AF_{SV-IA}	Future Commercial Worker									
						Cancer-Based					Noncancer-Based				
						SL_{air-C} ($\mu g/m^3$)	4-ft RBC_{SV-C} ($\mu g/m^3$)	15-ft RBC_{SV-C} ($\mu g/m^3$)	20-ft RBC_{SV-C} ($\mu g/m^3$)	30-ft RBC_{SV-C} ($\mu g/m^3$)	SL_{air-NC} ($\mu g/m^3$)	4-ft RBC_{SV-NC} ($\mu g/m^3$)	15-ft RBC_{SV-NC} ($\mu g/m^3$)	20-ft RBC_{SV-NC} ($\mu g/m^3$)	30-ft RBC_{SV-NC} ($\mu g/m^3$)
630-20-6	1,1,1,2-Tetrachloroethane	2.5E-05	6.4E-06	5.6E-06	4.5E-06	1.7E+01	6.7E+05	2.6E+06	2.9E+06	3.7E+06	5.3E+02	2.1E+07	8.2E+07	9.3E+07	1.2E+08
71-55-6	1,1,1-Trichloroethane	3.2E-05	8.4E-06	7.4E-06	6.0E-06	--	--	--	--	--	4.4E+03	1.4E+08	5.2E+08	5.9E+08	7.4E+08
75-34-3	1,1-Dichloroethane	4.1E-05	1.1E-05	9.5E-06	7.7E-06	7.7E+01	1.9E+06	7.1E+06	8.0E+06	1.0E+07	3.5E+03	8.5E+07	3.2E+08	3.7E+08	4.6E+08
75-35-4	1,1-Dichloroethene	4.2E-05	1.1E-05	9.8E-06	7.9E-06	--	--	--	--	--	3.1E+02	7.2E+06	2.8E+07	3.1E+07	3.9E+07
95-63-6	1,2,4-Trimethylbenzene	3.0E-05	7.9E-06	7.0E-06	5.6E-06	--	--	--	--	--	3.1E+01	1.0E+06	3.9E+06	4.4E+06	5.5E+06
108-67-8	1,3,5-Trimethylbenzene	3.0E-05	7.8E-06	6.9E-06	5.5E-06	--	--	--	--	--	1.8E+02	5.8E+06	2.2E+07	2.5E+07	3.2E+07
99-87-6	4-Isopropyltoluene	3.2E-05	8.2E-06	7.2E-06	5.8E-06	--	--	--	--	--	1.8E+03	5.5E+07	2.1E+08	2.4E+08	3.0E+08
71-43-2	Benzene	4.4E-05	1.2E-05	1.0E-05	8.2E-06	4.2E+00	9.6E+04	3.6E+05	4.1E+05	5.1E+05	1.3E+01	3.0E+05	1.1E+06	1.3E+06	1.6E+06
108-90-7	Chlorobenzene	3.6E-05	9.4E-06	8.3E-06	6.7E-06	--	--	--	--	--	2.2E+02	6.1E+06	2.3E+07	2.6E+07	3.3E+07
67-66-3	Chloroform	3.8E-05	1.0E-05	8.8E-06	7.1E-06	5.3E+00	1.4E+05	5.3E+05	6.0E+05	7.5E+05	4.3E+02	1.1E+07	4.3E+07	4.9E+07	6.0E+07
156-59-2	cis-1,2-Dichloroethene	4.4E-05	1.1E-05	1.0E-05	8.1E-06	--	--	--	--	--	3.5E+01	8.0E+05	3.0E+06	3.5E+06	4.3E+06
75-71-8	Dichlorodifluoromethane	3.7E-05	9.8E-06	8.6E-06	7.0E-06	--	--	--	--	--	4.4E+02	1.2E+07	4.5E+07	5.1E+07	6.3E+07
100-41-4	Ethylbenzene	3.4E-05	8.9E-06	7.8E-06	6.3E-06	4.9E+01	1.4E+06	5.5E+06	6.3E+06	7.8E+06	4.4E+03	1.3E+08	4.9E+08	5.6E+08	7.0E+08
76-13-1	Freon 113	1.9E-05	4.9E-06	4.3E-06	3.5E-06	--	--	--	--	--	1.3E+05	6.9E+09	2.7E+10	3.1E+10	3.8E+10
104-51-8	n-Butylbenzene	2.6E-05	6.9E-06	6.0E-06	4.9E-06	--	--	--	--	--	8.8E+02	3.3E+07	1.3E+08	1.5E+08	1.8E+08
103-65-1	n-Propylbenzene	3.0E-05	7.8E-06	6.9E-06	5.5E-06	--	--	--	--	--	4.4E+03	1.5E+08	5.6E+08	6.4E+08	7.9E+08
127-18-4	Tetrachloroethylene	2.5E-05	6.6E-06	5.8E-06	4.6E-06	2.0E+01	7.9E+05	3.1E+06	3.5E+06	4.3E+06	1.5E+02	6.0E+06	2.3E+07	2.7E+07	3.3E+07
108-88-3	Toluene	3.9E-05	1.0E-05	8.9E-06	7.2E-06	--	--	--	--	--	1.3E+03	3.4E+07	1.3E+08	1.5E+08	1.8E+08
79-01-6	Trichloroethylene	3.4E-05	8.9E-06	7.8E-06	6.3E-06	3.0E+01	8.8E+05	3.4E+06	3.8E+06	4.7E+06	8.8E+00	2.6E+05	9.8E+05	1.1E+06	1.4E+06
75-69-4	Trichlorofluoromethane	3.2E-05	8.4E-06	7.4E-06	6.0E-06	--	--	--	--	--	5.3E+03	1.6E+08	6.2E+08	7.1E+08	8.8E+08
1330-20-7	Xylenes	3.4E-05	8.9E-06	7.8E-06	6.3E-06	--	--	--	--	--	4.4E+02	1.3E+07	4.9E+07	5.6E+07	6.9E+07

Notes:

" -- " not applicable

Soil vapor-to-indoor air attenuation factor (AF_{SV-IA}) (unitless)

SL_{air}: Indoor air screening level

RBC_{SV-NC}: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBC_{SV-C}: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-5}

CAS Number	Chemical of Potential Concern	Future Commercial Worker								Future Resident							
		4 ft-bgs		15 ft-bgs		20 ft-bgs		30 ft-bgs		4 ft-bgs		15 ft-bgs		20 ft-bgs		30 ft-bgs	
		RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)
630-20-6	1,1,1,2-Tetrachloroethane	6.7E+05	2.1E+07	2.6E+06	8.2E+07	2.9E+06	9.3E+07	3.7E+06	1.2E+08	5.1E+03	1.7E+06	2.0E+04	6.5E+06	2.2E+04	7.4E+06	2.8E+04	9.2E+06
71-55-6	1,1,1-Trichloroethane	--	1.4E+08	--	5.2E+08	--	5.9E+08	--	7.4E+08	--	1.1E+07	--	4.1E+07	--	4.7E+07	--	5.8E+07
75-34-3	1,1-Dichloroethane	1.9E+06	8.5E+07	7.1E+06	3.2E+08	8.0E+06	3.7E+08	1.0E+07	4.6E+08	1.4E+04	6.7E+06	5.4E+04	2.6E+07	6.1E+04	2.9E+07	7.6E+04	3.6E+07
75-35-4	1,1-Dichloroethene	--	7.2E+06	--	2.8E+07	--	3.1E+07	--	3.9E+07	--	5.7E+05	--	2.2E+06	--	2.5E+06	--	3.1E+06
95-63-6	1,2,4-Trimethylbenzene	--	1.0E+06	--	3.9E+06	--	4.4E+06	--	5.5E+06	--	8.0E+04	--	3.1E+05	--	3.5E+05	--	4.3E+05
108-67-8	1,3,5-Trimethylbenzene	--	5.8E+06	--	2.2E+07	--	2.5E+07	--	3.2E+07	--	4.6E+05	--	1.8E+06	--	2.0E+06	--	2.5E+06
99-87-6	4-Isopropyltoluene	--	5.5E+07	--	2.1E+08	--	2.4E+08	--	3.0E+08	--	4.4E+06	--	1.7E+07	--	1.9E+07	--	2.4E+07
71-43-2	Benzene	9.6E+04	3.0E+05	3.6E+05	1.1E+06	4.1E+05	1.3E+06	5.1E+05	1.6E+06	7.3E+02	2.4E+04	2.8E+03	9.0E+04	3.2E+03	1.0E+05	3.9E+03	1.3E+05
108-90-7	Chlorobenzene	--	6.1E+06	--	2.3E+07	--	2.6E+07	--	3.3E+07	--	4.8E+05	--	1.8E+06	--	2.1E+06	--	2.6E+06
67-66-3	Chloroform	1.4E+05	1.1E+07	5.3E+05	4.3E+07	6.0E+05	4.9E+07	7.5E+05	6.0E+07	1.1E+03	8.9E+05	4.1E+03	3.4E+06	4.6E+03	3.9E+06	5.7E+03	4.8E+06
156-59-2	cis-1,2-Dichloroethene	--	8.0E+05	--	3.0E+06	--	3.5E+06	--	4.3E+06	--	6.4E+04	--	2.4E+05	--	2.8E+05	--	3.4E+05
75-71-8	Dichlorodifluoromethane	--	1.2E+07	--	4.5E+07	--	5.1E+07	--	6.3E+07	--	9.3E+05	--	3.5E+06	--	4.0E+06	--	5.0E+06
100-41-4	Ethylbenzene	1.4E+06	1.3E+08	5.5E+06	4.9E+08	6.3E+06	5.6E+08	7.8E+06	7.0E+08	1.1E+04	1.0E+07	4.2E+04	3.9E+07	4.8E+04	4.4E+07	5.9E+04	5.5E+07
76-13-1	Freon 113	--	6.9E+09	--	2.7E+10	--	3.1E+10	--	3.8E+10	--	5.5E+08	--	2.1E+09	--	2.4E+09	--	3.0E+09
104-51-8	n-Butylbenzene	--	3.3E+07	--	1.3E+08	--	1.5E+08	--	1.8E+08	--	2.6E+06	--	1.0E+07	--	1.2E+07	--	1.4E+07
103-65-1	n-Propylbenzene	--	1.5E+08	--	5.6E+08	--	6.4E+08	--	7.9E+08	--	1.2E+07	--	4.5E+07	--	5.1E+07	--	6.3E+07
127-18-4	Tetrachloroethylene	7.9E+05	6.0E+06	3.1E+06	2.3E+07	3.5E+06	2.7E+07	4.3E+06	3.3E+07	6.0E+03	4.8E+05	2.3E+04	1.9E+06	2.7E+04	2.1E+06	3.3E+04	2.6E+06
108-88-3	Toluene	--	3.4E+07	--	1.3E+08	--	1.5E+08	--	1.8E+08	--	2.7E+06	--	1.0E+07	--	1.2E+07	--	1.5E+07
79-01-6	Trichloroethylene	8.8E+05	2.6E+05	3.4E+06	9.8E+05	3.8E+06	1.1E+06	4.7E+06	1.4E+06	4.7E+03	2.0E+04	1.8E+04	7.8E+04	2.0E+04	8.9E+04	2.5E+04	1.1E+05
75-69-4	Trichlorofluoromethane	--	1.6E+08	--	6.2E+08	--	7.1E+08	--	8.8E+08	--	1.3E+07	--	4.9E+07	--	5.6E+07	--	7.0E+07
1330-20-7	Xylenes	--	1.3E+07	--	4.9E+07	--	5.6E+07	--	6.9E+07	--	1.0E+06	--	3.9E+06	--	4.4E+06	--	5.5E+06

Notes:

$\mu g/m^3$: micrograms per cubic meter

ft bgs: feet below ground surface

RBC_{SV-NC}: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBC_{SV-C}: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-6} for residents and 10^{-5} for workers

CAS Number	Chemical of Potential Concern	4-ft AF_{SV-IA}	15-ft AF_{SV-IA}	20-ft AF_{SV-IA}	30-ft AF_{SV-IA}	Future Resident									
						Cancer-Based					Noncancer-Based				
						SL_{air-C} (µg/m^3)	4-ft RBC_{SV-C} (µg/m^3)	15-ft RBC_{SV-C} (µg/m^3)	20-ft RBC_{SV-C} (µg/m^3)	30-ft RBC_{SV-C} (µg/m^3)	SL_{air-NC} (µg/m^3)	4-ft RBC_{SV-NC} (µg/m^3)	15-ft RBC_{SV-NC} (µg/m^3)	20-ft RBC_{SV-NC} (µg/m^3)	30-ft RBC_{SV-NC} (µg/m^3)
630-20-6	1,1,1,2-Tetrachloroethane	9.9E-07	2.6E-07	2.3E-07	1.8E-07	3.8E-01	3.8E+05	1.5E+06	1.7E+06	2.1E+06	1.3E+02	1.3E+08	4.9E+08	5.6E+08	6.9E+08
71-55-6	1,1,1-Trichloroethane	1.3E-06	3.4E-07	3.0E-07	2.4E-07	--	--	--	--	--	1.0E+03	8.1E+08	3.1E+09	3.5E+09	4.4E+09
75-34-3	1,1-Dichloroethane	1.7E-06	4.3E-07	3.8E-07	3.1E-07	1.8E+00	1.1E+06	4.0E+06	4.6E+06	5.7E+06	8.3E+02	5.0E+08	1.9E+09	2.2E+09	2.7E+09
75-35-4	1,1-Dichloroethene	1.7E-06	4.5E-07	3.9E-07	3.2E-07	--	--	--	--	--	7.3E+01	4.3E+07	1.6E+08	1.9E+08	2.3E+08
95-63-6	1,2,4-Trimethylbenzene	1.2E-06	3.2E-07	2.8E-07	2.2E-07	--	--	--	--	--	7.3E+00	6.0E+06	2.3E+07	2.6E+07	3.3E+07
108-67-8	1,3,5-Trimethylbenzene	1.2E-06	3.1E-07	2.8E-07	2.2E-07	--	--	--	--	--	4.2E+01	3.5E+07	1.3E+08	1.5E+08	1.9E+08
99-87-6	4-Isopropyltoluene	1.3E-06	3.3E-07	2.9E-07	2.3E-07	--	--	--	--	--	4.2E+02	3.3E+08	1.3E+09	1.4E+09	1.8E+09
71-43-2	Benzene	1.8E-06	4.6E-07	4.1E-07	3.3E-07	9.7E-02	5.5E+04	2.1E+05	2.4E+05	2.9E+05	3.1E+00	1.8E+06	6.7E+06	7.7E+06	9.5E+06
108-90-7	Chlorobenzene	1.4E-06	3.8E-07	3.3E-07	2.7E-07	--	--	--	--	--	5.2E+01	3.6E+07	1.4E+08	1.6E+08	2.0E+08
67-66-3	Chloroform	1.5E-06	4.0E-07	3.5E-07	2.8E-07	1.2E-01	8.0E+04	3.0E+05	3.5E+05	4.3E+05	1.0E+02	6.7E+07	2.5E+08	2.9E+08	3.6E+08
156-59-2	cis-1,2-Dichloroethene	1.7E-06	4.6E-07	4.0E-07	3.3E-07	--	--	--	--	--	8.3E+00	4.8E+06	1.8E+07	2.1E+07	2.6E+07
75-71-8	Dichlorodifluoromethane	1.5E-06	3.9E-07	3.5E-07	2.8E-07	--	--	--	--	--	1.0E+02	7.0E+07	2.7E+08	3.0E+08	3.7E+08
100-41-4	Ethylbenzene	1.4E-06	3.6E-07	3.1E-07	2.5E-07	1.1E+00	8.2E+05	3.2E+06	3.6E+06	4.5E+06	1.0E+03	7.6E+08	2.9E+09	3.3E+09	4.1E+09
76-13-1	Freon 113	7.6E-07	1.9E-07	1.7E-07	1.4E-07	--	--	--	--	--	3.1E+04	4.1E+10	1.6E+11	1.8E+11	2.3E+11
104-51-8	n-Butylbenzene	1.1E-06	2.7E-07	2.4E-07	1.9E-07	--	--	--	--	--	2.1E+02	2.0E+08	7.6E+08	8.7E+08	1.1E+09
103-65-1	n-Propylbenzene	1.2E-06	3.1E-07	2.7E-07	2.2E-07	--	--	--	--	--	1.0E+03	8.7E+08	3.3E+09	3.8E+09	4.7E+09
127-18-4	Tetrachloroethylene	1.0E-06	2.6E-07	2.3E-07	1.9E-07	4.6E-01	4.5E+05	1.8E+06	2.0E+06	2.5E+06	3.7E+01	3.6E+07	1.4E+08	1.6E+08	2.0E+08
108-88-3	Toluene	1.5E-06	4.0E-07	3.6E-07	2.9E-07	--	--	--	--	--	3.1E+02	2.0E+08	7.8E+08	8.8E+08	1.1E+09
79-01-6	Trichloroethylene	1.4E-06	3.6E-07	3.1E-07	2.5E-07	4.8E-01	3.5E+05	1.3E+06	1.5E+06	1.9E+06	2.1E+00	1.5E+06	5.9E+06	6.7E+06	8.3E+06
75-69-4	Trichlorofluoromethane	1.3E-06	3.4E-07	3.0E-07	2.4E-07	--	--	--	--	--	1.3E+03	9.6E+08	3.7E+09	4.2E+09	5.2E+09
1330-20-7	Xylenes	1.4E-06	3.6E-07	3.1E-07	2.5E-07	--	--	--	--	--	1.0E+02	7.6E+07	2.9E+08	3.3E+08	4.1E+08

Notes:

" -- " not applicable

Soil vapor-to-indoor air attenuation factor (AF_{SV-IA}) (unitless)

AF_{SV-IA} = J&E-modeled AF x 3% leakage factor (Center for Energy and Environment, 2004)

SL_{air}: Indoor air screening level

RBC_{SV-NC}: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBC_{SV-C}: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-6}

CAS Number	Chemical of Potential Concern	4-ft AF_{SV-IA}	15-ft AF_{SV-IA}	20-ft AF_{SV-IA}	30-ft AF_{SV-IA}	Future Commercial Worker									
						Cancer-Based					Noncancer-Based				
						SL_{air-C} ($\mu g/m^3$)	4-ft RBC_{SV-C} ($\mu g/m^3$)	15-ft RBC_{SV-C} ($\mu g/m^3$)	20-ft RBC_{SV-C} ($\mu g/m^3$)	30-ft RBC_{SV-C} ($\mu g/m^3$)	SL_{air-NC} ($\mu g/m^3$)	4-ft RBC_{SV-NC} ($\mu g/m^3$)	15-ft RBC_{SV-NC} ($\mu g/m^3$)	20-ft RBC_{SV-NC} ($\mu g/m^3$)	30-ft RBC_{SV-NC} ($\mu g/m^3$)
630-20-6	1,1,1,2-Tetrachloroethane	9.9E-07	2.6E-07	2.3E-07	1.8E-07	1.7E+01	1.7E+07	6.5E+07	7.4E+07	9.2E+07	5.3E+02	5.3E+08	2.0E+09	2.3E+09	2.9E+09
71-55-6	1,1,1-Trichloroethane	1.3E-06	3.4E-07	3.0E-07	2.4E-07	--	--	--	--	--	4.4E+03	3.4E+09	1.3E+10	1.5E+10	1.8E+10
75-34-3	1,1-Dichloroethane	1.7E-06	4.3E-07	3.8E-07	3.1E-07	7.7E+01	4.6E+07	1.8E+08	2.0E+08	2.5E+08	3.5E+03	2.1E+09	8.1E+09	9.2E+09	1.1E+10
75-35-4	1,1-Dichloroethene	1.7E-06	4.5E-07	3.9E-07	3.2E-07	--	--	--	--	--	3.1E+02	1.8E+08	6.9E+08	7.8E+08	9.7E+08
95-63-6	1,2,4-Trimethylbenzene	1.2E-06	3.2E-07	2.8E-07	2.2E-07	--	--	--	--	--	3.1E+01	2.5E+07	9.7E+07	1.1E+08	1.4E+08
108-67-8	1,3,5-Trimethylbenzene	1.2E-06	3.1E-07	2.8E-07	2.2E-07	--	--	--	--	--	1.8E+02	1.5E+08	5.6E+08	6.4E+08	7.9E+08
99-87-6	4-Isopropyltoluene	1.3E-06	3.3E-07	2.9E-07	2.3E-07	--	--	--	--	--	1.8E+03	1.4E+09	5.3E+09	6.0E+09	7.5E+09
71-43-2	Benzene	1.8E-06	4.6E-07	4.1E-07	3.3E-07	4.2E+00	2.4E+06	9.1E+06	1.0E+07	1.3E+07	1.3E+01	7.5E+06	2.8E+07	3.2E+07	4.0E+07
108-90-7	Chlorobenzene	1.4E-06	3.8E-07	3.3E-07	2.7E-07	--	--	--	--	--	2.2E+02	1.5E+08	5.8E+08	6.6E+08	8.2E+08
67-66-3	Chloroform	1.5E-06	4.0E-07	3.5E-07	2.8E-07	5.3E+00	3.5E+06	1.3E+07	1.5E+07	1.9E+07	4.3E+02	2.8E+08	1.1E+09	1.2E+09	1.5E+09
156-59-2	cis-1,2-Dichloroethene	1.7E-06	4.6E-07	4.0E-07	3.3E-07	--	--	--	--	--	3.5E+01	2.0E+07	7.6E+07	8.7E+07	1.1E+08
75-71-8	Dichlorodifluoromethane	1.5E-06	3.9E-07	3.5E-07	2.8E-07	--	--	--	--	--	4.4E+02	2.9E+08	1.1E+09	1.3E+09	1.6E+09
100-41-4	Ethylbenzene	1.4E-06	3.6E-07	3.1E-07	2.5E-07	4.9E+01	3.6E+07	1.4E+08	1.6E+08	1.9E+08	4.4E+03	3.2E+09	1.2E+10	1.4E+10	1.7E+10
76-13-1	Freon 113	7.6E-07	1.9E-07	1.7E-07	1.4E-07	--	--	--	--	--	1.3E+05	1.7E+11	6.7E+11	7.7E+11	9.5E+11
104-51-8	n-Butylbenzene	1.1E-06	2.7E-07	2.4E-07	1.9E-07	--	--	--	--	--	8.8E+02	8.3E+08	3.2E+09	3.6E+09	4.5E+09
103-65-1	n-Propylbenzene	1.2E-06	3.1E-07	2.7E-07	2.2E-07	--	--	--	--	--	4.4E+03	3.6E+09	1.4E+10	1.6E+10	2.0E+10
127-18-4	Tetrachloroethylene	1.0E-06	2.6E-07	2.3E-07	1.9E-07	2.0E+01	2.0E+07	7.7E+07	8.7E+07	1.1E+08	1.5E+02	1.5E+08	5.8E+08	6.6E+08	8.2E+08
108-88-3	Toluene	1.5E-06	4.0E-07	3.6E-07	2.9E-07	--	--	--	--	--	1.3E+03	8.5E+08	3.3E+09	3.7E+09	4.6E+09
79-01-6	Trichloroethylene	1.4E-06	3.6E-07	3.1E-07	2.5E-07	3.0E+01	2.2E+07	8.4E+07	9.5E+07	1.2E+08	8.8E+00	6.4E+06	2.5E+07	2.8E+07	3.5E+07
75-69-4	Trichlorofluoromethane	1.3E-06	3.4E-07	3.0E-07	2.4E-07	--	--	--	--	--	5.3E+03	4.0E+09	1.6E+10	1.8E+10	2.2E+10
1330-20-7	Xylenes	1.4E-06	3.6E-07	3.1E-07	2.5E-07	--	--	--	--	--	4.4E+02	3.2E+08	1.2E+09	1.4E+09	1.7E+09

Notes:

" -- " not applicable

Soil vapor-to-indoor air attenuation factor (AF_{SV-IA}) (unitless)

AF_{SV-IA} = J&E-modeled AF x 3% leakage factor (Center for Energy and Environment, 2004)

SL_{air}: Indoor air screening level

RBC_{SV-NC}: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBC_{SV-C}: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-5}

CAS Number	Chemical of Potential Concern	Future Commercial Worker								Future Resident							
		4 ft-bgs		15 ft-bgs		20 ft-bgs		30 ft-bgs		4 ft-bgs		15 ft-bgs		20 ft-bgs		30 ft-bgs	
		RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)
630-20-6	1,1,1,2-Tetrachloroethane	1.7E+07	5.3E+08	6.5E+07	2.0E+09	7.4E+07	2.3E+09	9.2E+07	2.9E+09	3.8E+05	1.3E+08	1.5E+06	4.9E+08	1.7E+06	5.6E+08	2.1E+06	6.9E+08
71-55-6	1,1,1-Trichloroethane	--	3.4E+09	--	1.3E+10	--	1.5E+10	--	1.8E+10	--	8.1E+08	--	3.1E+09	--	3.5E+09	--	4.4E+09
75-34-3	1,1-Dichloroethane	4.6E+07	2.1E+09	1.8E+08	8.1E+09	2.0E+08	9.2E+09	2.5E+08	1.1E+10	1.1E+06	5.0E+08	4.0E+06	1.9E+09	4.6E+06	2.2E+09	5.7E+06	2.7E+09
75-35-4	1,1-Dichloroethene	--	1.8E+08	--	6.9E+08	--	7.8E+08	--	9.7E+08	--	4.3E+07	--	1.6E+08	--	1.9E+08	--	2.3E+08
95-63-6	1,2,4-Trimethylbenzene	--	2.5E+07	--	9.7E+07	--	1.1E+08	--	1.4E+08	--	6.0E+06	--	2.3E+07	--	2.6E+07	--	3.3E+07
108-67-8	1,3,5-Trimethylbenzene	--	1.5E+08	--	5.6E+08	--	6.4E+08	--	7.9E+08	--	3.5E+07	--	1.3E+08	--	1.5E+08	--	1.9E+08
99-87-6	4-Isopropyltoluene	--	1.4E+09	--	5.3E+09	--	6.0E+09	--	7.5E+09	--	3.3E+08	--	1.3E+09	--	1.4E+09	--	1.8E+09
71-43-2	Benzene	2.4E+06	7.5E+06	9.1E+06	2.8E+07	1.0E+07	3.2E+07	1.3E+07	4.0E+07	5.5E+04	1.8E+06	2.1E+05	6.7E+06	2.4E+05	7.7E+06	2.9E+05	9.5E+06
108-90-7	Chlorobenzene	--	1.5E+08	--	5.8E+08	--	6.6E+08	--	8.2E+08	--	3.6E+07	--	1.4E+08	--	1.6E+08	--	2.0E+08
67-66-3	Chloroform	3.5E+06	2.8E+08	1.3E+07	1.1E+09	1.5E+07	1.2E+09	1.9E+07	1.5E+09	8.0E+04	6.7E+07	3.0E+05	2.5E+08	3.5E+05	2.9E+08	4.3E+05	3.6E+08
156-59-2	cis-1,2-Dichloroethene	--	2.0E+07	--	7.6E+07	--	8.7E+07	--	1.1E+08	--	4.8E+06	--	1.8E+07	--	2.1E+07	--	2.6E+07
75-71-8	Dichlorodifluoromethane	--	2.9E+08	--	1.1E+09	--	1.3E+09	--	1.6E+09	--	7.0E+07	--	2.7E+08	--	3.0E+08	--	3.7E+08
100-41-4	Ethylbenzene	3.6E+07	3.2E+09	1.4E+08	1.2E+10	1.6E+08	1.4E+10	1.9E+08	1.7E+10	8.2E+05	7.6E+08	3.2E+06	2.9E+09	3.6E+06	3.3E+09	4.5E+06	4.1E+09
76-13-1	Freon 113	--	1.7E+11	--	6.7E+11	--	7.7E+11	--	9.5E+11	--	4.1E+10	--	1.6E+11	--	1.8E+11	--	2.3E+11
104-51-8	n-Butylbenzene	--	8.3E+08	--	3.2E+09	--	3.6E+09	--	4.5E+09	--	2.0E+08	--	7.6E+08	--	8.7E+08	--	1.1E+09
103-65-1	n-Propylbenzene	--	3.6E+09	--	1.4E+10	--	1.6E+10	--	2.0E+10	--	8.7E+08	--	3.3E+09	--	3.8E+09	--	4.7E+09
127-18-4	Tetrachloroethylene	2.0E+07	1.5E+08	7.7E+07	5.8E+08	8.7E+07	6.6E+08	1.1E+08	8.2E+08	4.5E+05	3.6E+07	1.8E+06	1.4E+08	2.0E+06	1.6E+08	2.5E+06	2.0E+08
108-88-3	Toluene	--	8.5E+08	--	3.3E+09	--	3.7E+09	--	4.6E+09	--	2.0E+08	--	7.8E+08	--	8.8E+08	--	1.1E+09
79-01-6	Trichloroethylene	2.2E+07	6.4E+06	8.4E+07	2.5E+07	9.5E+07	2.8E+07	1.2E+08	3.5E+07	3.5E+05	1.5E+06	1.3E+06	5.9E+06	1.5E+06	6.7E+06	1.9E+06	8.3E+06
75-69-4	Trichlorofluoromethane	--	4.0E+09	--	1.6E+10	--	1.8E+10	--	2.2E+10	--	9.6E+08	--	3.7E+09	--	4.2E+09	--	5.2E+09
1330-20-7	Xylenes	--	3.2E+08	--	1.2E+09	--	1.4E+09	--	1.7E+09	--	7.6E+07	--	2.9E+08	--	3.3E+08	--	4.1E+08

Notes:

$\mu g/m^3$: micrograms per cubic meter

ft bgs: feet below ground surface

RBC_{SV-NC}: risk-based concentration based on noncancer effects (nc) and a target noncancer hazard = 1

RBC_{SV-C}: risk-based concentration based on cancer effects (c) and a target cancer risk = 10^{-6} for residents and 10^{-5} for workers

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APPENDIX F Cumulative Risk Evaluation

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
A1	1	A1-1'	5/4/2016	7439-92-1	Lead, Pb	7.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A1	1	A1-1'	5/4/2016	7440-47-3	Chromium, Cr	15.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A1	1	A1-1'	5/4/2016	7440-50-8	Copper, Cu	33.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A1	1	A1-1'	5/4/2016	7440-66-6	Zinc, Zn	99.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A1	4.5	A1-4.5'	5/4/2016	7439-92-1	Lead, Pb	3.9	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A1	4.5	A1-4.5'	5/4/2016	7440-47-3	Chromium, Cr	33.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A1	4.5	A1-4.5'	5/4/2016	7440-50-8	Copper, Cu	41.7	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A1	4.5	A1-4.5'	5/4/2016	7440-66-6	Zinc, Zn	76.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A1	8.5	A1-8.5'	5/4/2016	7439-92-1	Lead, Pb	4.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A1	8.5	A1-8.5'	5/4/2016	7440-47-3	Chromium, Cr	43.2	35.7	No	3.6E+04	--	1.2E-03	--	1.7E+05	--	2.5E-04	--	4.3E+04	--	1.0E-03	--
A1	8.5	A1-8.5'	5/4/2016	7440-50-8	Copper, Cu	47.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A1	8.5	A1-8.5'	5/4/2016	7440-66-6	Zinc, Zn	94.9	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A10	1	A10-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0068	--	--	1.8E+02	9.5E-01	3.8E-05	7.2E-09	1.0E+03	4.3E+01	6.7E-06	1.6E-09	1.5E+02	2.4E+02	4.6E-05	2.8E-10
A10	1	A10-1'	5/5/2016	7439-92-1	Lead, Pb	6.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A10	1	A10-1'	5/5/2016	7440-47-3	Chromium, Cr	21.6	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A10	1	A10-1'	5/5/2016	7440-50-8	Copper, Cu	22.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A10	1	A10-1'	5/5/2016	7440-66-6	Zinc, Zn	66.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A11	1	A11-1'	5/5/2016	7439-92-1	Lead, Pb	9.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A11	1	A11-1'	5/5/2016	7440-47-3	Chromium, Cr	28.2	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A11	1	A11-1'	5/5/2016	7440-50-8	Copper, Cu	106	64.4	No	3.1E+03	--	3.4E-02	--	4.7E+04	--	2.3E-03	--	1.4E+04	--	7.5E-03	--
A11	1	A11-1'	5/5/2016	7440-66-6	Zinc, Zn	161	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A11	4.5	A11-4.5'	5/5/2016	7439-92-1	Lead, Pb	2.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A11	4.5	A11-4.5'	5/5/2016	7440-47-3	Chromium, Cr	21.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A11	4.5	A11-4.5'	5/5/2016	7440-50-8	Copper, Cu	22.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A11	4.5	A11-4.5'	5/5/2016	7440-66-6	Zinc, Zn	49.3	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A11	8.5	A11-8.5'/A11-8.5'-D	5/5/2016	7439-92-1	Lead, Pb	3.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A11	8.5	A11-8.5'/A11-8.5'-D	5/5/2016	7440-47-3	Chromium, Cr	31.6	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A11	8.5	A11-8.5'/A11-8.5'-D	5/5/2016	7440-50-8	Copper, Cu	31.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A11	8.5	A11-8.5'/A11-8.5'-D	5/5/2016	7440-66-6	Zinc, Zn	73.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A12	1	A12-1'	5/5/2016	7439-92-1	Lead, Pb	6.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A12	1	A12-1'	5/5/2016	7440-47-3	Chromium, Cr	33.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A12	1	A12-1'	5/5/2016	7440-50-8	Copper, Cu	38.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A12	1	A12-1'	5/5/2016	7440-66-6	Zinc, Zn	90.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A12	5	A12-5'	5/5/2016	7439-92-1	Lead, Pb	4.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A12	5	A12-5'	5/5/2016	7440-47-3	Chromium, Cr	37.7	35.7	No	3.6E+04	--	1.0E-03	--	1.7E+05	--	2.2E-04	--	4.3E+04	--	8.7E-04	--
A12	5	A12-5'	5/5/2016	7440-50-8	Copper, Cu	45.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A12	5	A12-5'	5/5/2016	7440-66-6	Zinc, Zn	79.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A12	11	A12-11'	5/5/2016	7439-92-1	Lead, Pb	4.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A12	11	A12-11'	5/5/2016	7440-47-3	Chromium, Cr	35.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A12	11	A12-11'	5/5/2016	7440-50-8	Copper, Cu	42.4	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A12	11	A12-11'	5/5/2016	7440-66-6	Zinc, Zn	84.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A13	1	A13-1'	5/5/2016	7439-92-1	Lead, Pb	4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A13	1	A13-1'	5/5/2016	7440-47-3	Chromium, Cr	30.2	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
A13	1	A13-1'	5/5/2016	7440-50-8	Copper, Cu	36.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A13	1	A13-1'	5/5/2016	7440-66-6	Zinc, Zn	77.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A13	5	A13-5'	5/5/2016	7439-92-1	Lead, Pb	4.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A13	5	A13-5'	5/5/2016	7440-47-3	Chromium, Cr	35.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A13	5	A13-5'	5/5/2016	7440-50-8	Copper, Cu	41.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A13	5	A13-5'	5/5/2016	7440-66-6	Zinc, Zn	81.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A13	11	A13-11'	5/5/2016	7439-92-1	Lead, Pb	3.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A13	11	A13-11'	5/5/2016	7440-47-3	Chromium, Cr	31.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A13	11	A13-11'	5/5/2016	7440-50-8	Copper, Cu	33.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A13	11	A13-11'	5/5/2016	7440-66-6	Zinc, Zn	76.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A2	1	A2-1'	5/4/2016	127-18-4	Tetrachloroethylene	0.0082	--	--	1.8E+02	9.5E-01	4.6E-05	8.6E-09	1.0E+03	4.3E+01	8.1E-06	1.9E-09	1.5E+02	2.4E+02	5.5E-05	3.3E-10
A2	1	A2-1'	5/4/2016	7439-92-1	Lead, Pb	3.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A2	1	A2-1'	5/4/2016	7440-47-3	Chromium, Cr	28.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A2	1	A2-1'	5/4/2016	7440-50-8	Copper, Cu	33.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A2	1	A2-1'	5/4/2016	7440-66-6	Zinc, Zn	66.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A2	4.5	A2-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0021	--	--	1.8E+02	9.5E-01	1.2E-05	2.2E-09	1.0E+03	4.3E+01	2.1E-06	4.8E-10	1.5E+02	2.4E+02	1.4E-05	8.6E-11
A2	4.5	A2-4.5'	5/4/2016	7439-92-1	Lead, Pb	3.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A2	4.5	A2-4.5'	5/4/2016	7440-47-3	Chromium, Cr	31.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A2	4.5	A2-4.5'	5/4/2016	7440-50-8	Copper, Cu	30.4	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A2	4.5	A2-4.5'	5/4/2016	7440-66-6	Zinc, Zn	62.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A2	8.5	A2-8.5'	5/4/2016	7439-92-1	Lead, Pb	0.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A2	8.5	A2-8.5'	5/4/2016	7440-47-3	Chromium, Cr	18.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A2	8.5	A2-8.5'	5/4/2016	7440-50-8	Copper, Cu	16.4	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A2	8.5	A2-8.5'	5/4/2016	7440-66-6	Zinc, Zn	38.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A3	1	A3-1'	5/4/2016	127-18-4	Tetrachloroethylene	0.0089	--	--	1.8E+02	9.5E-01	5.0E-05	9.4E-09	1.0E+03	4.3E+01	8.8E-06	2.0E-09	1.5E+02	2.4E+02	6.0E-05	3.6E-10
A3	1	A3-1'	5/4/2016	7439-92-1	Lead, Pb	26.1	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
A3	1	A3-1'	5/4/2016	7440-47-3	Chromium, Cr	10.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A3	1	A3-1'	5/4/2016	7440-50-8	Copper, Cu	1980	64.4	No	3.1E+03	--	6.3E-01	--	4.7E+04	--	4.2E-02	--	1.4E+04	--	1.4E-01	--
A3	1	A3-1'	5/4/2016	7440-66-6	Zinc, Zn	114	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A3	4.5	A3-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0105	--	--	1.8E+02	9.5E-01	5.9E-05	1.1E-08	1.0E+03	4.3E+01	1.0E-05	2.4E-09	1.5E+02	2.4E+02	7.0E-05	4.3E-10
A3	4.5	A3-4.5'	5/4/2016	7439-92-1	Lead, Pb	3.4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A3	4.5	A3-4.5'	5/4/2016	7440-47-3	Chromium, Cr	32.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A3	4.5	A3-4.5'	5/4/2016	7440-50-8	Copper, Cu	48.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A3	4.5	A3-4.5'	5/4/2016	7440-66-6	Zinc, Zn	72.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A3	8.5	A3-8.5'/A3-8.5D	5/4/2016	127-18-4	Tetrachloroethylene	0.0114	--	--	1.8E+02	9.5E-01	6.4E-05	1.2E-08	1.0E+03	4.3E+01	1.1E-05	2.6E-09	1.5E+02	2.4E+02	7.6E-05	4.7E-10
A3	8.5	A3-8.5'/A3-8.5D	5/4/2016	7439-92-1	Lead, Pb	2.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A3	8.5	A3-8.5'/A3-8.5D	5/4/2016	7440-47-3	Chromium, Cr	33.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A3	8.5	A3-8.5'/A3-8.5D	5/4/2016	7440-50-8	Copper, Cu	37.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A3	8.5	A3-8.5'/A3-8.5D	5/4/2016	7440-66-6	Zinc, Zn	76.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A4	1	A4-1'	5/4/2016	127-18-4	Tetrachloroethylene	2.54	--	--	1.8E+02	9.5E-01	1.4E-02	2.7E-06	1.0E+03	4.3E+01	2.5E-03	5.8E-07	1.5E+02	2.4E+02	1.7E-02	1.0E-07
A4	1	A4-1'	5/4/2016	7439-92-1	Lead, Pb	14.8	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
A4	1	A4-1'	5/4/2016	7440-47-3	Chromium, Cr	5.2	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A4	1	A4-1'	5/4/2016	7440-50-8	Copper, Cu	509	64.4	No	3.1E+03	--	1.6E-01	--	4.7E+04	--	1.1E-02	--	1.4E+04	--	3.6E-02	--

