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LIMITED PHASE II ENVIRONMENTAL INVESTIGATION REPORT
WEST BERKELEY PROJECT
BERKELEY, CALIFORNIA

by
Haley & Aldrich, Inc.
Walnut Creek, California

for
SteelWave, LLC
San Francisco, California

DRAFT

File No. 134361-003
January 2020

Haley & Aldrich, Inc.
2033 N. Main Street
Suite 309
Walnut Creek, CA 94596
925.949.1012

3 January 2020
File No. 134361-003

SteelWave, LLC
101 California Street, Suite 800
San Francisco, California 94111

Attention: Mr. Steve Dunn

Subject: Limited Phase II Environmental Investigation Report
West Berkeley Project
Berkeley, California

Dear Mr. Dunn:

Haley & Aldrich, Inc., (Haley & Aldrich) is pleased to present Limited Phase II Environmental Investigation Report for the West Berkeley Project site located on two contiguous city blocks in Berkeley, California. This investigation was performed as per our Proposal for Limited Phase II Site Investigation, West Berkeley Project, Berkeley, California, dated 22 November 2019.

Please feel free to contact us if you have any questions.

Sincerely yours,
HALEY & ALDRICH, INC.

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Adam Piestrzeniewicz, P.G. #9669 (CA)
Senior Geologist

Jason Grant, P.E. #64624 (CA)
Senior Project Manager

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SIGNATURE PAGE FOR

LIMITED PHASE II ENVIRONMENTAL INVESTIGATION REPORT
WEST BERKELEY PROJECT
BERKELEY, CALIFORNIA

PREPARED FOR
STEELWAVE, LLC
SAN FRANCISCO, CALIFORNIA 94111

PREPARED BY:

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Table of Contents

DRAFT

List of Tables

List of Figures

DRAFT

1. Introduction

Haley & Aldrich, Inc., (Haley & Aldrich) performed a Limited Phase II Environmental Investigation at the property located on two contiguous city blocks in Berkeley, California, that are generally bounded by Allston Way to the north, Fifth Street to the east, Bancroft Way to the south, and the Union Pacific and Amtrak Railroad corridor to the west (Site; Figure 1). This investigation was performed on behalf SteelWave, LLC (SteelWave) as per our Proposal for Limited Phase II Site Investigation, West Berkeley Project, Berkeley, California, dated 22 November 2019. The purpose of this investigation was to:

- Provide soil characterization data to evaluate whether adverse environmental conditions may exist that could affect the Site's potential redevelopment plans; and
- Provide soil characterization data for planning the proper handling and disposal of soil encountered during potential construction activities.

1.1 PROJECT BACKGROUND

The Site is approximately 5.5 acres in a commercial and industrial use area. Adjacent sites include similar commercial and industrial properties as well as the Union Pacific and Amtrak Railroad corridor located immediately west of the Site. The Site consists of several large warehouse buildings, smaller warehouses, a single-family residential building, and parking lots, all located on two contiguous city blocks (referred to as the "West Block" and "East Block"; Figure 2). The Site consists of multiple tenants, including an online wine retail business, a furniture fabrication business, and several light industrial warehouses and workshops.

SteelWave's redevelopment plans for the Site include grading and shallow soil excavation for utility trenches, building footings, and other improvements, and the excavated soil will therefore require disposal. Haley & Aldrich recently completed a Phase I Environmental Site Assessment (Phase I) for the Site (Haley & Aldrich, 2019). Based on the Phase I findings, the proposed grading and shallow soil excavation areas may be impacted based on historical activities, including the operation of a foundry and agricultural greenhouses. The objective of the limited Phase II investigation was to characterize the soil conditions in the areas to be excavated to determine if these historical activities may have adversely impacted this soil and therefore require special on-Site handling and off-Site disposal procedures, including the possible generation of hazardous waste.

The Site is underlain by fine-grained alluvial soils consisting primarily of clays and silts with some silty fine to medium grained sands and scattered fine gravel. Groundwater was not encountered during the investigation, but based on available data, groundwater beneath the Site is encountered at approximately 10 to 14 feet below ground surface (bgs) and flows toward the west/northwest.

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2. Field Investigation

Haley & Aldrich conducted soil sampling activities in December 2019 to characterize the existing subsurface conditions within areas of the Site where historical activities or features may pose an environmental concern. Relevant historical Site features evaluated for their potential subsurface impact to the Site through this Phase II Investigation included: 1) a former foundry area; 2) a former and previously removed underground storage tank; and 3) a former agricultural area. The relevant historical features and Phase II Investigation sampling locations are shown on Figure 2.

2.1 PRE-FIELD ACTIVITIES

Underground Service Alert (USA) was notified as required, and Precision Locating, LLC, cleared the drilling locations prior to conducting the subsurface work. A drilling permit was obtained from the City of Berkeley Planning and Development Department, Toxics Management Division. A Site-specific Health and Safety Plan was also prepared to help ensure worker safety during the field activities.

2.2 SOIL INVESTIGATION

Haley & Aldrich contracted Environmental Control Associates, Inc., a California C-57 licensed driller, to complete the soil borings. To minimize the risk of encountering unmarked and undetected underground utilities during drilling and ensure the health and safety of workers, each boring was advanced by hand auger or soil probe to a depth of five feet bgs. Five borings (B-1 through B-5) were advanced by a truck-mounted GeoProbe™ direct-push technology drill rig to collect soil samples. Borings B-1 and B-2 were advanced in the northern portion of the East Block where historical agricultural operations were identified; borings B-3, B-4, and B-5 were advanced in the southwestern corner of the West Block within a former foundry operations area and active auto mechanic and glass works facility (Figure 2). Boring B-3 was advanced adjacent to the former underground storage tank. A sixth boring was proposed in the southwestern corner of the West Block but was not advanced because of access issues. This proposed boring was outside of the former foundry footprint and active facilities and was not considered critical for the investigation.

Recovered soil was screened with a photoionization detector (PID) and logged in the field in accordance with the visual-manual procedures of American Society for Testing and Materials (ASTM) Standard D-2488-09a. Samples were collected from depths of 1, 3, and 9 feet bgs. No visual or olfactory impacts or PID detections were observed while logging and screening the recovered soil.

All samples were collected following standard environmental sampling and handling procedures and submitted under standard chain of custody documentation to Pace Analytical of Mt. Juliet, Tennessee. Pace Analytical analyzed the samples following the appropriate U.S. Environmental Protection Agency (EPA) Methods.