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
A4	1	A4-1'	5/4/2016	7440-66-6	Zinc, Zn	108	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A4	1	A4-1'	5/4/2016	79-01-6	Trichloroethylene	0.0115	--	--	1.1E+01	2.5E+00	1.0E-03	4.5E-09	5.8E+01	1.7E+02	2.0E-04	6.8E-10	8.4E+00	6.6E+02	1.4E-03	1.7E-10
A4	4.5	A4-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0469	--	--	1.8E+02	9.5E-01	2.6E-04	4.9E-08	1.0E+03	4.3E+01	4.7E-05	1.1E-08	1.5E+02	2.4E+02	3.1E-04	1.9E-09
A4	4.5	A4-4.5'	5/4/2016	7439-92-1	Lead, Pb	0.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A4	4.5	A4-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A4	4.5	A4-4.5'	5/4/2016	7440-50-8	Copper, Cu	20.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A4	4.5	A4-4.5'	5/4/2016	7440-66-6	Zinc, Zn	39.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A4	8.5	A4-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.118	--	--	1.8E+02	9.5E-01	6.6E-04	1.2E-07	1.0E+03	4.3E+01	1.2E-04	2.7E-08	1.5E+02	2.4E+02	7.9E-04	4.8E-09
A4	8.5	A4-8.5'	5/4/2016	7439-92-1	Lead, Pb	0.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A4	8.5	A4-8.5'	5/4/2016	7440-47-3	Chromium, Cr	13.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A4	8.5	A4-8.5'	5/4/2016	7440-50-8	Copper, Cu	16.1	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A4	8.5	A4-8.5'	5/4/2016	7440-66-6	Zinc, Zn	307	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A4	8.5	A4-8.5'	5/4/2016	79-01-6	Trichloroethylene	0.0027	--	--	1.1E+01	2.5E+00	2.4E-04	1.1E-09	5.8E+01	1.7E+02	4.7E-05	1.6E-10	8.4E+00	6.6E+02	3.2E-04	4.1E-11
A5	1.25	A5-1.25'	5/4/2016	127-18-4	Tetrachloroethylene	0.81	--	--	1.8E+02	9.5E-01	4.6E-03	8.5E-07	1.0E+03	4.3E+01	8.0E-04	1.9E-07	1.5E+02	2.4E+02	5.4E-03	3.3E-08
A5	1.25	A5-1.25'	5/4/2016	7439-92-1	Lead, Pb	2.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A5	1.25	A5-1.25'	5/4/2016	7440-47-3	Chromium, Cr	29	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A5	1.25	A5-1.25'	5/4/2016	7440-50-8	Copper, Cu	30.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A5	1.25	A5-1.25'	5/4/2016	7440-66-6	Zinc, Zn	68.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A5	1.25	A5-1.25'	5/4/2016	79-01-6	Trichloroethylene	0.0028	--	--	1.1E+01	2.5E+00	2.5E-04	1.1E-09	5.8E+01	1.7E+02	4.8E-05	1.7E-10	8.4E+00	6.6E+02	3.3E-04	4.3E-11
A5	4.5	A5-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0322	--	--	1.8E+02	9.5E-01	1.8E-04	3.4E-08	1.0E+03	4.3E+01	3.2E-05	7.4E-09	1.5E+02	2.4E+02	2.2E-04	1.3E-09
A5	4.5	A5-4.5'	5/4/2016	7439-92-1	Lead, Pb	1.5	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A5	4.5	A5-4.5'	5/4/2016	7440-47-3	Chromium, Cr	21.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A5	4.5	A5-4.5'	5/4/2016	7440-50-8	Copper, Cu	19.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A5	4.5	A5-4.5'	5/4/2016	7440-66-6	Zinc, Zn	47.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A5B	1	A5B-1'	5/4/2016	127-18-4	Tetrachloroethylene	0.253	--	--	1.8E+02	9.5E-01	1.4E-03	2.7E-07	1.0E+03	4.3E+01	2.5E-04	5.8E-08	1.5E+02	2.4E+02	1.7E-03	1.0E-08
A5B	1	A5B-1'	5/4/2016	7439-92-1	Lead, Pb	74.9	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
A5B	1	A5B-1'	5/4/2016	7440-43-9	Cadmium, Cd	1.2	0.8	No	5.2E+00	1.8E+05	2.3E-01	6.7E-12	7.3E+00	7.8E+06	1.7E-01	1.5E-12	2.2E+00	7.1E+03	5.5E-01	1.7E-09
A5B	1	A5B-1'	5/4/2016	7440-47-3	Chromium, Cr	14.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A5B	1	A5B-1'	5/4/2016	7440-50-8	Copper, Cu	124	64.4	No	3.1E+03	--	4.0E-02	--	4.7E+04	--	2.7E-03	--	1.4E+04	--	8.8E-03	--
A5B	1	A5B-1'	5/4/2016	7440-66-6	Zinc, Zn	6040	359	No	2.3E+04	--	2.6E-01	--	3.5E+05	--	1.7E-02	--	1.1E+05	--	5.7E-02	--
A5B	4.5	A5B-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0398	--	--	1.8E+02	9.5E-01	2.2E-04	4.2E-08	1.0E+03	4.3E+01	3.9E-05	9.2E-09	1.5E+02	2.4E+02	2.7E-04	1.6E-09
A5B	4.5	A5B-4.5'	5/4/2016	7439-92-1	Lead, Pb	1.4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A5B	4.5	A5B-4.5'	5/4/2016	7440-47-3	Chromium, Cr	18.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A5B	4.5	A5B-4.5'	5/4/2016	7440-50-8	Copper, Cu	18.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A5B	4.5	A5B-4.5'	5/4/2016	7440-66-6	Zinc, Zn	55.9	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A5B	8.5	A5B-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.016	--	--	1.8E+02	9.5E-01	9.0E-05	1.7E-08	1.0E+03	4.3E+01	1.6E-05	3.7E-09	1.5E+02	2.4E+02	1.1E-04	6.5E-10
A5B	8.5	A5B-8.5'	5/4/2016	7439-92-1	Lead, Pb	1.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A5B	8.5	A5B-8.5'	5/4/2016	7440-47-3	Chromium, Cr	24.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A5B	8.5	A5B-8.5'	5/4/2016	7440-50-8	Copper, Cu	21.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A5B	8.5	A5B-8.5'	5/4/2016	7440-66-6	Zinc, Zn	53.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A6	1	A6-1'	5/5/2016	7439-92-1	Lead, Pb	1.5	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A6	1	A6-1'	5/5/2016	7440-47-3	Chromium, Cr	22.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A6	1	A6-1'	5/5/2016	7440-50-8	Copper, Cu	11.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
A6	1	A6-1'	5/5/2016	7440-66-6	Zinc, Zn	28.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A6	4.5	A6-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0137	--	--	1.8E+02	9.5E-01	7.7E-05	1.4E-08	1.0E+03	4.3E+01	1.4E-05	3.1E-09	1.5E+02	2.4E+02	9.2E-05	5.6E-10
A6	4.5	A6-4.5'	5/5/2016	18540-29-9	Chromium, Hexavalent	1.1	--	--	2.3E+02	3.1E-01	4.7E-03	3.6E-06	3.5E+03	6.5E+01	3.1E-04	1.7E-07	6.7E+02	7.3E+01	1.6E-03	1.5E-07
A6	4.5	A6-4.5'	5/5/2016	7439-92-1	Lead, Pb	74.5	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
A6	4.5	A6-4.5'	5/5/2016	7440-43-9	Cadmium, Cd	1.2	0.8	No	5.2E+00	1.8E+05	2.3E-01	6.7E-12	7.3E+00	7.8E+06	1.7E-01	1.5E-12	2.2E+00	7.1E+03	5.5E-01	1.7E-09
A6	4.5	A6-4.5'	5/5/2016	7440-47-3	Chromium, Cr	157	35.7	No	3.6E+04	--	4.3E-03	--	1.7E+05	--	9.2E-04	--	4.3E+04	--	3.6E-03	--
A6	4.5	A6-4.5'	5/5/2016	7440-50-8	Copper, Cu	39	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A6	4.5	A6-4.5'	5/5/2016	7440-66-6	Zinc, Zn	6260	359	No	2.3E+04	--	2.7E-01	--	3.5E+05	--	1.8E-02	--	1.1E+05	--	5.9E-02	--
A6	8.5	A6-8.5	5/5/2016	18540-29-9	Chromium, Hexavalent	2.8	--	--	2.3E+02	3.1E-01	1.2E-02	9.1E-06	3.5E+03	6.5E+01	8.0E-04	4.3E-07	6.7E+02	7.3E+01	4.2E-03	3.9E-07
A6	8.5	A6-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.002	--	--	1.8E+02	9.5E-01	1.1E-05	2.1E-09	1.0E+03	4.3E+01	2.0E-06	4.6E-10	1.5E+02	2.4E+02	1.3E-05	8.2E-11
A6	8.5	A6-8.5'	5/5/2016	7439-92-1	Lead, Pb	59.5	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
A6	8.5	A6-8.5'	5/5/2016	7440-47-3	Chromium, Cr	73.4	35.7	No	3.6E+04	--	2.0E-03	--	1.7E+05	--	4.3E-04	--	4.3E+04	--	1.7E-03	--
A6	8.5	A6-8.5'	5/5/2016	7440-50-8	Copper, Cu	100	64.4	No	3.1E+03	--	3.2E-02	--	4.7E+04	--	2.1E-03	--	1.4E+04	--	7.1E-03	--
A6	8.5	A6-8.5'	5/5/2016	7440-66-6	Zinc, Zn	3240	359	No	2.3E+04	--	1.4E-01	--	3.5E+05	--	9.2E-03	--	1.1E+05	--	3.1E-02	--
A7	1	A7-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0221	--	--	1.8E+02	9.5E-01	1.2E-04	2.3E-08	1.0E+03	4.3E+01	2.2E-05	5.1E-09	1.5E+02	2.4E+02	1.5E-04	9.0E-10
A7	1	A7-1'	5/5/2016	7439-92-1	Lead, Pb	15.9	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
A7	1	A7-1'	5/5/2016	7440-47-3	Chromium, Cr	25.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A7	1	A7-1'	5/5/2016	7440-50-8	Copper, Cu	35.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A7	1	A7-1'	5/5/2016	7440-66-6	Zinc, Zn	154	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A7	1	A7-1'	5/5/2016	79-01-6	Trichloroethylene	0.0647	--	--	1.1E+01	2.5E+00	5.8E-03	2.5E-08	5.8E+01	1.7E+02	1.1E-03	3.9E-09	8.4E+00	6.6E+02	7.7E-03	9.8E-10
A7	3.5	A7-3.5'	5/5/2016	127-18-4	Tetrachloroethylene	2.47	--	--	1.8E+02	9.5E-01	1.4E-02	2.6E-06	1.0E+03	4.3E+01	2.5E-03	5.7E-07	1.5E+02	2.4E+02	1.7E-02	1.0E-07
A7	3.5	A7-3.5'	5/5/2016	7439-92-1	Lead, Pb	1110	11.9	No	8.0E+01	--	> Cal-EPA SL	--	3.2E+02	--	> Cal-EPA SL	--	3.2E+02	--	> Cal-EPA SL	--
A7	3.5	A7-3.5'	5/5/2016	7440-43-9	Cadmium, Cd	6.1	0.8	No	5.2E+00	1.8E+05	1.2E+00	3.4E-11	7.3E+00	7.8E+06	8.4E-01	7.8E-12	2.2E+00	7.1E+03	2.8E+00	8.6E-09
A7	3.5	A7-3.5'	5/5/2016	7440-47-3	Chromium, Cr	7.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A7	3.5	A7-3.5'	5/5/2016	7440-50-8	Copper, Cu	6740	64.4	No	3.1E+03	--	2.2E+00	--	4.7E+04	--	1.4E-01	--	1.4E+04	--	4.8E-01	--
A7	3.5	A7-3.5'	5/5/2016	7440-66-6	Zinc, Zn	6920	359	No	2.3E+04	--	2.9E-01	--	3.5E+05	--	2.0E-02	--	1.1E+05	--	6.5E-02	--
A7	3.5	A7-3.5'	5/5/2016	79-01-6	Trichloroethylene	4.8	--	--	1.1E+01	2.5E+00	4.3E-01	1.9E-06	5.8E+01	1.7E+02	8.3E-02	2.9E-07	8.4E+00	6.6E+02	5.7E-01	7.3E-08
A7	8.5	A7-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0014	--	--	1.8E+02	9.5E-01	7.9E-06	1.5E-09	1.0E+03	4.3E+01	1.4E-06	3.2E-10	1.5E+02	2.4E+02	9.4E-06	5.7E-11
A7	8.5	A7-8.5'	5/5/2016	7439-92-1	Lead, Pb	99.5	11.9	No	8.0E+01	--	> Cal-EPA SL	--	3.2E+02	--	--	--	3.2E+02	--	--	--
A7	8.5	A7-8.5'	5/5/2016	7440-47-3	Chromium, Cr	34.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A7	8.5	A7-8.5'	5/5/2016	7440-50-8	Copper, Cu	609	64.4	No	3.1E+03	--	1.9E-01	--	4.7E+04	--	1.3E-02	--	1.4E+04	--	4.3E-02	--
A7	8.5	A7-8.5'	5/5/2016	7440-66-6	Zinc, Zn	359	359	No	2.3E+04	--	1.5E-02	--	3.5E+05	--	1.0E-03	--	1.1E+05	--	3.4E-03	--
A7	8.5	A7-8.5'	5/5/2016	79-01-6	Trichloroethylene	0.0026	--	--	1.1E+01	2.5E+00	2.3E-04	1.0E-09	5.8E+01	1.7E+02	4.5E-05	1.5E-10	8.4E+00	6.6E+02	3.1E-04	4.0E-11
A8	1	A8-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0219	--	--	1.8E+02	9.5E-01	1.2E-04	2.3E-08	1.0E+03	4.3E+01	2.2E-05	5.0E-09	1.5E+02	2.4E+02	1.5E-04	8.9E-10
A8	1	A8-1'	5/5/2016	7439-92-1	Lead, Pb	4.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A8	1	A8-1'	5/5/2016	7440-47-3	Chromium, Cr	18.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A8	1	A8-1'	5/5/2016	7440-50-8	Copper, Cu	25.1	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A8	1	A8-1'	5/5/2016	7440-66-6	Zinc, Zn	62.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A8	1	A8-1'	5/5/2016	79-01-6	Trichloroethylene	0.0021	--	--	1.1E+01	2.5E+00	1.9E-04	8.2E-10	5.8E+01	1.7E+02	3.6E-05	1.2E-10	8.4E+00	6.6E+02	2.5E-04	3.2E-11
A8	4.5	A8-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0114	--	--	1.8E+02	9.5E-01	6.4E-05	1.2E-08	1.0E+03	4.3E+01	1.1E-05	2.6E-09	1.5E+02	2.4E+02	7.6E-05	4.7E-10
A8	4.5	A8-4.5'	5/5/2016	7439-92-1	Lead, Pb	4.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A8	4.5	A8-4.5'	5/5/2016	7440-47-3	Chromium, Cr	34.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A8	4.5	A8-4.5'	5/5/2016	7440-50-8	Copper, Cu	42.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
A8	4.5	A8-4.5'	5/5/2016	7440-66-6	Zinc, Zn	46.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A8	8.5	A8-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0015	--	--	1.8E+02	9.5E-01	8.4E-06	1.6E-09	1.0E+03	4.3E+01	1.5E-06	3.4E-10	1.5E+02	2.4E+02	1.0E-05	6.1E-11
A8	8.5	A8-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A8	8.5	A8-8.5'	5/5/2016	7440-47-3	Chromium, Cr	21.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A8	8.5	A8-8.5'	5/5/2016	7440-50-8	Copper, Cu	24.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A8	8.5	A8-8.5'	5/5/2016	7440-66-6	Zinc, Zn	45.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A9	1	A9-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0043	--	--	1.8E+02	9.5E-01	2.4E-05	4.5E-09	1.0E+03	4.3E+01	4.3E-06	9.9E-10	1.5E+02	2.4E+02	2.9E-05	1.8E-10
A9	1	A9-1'	5/5/2016	71-43-2	Benzene	0.003	--	--	3.4E+01	1.0E+00	8.8E-05	3.0E-09	1.5E+02	4.4E+01	2.0E-05	6.8E-10	2.1E+01	1.6E+02	1.4E-04	1.9E-10
A9	1	A9-1'	5/5/2016	7439-92-1	Lead, Pb	4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A9	1	A9-1'	5/5/2016	7440-47-3	Chromium, Cr	17.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A9	1	A9-1'	5/5/2016	7440-50-8	Copper, Cu	22.4	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A9	1	A9-1'	5/5/2016	7440-66-6	Zinc, Zn	59.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A9	4.5	A9-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0045	--	--	1.8E+02	9.5E-01	2.5E-05	4.7E-09	1.0E+03	4.3E+01	4.5E-06	1.0E-09	1.5E+02	2.4E+02	3.0E-05	1.8E-10
A9	4.5	A9-4.5'	5/5/2016	7439-92-1	Lead, Pb	3	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A9	4.5	A9-4.5'	5/5/2016	7440-47-3	Chromium, Cr	31.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A9	4.5	A9-4.5'	5/5/2016	7440-50-8	Copper, Cu	35.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A9	4.5	A9-4.5'	5/5/2016	7440-66-6	Zinc, Zn	63.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
A9	8.5	A9-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.3	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
A9	8.5	A9-8.5'	5/5/2016	7440-47-3	Chromium, Cr	20.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
A9	8.5	A9-8.5'	5/5/2016	7440-50-8	Copper, Cu	21.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
A9	8.5	A9-8.5'	5/5/2016	7440-66-6	Zinc, Zn	43.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B1	1	B1-1'	5/4/2016	7439-92-1	Lead, Pb	6.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B1	1	B1-1'	5/4/2016	7440-47-3	Chromium, Cr	21.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B1	1	B1-1'	5/4/2016	7440-50-8	Copper, Cu	27	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B1	1	B1-1'	5/4/2016	7440-66-6	Zinc, Zn	64.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B1	4.5	B1-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.027	--	--	1.8E+02	9.5E-01	1.5E-04	2.8E-08	1.0E+03	4.3E+01	2.7E-05	6.2E-09	1.5E+02	2.4E+02	1.8E-04	1.1E-09
B1	4.5	B1-4.5'	5/4/2016	7439-92-1	Lead, Pb	5.5	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B1	4.5	B1-4.5'	5/4/2016	7440-47-3	Chromium, Cr	20.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B1	4.5	B1-4.5'	5/4/2016	7440-50-8	Copper, Cu	22.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B1	4.5	B1-4.5'	5/4/2016	7440-66-6	Zinc, Zn	55.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B1	8.5	B1-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0021	--	--	1.8E+02	9.5E-01	1.2E-05	2.2E-09	1.0E+03	4.3E+01	2.1E-06	4.8E-10	1.5E+02	2.4E+02	1.4E-05	8.6E-11
B1	8.5	B1-8.5'	5/4/2016	7439-92-1	Lead, Pb	6.5	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B1	8.5	B1-8.5'	5/4/2016	7440-47-3	Chromium, Cr	27.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B1	8.5	B1-8.5'	5/4/2016	7440-50-8	Copper, Cu	24.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B1	8.5	B1-8.5'	5/4/2016	7440-66-6	Zinc, Zn	63.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B10	1	B10-1'	5/7/2016	127-18-4	Tetrachloroethylene	0.002	--	--	1.8E+02	9.5E-01	1.1E-05	2.1E-09	1.0E+03	4.3E+01	2.0E-06	4.6E-10	1.5E+02	2.4E+02	1.3E-05	8.2E-11
B10	1	B10-1'	5/5/2016	7439-92-1	Lead, Pb	5.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B10	1	B10-1'	5/5/2016	7440-47-3	Chromium, Cr	24.6	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B10	1	B10-1'	5/5/2016	7440-50-8	Copper, Cu	25.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B10	1	B10-1'	5/5/2016	7440-66-6	Zinc, Zn	69.3	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B10	4.5	B10-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0043	--	--	1.8E+02	9.5E-01	2.4E-05	4.5E-09	1.0E+03	4.3E+01	4.3E-06	9.9E-10	1.5E+02	2.4E+02	2.9E-05	1.8E-10
B10	4.5	B10-4.5'	5/5/2016	7439-92-1	Lead, Pb	3.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B10	4.5	B10-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.6	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
B10	4.5	B10-4.5'	5/5/2016	7440-50-8	Copper, Cu	36.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B10	4.5	B10-4.5'	5/5/2016	7440-66-6	Zinc, Zn	73.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B10	8.5	B10-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0028	--	--	1.8E+02	9.5E-01	1.6E-05	3.0E-09	1.0E+03	4.3E+01	2.8E-06	6.4E-10	1.5E+02	2.4E+02	1.9E-05	1.1E-10
B10	8.5	B10-8.5'	5/5/2016	7439-92-1	Lead, Pb	3.4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B10	8.5	B10-8.5'	5/5/2016	7440-47-3	Chromium, Cr	34.6	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B10	8.5	B10-8.5'	5/5/2016	7440-50-8	Copper, Cu	39.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B10	8.5	B10-8.5'	5/5/2016	7440-66-6	Zinc, Zn	77.3	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B11	1	B11-1'	5/5/2016	7439-92-1	Lead, Pb	3.3	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B11	1	B11-1'	5/5/2016	7440-47-3	Chromium, Cr	22.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B11	1	B11-1'	5/5/2016	7440-50-8	Copper, Cu	29.4	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B11	1	B11-1'	5/5/2016	7440-66-6	Zinc, Zn	122	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B11	4.5	B11-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0073	--	--	1.8E+02	9.5E-01	4.1E-05	7.7E-09	1.0E+03	4.3E+01	7.2E-06	1.7E-09	1.5E+02	2.4E+02	4.9E-05	3.0E-10
B11	4.5	B11-4.5'	5/5/2016	7439-92-1	Lead, Pb	2.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B11	4.5	B11-4.5'	5/5/2016	7440-47-3	Chromium, Cr	30.2	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B11	4.5	B11-4.5'	5/5/2016	7440-50-8	Copper, Cu	30.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B11	4.5	B11-4.5'	5/5/2016	7440-66-6	Zinc, Zn	77.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B11	8.5	B11-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0024	--	--	1.8E+02	9.5E-01	1.4E-05	2.5E-09	1.0E+03	4.3E+01	2.4E-06	5.5E-10	1.5E+02	2.4E+02	1.6E-05	9.8E-11
B11	8.5	B11-8.5'	5/5/2016	7439-92-1	Lead, Pb	3.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B11	8.5	B11-8.5'	5/5/2016	7440-47-3	Chromium, Cr	33.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B11	8.5	B11-8.5'	5/5/2016	7440-50-8	Copper, Cu	42.7	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B11	8.5	B11-8.5'	5/5/2016	7440-66-6	Zinc, Zn	77	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B12	1	B12-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0228	--	--	1.8E+02	9.5E-01	1.3E-04	2.4E-08	1.0E+03	4.3E+01	2.3E-05	5.2E-09	1.5E+02	2.4E+02	1.5E-04	9.3E-10
B12	1	B12-1'	5/5/2016	7439-92-1	Lead, Pb	5.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B12	1	B12-1'	5/5/2016	7440-47-3	Chromium, Cr	32.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B12	1	B12-1'	5/5/2016	7440-50-8	Copper, Cu	35.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B12	1	B12-1'	5/5/2016	7440-66-6	Zinc, Zn	86.3	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B12	1	B12-1'	5/5/2016	79-01-6	Trichloroethylene	0.0016	--	--	1.1E+01	2.5E+00	1.4E-04	6.3E-10	5.8E+01	1.7E+02	2.8E-05	9.5E-11	8.4E+00	6.6E+02	1.9E-04	2.4E-11
B12	5	B12-5'/B12-5'D	5/5/2016	127-18-4	Tetrachloroethylene	0.0028	--	--	1.8E+02	9.5E-01	1.6E-05	3.0E-09	1.0E+03	4.3E+01	2.8E-06	6.4E-10	1.5E+02	2.4E+02	1.9E-05	1.1E-10
B12	5	B12-5'/B12-5'D	5/5/2016	7439-92-1	Lead, Pb	3.4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B12	5	B12-5'/B12-5'D	5/5/2016	7440-47-3	Chromium, Cr	34.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B12	5	B12-5'/B12-5'D	5/5/2016	7440-50-8	Copper, Cu	37.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B12	5	B12-5'/B12-5'D	5/5/2016	7440-66-6	Zinc, Zn	79.9	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B12	11	B12-11'	5/5/2016	127-18-4	Tetrachloroethylene	0.0013	--	--	1.8E+02	9.5E-01	7.3E-06	1.4E-09	1.0E+03	4.3E+01	1.3E-06	3.0E-10	1.5E+02	2.4E+02	8.7E-06	5.3E-11
B12	11	B12-11'	5/5/2016	7439-92-1	Lead, Pb	2.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B12	11	B12-11'	5/5/2016	7440-47-3	Chromium, Cr	34.2	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B12	11	B12-11'	5/5/2016	7440-50-8	Copper, Cu	36	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B12	11	B12-11'	5/5/2016	7440-66-6	Zinc, Zn	78.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B13	1	B13-1'	5/6/2016	7439-92-1	Lead, Pb	8.5	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B13	1	B13-1'	5/6/2016	7440-47-3	Chromium, Cr	30.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B13	1	B13-1'	5/6/2016	7440-50-8	Copper, Cu	29.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B13	1	B13-1'	5/6/2016	7440-66-6	Zinc, Zn	83.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B13	5	B13-5'	5/6/2016	127-18-4	Tetrachloroethylene	0.0021	--	--	1.8E+02	9.5E-01	1.2E-05	2.2E-09	1.0E+03	4.3E+01	2.1E-06	4.8E-10	1.5E+02	2.4E+02	1.4E-05	8.6E-11
B13	5	B13-5'	5/6/2016	7439-92-1	Lead, Pb	10.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
B13	5	B13-5'	5/6/2016	7440-47-3	Chromium, Cr	35.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B13	5	B13-5'	5/6/2016	7440-50-8	Copper, Cu	48.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B13	5	B13-5'	5/6/2016	7440-66-6	Zinc, Zn	236	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B13	11	B13-11'	5/6/2016	127-18-4	Tetrachloroethylene	0.0012	--	--	1.8E+02	9.5E-01	6.8E-06	1.3E-09	1.0E+03	4.3E+01	1.2E-06	2.8E-10	1.5E+02	2.4E+02	8.0E-06	4.9E-11
B13	11	B13-11'	5/6/2016	7439-92-1	Lead, Pb	3.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B13	11	B13-11'	5/6/2016	7440-47-3	Chromium, Cr	32.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B13	11	B13-11'	5/6/2016	7440-50-8	Copper, Cu	37	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B13	11	B13-11'	5/6/2016	7440-66-6	Zinc, Zn	82	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B14	1	B14-1'	5/6/2016	7439-92-1	Lead, Pb	23.9	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
B14	1	B14-1'	5/6/2016	7440-47-3	Chromium, Cr	52.2	35.7	No	3.6E+04	--	1.4E-03	--	1.7E+05	--	3.1E-04	--	4.3E+04	--	1.2E-03	--
B14	1	B14-1'	5/6/2016	7440-50-8	Copper, Cu	26.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B14	1	B14-1'	5/6/2016	7440-66-6	Zinc, Zn	68.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B14	5	B14-5'	5/6/2016	7440-47-3	Chromium, Cr	6.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B14	5	B14-5'	5/6/2016	7440-50-8	Copper, Cu	10.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B14	5	B14-5'	5/6/2016	7440-66-6	Zinc, Zn	21.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B14	11	B14-11'	5/6/2016	7439-92-1	Lead, Pb	2.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B14	11	B14-11'	5/6/2016	7440-47-3	Chromium, Cr	26.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B14	11	B14-11'	5/6/2016	7440-50-8	Copper, Cu	28.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B14	11	B14-11'	5/6/2016	7440-66-6	Zinc, Zn	63.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B15	1	B15-1'	5/6/2016	7439-92-1	Lead, Pb	7.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B15	1	B15-1'	5/6/2016	7440-47-3	Chromium, Cr	45.4	35.7	No	3.6E+04	--	1.3E-03	--	1.7E+05	--	2.7E-04	--	4.3E+04	--	1.0E-03	--
B15	1	B15-1'	5/6/2016	7440-50-8	Copper, Cu	19.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B15	1	B15-1'	5/6/2016	7440-66-6	Zinc, Zn	52.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B15	4	B15-4'	5/6/2016	7439-92-1	Lead, Pb	6.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B15	4	B15-4'	5/6/2016	7440-47-3	Chromium, Cr	24.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B15	4	B15-4'	5/6/2016	7440-50-8	Copper, Cu	23.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B15	4	B15-4'	5/6/2016	7440-66-6	Zinc, Zn	62.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B15	5	B15-5'	5/6/2016	100-41-4	Ethylbenzene	0.003	--	--	5.7E+03	1.6E+01	5.3E-07	1.8E-10	4.9E+04	7.2E+02	6.1E-08	4.2E-11	8.7E+03	2.8E+03	3.5E-07	1.1E-11
B15	5	B15-5'	5/6/2016	108-88-3	Toluene	0.0018	--	--	2.7E+03	--	6.7E-07	--	1.6E+04	--	1.1E-07	--	2.4E+03	--	7.5E-07	--
B15	5	B15-5'	5/6/2016	7439-92-1	Lead, Pb	3.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B15	5	B15-5'	5/6/2016	7440-47-3	Chromium, Cr	27.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B15	5	B15-5'	5/6/2016	7440-50-8	Copper, Cu	15.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B15	5	B15-5'	5/6/2016	7440-66-6	Zinc, Zn	35.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B2	1	B2-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0127	--	--	1.8E+02	9.5E-01	7.2E-05	1.3E-08	1.0E+03	4.3E+01	1.3E-05	2.9E-09	1.5E+02	2.4E+02	8.5E-05	5.2E-10
B2	1	B2-1'	5/5/2016	7439-92-1	Lead, Pb	3	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B2	1	B2-1'	5/5/2016	7440-47-3	Chromium, Cr	23.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B2	1	B2-1'	5/5/2016	7440-50-8	Copper, Cu	23.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B2	1	B2-1'	5/5/2016	7440-66-6	Zinc, Zn	62.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B2	4.5	B2-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0017	--	--	1.8E+02	9.5E-01	9.6E-06	1.8E-09	1.0E+03	4.3E+01	1.7E-06	3.9E-10	1.5E+02	2.4E+02	1.1E-05	6.9E-11
B2	4.5	B2-4.5'	5/5/2016	7439-92-1	Lead, Pb	4.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B2	4.5	B2-4.5'	5/5/2016	7440-47-3	Chromium, Cr	33.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B2	4.5	B2-4.5'	5/5/2016	7440-50-8	Copper, Cu	38.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B2	4.5	B2-4.5'	5/5/2016	7440-66-6	Zinc, Zn	76.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
B2	8.5	B2-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B2	8.5	B2-8.5'	5/5/2016	7440-47-3	Chromium, Cr	19	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B2	8.5	B2-8.5'	5/5/2016	7440-50-8	Copper, Cu	16.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B2	8.5	B2-8.5'	5/5/2016	7440-66-6	Zinc, Zn	43	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B3	1	B3-1'	5/4/2016	127-18-4	Tetrachloroethylene	0.0218	--	--	1.8E+02	9.5E-01	1.2E-04	2.3E-08	1.0E+03	4.3E+01	2.2E-05	5.0E-09	1.5E+02	2.4E+02	1.5E-04	8.9E-10
B3	1	B3-1'	5/4/2016	7439-92-1	Lead, Pb	19.1	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
B3	1	B3-1'	5/4/2016	7440-47-3	Chromium, Cr	23.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B3	1	B3-1'	5/4/2016	7440-50-8	Copper, Cu	145	64.4	No	3.1E+03	--	4.6E-02	--	4.7E+04	--	3.1E-03	--	1.4E+04	--	1.0E-02	--
B3	1	B3-1'	5/4/2016	7440-66-6	Zinc, Zn	136	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B3	4.5	B3-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0079	--	--	1.8E+02	9.5E-01	4.4E-05	8.3E-09	1.0E+03	4.3E+01	7.8E-06	1.8E-09	1.5E+02	2.4E+02	5.3E-05	3.2E-10
B3	4.5	B3-4.5'	5/4/2016	7439-92-1	Lead, Pb	2.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B3	4.5	B3-4.5'	5/4/2016	7440-47-3	Chromium, Cr	23.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B3	4.5	B3-4.5'	5/4/2016	7440-50-8	Copper, Cu	34.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B3	4.5	B3-4.5'	5/4/2016	7440-66-6	Zinc, Zn	54.3	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B3	8.5	B3-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0012	--	--	1.8E+02	9.5E-01	6.8E-06	1.3E-09	1.0E+03	4.3E+01	1.2E-06	2.8E-10	1.5E+02	2.4E+02	8.0E-06	4.9E-11
B3	8.5	B3-8.5'	5/4/2016	7439-92-1	Lead, Pb	2.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B3	8.5	B3-8.5'	5/4/2016	7440-47-3	Chromium, Cr	19.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B3	8.5	B3-8.5'	5/4/2016	7440-50-8	Copper, Cu	19.7	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B3	8.5	B3-8.5'	5/4/2016	7440-66-6	Zinc, Zn	43.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B4	1	B4-1'	5/4/2016	127-18-4	Tetrachloroethylene	3.33	--	--	1.8E+02	9.5E-01	1.9E-02	3.5E-06	1.0E+03	4.3E+01	3.3E-03	7.7E-07	1.5E+02	2.4E+02	2.2E-02	1.4E-07
B4	1	B4-1'	5/4/2016	156-59-2	cis-1,2-Dichloroethene	0.005	--	--	5.0E+01	--	1.0E-04	--	2.7E+02	--	1.9E-05	--	3.9E+01	--	1.3E-04	--
B4	1	B4-1'	5/4/2016	156-60-5	trans-1,2-Dichloroethene	0.0023	--	--	3.7E+02	--	6.1E-06	--	1.9E+03	--	1.2E-06	--	2.7E+02	--	8.6E-06	--
B4	1	B4-1'	5/4/2016	7439-92-1	Lead, Pb	108	11.9	No	8.0E+01	--	> Cal-EPA SL	--	3.2E+02	--	--	--	3.2E+02	--	--	--
B4	1	B4-1'	5/4/2016	7440-43-9	Cadmium, Cd	0.8	0.8	No	5.2E+00	1.8E+05	1.5E-01	4.5E-12	7.3E+00	7.8E+06	1.1E-01	1.0E-12	2.2E+00	7.1E+03	3.7E-01	1.1E-09
B4	1	B4-1'	5/4/2016	7440-47-3	Chromium, Cr	25.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B4	1	B4-1'	5/4/2016	7440-50-8	Copper, Cu	133	64.4	No	3.1E+03	--	4.3E-02	--	4.7E+04	--	2.8E-03	--	1.4E+04	--	9.4E-03	--
B4	1	B4-1'	5/4/2016	7440-66-6	Zinc, Zn	1580	359	No	2.3E+04	--	6.7E-02	--	3.5E+05	--	4.5E-03	--	1.1E+05	--	1.5E-02	--
B4	1	B4-1'	5/4/2016	79-01-6	Trichloroethylene	0.153	--	--	1.1E+01	2.5E+00	1.4E-02	6.0E-08	5.8E+01	1.7E+02	2.6E-03	9.1E-09	8.4E+00	6.6E+02	1.8E-02	2.3E-09
B4	4.5	B4-4.5'/B4-4.5D	5/4/2016	127-18-4	Tetrachloroethylene	0.024	--	--	1.8E+02	9.5E-01	1.4E-04	2.5E-08	1.0E+03	4.3E+01	2.4E-05	5.5E-09	1.5E+02	2.4E+02	1.6E-04	9.8E-10
B4	4.5	B4-4.5'/B4-4.5D	5/4/2016	7439-92-1	Lead, Pb	2.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B4	4.5	B4-4.5'/B4-4.5D	5/4/2016	7440-47-3	Chromium, Cr	26.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B4	4.5	B4-4.5'/B4-4.5D	5/4/2016	7440-50-8	Copper, Cu	32.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B4	4.5	B4-4.5'/B4-4.5D	5/4/2016	7440-66-6	Zinc, Zn	880	359	No	2.3E+04	--	3.8E-02	--	3.5E+05	--	2.5E-03	--	1.1E+05	--	8.3E-03	--
B4	8.5	B4-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0224	--	--	1.8E+02	9.5E-01	1.3E-04	2.4E-08	1.0E+03	4.3E+01	2.2E-05	5.1E-09	1.5E+02	2.4E+02	1.5E-04	9.1E-10
B4	8.5	B4-8.5'	5/4/2016	7439-92-1	Lead, Pb	0.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B4	8.5	B4-8.5'	5/4/2016	7440-47-3	Chromium, Cr	14.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B4	8.5	B4-8.5'	5/4/2016	7440-50-8	Copper, Cu	15.1	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B4	8.5	B4-8.5'	5/4/2016	7440-66-6	Zinc, Zn	38.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B5	1	B5-1'	5/4/2016	127-18-4	Tetrachloroethylene	0.0296	--	--	1.8E+02	9.5E-01	1.7E-04	3.1E-08	1.0E+03	4.3E+01	2.9E-05	6.8E-09	1.5E+02	2.4E+02	2.0E-04	1.2E-09
B5	1	B5-1'	5/4/2016	7440-47-3	Chromium, Cr	16.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B5	1	B5-1'	5/4/2016	7440-50-8	Copper, Cu	10.7	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B5	1	B5-1'	5/4/2016	7440-66-6	Zinc, Zn	37.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B5	4.5	B5-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.148	--	--	1.8E+02	9.5E-01	8.3E-04	1.6E-07	1.0E+03	4.3E+01	1.5E-04	3.4E-08	1.5E+02	2.4E+02	9.9E-04	6.0E-09

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
B5	4.5	B5-4.5'	5/4/2016	7439-92-1	Lead, Pb	1.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B5	4.5	B5-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.2	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B5	4.5	B5-4.5'	5/4/2016	7440-50-8	Copper, Cu	17.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B5	4.5	B5-4.5'	5/4/2016	7440-66-6	Zinc, Zn	45.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B5	8.5	B5-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.161	--	--	1.8E+02	9.5E-01	9.1E-04	1.7E-07	1.0E+03	4.3E+01	1.6E-04	3.7E-08	1.5E+02	2.4E+02	1.1E-03	6.6E-09
B5	8.5	B5-8.5'	5/4/2016	7439-92-1	Lead, Pb	2.4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B5	8.5	B5-8.5'	5/4/2016	7440-47-3	Chromium, Cr	25.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B5	8.5	B5-8.5'	5/4/2016	7440-50-8	Copper, Cu	28	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B5	8.5	B5-8.5'	5/4/2016	7440-66-6	Zinc, Zn	56.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B6	1	B6-1'	5/4/2016	127-18-4	Tetrachloroethylene	0.0287	--	--	1.8E+02	9.5E-01	1.6E-04	3.0E-08	1.0E+03	4.3E+01	2.8E-05	6.6E-09	1.5E+02	2.4E+02	1.9E-04	1.2E-09
B6	1	B6-1'	5/4/2016	7439-92-1	Lead, Pb	2.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B6	1	B6-1'	5/4/2016	7440-47-3	Chromium, Cr	24	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B6	1	B6-1'	5/4/2016	7440-50-8	Copper, Cu	24.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B6	1	B6-1'	5/4/2016	7440-66-6	Zinc, Zn	58.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B6	4.5	B6-4.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0331	--	--	1.8E+02	9.5E-01	1.9E-04	3.5E-08	1.0E+03	4.3E+01	3.3E-05	7.6E-09	1.5E+02	2.4E+02	2.2E-04	1.4E-09
B6	4.5	B6-4.5'	5/4/2016	7439-92-1	Lead, Pb	1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B6	4.5	B6-4.5'	5/4/2016	7440-47-3	Chromium, Cr	16.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B6	4.5	B6-4.5'	5/4/2016	7440-50-8	Copper, Cu	17.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B6	4.5	B6-4.5'	5/4/2016	7440-66-6	Zinc, Zn	41.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B6	8.5	B6-8.5'	5/4/2016	127-18-4	Tetrachloroethylene	0.0221	--	--	1.8E+02	9.5E-01	1.2E-04	2.3E-08	1.0E+03	4.3E+01	2.2E-05	5.1E-09	1.5E+02	2.4E+02	1.5E-04	9.0E-10
B6	8.5	B6-8.5'	5/4/2016	7439-92-1	Lead, Pb	5.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B6	8.5	B6-8.5'	5/4/2016	7440-47-3	Chromium, Cr	31.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B6	8.5	B6-8.5'	5/4/2016	7440-50-8	Copper, Cu	37.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B6	8.5	B6-8.5'	5/4/2016	7440-66-6	Zinc, Zn	78	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B7	1	B7-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0058	--	--	1.8E+02	9.5E-01	3.3E-05	6.1E-09	1.0E+03	4.3E+01	5.8E-06	1.3E-09	1.5E+02	2.4E+02	3.9E-05	2.4E-10
B7	1	B7-1'	5/5/2016	71-43-2	Benzene	0.0017	--	--	3.4E+01	1.0E+00	5.0E-05	1.7E-09	1.5E+02	4.4E+01	1.1E-05	3.9E-10	2.1E+01	1.6E+02	8.0E-05	1.0E-10
B7	1	B7-1'	5/5/2016	7439-92-1	Lead, Pb	59.6	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
B7	1	B7-1'	5/5/2016	7440-47-3	Chromium, Cr	17.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B7	1	B7-1'	5/5/2016	7440-50-8	Copper, Cu	22.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B7	1	B7-1'	5/5/2016	7440-66-6	Zinc, Zn	62.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B7	1	B7-1'	5/5/2016	79-01-6	Trichloroethylene	0.0016	--	--	1.1E+01	2.5E+00	1.4E-04	6.3E-10	5.8E+01	1.7E+02	2.8E-05	9.5E-11	8.4E+00	6.6E+02	1.9E-04	2.4E-11
B7	4.5	B7-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0221	--	--	1.8E+02	9.5E-01	1.2E-04	2.3E-08	1.0E+03	4.3E+01	2.2E-05	5.1E-09	1.5E+02	2.4E+02	1.5E-04	9.0E-10
B7	4.5	B7-4.5'	5/5/2016	7439-92-1	Lead, Pb	3.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B7	4.5	B7-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B7	4.5	B7-4.5'	5/5/2016	7440-50-8	Copper, Cu	33.4	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B7	4.5	B7-4.5'	5/5/2016	7440-66-6	Zinc, Zn	70.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B7	4.5	B7-4.5'	5/5/2016	79-01-6	Trichloroethylene	0.0136	--	--	1.1E+01	2.5E+00	1.2E-03	5.3E-09	5.8E+01	1.7E+02	2.3E-04	8.1E-10	8.4E+00	6.6E+02	1.6E-03	2.1E-10
B7	8.5	B7-8.5'	5/5/2016	7439-92-1	Lead, Pb	0.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B7	8.5	B7-8.5'	5/5/2016	7440-47-3	Chromium, Cr	17.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B7	8.5	B7-8.5'	5/5/2016	7440-50-8	Copper, Cu	19.7	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B7	8.5	B7-8.5'	5/5/2016	7440-66-6	Zinc, Zn	32.3	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B8	1	B8-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0139	--	--	1.8E+02	9.5E-01	7.8E-05	1.5E-08	1.0E+03	4.3E+01	1.4E-05	3.2E-09	1.5E+02	2.4E+02	9.3E-05	5.7E-10
B8	1	B8-1'	5/5/2016	71-43-2	Benzene	0.0043	--	--	3.4E+01	1.0E+00	1.3E-04	4.2E-09	1.5E+02	4.4E+01	2.8E-05	9.8E-10	2.1E+01	1.6E+02	2.0E-04	2.7E-10

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
B8	1	B8-1'	5/5/2016	7439-92-1	Lead, Pb	2.5	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B8	1	B8-1'	5/5/2016	7440-47-3	Chromium, Cr	10.2	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B8	1	B8-1'	5/5/2016	7440-50-8	Copper, Cu	12.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B8	1	B8-1'	5/5/2016	7440-66-6	Zinc, Zn	40.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B8	1	B8-1'	5/5/2016	79-01-6	Trichloroethylene	0.0198	--	--	1.1E+01	2.5E+00	1.8E-03	7.8E-09	5.8E+01	1.7E+02	3.4E-04	1.2E-09	8.4E+00	6.6E+02	2.4E-03	3.0E-10
B8	4.5	B8-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0033	--	--	1.8E+02	9.5E-01	1.9E-05	3.5E-09	1.0E+03	4.3E+01	3.3E-06	7.6E-10	1.5E+02	2.4E+02	2.2E-05	1.3E-10
B8	4.5	B8-4.5'	5/5/2016	7439-92-1	Lead, Pb	2.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B8	4.5	B8-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B8	4.5	B8-4.5'	5/5/2016	7440-50-8	Copper, Cu	32	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B8	4.5	B8-4.5'	5/5/2016	7440-66-6	Zinc, Zn	67.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B8	4.5	B8-4.5'	5/5/2016	79-01-6	Trichloroethylene	0.001	--	--	1.1E+01	2.5E+00	8.9E-05	3.9E-10	5.8E+01	1.7E+02	1.7E-05	6.0E-11	8.4E+00	6.6E+02	1.2E-04	1.5E-11
B8	8.5	B8-8.5'/B8-8.5D	5/5/2016	7440-47-3	Chromium, Cr	22.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B8	8.5	B8-8.5'/B8-8.5D	5/5/2016	7440-50-8	Copper, Cu	25.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B8	8.5	B8-8.5'/B8-8.5D	5/5/2016	7440-66-6	Zinc, Zn	50.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B8	8.5	B8-8.5'/B8-8.5D	5/5/2016	127-18-4	Tetrachloroethylene	0.006	--	--	1.8E+02	9.5E-01	3.4E-05	6.3E-09	1.0E+03	4.3E+01	6.0E-06	1.4E-09	1.5E+02	2.4E+02	4.0E-05	2.4E-10
B8	8.5	B8-8.5'/B8-8.5D	5/5/2016	7439-92-1	Lead, Pb	1.9	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B8	8.5	B8-8.5'/B8-8.5D	5/5/2016	79-01-6	Trichloroethylene	0.0013	--	--	1.1E+01	2.5E+00	1.2E-04	5.1E-10	5.8E+01	1.7E+02	2.2E-05	7.7E-11	8.4E+00	6.6E+02	1.6E-04	2.0E-11
B9	1	B9-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0018	--	--	1.8E+02	9.5E-01	1.0E-05	1.9E-09	1.0E+03	4.3E+01	1.8E-06	4.1E-10	1.5E+02	2.4E+02	1.2E-05	7.3E-11
B9	1	B9-1'	5/5/2016	7439-92-1	Lead, Pb	4.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B9	1	B9-1'	5/5/2016	7440-47-3	Chromium, Cr	14.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B9	1	B9-1'	5/5/2016	7440-50-8	Copper, Cu	18	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B9	1	B9-1'	5/5/2016	7440-66-6	Zinc, Zn	57	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B9	4.5	B9-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0023	--	--	1.8E+02	9.5E-01	1.3E-05	2.4E-09	1.0E+03	4.3E+01	2.3E-06	5.3E-10	1.5E+02	2.4E+02	1.5E-05	9.4E-11
B9	4.5	B9-4.5'	5/5/2016	7439-92-1	Lead, Pb	3	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B9	4.5	B9-4.5'	5/5/2016	7440-47-3	Chromium, Cr	29.5	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B9	4.5	B9-4.5'	5/5/2016	7440-50-8	Copper, Cu	33.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B9	4.5	B9-4.5'	5/5/2016	7440-66-6	Zinc, Zn	68.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
B9	8.5	B9-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.002	--	--	1.8E+02	9.5E-01	1.1E-05	2.1E-09	1.0E+03	4.3E+01	2.0E-06	4.6E-10	1.5E+02	2.4E+02	1.3E-05	8.2E-11
B9	8.5	B9-8.5'	5/5/2016	7439-92-1	Lead, Pb	2.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
B9	8.5	B9-8.5'	5/5/2016	7440-47-3	Chromium, Cr	25.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
B9	8.5	B9-8.5'	5/5/2016	7440-50-8	Copper, Cu	25.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
B9	8.5	B9-8.5'	5/5/2016	7440-66-6	Zinc, Zn	56.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB1	1	LB1-1'	5/6/2016	127-18-4	Tetrachloroethylene	0.0029	--	--	1.8E+02	9.5E-01	1.6E-05	3.1E-09	1.0E+03	4.3E+01	2.9E-06	6.7E-10	1.5E+02	2.4E+02	1.9E-05	1.2E-10
LB1	1	LB1-1'	5/6/2016	7439-92-1	Lead, Pb	5.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB1	1	LB1-1'	5/6/2016	7440-47-3	Chromium, Cr	24.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB1	1	LB1-1'	5/6/2016	7440-50-8	Copper, Cu	26.1	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB1	1	LB1-1'	5/6/2016	7440-66-6	Zinc, Zn	65.9	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB1	4.5	LB1-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	0.0016	--	--	1.8E+02	9.5E-01	9.0E-06	1.7E-09	1.0E+03	4.3E+01	1.6E-06	3.7E-10	1.5E+02	2.4E+02	1.1E-05	6.5E-11
LB1	4.5	LB1-4.5'	5/6/2016	7439-92-1	Lead, Pb	4.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB1	4.5	LB1-4.5'	5/6/2016	7440-47-3	Chromium, Cr	22.8	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB1	4.5	LB1-4.5'	5/6/2016	7440-50-8	Copper, Cu	26.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB1	4.5	LB1-4.5'	5/6/2016	7440-66-6	Zinc, Zn	60.9	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB1	8.5	LB1-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	0.0018	--	--	1.8E+02	9.5E-01	1.0E-05	1.9E-09	1.0E+03	4.3E+01	1.8E-06	4.1E-10	1.5E+02	2.4E+02	1.2E-05	7.3E-11

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
LB1	8.5	LB1-8.5'	5/6/2016	7439-92-1	Lead, Pb	2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB1	8.5	LB1-8.5'	5/6/2016	7440-47-3	Chromium, Cr	28.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB1	8.5	LB1-8.5'	5/6/2016	7440-50-8	Copper, Cu	28.5	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB1	8.5	LB1-8.5'	5/6/2016	7440-66-6	Zinc, Zn	74.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB2	1	LB2-1'	5/6/2016	127-18-4	Tetrachloroethylene	0.028	--	--	1.8E+02	9.5E-01	1.6E-04	3.0E-08	1.0E+03	4.3E+01	2.8E-05	6.4E-09	1.5E+02	2.4E+02	1.9E-04	1.1E-09
LB2	1	LB2-1'	5/6/2016	7439-92-1	Lead, Pb	0.8	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB2	1	LB2-1'	5/6/2016	7440-47-3	Chromium, Cr	7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB2	1	LB2-1'	5/6/2016	7440-50-8	Copper, Cu	9.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB2	1	LB2-1'	5/6/2016	7440-66-6	Zinc, Zn	27.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB2	1	LB2-1'	5/6/2016	79-01-6	Trichloroethylene	0.0014	--	--	1.1E+01	2.5E+00	1.3E-04	5.5E-10	5.8E+01	1.7E+02	2.4E-05	8.3E-11	8.4E+00	6.6E+02	1.7E-04	2.1E-11
LB2	4.5	LB2-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	0.0022	--	--	1.8E+02	9.5E-01	1.2E-05	2.3E-09	1.0E+03	4.3E+01	2.2E-06	5.1E-10	1.5E+02	2.4E+02	1.5E-05	9.0E-11
LB2	4.5	LB2-4.5'	5/6/2016	7439-92-1	Lead, Pb	1.4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB2	4.5	LB2-4.5'	5/6/2016	7440-47-3	Chromium, Cr	8.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB2	4.5	LB2-4.5'	5/6/2016	7440-50-8	Copper, Cu	17.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB2	4.5	LB2-4.5'	5/6/2016	7440-66-6	Zinc, Zn	58.6	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB2	8.5	LB2-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	0.0022	--	--	1.8E+02	9.5E-01	1.2E-05	2.3E-09	1.0E+03	4.3E+01	2.2E-06	5.1E-10	1.5E+02	2.4E+02	1.5E-05	9.0E-11
LB2	8.5	LB2-8.5'	5/6/2016	7439-92-1	Lead, Pb	2.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB2	8.5	LB2-8.5'	5/6/2016	7440-47-3	Chromium, Cr	27.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB2	8.5	LB2-8.5'	5/6/2016	7440-50-8	Copper, Cu	30.7	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB2	8.5	LB2-8.5'	5/6/2016	7440-66-6	Zinc, Zn	71.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB3	1	LB3-1'/LB3-1'-D	5/6/2016	7439-92-1	Lead, Pb	40.3	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
LB3	1	LB3-1'/LB3-1'-D	5/6/2016	7440-50-8	Copper, Cu	64.4	64.4	No	3.1E+03	--	2.1E-02	--	4.7E+04	--	1.4E-03	--	1.4E+04	--	4.5E-03	--
LB3	1	LB3-1'/LB3-1'-D	5/6/2016	7440-66-6	Zinc, Zn	985	359	No	2.3E+04	--	4.2E-02	--	3.5E+05	--	2.8E-03	--	1.1E+05	--	9.3E-03	--
LB3	1	LB3-1'/LB3-1'-D	5/6/2016	127-18-4	Tetrachloroethylene	0.0467	--	--	1.8E+02	9.5E-01	2.6E-04	4.9E-08	1.0E+03	4.3E+01	4.6E-05	1.1E-08	1.5E+02	2.4E+02	3.1E-04	1.9E-09
LB3	1	LB3-1'/LB3-1'-D	5/6/2016	7440-47-3	Chromium, Cr	28.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB3	4.5	LB3-4.5'	5/6/2016	127-18-4	Tetrachloroethylene	0.0196	--	--	1.8E+02	9.5E-01	1.1E-04	2.1E-08	1.0E+03	4.3E+01	1.9E-05	4.5E-09	1.5E+02	2.4E+02	1.3E-04	8.0E-10
LB3	4.5	LB3-4.5'	5/6/2016	7439-92-1	Lead, Pb	4.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB3	4.5	LB3-4.5'	5/6/2016	7440-47-3	Chromium, Cr	32.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB3	4.5	LB3-4.5'	5/6/2016	7440-50-8	Copper, Cu	38.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB3	4.5	LB3-4.5'	5/6/2016	7440-66-6	Zinc, Zn	77.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB3	8.5	LB3-8.5'	5/6/2016	127-18-4	Tetrachloroethylene	0.0082	--	--	1.8E+02	9.5E-01	4.6E-05	8.6E-09	1.0E+03	4.3E+01	8.1E-06	1.9E-09	1.5E+02	2.4E+02	5.5E-05	3.3E-10
LB3	8.5	LB3-8.5'	5/6/2016	7439-92-1	Lead, Pb	0.9	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB3	8.5	LB3-8.5'	5/6/2016	7440-47-3	Chromium, Cr	6.6	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB3	8.5	LB3-8.5'	5/6/2016	7440-50-8	Copper, Cu	6.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB3	8.5	LB3-8.5'	5/6/2016	7440-66-6	Zinc, Zn	56.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB4	1	LB4-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0044	--	--	1.8E+02	9.5E-01	2.5E-05	4.6E-09	1.0E+03	4.3E+01	4.4E-06	1.0E-09	1.5E+02	2.4E+02	3.0E-05	1.8E-10
LB4	1	LB4-1'	5/5/2016	7439-92-1	Lead, Pb	11.9	11.9	No	8.0E+01	--	--	--	3.2E+02	--	--	--	3.2E+02	--	--	--
LB4	1	LB4-1'	5/5/2016	7440-47-3	Chromium, Cr	19.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB4	1	LB4-1'	5/5/2016	7440-50-8	Copper, Cu	61.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB4	1	LB4-1'	5/5/2016	7440-66-6	Zinc, Zn	684	359	No	2.3E+04	--	2.9E-02	--	3.5E+05	--	2.0E-03	--	1.1E+05	--	6.4E-03	--
LB4	4.5	LB4-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0256	--	--	1.8E+02	9.5E-01	1.4E-04	2.7E-08	1.0E+03	4.3E+01	2.5E-05	5.9E-09	1.5E+02	2.4E+02	1.7E-04	1.0E-09
LB4	4.5	LB4-4.5'	5/5/2016	7439-92-1	Lead, Pb	1.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB4	4.5	LB4-4.5'	5/5/2016	7440-47-3	Chromium, Cr	18.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
LB4	4.5	LB4-4.5'	5/5/2016	7440-50-8	Copper, Cu	21.7	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB4	4.5	LB4-4.5'	5/5/2016	7440-66-6	Zinc, Zn	48	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB4	8.5	LB4-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0054	--	--	1.8E+02	9.5E-01	3.0E-05	5.7E-09	1.0E+03	4.3E+01	5.4E-06	1.2E-09	1.5E+02	2.4E+02	3.6E-05	2.2E-10
LB4	8.5	LB4-8.5'	5/5/2016	7439-92-1	Lead, Pb	1.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB4	8.5	LB4-8.5'	5/5/2016	7440-47-3	Chromium, Cr	19.6	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB4	8.5	LB4-8.5'	5/5/2016	7440-50-8	Copper, Cu	22.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB4	8.5	LB4-8.5'	5/5/2016	7440-66-6	Zinc, Zn	46.1	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB5	1	LB5-1'/LB5-1D	5/5/2016	7439-92-1	Lead, Pb	4.9	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB5	1	LB5-1'/LB5-1D	5/5/2016	7440-47-3	Chromium, Cr	27.2	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB5	1	LB5-1'/LB5-1D	5/5/2016	7440-50-8	Copper, Cu	33.4	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB5	1	LB5-1'/LB5-1D	5/5/2016	7440-66-6	Zinc, Zn	87.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB5	4.5	LB5-4.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0212	--	--	1.8E+02	9.5E-01	1.2E-04	2.2E-08	1.0E+03	4.3E+01	2.1E-05	4.9E-09	1.5E+02	2.4E+02	1.4E-04	8.7E-10
LB5	4.5	LB5-4.5'	5/5/2016	7439-92-1	Lead, Pb	2.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB5	4.5	LB5-4.5'	5/5/2016	7440-47-3	Chromium, Cr	26.9	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB5	4.5	LB5-4.5'	5/5/2016	7440-50-8	Copper, Cu	30.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB5	4.5	LB5-4.5'	5/5/2016	7440-66-6	Zinc, Zn	65.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB5	4.5	LB5-4.5'	5/5/2016	79-01-6	Trichloroethylene	0.0053	--	--	1.1E+01	2.5E+00	4.7E-04	2.1E-09	5.8E+01	1.7E+02	9.1E-05	3.2E-10	8.4E+00	6.6E+02	6.3E-04	8.1E-11
LB5	8.5	LB5-8.5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0039	--	--	1.8E+02	9.5E-01	2.2E-05	4.1E-09	1.0E+03	4.3E+01	3.9E-06	9.0E-10	1.5E+02	2.4E+02	2.6E-05	1.6E-10
LB5	8.5	LB5-8.5'	5/5/2016	7439-92-1	Lead, Pb	4.6	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB5	8.5	LB5-8.5'	5/5/2016	7440-47-3	Chromium, Cr	35.4	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB5	8.5	LB5-8.5'	5/5/2016	7440-50-8	Copper, Cu	37.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB5	8.5	LB5-8.5'	5/5/2016	7440-66-6	Zinc, Zn	79.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB6	1	LB6-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.001	--	--	1.8E+02	9.5E-01	5.6E-06	1.1E-09	1.0E+03	4.3E+01	9.9E-07	2.3E-10	1.5E+02	2.4E+02	6.7E-06	4.1E-11
LB6	1	LB6-1'	5/5/2016	7439-92-1	Lead, Pb	4.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB6	1	LB6-1'	5/5/2016	7440-47-3	Chromium, Cr	35.7	35.7	No	3.6E+04	--	9.8E-04	--	1.7E+05	--	2.1E-04	--	4.3E+04	--	8.2E-04	--
LB6	1	LB6-1'	5/5/2016	7440-50-8	Copper, Cu	45.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB6	1	LB6-1'	5/5/2016	7440-66-6	Zinc, Zn	81.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB6	5	LB6-5'	5/5/2016	7439-92-1	Lead, Pb	2.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB6	5	LB6-5'	5/5/2016	7440-47-3	Chromium, Cr	30.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB6	5	LB6-5'	5/5/2016	7440-50-8	Copper, Cu	32.6	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB6	5	LB6-5'	5/5/2016	7440-66-6	Zinc, Zn	73.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB6	11	LB6-11'	5/5/2016	7439-92-1	Lead, Pb	3.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB6	11	LB6-11'	5/5/2016	7440-47-3	Chromium, Cr	28.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB6	11	LB6-11'	5/5/2016	7440-50-8	Copper, Cu	33.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB6	11	LB6-11'	5/5/2016	7440-66-6	Zinc, Zn	68.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB7	1	LB7-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.0035	--	--	1.8E+02	9.5E-01	2.0E-05	3.7E-09	1.0E+03	4.3E+01	3.5E-06	8.0E-10	1.5E+02	2.4E+02	2.3E-05	1.4E-10
LB7	1	LB7-1'	5/5/2016	7439-92-1	Lead, Pb	5.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB7	1	LB7-1'	5/5/2016	7440-47-3	Chromium, Cr	24.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB7	1	LB7-1'	5/5/2016	7440-50-8	Copper, Cu	25.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB7	1	LB7-1'	5/5/2016	7440-66-6	Zinc, Zn	73.2	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB7	5	LB7-5'	5/5/2016	7439-92-1	Lead, Pb	3.1	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB7	5	LB7-5'	5/5/2016	7440-47-3	Chromium, Cr	29.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB7	5	LB7-5'	5/5/2016	7440-50-8	Copper, Cu	30.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
LB7	5	LB7-5'	5/5/2016	7440-66-6	Zinc, Zn	74.5	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB7	11	LB7-11'	5/5/2016	127-18-4	Tetrachloroethylene	0.001	--	--	1.8E+02	9.5E-01	5.6E-06	1.1E-09	1.0E+03	4.3E+01	9.9E-07	2.3E-10	1.5E+02	2.4E+02	6.7E-06	4.1E-11
LB7	11	LB7-11'	5/5/2016	7439-92-1	Lead, Pb	2.4	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB7	11	LB7-11'	5/5/2016	7440-47-3	Chromium, Cr	27.3	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB7	11	LB7-11'	5/5/2016	7440-50-8	Copper, Cu	26.8	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB7	11	LB7-11'	5/5/2016	7440-66-6	Zinc, Zn	57.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB8	1	LB8-1'	5/5/2016	127-18-4	Tetrachloroethylene	0.187	--	--	1.8E+02	9.5E-01	1.1E-03	2.0E-07	1.0E+03	4.3E+01	1.9E-04	4.3E-08	1.5E+02	2.4E+02	1.3E-03	7.6E-09
LB8	1	LB8-1'	5/5/2016	71-55-6	1,1,1-Trichloroethane	0.0209	--	--	5.4E+03	--	3.9E-06	--	2.3E+04	--	9.2E-07	--	3.1E+03	--	6.7E-06	--
LB8	1	LB8-1'	5/5/2016	7439-92-1	Lead, Pb	8.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB8	1	LB8-1'	5/5/2016	7440-47-3	Chromium, Cr	27.7	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB8	1	LB8-1'	5/5/2016	7440-50-8	Copper, Cu	29.4	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB8	1	LB8-1'	5/5/2016	7440-66-6	Zinc, Zn	83.4	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB8	1	LB8-1'	5/5/2016	79-01-6	Trichloroethylene	0.0017	--	--	1.1E+01	2.5E+00	1.5E-04	6.7E-10	5.8E+01	1.7E+02	2.9E-05	1.0E-10	8.4E+00	6.6E+02	2.0E-04	2.6E-11
LB8	5	LB8-5'	5/5/2016	127-18-4	Tetrachloroethylene	0.0215	--	--	1.8E+02	9.5E-01	1.2E-04	2.3E-08	1.0E+03	4.3E+01	2.1E-05	4.9E-09	1.5E+02	2.4E+02	1.4E-04	8.8E-10
LB8	5	LB8-5'	5/5/2016	71-55-6	1,1,1-Trichloroethane	0.0041	--	--	5.4E+03	--	7.6E-07	--	2.3E+04	--	1.8E-07	--	3.1E+03	--	1.3E-06	--
LB8	5	LB8-5'	5/5/2016	7439-92-1	Lead, Pb	4.2	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB8	5	LB8-5'	5/5/2016	7440-47-3	Chromium, Cr	35.1	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB8	5	LB8-5'	5/5/2016	7440-50-8	Copper, Cu	38.2	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB8	5	LB8-5'	5/5/2016	7440-66-6	Zinc, Zn	82	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
LB8	11	LB8-11'	5/5/2016	127-18-4	Tetrachloroethylene	0.003	--	--	1.8E+02	9.5E-01	1.7E-05	3.2E-09	1.0E+03	4.3E+01	3.0E-06	6.9E-10	1.5E+02	2.4E+02	2.0E-05	1.2E-10
LB8	11	LB8-11'	5/5/2016	7439-92-1	Lead, Pb	2.7	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
LB8	11	LB8-11'	5/5/2016	7440-47-3	Chromium, Cr	30	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
LB8	11	LB8-11'	5/5/2016	7440-50-8	Copper, Cu	31.3	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
LB8	11	LB8-11'	5/5/2016	7440-66-6	Zinc, Zn	71.7	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
SS-2	5	SS-2--5	6/28/2012	18540-29-9	Chromium, Hexavalent	1.1	--	--	2.3E+02	3.1E-01	4.7E-03	3.6E-06	3.5E+03	6.5E+01	3.1E-04	1.7E-07	6.7E+02	7.3E+01	1.6E-03	1.5E-07
SS-2	10	SS-2-10	6/28/2012	7440-47-3	Chromium, Cr	33	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
SS-2	10	SS-2-10	6/28/2012	7440-50-8	Copper, Cu	244	64.4	No	3.1E+03	--	7.8E-02	--	4.7E+04	--	5.2E-03	--	1.4E+04	--	1.7E-02	--
SS-2	10	SS-2-10	6/28/2012	7439-92-1	Lead, Pb	1.67	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
SS-2	10	SS-2-10	6/28/2012	7440-66-6	Zinc, Zn	753	359	No	2.3E+04	--	3.2E-02	--	3.5E+05	--	2.1E-03	--	1.1E+05	--	7.1E-03	--
SS-2	10	SS-2-10	6/28/2012	18540-29-9	Chromium, Hexavalent	0.96	--	--	2.3E+02	3.1E-01	4.1E-03	3.1E-06	3.5E+03	6.5E+01	2.7E-04	1.5E-07	6.7E+02	7.3E+01	1.4E-03	1.3E-07
SS-3	10	SS-3-10	6/28/2012	7440-41-7	Beryllium	0.387	--	--	1.6E+02	1.3E+05	2.4E-03	2.9E-12	2.1E+02	5.9E+06	1.9E-03	6.6E-13	4.2E+01	5.3E+03	9.3E-03	7.3E-10
SS-3	10	SS-3-10	6/28/2012	7440-47-3	Chromium, Cr	22.6	35.7	Yes	3.6E+04	--	Bkgd	Bkgd	1.7E+05	--	Bkgd	Bkgd	4.3E+04	--	Bkgd	Bkgd
SS-3	10	SS-3-10	6/28/2012	7440-50-8	Copper, Cu	23.9	64.4	Yes	3.1E+03	--	Bkgd	Bkgd	4.7E+04	--	Bkgd	Bkgd	1.4E+04	--	Bkgd	Bkgd
SS-3	10	SS-3-10	6/28/2012	7439-92-1	Lead, Pb	1.89	11.9	Yes	8.0E+01	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd	3.2E+02	--	Bkgd	Bkgd
SS-3	10	SS-3-10	6/28/2012	7440-66-6	Zinc, Zn	63.8	359	Yes	2.3E+04	--	Bkgd	Bkgd	3.5E+05	--	Bkgd	Bkgd	1.1E+05	--	Bkgd	Bkgd
SS-5	5	SS-5--5	6/28/2012	18540-29-9	Chromium, Hexavalent	1.3	--	--	2.3E+02	3.1E-01	5.5E-03	4.2E-06	3.5E+03	6.5E+01	3.7E-04	2.0E-07	6.7E+02	7.3E+01	1.9E-03	1.8E-07

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
A1	5/6/2016	16	15	71-55-6	1,1,1-Trichloroethane	203	--	5.2E+08	--	3.9E-07	--	4.1E+07	--	4.9E-06
A1	5/6/2016	16	15	95-63-6	1,2,4-Trimethylbenzene	288	--	3.9E+06	--	7.4E-05	--	3.1E+05	--	9.4E-04
A1	5/6/2016	16	15	108-67-8	1,3,5-Trimethylbenzene	144	--	2.2E+07	--	6.4E-06	--	1.8E+06	--	8.1E-05
A1	5/6/2016	16	15	99-87-6	4-Isopropyltoluene	51.8	--	2.1E+08	--	2.4E-07	--	1.7E+07	--	3.1E-06
A1	5/6/2016	16	15	75-71-8	Dichlorodifluoromethane	110	--	4.5E+07	--	2.5E-06	--	3.5E+06	--	3.1E-05
A1	5/6/2016	16	15	100-41-4	Ethylbenzene	84.2	5.5E+06	4.9E+08	1.5E-10	1.7E-07	4.2E+04	3.9E+07	2.0E-09	2.2E-06
A1	5/6/2016	16	15	104-51-8	n-Butylbenzene	11	--	1.3E+08	--	8.6E-08	--	1.0E+07	--	1.1E-06
A1	5/6/2016	16	15	103-65-1	n-Propylbenzene	16.2	--	5.6E+08	--	2.9E-08	--	4.5E+07	--	3.6E-07
A1	5/6/2016	16	15	127-18-4	Tetrachloroethylene	9860	3.1E+06	2.3E+07	3.2E-08	4.2E-04	2.3E+04	1.9E+06	4.2E-07	5.3E-03
A1	5/6/2016	16	15	108-88-3	Toluene	281	--	1.3E+08	--	2.2E-06	--	1.0E+07	--	2.7E-05
A1	5/6/2016	16	15	79-01-6	Trichloroethylene	143	3.4E+06	9.8E+05	4.3E-10	1.5E-04	1.8E+04	7.8E+04	8.0E-09	1.8E-03
A1	5/6/2016	16	15	1330-20-7	Xylenes	550	--	4.9E+07	--	1.1E-05	--	3.9E+06	--	1.4E-04
A2	5/6/2016	16	15	71-55-6	1,1,1-Trichloroethane	182	--	5.2E+08	--	3.5E-07	--	4.1E+07	--	4.4E-06
A2	5/6/2016	16	15	95-63-6	1,2,4-Trimethylbenzene	329	--	3.9E+06	--	8.5E-05	--	3.1E+05	--	1.1E-03
A2	5/6/2016	16	15	108-67-8	1,3,5-Trimethylbenzene	174	--	2.2E+07	--	7.8E-06	--	1.8E+06	--	9.8E-05
A2	5/6/2016	16	15	99-87-6	4-Isopropyltoluene	50	--	2.1E+08	--	2.3E-07	--	1.7E+07	--	3.0E-06
A2	5/6/2016	16	15	75-71-8	Dichlorodifluoromethane	111	--	4.5E+07	--	2.5E-06	--	3.5E+06	--	3.1E-05
A2	5/6/2016	16	15	100-41-4	Ethylbenzene	85.8	5.5E+06	4.9E+08	1.6E-10	1.7E-07	4.2E+04	3.9E+07	2.0E-09	2.2E-06
A2	5/6/2016	16	15	103-65-1	n-Propylbenzene	16.4	--	5.6E+08	--	2.9E-08	--	4.5E+07	--	3.7E-07
A2	5/6/2016	16	15	127-18-4	Tetrachloroethylene	6680	3.1E+06	2.3E+07	2.2E-08	2.9E-04	2.3E+04	1.9E+06	2.9E-07	3.6E-03
A2	5/6/2016	16	15	108-88-3	Toluene	244	--	1.3E+08	--	1.9E-06	--	1.0E+07	--	2.4E-05
A2	5/6/2016	16	15	79-01-6	Trichloroethylene	110	3.4E+06	9.8E+05	3.3E-10	1.1E-04	1.8E+04	7.8E+04	6.1E-09	1.4E-03
A2	5/6/2016	16	15	1330-20-7	Xylenes	590	--	4.9E+07	--	1.2E-05	--	3.9E+06	--	1.5E-04
A3	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	109	--	5.1E+07	--	2.1E-06	--	4.0E+06	--	2.7E-05
A3	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	56500	3.5E+06	2.7E+07	1.6E-07	2.1E-03	2.7E+04	2.1E+06	2.1E-06	2.7E-02
A3	5/6/2016	20.5	20	108-88-3	Toluene	15	--	1.5E+08	--	1.0E-07	--	1.2E+07	--	1.3E-06
A3	5/6/2016	20.5	20	79-01-6	Trichloroethylene	59.8	3.8E+06	1.1E+06	1.6E-10	5.3E-05	2.0E+04	8.9E+04	2.9E-09	6.7E-04
A4	5/6/2016	20.5	20	630-20-6	1,1,1,2-Tetrachloroethane	243	2.9E+06	9.3E+07	8.3E-10	2.6E-06	2.2E+04	7.4E+06	1.1E-08	3.3E-05
A4	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	11	--	4.4E+06	--	2.5E-06	--	3.5E+05	--	3.1E-05
A4	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	18.8	--	2.4E+08	--	7.8E-08	--	1.9E+07	--	9.8E-07
A4	5/6/2016	20.5	20	67-66-3	Chloroform	47.4	6.0E+05	4.9E+07	7.8E-10	9.7E-07	4.6E+03	3.9E+06	1.0E-08	1.2E-05
A4	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	191	--	5.1E+07	--	3.8E-06	--	4.0E+06	--	4.7E-05
A4	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	1080000	3.5E+06	2.7E+07	3.1E-06	4.1E-02	2.7E+04	2.1E+06	4.1E-05	5.1E-01
A4	5/6/2016	20.5	20	108-88-3	Toluene	9.4	--	1.5E+08	--	6.4E-08	--	1.2E+07	--	8.0E-07
A4	5/6/2016	20.5	20	79-01-6	Trichloroethylene	4350	3.8E+06	1.1E+06	1.1E-08	3.9E-03	2.0E+04	8.9E+04	2.1E-07	4.9E-02

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
A4	5/6/2016	20.5	20	1330-20-7	Xylenes	8	--	5.6E+07	--	1.4E-07	--	4.4E+06	--	1.8E-06
A5	5/6/2016	20.5	20	630-20-6	1,1,1,2-Tetrachloroethane	847	2.9E+06	9.3E+07	2.9E-09	9.1E-06	2.2E+04	7.4E+06	3.8E-08	1.1E-04
A5	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	26.6	--	5.9E+08	--	4.5E-08	--	4.7E+07	--	5.7E-07
A5	5/6/2016	20.5	20	71-43-2	Benzene	20.2	4.1E+05	1.3E+06	4.9E-10	1.6E-05	3.2E+03	1.0E+05	6.4E-09	2.0E-04
A5	5/6/2016	20.5	20	108-90-7	Chlorobenzene	9	--	2.6E+07	--	3.4E-07	--	2.1E+06	--	4.3E-06
A5	5/6/2016	20.5	20	67-66-3	Chloroform	121	6.0E+05	4.9E+07	2.0E-09	2.5E-06	4.6E+03	3.9E+06	2.6E-08	3.1E-05
A5	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	331	--	5.1E+07	--	6.5E-06	--	4.0E+06	--	8.2E-05
A5	5/6/2016	20.5	20	76-13-1	Freon 113	66.4	--	3.1E+10	--	2.2E-09	--	2.4E+09	--	2.7E-08
A5	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	3120000	3.5E+06	2.7E+07	8.9E-06	1.2E-01	2.7E+04	2.1E+06	1.2E-04	1.5E+00
A5	5/6/2016	20.5	20	108-88-3	Toluene	84	--	1.5E+08	--	5.7E-07	--	1.2E+07	--	7.2E-06
A5	5/6/2016	20.5	20	79-01-6	Trichloroethylene	8400	3.8E+06	1.1E+06	2.2E-08	7.5E-03	2.0E+04	8.9E+04	4.1E-07	9.5E-02
A6	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	10.8	--	5.9E+08	--	1.8E-08	--	4.7E+07	--	2.3E-07
A6	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	31.8	--	4.4E+06	--	7.2E-06	--	3.5E+05	--	9.1E-05
A6	5/6/2016	20.5	20	71-43-2	Benzene	20.8	4.1E+05	1.3E+06	5.0E-10	1.6E-05	3.2E+03	1.0E+05	6.6E-09	2.0E-04
A6	5/6/2016	20.5	20	67-66-3	Chloroform	34.8	6.0E+05	4.9E+07	5.8E-10	7.2E-07	4.6E+03	3.9E+06	7.6E-09	9.0E-06
A6	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	505	--	5.1E+07	--	9.9E-06	--	4.0E+06	--	1.3E-04
A6	5/6/2016	20.5	20	100-41-4	Ethylbenzene	34.2	6.3E+06	5.6E+08	5.5E-11	6.1E-08	4.8E+04	4.4E+07	7.1E-10	7.7E-07
A6	5/6/2016	20.5	20	76-13-1	Freon 113	124	--	3.1E+10	--	4.0E-09	--	2.4E+09	--	5.1E-08
A6	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	105000	3.5E+06	2.7E+07	3.0E-07	4.0E-03	2.7E+04	2.1E+06	3.9E-06	5.0E-02
A6	5/6/2016	20.5	20	108-88-3	Toluene	234	--	1.5E+08	--	1.6E-06	--	1.2E+07	--	2.0E-05
A6	5/6/2016	20.5	20	79-01-6	Trichloroethylene	2020	3.8E+06	1.1E+06	5.3E-09	1.8E-03	2.0E+04	8.9E+04	9.9E-08	2.3E-02
A6	5/6/2016	20.5	20	1330-20-7	Xylenes	187	--	5.6E+07	--	3.3E-06	--	4.4E+06	--	4.2E-05
A7	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	22.2	--	5.9E+08	--	3.7E-08	--	4.7E+07	--	4.7E-07
A7	5/6/2016	20.5	20	67-66-3	Chloroform	101	6.0E+05	4.9E+07	1.7E-09	2.1E-06	4.6E+03	3.9E+06	2.2E-08	2.6E-05
A7	5/6/2016	20.5	20	156-59-2	cis-1,2-Dichloroethene	21.6	--	3.5E+06	--	6.2E-06	--	2.8E+05	--	7.9E-05
A7	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	978	--	5.1E+07	--	1.9E-05	--	4.0E+06	--	2.4E-04
A7	5/6/2016	20.5	20	76-13-1	Freon 113	290	--	3.1E+10	--	9.5E-09	--	2.4E+09	--	1.2E-07
A7	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	38000	3.5E+06	2.7E+07	1.1E-07	1.4E-03	2.7E+04	2.1E+06	1.4E-06	1.8E-02
A7	5/6/2016	20.5	20	79-01-6	Trichloroethylene	40500	3.8E+06	1.1E+06	1.1E-07	3.6E-02	2.0E+04	8.9E+04	2.0E-06	4.6E-01
A7	5/6/2016	20.5	20	75-69-4	Trichlorofluoromethane	29.4	--	7.1E+08	--	4.2E-08	--	5.6E+07	--	5.2E-07
A8	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	15	--	5.9E+08	--	2.5E-08	--	4.7E+07	--	3.2E-07
A8	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	47.6	--	4.4E+06	--	1.1E-05	--	3.5E+05	--	1.4E-04
A8	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	38.8	--	2.4E+08	--	1.6E-07	--	1.9E+07	--	2.0E-06
A8	5/6/2016	20.5	20	71-43-2	Benzene	29	4.1E+05	1.3E+06	7.0E-10	2.3E-05	3.2E+03	1.0E+05	9.2E-09	2.8E-04
A8	5/6/2016	20.5	20	67-66-3	Chloroform	21.8	6.0E+05	4.9E+07	3.6E-10	4.5E-07	4.6E+03	3.9E+06	4.7E-09	5.6E-06