Once the sampling program had been completed, the borings were backfilled with neat cement grout. Haley & Aldrich received permission from the City of Berkeley Planning and Development Department, Toxics Management Division to backfill borings without an inspector present because the inspector was unavailable. All down-hole equipment was decontaminated prior to starting each new boring location by washing the equipment with laboratory grade detergent and water followed by a water rinse.

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The generated investigation-derived waste (IDW) consisted of soil cuttings placed in one 55-gallon drum. One composite sample was collected for waste characterization. The IDW drum is properly labeled and temporarily stored on-Site pending proper off-Site disposal.

Field documentation, including the City of Berkeley Planning and Development Department, Toxics Management Division drilling permit and Haley & Aldrich's soil boring logs, are provided in Appendix A.

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3. Analytical Results

Soil samples were analyzed for the following analytes:

- California Title 22 Metals using EPA Method 6010B/7471A (all samples);
- Organochlorine pesticides using EPA Method 8081A (1 foot bgs samples only);
- Volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH) as gasoline using EPA Method 8260B; these samples were collected and preserved using EPA Method 5035 (1 foot bgs samples only; four former foundry area borings only); and
- TPH as diesel and motor oil using EPA Method 8015B (all samples).

The soil analytical results were compared to the soluble threshold limit concentration (STLC), total threshold limit concentration (TTLC), and toxicity characteristic leaching procedure as well as the Commercial/Industrial: Shallow Soil Exposure and Construction Worker: Any Land Use / Any Depth Soil Exposure environmental screening levels (ESLs) published in July 2019 (Revision 2) by the San Francisco Bay Regional Water Quality Control Board (SFRWQCB). The commercial/industrial ESLs were selected for comparison based on the proposed Site redevelopment.

Detected analytical results from the soil sampling activities are presented in Table 1 (only detected constituents are shown). The laboratory analytical reports are provided in Appendix B. The following sections summarize the soil data screened against ESLs and waste disposal criteria.

3.1 COMMERCIAL/INDUSTRIAL: SHALLOW SOIL EXPOSURE

The soil analytical results were compared to the SFRWQCB commercial/industrial shallow exposure ESLs. All detected analytes were below their respective commercial/industrial shallow exposure ESLs, except for arsenic. Although the results for arsenic in soil exceed its commercial/industrial ESL, all of the detected concentrations were below the upper estimate for background arsenic concentration of 11 milligrams per kilogram established by the SFRWWQCB for soil in the region (Diverge, 2011). Organochlorine pesticides were not detected above the reporting limit for any of the samples, and the detected TPH and VOC concentrations were all below the commercial/industrial shallow exposure ESL. Based on the soil results, additional mitigation measures would not be required if the Site were to remain commercial/industrial.

3.2 DISPOSAL CLASSIFICATION

Requirements of Title 22 of the California Code of Regulations, Division 4.5, Chapter 11 were used to evaluate how soil removed from the Site would be classified for disposal. The total concentrations of all constituents in all soil samples were below the TTLC. Based on experience, a California Waste Extraction Test (WET) is typically performed if the total concentrations of a constituent in soil exceeds 10 times the absolute value of the STLC. The total chromium concentrations for all but one soil samples exceeded 10 times its STLC; a WET was therefore performed for chromium on the two samples with the highest chromium concentrations (B-1 at 3 feet bgs and B-4 at 1 foot bgs). The lead results for one sample (B-2 at 1 foot bgs) also exceeded 10 times its STLC; a WET was therefore performed for lead on the 1 foot bgs

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sample collected at B-2. The WET results were all below the respective STLC for chromium and lead, thereby classifying the soil as non-hazardous waste.

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4. Conclusions and Recommendations

Site soil conditions in the areas investigated are not anticipated to impact the proposed Site redevelopment. Based on the analytical data for the collected soil samples, soil excavated from the investigated areas should be classified as non-hazardous waste. The results presented herein should not be used for waste characterization purposes, and excavated soil should be properly stockpiled, sampled, and analyzed for waste disposal characterization prior to disposal. A Site Management Plan (SMP) outlining soil handling and disposal requirements is recommended prior to excavating soil. Additionally, as the Site's proposed redevelopment activities will expose soil from other areas of the Site not evaluated, the SMP would specify appropriate procedures should conditions with potential environmental concerns be uncovered.

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References

1. Duvergé, 2011. “Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region,” December.

2. Haley & Aldrich, Inc., 2019. “Report on ASTM Phase I Environmental Site Assessment, West Berkeley Project, Berkeley, California,” 18 November.

3. San Francisco Bay Regional Water Quality Control Board (SFRWQCB), 2019. “User’s Guide: Derivation and Application of Environmental Screening Levels, Revision 2.” Oakland, CA. July.

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TABLES

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TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
STEELWAVE WEST BERKELEY
BERKELEY, CALIFORNIA