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
A8	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	326	--	5.1E+07	--	6.4E-06	--	4.0E+06	--	8.1E-05
A8	5/6/2016	20.5	20	100-41-4	Ethylbenzene	35.4	6.3E+06	5.6E+08	5.6E-11	6.3E-08	4.8E+04	4.4E+07	7.4E-10	8.0E-07
A8	5/6/2016	20.5	20	76-13-1	Freon 113	90.2	--	3.1E+10	--	2.9E-09	--	2.4E+09	--	3.7E-08
A8	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	12900	3.5E+06	2.7E+07	3.7E-08	4.9E-04	2.7E+04	2.1E+06	4.8E-07	6.1E-03
A8	5/6/2016	20.5	20	108-88-3	Toluene	204	--	1.5E+08	--	1.4E-06	--	1.2E+07	--	1.7E-05
A8	5/6/2016	20.5	20	79-01-6	Trichloroethylene	1820	3.8E+06	1.1E+06	4.8E-09	1.6E-03	2.0E+04	8.9E+04	8.9E-08	2.1E-02
A8	5/6/2016	20.5	20	1330-20-7	Xylenes	213	--	5.6E+07	--	3.8E-06	--	4.4E+06	--	4.8E-05
A9	5/6/2016	30.5	30	75-35-4	1,1-Dichloroethene	345	--	3.9E+07	--	8.9E-06	--	3.1E+06	--	1.1E-04
A9	5/6/2016	30.5	30	67-66-3	Chloroform	29.2	7.5E+05	6.0E+07	3.9E-10	4.8E-07	5.7E+03	4.8E+06	5.1E-09	6.1E-06
A9	5/6/2016	30.5	30	75-71-8	Dichlorodifluoromethane	454	--	6.3E+07	--	7.2E-06	--	5.0E+06	--	9.1E-05
A9	5/6/2016	30.5	30	76-13-1	Freon 113	122	--	3.8E+10	--	3.2E-09	--	3.0E+09	--	4.0E-08
A9	5/6/2016	30.5	30	127-18-4	Tetrachloroethylene	8010	4.3E+06	3.3E+07	1.9E-08	2.4E-04	3.3E+04	2.6E+06	2.4E-07	3.1E-03
A9	5/6/2016	30.5	30	79-01-6	Trichloroethylene	2140	4.7E+06	1.4E+06	4.5E-09	1.5E-03	2.5E+04	1.1E+05	8.5E-08	1.9E-02
A10	5/6/2016	30.5	30	71-55-6	1,1,1-Trichloroethane	19.4	--	7.4E+08	--	2.6E-08	--	5.8E+07	--	3.3E-07
A10	5/6/2016	30.5	30	75-71-8	Dichlorodifluoromethane	307	--	6.3E+07	--	4.9E-06	--	5.0E+06	--	6.1E-05
A10	5/6/2016	30.5	30	76-13-1	Freon 113	94.4	--	3.8E+10	--	2.5E-09	--	3.0E+09	--	3.1E-08
A10	5/6/2016	30.5	30	127-18-4	Tetrachloroethylene	8810	4.3E+06	3.3E+07	2.0E-08	2.7E-04	3.3E+04	2.6E+06	2.7E-07	3.4E-03
A10	5/6/2016	30.5	30	108-88-3	Toluene	60.6	--	1.8E+08	--	3.3E-07	--	1.5E+07	--	4.2E-06
A10	5/6/2016	30.5	30	79-01-6	Trichloroethylene	801	4.7E+06	1.4E+06	1.7E-09	5.8E-04	2.5E+04	1.1E+05	3.2E-08	7.3E-03
A10	5/6/2016	30.5	30	1330-20-7	Xylenes	31.4	--	6.9E+07	--	4.5E-07	--	5.5E+06	--	5.7E-06
A11	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	25.8	--	5.9E+08	--	4.4E-08	--	4.7E+07	--	5.5E-07
A11	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	22.2	--	4.4E+06	--	5.0E-06	--	3.5E+05	--	6.3E-05
A11	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	66	--	5.1E+07	--	1.3E-06	--	4.0E+06	--	1.6E-05
A11	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	1800	3.5E+06	2.7E+07	5.2E-09	6.8E-05	2.7E+04	2.1E+06	6.8E-08	8.5E-04
A11	5/6/2016	20.5	20	108-88-3	Toluene	67.6	--	1.5E+08	--	4.6E-07	--	1.2E+07	--	5.8E-06
A11	5/6/2016	20.5	20	79-01-6	Trichloroethylene	30.8	3.8E+06	1.1E+06	8.1E-11	2.8E-05	2.0E+04	8.9E+04	1.5E-09	3.5E-04
A11	5/6/2016	20.5	20	1330-20-7	Xylenes	59	--	5.6E+07	--	1.1E-06	--	4.4E+06	--	1.3E-05
A12	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	146	--	5.2E+08	--	2.8E-07	--	4.1E+07	--	3.5E-06
A12	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	38.8	--	4.5E+07	--	8.7E-07	--	3.5E+06	--	1.1E-05
A12	5/6/2016	17	15	127-18-4	Tetrachloroethylene	972	3.1E+06	2.3E+07	3.2E-09	4.2E-05	2.3E+04	1.9E+06	4.2E-08	5.2E-04
A12	5/6/2016	17	15	108-88-3	Toluene	72	--	1.3E+08	--	5.5E-07	--	1.0E+07	--	7.0E-06
A12	5/6/2016	17	15	79-01-6	Trichloroethylene	94.4	3.4E+06	9.8E+05	2.8E-10	9.6E-05	1.8E+04	7.8E+04	5.3E-09	1.2E-03
A12	5/6/2016	17	15	1330-20-7	Xylenes	32.2	--	4.9E+07	--	6.5E-07	--	3.9E+06	--	8.2E-06
A13	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	6060	--	5.2E+08	--	1.2E-05	--	4.1E+07	--	1.5E-04
A13	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	909	--	2.8E+07	--	3.3E-05	--	2.2E+06	--	4.2E-04

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							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
A13	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	23.6	--	4.5E+07	--	5.3E-07	--	3.5E+06	--	6.7E-06
A13	5/6/2016	17	15	127-18-4	Tetrachloroethylene	1070	3.1E+06	2.3E+07	3.5E-09	4.6E-05	2.3E+04	1.9E+06	4.6E-08	5.8E-04
A13	5/6/2016	17	15	108-88-3	Toluene	52.4	--	1.3E+08	--	4.0E-07	--	1.0E+07	--	5.1E-06
A13	5/6/2016	17	15	79-01-6	Trichloroethylene	243	3.4E+06	9.8E+05	7.2E-10	2.5E-04	1.8E+04	7.8E+04	1.4E-08	3.1E-03
B2	5/6/2016	16.5	15	71-55-6	1,1,1-Trichloroethane	67.6	--	5.2E+08	--	1.3E-07	--	4.1E+07	--	1.6E-06
B2	5/6/2016	16.5	15	95-63-6	1,2,4-Trimethylbenzene	124	--	3.9E+06	--	3.2E-05	--	3.1E+05	--	4.0E-04
B2	5/6/2016	16.5	15	108-67-8	1,3,5-Trimethylbenzene	31.8	--	2.2E+07	--	1.4E-06	--	1.8E+06	--	1.8E-05
B2	5/6/2016	16.5	15	99-87-6	4-Isopropyltoluene	23.2	--	2.1E+08	--	1.1E-07	--	1.7E+07	--	1.4E-06
B2	5/6/2016	16.5	15	71-43-2	Benzene	65	3.6E+05	1.1E+06	1.8E-09	5.7E-05	2.8E+03	9.0E+04	2.3E-08	7.2E-04
B2	5/6/2016	16.5	15	75-71-8	Dichlorodifluoromethane	116	--	4.5E+07	--	2.6E-06	--	3.5E+06	--	3.3E-05
B2	5/6/2016	16.5	15	100-41-4	Ethylbenzene	105	5.5E+06	4.9E+08	1.9E-10	2.1E-07	4.2E+04	3.9E+07	2.5E-09	2.7E-06
B2	5/6/2016	16.5	15	127-18-4	Tetrachloroethylene	3310	3.1E+06	2.3E+07	1.1E-08	1.4E-04	2.3E+04	1.9E+06	1.4E-07	1.8E-03
B2	5/6/2016	16.5	15	108-88-3	Toluene	574	--	1.3E+08	--	4.4E-06	--	1.0E+07	--	5.6E-05
B2	5/6/2016	16.5	15	79-01-6	Trichloroethylene	78.4	3.4E+06	9.8E+05	2.3E-10	8.0E-05	1.8E+04	7.8E+04	4.4E-09	1.0E-03
B2	5/6/2016	16.5	15	75-69-4	Trichlorofluoromethane	10.8	--	6.2E+08	--	1.7E-08	--	4.9E+07	--	2.2E-07
B2	5/6/2016	16.5	15	1330-20-7	Xylenes	628	--	4.9E+07	--	1.3E-05	--	3.9E+06	--	1.6E-04
B3	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	28.2	--	5.2E+08	--	5.4E-08	--	4.1E+07	--	6.8E-07
B3	5/6/2016	17	15	95-63-6	1,2,4-Trimethylbenzene	619	--	3.9E+06	--	1.6E-04	--	3.1E+05	--	2.0E-03
B3	5/6/2016	17	15	108-67-8	1,3,5-Trimethylbenzene	177	--	2.2E+07	--	7.9E-06	--	1.8E+06	--	1.0E-04
B3	5/6/2016	17	15	99-87-6	4-Isopropyltoluene	4050	--	2.1E+08	--	1.9E-05	--	1.7E+07	--	2.4E-04
B3	5/6/2016	17	15	71-43-2	Benzene	124	3.6E+05	1.1E+06	3.4E-09	1.1E-04	2.8E+03	9.0E+04	4.5E-08	1.4E-03
B3	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	32.8	--	4.5E+07	--	7.3E-07	--	3.5E+06	--	9.2E-06
B3	5/6/2016	17	15	100-41-4	Ethylbenzene	335	5.5E+06	4.9E+08	6.1E-10	6.8E-07	4.2E+04	3.9E+07	8.0E-09	8.6E-06
B3	5/6/2016	17	15	103-65-1	n-Propylbenzene	67.6	--	5.6E+08	--	1.2E-07	--	4.5E+07	--	1.5E-06
B3	5/6/2016	17	15	127-18-4	Tetrachloroethylene	11300	3.1E+06	2.3E+07	3.7E-08	4.8E-04	2.3E+04	1.9E+06	4.8E-07	6.1E-03
B3	5/6/2016	17	15	108-88-3	Toluene	1290	--	1.3E+08	--	9.9E-06	--	1.0E+07	--	1.2E-04
B3	5/6/2016	17	15	79-01-6	Trichloroethylene	69.6	3.4E+06	9.8E+05	2.1E-10	7.1E-05	1.8E+04	7.8E+04	3.9E-09	8.9E-04
B3	5/6/2016	17	15	1330-20-7	Xylenes	1850	--	4.9E+07	--	3.8E-05	--	3.9E+06	--	4.7E-04
B4	5/6/2016	19	20	630-20-6	1,1,1,2-Tetrachloroethane	48.2	2.9E+06	9.3E+07	1.6E-10	5.2E-07	2.2E+04	7.4E+06	2.1E-09	6.5E-06
B4	5/6/2016	19	20	95-63-6	1,2,4-Trimethylbenzene	56.9	--	4.4E+06	--	1.3E-05	--	3.5E+05	--	1.6E-04
B4	5/6/2016	19	20	108-67-8	1,3,5-Trimethylbenzene	20.4	--	2.5E+07	--	8.0E-07	--	2.0E+06	--	1.0E-05
B4	5/6/2016	19	20	99-87-6	4-Isopropyltoluene	60.6	--	2.4E+08	--	2.5E-07	--	1.9E+07	--	3.2E-06
B4	5/6/2016	19	20	71-43-2	Benzene	20.8	4.1E+05	1.3E+06	5.0E-10	1.6E-05	3.2E+03	1.0E+05	6.6E-09	2.0E-04
B4	5/6/2016	19	20	75-71-8	Dichlorodifluoromethane	90.8	--	5.1E+07	--	1.8E-06	--	4.0E+06	--	2.3E-05
B4	5/6/2016	19	20	100-41-4	Ethylbenzene	30.5	6.3E+06	5.6E+08	4.9E-11	5.4E-08	4.8E+04	4.4E+07	6.4E-10	6.9E-07

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							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
B4	5/6/2016	19	20	104-51-8	n-Butylbenzene	24.2	--	1.5E+08	--	1.7E-07	--	1.2E+07	--	2.1E-06
B4	5/6/2016	19	20	127-18-4	Tetrachloroethylene	1030000	3.5E+06	2.7E+07	3.0E-06	3.9E-02	2.7E+04	2.1E+06	3.9E-05	4.9E-01
B4	5/6/2016	19	20	108-88-3	Toluene	127	--	1.5E+08	--	8.6E-07	--	1.2E+07	--	1.1E-05
B4	5/6/2016	19	20	79-01-6	Trichloroethylene	431	3.8E+06	1.1E+06	1.1E-09	3.9E-04	2.0E+04	8.9E+04	2.1E-08	4.9E-03
B4	5/6/2016	19	20	1330-20-7	Xylenes	182	--	5.6E+07	--	3.3E-06	--	4.4E+06	--	4.1E-05
B5	5/6/2016	20	20	630-20-6	1,1,1,2-Tetrachloroethane	103	2.9E+06	9.3E+07	3.5E-10	1.1E-06	2.2E+04	7.4E+06	4.6E-09	1.4E-05
B5	5/6/2016	20	20	95-63-6	1,2,4-Trimethylbenzene	20	--	4.4E+06	--	4.5E-06	--	3.5E+05	--	5.7E-05
B5	5/6/2016	20	20	99-87-6	4-Isopropyltoluene	27.9	--	2.4E+08	--	1.2E-07	--	1.9E+07	--	1.5E-06
B5	5/6/2016	20	20	71-43-2	Benzene	13.4	4.1E+05	1.3E+06	3.2E-10	1.0E-05	3.2E+03	1.0E+05	4.2E-09	1.3E-04
B5	5/6/2016	20	20	75-71-8	Dichlorodifluoromethane	269	--	5.1E+07	--	5.3E-06	--	4.0E+06	--	6.7E-05
B5	5/6/2016	20	20	100-41-4	Ethylbenzene	72.4	6.3E+06	5.6E+08	1.2E-10	1.3E-07	4.8E+04	4.4E+07	1.5E-09	1.6E-06
B5	5/6/2016	20	20	127-18-4	Tetrachloroethylene	1410000	3.5E+06	2.7E+07	4.0E-06	5.3E-02	2.7E+04	2.1E+06	5.3E-05	6.7E-01
B5	5/6/2016	20	20	108-88-3	Toluene	72.5	--	1.5E+08	--	4.9E-07	--	1.2E+07	--	6.2E-06
B5	5/6/2016	20	20	79-01-6	Trichloroethylene	373	3.8E+06	1.1E+06	9.8E-10	3.3E-04	2.0E+04	8.9E+04	1.8E-08	4.2E-03
B5	5/6/2016	20	20	1330-20-7	Xylenes	85.2	--	5.6E+07	--	1.5E-06	--	4.4E+06	--	1.9E-05
B8	5/6/2016	20.5	20	75-34-3	1,1-Dichloroethane	20.2	8.0E+06	3.7E+08	2.5E-11	5.5E-08	6.1E+04	2.9E+07	3.3E-10	6.9E-07
B8	5/6/2016	20.5	20	75-35-4	1,1-Dichloroethene	341	--	3.1E+07	--	1.1E-05	--	2.5E+06	--	1.4E-04
B8	5/6/2016	20.5	20	67-66-3	Chloroform	58.7	6.0E+05	4.9E+07	9.7E-10	1.2E-06	4.6E+03	3.9E+06	1.3E-08	1.5E-05
B8	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	3060	--	5.1E+07	--	6.0E-05	--	4.0E+06	--	7.6E-04
B8	5/6/2016	20.5	20	76-13-1	Freon 113	390	--	3.1E+10	--	1.3E-08	--	2.4E+09	--	1.6E-07
B8	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	14600	3.5E+06	2.7E+07	4.2E-08	5.5E-04	2.7E+04	2.1E+06	5.5E-07	6.9E-03
B8	5/6/2016	20.5	20	108-88-3	Toluene	11.3	--	1.5E+08	--	7.6E-08	--	1.2E+07	--	9.6E-07
B8	5/6/2016	20.5	20	79-01-6	Trichloroethylene	6380	3.8E+06	1.1E+06	1.7E-08	5.7E-03	2.0E+04	8.9E+04	3.1E-07	7.2E-02
B9	5/6/2016	30.5	30	75-34-3	1,1-Dichloroethane	21.2	1.0E+07	4.6E+08	2.1E-11	4.7E-08	7.6E+04	3.6E+07	2.8E-10	5.9E-07
B9	5/6/2016	30.5	30	75-35-4	1,1-Dichloroethene	449	--	3.9E+07	--	1.2E-05	--	3.1E+06	--	1.5E-04
B9	5/6/2016	30.5	30	95-63-6	1,2,4-Trimethylbenzene	71.1	--	5.5E+06	--	1.3E-05	--	4.3E+05	--	1.6E-04
B9	5/6/2016	30.5	30	108-67-8	1,3,5-Trimethylbenzene	26.2	--	3.2E+07	--	8.3E-07	--	2.5E+06	--	1.0E-05
B9	5/6/2016	30.5	30	99-87-6	4-Isopropyltoluene	36.3	--	3.0E+08	--	1.2E-07	--	2.4E+07	--	1.5E-06
B9	5/6/2016	30.5	30	71-43-2	Benzene	33	5.1E+05	1.6E+06	6.4E-10	2.1E-05	3.9E+03	1.3E+05	8.4E-09	2.6E-04
B9	5/6/2016	30.5	30	67-66-3	Chloroform	78.6	7.5E+05	6.0E+07	1.0E-09	1.3E-06	5.7E+03	4.8E+06	1.4E-08	1.6E-05
B9	5/6/2016	30.5	30	75-71-8	Dichlorodifluoromethane	2400	--	6.3E+07	--	3.8E-05	--	5.0E+06	--	4.8E-04
B9	5/6/2016	30.5	30	100-41-4	Ethylbenzene	40.1	7.8E+06	7.0E+08	5.2E-11	5.8E-08	5.9E+04	5.5E+07	6.7E-10	7.3E-07
B9	5/6/2016	30.5	30	76-13-1	Freon 113	385	--	3.8E+10	--	1.0E-08	--	3.0E+09	--	1.3E-07
B9	5/6/2016	30.5	30	104-51-8	n-Butylbenzene	24.8	--	1.8E+08	--	1.4E-07	--	1.4E+07	--	1.7E-06
B9	5/6/2016	30.5	30	127-18-4	Tetrachloroethylene	14400	4.3E+06	3.3E+07	3.3E-08	4.4E-04	3.3E+04	2.6E+06	4.4E-07	5.5E-03

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
B9	5/6/2016	30.5	30	108-88-3	Toluene	171	--	1.8E+08	--	9.3E-07	--	1.5E+07	--	1.2E-05
B9	5/6/2016	30.5	30	79-01-6	Trichloroethylene	8270	4.7E+06	1.4E+06	1.7E-08	6.0E-03	2.5E+04	1.1E+05	3.3E-07	7.5E-02
B9	5/6/2016	30.5	30	1330-20-7	Xylenes	235	--	6.9E+07	--	3.4E-06	--	5.5E+06	--	4.3E-05
B10	5/6/2016	30.5	30	75-35-4	1,1-Dichloroethene	424	--	3.9E+07	--	1.1E-05	--	3.1E+06	--	1.4E-04
B10	5/6/2016	30.5	30	67-66-3	Chloroform	55.2	7.5E+05	6.0E+07	7.4E-10	9.1E-07	5.7E+03	4.8E+06	9.6E-09	1.2E-05
B10	5/6/2016	30.5	30	75-71-8	Dichlorodifluoromethane	1730	--	6.3E+07	--	2.8E-05	--	5.0E+06	--	3.5E-04
B10	5/6/2016	30.5	30	76-13-1	Freon 113	297	--	3.8E+10	--	7.8E-09	--	3.0E+09	--	9.8E-08
B10	5/6/2016	30.5	30	127-18-4	Tetrachloroethylene	13800	4.3E+06	3.3E+07	3.2E-08	4.2E-04	3.3E+04	2.6E+06	4.2E-07	5.3E-03
B10	5/6/2016	30.5	30	108-88-3	Toluene	16.1	--	1.8E+08	--	8.8E-08	--	1.5E+07	--	1.1E-06
B10	5/6/2016	30.5	30	79-01-6	Trichloroethylene	4540	4.7E+06	1.4E+06	9.6E-09	3.3E-03	2.5E+04	1.1E+05	1.8E-07	4.1E-02
B11	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	44.3	--	5.9E+08	--	7.5E-08	--	4.7E+07	--	9.4E-07
B11	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	22.6	--	2.4E+08	--	9.3E-08	--	1.9E+07	--	1.2E-06
B11	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	312	--	5.1E+07	--	6.1E-06	--	4.0E+06	--	7.7E-05
B11	5/6/2016	20.5	20	76-13-1	Freon 113	89	--	3.1E+10	--	2.9E-09	--	2.4E+09	--	3.7E-08
B11	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	3630	3.5E+06	2.7E+07	1.0E-08	1.4E-04	2.7E+04	2.1E+06	1.4E-07	1.7E-03
B11	5/6/2016	20.5	20	79-01-6	Trichloroethylene	19.1	3.8E+06	1.1E+06	5.0E-11	1.7E-05	2.0E+04	8.9E+04	9.4E-10	2.2E-04
B12	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	491	--	5.2E+08	--	9.4E-07	--	4.1E+07	--	1.2E-05
B12	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	71.4	--	2.8E+07	--	2.6E-06	--	2.2E+06	--	3.3E-05
B12	5/6/2016	17	15	127-18-4	Tetrachloroethylene	5790	3.1E+06	2.3E+07	1.9E-08	2.5E-04	2.3E+04	1.9E+06	2.5E-07	3.1E-03
B13	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	107	--	5.2E+08	--	2.1E-07	--	4.1E+07	--	2.6E-06
B13	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	11.6	--	4.5E+07	--	2.6E-07	--	3.5E+06	--	3.3E-06
B13	5/6/2016	17	15	127-18-4	Tetrachloroethylene	323	3.1E+06	2.3E+07	1.1E-09	1.4E-05	2.3E+04	1.9E+06	1.4E-08	1.7E-04
B13	5/6/2016	17	15	108-88-3	Toluene	10	--	1.3E+08	--	7.7E-08	--	1.0E+07	--	9.7E-07
B13	5/6/2016	17	15	79-01-6	Trichloroethylene	17	3.4E+06	9.8E+05	5.1E-11	1.7E-05	1.8E+04	7.8E+04	9.5E-10	2.2E-04
B14	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	14.4	--	5.2E+08	--	2.8E-08	--	4.1E+07	--	3.5E-07
B14	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	8.2	--	4.5E+07	--	1.8E-07	--	3.5E+06	--	2.3E-06
B14	5/6/2016	17	15	127-18-4	Tetrachloroethylene	143	3.1E+06	2.3E+07	4.7E-10	6.1E-06	2.3E+04	1.9E+06	6.1E-09	7.7E-05
B14	5/6/2016	17	15	108-88-3	Toluene	80.6	--	1.3E+08	--	6.2E-07	--	1.0E+07	--	7.8E-06
B14	5/6/2016	17	15	79-01-6	Trichloroethylene	41.4	3.4E+06	9.8E+05	1.2E-10	4.2E-05	1.8E+04	7.8E+04	2.3E-09	5.3E-04
B14	5/6/2016	17	15	1330-20-7	Xylenes	27	--	4.9E+07	--	5.5E-07	--	3.9E+06	--	6.9E-06
B15	5/6/2016	4	4	75-71-8	Dichlorodifluoromethane	16.6	--	1.2E+07	--	1.4E-06	--	9.3E+05	--	1.8E-05
B15	5/6/2016	4	4	127-18-4	Tetrachloroethylene	222	7.9E+05	6.0E+06	2.8E-09	3.7E-05	6.0E+03	4.8E+05	3.7E-08	4.6E-04
B15	5/6/2016	4	4	108-88-3	Toluene	18.4	--	3.4E+07	--	5.4E-07	--	2.7E+06	--	6.8E-06
B15	5/6/2016	4	4	79-01-6	Trichloroethylene	31.8	8.8E+05	2.6E+05	3.6E-10	1.2E-04	4.7E+03	2.0E+04	6.8E-09	1.6E-03
LB1	5/6/2016	15	15	71-55-6	1,1,1-Trichloroethane	39.2	--	5.2E+08	--	7.5E-08	--	4.1E+07	--	9.5E-07

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
LB1	5/6/2016	15	15	75-71-8	Dichlorodifluoromethane	43.4	--	4.5E+07	--	9.7E-07	--	3.5E+06	--	1.2E-05
LB1	5/6/2016	15	15	127-18-4	Tetrachloroethylene	423	3.1E+06	2.3E+07	1.4E-09	1.8E-05	2.3E+04	1.9E+06	1.8E-08	2.3E-04
LB1	5/6/2016	15	15	108-88-3	Toluene	76	--	1.3E+08	--	5.8E-07	--	1.0E+07	--	7.4E-06
LB1	5/6/2016	15	15	79-01-6	Trichloroethylene	38	3.4E+06	9.8E+05	1.1E-10	3.9E-05	1.8E+04	7.8E+04	2.1E-09	4.9E-04
LB1	5/6/2016	15	15	1330-20-7	Xylenes	11.6	--	4.9E+07	--	2.4E-07	--	3.9E+06	--	3.0E-06
LB1	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	167	--	5.9E+08	--	2.8E-07	--	4.7E+07	--	3.5E-06
LB1	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	33	--	5.1E+07	--	6.5E-07	--	4.0E+06	--	8.2E-06
LB1	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	11000	3.5E+06	2.7E+07	3.2E-08	4.1E-04	2.7E+04	2.1E+06	4.1E-07	5.2E-03
LB1	5/6/2016	20.5	20	108-88-3	Toluene	45.4	--	1.5E+08	--	3.1E-07	--	1.2E+07	--	3.9E-06
LB1	5/6/2016	20.5	20	79-01-6	Trichloroethylene	332	3.8E+06	1.1E+06	8.7E-10	3.0E-04	2.0E+04	8.9E+04	1.6E-08	3.7E-03
LB2	5/6/2016	19.5	20	71-43-2	Benzene	15.2	4.1E+05	1.3E+06	3.7E-10	1.2E-05	3.2E+03	1.0E+05	4.8E-09	1.5E-04
LB2	5/6/2016	19.5	20	75-71-8	Dichlorodifluoromethane	99.2	--	5.1E+07	--	2.0E-06	--	4.0E+06	--	2.5E-05
LB2	5/6/2016	19.5	20	127-18-4	Tetrachloroethylene	63200	3.5E+06	2.7E+07	1.8E-07	2.4E-03	2.7E+04	2.1E+06	2.4E-06	3.0E-02
LB2	5/6/2016	19.5	20	108-88-3	Toluene	68.2	--	1.5E+08	--	4.6E-07	--	1.2E+07	--	5.8E-06
LB2	5/6/2016	19.5	20	79-01-6	Trichloroethylene	110	3.8E+06	1.1E+06	2.9E-10	9.8E-05	2.0E+04	8.9E+04	5.4E-09	1.2E-03
LB3	5/6/2016	20	20	630-20-6	1,1,1,2-Tetrachloroethane	635	2.9E+06	9.3E+07	2.2E-09	6.8E-06	2.2E+04	7.4E+06	2.8E-08	8.6E-05
LB3	5/6/2016	20	20	71-55-6	1,1,1-Trichloroethane	8	--	5.9E+08	--	1.3E-08	--	4.7E+07	--	1.7E-07
LB3	5/6/2016	20	20	75-35-4	1,1-Dichloroethene	242	--	3.1E+07	--	7.7E-06	--	2.5E+06	--	9.7E-05
LB3	5/6/2016	20	20	71-43-2	Benzene	26.9	4.1E+05	1.3E+06	6.5E-10	2.1E-05	3.2E+03	1.0E+05	8.5E-09	2.6E-04
LB3	5/6/2016	20	20	67-66-3	Chloroform	67	6.0E+05	4.9E+07	1.1E-09	1.4E-06	4.6E+03	3.9E+06	1.5E-08	1.7E-05
LB3	5/6/2016	20	20	75-71-8	Dichlorodifluoromethane	200	--	5.1E+07	--	3.9E-06	--	4.0E+06	--	5.0E-05
LB3	5/6/2016	20	20	100-41-4	Ethylbenzene	35.7	6.3E+06	5.6E+08	5.7E-11	6.4E-08	4.8E+04	4.4E+07	7.5E-10	8.0E-07
LB3	5/6/2016	20	20	127-18-4	Tetrachloroethylene	10600000	3.5E+06	2.7E+07	3.0E-05	4.0E-01	2.7E+04	2.1E+06	4.0E-04	5.0E+00
LB3	5/6/2016	20	20	108-88-3	Toluene	114	--	1.5E+08	--	7.7E-07	--	1.2E+07	--	9.7E-06
LB3	5/6/2016	20	20	79-01-6	Trichloroethylene	4930	3.8E+06	1.1E+06	1.3E-08	4.4E-03	2.0E+04	8.9E+04	2.4E-07	5.6E-02
LB3	5/6/2016	20	20	1330-20-7	Xylenes	35.3	--	5.6E+07	--	6.3E-07	--	4.4E+06	--	8.0E-06
LB4	5/6/2016	20.5	20	630-20-6	1,1,1,2-Tetrachloroethane	10.6	2.9E+06	9.3E+07	3.6E-11	1.1E-07	2.2E+04	7.4E+06	4.7E-10	1.4E-06
LB4	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	10.6	--	4.4E+06	--	2.4E-06	--	3.5E+05	--	3.0E-05
LB4	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	18.3	--	2.4E+08	--	7.6E-08	--	1.9E+07	--	9.5E-07
LB4	5/6/2016	20.5	20	71-43-2	Benzene	25.2	4.1E+05	1.3E+06	6.1E-10	2.0E-05	3.2E+03	1.0E+05	8.0E-09	2.5E-04
LB4	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	698	--	5.1E+07	--	1.4E-05	--	4.0E+06	--	1.7E-04
LB4	5/6/2016	20.5	20	100-41-4	Ethylbenzene	32	6.3E+06	5.6E+08	5.1E-11	5.7E-08	4.8E+04	4.4E+07	6.7E-10	7.2E-07
LB4	5/6/2016	20.5	20	76-13-1	Freon 113	107	--	3.1E+10	--	3.5E-09	--	2.4E+09	--	4.4E-08
LB4	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	544000	3.5E+06	2.7E+07	1.6E-06	2.0E-02	2.7E+04	2.1E+06	2.0E-05	2.6E-01
LB4	5/6/2016	20.5	20	108-88-3	Toluene	175	--	1.5E+08	--	1.2E-06	--	1.2E+07	--	1.5E-05

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							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
LB4	5/6/2016	20.5	20	79-01-6	Trichloroethylene	648	3.8E+06	1.1E+06	1.7E-09	5.8E-04	2.0E+04	8.9E+04	3.2E-08	7.3E-03
LB4	5/6/2016	20.5	20	1330-20-7	Xylenes	156	--	5.6E+07	--	2.8E-06	--	4.4E+06	--	3.5E-05
LB5	5/6/2016	14.5	15	75-71-8	Dichlorodifluoromethane	754	--	4.5E+07	--	1.7E-05	--	3.5E+06	--	2.1E-04
LB5	5/6/2016	14.5	15	76-13-1	Freon 113	141	--	2.7E+10	--	5.2E-09	--	2.1E+09	--	6.6E-08
LB5	5/6/2016	14.5	15	127-18-4	Tetrachloroethylene	11800	3.1E+06	2.3E+07	3.8E-08	5.0E-04	2.3E+04	1.9E+06	5.0E-07	6.4E-03
LB5	5/6/2016	14.5	15	108-88-3	Toluene	54.7	--	1.3E+08	--	4.2E-07	--	1.0E+07	--	5.3E-06
LB5	5/6/2016	14.5	15	79-01-6	Trichloroethylene	881	3.4E+06	9.8E+05	2.6E-09	9.0E-04	1.8E+04	7.8E+04	4.9E-08	1.1E-02
LB5	5/6/2016	14.5	15	1330-20-7	Xylenes	21.4	--	4.9E+07	--	4.3E-07	--	3.9E+06	--	5.5E-06
LB5	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	12.3	--	4.4E+06	--	2.8E-06	--	3.5E+05	--	3.5E-05
LB5	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	16.9	--	2.4E+08	--	7.0E-08	--	1.9E+07	--	8.8E-07
LB5	5/6/2016	20.5	20	71-43-2	Benzene	27.4	4.1E+05	1.3E+06	6.6E-10	2.1E-05	3.2E+03	1.0E+05	8.7E-09	2.7E-04
LB5	5/6/2016	20.5	20	67-66-3	Chloroform	14.2	6.0E+05	4.9E+07	2.4E-10	2.9E-07	4.6E+03	3.9E+06	3.1E-09	3.7E-06
LB5	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	927	--	5.1E+07	--	1.8E-05	--	4.0E+06	--	2.3E-04
LB5	5/6/2016	20.5	20	100-41-4	Ethylbenzene	23.2	6.3E+06	5.6E+08	3.7E-11	4.1E-08	4.8E+04	4.4E+07	4.8E-10	5.2E-07
LB5	5/6/2016	20.5	20	76-13-1	Freon 113	186	--	3.1E+10	--	6.1E-09	--	2.4E+09	--	7.6E-08
LB5	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	12400	3.5E+06	2.7E+07	3.6E-08	4.7E-04	2.7E+04	2.1E+06	4.7E-07	5.9E-03
LB5	5/6/2016	20.5	20	108-88-3	Toluene	169	--	1.5E+08	--	1.1E-06	--	1.2E+07	--	1.4E-05
LB5	5/6/2016	20.5	20	79-01-6	Trichloroethylene	1500	3.8E+06	1.1E+06	3.9E-09	1.3E-03	2.0E+04	8.9E+04	7.4E-08	1.7E-02
LB5	5/6/2016	20.5	20	1330-20-7	Xylenes	115	--	5.6E+07	--	2.1E-06	--	4.4E+06	--	2.6E-05
LB6	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	17.4	--	5.2E+08	--	3.3E-08	--	4.1E+07	--	4.2E-07
LB6	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	67.6	--	2.8E+07	--	2.5E-06	--	2.2E+06	--	3.1E-05
LB6	5/6/2016	17	15	127-18-4	Tetrachloroethylene	1590	3.1E+06	2.3E+07	5.2E-09	6.8E-05	2.3E+04	1.9E+06	6.8E-08	8.6E-04
LB6	5/6/2016	17	15	79-01-6	Trichloroethylene	115	3.4E+06	9.8E+05	3.4E-10	1.2E-04	1.8E+04	7.8E+04	6.4E-09	1.5E-03
LB7	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	85.6	--	5.2E+08	--	1.6E-07	--	4.1E+07	--	2.1E-06
LB7	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	67.3	--	2.8E+07	--	2.4E-06	--	2.2E+06	--	3.1E-05
LB7	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	185	--	4.5E+07	--	4.1E-06	--	3.5E+06	--	5.2E-05
LB7	5/6/2016	17	15	76-13-1	Freon 113	53.2	--	2.7E+10	--	2.0E-09	--	2.1E+09	--	2.5E-08
LB7	5/6/2016	17	15	127-18-4	Tetrachloroethylene	3280	3.1E+06	2.3E+07	1.1E-08	1.4E-04	2.3E+04	1.9E+06	1.4E-07	1.8E-03
LB7	5/6/2016	17	15	79-01-6	Trichloroethylene	42	3.4E+06	9.8E+05	1.3E-10	4.3E-05	1.8E+04	7.8E+04	2.3E-09	5.4E-04
LB8	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	1630	--	5.2E+08	--	3.1E-06	--	4.1E+07	--	3.9E-05
LB8	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	937	--	2.8E+07	--	3.4E-05	--	2.2E+06	--	4.3E-04
LB8	5/6/2016	17	15	99-87-6	4-Isopropyltoluene	8.6	--	2.1E+08	--	4.0E-08	--	1.7E+07	--	5.1E-07
LB8	5/6/2016	17	15	100-41-4	Ethylbenzene	17.8	5.5E+06	4.9E+08	3.2E-11	3.6E-08	4.2E+04	3.9E+07	4.2E-10	4.6E-07
LB8	5/6/2016	17	15	127-18-4	Tetrachloroethylene	14600	3.1E+06	2.3E+07	4.8E-08	6.2E-04	2.3E+04	1.9E+06	6.2E-07	7.9E-03
LB8	5/6/2016	17	15	108-88-3	Toluene	97.4	--	1.3E+08	--	7.5E-07	--	1.0E+07	--	9.4E-06

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
LB8	5/6/2016	17	15	79-01-6	Trichloroethylene	173	3.4E+06	9.8E+05	5.2E-10	1.8E-04	1.8E+04	7.8E+04	9.7E-09	2.2E-03
LB8	5/6/2016	17	15	1330-20-7	Xylenes	89.1	--	4.9E+07	--	1.8E-06	--	3.9E+06	--	2.3E-05

Notes:

" -- " not applicable

$\mu g/m^3$ - micrograms per cubic meter

" ft bgs " feet below ground surface

RBC_{SV-C} - risk-based concentration based on cancer effects; RBC_{SV-NC} based on noncancer effects

RBCs based on target cancer risk = 10^{-5} for workers and 10^{-6} for fuure residents, and a target noncancer hazard = 1 for both receptors

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
A1	5/6/2016	16	15	71-55-6	1,1,1-Trichloroethane	203	--	1.3E+10	--	1.6E-08	--	3.1E+09	--	6.5E-08
A1	5/6/2016	16	15	95-63-6	1,2,4-Trimethylbenzene	288	--	9.7E+07	--	3.0E-06	--	2.3E+07	--	1.2E-05
A1	5/6/2016	16	15	108-67-8	1,3,5-Trimethylbenzene	144	--	5.6E+08	--	2.6E-07	--	1.3E+08	--	1.1E-06
A1	5/6/2016	16	15	99-87-6	4-Isopropyltoluene	51.8	--	5.3E+09	--	9.7E-09	--	1.3E+09	--	4.1E-08
A1	5/6/2016	16	15	75-71-8	Dichlorodifluoromethane	110	--	1.1E+09	--	9.8E-08	--	2.7E+08	--	4.1E-07
A1	5/6/2016	16	15	100-41-4	Ethylbenzene	84.2	1.4E+08	1.2E+10	6.1E-12	6.8E-09	3.2E+06	2.9E+09	2.7E-11	2.9E-08
A1	5/6/2016	16	15	104-51-8	n-Butylbenzene	11	--	3.2E+09	--	3.4E-09	--	7.6E+08	--	1.4E-08
A1	5/6/2016	16	15	103-65-1	n-Propylbenzene	16.2	--	1.4E+10	--	1.2E-09	--	3.3E+09	--	4.9E-09
A1	5/6/2016	16	15	127-18-4	Tetrachloroethylene	9860	7.7E+07	5.8E+08	1.3E-09	1.7E-05	1.8E+06	1.4E+08	5.6E-09	7.1E-05
A1	5/6/2016	16	15	108-88-3	Toluene	281	--	3.3E+09	--	8.6E-08	--	7.8E+08	--	3.6E-07
A1	5/6/2016	16	15	79-01-6	Trichloroethylene	143	8.4E+07	2.5E+07	1.7E-11	5.8E-06	1.3E+06	5.9E+06	1.1E-10	2.4E-05
A1	5/6/2016	16	15	1330-20-7	Xylenes	550	--	1.2E+09	--	4.5E-07	--	2.9E+08	--	1.9E-06
A2	5/6/2016	16	15	71-55-6	1,1,1-Trichloroethane	182	--	1.3E+10	--	1.4E-08	--	3.1E+09	--	5.9E-08
A2	5/6/2016	16	15	95-63-6	1,2,4-Trimethylbenzene	329	--	9.7E+07	--	3.4E-06	--	2.3E+07	--	1.4E-05
A2	5/6/2016	16	15	108-67-8	1,3,5-Trimethylbenzene	174	--	5.6E+08	--	3.1E-07	--	1.3E+08	--	1.3E-06
A2	5/6/2016	16	15	99-87-6	4-Isopropyltoluene	50	--	5.3E+09	--	9.4E-09	--	1.3E+09	--	3.9E-08
A2	5/6/2016	16	15	75-71-8	Dichlorodifluoromethane	111	--	1.1E+09	--	9.9E-08	--	2.7E+08	--	4.2E-07
A2	5/6/2016	16	15	100-41-4	Ethylbenzene	85.8	1.4E+08	1.2E+10	6.2E-12	7.0E-09	3.2E+06	2.9E+09	2.7E-11	2.9E-08
A2	5/6/2016	16	15	103-65-1	n-Propylbenzene	16.4	--	1.4E+10	--	1.2E-09	--	3.3E+09	--	4.9E-09
A2	5/6/2016	16	15	127-18-4	Tetrachloroethylene	6680	7.7E+07	5.8E+08	8.7E-10	1.1E-05	1.8E+06	1.4E+08	3.8E-09	4.8E-05
A2	5/6/2016	16	15	108-88-3	Toluene	244	--	3.3E+09	--	7.5E-08	--	7.8E+08	--	3.1E-07
A2	5/6/2016	16	15	79-01-6	Trichloroethylene	110	8.4E+07	2.5E+07	1.3E-11	4.5E-06	1.3E+06	5.9E+06	8.2E-11	1.9E-05
A2	5/6/2016	16	15	1330-20-7	Xylenes	590	--	1.2E+09	--	4.8E-07	--	2.9E+08	--	2.0E-06
A3	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	109	--	1.3E+09	--	8.6E-08	--	3.0E+08	--	3.6E-07
A3	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	56500	8.7E+07	6.6E+08	6.5E-09	8.5E-05	2.0E+06	1.6E+08	2.8E-08	3.6E-04
A3	5/6/2016	20.5	20	108-88-3	Toluene	15	--	3.7E+09	--	4.1E-09	--	8.8E+08	--	1.7E-08
A3	5/6/2016	20.5	20	79-01-6	Trichloroethylene	59.8	9.5E+07	2.8E+07	6.3E-12	2.1E-06	1.5E+06	6.7E+06	3.9E-11	9.0E-06
A4	5/6/2016	20.5	20	630-20-6	1,1,1,2-Tetrachloroethane	243	7.4E+07	2.3E+09	3.3E-11	1.0E-07	1.7E+06	5.6E+08	1.4E-10	4.4E-07
A4	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	11	--	1.1E+08	--	1.0E-07	--	2.6E+07	--	4.2E-07
A4	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	18.8	--	6.0E+09	--	3.1E-09	--	1.4E+09	--	1.3E-08
A4	5/6/2016	20.5	20	67-66-3	Chloroform	47.4	1.5E+07	1.2E+09	3.1E-11	3.9E-08	3.5E+05	2.9E+08	1.4E-10	1.6E-07
A4	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	191	--	1.3E+09	--	1.5E-07	--	3.0E+08	--	6.3E-07
A4	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	1080000	8.7E+07	6.6E+08	1.2E-07	1.6E-03	2.0E+06	1.6E+08	5.4E-07	6.8E-03
A4	5/6/2016	20.5	20	108-88-3	Toluene	9.4	--	3.7E+09	--	2.5E-09	--	8.8E+08	--	1.1E-08
A4	5/6/2016	20.5	20	79-01-6	Trichloroethylene	4350	9.5E+07	2.8E+07	4.6E-10	1.6E-04	1.5E+06	6.7E+06	2.9E-09	6.5E-04

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
A4	5/6/2016	20.5	20	1330-20-7	Xylenes	8	--	1.4E+09	--	5.7E-09	--	3.3E+08	--	2.4E-08
A5	5/6/2016	20.5	20	630-20-6	1,1,1,2-Tetrachloroethane	847	7.4E+07	2.3E+09	1.2E-10	3.6E-07	1.7E+06	5.6E+08	5.0E-10	1.5E-06
A5	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	26.6	--	1.5E+10	--	1.8E-09	--	3.5E+09	--	7.5E-09
A5	5/6/2016	20.5	20	71-43-2	Benzene	20.2	1.0E+07	3.2E+07	1.9E-11	6.3E-07	2.4E+05	7.7E+06	8.5E-11	2.6E-06
A5	5/6/2016	20.5	20	108-90-7	Chlorobenzene	9	--	6.6E+08	--	1.4E-08	--	1.6E+08	--	5.7E-08
A5	5/6/2016	20.5	20	67-66-3	Chloroform	121	1.5E+07	1.2E+09	8.0E-11	1.0E-07	3.5E+05	2.9E+08	3.5E-10	4.2E-07
A5	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	331	--	1.3E+09	--	2.6E-07	--	3.0E+08	--	1.1E-06
A5	5/6/2016	20.5	20	76-13-1	Freon 113	66.4	--	7.7E+11	--	8.7E-11	--	1.8E+11	--	3.6E-10
A5	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	3120000	8.7E+07	6.6E+08	3.6E-07	4.7E-03	2.0E+06	1.6E+08	1.6E-06	2.0E-02
A5	5/6/2016	20.5	20	108-88-3	Toluene	84	--	3.7E+09	--	2.3E-08	--	8.8E+08	--	9.5E-08
A5	5/6/2016	20.5	20	79-01-6	Trichloroethylene	8400	9.5E+07	2.8E+07	8.8E-10	3.0E-04	1.5E+06	6.7E+06	5.5E-09	1.3E-03
A6	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	10.8	--	1.5E+10	--	7.3E-10	--	3.5E+09	--	3.1E-09
A6	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	31.8	--	1.1E+08	--	2.9E-07	--	2.6E+07	--	1.2E-06
A6	5/6/2016	20.5	20	71-43-2	Benzene	20.8	1.0E+07	3.2E+07	2.0E-11	6.5E-07	2.4E+05	7.7E+06	8.8E-11	2.7E-06
A6	5/6/2016	20.5	20	67-66-3	Chloroform	34.8	1.5E+07	1.2E+09	2.3E-11	2.9E-08	3.5E+05	2.9E+08	1.0E-10	1.2E-07
A6	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	505	--	1.3E+09	--	4.0E-07	--	3.0E+08	--	1.7E-06
A6	5/6/2016	20.5	20	100-41-4	Ethylbenzene	34.2	1.6E+08	1.4E+10	2.2E-12	2.4E-09	3.6E+06	3.3E+09	9.5E-12	1.0E-08
A6	5/6/2016	20.5	20	76-13-1	Freon 113	124	--	7.7E+11	--	1.6E-10	--	1.8E+11	--	6.8E-10
A6	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	105000	8.7E+07	6.6E+08	1.2E-08	1.6E-04	2.0E+06	1.6E+08	5.3E-08	6.6E-04
A6	5/6/2016	20.5	20	108-88-3	Toluene	234	--	3.7E+09	--	6.3E-08	--	8.8E+08	--	2.7E-07
A6	5/6/2016	20.5	20	79-01-6	Trichloroethylene	2020	9.5E+07	2.8E+07	2.1E-10	7.2E-05	1.5E+06	6.7E+06	1.3E-09	3.0E-04
A6	5/6/2016	20.5	20	1330-20-7	Xylenes	187	--	1.4E+09	--	1.3E-07	--	3.3E+08	--	5.6E-07
A7	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	22.2	--	1.5E+10	--	1.5E-09	--	3.5E+09	--	6.3E-09
A7	5/6/2016	20.5	20	67-66-3	Chloroform	101	1.5E+07	1.2E+09	6.7E-11	8.3E-08	3.5E+05	2.9E+08	2.9E-10	3.5E-07
A7	5/6/2016	20.5	20	156-59-2	cis-1,2-Dichloroethene	21.6	--	8.7E+07	--	2.5E-07	--	2.1E+07	--	1.0E-06
A7	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	978	--	1.3E+09	--	7.7E-07	--	3.0E+08	--	3.2E-06
A7	5/6/2016	20.5	20	76-13-1	Freon 113	290	--	7.7E+11	--	3.8E-10	--	1.8E+11	--	1.6E-09
A7	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	38000	8.7E+07	6.6E+08	4.4E-09	5.7E-05	2.0E+06	1.6E+08	1.9E-08	2.4E-04
A7	5/6/2016	20.5	20	79-01-6	Trichloroethylene	40500	9.5E+07	2.8E+07	4.2E-09	1.4E-03	1.5E+06	6.7E+06	2.7E-08	6.1E-03
A7	5/6/2016	20.5	20	75-69-4	Trichlorofluoromethane	29.4	--	1.8E+10	--	1.7E-09	--	4.2E+09	--	7.0E-09
A8	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	15	--	1.5E+10	--	1.0E-09	--	3.5E+09	--	4.2E-09
A8	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	47.6	--	1.1E+08	--	4.3E-07	--	2.6E+07	--	1.8E-06
A8	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	38.8	--	6.0E+09	--	6.4E-09	--	1.4E+09	--	2.7E-08
A8	5/6/2016	20.5	20	71-43-2	Benzene	29	1.0E+07	3.2E+07	2.8E-11	9.0E-07	2.4E+05	7.7E+06	1.2E-10	3.8E-06
A8	5/6/2016	20.5	20	67-66-3	Chloroform	21.8	1.5E+07	1.2E+09	1.4E-11	1.8E-08	3.5E+05	2.9E+08	6.3E-11	7.5E-08

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							$RBC_{SV\text{-}C}$ ($\mu g/m^3$)	$RBC_{SV\text{-}NC}$ ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	$RBC_{SV\text{-}C}$ ($\mu g/m^3$)	$RBC_{SV\text{-}NC}$ ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
A8	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	326	--	1.3E+09	--	2.6E-07	--	3.0E+08	--	1.1E-06
A8	5/6/2016	20.5	20	100-41-4	Ethylbenzene	35.4	1.6E+08	1.4E+10	2.3E-12	2.5E-09	3.6E+06	3.3E+09	9.9E-12	1.1E-08
A8	5/6/2016	20.5	20	76-13-1	Freon 113	90.2	--	7.7E+11	--	1.2E-10	--	1.8E+11	--	4.9E-10
A8	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	12900	8.7E+07	6.6E+08	1.5E-09	1.9E-05	2.0E+06	1.6E+08	6.5E-09	8.2E-05
A8	5/6/2016	20.5	20	108-88-3	Toluene	204	--	3.7E+09	--	5.5E-08	--	8.8E+08	--	2.3E-07
A8	5/6/2016	20.5	20	79-01-6	Trichloroethylene	1820	9.5E+07	2.8E+07	1.9E-10	6.5E-05	1.5E+06	6.7E+06	1.2E-09	2.7E-04
A8	5/6/2016	20.5	20	1330-20-7	Xylenes	213	--	1.4E+09	--	1.5E-07	--	3.3E+08	--	6.4E-07
A9	5/6/2016	30.5	30	75-35-4	1,1-Dichloroethene	345	--	9.7E+08	--	3.6E-07	--	2.3E+08	--	1.5E-06
A9	5/6/2016	30.5	30	67-66-3	Chloroform	29.2	1.9E+07	1.5E+09	1.6E-11	1.9E-08	4.3E+05	3.6E+08	6.8E-11	8.1E-08
A9	5/6/2016	30.5	30	75-71-8	Dichlorodifluoromethane	454	--	1.6E+09	--	2.9E-07	--	3.7E+08	--	1.2E-06
A9	5/6/2016	30.5	30	76-13-1	Freon 113	122	--	9.5E+11	--	1.3E-10	--	2.3E+11	--	5.4E-10
A9	5/6/2016	30.5	30	127-18-4	Tetrachloroethylene	8010	1.1E+08	8.2E+08	7.4E-10	9.7E-06	2.5E+06	2.0E+08	3.2E-09	4.1E-05
A9	5/6/2016	30.5	30	79-01-6	Trichloroethylene	2140	1.2E+08	3.5E+07	1.8E-10	6.2E-05	1.9E+06	8.3E+06	1.1E-09	2.6E-04
A10	5/6/2016	30.5	30	71-55-6	1,1,1-Trichloroethane	19.4	--	1.8E+10	--	1.1E-09	--	4.4E+09	--	4.4E-09
A10	5/6/2016	30.5	30	75-71-8	Dichlorodifluoromethane	307	--	1.6E+09	--	2.0E-07	--	3.7E+08	--	8.2E-07
A10	5/6/2016	30.5	30	76-13-1	Freon 113	94.4	--	9.5E+11	--	9.9E-11	--	2.3E+11	--	4.2E-10
A10	5/6/2016	30.5	30	127-18-4	Tetrachloroethylene	8810	1.1E+08	8.2E+08	8.1E-10	1.1E-05	2.5E+06	2.0E+08	3.6E-09	4.5E-05
A10	5/6/2016	30.5	30	108-88-3	Toluene	60.6	--	4.6E+09	--	1.3E-08	--	1.1E+09	--	5.5E-08
A10	5/6/2016	30.5	30	79-01-6	Trichloroethylene	801	1.2E+08	3.5E+07	6.8E-11	2.3E-05	1.9E+06	8.3E+06	4.2E-10	9.7E-05
A10	5/6/2016	30.5	30	1330-20-7	Xylenes	31.4	--	1.7E+09	--	1.8E-08	--	4.1E+08	--	7.6E-08
A11	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	25.8	--	1.5E+10	--	1.7E-09	--	3.5E+09	--	7.3E-09
A11	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	22.2	--	1.1E+08	--	2.0E-07	--	2.6E+07	--	8.5E-07
A11	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	66	--	1.3E+09	--	5.2E-08	--	3.0E+08	--	2.2E-07
A11	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	1800	8.7E+07	6.6E+08	2.1E-10	2.7E-06	2.0E+06	1.6E+08	9.0E-10	1.1E-05
A11	5/6/2016	20.5	20	108-88-3	Toluene	67.6	--	3.7E+09	--	1.8E-08	--	8.8E+08	--	7.7E-08
A11	5/6/2016	20.5	20	79-01-6	Trichloroethylene	30.8	9.5E+07	2.8E+07	3.2E-12	1.1E-06	1.5E+06	6.7E+06	2.0E-11	4.6E-06
A11	5/6/2016	20.5	20	1330-20-7	Xylenes	59	--	1.4E+09	--	4.2E-08	--	3.3E+08	--	1.8E-07
A12	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	146	--	1.3E+10	--	1.1E-08	--	3.1E+09	--	4.7E-08
A12	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	38.8	--	1.1E+09	--	3.5E-08	--	2.7E+08	--	1.5E-07
A12	5/6/2016	17	15	127-18-4	Tetrachloroethylene	972	7.7E+07	5.8E+08	1.3E-10	1.7E-06	1.8E+06	1.4E+08	5.5E-10	7.0E-06
A12	5/6/2016	17	15	108-88-3	Toluene	72	--	3.3E+09	--	2.2E-08	--	7.8E+08	--	9.3E-08
A12	5/6/2016	17	15	79-01-6	Trichloroethylene	94.4	8.4E+07	2.5E+07	1.1E-11	3.8E-06	1.3E+06	5.9E+06	7.0E-11	1.6E-05
A12	5/6/2016	17	15	1330-20-7	Xylenes	32.2	--	1.2E+09	--	2.6E-08	--	2.9E+08	--	1.1E-07
A13	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	6060	--	1.3E+10	--	4.6E-07	--	3.1E+09	--	2.0E-06
A13	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	909	--	6.9E+08	--	1.3E-06	--	1.6E+08	--	5.5E-06

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
A13	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	23.6	--	1.1E+09	--	2.1E-08	--	2.7E+08	--	8.9E-08
A13	5/6/2016	17	15	127-18-4	Tetrachloroethylene	1070	7.7E+07	5.8E+08	1.4E-10	1.8E-06	1.8E+06	1.4E+08	6.1E-10	7.7E-06
A13	5/6/2016	17	15	108-88-3	Toluene	52.4	--	3.3E+09	--	1.6E-08	--	7.8E+08	--	6.8E-08
A13	5/6/2016	17	15	79-01-6	Trichloroethylene	243	8.4E+07	2.5E+07	2.9E-11	9.9E-06	1.3E+06	5.9E+06	1.8E-10	4.2E-05
B2	5/6/2016	16.5	15	71-55-6	1,1,1-Trichloroethane	67.6	--	1.3E+10	--	5.2E-09	--	3.1E+09	--	2.2E-08
B2	5/6/2016	16.5	15	95-63-6	1,2,4-Trimethylbenzene	124	--	9.7E+07	--	1.3E-06	--	2.3E+07	--	5.4E-06
B2	5/6/2016	16.5	15	108-67-8	1,3,5-Trimethylbenzene	31.8	--	5.6E+08	--	5.7E-08	--	1.3E+08	--	2.4E-07
B2	5/6/2016	16.5	15	99-87-6	4-Isopropyltoluene	23.2	--	5.3E+09	--	4.4E-09	--	1.3E+09	--	1.8E-08
B2	5/6/2016	16.5	15	71-43-2	Benzene	65	9.1E+06	2.8E+07	7.1E-11	2.3E-06	2.1E+05	6.7E+06	3.1E-10	9.6E-06
B2	5/6/2016	16.5	15	75-71-8	Dichlorodifluoromethane	116	--	1.1E+09	--	1.0E-07	--	2.7E+08	--	4.4E-07
B2	5/6/2016	16.5	15	100-41-4	Ethylbenzene	105	1.4E+08	1.2E+10	7.6E-12	8.5E-09	3.2E+06	2.9E+09	3.3E-11	3.6E-08
B2	5/6/2016	16.5	15	127-18-4	Tetrachloroethylene	3310	7.7E+07	5.8E+08	4.3E-10	5.7E-06	1.8E+06	1.4E+08	1.9E-09	2.4E-05
B2	5/6/2016	16.5	15	108-88-3	Toluene	574	--	3.3E+09	--	1.8E-07	--	7.8E+08	--	7.4E-07
B2	5/6/2016	16.5	15	79-01-6	Trichloroethylene	78.4	8.4E+07	2.5E+07	9.3E-12	3.2E-06	1.3E+06	5.9E+06	5.8E-11	1.3E-05
B2	5/6/2016	16.5	15	75-69-4	Trichlorofluoromethane	10.8	--	1.6E+10	--	6.9E-10	--	3.7E+09	--	2.9E-09
B2	5/6/2016	16.5	15	1330-20-7	Xylenes	628	--	1.2E+09	--	5.1E-07	--	2.9E+08	--	2.1E-06
B3	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	28.2	--	1.3E+10	--	2.2E-09	--	3.1E+09	--	9.1E-09
B3	5/6/2016	17	15	95-63-6	1,2,4-Trimethylbenzene	619	--	9.7E+07	--	6.4E-06	--	2.3E+07	--	2.7E-05
B3	5/6/2016	17	15	108-67-8	1,3,5-Trimethylbenzene	177	--	5.6E+08	--	3.2E-07	--	1.3E+08	--	1.3E-06
B3	5/6/2016	17	15	99-87-6	4-Isopropyltoluene	4050	--	5.3E+09	--	7.6E-07	--	1.3E+09	--	3.2E-06
B3	5/6/2016	17	15	71-43-2	Benzene	124	9.1E+06	2.8E+07	1.4E-10	4.4E-06	2.1E+05	6.7E+06	5.9E-10	1.8E-05
B3	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	32.8	--	1.1E+09	--	2.9E-08	--	2.7E+08	--	1.2E-07
B3	5/6/2016	17	15	100-41-4	Ethylbenzene	335	1.4E+08	1.2E+10	2.4E-11	2.7E-08	3.2E+06	2.9E+09	1.1E-10	1.1E-07
B3	5/6/2016	17	15	103-65-1	n-Propylbenzene	67.6	--	1.4E+10	--	4.8E-09	--	3.3E+09	--	2.0E-08
B3	5/6/2016	17	15	127-18-4	Tetrachloroethylene	11300	7.7E+07	5.8E+08	1.5E-09	1.9E-05	1.8E+06	1.4E+08	6.4E-09	8.1E-05
B3	5/6/2016	17	15	108-88-3	Toluene	1290	--	3.3E+09	--	4.0E-07	--	7.8E+08	--	1.7E-06
B3	5/6/2016	17	15	79-01-6	Trichloroethylene	69.6	8.4E+07	2.5E+07	8.3E-12	2.8E-06	1.3E+06	5.9E+06	5.2E-11	1.2E-05
B3	5/6/2016	17	15	1330-20-7	Xylenes	1850	--	1.2E+09	--	1.5E-06	--	2.9E+08	--	6.3E-06
B4	5/6/2016	19	20	630-20-6	1,1,1,2-Tetrachloroethane	48.2	7.4E+07	2.3E+09	6.5E-12	2.1E-08	1.7E+06	5.6E+08	2.9E-11	8.7E-08
B4	5/6/2016	19	20	95-63-6	1,2,4-Trimethylbenzene	56.9	--	1.1E+08	--	5.2E-07	--	2.6E+07	--	2.2E-06
B4	5/6/2016	19	20	108-67-8	1,3,5-Trimethylbenzene	20.4	--	6.4E+08	--	3.2E-08	--	1.5E+08	--	1.3E-07
B4	5/6/2016	19	20	99-87-6	4-Isopropyltoluene	60.6	--	6.0E+09	--	1.0E-08	--	1.4E+09	--	4.2E-08
B4	5/6/2016	19	20	71-43-2	Benzene	20.8	1.0E+07	3.2E+07	2.0E-11	6.5E-07	2.4E+05	7.7E+06	8.8E-11	2.7E-06
B4	5/6/2016	19	20	75-71-8	Dichlorodifluoromethane	90.8	--	1.3E+09	--	7.2E-08	--	3.0E+08	--	3.0E-07
B4	5/6/2016	19	20	100-41-4	Ethylbenzene	30.5	1.6E+08	1.4E+10	1.9E-12	2.2E-09	3.6E+06	3.3E+09	8.5E-12	9.1E-09

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							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
B4	5/6/2016	19	20	104-51-8	n-Butylbenzene	24.2	--	3.6E+09	--	6.7E-09	--	8.7E+08	--	2.8E-08
B4	5/6/2016	19	20	127-18-4	Tetrachloroethylene	1030000	8.7E+07	6.6E+08	1.2E-07	1.5E-03	2.0E+06	1.6E+08	5.2E-07	6.5E-03
B4	5/6/2016	19	20	108-88-3	Toluene	127	--	3.7E+09	--	3.4E-08	--	8.8E+08	--	1.4E-07
B4	5/6/2016	19	20	79-01-6	Trichloroethylene	431	9.5E+07	2.8E+07	4.5E-11	1.5E-05	1.5E+06	6.7E+06	2.8E-10	6.5E-05
B4	5/6/2016	19	20	1330-20-7	Xylenes	182	--	1.4E+09	--	1.3E-07	--	3.3E+08	--	5.5E-07
B5	5/6/2016	20	20	630-20-6	1,1,1,2-Tetrachloroethane	103	7.4E+07	2.3E+09	1.4E-11	4.4E-08	1.7E+06	5.6E+08	6.1E-11	1.9E-07
B5	5/6/2016	20	20	95-63-6	1,2,4-Trimethylbenzene	20	--	1.1E+08	--	1.8E-07	--	2.6E+07	--	7.6E-07
B5	5/6/2016	20	20	99-87-6	4-Isopropyltoluene	27.9	--	6.0E+09	--	4.6E-09	--	1.4E+09	--	1.9E-08
B5	5/6/2016	20	20	71-43-2	Benzene	13.4	1.0E+07	3.2E+07	1.3E-11	4.2E-07	2.4E+05	7.7E+06	5.7E-11	1.7E-06
B5	5/6/2016	20	20	75-71-8	Dichlorodifluoromethane	269	--	1.3E+09	--	2.1E-07	--	3.0E+08	--	8.9E-07
B5	5/6/2016	20	20	100-41-4	Ethylbenzene	72.4	1.6E+08	1.4E+10	4.6E-12	5.2E-09	3.6E+06	3.3E+09	2.0E-11	2.2E-08
B5	5/6/2016	20	20	127-18-4	Tetrachloroethylene	1410000	8.7E+07	6.6E+08	1.6E-07	2.1E-03	2.0E+06	1.6E+08	7.1E-07	8.9E-03
B5	5/6/2016	20	20	108-88-3	Toluene	72.5	--	3.7E+09	--	2.0E-08	--	8.8E+08	--	8.2E-08
B5	5/6/2016	20	20	79-01-6	Trichloroethylene	373	9.5E+07	2.8E+07	3.9E-11	1.3E-05	1.5E+06	6.7E+06	2.4E-10	5.6E-05
B5	5/6/2016	20	20	1330-20-7	Xylenes	85.2	--	1.4E+09	--	6.1E-08	--	3.3E+08	--	2.6E-07
B8	5/6/2016	20.5	20	75-34-3	1,1-Dichloroethane	20.2	2.0E+08	9.2E+09	1.0E-12	2.2E-09	4.6E+06	2.2E+09	4.4E-12	9.2E-09
B8	5/6/2016	20.5	20	75-35-4	1,1-Dichloroethene	341	--	7.8E+08	--	4.4E-07	--	1.9E+08	--	1.8E-06
B8	5/6/2016	20.5	20	67-66-3	Chloroform	58.7	1.5E+07	1.2E+09	3.9E-11	4.8E-08	3.5E+05	2.9E+08	1.7E-10	2.0E-07
B8	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	3060	--	1.3E+09	--	2.4E-06	--	3.0E+08	--	1.0E-05
B8	5/6/2016	20.5	20	76-13-1	Freon 113	390	--	7.7E+11	--	5.1E-10	--	1.8E+11	--	2.1E-09
B8	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	14600	8.7E+07	6.6E+08	1.7E-09	2.2E-05	2.0E+06	1.6E+08	7.3E-09	9.2E-05
B8	5/6/2016	20.5	20	108-88-3	Toluene	11.3	--	3.7E+09	--	3.1E-09	--	8.8E+08	--	1.3E-08
B8	5/6/2016	20.5	20	79-01-6	Trichloroethylene	6380	9.5E+07	2.8E+07	6.7E-10	2.3E-04	1.5E+06	6.7E+06	4.2E-09	9.6E-04
B9	5/6/2016	30.5	30	75-34-3	1,1-Dichloroethane	21.2	2.5E+08	1.1E+10	8.5E-13	1.9E-09	5.7E+06	2.7E+09	3.7E-12	7.8E-09
B9	5/6/2016	30.5	30	75-35-4	1,1-Dichloroethene	449	--	9.7E+08	--	4.6E-07	--	2.3E+08	--	1.9E-06
B9	5/6/2016	30.5	30	95-63-6	1,2,4-Trimethylbenzene	71.1	--	1.4E+08	--	5.2E-07	--	3.3E+07	--	2.2E-06
B9	5/6/2016	30.5	30	108-67-8	1,3,5-Trimethylbenzene	26.2	--	7.9E+08	--	3.3E-08	--	1.9E+08	--	1.4E-07
B9	5/6/2016	30.5	30	99-87-6	4-Isopropyltoluene	36.3	--	7.5E+09	--	4.8E-09	--	1.8E+09	--	2.0E-08
B9	5/6/2016	30.5	30	71-43-2	Benzene	33	1.3E+07	4.0E+07	2.6E-11	8.3E-07	2.9E+05	9.5E+06	1.1E-10	3.5E-06
B9	5/6/2016	30.5	30	67-66-3	Chloroform	78.6	1.9E+07	1.5E+09	4.2E-11	5.2E-08	4.3E+05	3.6E+08	1.8E-10	2.2E-07
B9	5/6/2016	30.5	30	75-71-8	Dichlorodifluoromethane	2400	--	1.6E+09	--	1.5E-06	--	3.7E+08	--	6.4E-06
B9	5/6/2016	30.5	30	100-41-4	Ethylbenzene	40.1	1.9E+08	1.7E+10	2.1E-12	2.3E-09	4.5E+06	4.1E+09	9.0E-12	9.7E-09
B9	5/6/2016	30.5	30	76-13-1	Freon 113	385	--	9.5E+11	--	4.0E-10	--	2.3E+11	--	1.7E-09
B9	5/6/2016	30.5	30	104-51-8	n-Butylbenzene	24.8	--	4.5E+09	--	5.5E-09	--	1.1E+09	--	2.3E-08
B9	5/6/2016	30.5	30	127-18-4	Tetrachloroethylene	14400	1.1E+08	8.2E+08	1.3E-09	1.7E-05	2.5E+06	2.0E+08	5.8E-09	7.3E-05

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							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
B9	5/6/2016	30.5	30	108-88-3	Toluene	171	--	4.6E+09	--	3.7E-08	--	1.1E+09	--	1.6E-07
B9	5/6/2016	30.5	30	79-01-6	Trichloroethylene	8270	1.2E+08	3.5E+07	7.0E-10	2.4E-04	1.9E+06	8.3E+06	4.4E-09	1.0E-03
B9	5/6/2016	30.5	30	1330-20-7	Xylenes	235	--	1.7E+09	--	1.4E-07	--	4.1E+08	--	5.7E-07
B10	5/6/2016	30.5	30	75-35-4	1,1-Dichloroethene	424	--	9.7E+08	--	4.4E-07	--	2.3E+08	--	1.8E-06
B10	5/6/2016	30.5	30	67-66-3	Chloroform	55.2	1.9E+07	1.5E+09	2.9E-11	3.7E-08	4.3E+05	3.6E+08	1.3E-10	1.5E-07
B10	5/6/2016	30.5	30	75-71-8	Dichlorodifluoromethane	1730	--	1.6E+09	--	1.1E-06	--	3.7E+08	--	4.6E-06
B10	5/6/2016	30.5	30	76-13-1	Freon 113	297	--	9.5E+11	--	3.1E-10	--	2.3E+11	--	1.3E-09
B10	5/6/2016	30.5	30	127-18-4	Tetrachloroethylene	13800	1.1E+08	8.2E+08	1.3E-09	1.7E-05	2.5E+06	2.0E+08	5.6E-09	7.0E-05
B10	5/6/2016	30.5	30	108-88-3	Toluene	16.1	--	4.6E+09	--	3.5E-09	--	1.1E+09	--	1.5E-08
B10	5/6/2016	30.5	30	79-01-6	Trichloroethylene	4540	1.2E+08	3.5E+07	3.8E-10	1.3E-04	1.9E+06	8.3E+06	2.4E-09	5.5E-04
B11	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	44.3	--	1.5E+10	--	3.0E-09	--	3.5E+09	--	1.3E-08
B11	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	22.6	--	6.0E+09	--	3.7E-09	--	1.4E+09	--	1.6E-08
B11	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	312	--	1.3E+09	--	2.5E-07	--	3.0E+08	--	1.0E-06
B11	5/6/2016	20.5	20	76-13-1	Freon 113	89	--	7.7E+11	--	1.2E-10	--	1.8E+11	--	4.9E-10
B11	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	3630	8.7E+07	6.6E+08	4.2E-10	5.5E-06	2.0E+06	1.6E+08	1.8E-09	2.3E-05
B11	5/6/2016	20.5	20	79-01-6	Trichloroethylene	19.1	9.5E+07	2.8E+07	2.0E-12	6.8E-07	1.5E+06	6.7E+06	1.3E-11	2.9E-06
B12	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	491	--	1.3E+10	--	3.8E-08	--	3.1E+09	--	1.6E-07
B12	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	71.4	--	6.9E+08	--	1.0E-07	--	1.6E+08	--	4.4E-07
B12	5/6/2016	17	15	127-18-4	Tetrachloroethylene	5790	7.7E+07	5.8E+08	7.6E-10	9.9E-06	1.8E+06	1.4E+08	3.3E-09	4.2E-05
B13	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	107	--	1.3E+10	--	8.2E-09	--	3.1E+09	--	3.4E-08
B13	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	11.6	--	1.1E+09	--	1.0E-08	--	2.7E+08	--	4.4E-08
B13	5/6/2016	17	15	127-18-4	Tetrachloroethylene	323	7.7E+07	5.8E+08	4.2E-11	5.5E-07	1.8E+06	1.4E+08	1.8E-10	2.3E-06
B13	5/6/2016	17	15	108-88-3	Toluene	10	--	3.3E+09	--	3.1E-09	--	7.8E+08	--	1.3E-08
B13	5/6/2016	17	15	79-01-6	Trichloroethylene	17	8.4E+07	2.5E+07	2.0E-12	6.9E-07	1.3E+06	5.9E+06	1.3E-11	2.9E-06
B14	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	14.4	--	1.3E+10	--	1.1E-09	--	3.1E+09	--	4.6E-09
B14	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	8.2	--	1.1E+09	--	7.3E-09	--	2.7E+08	--	3.1E-08
B14	5/6/2016	17	15	127-18-4	Tetrachloroethylene	143	7.7E+07	5.8E+08	1.9E-11	2.4E-07	1.8E+06	1.4E+08	8.1E-11	1.0E-06
B14	5/6/2016	17	15	108-88-3	Toluene	80.6	--	3.3E+09	--	2.5E-08	--	7.8E+08	--	1.0E-07
B14	5/6/2016	17	15	79-01-6	Trichloroethylene	41.4	8.4E+07	2.5E+07	4.9E-12	1.7E-06	1.3E+06	5.9E+06	3.1E-11	7.1E-06
B14	5/6/2016	17	15	1330-20-7	Xylenes	27	--	1.2E+09	--	2.2E-08	--	2.9E+08	--	9.2E-08
B15	5/6/2016	4	4	75-71-8	Dichlorodifluoromethane	16.6	--	2.9E+08	--	5.7E-08	--	7.0E+07	--	2.4E-07
B15	5/6/2016	4	4	127-18-4	Tetrachloroethylene	222	2.0E+07	1.5E+08	1.1E-10	1.5E-06	4.5E+05	3.6E+07	4.9E-10	6.2E-06
B15	5/6/2016	4	4	108-88-3	Toluene	18.4	--	8.5E+08	--	2.2E-08	--	2.0E+08	--	9.1E-08
B15	5/6/2016	4	4	79-01-6	Trichloroethylene	31.8	2.2E+07	6.4E+06	1.5E-11	5.0E-06	3.5E+05	1.5E+06	9.1E-11	2.1E-05
LB1	5/6/2016	15	15	71-55-6	1,1,1-Trichloroethane	39.2	--	1.3E+10	--	3.0E-09	--	3.1E+09	--	1.3E-08

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
LB1	5/6/2016	15	15	75-71-8	Dichlorodifluoromethane	43.4	--	1.1E+09	--	3.9E-08	--	2.7E+08	--	1.6E-07
LB1	5/6/2016	15	15	127-18-4	Tetrachloroethylene	423	7.7E+07	5.8E+08	5.5E-11	7.2E-07	1.8E+06	1.4E+08	2.4E-10	3.0E-06
LB1	5/6/2016	15	15	108-88-3	Toluene	76	--	3.3E+09	--	2.3E-08	--	7.8E+08	--	9.8E-08
LB1	5/6/2016	15	15	79-01-6	Trichloroethylene	38	8.4E+07	2.5E+07	4.5E-12	1.5E-06	1.3E+06	5.9E+06	2.8E-11	6.5E-06
LB1	5/6/2016	15	15	1330-20-7	Xylenes	11.6	--	1.2E+09	--	9.4E-09	--	2.9E+08	--	4.0E-08
LB1	5/6/2016	20.5	20	71-55-6	1,1,1-Trichloroethane	167	--	1.5E+10	--	1.1E-08	--	3.5E+09	--	4.7E-08
LB1	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	33	--	1.3E+09	--	2.6E-08	--	3.0E+08	--	1.1E-07
LB1	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	11000	8.7E+07	6.6E+08	1.3E-09	1.7E-05	2.0E+06	1.6E+08	5.5E-09	7.0E-05
LB1	5/6/2016	20.5	20	108-88-3	Toluene	45.4	--	3.7E+09	--	1.2E-08	--	8.8E+08	--	5.2E-08
LB1	5/6/2016	20.5	20	79-01-6	Trichloroethylene	332	9.5E+07	2.8E+07	3.5E-11	1.2E-05	1.5E+06	6.7E+06	2.2E-10	5.0E-05
LB2	5/6/2016	19.5	20	71-43-2	Benzene	15.2	1.0E+07	3.2E+07	1.5E-11	4.7E-07	2.4E+05	7.7E+06	6.4E-11	2.0E-06
LB2	5/6/2016	19.5	20	75-71-8	Dichlorodifluoromethane	99.2	--	1.3E+09	--	7.8E-08	--	3.0E+08	--	3.3E-07
LB2	5/6/2016	19.5	20	127-18-4	Tetrachloroethylene	63200	8.7E+07	6.6E+08	7.3E-09	9.5E-05	2.0E+06	1.6E+08	3.2E-08	4.0E-04
LB2	5/6/2016	19.5	20	108-88-3	Toluene	68.2	--	3.7E+09	--	1.8E-08	--	8.8E+08	--	7.7E-08
LB2	5/6/2016	19.5	20	79-01-6	Trichloroethylene	110	9.5E+07	2.8E+07	1.2E-11	3.9E-06	1.5E+06	6.7E+06	7.2E-11	1.7E-05
LB3	5/6/2016	20	20	630-20-6	1,1,1,2-Tetrachloroethane	635	7.4E+07	2.3E+09	8.6E-11	2.7E-07	1.7E+06	5.6E+08	3.8E-10	1.1E-06
LB3	5/6/2016	20	20	71-55-6	1,1,1-Trichloroethane	8	--	1.5E+10	--	5.4E-10	--	3.5E+09	--	2.3E-09
LB3	5/6/2016	20	20	75-35-4	1,1-Dichloroethene	242	--	7.8E+08	--	3.1E-07	--	1.9E+08	--	1.3E-06
LB3	5/6/2016	20	20	71-43-2	Benzene	26.9	1.0E+07	3.2E+07	2.6E-11	8.4E-07	2.4E+05	7.7E+06	1.1E-10	3.5E-06
LB3	5/6/2016	20	20	67-66-3	Chloroform	67	1.5E+07	1.2E+09	4.4E-11	5.5E-08	3.5E+05	2.9E+08	1.9E-10	2.3E-07
LB3	5/6/2016	20	20	75-71-8	Dichlorodifluoromethane	200	--	1.3E+09	--	1.6E-07	--	3.0E+08	--	6.6E-07
LB3	5/6/2016	20	20	100-41-4	Ethylbenzene	35.7	1.6E+08	1.4E+10	2.3E-12	2.5E-09	3.6E+06	3.3E+09	9.9E-12	1.1E-08
LB3	5/6/2016	20	20	127-18-4	Tetrachloroethylene	10600000	8.7E+07	6.6E+08	1.2E-06	1.6E-02	2.0E+06	1.6E+08	5.3E-06	6.7E-02
LB3	5/6/2016	20	20	108-88-3	Toluene	114	--	3.7E+09	--	3.1E-08	--	8.8E+08	--	1.3E-07
LB3	5/6/2016	20	20	79-01-6	Trichloroethylene	4930	9.5E+07	2.8E+07	5.2E-10	1.8E-04	1.5E+06	6.7E+06	3.2E-09	7.4E-04
LB3	5/6/2016	20	20	1330-20-7	Xylenes	35.3	--	1.4E+09	--	2.5E-08	--	3.3E+08	--	1.1E-07
LB4	5/6/2016	20.5	20	630-20-6	1,1,1,2-Tetrachloroethane	10.6	7.4E+07	2.3E+09	1.4E-12	4.5E-09	1.7E+06	5.6E+08	6.3E-12	1.9E-08
LB4	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	10.6	--	1.1E+08	--	9.6E-08	--	2.6E+07	--	4.0E-07
LB4	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	18.3	--	6.0E+09	--	3.0E-09	--	1.4E+09	--	1.3E-08
LB4	5/6/2016	20.5	20	71-43-2	Benzene	25.2	1.0E+07	3.2E+07	2.4E-11	7.8E-07	2.4E+05	7.7E+06	1.1E-10	3.3E-06
LB4	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	698	--	1.3E+09	--	5.5E-07	--	3.0E+08	--	2.3E-06
LB4	5/6/2016	20.5	20	100-41-4	Ethylbenzene	32	1.6E+08	1.4E+10	2.0E-12	2.3E-09	3.6E+06	3.3E+09	8.9E-12	9.6E-09
LB4	5/6/2016	20.5	20	76-13-1	Freon 113	107	--	7.7E+11	--	1.4E-10	--	1.8E+11	--	5.9E-10
LB4	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	544000	8.7E+07	6.6E+08	6.2E-08	8.2E-04	2.0E+06	1.6E+08	2.7E-07	3.4E-03
LB4	5/6/2016	20.5	20	108-88-3	Toluene	175	--	3.7E+09	--	4.7E-08	--	8.8E+08	--	2.0E-07