Analyte	Comm./ Indust. ESL	10x STLC	20x TCLP	STLC	TTLC	Location ID	B-1			B-2		
						Sample ID	B-1-SS-1.0-121119	B-1-SS-3.0-121119	B-1-SS-3.0-121119	B-1-SS-9.0-121119	B-2-SS-1.0-121119	B-2-SS-1.0-121119	B-2-SS-3.0-121119
						Sample Date	12/11/2019	12/11/2019	12/11/2019	12/11/2019	12/11/2019	12/11/2019	12/11/2019
						Sample Depth (feet bgs)	1.0	3.0	3.0	9.0	1.0	1.0	3.0
Metals (mg/kg)													
Antimony	160	150	--	--	500		**1.25 J**	**1.31 J**	--	**0.978 J**	**0.929 J**	--	**1.00 J**
Arsenic	0.31	50	100	--	500		**4.88**	**4.09**	--	**10.7**	**2.47**	--	**2.46**
Barium	220,000	1,000	2,000	--	10,000		**185**	**187**	--	**159**	**177**	--	**130**
Beryllium	230	7.5	--	--	75		**0.756**	**0.747**	--	**0.433**	**0.430**	--	**0.568**
Cadmium	1,100	10	20	--	100		**0.109 J**	**0.178 J**	--	**0.270 J**	**0.245 J**	--	**0.173 J**
Chromium	--	50	100	--	2,500		**64.2**	**70.1**	--	**61.2**	**38.0**	--	**66.7**
Cobalt	350	800	--	--	8,000		**47.0**	**14.4**	--	**16.7**	**9.72**	--	**9.21**
Copper	47,000	250	--	--	2,500		**21.2**	**25.5**	--	**32.3**	**20.9**	--	**23.2**
Lead	320	50	100	--	1,000		**6.83**	**4.29**	--	**5.55**	**71.9**	--	**3.80**
Mercury	190	2.0	4.0	--	20		**0.160**	**0.0514**	--	**0.0308 J**	**0.311**	--	**0.211**
Molybdenum	5,800	3,500	--	--	3,500		**1.27**	**0.380 J**	--	**0.505 J**	**0.360 J**	--	**0.302 J**
Nickel	11,000	200	--	--	2,000		**44.5**	**71.6**	--	**46.8**	**29.8**	--	**49.8**
Selenium	5,800	10	20	--	100		< 0.763	< 0.773	--	< 0.714	< 0.755	--	< 0.750
Silver	5,800	50	100	--	500		< 0.148	< 0.150	--	< 0.138	< 0.146	--	< 0.145
Thallium	12	70	--	--	700		< 0.800	< 0.810	--	< 0.749	< 0.791	--	< 0.786
Vanadium	5,800	240	--	--	2,400		**77.9**	**84.9**	--	**89.9**	**43.9**	--	**56.4**
Zinc	350,000	2,500	--	--	5,000		**41.7**	**57.6**	--	**66.7**	**78.9**	--	**48.1**
Soluble Threshold Limit Concentration (µg/L)													
Chromium	--	--	--	5,000	2,500		--	--	**94.2**	--	--	--	--
Lead	--	--	--	5,000	1,000		--	--	--	--	--	**615**	--
Total Petroleum Hydrocarbons (mg/kg)													
Total Petroleum Hydrocarbons (C12-C22)	--	--	--	--	--		< 0.903	< 0.914	--	< 0.844	< 0.892	--	< 0.887
Total Petroleum Hydrocarbons (C22-C32)	--	--	--	--	--		< 1.64	< 1.66	--	< 1.53	**4.18 J**	--	< 1.61
Total Petroleum Hydrocarbons (C32-C40)	--	--	--	--	--		< 1.64	< 1.66	--	< 1.53	**4.53 J**	--	**2.13 J**
Total Petroleum Hydrocarbons (C5-C12) GRO	--	--	--	--	--		--	--	--	--	--	--	--
Volatile Organic Compounds (mg/kg)													
2-Butanone (Methyl Ethyl Ketone)	200,000	--	4,000	--	--		--	--	--	--	--	--	--
Acetone	670,000	--	--	--	--		--	--	--	--	--	--	--
Benzene	1.4	--	10	--	--		--	--	--	--	--	--	--
Toluene	5,300	--	--	--	--		--	--	--	--	--	--	--

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TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
STEELWAVE WEST BERKELEY
BERKELEY, CALIFORNIA

Analyte	Comm./ Indust. ESL	10x STLC	20x TCLP	STLC	TTLC	Location ID	B-2	B-3			B-4		
						Sample ID	B-2-SS-9.0-121119	B-3-SS-1.0-121119	B-3-SS-3.0-121119	B-3-SS-9.0-121119	B-4-SS-1.0-121119	B-4-SS-1.0-121119	B-4-SS-3.0-121119
						Sample Date	12/11/2019	12/11/2019	12/11/2019	12/11/2019	12/11/2019	12/11/2019	12/11/2019
						Sample Depth (feet bgs)	9.0	1.0	3.0	9.0	1.0	1.0	3.0
Metals (mg/kg)													
Antimony	160	150	--	--	500		**1.18 J**	< 0.952	< 0.926	**1.55 J**	< 0.942	--	< 0.903
Arsenic	0.31	50	100	--	500		**4.99**	**1.49 J**	< 0.568	**6.06**	**1.99 J**	--	< 0.554
Barium	220,000	1,000	2,000	--	10,000		**163**	**163**	**361**	**124**	**247**	--	**257**
Beryllium	230	7.5	--	--	75		**0.557**	**0.668**	**0.574**	**0.421**	**0.714**	--	**0.517**
Cadmium	1,100	10	20	--	100		**0.156 J**	**0.0897 J**	**0.104 J**	**0.200 J**	**0.183 J**	--	**0.141 J**
Chromium	--	50	100	--	2,500		**67.8**	**68.3**	**56.1**	**53.2**	**69.2**	--	**67.2**
Cobalt	350	800	--	--	8,000		**19.1**	**11.5**	**7.70**	**15.3**	**12.4**	--	**11.3**
Copper	47,000	250	--	--	2,500		**27.3**	**25.9**	**20.2**	**24.1**	**26.3**	--	**21.4**
Lead	320	50	100	--	1,000		**6.01**	**5.44**	**4.62**	**5.72**	**8.02**	--	**4.76**
Mercury	190	2.0	4.0	--	20		**0.0475**	**0.0259 J**	**0.0272 J**	**0.0372 J**	**0.0320 J**	--	**0.0418**
Molybdenum	5,800	3,500	--	--	3,500		**0.523 J**	< 0.203	< 0.197	**0.394 J**	< 0.201	--	< 0.193
Nickel	11,000	200	--	--	2,000		**77.3**	**54.2**	**54.2**	**58.1**	**49.9**	--	**61.0**
Selenium	5,800	10	20	--	100		< 0.769	< 0.787	< 0.765	< 0.768	< 0.779	--	< 0.746
Silver	5,800	50	100	--	500		< 0.149	< 0.152	< 0.148	< 0.149	< 0.151	--	< 0.144
Thallium	12	70	--	--	700		< 0.807	< 0.825	< 0.802	< 0.805	< 0.816	--	< 0.782
Vanadium	5,800	240	--	--	2,400		**73.2**	**63.6**	**42.2**	**64.7**	**66.6**	--	**54.8**
Zinc	350,000	2,500	--	--	5,000		**53.3**	**47.6**	**45.3**	**52.2**	**41.9**	--	**60.2**
Soluble Threshold Limit Concentration (µg/L)													
Chromium	--	--	--	5,000	2,500		--	--	--	--	--	**190**	--
Lead	--	--	--	5,000	1,000		--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)													
Total Petroleum Hydrocarbons (C12-C22)	--	--	--	--	--		**1.87 J**	< 0.931	< 0.905	< 0.908	**1.65 J**	--	< 0.882
Total Petroleum Hydrocarbons (C22-C32)	--	--	--	--	--		**1.92 J**	**1.77 J**	< 1.64	< 1.65	**4.41 J**	--	< 1.60
Total Petroleum Hydrocarbons (C32-C40)	--	--	--	--	--		< 1.65	< 1.69	< 1.64	< 1.65	**3.49 J**	--	< 1.60
Total Petroleum Hydrocarbons (C5-C12) GRO	--	--	--	--	--		--	**0.0514 J**	--	--	**0.0762 J**	--	--
Volatile Organic Compounds (mg/kg)													
2-Butanone (Methyl Ethyl Ketone)	200,000	--	4,000	--	--		--	**0.0324**	--	--	**0.0264 J**	--	--
Acetone	670,000	--	--	--	--		--	**0.0704**	--	--	**0.0406**	--	--
Benzene	1.4	--	10	--	--		--	**0.00177**	--	--	< 0.000522	--	--
Toluene	5,300	--	--	--	--		--	**0.0169**	--	--	**0.0124**	--	--