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
LB4	5/6/2016	20.5	20	79-01-6	Trichloroethylene	648	9.5E+07	2.8E+07	6.8E-11	2.3E-05	1.5E+06	6.7E+06	4.2E-10	9.7E-05
LB4	5/6/2016	20.5	20	1330-20-7	Xylenes	156	--	1.4E+09	--	1.1E-07	--	3.3E+08	--	4.7E-07
LB5	5/6/2016	14.5	15	75-71-8	Dichlorodifluoromethane	754	--	1.1E+09	--	6.8E-07	--	2.7E+08	--	2.8E-06
LB5	5/6/2016	14.5	15	76-13-1	Freon 113	141	--	6.7E+11	--	2.1E-10	--	1.6E+11	--	8.8E-10
LB5	5/6/2016	14.5	15	127-18-4	Tetrachloroethylene	11800	7.7E+07	5.8E+08	1.5E-09	2.0E-05	1.8E+06	1.4E+08	6.7E-09	8.5E-05
LB5	5/6/2016	14.5	15	108-88-3	Toluene	54.7	--	3.3E+09	--	1.7E-08	--	7.8E+08	--	7.1E-08
LB5	5/6/2016	14.5	15	79-01-6	Trichloroethylene	881	8.4E+07	2.5E+07	1.0E-10	3.6E-05	1.3E+06	5.9E+06	6.6E-10	1.5E-04
LB5	5/6/2016	14.5	15	1330-20-7	Xylenes	21.4	--	1.2E+09	--	1.7E-08	--	2.9E+08	--	7.3E-08
LB5	5/6/2016	20.5	20	95-63-6	1,2,4-Trimethylbenzene	12.3	--	1.1E+08	--	1.1E-07	--	2.6E+07	--	4.7E-07
LB5	5/6/2016	20.5	20	99-87-6	4-Isopropyltoluene	16.9	--	6.0E+09	--	2.8E-09	--	1.4E+09	--	1.2E-08
LB5	5/6/2016	20.5	20	71-43-2	Benzene	27.4	1.0E+07	3.2E+07	2.6E-11	8.5E-07	2.4E+05	7.7E+06	1.2E-10	3.6E-06
LB5	5/6/2016	20.5	20	67-66-3	Chloroform	14.2	1.5E+07	1.2E+09	9.4E-12	1.2E-08	3.5E+05	2.9E+08	4.1E-11	4.9E-08
LB5	5/6/2016	20.5	20	75-71-8	Dichlorodifluoromethane	927	--	1.3E+09	--	7.3E-07	--	3.0E+08	--	3.1E-06
LB5	5/6/2016	20.5	20	100-41-4	Ethylbenzene	23.2	1.6E+08	1.4E+10	1.5E-12	1.7E-09	3.6E+06	3.3E+09	6.5E-12	7.0E-09
LB5	5/6/2016	20.5	20	76-13-1	Freon 113	186	--	7.7E+11	--	2.4E-10	--	1.8E+11	--	1.0E-09
LB5	5/6/2016	20.5	20	127-18-4	Tetrachloroethylene	12400	8.7E+07	6.6E+08	1.4E-09	1.9E-05	2.0E+06	1.6E+08	6.2E-09	7.8E-05
LB5	5/6/2016	20.5	20	108-88-3	Toluene	169	--	3.7E+09	--	4.6E-08	--	8.8E+08	--	1.9E-07
LB5	5/6/2016	20.5	20	79-01-6	Trichloroethylene	1500	9.5E+07	2.8E+07	1.6E-10	5.4E-05	1.5E+06	6.7E+06	9.8E-10	2.3E-04
LB5	5/6/2016	20.5	20	1330-20-7	Xylenes	115	--	1.4E+09	--	8.2E-08	--	3.3E+08	--	3.5E-07
LB6	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	17.4	--	1.3E+10	--	1.3E-09	--	3.1E+09	--	5.6E-09
LB6	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	67.6	--	6.9E+08	--	9.8E-08	--	1.6E+08	--	4.1E-07
LB6	5/6/2016	17	15	127-18-4	Tetrachloroethylene	1590	7.7E+07	5.8E+08	2.1E-10	2.7E-06	1.8E+06	1.4E+08	9.1E-10	1.1E-05
LB6	5/6/2016	17	15	79-01-6	Trichloroethylene	115	8.4E+07	2.5E+07	1.4E-11	4.7E-06	1.3E+06	5.9E+06	8.6E-11	2.0E-05
LB7	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	85.6	--	1.3E+10	--	6.6E-09	--	3.1E+09	--	2.8E-08
LB7	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	67.3	--	6.9E+08	--	9.8E-08	--	1.6E+08	--	4.1E-07
LB7	5/6/2016	17	15	75-71-8	Dichlorodifluoromethane	185	--	1.1E+09	--	1.7E-07	--	2.7E+08	--	7.0E-07
LB7	5/6/2016	17	15	76-13-1	Freon 113	53.2	--	6.7E+11	--	7.9E-11	--	1.6E+11	--	3.3E-10
LB7	5/6/2016	17	15	127-18-4	Tetrachloroethylene	3280	7.7E+07	5.8E+08	4.3E-10	5.6E-06	1.8E+06	1.4E+08	1.9E-09	2.4E-05
LB7	5/6/2016	17	15	79-01-6	Trichloroethylene	42	8.4E+07	2.5E+07	5.0E-12	1.7E-06	1.3E+06	5.9E+06	3.1E-11	7.2E-06
LB8	5/6/2016	17	15	71-55-6	1,1,1-Trichloroethane	1630	--	1.3E+10	--	1.2E-07	--	3.1E+09	--	5.2E-07
LB8	5/6/2016	17	15	75-35-4	1,1-Dichloroethene	937	--	6.9E+08	--	1.4E-06	--	1.6E+08	--	5.7E-06
LB8	5/6/2016	17	15	99-87-6	4-Isopropyltoluene	8.6	--	5.3E+09	--	1.6E-09	--	1.3E+09	--	6.8E-09
LB8	5/6/2016	17	15	100-41-4	Ethylbenzene	17.8	1.4E+08	1.2E+10	1.3E-12	1.4E-09	3.2E+06	2.9E+09	5.6E-12	6.1E-09
LB8	5/6/2016	17	15	127-18-4	Tetrachloroethylene	14600	7.7E+07	5.8E+08	1.9E-09	2.5E-05	1.8E+06	1.4E+08	8.3E-09	1.0E-04
LB8	5/6/2016	17	15	108-88-3	Toluene	97.4	--	3.3E+09	--	3.0E-08	--	7.8E+08	--	1.3E-07

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
LB8	5/6/2016	17	15	79-01-6	Trichloroethylene	173	8.4E+07	2.5E+07	2.1E-11	7.0E-06	1.3E+06	5.9E+06	1.3E-10	3.0E-05
LB8	5/6/2016	17	15	1330-20-7	Xylenes	89.1	--	1.2E+09	--	7.2E-08	--	2.9E+08	--	3.0E-07

Notes:

" -- " not applicable

$\mu g/m^3$ - micrograms per cubic meter

" ft bgs " feet below ground surface

RBC_{SV-C} - risk-based concentration based on cancer effects; RBC_{SV-NC} based on noncancer effects

RBCs based on target cancer risk = 10^{-5} for workers and 10^{-6} for fuure residents, and a target noncancer hazard = 1 for both receptors

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Technical Memorandum

Date:	January 2018
To:	Los Angeles Regional Water Quality Control Board (LARWQCB)
From:	Eric Smalstig and Cathy Villaroman, Geosyntec Consultants
Subject:	**Addendum to HHRA dated May 2017, 777 North Front Street, Burbank, California**

Introduction

On behalf of Northridge Properties, LLC, Geosyntec Consultants, Inc. (Geosyntec) has prepared this Technical Memorandum to present an addendum to the human health risk assessment (HHRA, dated May 2017) for the 8-acre proposed mixed use development at 777 North Front Street in Burbank, California ("Site", **Figure 1**). The purpose of this HHRA Addendum was to evaluate the potential risk to human health associated with residual concentrations of chemicals detected in soil samples collected in October 2017 and in soil vapor samples collected in November 2017 by Geosyntec.

At LARWQCB's request, Geosyntec performed additional soil and soil vapor sampling at the Site, which consisted of eight locations up to a depth of 88 feet (ft) below ground surface (bgs). This technical memorandum provides an evaluation of potential cancer risks and noncancer hazards associated with this recently collected data as it relates to the results presented in the May 2017 HHRA (Geosyntec, 2017). A summary of the detected volatile organic compounds (VOCs) in soil and soil vapor are presented in **Tables 1 and 2**. The overall approach used to estimate potential health risks to future residents, future commercial and construction workers was described in the HHRA report (Geosyntec, 2017). Note that the HHRA evaluated the planned use of the property as a mixed-use residential and commercial complex with proposed features including residential apartments, a hotel, ground floor commercial use, a park and bike hub with amphitheater style seating, multiple courtyards, and first floor as well as subterranean parking structures.

Human Health Risk Assessment

Risk-based concentrations (RBCs) were previously derived for soil and soil vapor in the HHRA. Potential exposures via incidental ingestion, dermal contact and outdoor air inhalation to chemicals detected in soil (**Table 1**), as well as potential vapor intrusion exposures to VOCs detected in soil vapor (**Table 2**) were evaluated for each sampling location by comparing the chemical concentration data to their respective RBCs. As discussed in the HHRA (Geosyntec, 2017), various demarcations of acceptable risk have been established by regulatory agencies. For future residents, Site-specific RBCs were derived using a target cancer risk level of 1×10^{-6}. For future commercial workers and future construction workers, Site-specific RBCs were derived using a target cancer risk level of 1×10^{-5}. This target risk of 1×10^{-5} for potential worker exposures has been used in many DTSC-approved risk assessments. It should be noted that the risk results presented in the risk characterization are independent of the target cancer risk used to derive the Site-specific RBCs and are therefore not affected by that assumption. The target hazard quotient (THQ) used for noncarcinogens of 1 was used for all receptor groups.

Potential cancer risks and noncancer hazards estimated in this HHRA Addendum is based on soil and soil vapor data collected more recently in 2017.

Results of the Human Health Risk Assessment

Cumulative cancer risks (CRs) and noncancer hazard indices (HIs) for each soil sample location are summarized in **Table 3** for future residents, future commercial workers, and future construction workers. Cumulative CRs and HIs for each soil vapor sample location are summarized in **Table 4** for future residents and future commercial workers for the slab-on-grade scenario, and in **Table 5** for the second floor scenario. The detailed cancer risk and noncancer hazard calculation spreadsheets are presented in **Attachment A**.

The results for each receptor and exposure pathway scenarios are summarized in the following subsections in relation to the target cancer risk and target noncancer hazard mentioned above.

Future Resident

Soil

Soil risk characterization results for future residents potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 3**.

For the soil exposure pathways, the cumulative CR estimates for future residents were below the target cancer risk of 1×10^{-6} at all four sample locations, ranging from ranged from 5×10^{-10} to 1×10^{-7}. The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 3×10^{-6} to 5×10^{-4}.

Soil Vapor to Indoor Air

Soil vapor risk characterization results for future residents potentially exposed via indoor air inhalation for individual sampling locations are provided in **Table 4** for the slab-on-grade scenario and in **Table 5** for the second floor exposure scenario.

For the slab-on-grade scenario, the cumulative CR estimates for future residents ranged from 8×10^{-8} to 2×10^{-4} and exceeded the target risk of 1×10^{-6} at locations NP-2, NP-3, and NP-4. PCE was the primary risk driver. The cumulative HI estimates ranging from 1×10^{-3} to 3×10^{0} were below the target hazard of 1 at all sample locations except for NP-3, with PCE as the primary HI driver (**Table 4**).

For the second floor exposure scenario, the cumulative CR estimates for future residents ranged from 1×10^{-9} to 3×10^{-6} and exceeded the target risk of 1×10^{-6} at only one sample location (NP-3). PCE was the primary risk driver. The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 2×10^{-5} to 4×10^{-2} (**Table 5**).

Future Commercial Worker

Soil

Soil risk characterization results for future commercial workers potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 3**.

For the soil exposure pathways, the cumulative CR estimates for future commercial workers were below the target cancer risk of 1×10^{-5} at all sample locations, ranging from 1×10^{-10} to 2×10^{-8}. The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 5×10^{-7} to 1×10^{-4}.

Soil Vapor to Indoor Air

Soil vapor risk characterization results for future commercial workers potentially exposed via indoor air inhalation for individual sampling locations are provided in **Table 4** for the slab-on-grade scenario and in **Table 5** for the second floor exposure scenario.

For the slab-on-grade scenario, the cumulative CR estimates for future commercial workers ranged from 6×10^{-9} to 2×10^{-5} and exceeded the target risk of 1×10^{-5} at only one sample location (NP-3). PCE was the primary risk driver at this location. The cumulative HI estimates were less than the target hazard of 1 at all sample locations, ranging from 1×10^{-4} to 2×10^{-1} (**Table 4**).

For the second floor exposure scenario, the cumulative CR estimates for future commercial workers was below the target risk of 1×10^{-5} at all sample locations, ranging from 3×10^{-10} to 7×10^{-7}. The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 4×10^{-6} to 1×10^{-2} (**Table 5**).

Future Construction Worker

Soil

Soil risk characterization results for future construction workers potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 3**.

For the soil exposure pathways, the cumulative CR estimates for future construction workers were below the target risk of 1×10^{-5} at all four sample locations, ranging from 2×10^{-11} to 4×10^{-9}. The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 3×10^{-6} to 7×10^{-4}.

Summary and Conclusions

This HHRA Addendum was prepared consistent with Cal-EPA and USEPA guidance. Potential cancer risk and noncancer hazard to future residents, future commercial workers, and future construction workers were evaluated assuming exposure occurs to residual COPC concentrations detected in soil and soil vapor samples collected from the Site. Mixed residential and commercial land use is planned for this Site; therefore, both of these scenarios were evaluated in this HHRA Addendum.

The cancer risk and noncancer hazard estimates presented in this HHRA likely over-estimate potential health risk because several conservative assumptions were used throughout the

HHRA process. Moreover, no engineering or other controls were included in the assessment that would reduce or mitigate exposures post-development.

The CRs and HIs calculated using the recent soil and soil vapor data are similar to previously reported results (Geosyntec, 2017).

For future residents, the cumulative CRs and HIs were below the target goals of 1×10^{-6} and 1, respectively, at all four soil sample locations recently sampled. For the soil vapor to indoor air pathway under the slab-on-grade scenario, the cumulative CR estimates for future residents exceeded the target risk of 1×10^{-6} at three sample locations, and the cumulative HI estimates were below the target hazard of 1 at all but one sample location. For the soil vapor to indoor air pathway under the second floor scenario, the cumulative CR estimates for future residents exceeded the target risk of 1×10^{-6} at only one sample location, and the cumulative HI estimates were below the target hazard at all sample locations.

For future commercial workers, the cumulative CRs and HIs were below the target goals of 1×10^{-5} and 1, respectively, at all four soil sample locations. For the soil vapor to indoor air pathway under the slab-on-grade scenario, the cumulative CR estimates for future commercial workers exceeded the target risk of 1×10^{-5} at only one sample location, and the cumulative HI estimates were below the target hazard of 1 at all sample locations. For the soil vapor to indoor air pathway under the second floor scenario, the cumulative CR and HI estimates for future commercial workers were below the target goals of 1×10^{-5} and 1, respectively, at all sample locations.

For future construction workers, the cumulative CRs and HIs were below the target goals of 1×10^{-5} and 1, respectively, at all four soil sample locations.

The results of this HHRA Addendum, similar to the HHRA, indicate that, given planned future mixed residential and commercial land uses, residual concentrations of COPCs that remain in the subsurface are not expected to pose a significant health concern across the Site. However, select sample locations have COPC concentrations that have the potential to impact human health and should therefore be considered further during development planning.

References

Geosyntec Consultants 2017. Draft Human Health Risk Assessment. 777 North Front Street, Burbank California. January.

Attachments

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TABLES

TABLE 1
2017 Supplemental Investigation - Soil Data
777 N. Front Street
Burbank, California

Location	Depth (ft)	Date Sampled	Benzene	PCE	Toluene	TCE
NP-1	12	10/9/2017	< 0.73	< 0.73	< 0.73	< 1.5
	22	10/9/2017	< 0.80	< 0.80	< 0.80	< 1.6
	50	10/9/2017	**2.9**	< 0.84	**1.4**	< 1.7
	67	10/9/2017	< 0.95	< 0.95	< 0.95	< 1.9
	88	10/9/2017	< 0.95	< 0.95	< 0.95	< 1.9
NP-2	6	10/9/2017	< 0.97	**30**	< 0.97	< 1.9
	28	10/9/2017	< 0.88	**26**	< 0.88	< 1.8
	36	10/9/2017	**1.2**	**110**	< 0.87	< 1.7
	50	10/10/2017	**1.1**	**65**	< 0.90	< 1.8
	80	10/10/2017	< 0.91	**12**	< 0.91	< 1.8
NP-3	12	10/10/2017	< 1.0	**91**	< 1.0	< 2.0
	16	10/10/2017	< 6.1	**99**	< 47	< 14
	32	10/10/2017	< 6.2	< 10	< 48	< 14
	46	10/10/2017	< 6.8	< 11	< 52	< 16
NP-4	10	10/11/2017	< 6.3	< 49	< 49	< 15
	18	10/11/2017	< 6.7	< 52	< 52	< 16
	40	10/11/2017	< 6.5	**28 J**	< 50	< 15
	58	10/11/2017	< 7.6	< 12	< 59	< 18
	80	10/11/2017	< 6.1	**20 J**	< 47	< 14
NP-5	18	10/11/2017	< 6.3	< 48	< 48	< 15
	36	10/11/2017	< 6.0	< 9.8	< 47	< 14
	45	10/11/2017	**1.3**	< 0.91	**1.6**	< 1.8
	56	10/11/2017	< 0.88	**2.4**	< 0.88	**3.0**
NP-6	16	10/13/2017	< 0.82	< 0.82	< 0.82	< 1.6
	26	10/13/2017	< 0.90	< 0.90	< 0.90	< 1.8
	40	10/13/2017	< 0.90	< 0.90	< 0.90	< 1.8
	55	10/13/2017	< 0.99	< 0.99	< 0.99	< 2.0
	88	10/13/2017	< 1.1	< 1.1	< 1.1	< 2.3
NP-7	22	10/12/2017	< 0.89	< 0.89	< 0.89	< 1.8
	34	10/12/2017	< 0.97	< 0.97	< 0.97	< 1.9
	49	10/12/2017	< 0.86	< 0.86	< 0.86	< 1.7
NP-8	18	10/12/2017	< 0.80	< 0.80	< 0.80	< 1.6
	24	10/12/2017	< 0.78	< 0.78	< 0.78	< 1.6
	42	10/12/2017	< 0.82	< 0.82	< 0.82	< 1.6
	59	10/12/2017	< 5.7	< 9.2	< 44	< 13
	81	10/12/2017	< 5.8	**120**	< 44	**79 J**

Notes:

All units are presented in µg/kg

< = less than specified RL with the exception of cells highligted in green which are listed a

Bold = detected above the RL

= estimated values ("J") detected between MDL and RL, and above one of the noted scree

3. Other constituents were not detected above the RL.

TABLE 2
2017 Supplemental Investigation - Soil Vapor Data
777 N. Front Street
Burbank, California

Location	Depth (ft bgs)	Carbon Tetrachloride	Chloroform	Dichlorodifluoromethane/Freon 12	1,1-Dichloroethane	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 113	1,1,1,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane/Freon 11
NP-1	19	ND<8	ND<8	79	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	26,500	ND<8	1100	38	ND<8
	19-Rep	ND<8	ND<8	90	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	20,000	ND<8	1090	82	ND<8
	49	ND<8	10	1720	ND<8	192	ND<8	ND<8	76	ND<8	21,800	ND<8	1010	54	ND<8
	70	ND<8	21	2530	ND<8	443	ND<8	ND<8	98	ND<8	13,200	ND<8	455	86	ND<8
	85	ND<8	22	2900	260	1090	ND<8	ND<8	ND<40	11	46,200	ND<8	157	508	ND<8
NP-2[1]	15	ND<8	29	357	ND<8	ND<8	31	ND<8	ND<40	145	1,270,000	ND<8	ND<8	3350	ND<8
	37	ND<8	16	ND<8	ND<8	ND<8	ND<8	ND<8	41	147	1,450,000	ND<8	ND<8	2600	ND<8
	51	ND<8	93	ND<8	ND<8	45	ND<8	8	141	514	3,150,000	10	ND<8	3990	ND<8
	81	ND<8	109	ND<8	ND<8	129	ND<8	ND<8	108	131	1,570,000	ND<8	ND<8	3380	ND<8
NP-3[2]	13	ND<8	83	208	ND<8	ND<8	ND<8	10	ND<40	502	5,120,000	ND<8	ND<8	5120	ND<8
	33	ND<8	98	471	ND<8	14	20	10	ND<40	1240	8,030,000	20	8	4790	ND<8
	53	ND<8	181	ND<8	ND<8	ND<8	ND<8	ND<8	ND<40	587	3,480,000	ND<8	ND<8	3210	ND<8
NP-4[3]	13	ND<8	ND<8	485	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	1,890,000	ND<8	15	2340	ND<8
	35	ND<8	ND<8	ND<8	ND<8	26	ND<8	ND<8	84	5530	1,790,000	ND<8	ND<8	3430	ND<8
	51	ND<8	336	762	ND<8	22	ND<8	ND<8	46	124	684,000	ND<8	ND<8	2550	ND<8
	83	ND<8	1040	ND<8	ND<8	61	ND<8	ND<8	71	31	781,000	ND<8	ND<8	4950	ND<8
NP-5	15	ND<8	14	303	ND<8	ND<8	ND<8	ND<8	42	ND<8	6,610	ND<8	ND<8	7320	ND<8
	35	ND<8	120	1940	ND<8	102	ND<8	ND<8	229	ND<8	20,800	ND<8	ND<8	18900	ND<8
	57	ND<8	457	1070	ND<8	205	ND<8	ND<8	116	ND<8	18,000	ND<8	ND<8	11700	ND<8
NP-6	15	ND<8	ND<8	60	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	5,580	ND<8	22	13	ND<8
	40	ND<8	ND<8	ND<8	ND<8	462	ND<8	ND<8	ND<40	ND<8	5,580	ND<8	ND<8	178	ND<8
	60	ND<8	22	329	ND<8	502	ND<8	ND<8	ND<40	ND<8	4,440	ND<8	13	678	ND<8
	86	ND<8	ND<8	ND<8	ND<8	163	ND<8	ND<8	ND<40	ND<8	5,220	ND<8	ND<8	173	ND<8
NP-7	17	ND<8	ND<8	624	ND<8	ND<8	ND<8	ND<8	53	ND<8	5,450	ND<8	19.3	28.4	ND<8
	17-Rep	ND<8	ND<8	625	ND<8	ND<8	ND<8	ND<8	55	ND<8	5,920	ND<8	20.0	20	8
	35	ND<8	18	1830	ND<8	134	ND<8	ND<8	159	ND<8	7,920	ND<8	14.3	1160	18
	53	14	47	1040	9	991	ND<8	ND<8	117	ND<8	8,410	ND<8	20.4	3080	ND<8
NP-8	17	30	ND<8	33	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	2,290	ND<8	225	ND	ND<8
	37	34	ND<8	184	ND<8	109	ND<8	ND<8	ND<40	ND<8	3,440	ND<8	250	18	ND<8
	37-Rep	32	ND<8	181	ND<8	103	ND<8	ND<8	ND<40	ND<8	2,900	ND<8	242	17	ND<8
	57	9	ND<8	363	ND<8	1210	ND<8	ND<8	105	ND<8	3,370	ND<8	197	429	ND<8
	80	27	ND<8	450	ND<8	3840	ND<8	ND<8	186	ND<8	5,980	ND<8	196	2310	ND<8

Notes:

All units are presented in $\mu g/m^3$

< = less than specified RL

1. PCE was analyzed at 250 dilution
2. PCE was analyzed at 2500 dilution
3. PCE was analyzed at 250 dilution
4. Other constituents were not detected above the RL.

Table 3
Cumulative Cancer Risk and Noncancer Hazard, Soil
777 North Front Street
Burbank, California

Boring Location	Sample Depth (ft bgs)	Future Resident		Future Commercial Worker		Future Construction Worker	
		Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard
NP-1	12	5E-10	3E-06	1E-10	5E-07	2E-11	3E-06
NP-2	6	3E-08	2E-04	7E-09	3E-05	1E-09	2E-04
NP-3	12	1E-07	5E-04	2E-08	1E-04	4E-09	7E-04
NP-4	10	1E-08	7E-05	3E-09	1E-05	5E-10	9E-05

Notes:

" -- " not applicable; ft bgs - feet below ground surface

Target cancer risk (CR) = 10^{-6} for residents and 10^{-5} for workers and target noncancer hazard index (HI) = 1

None of the locations exceeded a target risk or a target hazard.

Table 4
Cumulative Cancer Risk and Noncancer Hazard
Soil Vapor to Indoor Air, Slab-on-Grade Scenario
777 North Front Street
Burbank, California

Boring ID	Sample Depth (ft bgs)	Future Resident		Future Commercial Worker		Cancer Risk and/or Noncancer Hazard Drivers
		Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard	
NP-1	19	1E-06	1E-02	8E-08	1E-03	
NP-1	49	5E-07	7E-03	4E-08	5E-04	
NP-1	70	3E-07	5E-03	2E-08	4E-04	
NP-1	85	7E-07	1E-02	6E-08	9E-04	
NP-2	15	**5E-05**	7E-01	4E-06	6E-02	PCE
NP-2	37	**4E-05**	6E-01	3E-06	5E-02	PCE
NP-2	51	**7E-05**	9E-01	5E-06	7E-02	PCE
NP-2	81	**2E-05**	3E-01	2E-06	3E-02	PCE
NP-3	13	**2E-04**	**3E+00**	**2E-05**	2E-01	PCE
NP-3	33	**2E-04**	**3E+00**	**2E-05**	2E-01	PCE
NP-3	53	**8E-05**	1E+00	6E-06	8E-02	PCE
NP-4	13	**8E-05**	1E+00	6E-06	8E-02	PCE
NP-4	35	**5E-05**	7E-01	4E-06	6E-02	PCE
NP-4	51	**1E-05**	2E-01	1E-06	2E-02	PCE
NP-4	83	**1E-05**	2E-01	9E-07	1E-02	PCE
NP-5	15	7E-07	1E-01	4E-08	8E-03	
NP-5	35	1E-06	2E-01	9E-08	1E-02	
NP-5	57	8E-07	8E-02	5E-08	7E-03	
NP-6	15	2E-07	3E-03	2E-08	3E-04	
NP-6	40	2E-07	4E-03	1E-08	3E-04	
NP-6	60	1E-07	6E-03	9E-09	5E-04	
NP-6	86	8E-08	2E-03	6E-09	1E-04	
NP-7	17	3E-07	4E-03	2E-08	3E-04	
NP-7	35	3E-07	1E-02	2E-08	1E-03	
NP-7	53	3E-07	2E-02	2E-08	2E-03	
NP-8	17	1E-07	1E-03	8E-09	1E-04	
NP-8	37	1E-07	2E-03	9E-09	1E-04	
NP-8	57	9E-08	4E-03	6E-09	3E-04	
NP-8	80	1E-07	1E-02	1E-08	1E-03	

Notes:

ft bgs - feet below ground surface

PCE - tetrachloroethylene

Target cancer risk (CR) = 10^{-6} for residents and 10^{-5} for workers and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk and/or cumulative hazard > target hazard

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

Table 5
Cumulative Cancer Risk and Noncancer Hazard
Soil Vapor to Indoor Air, Second Floor Scenario
777 North Front Street
Burbank, California

Boring ID	Sample Depth (ft bgs)	Future Resident		Future Commercial Worker		Cancer Risk and/or Noncancer Hazard Drivers
		Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard	
NP-1	19	1E-08	2E-04	3E-09	4E-05	
NP-1	49	6E-09	9E-05	1E-09	2E-05	
NP-1	70	4E-09	6E-05	9E-10	1E-05	
NP-1	85	1E-08	2E-04	2E-09	4E-05	
NP-2	15	7E-07	1E-02	2E-07	2E-03	
NP-2	37	6E-07	8E-03	1E-07	2E-03	
NP-2	51	9E-07	1E-02	2E-07	3E-03	
NP-2	81	3E-07	4E-03	7E-08	1E-03	
NP-3	13	**3E-06**	4E-02	7E-07	9E-03	PCE
NP-3	33	**3E-06**	4E-02	7E-07	1E-02	PCE
NP-3	53	1E-06	1E-02	2E-07	3E-03	
NP-4	13	1E-06	1E-02	2E-07	3E-03	
NP-4	35	7E-07	1E-02	2E-07	2E-03	
NP-4	51	2E-07	3E-03	5E-08	7E-04	
NP-4	83	2E-07	2E-03	4E-08	6E-04	
NP-5	15	9E-09	1E-03	2E-09	3E-04	
NP-5	35	2E-08	2E-03	4E-09	6E-04	
NP-5	57	1E-08	1E-03	2E-09	3E-04	
NP-6	15	3E-09	4E-05	7E-10	1E-05	
NP-6	40	2E-09	5E-05	5E-10	1E-05	
NP-6	60	2E-09	8E-05	3E-10	2E-05	
NP-6	86	1E-09	2E-05	3E-10	6E-06	
NP-7	17	3E-09	5E-05	8E-10	1E-05	
NP-7	35	4E-09	2E-04	8E-10	4E-05	
NP-7	53	4E-09	3E-04	8E-10	7E-05	
NP-8	17	1E-09	2E-05	3E-10	4E-06	
NP-8	37	2E-09	2E-05	3E-10	5E-06	
NP-8	57	1E-09	5E-05	3E-10	1E-05	
NP-8	80	2E-09	2E-04	4E-10	4E-05	

Notes:

ft bgs - feet below ground surface

PCE - tetrachloroethylene

Target cancer risk (CR) = 10^{-6} for residents and 10^{-5} for workers and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk and/or cumulative hazard > target hazard

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

FIGURES

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Legend

- Nested Probe Location (Geosyntec, 2017)
- Soil Vapor Sample Location (Leighton, 2016)
- Former Buildings
- Site Boundary

Notes:

Post-closure refers to sampling post 2001

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Post-closure Soil Vapor Sample Locations
777 North Front Street
Burbank, California

100 50 0 100 200 Feet

Geosyntec consultants

Project No: HR1305C | January 2018

Figure 3

{S:\ = \\hbeach-01\data\GIS$\} P:\GIS\HR1305\Projects\Figure4_current_sv.mxdlv 1/2/2018

ATTACHMENT A

Cumulative Risk Evaluation

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	$RBC_{soil-NC}$ (mg/kg)	RBC_{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
NP-1	12	NP-1-12	10/9/2017	127-18-4	Tetrachloroethene (PCE)	0.00047	--	--	1.8E+02	9.5E-01	2.6E-06	5.0E-10	1.0E+03	4.3E+01	4.7E-07	1.1E-10	1.5E+02	2.4E+02	3.2E-06	1.9E-11
NP-1	12	NP-1-12	10/9/2017	67-64-1	Acetone	0.0062	--	--	6.7E+04	--	9.3E-08	--	8.7E+05	--	7.1E-09	--	2.2E+05	--	2.8E-08	--
											3E-06	**5E-10**			**5E-07**	**1E-10**			**3E-06**	**2E-11**
NP-2	6	NP-2-6	10/9/2017	67-64-1	Acetone	0.027	--	--	6.7E+04	--	4.0E-07	--	8.7E+05	--	3.1E-08	--	2.2E+05	--	1.2E-07	--
NP-2	6	NP-2-6	10/9/2017	71-43-2	Benzene	0.00017	--	--	3.4E+01	1.0E+00	5.0E-06	1.7E-10	1.5E+02	4.4E+01	1.1E-06	3.9E-11	2.1E+01	1.6E+02	8.0E-06	1.0E-11
NP-2	6	NP-2-6	10/9/2017	127-18-4	Tetrachloroethene (PCE)	0.03	--	--	1.8E+02	9.5E-01	1.7E-04	3.2E-08	1.0E+03	4.3E+01	3.0E-05	6.9E-09	1.5E+02	2.4E+02	2.0E-04	1.2E-09
											2E-04	**3E-08**			**3E-05**	**7E-09**			**2E-04**	**1E-09**
NP-3	12	NP-3-12	10/10/2017	67-64-1	Acetone	0.0083	--	--	6.7E+04	--	1.2E-07	--	8.7E+05	--	9.5E-09	--	2.2E+05	--	3.8E-08	--
NP-3	12	NP-3-12	10/10/2017	71-43-2	Benzene	0.00019	--	--	3.4E+01	1.0E+00	5.6E-06	1.9E-10	1.5E+02	4.4E+01	1.2E-06	4.3E-11	2.1E+01	1.6E+02	9.0E-06	1.2E-11
NP-3	12	NP-3-12	10/10/2017	127-18-4	Tetrachloroethene (PCE)	0.091	--	--	1.8E+02	9.5E-01	5.1E-04	9.6E-08	1.0E+03	4.3E+01	9.0E-05	2.1E-08	1.5E+02	2.4E+02	6.1E-04	3.7E-09
NP-3	12	NP-3-12	10/10/2017	79-01-6	Trichloroethene (TCE)	0.00031	--	--	1.1E+01	2.5E+00	2.8E-05	1.2E-10	5.8E+01	1.7E+02	5.3E-06	1.8E-11	8.4E+00	6.6E+02	3.7E-05	4.7E-12
											5E-04	**1E-07**			**1E-04**	**2E-08**			**7E-04**	**4E-09**
NP-4	10	NP-4-10	10/11/2017	127-18-4	Tetrachloroethene (PCE)	0.013	--	--	1.8E+02	9.5E-01	7.3E-05	1.4E-08	1.0E+03	4.3E+01	1.3E-05	3.0E-09	1.5E+02	2.4E+02	8.7E-05	5.3E-10

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-1	11/16/2017	19	20	71-55-6	1,1,1-Trichloroethane	1100	--	5.9E+08	--	1.9E-06	--	4.7E+07	--	2.3E-05
NP-1	11/16/2017	19	20	75-71-8	Freon 12	78.8	--	5.1E+07	--	1.6E-06	--	4.0E+06	--	2.0E-05
NP-1	11/16/2017	19	20	127-18-4	Tetrachloroethene (PCE)	26500	3.5E+06	2.7E+07	7.6E-08	1.0E-03	2.7E+04	2.1E+06	1.0E-06	1.3E-02
NP-1	11/16/2017	19	20	79-01-6	Trichloroethene (TCE)	38	3.8E+06	1.1E+06	1.0E-10	3.4E-05	2.0E+04	8.9E+04	1.9E-09	4.3E-04
NP-1	11/16/2017	19	20	71-55-6	1,1,1-Trichloroethane	1090	--	5.9E+08	--	1.8E-06	--	4.7E+07	--	2.3E-05
NP-1	11/16/2017	19	20	75-71-8	Freon 12	89.6	--	5.1E+07	--	1.8E-06	--	4.0E+06	--	2.2E-05
NP-1	11/16/2017	19	20	127-18-4	Tetrachloroethene (PCE)	20000	3.5E+06	2.7E+07	5.7E-08	7.5E-04	2.7E+04	2.1E+06	7.5E-07	9.5E-03
NP-1	11/16/2017	19	20	79-01-6	Trichloroethene (TCE)	81.8	3.8E+06	1.1E+06	2.1E-10	7.3E-05	2.0E+04	8.9E+04	4.0E-09	9.2E-04
NP-1	11/16/2017	49	50	71-55-6	1,1,1-Trichloroethane	1010	--	1.0E+09	--	9.9E-07	--	8.0E+07	--	1.3E-05
NP-1	11/16/2017	49	50	75-35-4	1,1-Dichloroethene	192	--	5.4E+07	--	3.6E-06	--	4.3E+06	--	4.5E-05
NP-1	11/16/2017	49	50	67-66-3	Chloroform	10.3	1.0E+06	8.4E+07	9.9E-11	1.2E-07	8.1E+03	6.8E+06	1.3E-09	1.5E-06
NP-1	11/16/2017	49	50	75-69-4	Freon 11	5	--	1.2E+09	--	4.1E-09	--	9.6E+07	--	5.2E-08
NP-1	11/16/2017	49	50	76-13-1	Freon 113	75.8	--	5.3E+10	--	1.4E-09	--	4.2E+09	--	1.8E-08
NP-1	11/16/2017	49	50	75-71-8	Freon 12	1720	--	8.8E+07	--	2.0E-05	--	7.0E+06	--	2.5E-04
NP-1	11/16/2017	49	50	127-18-4	Tetrachloroethene (PCE)	21800	6.1E+06	4.6E+07	3.6E-08	4.7E-04	4.6E+04	3.7E+06	4.7E-07	6.0E-03
NP-1	11/16/2017	49	50	79-01-6	Trichloroethene (TCE)	54.2	6.5E+06	1.9E+06	8.3E-11	2.8E-05	3.4E+04	1.5E+05	1.6E-09	3.6E-04
NP-1	11/16/2017	70	50	71-55-6	1,1,1-Trichloroethane	455	--	1.0E+09	--	4.5E-07	--	8.0E+07	--	5.7E-06
NP-1	11/16/2017	70	50	75-35-4	1,1-Dichloroethene	443	--	5.4E+07	--	8.2E-06	--	4.3E+06	--	1.0E-04
NP-1	11/16/2017	70	50	67-66-3	Chloroform	20.8	1.0E+06	8.4E+07	2.0E-10	2.5E-07	8.1E+03	6.8E+06	2.6E-09	3.1E-06
NP-1	11/16/2017	70	50	75-27-4	Dichlorobromomethane	6	8.7E+05	9.2E+07	6.9E-11	6.5E-08	6.9E+03	7.6E+06	8.7E-10	7.9E-07
NP-1	11/16/2017	70	50	76-13-1	Freon 113	97.6	--	5.3E+10	--	1.9E-09	--	4.2E+09	--	2.3E-08
NP-1	11/16/2017	70	50	75-71-8	Freon 12	2530	--	8.8E+07	--	2.9E-05	--	7.0E+06	--	3.6E-04
NP-1	11/16/2017	70	50	127-18-4	Tetrachloroethene (PCE)	13200	6.1E+06	4.6E+07	2.2E-08	2.8E-04	4.6E+04	3.7E+06	2.9E-07	3.6E-03
NP-1	11/16/2017	70	50	79-01-6	Trichloroethene (TCE)	86	6.5E+06	1.9E+06	1.3E-10	4.5E-05	3.4E+04	1.5E+05	2.5E-09	5.8E-04
NP-1	11/16/2017	85	80	630-20-6	1,1,1,2-Tetrachloroethane	11.1	7.2E+06	2.3E+08	1.5E-11	4.9E-08	5.6E+04	1.8E+07	2.0E-10	6.0E-07
NP-1	11/16/2017	85	80	71-55-6	1,1,1-Trichloroethane	157	--	1.5E+09	--	1.1E-07	--	1.1E+08	--	1.4E-06
NP-1	11/16/2017	85	80	75-34-3	1,1-Dichloroethane	260	2.0E+07	9.0E+08	1.3E-10	2.9E-07	1.5E+05	7.0E+07	1.8E-09	3.7E-06
NP-1	11/16/2017	85	80	75-35-4	1,1-Dichloroethene	1090	--	7.7E+07	--	1.4E-05	--	6.1E+06	--	1.8E-04
NP-1	11/16/2017	85	80	67-66-3	Chloroform	21.8	1.5E+06	1.2E+08	1.5E-10	1.8E-07	1.1E+04	9.3E+06	2.0E-09	2.3E-06
NP-1	11/16/2017	85	80	75-27-4	Dichlorobromomethane	5	1.2E+06	1.3E+08	4.1E-11	3.9E-08	9.5E+03	1.0E+07	5.3E-10	4.8E-07
NP-1	11/16/2017	85	80	76-13-1	Freon 113	34	--	7.3E+10	--	4.7E-10	--	5.9E+09	--	5.8E-09
NP-1	11/16/2017	85	80	75-71-8	Freon 12	2900	--	1.3E+08	--	2.3E-05	--	9.5E+06	--	3.1E-04