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TABLE 1
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STEELWAVE WEST BERKELEY
BERKELEY, CALIFORNIA

Analyte	Comm./ Indust. ESL	10x STLC	20x TCLP	STLC	TTLC	Location ID	B-4	B-5	
						Sample ID	B-4-SS-9.0-121119	B-5-SS-1.0-121119	B-5-SS-3.0-121119	B-5-SS-9.0-121119
						Sample Date	12/11/2019	12/11/2019	12/11/2019	12/11/2019
						Sample Depth (feet bgs)	9.0	1.0	3.0	9.0
Metals (mg/kg)										
Antimony	160	150	--	--	500		< 0.886	**1.30 J**	**0.936 J**	**1.27 J**
Arsenic	0.31	50	100	--	500		**2.41**	**1.84 J**	**3.40**	**3.76**
Barium	220,000	1,000	2,000	--	10,000		**158**	**133**	**111**	**124**
Beryllium	230	7.5	--	--	75		**0.455**	**0.489**	**0.404**	**0.521**
Cadmium	1,100	10	20	--	100		**0.240 J**	**0.127 J**	**0.162 J**	**0.124 J**
Chromium	--	50	100	--	2,500		**55.5**	**63.3**	**54.0**	**60.1**
Cobalt	350	800	--	--	8,000		**26.2**	**12.0**	**10.7**	**14.6**
Copper	47,000	250	--	--	2,500		**21.9**	**20.5**	**20.1**	**20.0**
Lead	320	50	100	--	1,000		**6.26**	**16.5**	**5.61**	**6.78**
Mercury	190	2.0	4.0	--	20		**0.0376**	**0.0637**	**0.0286 J**	**0.0269 J**
Molybdenum	5,800	3,500	--	--	3,500		**0.277 J**	< 0.188	< 0.187	**0.349 J**
Nickel	11,000	200	--	--	2,000		**87.5**	**57.0**	**41.9**	**67.0**
Selenium	5,800	10	20	--	100		< 0.733	< 0.728	< 0.726	< 0.726
Silver	5,800	50	100	--	500		< 0.142	< 0.141	< 0.140	< 0.141
Thallium	12	70	--	--	700		< 0.768	< 0.763	< 0.761	< 0.761
Vanadium	5,800	240	--	--	2,400		**54.9**	**49.3**	**45.4**	**60.1**
Zinc	350,000	2,500	--	--	5,000		**38.0**	**46.2**	**39.9**	**40.6**
Soluble Threshold Limit Concentration (µg/L)										
Chromium	--	--	--	5,000	2,500		--	--	--	--
Lead	--	--	--	5,000	1,000		--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)										
Total Petroleum Hydrocarbons (C12-C22)	--	--	--	--	--		< 0.866	**3.15 J**	**0.871 J**	< 0.858
Total Petroleum Hydrocarbons (C22-C32)	--	--	--	--	--		< 1.57	**35.0**	**4.76**	< 1.56
Total Petroleum Hydrocarbons (C32-C40)	--	--	--	--	--		< 1.57	**31.3**	**4.21 J**	< 1.56
Total Petroleum Hydrocarbons (C5-C12) GRO	--	--	--	--	--		--	**0.180**	--	--
Volatile Organic Compounds (mg/kg)										
2-Butanone (Methyl Ethyl Ketone)	200,000	--	4,000	--	--		--	**0.0256 J**	--	--
Acetone	670,000	--	--	--	--		--	**0.0648**	--	--
Benzene	1.4	--	10	--	--		--	**0.000567 J**	--	--
Toluene	5,300	--	--	--	--		--	**0.0169**	--	--

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TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
STEELWAVE WEST BERKELEY
BERKELEY, CALIFORNIA

Notes:

Only concentrations detected above the detection limit are shown
Screening Levels: Federal (RCRA-TCLP) and State (Title 22-STLC) Hazardous Waste Criteria, EPAESLs for Commercial and Industrial Shallow Soil Exposure and EPA Construction Worker Any Land Use from Table S-1
Volatile Organic Compounds (VOCs) analyzed by EPA Method 8260B
Metals analyzed by EPA Method 6010B/7471A
Total Petroleum Hydrocarbons analyzed by EPA Method 8015
Pesticides analyzed by EPA Method 8081
Total Solids analyzed by EPA Method 2540G
Orange highlight = Result exceeds the Construction Worker ESL
Green highlight = Result exceeds the commercial/industrial ESL
Blue highlight = Result exceeds 10x the STLC threshold

Abbreviations:

< = Analyte not detected above the referenced detection limit
-- = Not applicable
mg/kg = Milligrams per kilogram
µg/L = Micrograms per liter
ft bgs = Feet below ground surface
J = Estimated result
RCRA = Resource Conservation and Recovery Act
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure

DRAFT

FIGURES

DRAFT

MAP SOURCE: ESRI
SITE COORDINATES: 37°51'49"N, 122°17'52"W

HALEY ALDRICH

STEELWAVE WEST BERKELEY PROJET
BERKELEY, CALIFORNIA

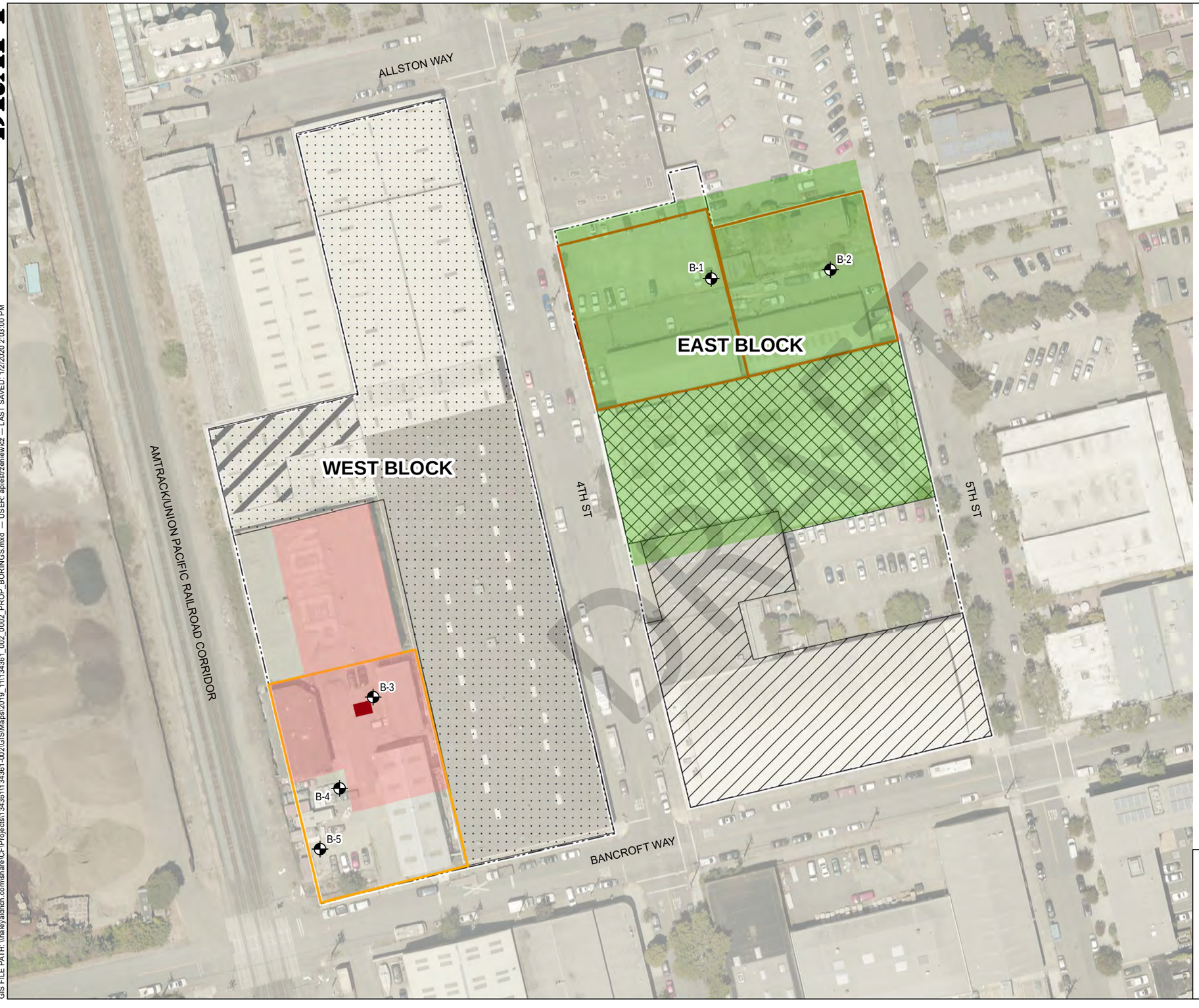
PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
JANUARY 2020

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\134361\134361-002\GIS\Maps\2019_11\134361_002_0001_PROJECT_LOCUS.mxd — USER: apiestrzeniewicz — LAST SAVED: 1/2/2020 2:02:55 PM

DRAFT



LEGEND

- SHALLOW SOIL BORING
- FORMER UST
- FORMER FOUNDRY
- FORMER AGRICULTURAL
- PROPOSED GRADING AND SHALLOW EXCAVATION AREA - WEST BLOCK
- PROPOSED GRADING AND SHALLOW EXCAVATION AREA - EAST BLOCK
- FORMER ACUITY BRANDS LIGHTING
- IRONIES FABRICATION ASSEMBLY
- WINE.COM
- FORMER PEERLESS ELECTRIC SITE
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: ALAMEDA COUNTY
3. AERIAL IMAGERY SOURCE: EAGLEVIEW, 2017
4. BGS = BELOW GROUND SURFACE

N

0 80 160
SCALE IN FEET

HALEY ALDRICH

STEELWAVE WEST BERKELEY PROJECT
BERKELEY, CALIFORNIA

SITE PLAN

JANUARY 2020

FIGURE 2

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\134361\134361-002\GIS\Maps\2019_11\134361_002_0002_PROP_BORINGS.mxd — USER: apiestrzeniewicz — LAST SAVED: 1/2/2020 2:03:00 PM

APPENDIX A

City of Berkeley Exploratory Boring Permit and Boring Logs

DRAFT

CITY OF BERKELEY

RECEIVED

DEC 05 2019

TOXICS MANAGEMENT DIVISION

Planning and Development Department
Toxics Management Division
A Certified Unified Program Agency

TMD Use Only

Permit No.: 20-EB-40 *(expires 120 days from approval)*
Permit Fee: $960 **Check #:**
Approved by: **Date:** 12/6/19
Admin: Contractor Licenses – Reviewed by: PM
Geo/Eng license Y / N CoB Business Y / N
Driller license Y / N CoB Business Y / N
Documents Scanned by:

Revised 7/10/2018

SUBSURFACE DRILLING PERMIT APPLICATION

Purpose of Application	☐ Groundwater Monitoring/Vapor Well **Installation** ☐ Groundwater Monitoring/Vapor Well **Destruction** (Provide approval letter from oversight agency) ☐ Well **Modification** (pumps, vacuums, probes, elevation, etc.) **Number of Wells:**	■ Soil Borings, probes, sampling points **Number of Borings:** 6 ☐ Extension of Permit #

Name of Facility: Herst Properties	
Address: 2214 4th Street, 2222 5th Street, 705 Bancroft Way, Berkeley CA 94710	
Business Telephone: 510-923-6247	Emergency Telephone: 510-913-6247

Property Owner: Herst Properties	
Owner Address: 747 Bancroft Way, Berkeley, CA 94710	

Supervising Geological or Engineering Co.: Haley & Aldrich, Inc.		City of Berkeley Business Lic #: N/A	
Address/City: 2033 N. Main Street Suite 309, Walnut Creek, CA 94596			
Geol/Eng Lic. #: CA PG #9669		Tel.: 714-371-1805	Fax: 925-979-1456
Contact Person: Adam Piestrzeniewicz		Email: apiestrzeniewicz@haleyaldrich.com	