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-1	11/16/2017	85	80	127-18-4	Tetrachloroethene (PCE)	46200	8.4E+06	6.4E+07	5.5E-08	7.2E-04	6.5E+04	5.1E+06	7.1E-07	9.0E-03
NP-1	11/16/2017	85	80	79-01-6	Trichloroethene (TCE)	508	9.3E+06	2.7E+06	5.4E-10	1.9E-04	5.0E+04	2.2E+05	1.0E-08	2.3E-03
NP-2	11/16/2017	15	15	630-20-6	1,1,1,2-Tetrachloroethane	145	2.6E+06	8.2E+07	5.6E-10	1.8E-06	2.0E+04	6.5E+06	7.4E-09	2.2E-05
NP-2	11/16/2017	15	15	67-66-3	Chloroform	28.7	5.3E+05	4.3E+07	5.4E-10	6.7E-07	4.1E+03	3.4E+06	7.1E-09	8.5E-06
NP-2	11/16/2017	15	15	156-59-2	cis-1,2-Dichloroethene	30.9	--	3.0E+06	--	1.0E-05	--	2.4E+05	--	1.3E-04
NP-2	11/16/2017	15	15	76-13-1	Freon 113	8	--	2.7E+10	--	3.0E-10	--	2.1E+09	--	3.7E-09
NP-2	11/16/2017	15	15	75-71-8	Freon 12	357	--	4.5E+07	--	8.0E-06	--	3.5E+06	--	1.0E-04
NP-2	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	1270000	3.1E+06	2.3E+07	4.1E-06	5.4E-02	2.3E+04	1.9E+06	5.4E-05	6.8E-01
NP-2	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	3350	3.4E+06	9.8E+05	1.0E-08	3.4E-03	1.8E+04	7.8E+04	1.9E-07	4.3E-02
NP-2	11/16/2017	37	30	630-20-6	1,1,1,2-Tetrachloroethane	147	3.7E+06	1.2E+08	4.0E-10	1.3E-06	2.8E+04	9.2E+06	5.3E-09	1.6E-05
NP-2	11/16/2017	37	30	67-66-3	Chloroform	16.2	7.5E+05	6.0E+07	2.2E-10	2.7E-07	5.7E+03	4.8E+06	2.8E-09	3.4E-06
NP-2	11/16/2017	37	30	76-13-1	Freon 113	41	--	3.8E+10	--	1.1E-09	--	3.0E+09	--	1.4E-08
NP-2	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	1450000	4.3E+06	3.3E+07	3.4E-06	4.4E-02	3.3E+04	2.6E+06	4.4E-05	5.5E-01
NP-2	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	2600	4.7E+06	1.4E+06	5.5E-09	1.9E-03	2.5E+04	1.1E+05	1.0E-07	2.4E-02
NP-2	11/16/2017	51	50	630-20-6	1,1,1,2-Tetrachloroethane	514	5.2E+06	1.6E+08	9.9E-10	3.1E-06	3.9E+04	1.3E+07	1.3E-08	4.0E-05
NP-2	11/16/2017	51	50	75-35-4	1,1-Dichloroethene	44.8	--	5.4E+07	--	8.3E-07	--	4.3E+06	--	1.0E-05
NP-2	11/16/2017	51	50	67-66-3	Chloroform	92.6	1.0E+06	8.4E+07	8.9E-10	1.1E-06	8.1E+03	6.8E+06	1.1E-08	1.4E-05
NP-2	11/16/2017	51	50	75-27-4	Dichlorobromomethane	4	8.7E+05	9.2E+07	4.6E-11	4.3E-08	6.9E+03	7.6E+06	5.8E-10	5.3E-07
NP-2	11/16/2017	51	50	75-69-4	Freon 11	5	--	1.2E+09	--	4.1E-09	--	9.6E+07	--	5.2E-08
NP-2	11/16/2017	51	50	76-13-1	Freon 113	141	--	5.3E+10	--	2.7E-09	--	4.2E+09	--	3.4E-08
NP-2	11/16/2017	51	50	127-18-4	Tetrachloroethene (PCE)	3150000	6.1E+06	4.6E+07	5.2E-06	6.8E-02	4.6E+04	3.7E+06	6.8E-05	8.6E-01
NP-2	11/16/2017	51	50	108-88-3	Toluene	9.5	--	2.5E+08	--	3.8E-08	--	2.1E+07	--	4.6E-07
NP-2	11/16/2017	51	50	156-60-5	trans-1,2-Dichloroethene	8.2	--	6.0E+07	--	1.4E-07	--	4.9E+06	--	1.7E-06
NP-2	11/16/2017	51	50	79-01-6	Trichloroethene (TCE)	3990	6.5E+06	1.9E+06	6.1E-09	2.1E-03	3.4E+04	1.5E+05	1.2E-07	2.7E-02
NP-2	11/16/2017	81	80	630-20-6	1,1,1,2-Tetrachloroethane	131	7.2E+06	2.3E+08	1.8E-10	5.7E-07	5.6E+04	1.8E+07	2.3E-09	7.1E-06
NP-2	11/16/2017	81	80	75-35-4	1,1-Dichloroethene	129	--	7.7E+07	--	1.7E-06	--	6.1E+06	--	2.1E-05
NP-2	11/16/2017	81	80	67-66-3	Chloroform	109	1.5E+06	1.2E+08	7.4E-10	9.1E-07	1.1E+04	9.3E+06	9.8E-09	1.2E-05
NP-2	11/16/2017	81	80	76-13-1	Freon 113	108	--	7.3E+10	--	1.5E-09	--	5.9E+09	--	1.8E-08
NP-2	11/16/2017	81	80	127-18-4	Tetrachloroethene (PCE)	1570000	8.4E+06	6.4E+07	1.9E-06	2.5E-02	6.5E+04	5.1E+06	2.4E-05	3.1E-01
NP-2	11/16/2017	81	80	79-01-6	Trichloroethene (TCE)	3380	9.3E+06	2.7E+06	3.6E-09	1.2E-03	5.0E+04	2.2E+05	6.8E-08	1.6E-02
NP-3	11/16/2017	13	15	630-20-6	1,1,1,2-Tetrachloroethane	502	2.6E+06	8.2E+07	1.9E-09	6.1E-06	2.0E+04	6.5E+06	2.5E-08	7.7E-05
NP-3	11/16/2017	13	15	67-66-3	Chloroform	82.8	5.3E+05	4.3E+07	1.6E-09	1.9E-06	4.1E+03	3.4E+06	2.0E-08	2.4E-05

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-3	11/16/2017	13	15	76-13-1	Freon 113	17	--	2.7E+10	--	6.3E-10	--	2.1E+09	--	7.9E-09
NP-3	11/16/2017	13	15	75-71-8	Freon 12	208	--	4.5E+07	--	4.7E-06	--	3.5E+06	--	5.9E-05
NP-3	11/16/2017	13	15	127-18-4	Tetrachloroethene (PCE)	5120000	3.1E+06	2.3E+07	1.7E-05	2.2E-01	2.3E+04	1.9E+06	2.2E-04	2.8E+00
NP-3	11/16/2017	13	15	156-60-5	trans-1,2-Dichloroethene	9.6	--	3.2E+07	--	3.0E-07	--	2.5E+06	--	3.9E-06
NP-3	11/16/2017	13	15	79-01-6	Trichloroethene (TCE)	5120	3.4E+06	9.8E+05	1.5E-08	5.2E-03	1.8E+04	7.8E+04	2.9E-07	6.6E-02
NP-3	11/16/2017	33	30	630-20-6	1,1,1,2-Tetrachloroethane	1240	3.7E+06	1.2E+08	3.4E-09	1.1E-05	2.8E+04	9.2E+06	4.4E-08	1.3E-04
NP-3	11/16/2017	33	30	71-55-6	1,1,1-Trichloroethane	8	--	7.4E+08	--	1.1E-08	--	5.8E+07	--	1.4E-07
NP-3	11/16/2017	33	30	75-35-4	1,1-Dichloroethene	13.6	--	3.9E+07	--	3.5E-07	--	3.1E+06	--	4.4E-06
NP-3	11/16/2017	33	30	67-66-3	Chloroform	97.8	7.5E+05	6.0E+07	1.3E-09	1.6E-06	5.7E+03	4.8E+06	1.7E-08	2.0E-05
NP-3	11/16/2017	33	30	156-59-2	cis-1,2-Dichloroethene	19.6	--	4.3E+06	--	4.6E-06	--	3.4E+05	--	5.7E-05
NP-3	11/16/2017	33	30	76-13-1	Freon 113	37	--	3.8E+10	--	9.7E-10	--	3.0E+09	--	1.2E-08
NP-3	11/16/2017	33	30	75-71-8	Freon 12	471	--	6.3E+07	--	7.5E-06	--	5.0E+06	--	9.4E-05
NP-3	11/16/2017	33	30	127-18-4	Tetrachloroethene (PCE)	8030000	4.3E+06	3.3E+07	1.9E-05	2.4E-01	3.3E+04	2.6E+06	2.4E-04	3.1E+00
NP-3	11/16/2017	33	30	108-88-3	Toluene	20.2	--	1.8E+08	--	1.1E-07	--	1.5E+07	--	1.4E-06
NP-3	11/16/2017	33	30	156-60-5	trans-1,2-Dichloroethene	10.2	--	4.4E+07	--	2.3E-07	--	3.5E+06	--	2.9E-06
NP-3	11/16/2017	33	30	79-01-6	Trichloroethene (TCE)	4790	4.7E+06	1.4E+06	1.0E-08	3.5E-03	2.5E+04	1.1E+05	1.9E-07	4.4E-02
NP-3	11/16/2017	53	50	630-20-6	1,1,1,2-Tetrachloroethane	587	5.2E+06	1.6E+08	1.1E-09	3.6E-06	3.9E+04	1.3E+07	1.5E-08	4.5E-05
NP-3	11/16/2017	53	50	67-66-3	Chloroform	181	1.0E+06	8.4E+07	1.7E-09	2.2E-06	8.1E+03	6.8E+06	2.2E-08	2.7E-05
NP-3	11/16/2017	53	50	76-13-1	Freon 113	37	--	5.3E+10	--	7.0E-10	--	4.2E+09	--	8.9E-09
NP-3	11/16/2017	53	50	127-18-4	Tetrachloroethene (PCE)	3480000	6.1E+06	4.6E+07	5.7E-06	7.5E-02	4.6E+04	3.7E+06	7.6E-05	9.5E-01
NP-3	11/16/2017	53	50	79-01-6	Trichloroethene (TCE)	3210	6.5E+06	1.9E+06	4.9E-09	1.7E-03	3.4E+04	1.5E+05	9.4E-08	2.2E-02
NP-4	11/16/2017	13	15	71-55-6	1,1,1-Trichloroethane	15	--	5.2E+08	--	2.9E-08	--	4.1E+07	--	3.6E-07
NP-4	11/16/2017	13	15	76-13-1	Freon 113	32	--	2.7E+10	--	1.2E-09	--	2.1E+09	--	1.5E-08
NP-4	11/16/2017	13	15	75-71-8	Freon 12	485	--	4.5E+07	--	1.1E-05	--	3.5E+06	--	1.4E-04
NP-4	11/16/2017	13	15	127-18-4	Tetrachloroethene (PCE)	1890000	3.1E+06	2.3E+07	6.2E-06	8.1E-02	2.3E+04	1.9E+06	8.1E-05	1.0E+00
NP-4	11/16/2017	13	15	79-01-6	Trichloroethene (TCE)	2340	3.4E+06	9.8E+05	7.0E-09	2.4E-03	1.8E+04	7.8E+04	1.3E-07	3.0E-02
NP-4	11/16/2017	35	30	630-20-6	1,1,1,2-Tetrachloroethane	5530	3.7E+06	1.2E+08	1.5E-08	4.8E-05	2.8E+04	9.2E+06	2.0E-07	6.0E-04
NP-4	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	25.8	--	3.9E+07	--	6.7E-07	--	3.1E+06	--	8.4E-06
NP-4	11/16/2017	35	30	76-13-1	Freon 113	84.4	--	3.8E+10	--	2.2E-09	--	3.0E+09	--	2.8E-08
NP-4	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	1790000	4.3E+06	3.3E+07	4.1E-06	5.4E-02	3.3E+04	2.6E+06	5.4E-05	6.8E-01
NP-4	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	3430	4.7E+06	1.4E+06	7.2E-09	2.5E-03	2.5E+04	1.1E+05	1.4E-07	3.1E-02
NP-4	11/16/2017	51	50	630-20-6	1,1,1,2-Tetrachloroethane	124	5.2E+06	1.6E+08	2.4E-10	7.5E-07	3.9E+04	1.3E+07	3.2E-09	9.6E-06

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-4	11/16/2017	51	50	75-35-4	1,1-Dichloroethene	22.1	--	5.4E+07	--	4.1E-07	--	4.3E+06	--	5.1E-06
NP-4	11/16/2017	51	50	67-66-3	Chloroform	336	1.0E+06	8.4E+07	3.2E-09	4.0E-06	8.1E+03	6.8E+06	4.1E-08	4.9E-05
NP-4	11/16/2017	51	50	75-27-4	Dichlorobromomethane	4	8.7E+05	9.2E+07	4.6E-11	4.3E-08	6.9E+03	7.6E+06	5.8E-10	5.3E-07
NP-4	11/16/2017	51	50	76-13-1	Freon 113	45.9	--	5.3E+10	--	8.7E-10	--	4.2E+09	--	1.1E-08
NP-4	11/16/2017	51	50	75-71-8	Freon 12	762	--	8.8E+07	--	8.7E-06	--	7.0E+06	--	1.1E-04
NP-4	11/16/2017	51	50	127-18-4	Tetrachloroethene (PCE)	684000	6.1E+06	4.6E+07	1.1E-06	1.5E-02	4.6E+04	3.7E+06	1.5E-05	1.9E-01
NP-4	11/16/2017	51	50	108-88-3	Toluene	6	--	2.5E+08	--	2.4E-08	--	2.1E+07	--	2.9E-07
NP-4	11/16/2017	51	50	79-01-6	Trichloroethene (TCE)	2550	6.5E+06	1.9E+06	3.9E-09	1.3E-03	3.4E+04	1.5E+05	7.5E-08	1.7E-02
NP-4	11/16/2017	83	80	630-20-6	1,1,1,2-Tetrachloroethane	31.4	7.2E+06	2.3E+08	4.4E-11	1.4E-07	5.6E+04	1.8E+07	5.6E-10	1.7E-06
NP-4	11/16/2017	83	80	75-35-4	1,1-Dichloroethene	60.8	--	7.7E+07	--	7.9E-07	--	6.1E+06	--	1.0E-05
NP-4	11/16/2017	83	80	71-43-2	Benzene	4	1.0E+06	3.1E+06	4.0E-11	1.3E-06	7.4E+03	2.4E+05	5.4E-10	1.7E-05
NP-4	11/16/2017	83	80	67-66-3	Chloroform	1040	1.5E+06	1.2E+08	7.0E-09	8.7E-06	1.1E+04	9.3E+06	9.4E-08	1.1E-04
NP-4	11/16/2017	83	80	76-13-1	Freon 113	70.8	--	7.3E+10	--	9.7E-10	--	5.9E+09	--	1.2E-08
NP-4	11/16/2017	83	80	127-18-4	Tetrachloroethene (PCE)	781000	8.4E+06	6.4E+07	9.3E-07	1.2E-02	6.5E+04	5.1E+06	1.2E-05	1.5E-01
NP-4	11/16/2017	83	80	79-01-6	Trichloroethene (TCE)	4950	9.3E+06	2.7E+06	5.3E-09	1.8E-03	5.0E+04	2.2E+05	9.9E-08	2.3E-02
NP-5	11/16/2017	15	15	67-66-3	Chloroform	14.4	5.3E+05	4.3E+07	2.7E-10	3.4E-07	4.1E+03	3.4E+06	3.6E-09	4.2E-06
NP-5	11/16/2017	15	15	76-13-1	Freon 113	41.8	--	2.7E+10	--	1.6E-09	--	2.1E+09	--	2.0E-08
NP-5	11/16/2017	15	15	75-71-8	Freon 12	303	--	4.5E+07	--	6.8E-06	--	3.5E+06	--	8.5E-05
NP-5	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	6610	3.1E+06	2.3E+07	2.2E-08	2.8E-04	2.3E+04	1.9E+06	2.8E-07	3.6E-03
NP-5	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	7320	3.4E+06	9.8E+05	2.2E-08	7.4E-03	1.8E+04	7.8E+04	4.1E-07	9.4E-02
NP-5	11/16/2017	35	30	71-55-6	1,1,1-Trichloroethane	7	--	7.4E+08	--	9.5E-09	--	5.8E+07	--	1.2E-07
NP-5	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	102	--	3.9E+07	--	2.6E-06	--	3.1E+06	--	3.3E-05
NP-5	11/16/2017	35	30	67-66-3	Chloroform	120	7.5E+05	6.0E+07	1.6E-09	2.0E-06	5.7E+03	4.8E+06	2.1E-08	2.5E-05
NP-5	11/16/2017	35	30	76-13-1	Freon 113	229	--	3.8E+10	--	6.0E-09	--	3.0E+09	--	7.6E-08
NP-5	11/16/2017	35	30	75-71-8	Freon 12	1940	--	6.3E+07	--	3.1E-05	--	5.0E+06	--	3.9E-04
NP-5	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	20800	4.3E+06	3.3E+07	4.8E-08	6.3E-04	3.3E+04	2.6E+06	6.3E-07	7.9E-03
NP-5	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	18900	4.7E+06	1.4E+06	4.0E-08	1.4E-02	2.5E+04	1.1E+05	7.5E-07	1.7E-01
NP-5	11/16/2017	57	50	75-35-4	1,1-Dichloroethene	205	--	5.4E+07	--	3.8E-06	--	4.3E+06	--	4.8E-05
NP-5	11/16/2017	57	50	71-43-2	Benzene	7	7.2E+05	2.2E+06	9.8E-11	3.1E-06	5.4E+03	1.7E+05	1.3E-09	4.0E-05
NP-5	11/16/2017	57	50	67-66-3	Chloroform	457	1.0E+06	8.4E+07	4.4E-09	5.4E-06	8.1E+03	6.8E+06	5.6E-08	6.7E-05
NP-5	11/16/2017	57	50	76-13-1	Freon 113	116	--	5.3E+10	--	2.2E-09	--	4.2E+09	--	2.8E-08
NP-5	11/16/2017	57	50	75-71-8	Freon 12	1070	--	8.8E+07	--	1.2E-05	--	7.0E+06	--	1.5E-04

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-5	11/16/2017	57	50	127-18-4	Tetrachloroethene (PCE)	18000	6.1E+06	4.6E+07	3.0E-08	3.9E-04	4.6E+04	3.7E+06	3.9E-07	4.9E-03
NP-5	11/16/2017	57	50	108-88-3	Toluene	5	--	2.5E+08	--	2.0E-08	--	2.1E+07	--	2.4E-07
NP-5	11/16/2017	57	50	79-01-6	Trichloroethene (TCE)	11700	6.5E+06	1.9E+06	1.8E-08	6.1E-03	3.4E+04	1.5E+05	3.4E-07	7.9E-02
NP-6	11/16/2017	15	15	71-55-6	1,1,1-Trichloroethane	22.2	--	5.2E+08	--	4.3E-08	--	4.1E+07	--	5.4E-07
NP-6	11/16/2017	15	15	75-71-8	Freon 12	60.3	--	4.5E+07	--	1.3E-06	--	3.5E+06	--	1.7E-05
NP-6	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	5580	3.1E+06	2.3E+07	1.8E-08	2.4E-04	2.3E+04	1.9E+06	2.4E-07	3.0E-03
NP-6	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	13.2	3.4E+06	9.8E+05	3.9E-11	1.3E-05	1.8E+04	7.8E+04	7.4E-10	1.7E-04
NP-6	11/16/2017	40	30	75-35-4	1,1-Dichloroethene	462	--	3.9E+07	--	1.2E-05	--	3.1E+06	--	1.5E-04
NP-6	11/16/2017	40	30	76-13-1	Freon 113	21	--	3.8E+10	--	5.5E-10	--	3.0E+09	--	7.0E-09
NP-6	11/16/2017	40	30	127-18-4	Tetrachloroethene (PCE)	5580	4.3E+06	3.3E+07	1.3E-08	1.7E-04	3.3E+04	2.6E+06	1.7E-07	2.1E-03
NP-6	11/16/2017	40	30	79-01-6	Trichloroethene (TCE)	178	4.7E+06	1.4E+06	3.8E-10	1.3E-04	2.5E+04	1.1E+05	7.1E-09	1.6E-03
NP-6	11/16/2017	60	50	71-55-6	1,1,1-Trichloroethane	12.7	--	1.0E+09	--	1.2E-08	--	8.0E+07	--	1.6E-07
NP-6	11/16/2017	60	50	75-35-4	1,1-Dichloroethene	502	--	5.4E+07	--	9.3E-06	--	4.3E+06	--	1.2E-04
NP-6	11/16/2017	60	50	67-66-3	Chloroform	22.4	1.0E+06	8.4E+07	2.1E-10	2.7E-07	8.1E+03	6.8E+06	2.8E-09	3.3E-06
NP-6	11/16/2017	60	50	75-27-4	Dichlorobromomethane	4	8.7E+05	9.2E+07	4.6E-11	4.3E-08	6.9E+03	7.6E+06	5.8E-10	5.3E-07
NP-6	11/16/2017	60	50	76-13-1	Freon 113	33	--	5.3E+10	--	6.3E-10	--	4.2E+09	--	7.9E-09
NP-6	11/16/2017	60	50	75-71-8	Freon 12	329	--	8.8E+07	--	3.8E-06	--	7.0E+06	--	4.7E-05
NP-6	11/16/2017	60	50	127-18-4	Tetrachloroethene (PCE)	4440	6.1E+06	4.6E+07	7.3E-09	9.6E-05	4.6E+04	3.7E+06	9.6E-08	1.2E-03
NP-6	11/16/2017	60	50	79-01-6	Trichloroethene (TCE)	678	6.5E+06	1.9E+06	1.0E-09	3.6E-04	3.4E+04	1.5E+05	2.0E-08	4.6E-03
NP-6	11/16/2017	86	80	75-35-4	1,1-Dichloroethene	163	--	7.7E+07	--	2.1E-06	--	6.1E+06	--	2.7E-05
NP-6	11/16/2017	86	80	76-13-1	Freon 113	5	--	7.3E+10	--	6.8E-11	--	5.9E+09	--	8.5E-10
NP-6	11/16/2017	86	80	127-18-4	Tetrachloroethene (PCE)	5220	8.4E+06	6.4E+07	6.2E-09	8.2E-05	6.5E+04	5.1E+06	8.1E-08	1.0E-03
NP-6	11/16/2017	86	80	79-01-6	Trichloroethene (TCE)	173	9.3E+06	2.7E+06	1.9E-10	6.3E-05	5.0E+04	2.2E+05	3.5E-09	8.0E-04
NP-7	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	19.3	--	5.2E+08	--	3.7E-08	--	4.1E+07	--	4.7E-07
NP-7	11/16/2017	17	15	75-69-4	Freon 11	7	--	6.2E+08	--	1.1E-08	--	4.9E+07	--	1.4E-07
NP-7	11/16/2017	17	15	76-13-1	Freon 113	53.3	--	2.7E+10	--	2.0E-09	--	2.1E+09	--	2.5E-08
NP-7	11/16/2017	17	15	75-71-8	Freon 12	624	--	4.5E+07	--	1.4E-05	--	3.5E+06	--	1.8E-04
NP-7	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	5450	3.1E+06	2.3E+07	1.8E-08	2.3E-04	2.3E+04	1.9E+06	2.3E-07	2.9E-03
NP-7	11/16/2017	17	15	79-01-6	Trichloroethene (TCE)	28.4	3.4E+06	9.8E+05	8.5E-11	2.9E-05	1.8E+04	7.8E+04	1.6E-09	3.6E-04
NP-7	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	20	--	5.2E+08	--	3.8E-08	--	4.1E+07	--	4.8E-07
NP-7	11/16/2017	17	15	75-69-4	Freon 11	8	--	6.2E+08	--	1.3E-08	--	4.9E+07	--	1.6E-07
NP-7	11/16/2017	17	15	76-13-1	Freon 113	55.2	--	2.7E+10	--	2.0E-09	--	2.1E+09	--	2.6E-08

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-7	11/16/2017	17	15	75-71-8	Freon 12	625	--	4.5E+07	--	1.4E-05	--	3.5E+06	--	1.8E-04
NP-7	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	5920	3.1E+06	2.3E+07	1.9E-08	2.5E-04	2.3E+04	1.9E+06	2.5E-07	3.2E-03
NP-7	11/16/2017	17	15	79-01-6	Trichloroethene (TCE)	20.4	3.4E+06	9.8E+05	6.1E-11	2.1E-05	1.8E+04	7.8E+04	1.1E-09	2.6E-04
NP-7	11/16/2017	35	30	71-55-6	1,1,1-Trichloroethane	14.3	--	7.4E+08	--	1.9E-08	--	5.8E+07	--	2.4E-07
NP-7	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	134	--	3.9E+07	--	3.5E-06	--	3.1E+06	--	4.4E-05
NP-7	11/16/2017	35	30	124-48-1	Chlorodibromomethane	4	1.6E+06	9.5E+07	2.5E-11	4.2E-08	1.2E+04	7.6E+06	3.3E-10	5.3E-07
NP-7	11/16/2017	35	30	67-66-3	Chloroform	18	7.5E+05	6.0E+07	2.4E-10	3.0E-07	5.7E+03	4.8E+06	3.1E-09	3.8E-06
NP-7	11/16/2017	35	30	75-27-4	Dichlorobromomethane	4	6.3E+05	6.6E+07	6.4E-11	6.1E-08	4.7E+03	5.2E+06	8.4E-10	7.7E-07
NP-7	11/16/2017	35	30	75-69-4	Freon 11	18.3	--	8.8E+08	--	2.1E-08	--	7.0E+07	--	2.6E-07
NP-7	11/16/2017	35	30	76-13-1	Freon 113	159	--	3.8E+10	--	4.2E-09	--	3.0E+09	--	5.3E-08
NP-7	11/16/2017	35	30	75-71-8	Freon 12	1830	--	6.3E+07	--	2.9E-05	--	5.0E+06	--	3.7E-04
NP-7	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	7920	4.3E+06	3.3E+07	1.8E-08	2.4E-04	3.3E+04	2.6E+06	2.4E-07	3.0E-03
NP-7	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	1160	4.7E+06	1.4E+06	2.4E-09	8.4E-04	2.5E+04	1.1E+05	4.6E-08	1.1E-02
NP-7	11/16/2017	53	50	71-55-6	1,1,1-Trichloroethane	20.4	--	1.0E+09	--	2.0E-08	--	8.0E+07	--	2.5E-07
NP-7	11/16/2017	53	50	75-34-3	1,1-Dichloroethane	9.3	1.4E+07	6.4E+08	6.7E-12	1.5E-08	1.0E+05	4.9E+07	9.0E-11	1.9E-07
NP-7	11/16/2017	53	50	75-35-4	1,1-Dichloroethene	991	--	5.4E+07	--	1.8E-05	--	4.3E+06	--	2.3E-04
NP-7	11/16/2017	53	50	56-23-5	Carbon Tetrachloride	13.8	7.7E+05	4.6E+07	1.8E-10	3.0E-07	6.1E+03	3.8E+06	2.3E-09	3.6E-06
NP-7	11/16/2017	53	50	67-66-3	Chloroform	47.1	1.0E+06	8.4E+07	4.5E-10	5.6E-07	8.1E+03	6.8E+06	5.8E-09	6.9E-06
NP-7	11/16/2017	53	50	75-69-4	Freon 11	7	--	1.2E+09	--	5.7E-09	--	9.6E+07	--	7.3E-08
NP-7	11/16/2017	53	50	76-13-1	Freon 113	117	--	5.3E+10	--	2.2E-09	--	4.2E+09	--	2.8E-08
NP-7	11/16/2017	53	50	75-71-8	Freon 12	1040	--	8.8E+07	--	1.2E-05	--	7.0E+06	--	1.5E-04
NP-7	11/16/2017	53	50	127-18-4	Tetrachloroethene (PCE)	8410	6.1E+06	4.6E+07	1.4E-08	1.8E-04	4.6E+04	3.7E+06	1.8E-07	2.3E-03
NP-7	11/16/2017	53	50	79-01-6	Trichloroethene (TCE)	3080	6.5E+06	1.9E+06	4.7E-09	1.6E-03	3.4E+04	1.5E+05	9.0E-08	2.1E-02
NP-7	11/16/2017	53	50	75-01-4	Vinyl Chloride	5	2.2E+05	6.2E+07	2.3E-10	8.1E-08	4.5E+02	5.0E+06	1.1E-08	1.0E-06
NP-8	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	225	--	5.2E+08	--	4.3E-07	--	4.1E+07	--	5.4E-06
NP-8	11/16/2017	17	15	56-23-5	Carbon Tetrachloride	30	3.9E+05	2.4E+07	7.6E-10	1.3E-06	3.0E+03	1.9E+06	1.0E-08	1.6E-05
NP-8	11/16/2017	17	15	75-71-8	Freon 12	33.2	--	4.5E+07	--	7.4E-07	--	3.5E+06	--	9.4E-06
NP-8	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	2290	3.1E+06	2.3E+07	7.5E-09	9.8E-05	2.3E+04	1.9E+06	9.8E-08	1.2E-03
NP-8	11/16/2017	37	30	71-55-6	1,1,1-Trichloroethane	250	--	7.4E+08	--	3.4E-07	--	5.8E+07	--	4.3E-06
NP-8	11/16/2017	37	30	75-35-4	1,1-Dichloroethene	109	--	3.9E+07	--	2.8E-06	--	3.1E+06	--	3.5E-05
NP-8	11/16/2017	37	30	56-23-5	Carbon Tetrachloride	33.8	5.5E+05	3.3E+07	6.1E-10	1.0E-06	4.2E+03	2.6E+06	8.1E-09	1.3E-05
NP-8	11/16/2017	37	30	75-71-8	Freon 12	184	--	6.3E+07	--	2.9E-06	--	5.0E+06	--	3.7E-05

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-8	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	3440	4.3E+06	3.3E+07	8.0E-09	1.0E-04	3.3E+04	2.6E+06	1.0E-07	1.3E-03
NP-8	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	18	4.7E+06	1.4E+06	3.8E-11	1.3E-05	2.5E+04	1.1E+05	7.1E-10	1.6E-04
NP-8	11/16/2017	37	30	71-55-6	1,1,1-Trichloroethane	242	--	7.4E+08	--	3.3E-07	--	5.8E+07	--	4.1E-06
NP-8	11/16/2017	37	30	75-35-4	1,1-Dichloroethene	103	--	3.9E+07	--	2.7E-06	--	3.1E+06	--	3.3E-05
NP-8	11/16/2017	37	30	56-23-5	Carbon Tetrachloride	31.8	5.5E+05	3.3E+07	5.8E-10	9.6E-07	4.2E+03	2.6E+06	7.6E-09	1.2E-05
NP-8	11/16/2017	37	30	75-71-8	Freon 12	181	--	6.3E+07	--	2.9E-06	--	5.0E+06	--	3.6E-05
NP-8	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	2900	4.3E+06	3.3E+07	6.7E-09	8.8E-05	3.3E+04	2.6E+06	8.8E-08	1.1E-03
NP-8	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	17	4.7E+06	1.4E+06	3.6E-11	1.2E-05	2.5E+04	1.1E+05	6.7E-10	1.5E-04
NP-8	11/16/2017	57	50	71-55-6	1,1,1-Trichloroethane	197	--	1.0E+09	--	1.9E-07	--	8.0E+07	--	2.5E-06
NP-8	11/16/2017	57	50	75-35-4	1,1-Dichloroethene	1210	--	5.4E+07	--	2.2E-05	--	4.3E+06	--	2.8E-04
NP-8	11/16/2017	57	50	56-23-5	Carbon Tetrachloride	8.6	7.7E+05	4.6E+07	1.1E-10	1.9E-07	6.1E+03	3.8E+06	1.4E-09	2.3E-06
NP-8	11/16/2017	57	50	67-66-3	Chloroform	7	1.0E+06	8.4E+07	6.7E-11	8.3E-08	8.1E+03	6.8E+06	8.6E-10	1.0E-06
NP-8	11/16/2017	57	50	76-13-1	Freon 113	105	--	5.3E+10	--	2.0E-09	--	4.2E+09	--	2.5E-08
NP-8	11/16/2017	57	50	75-71-8	Freon 12	363	--	8.8E+07	--	4.1E-06	--	7.0E+06	--	5.2E-05
NP-8	11/16/2017	57	50	127-18-4	Tetrachloroethene (PCE)	3370	6.1E+06	4.6E+07	5.5E-09	7.3E-05	4.6E+04	3.7E+06	7.3E-08	9.2E-04
NP-8	11/16/2017	57	50	79-01-6	Trichloroethene (TCE)	429	6.5E+06	1.9E+06	6.6E-10	2.3E-04	3.4E+04	1.5E+05	1.3E-08	2.9E-03
NP-8	11/16/2017	80	80	71-55-6	1,1,1-Trichloroethane	196	--	1.5E+09	--	1.3E-07	--	1.1E+08	--	1.7E-06
NP-8	11/16/2017	80	80	75-34-3	1,1-Dichloroethane	30.2	2.0E+07	9.0E+08	1.5E-11	3.4E-08	1.5E+05	7.0E+07	2.1E-10	4.3E-07
NP-8	11/16/2017	80	80	75-35-4	1,1-Dichloroethene	3840	--	7.7E+07	--	5.0E-05	--	6.1E+06	--	6.3E-04
NP-8	11/16/2017	80	80	56-23-5	Carbon Tetrachloride	27.2	1.1E+06	6.5E+07	2.5E-10	4.2E-07	8.4E+03	5.2E+06	3.3E-09	5.2E-06
NP-8	11/16/2017	80	80	67-66-3	Chloroform	28.2	1.5E+06	1.2E+08	1.9E-10	2.4E-07	1.1E+04	9.3E+06	2.5E-09	3.0E-06
NP-8	11/16/2017	80	80	156-59-2	cis-1,2-Dichloroethene	6	--	8.5E+06	--	7.0E-07	--	7.0E+05	--	8.6E-06
NP-8	11/16/2017	80	80	76-13-1	Freon 113	186	--	7.3E+10	--	2.5E-09	--	5.9E+09	--	3.2E-08
NP-8	11/16/2017	80	80	75-71-8	Freon 12	450	--	1.3E+08	--	3.6E-06	--	9.5E+06	--	4.7E-05
NP-8	11/16/2017	80	80	127-18-4	Tetrachloroethene (PCE)	5980	8.4E+06	6.4E+07	7.1E-09	9.4E-05	6.5E+04	5.1E+06	9.2E-08	1.2E-03
NP-8	11/16/2017	80	80	79-01-6	Trichloroethene (TCE)	2310	9.3E+06	2.7E+06	2.5E-09	8.4E-04	5.0E+04	2.2E+05	4.6E-08	1.1E-02

Notes:

" -- " not applicable

$\mu g/m^3$ - micrograms per cubic meter

" ft bgs " feet below ground surface

RBC_{SV-C} - risk-based concentration based on cancer effects; RBC_{SV-NC} based on noncancer effects

RBCs based on target cancer risk = 10^{-5} for workers and 10^{-6} for fuure residents, and a target noncancer hazard = 1 for both receptors