Drilling Co.: Environmental Control Associates		City of Berkeley Business Lic #: BL-002431	
Address/City: 3011 Twin Palms Drive, Aptos, CA 95003			
C-57 License #: 695970	Exp. Date: 9/30/20	Tel.: 831-662-8178	Fax: 831-662-8179
Local Contact Person: Timothy B. Tyler		Email: tbtyler@sbcglobal.net	

Construction/Destruction Specifications (attach information as needed for multiple construction types)		
Borehole/Well Casing Diameter: 2.25 in.		Gauge of Well Casing: N/A
Borehole/Well Depth: 10 ft. bgs	Well Screen type: N/A	Slot Size: N/A
Type of grout (specify mix or product): Neat cement grout (94 lbs Portland cement and 6 gallons water)		

- **Provide a scaled plan** identifying the proposed drilling locations, property boundaries, streets, structures, pollution source areas.
- Call the Toxics Management Division (TMD) at (510) 981-7460 to schedule an inspection of the grout sealing of wells, probes and boreholes. **Notify TMD a minimum of two (2) working days in advance** of first scheduled day of drilling
- This permit is subject to the Conditions of Approval stated on the following page.

I certify that I have prepared this application and that the work will be done in accordance with the conditions of this permit, the provisions of the laws of the State of California, including State Water Well Standards, and the ordinances and the rules and regulations of the City of Berkeley.

Signed Adam Piestrzeniewicz Representing Haley & Aldrich Date 12/3/19

FEES: First Well/Each add'l: $420/$150 First Soil Boring/Each add'l: $210/$150

DRAFT

HALEY ALDRICH

TEST BORING REPORT

BORING NO. B-1

Page 1 of 1

PROJECT	Steelwave - West Berkeley	H&A FILE NO.	134361-003
LOCATION	Berkeley, CA	PROJECT MGR.	J Grant
CLIENT	Steelwave - West Berkeley	FIELD REP.	A Piestrzeniewicz
CONTRACTOR	ECA	DATE STARTED	12/11/19
DRILLER	D. Sprinkle	DATE FINISHED	12/11/19

Elevation	Datum	Boring Location			PID Make / Model:	
Item	asir	Sampler	Core Barrel	Rig Make & Model	Hammer Type	Drilling Mud	Casing Advance
Type		S		☑ Truck ☐ Tripod ☐ Cat-Head	☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)		1 3/8		☐ ATV ☑ Geoprobe ☐ Winch	☐ Doughnut	☐ Polymer	
Hammer Weight (lb.)		140		☐ Track ☐ Air Track ☐ Roller Bit	☐ Automatic	☐ None	Direct Push
Hammer Fall (in.)		30		☐ Skid ☐ ____ ☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Sampler Blows per 6 in.	Sample Depth (ft.)	PID Reading	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0			0.0		CL	Surface: cracked concrete parking lot. Very dark gray (2.5 Y 3/1) LEAN CLAY WITH SAND (CL), fine sand, no odor, moist					15	85			M	M
		G	0.0			Dark grayish brown (2.5 Y 4/2), LEAN CLAY WITH SAND (CL), fine sand, no odor, damp.					15	85			M	M
			0.0	2	SM/ ML	Dark yellowish brown (10 YR 4/4) SILTY SAND WITH GRAVEL (SM) / SANDY SILT WITH GRAVEL (ML), fine gravel, no odor, damp, scattered brick fragments.		15		10	45	30				
		G	0.1													
			0.0													
5			0.0													
			0.0	6	SM	Dark yellowish brown (10 YR 4/4) SILTY SAND WITH GRAVEL (SM), fine gravel, no odor, moist, scattered brick fragments		15		10	45	30				
			0.1													
		G	0.1			increase in fine gravel content, moist to wet		15		10	50	25				
10						Total Depth: 10 ft bgs No groundwater encountered Backfilled with cement grout										
15																
20																

Water Level Data					Sample ID	Well Diagram	Summary
Date	Time	Depth in feet to: Bottom of Casing	Bottom of Hole	Water	O Open End Rod T Thin Wall Tube U Undisturbed Sample S Split Spoon Sample G Geoprobe	Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (Linear ft.) ____ Rock Cored (Linear ft.) ____ Number of Samples ____ BORING NO.

Field Tests: R - Rapid S - Slow N - None; L - Low M - Medium H - High

Plasticity: N - Nonplastic L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

TEST BORING REPORT

BORING NO. B-2

Page 1 of 1

PROJECT	Steelwave - West Berkeley	H&A FILE NO.	134361-003
LOCATION	Berkeley, CA	PROJECT MGR.	J Grant
CLIENT	Steelwave - West Berkeley	FIELD REP.	A Piestrzeniewicz
CONTRACTOR	ECA	DATE STARTED	12/11/19
DRILLER	D. Sprinkle	DATE FINISHED	12/11/19

Elevation	Datum	Boring Location				PID Make / Model:	
Item	asir	Sampler	Core Barrel	Rig Make & Model		Hammer Type	Drilling Mud	Casing Advance
Type		S		☑ Truck ☐ Tripod ☐ Cat-Head		☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)		1 3/8		☐ ATV ☑ Geoprobe ☐ Winch		☐ Doughnut	☐ Polymer	
Hammer Weight (lb.)		140		☐ Track ☐ Air Track ☐ Roller Bit		☐ Automatic	☐ None	Direct Push
Hammer Fall (in.)		30		☐ Skid ☐ ☐ Cutting Head		Drilling Notes:		

Depth (ft.)	Sampler Blows per 6 in.	Sample Depth (ft.)	PID Reading	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0			0.1		SM	Surface: Cracked asphalt Very dark grayish brown (2.5Y 3/2) SILTY SAND WITH GRAVEL (SM), fine gravel		15		10	45	30				
		G	0.0	1	CL	no odor, damp										
			0.0	1.5	ML	Very dark gray (2.5Y 3/1), LEAN CLAY (CL) clay, no odor, moist						100			M	M
		G	0.0	2.5	CL	Dark yellowish brown (10YR 4/4) SILT WITH SAND (ML), fine sand, no odor, damp, scattered fine gravel and brick					15	85			L	M
			0.0			Olive brown (2.5Y 4/3) LEAN CLAY (CL) silt, no odor, damp						100			M	M
5			0.0													
			0.1													
			0.0	0.5	ML	Dark yellowish brown (10YR 4/4) SANDY SILT WITH GRAVEL (ML), fine gravel, no odor, damp, scattered brick		15		10	10	65			L	M
			0.1	8	CL	Yellowish brown (10YR 5/4), LEAN CLAY WITH SAND (CL), fine sand, no odor, damp, scattered gravel and brick					15	85			L	M
		G	0.1													
10						Total Depth = 10 ft bgs No groundwater encountered Backfilled with cement grout										
15																
20																

Water Level Data					Sample ID		Well Diagram		Summary	
Date	Time	Depth in feet to: Bottom of Casing	Bottom of Hole	Water	O Open End Rod		Riser Pipe		Overburden (Linear ft.)	
					T Thin Wall Tube		Screen		Rock Cored (Linear ft.)	
					U Undisturbed Sample		Filter Sand		Number of Samples	
					S Split Spoon Sample		Cuttings			
					G Geoprobe		Grout		BORING NO.	
							Concrete			
							Bentonite Seal			

Field Tests: R - Rapid S - Slow N - None; L - Low M - Medium H - High

Plasticity: N - Nonplastic L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

TEST BORING REPORT

BORING NO. B-3

Page 1 of 1

PROJECT	Steelwave - West Berkeley	H&A FILE NO.	134361-003
LOCATION	Berkeley, CA	PROJECT MGR.	J Grant
CLIENT	Steelwave - West Berkeley	FIELD REP.	A Piestrzeniewicz
CONTRACTOR	ECA	DATE STARTED	12/11/19
DRILLER	D. Sprinkle	DATE FINISHED	12/11/19

Elevation	Datum	Boring Location	PID Make / Model:

Item	asing	Sampler	Core Barrel
Type		S	
Inside Diameter (in.)		1 3/8	
Hammer Weight (lb.)		140	
Hammer Fall (in.)		30	

Rig Make & Model: ☑ Truck ☐ Tripod ☐ Cat-Head ☐ ATV ☑ Geoprobe ☐ Winch ☐ Track ☐ Air Track ☐ Roller Bit ☐ Skid ☐ Cutting Head

Hammer Type	Drilling Mud	Casing Advance
☐ Safety	☐ Bentonite	Type Method Depth
☐ Doughnut	☐ Polymer	Direct Push
☐ Automatic	☐ None	

Drilling Notes:

Depth (ft.)	Sampler Blows per 6 in.	Sample Depth (ft.)	PID Reading	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency. color. GROUP NAME & SYMBOL. maximum particle size*. structure. odor. moisture. optional descriptions. geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0			0.0		CL	0 Surface: 1" deteriorated asphalt. Very dark gray (2.5Y 3/1), LEAN CLAY (CL), silt, no odor, damp						100			M	M
		G	0.0													
			0.0													
		G	0.0			Color change to dark grayish brown (2.5Y 4/2), scattered fine gravel and brick		5				95			L	M
			0.0													
5			0.0													
			0.0													
			0.1	7	ML	Yellowish brown (2.5Y 5/4), SILT WITH SAND (ML), fine sand, no odor, damp					20	80			L	M
			0.1			Yellowish brown (2.5Y 5/4) SANDY SILT WITH GRAVEL (ML), fine gravel, no odor, damp		15		15	15	55			L	M
		G	0.0			Yellowish brown (2.5Y 5/4), SILT WITH SAND (ML), fine sand, no odor, damp					15	85			L	M
10						Total Depth = 10 ft bgs. No groundwater encountered. Backfilled with cement grout.										
15																
20																

Water Level Data

Date	Time	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.) _____
Rock Cored (Linear ft.) _____
Number of Samples _____

BORING NO.

Field Tests R - Rapid S - Slow N - None L - Low M - Medium H - High

Plasticity: N - Nonplastic L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

TEST BORING REPORT

BORING NO. B-4

Page 1 of 1

PROJECT	Steelwave - West Berkeley	H&A FILE NO.	134361-003
LOCATION	Berkeley, CA	PROJECT MGR.	J Grant
CLIENT	Steelwave - West Berkeley	FIELD REP.	A Prestrzeniewicz
CONTRACTOR	ECA	DATE STARTED	12/11/19
DRILLER	D. Sprinkle	DATE FINISHED	12/11/19

Elevation	Datum			Boring Location		PID Make / Model:	
Item	asir	Sampler	Core Barrel	Rig Make & Model		Hammer Type	Drilling Mud
Type		S		☑ Truck ☐ Tripod ☐ Cat-Head		☐ Safety	☐ Bentonite
Inside Diameter (in.)		1 3/8		☐ ATV ☑ Geoprobe ☐ Winch		☐ Doughnut	☐ Polymer
Hammer Weight (lb.)		140		☐ Track ☐ Air Track ☐ Roller Bit		☐ Automatic	☐ None
Hammer Fall (in.)		30		☐ Skid ☐ ☐ Cutting Head		Drilling Notes:	

Casing Advance	
Type Method	Depth
Direct Push	

Depth (ft.)	Sampler Blows per 6 in.	Sample Depth (ft.)	PID Reading	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0			0.0		SM	0 Surface: 4" deteriorated asphalt Yellowish brown (10YR 5/4), SILTY SAND WITH GRAVEL (SM), fine gravel, no odor, damp		15		20	35	30				
		G	0.0	1	CL	Very dark gray (2.5Y 3/1) LEAN CLAY (CL), silt, no odor, damp						100			N	M
			0.0			Color change to dark greenish gray (GLEY 1 4/1)						100			N	M
		G	0.0													
			0.0													
5				4.5	ML	Light olive brown (2.5Y 5/3) SILT WITH SAND (ML), fine sand, no odor, damp					20	80			L	M
			0.1			Decrease in sand content					15	85			L	M
			0.0													
			0.0			Scattered fine gravel and silt		5			15	80			L	M
			0.0			Decrease in sand content, increase in clay content		5			10	85			L	M
		G	0.0													
10						Total Depth: 10 ft bgs No groundwater encountered Backfilled with cement grout										
15																
20																

Water Level Data				
Date	Time	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram	
	Riser Pipe
	Screen
	Filter Sand
	Cuttings
	Grout
	Concrete
	Bentonite Seal

Summary	
Overburden (Linear ft.)	
Rock Cored (Linear ft.)	
Number of Samples	
BORING NO.	