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-1	11/16/2017	19	20	71-55-6	1,1,1-Trichloroethane	1100	--	1.5E+10	--	7.4E-08	--	3.5E+09	--	3.1E-07
NP-1	11/16/2017	19	20	75-71-8	Freon 12	78.8	--	1.3E+09	--	6.2E-08	--	3.0E+08	--	2.6E-07
NP-1	11/16/2017	19	20	127-18-4	Tetrachloroethene (PCE)	26500	8.7E+07	6.6E+08	3.0E-09	4.0E-05	2.0E+06	1.6E+08	1.3E-08	1.7E-04
NP-1	11/16/2017	19	20	79-01-6	Trichloroethene (TCE)	38	9.5E+07	2.8E+07	4.0E-12	1.4E-06	1.5E+06	6.7E+06	2.5E-11	5.7E-06
NP-1	11/16/2017	19	20	71-55-6	1,1,1-Trichloroethane	1090	--	1.5E+10	--	7.4E-08	--	3.5E+09	--	3.1E-07
NP-1	11/16/2017	19	20	75-71-8	Freon 12	89.6	--	1.3E+09	--	7.1E-08	--	3.0E+08	--	3.0E-07
NP-1	11/16/2017	19	20	127-18-4	Tetrachloroethene (PCE)	20000	8.7E+07	6.6E+08	2.3E-09	3.0E-05	2.0E+06	1.6E+08	1.0E-08	1.3E-04
NP-1	11/16/2017	19	20	79-01-6	Trichloroethene (TCE)	81.8	9.5E+07	2.8E+07	8.6E-12	2.9E-06	1.5E+06	6.7E+06	5.4E-11	1.2E-05
NP-1	11/16/2017	49	50	71-55-6	1,1,1-Trichloroethane	1010	--	2.6E+10	--	4.0E-08	--	6.1E+09	--	1.7E-07
NP-1	11/16/2017	49	50	75-35-4	1,1-Dichloroethene	192	--	1.3E+09	--	1.4E-07	--	3.2E+08	--	6.0E-07
NP-1	11/16/2017	49	50	67-66-3	Chloroform	10.3	2.6E+07	2.1E+09	4.0E-12	4.9E-09	6.0E+05	5.0E+08	1.7E-11	2.1E-08
NP-1	11/16/2017	49	50	75-69-4	Freon 11	5	--	3.0E+10	--	1.6E-10	--	7.2E+09	--	6.9E-10
NP-1	11/16/2017	49	50	76-13-1	Freon 113	75.8	--	1.3E+12	--	5.7E-11	--	3.1E+11	--	2.4E-10
NP-1	11/16/2017	49	50	75-71-8	Freon 12	1720	--	2.2E+09	--	7.9E-07	--	5.2E+08	--	3.3E-06
NP-1	11/16/2017	49	50	127-18-4	Tetrachloroethene (PCE)	21800	1.5E+08	1.1E+09	1.5E-09	1.9E-05	3.4E+06	2.7E+08	6.3E-09	8.0E-05
NP-1	11/16/2017	49	50	79-01-6	Trichloroethene (TCE)	54.2	1.6E+08	4.8E+07	3.3E-12	1.1E-06	2.6E+06	1.1E+07	2.1E-11	4.7E-06
NP-1	11/16/2017	70	50	71-55-6	1,1,1-Trichloroethane	455	--	2.6E+10	--	1.8E-08	--	6.1E+09	--	7.5E-08
NP-1	11/16/2017	70	50	75-35-4	1,1-Dichloroethene	443	--	1.3E+09	--	3.3E-07	--	3.2E+08	--	1.4E-06
NP-1	11/16/2017	70	50	67-66-3	Chloroform	20.8	2.6E+07	2.1E+09	8.0E-12	9.9E-09	6.0E+05	5.0E+08	3.5E-11	4.2E-08
NP-1	11/16/2017	70	50	75-27-4	Dichlorobromomethane	6	2.2E+07	2.3E+09	2.7E-12	2.6E-09	5.0E+05	5.5E+08	1.2E-11	1.1E-08
NP-1	11/16/2017	70	50	76-13-1	Freon 113	97.6	--	1.3E+12	--	7.4E-11	--	3.1E+11	--	3.1E-10
NP-1	11/16/2017	70	50	75-71-8	Freon 12	2530	--	2.2E+09	--	1.2E-06	--	5.2E+08	--	4.9E-06
NP-1	11/16/2017	70	50	127-18-4	Tetrachloroethene (PCE)	13200	1.5E+08	1.1E+09	8.8E-10	1.2E-05	3.4E+06	2.7E+08	3.8E-09	4.8E-05
NP-1	11/16/2017	70	50	79-01-6	Trichloroethene (TCE)	86	1.6E+08	4.8E+07	5.2E-12	1.8E-06	2.6E+06	1.1E+07	3.3E-11	7.5E-06
NP-1	11/16/2017	85	80	630-20-6	1,1,1,2-Tetrachloroethane	11.1	1.8E+08	5.8E+09	6.1E-13	1.9E-09	4.2E+06	1.4E+09	2.7E-12	8.1E-09
NP-1	11/16/2017	85	80	71-55-6	1,1,1-Trichloroethane	157	--	3.6E+10	--	4.3E-09	--	8.6E+09	--	1.8E-08
NP-1	11/16/2017	85	80	75-34-3	1,1-Dichloroethane	260	4.9E+08	2.2E+10	5.3E-12	1.2E-08	1.1E+07	5.3E+09	2.3E-11	4.9E-08
NP-1	11/16/2017	85	80	75-35-4	1,1-Dichloroethene	1090	--	1.9E+09	--	5.7E-07	--	4.5E+08	--	2.4E-06
NP-1	11/16/2017	85	80	67-66-3	Chloroform	21.8	3.7E+07	3.0E+09	5.9E-12	7.3E-09	8.5E+05	7.1E+08	2.6E-11	3.1E-08
NP-1	11/16/2017	85	80	75-27-4	Dichlorobromomethane	5	3.1E+07	3.3E+09	1.6E-12	1.5E-09	7.1E+05	7.8E+08	7.0E-12	6.4E-09
NP-1	11/16/2017	85	80	76-13-1	Freon 113	34	--	1.9E+12	--	1.8E-11	--	4.5E+11	--	7.6E-11
NP-1	11/16/2017	85	80	75-71-8	Freon 12	2900	--	3.1E+09	--	9.4E-07	--	7.4E+08	--	3.9E-06

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-1	11/16/2017	85	80	127-18-4	Tetrachloroethene (PCE)	46200	2.1E+08	1.6E+09	2.2E-09	2.8E-05	4.9E+06	3.9E+08	9.5E-09	1.2E-04
NP-1	11/16/2017	85	80	79-01-6	Trichloroethene (TCE)	508	2.3E+08	6.8E+07	2.2E-11	7.4E-06	3.7E+06	1.6E+07	1.4E-10	3.1E-05
NP-2	11/16/2017	15	15	630-20-6	1,1,1,2-Tetrachloroethane	145	6.5E+07	2.0E+09	2.2E-11	7.1E-08	1.5E+06	4.9E+08	9.8E-11	3.0E-07
NP-2	11/16/2017	15	15	67-66-3	Chloroform	28.7	1.3E+07	1.1E+09	2.2E-11	2.7E-08	3.0E+05	2.5E+08	9.4E-11	1.1E-07
NP-2	11/16/2017	15	15	156-59-2	cis-1,2-Dichloroethene	30.9	--	7.6E+07	--	4.1E-07	--	1.8E+07	--	1.7E-06
NP-2	11/16/2017	15	15	76-13-1	Freon 113	8	--	6.7E+11	--	1.2E-11	--	1.6E+11	--	5.0E-11
NP-2	11/16/2017	15	15	75-71-8	Freon 12	357	--	1.1E+09	--	3.2E-07	--	2.7E+08	--	1.3E-06
NP-2	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	1270000	7.7E+07	5.8E+08	1.7E-07	2.2E-03	1.8E+06	1.4E+08	7.2E-07	9.1E-03
NP-2	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	3350	8.4E+07	2.5E+07	4.0E-10	1.4E-04	1.3E+06	5.9E+06	2.5E-09	5.7E-04
NP-2	11/16/2017	37	30	630-20-6	1,1,1,2-Tetrachloroethane	147	9.2E+07	2.9E+09	1.6E-11	5.1E-08	2.1E+06	6.9E+08	7.0E-11	2.1E-07
NP-2	11/16/2017	37	30	67-66-3	Chloroform	16.2	1.9E+07	1.5E+09	8.6E-12	1.1E-08	4.3E+05	3.6E+08	3.8E-11	4.5E-08
NP-2	11/16/2017	37	30	76-13-1	Freon 113	41	--	9.5E+11	--	4.3E-11	--	2.3E+11	--	1.8E-10
NP-2	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	1450000	1.1E+08	8.2E+08	1.3E-07	1.8E-03	2.5E+06	2.0E+08	5.9E-07	7.4E-03
NP-2	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	2600	1.2E+08	3.5E+07	2.2E-10	7.5E-05	1.9E+06	8.3E+06	1.4E-09	3.1E-04
NP-2	11/16/2017	51	50	630-20-6	1,1,1,2-Tetrachloroethane	514	1.3E+08	4.1E+09	4.0E-11	1.3E-07	2.9E+06	9.6E+08	1.8E-10	5.3E-07
NP-2	11/16/2017	51	50	75-35-4	1,1-Dichloroethene	44.8	--	1.3E+09	--	3.3E-08	--	3.2E+08	--	1.4E-07
NP-2	11/16/2017	51	50	67-66-3	Chloroform	92.6	2.6E+07	2.1E+09	3.6E-11	4.4E-08	6.0E+05	5.0E+08	1.6E-10	1.9E-07
NP-2	11/16/2017	51	50	75-27-4	Dichlorobromomethane	4	2.2E+07	2.3E+09	1.8E-12	1.7E-09	5.0E+05	5.5E+08	8.0E-12	7.3E-09
NP-2	11/16/2017	51	50	75-69-4	Freon 11	5	--	3.0E+10	--	1.6E-10	--	7.2E+09	--	6.9E-10
NP-2	11/16/2017	51	50	76-13-1	Freon 113	141	--	1.3E+12	--	1.1E-10	--	3.1E+11	--	4.5E-10
NP-2	11/16/2017	51	50	127-18-4	Tetrachloroethene (PCE)	3150000	1.5E+08	1.1E+09	2.1E-07	2.8E-03	3.4E+06	2.7E+08	9.2E-07	1.2E-02
NP-2	11/16/2017	51	50	108-88-3	Toluene	9.5	--	6.4E+09	--	1.5E-09	--	1.5E+09	--	6.3E-09
NP-2	11/16/2017	51	50	156-60-5	trans-1,2-Dichloroethene	8.2	--	1.5E+09	--	5.4E-09	--	3.6E+08	--	2.3E-08
NP-2	11/16/2017	51	50	79-01-6	Trichloroethene (TCE)	3990	1.6E+08	4.8E+07	2.4E-10	8.3E-05	2.6E+06	1.1E+07	1.5E-09	3.5E-04
NP-2	11/16/2017	81	80	630-20-6	1,1,1,2-Tetrachloroethane	131	1.8E+08	5.8E+09	7.2E-12	2.3E-08	4.2E+06	1.4E+09	3.1E-11	9.5E-08
NP-2	11/16/2017	81	80	75-35-4	1,1-Dichloroethene	129	--	1.9E+09	--	6.8E-08	--	4.5E+08	--	2.8E-07
NP-2	11/16/2017	81	80	67-66-3	Chloroform	109	3.7E+07	3.0E+09	2.9E-11	3.7E-08	8.5E+05	7.1E+08	1.3E-10	1.5E-07
NP-2	11/16/2017	81	80	76-13-1	Freon 113	108	--	1.9E+12	--	5.8E-11	--	4.5E+11	--	2.4E-10
NP-2	11/16/2017	81	80	127-18-4	Tetrachloroethene (PCE)	1570000	2.1E+08	1.6E+09	7.4E-08	9.7E-04	4.9E+06	3.9E+08	3.2E-07	4.1E-03
NP-2	11/16/2017	81	80	79-01-6	Trichloroethene (TCE)	3380	2.3E+08	6.8E+07	1.4E-10	5.0E-05	3.7E+06	1.6E+07	9.1E-10	2.1E-04
NP-3	11/16/2017	13	15	630-20-6	1,1,1,2-Tetrachloroethane	502	6.5E+07	2.0E+09	7.8E-11	2.5E-07	1.5E+06	4.9E+08	3.4E-10	1.0E-06
NP-3	11/16/2017	13	15	67-66-3	Chloroform	82.8	1.3E+07	1.1E+09	6.2E-11	7.7E-08	3.0E+05	2.5E+08	2.7E-10	3.3E-07

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-3	11/16/2017	13	15	76-13-1	Freon 113	17	--	6.7E+11	--	2.5E-11	--	1.6E+11	--	1.1E-10
NP-3	11/16/2017	13	15	75-71-8	Freon 12	208	--	1.1E+09	--	1.9E-07	--	2.7E+08	--	7.8E-07
NP-3	11/16/2017	13	15	127-18-4	Tetrachloroethene (PCE)	5120000	7.7E+07	5.8E+08	6.7E-07	8.8E-03	1.8E+06	1.4E+08	2.9E-06	3.7E-02
NP-3	11/16/2017	13	15	156-60-5	trans-1,2-Dichloroethene	9.6	--	7.7E+08	--	1.2E-08	--	1.8E+08	--	5.2E-08
NP-3	11/16/2017	13	15	79-01-6	Trichloroethene (TCE)	5120	8.4E+07	2.5E+07	6.1E-10	2.1E-04	1.3E+06	5.9E+06	3.8E-09	8.7E-04
NP-3	11/16/2017	33	30	630-20-6	1,1,1,2-Tetrachloroethane	1240	9.2E+07	2.9E+09	1.4E-10	4.3E-07	2.1E+06	6.9E+08	5.9E-10	1.8E-06
NP-3	11/16/2017	33	30	71-55-6	1,1,1-Trichloroethane	8	--	1.8E+10	--	4.4E-10	--	4.4E+09	--	1.8E-09
NP-3	11/16/2017	33	30	75-35-4	1,1-Dichloroethene	13.6	--	9.7E+08	--	1.4E-08	--	2.3E+08	--	5.9E-08
NP-3	11/16/2017	33	30	67-66-3	Chloroform	97.8	1.9E+07	1.5E+09	5.2E-11	6.5E-08	4.3E+05	3.6E+08	2.3E-10	2.7E-07
NP-3	11/16/2017	33	30	156-59-2	cis-1,2-Dichloroethene	19.6	--	1.1E+08	--	1.8E-07	--	2.6E+07	--	7.7E-07
NP-3	11/16/2017	33	30	76-13-1	Freon 113	37	--	9.5E+11	--	3.9E-11	--	2.3E+11	--	1.6E-10
NP-3	11/16/2017	33	30	75-71-8	Freon 12	471	--	1.6E+09	--	3.0E-07	--	3.7E+08	--	1.3E-06
NP-3	11/16/2017	33	30	127-18-4	Tetrachloroethene (PCE)	8030000	1.1E+08	8.2E+08	7.4E-07	9.7E-03	2.5E+06	2.0E+08	3.2E-06	4.1E-02
NP-3	11/16/2017	33	30	108-88-3	Toluene	20.2	--	4.6E+09	--	4.4E-09	--	1.1E+09	--	1.8E-08
NP-3	11/16/2017	33	30	156-60-5	trans-1,2-Dichloroethene	10.2	--	1.1E+09	--	9.4E-09	--	2.6E+08	--	3.9E-08
NP-3	11/16/2017	33	30	79-01-6	Trichloroethene (TCE)	4790	1.2E+08	3.5E+07	4.0E-10	1.4E-04	1.9E+06	8.3E+06	2.5E-09	5.8E-04
NP-3	11/16/2017	53	50	630-20-6	1,1,1,2-Tetrachloroethane	587	1.3E+08	4.1E+09	4.6E-11	1.4E-07	2.9E+06	9.6E+08	2.0E-10	6.1E-07
NP-3	11/16/2017	53	50	67-66-3	Chloroform	181	2.6E+07	2.1E+09	6.9E-11	8.6E-08	6.0E+05	5.0E+08	3.0E-10	3.6E-07
NP-3	11/16/2017	53	50	76-13-1	Freon 113	37	--	1.3E+12	--	2.8E-11	--	3.1E+11	--	1.2E-10
NP-3	11/16/2017	53	50	127-18-4	Tetrachloroethene (PCE)	3480000	1.5E+08	1.1E+09	2.3E-07	3.0E-03	3.4E+06	2.7E+08	1.0E-06	1.3E-02
NP-3	11/16/2017	53	50	79-01-6	Trichloroethene (TCE)	3210	1.6E+08	4.8E+07	2.0E-10	6.7E-05	2.6E+06	1.1E+07	1.2E-09	2.8E-04
NP-4	11/16/2017	13	15	71-55-6	1,1,1-Trichloroethane	15	--	1.3E+10	--	1.2E-09	--	3.1E+09	--	4.8E-09
NP-4	11/16/2017	13	15	76-13-1	Freon 113	32	--	6.7E+11	--	4.7E-11	--	1.6E+11	--	2.0E-10
NP-4	11/16/2017	13	15	75-71-8	Freon 12	485	--	1.1E+09	--	4.3E-07	--	2.7E+08	--	1.8E-06
NP-4	11/16/2017	13	15	127-18-4	Tetrachloroethene (PCE)	1890000	7.7E+07	5.8E+08	2.5E-07	3.2E-03	1.8E+06	1.4E+08	1.1E-06	1.4E-02
NP-4	11/16/2017	13	15	79-01-6	Trichloroethene (TCE)	2340	8.4E+07	2.5E+07	2.8E-10	9.5E-05	1.3E+06	5.9E+06	1.7E-09	4.0E-04
NP-4	11/16/2017	35	30	630-20-6	1,1,1,2-Tetrachloroethane	5530	9.2E+07	2.9E+09	6.0E-10	1.9E-06	2.1E+06	6.9E+08	2.6E-09	8.0E-06
NP-4	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	25.8	--	9.7E+08	--	2.7E-08	--	2.3E+08	--	1.1E-07
NP-4	11/16/2017	35	30	76-13-1	Freon 113	84.4	--	9.5E+11	--	8.9E-11	--	2.3E+11	--	3.7E-10
NP-4	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	1790000	1.1E+08	8.2E+08	1.7E-07	2.2E-03	2.5E+06	2.0E+08	7.2E-07	9.1E-03
NP-4	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	3430	1.2E+08	3.5E+07	2.9E-10	9.9E-05	1.9E+06	8.3E+06	1.8E-09	4.2E-04
NP-4	11/16/2017	51	50	630-20-6	1,1,1,2-Tetrachloroethane	124	1.3E+08	4.1E+09	9.7E-12	3.1E-08	2.9E+06	9.6E+08	4.2E-11	1.3E-07

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-4	11/16/2017	51	50	75-35-4	1,1-Dichloroethene	22.1	--	1.3E+09	--	1.6E-08	--	3.2E+08	--	6.9E-08
NP-4	11/16/2017	51	50	67-66-3	Chloroform	336	2.6E+07	2.1E+09	1.3E-10	1.6E-07	6.0E+05	5.0E+08	5.6E-10	6.7E-07
NP-4	11/16/2017	51	50	75-27-4	Dichlorobromomethane	4	2.2E+07	2.3E+09	1.8E-12	1.7E-09	5.0E+05	5.5E+08	8.0E-12	7.3E-09
NP-4	11/16/2017	51	50	76-13-1	Freon 113	45.9	--	1.3E+12	--	3.5E-11	--	3.1E+11	--	1.5E-10
NP-4	11/16/2017	51	50	75-71-8	Freon 12	762	--	2.2E+09	--	3.5E-07	--	5.2E+08	--	1.5E-06
NP-4	11/16/2017	51	50	127-18-4	Tetrachloroethene (PCE)	684000	1.5E+08	1.1E+09	4.6E-08	6.0E-04	3.4E+06	2.7E+08	2.0E-07	2.5E-03
NP-4	11/16/2017	51	50	108-88-3	Toluene	6	--	6.4E+09	--	9.4E-10	--	1.5E+09	--	4.0E-09
NP-4	11/16/2017	51	50	79-01-6	Trichloroethene (TCE)	2550	1.6E+08	4.8E+07	1.6E-10	5.3E-05	2.6E+06	1.1E+07	9.7E-10	2.2E-04
NP-4	11/16/2017	83	80	630-20-6	1,1,1,2-Tetrachloroethane	31.4	1.8E+08	5.8E+09	1.7E-12	5.4E-09	4.2E+06	1.4E+09	7.5E-12	2.3E-08
NP-4	11/16/2017	83	80	75-35-4	1,1-Dichloroethene	60.8	--	1.9E+09	--	3.2E-08	--	4.5E+08	--	1.3E-07
NP-4	11/16/2017	83	80	71-43-2	Benzene	4	2.5E+07	7.9E+07	1.6E-12	5.1E-08	5.8E+05	1.9E+07	6.9E-12	2.1E-07
NP-4	11/16/2017	83	80	67-66-3	Chloroform	1040	3.7E+07	3.0E+09	2.8E-10	3.5E-07	8.5E+05	7.1E+08	1.2E-09	1.5E-06
NP-4	11/16/2017	83	80	76-13-1	Freon 113	70.8	--	1.9E+12	--	3.8E-11	--	4.5E+11	--	1.6E-10
NP-4	11/16/2017	83	80	127-18-4	Tetrachloroethene (PCE)	781000	2.1E+08	1.6E+09	3.7E-08	4.8E-04	4.9E+06	3.9E+08	1.6E-07	2.0E-03
NP-4	11/16/2017	83	80	79-01-6	Trichloroethene (TCE)	4950	2.3E+08	6.8E+07	2.1E-10	7.2E-05	3.7E+06	1.6E+07	1.3E-09	3.0E-04
NP-5	11/16/2017	15	15	67-66-3	Chloroform	14.4	1.3E+07	1.1E+09	1.1E-11	1.3E-08	3.0E+05	2.5E+08	4.7E-11	5.7E-08
NP-5	11/16/2017	15	15	76-13-1	Freon 113	41.8	--	6.7E+11	--	6.2E-11	--	1.6E+11	--	2.6E-10
NP-5	11/16/2017	15	15	75-71-8	Freon 12	303	--	1.1E+09	--	2.7E-07	--	2.7E+08	--	1.1E-06
NP-5	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	6610	7.7E+07	5.8E+08	8.6E-10	1.1E-05	1.8E+06	1.4E+08	3.8E-09	4.7E-05
NP-5	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	7320	8.4E+07	2.5E+07	8.7E-10	3.0E-04	1.3E+06	5.9E+06	5.5E-09	1.3E-03
NP-5	11/16/2017	35	30	71-55-6	1,1,1-Trichloroethane	7	--	1.8E+10	--	3.8E-10	--	4.4E+09	--	1.6E-09
NP-5	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	102	--	9.7E+08	--	1.1E-07	--	2.3E+08	--	4.4E-07
NP-5	11/16/2017	35	30	67-66-3	Chloroform	120	1.9E+07	1.5E+09	6.4E-11	8.0E-08	4.3E+05	3.6E+08	2.8E-10	3.3E-07
NP-5	11/16/2017	35	30	76-13-1	Freon 113	229	--	9.5E+11	--	2.4E-10	--	2.3E+11	--	1.0E-09
NP-5	11/16/2017	35	30	75-71-8	Freon 12	1940	--	1.6E+09	--	1.2E-06	--	3.7E+08	--	5.2E-06
NP-5	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	20800	1.1E+08	8.2E+08	1.9E-09	2.5E-05	2.5E+06	2.0E+08	8.4E-09	1.1E-04
NP-5	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	18900	1.2E+08	3.5E+07	1.6E-09	5.5E-04	1.9E+06	8.3E+06	1.0E-08	2.3E-03
NP-5	11/16/2017	57	50	75-35-4	1,1-Dichloroethene	205	--	1.3E+09	--	1.5E-07	--	3.2E+08	--	6.4E-07
NP-5	11/16/2017	57	50	71-43-2	Benzene	7	1.8E+07	5.5E+07	3.9E-12	1.3E-07	4.1E+05	1.3E+07	1.7E-11	5.3E-07
NP-5	11/16/2017	57	50	67-66-3	Chloroform	457	2.6E+07	2.1E+09	1.8E-10	2.2E-07	6.0E+05	5.0E+08	7.7E-10	9.2E-07
NP-5	11/16/2017	57	50	76-13-1	Freon 113	116	--	1.3E+12	--	8.8E-11	--	3.1E+11	--	3.7E-10
NP-5	11/16/2017	57	50	75-71-8	Freon 12	1070	--	2.2E+09	--	4.9E-07	--	5.2E+08	--	2.1E-06

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-5	11/16/2017	57	50	127-18-4	Tetrachloroethene (PCE)	18000	1.5E+08	1.1E+09	1.2E-09	1.6E-05	3.4E+06	2.7E+08	5.2E-09	6.6E-05
NP-5	11/16/2017	57	50	108-88-3	Toluene	5	--	6.4E+09	--	7.8E-10	--	1.5E+09	--	3.3E-09
NP-5	11/16/2017	57	50	79-01-6	Trichloroethene (TCE)	11700	1.6E+08	4.8E+07	7.1E-10	2.4E-04	2.6E+06	1.1E+07	4.5E-09	1.0E-03
NP-6	11/16/2017	15	15	71-55-6	1,1,1-Trichloroethane	22.2	--	1.3E+10	--	1.7E-09	--	3.1E+09	--	7.1E-09
NP-6	11/16/2017	15	15	75-71-8	Freon 12	60.3	--	1.1E+09	--	5.4E-08	--	2.7E+08	--	2.3E-07
NP-6	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	5580	7.7E+07	5.8E+08	7.3E-10	9.5E-06	1.8E+06	1.4E+08	3.2E-09	4.0E-05
NP-6	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	13.2	8.4E+07	2.5E+07	1.6E-12	5.4E-07	1.3E+06	5.9E+06	9.8E-12	2.3E-06
NP-6	11/16/2017	40	30	75-35-4	1,1-Dichloroethene	462	--	9.7E+08	--	4.8E-07	--	2.3E+08	--	2.0E-06
NP-6	11/16/2017	40	30	76-13-1	Freon 113	21	--	9.5E+11	--	2.2E-11	--	2.3E+11	--	9.3E-11
NP-6	11/16/2017	40	30	127-18-4	Tetrachloroethene (PCE)	5580	1.1E+08	8.2E+08	5.2E-10	6.8E-06	2.5E+06	2.0E+08	2.3E-09	2.8E-05
NP-6	11/16/2017	40	30	79-01-6	Trichloroethene (TCE)	178	1.2E+08	3.5E+07	1.5E-11	5.1E-06	1.9E+06	8.3E+06	9.4E-11	2.2E-05
NP-6	11/16/2017	60	50	71-55-6	1,1,1-Trichloroethane	12.7	--	2.6E+10	--	5.0E-10	--	6.1E+09	--	2.1E-09
NP-6	11/16/2017	60	50	75-35-4	1,1-Dichloroethene	502	--	1.3E+09	--	3.7E-07	--	3.2E+08	--	1.6E-06
NP-6	11/16/2017	60	50	67-66-3	Chloroform	22.4	2.6E+07	2.1E+09	8.6E-12	1.1E-08	6.0E+05	5.0E+08	3.8E-11	4.5E-08
NP-6	11/16/2017	60	50	75-27-4	Dichlorobromomethane	4	2.2E+07	2.3E+09	1.8E-12	1.7E-09	5.0E+05	5.5E+08	8.0E-12	7.3E-09
NP-6	11/16/2017	60	50	76-13-1	Freon 113	33	--	1.3E+12	--	2.5E-11	--	3.1E+11	--	1.1E-10
NP-6	11/16/2017	60	50	75-71-8	Freon 12	329	--	2.2E+09	--	1.5E-07	--	5.2E+08	--	6.3E-07
NP-6	11/16/2017	60	50	127-18-4	Tetrachloroethene (PCE)	4440	1.5E+08	1.1E+09	3.0E-10	3.9E-06	3.4E+06	2.7E+08	1.3E-09	1.6E-05
NP-6	11/16/2017	60	50	79-01-6	Trichloroethene (TCE)	678	1.6E+08	4.8E+07	4.1E-11	1.4E-05	2.6E+06	1.1E+07	2.6E-10	5.9E-05
NP-6	11/16/2017	86	80	75-35-4	1,1-Dichloroethene	163	--	1.9E+09	--	8.6E-08	--	4.5E+08	--	3.6E-07
NP-6	11/16/2017	86	80	76-13-1	Freon 113	5	--	1.9E+12	--	2.7E-12	--	4.5E+11	--	1.1E-11
NP-6	11/16/2017	86	80	127-18-4	Tetrachloroethene (PCE)	5220	2.1E+08	1.6E+09	2.4E-10	3.2E-06	4.9E+06	3.9E+08	1.1E-09	1.3E-05
NP-6	11/16/2017	86	80	79-01-6	Trichloroethene (TCE)	173	2.3E+08	6.8E+07	7.4E-12	2.5E-06	3.7E+06	1.6E+07	4.6E-11	1.1E-05
NP-7	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	19.3	--	1.3E+10	--	1.5E-09	--	3.1E+09	--	6.2E-09
NP-7	11/16/2017	17	15	75-69-4	Freon 11	7	--	1.6E+10	--	4.5E-10	--	3.7E+09	--	1.9E-09
NP-7	11/16/2017	17	15	76-13-1	Freon 113	53.3	--	6.7E+11	--	7.9E-11	--	1.6E+11	--	3.3E-10
NP-7	11/16/2017	17	15	75-71-8	Freon 12	624	--	1.1E+09	--	5.6E-07	--	2.7E+08	--	2.3E-06
NP-7	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	5450	7.7E+07	5.8E+08	7.1E-10	9.3E-06	1.8E+06	1.4E+08	3.1E-09	3.9E-05
NP-7	11/16/2017	17	15	79-01-6	Trichloroethene (TCE)	28.4	8.4E+07	2.5E+07	3.4E-12	1.2E-06	1.3E+06	5.9E+06	2.1E-11	4.9E-06
NP-7	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	20	--	1.3E+10	--	1.5E-09	--	3.1E+09	--	6.4E-09
NP-7	11/16/2017	17	15	75-69-4	Freon 11	8	--	1.6E+10	--	5.1E-10	--	3.7E+09	--	2.2E-09
NP-7	11/16/2017	17	15	76-13-1	Freon 113	55.2	--	6.7E+11	--	8.2E-11	--	1.6E+11	--	3.4E-10

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-7	11/16/2017	17	15	75-71-8	Freon 12	625	--	1.1E+09	--	5.6E-07	--	2.7E+08	--	2.4E-06
NP-7	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	5920	7.7E+07	5.8E+08	7.7E-10	1.0E-05	1.8E+06	1.4E+08	3.4E-09	4.3E-05
NP-7	11/16/2017	17	15	79-01-6	Trichloroethene (TCE)	20.4	8.4E+07	2.5E+07	2.4E-12	8.3E-07	1.3E+06	5.9E+06	1.5E-11	3.5E-06
NP-7	11/16/2017	35	30	71-55-6	1,1,1-Trichloroethane	14.3	--	1.8E+10	--	7.8E-10	--	4.4E+09	--	3.3E-09
NP-7	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	134	--	9.7E+08	--	1.4E-07	--	2.3E+08	--	5.8E-07
NP-7	11/16/2017	35	30	124-48-1	Chlorodibromomethane	4	4.0E+07	2.4E+09	1.0E-12	1.7E-09	9.1E+05	5.7E+08	4.4E-12	7.0E-09
NP-7	11/16/2017	35	30	67-66-3	Chloroform	18	1.9E+07	1.5E+09	9.6E-12	1.2E-08	4.3E+05	3.6E+08	4.2E-11	5.0E-08
NP-7	11/16/2017	35	30	75-27-4	Dichlorobromomethane	4	1.6E+07	1.7E+09	2.6E-12	2.4E-09	3.6E+05	3.9E+08	1.1E-11	1.0E-08
NP-7	11/16/2017	35	30	75-69-4	Freon 11	18.3	--	2.2E+10	--	8.3E-10	--	5.2E+09	--	3.5E-09
NP-7	11/16/2017	35	30	76-13-1	Freon 113	159	--	9.5E+11	--	1.7E-10	--	2.3E+11	--	7.0E-10
NP-7	11/16/2017	35	30	75-71-8	Freon 12	1830	--	1.6E+09	--	1.2E-06	--	3.7E+08	--	4.9E-06
NP-7	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	7920	1.1E+08	8.2E+08	7.3E-10	9.6E-06	2.5E+06	2.0E+08	3.2E-09	4.0E-05
NP-7	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	1160	1.2E+08	3.5E+07	9.8E-11	3.3E-05	1.9E+06	8.3E+06	6.1E-10	1.4E-04
NP-7	11/16/2017	53	50	71-55-6	1,1,1-Trichloroethane	20.4	--	2.6E+10	--	8.0E-10	--	6.1E+09	--	3.4E-09
NP-7	11/16/2017	53	50	75-34-3	1,1-Dichloroethane	9.3	3.5E+08	1.6E+10	2.7E-13	5.9E-10	7.9E+06	3.8E+09	1.2E-12	2.5E-09
NP-7	11/16/2017	53	50	75-35-4	1,1-Dichloroethene	991	--	1.3E+09	--	7.4E-07	--	3.2E+08	--	3.1E-06
NP-7	11/16/2017	53	50	56-23-5	Carbon Tetrachloride	13.8	1.9E+07	1.2E+09	7.2E-12	1.2E-08	4.4E+05	2.8E+08	3.1E-11	5.0E-08
NP-7	11/16/2017	53	50	67-66-3	Chloroform	47.1	2.6E+07	2.1E+09	1.8E-11	2.2E-08	6.0E+05	5.0E+08	7.9E-11	9.4E-08
NP-7	11/16/2017	53	50	75-69-4	Freon 11	7	--	3.0E+10	--	2.3E-10	--	7.2E+09	--	9.7E-10
NP-7	11/16/2017	53	50	76-13-1	Freon 113	117	--	1.3E+12	--	8.9E-11	--	3.1E+11	--	3.7E-10
NP-7	11/16/2017	53	50	75-71-8	Freon 12	1040	--	2.2E+09	--	4.8E-07	--	5.2E+08	--	2.0E-06
NP-7	11/16/2017	53	50	127-18-4	Tetrachloroethene (PCE)	8410	1.5E+08	1.1E+09	5.6E-10	7.3E-06	3.4E+06	2.7E+08	2.4E-09	3.1E-05
NP-7	11/16/2017	53	50	79-01-6	Trichloroethene (TCE)	3080	1.6E+08	4.8E+07	1.9E-10	6.4E-05	2.6E+06	1.1E+07	1.2E-09	2.7E-04
NP-7	11/16/2017	53	50	75-01-4	Vinyl Chloride	5	5.6E+06	1.6E+09	9.0E-12	3.2E-09	3.3E+04	3.7E+08	1.5E-10	1.4E-08
NP-8	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	225	--	1.3E+10	--	1.7E-08	--	3.1E+09	--	7.2E-08
NP-8	11/16/2017	17	15	56-23-5	Carbon Tetrachloride	30	9.9E+06	5.9E+08	3.0E-11	5.1E-08	2.3E+05	1.4E+08	1.3E-10	2.1E-07
NP-8	11/16/2017	17	15	75-71-8	Freon 12	33.2	--	1.1E+09	--	3.0E-08	--	2.7E+08	--	1.2E-07
NP-8	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	2290	7.7E+07	5.8E+08	3.0E-10	3.9E-06	1.8E+06	1.4E+08	1.3E-09	1.6E-05
NP-8	11/16/2017	37	30	71-55-6	1,1,1-Trichloroethane	250	--	1.8E+10	--	1.4E-08	--	4.4E+09	--	5.7E-08
NP-8	11/16/2017	37	30	75-35-4	1,1-Dichloroethene	109	--	9.7E+08	--	1.1E-07	--	2.3E+08	--	4.7E-07
NP-8	11/16/2017	37	30	56-23-5	Carbon Tetrachloride	33.8	1.4E+07	8.3E+08	2.4E-11	4.1E-08	3.2E+05	2.0E+08	1.1E-10	1.7E-07
NP-8	11/16/2017	37	30	75-71-8	Freon 12	184	--	1.6E+09	--	1.2E-07	--	3.7E+08	--	4.9E-07

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu g/m^3$)	Future Commercial Worker				Future Resident			
							RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard	RBC_{SV-C} ($\mu g/m^3$)	RBC_{SV-NC} ($\mu g/m^3$)	Cancer Risk	Noncancer Hazard
NP-8	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	3440	1.1E+08	8.2E+08	3.2E-10	4.2E-06	2.5E+06	2.0E+08	1.4E-09	1.8E-05
NP-8	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	18	1.2E+08	3.5E+07	1.5E-12	5.2E-07	1.9E+06	8.3E+06	9.5E-12	2.2E-06
NP-8	11/16/2017	37	30	71-55-6	1,1,1-Trichloroethane	242	--	1.8E+10	--	1.3E-08	--	4.4E+09	--	5.5E-08
NP-8	11/16/2017	37	30	75-35-4	1,1-Dichloroethene	103	--	9.7E+08	--	1.1E-07	--	2.3E+08	--	4.5E-07
NP-8	11/16/2017	37	30	56-23-5	Carbon Tetrachloride	31.8	1.4E+07	8.3E+08	2.3E-11	3.8E-08	3.2E+05	2.0E+08	1.0E-10	1.6E-07
NP-8	11/16/2017	37	30	75-71-8	Freon 12	181	--	1.6E+09	--	1.2E-07	--	3.7E+08	--	4.8E-07
NP-8	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	2900	1.1E+08	8.2E+08	2.7E-10	3.5E-06	2.5E+06	2.0E+08	1.2E-09	1.5E-05
NP-8	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	17	1.2E+08	3.5E+07	1.4E-12	4.9E-07	1.9E+06	8.3E+06	9.0E-12	2.1E-06
NP-8	11/16/2017	57	50	71-55-6	1,1,1-Trichloroethane	197	--	2.6E+10	--	7.7E-09	--	6.1E+09	--	3.2E-08
NP-8	11/16/2017	57	50	75-35-4	1,1-Dichloroethene	1210	--	1.3E+09	--	9.0E-07	--	3.2E+08	--	3.8E-06
NP-8	11/16/2017	57	50	56-23-5	Carbon Tetrachloride	8.6	1.9E+07	1.2E+09	4.5E-12	7.4E-09	4.4E+05	2.8E+08	1.9E-11	3.1E-08
NP-8	11/16/2017	57	50	67-66-3	Chloroform	7	2.6E+07	2.1E+09	2.7E-12	3.3E-09	6.0E+05	5.0E+08	1.2E-11	1.4E-08
NP-8	11/16/2017	57	50	76-13-1	Freon 113	105	--	1.3E+12	--	8.0E-11	--	3.1E+11	--	3.3E-10
NP-8	11/16/2017	57	50	75-71-8	Freon 12	363	--	2.2E+09	--	1.7E-07	--	5.2E+08	--	7.0E-07
NP-8	11/16/2017	57	50	127-18-4	Tetrachloroethene (PCE)	3370	1.5E+08	1.1E+09	2.2E-10	2.9E-06	3.4E+06	2.7E+08	9.8E-10	1.2E-05
NP-8	11/16/2017	57	50	79-01-6	Trichloroethene (TCE)	429	1.6E+08	4.8E+07	2.6E-11	8.9E-06	2.6E+06	1.1E+07	1.6E-10	3.7E-05
NP-8	11/16/2017	80	80	71-55-6	1,1,1-Trichloroethane	196	--	3.6E+10	--	5.4E-09	--	8.6E+09	--	2.3E-08
NP-8	11/16/2017	80	80	75-34-3	1,1-Dichloroethane	30.2	4.9E+08	2.2E+10	6.2E-13	1.3E-09	1.1E+07	5.3E+09	2.7E-12	5.7E-09
NP-8	11/16/2017	80	80	75-35-4	1,1-Dichloroethene	3840	--	1.9E+09	--	2.0E-06	--	4.5E+08	--	8.5E-06
NP-8	11/16/2017	80	80	56-23-5	Carbon Tetrachloride	27.2	2.7E+07	1.6E+09	9.9E-12	1.7E-08	6.3E+05	3.9E+08	4.3E-11	7.0E-08
NP-8	11/16/2017	80	80	67-66-3	Chloroform	28.2	3.7E+07	3.0E+09	7.6E-12	9.5E-09	8.5E+05	7.1E+08	3.3E-11	4.0E-08
NP-8	11/16/2017	80	80	156-59-2	cis-1,2-Dichloroethene	6	--	2.1E+08	--	2.8E-08	--	5.0E+07	--	1.2E-07
NP-8	11/16/2017	80	80	76-13-1	Freon 113	186	--	1.9E+12	--	9.9E-11	--	4.5E+11	--	4.2E-10
NP-8	11/16/2017	80	80	75-71-8	Freon 12	450	--	3.1E+09	--	1.5E-07	--	7.4E+08	--	6.1E-07
NP-8	11/16/2017	80	80	127-18-4	Tetrachloroethene (PCE)	5980	2.1E+08	1.6E+09	2.8E-10	3.7E-06	4.9E+06	3.9E+08	1.2E-09	1.5E-05
NP-8	11/16/2017	80	80	79-01-6	Trichloroethene (TCE)	2310	2.3E+08	6.8E+07	9.9E-11	3.4E-05	3.7E+06	1.6E+07	6.2E-10	1.4E-04

Notes:

" -- " not applicable

$\mu g/m^3$ - micrograms per cubic meter

" ft bgs " feet below ground surface

RBC_{SV-C} - risk-based concentration based on cancer effects; RBC_{SV-NC} based on noncancer effects

RBCs based on target cancer risk = 10^{-5} for workers and 10^{-6} for fuure residents, and a target noncancer hazard = 1 for both receptors