Field Tests: R - Rapid S - Slow N - None; L - Low M - Medium H - High

Plasticity: N - Nonplastic L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

TEST BORING REPORT

BORING NO. B-5

Page 1 of 1

PROJECT	Steelwave - West Berkeley	H&A FILE NO.	134361-003
LOCATION	Berkeley, CA	PROJECT MGR.	J Grant
CLIENT	Steelwave - West Berkeley	FIELD REP.	A Piestrzeniewicz
CONTRACTOR	ECA	DATE STARTED	12/11/19
DRILLER	D. Sprinkle	DATE FINISHED	12/11/19

Elevation	Datum	Boring Location			PID Make / Model:		
Item	asir	Sampler	Core Barrel	Rig Make & Model	Hammer Type	Drilling Mud	Casing Advance
Type		S		☑ Truck ☐ Tripod ☐ Cat-Head	☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)		1 3/8		☐ ATV ☑ Geoprobe ☐ Winch	☐ Doughnut	☐ Polymer	
Hammer Weight (lb.)		140		☐ Track ☐ Air Track ☐ Roller Bit	☐ Automatic	☐ None	Direct Push
Hammer Fall (in.)		30		☐ Skid ☐ ____ ☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Sampler Blows per 6 in.	Sample Depth (ft.)	PID Reading	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0			0.0		ML	0 Surface: 2" concrete Very dark grayish brown (2.5Y 3/2) SANDY SILT (ML), damp, no odor					35	65			L	M
		G	0.0													
			0.0			Grayish brown (2.5Y 5/2) SILT with SAND (ML), fine sand, no odor, damp					35	65			L	M
		G	0.0													
			0.1													
5			0.1	5	CL	Light olive brown (2.5Y 5/3) LEAN CLAY with SAND (CL), fine sand, no odor, damp					20	80			L	M
			0.0													
			0.0			Scattered fine gravel Decrease in sand content		5			15	80			L	M
			0.0													
		G	0.0													
10						Total Depth: 10 ft bgs No groundwater encountered Backfilled with cement grout.										
15																
20																

Water Level Data					Sample ID		Well Diagram	Summary
Date	Time	Depth in feet to: Bottom of Casing	Bottom of Hole	Water	O Open End Rod T Thin Wall Tube U Undisturbed Sample S Split Spoon Sample G Geoprobe		Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (Linear ft.) Rock Cored (Linear ft.) Number of Samples BORING NO.

Field Tests: R - Rapid S - Slow N - None; L - Low M - Medium H - High

Plasticity: N - Nonplastic L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

APPENDIX B

Laboratory Reports

DRAFT

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

December 18, 2019

Haley & Aldrich - Walnut Creek, CA

Sample Delivery Group:	L1170116
Samples Received:	12/12/2019
Project Number:	134361-002
Description:	Steelwave

Report To:

Jason Grant
2033 N Main Street
Suite 309
Walnut Creek, CA 94596

DRAFT

Entire Report Reviewed By:

Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

DRAFT

B-1-SS-1.0 L1170116-01 Solid

Collected by: Adam P | Collected date/time: 12/11/19 10:50 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396075	1	12/14/19 13:46	12/14/19 13:55	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:23	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:31	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/14/19 21:42	JDG	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1396175	1	12/13/19 16:00	12/14/19 10:22	LEL	Mt. Juliet, TN

B-1-SS-3.0 L1170116-02 Solid

Collected by: Adam P | Collected date/time: 12/11/19 11:05 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396075	1	12/14/19 13:46	12/14/19 13:55	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:25	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:39	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/14/19 21:57	JDG	Mt. Juliet, TN

B-1-SS-9.0 L1170116-03 Solid

Collected by: Adam P | Collected date/time: 12/11/19 11:10 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396075	1	12/14/19 13:46	12/14/19 13:55	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:27	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:42	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/14/19 22:11	JDG	Mt. Juliet, TN

B-2-SS-1.0 L1170116-04 Solid

Collected by: Adam P | Collected date/time: 12/11/19 11:30 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396075	1	12/14/19 13:46	12/14/19 13:55	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:29	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:44	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/15/19 02:03	JDG	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1396175	1	12/13/19 16:00	12/14/19 10:35	LEL	Mt. Juliet, TN

B-2-SS-3.0 L1170116-05 Solid

Collected by: Adam P | Collected date/time: 12/11/19 11:45 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396075	1	12/14/19 13:46	12/14/19 13:55	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:32	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:47	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/15/19 00:51	JDG	Mt. Juliet, TN

B-2-SS-9.0 L1170116-06 Solid

Collected by: Adam P | Collected date/time: 12/11/19 11:55 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396075	1	12/14/19 13:46	12/14/19 13:55	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:38	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:50	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/14/19 22:26	JDG	Mt. Juliet, TN

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B-3-SS-1.0 L1170116-07 Solid

Collected by: Adam P | Collected date/time: 12/11/19 08:25 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396075	1	12/14/19 13:46	12/14/19 13:55	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:40	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:52	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1396752	1	12/11/19 08:25	12/15/19 07:49	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396623	1	12/11/19 08:25	12/15/19 05:09	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/15/19 01:05	JDG	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1396175	1	12/13/19 16:00	12/14/19 10:47	LEL	Mt. Juliet, TN

B-3-SS-3.0 L1170116-08 Solid

Collected by: Adam P | Collected date/time: 12/11/19 08:35 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396077	1	12/14/19 13:37	12/14/19 13:45	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:43	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:55	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/14/19 23:09	JDG	Mt. Juliet, TN

B-3-SS-9.0 L1170116-09 Solid

Collected by: Adam P | Collected date/time: 12/11/19 08:50 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396077	1	12/14/19 13:37	12/14/19 13:45	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:45	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 15:57	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/14/19 23:24	JDG	Mt. Juliet, TN

B-4-SS-1.0 L1170116-10 Solid

Collected by: Adam P | Collected date/time: 12/11/19 09:00 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396077	1	12/14/19 13:37	12/14/19 13:45	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:47	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 16:00	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1396752	1	12/11/19 09:00	12/15/19 08:11	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396623	1.04	12/11/19 09:00	12/15/19 05:30	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/15/19 01:34	JDG	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1396175	1	12/13/19 16:00	12/14/19 11:00	LEL	Mt. Juliet, TN

B-4-SS-3.0 L1170116-11 Solid

Collected by: Adam P | Collected date/time: 12/11/19 09:15 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396077	1	12/14/19 13:37	12/14/19 13:45	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396021	1	12/13/19 09:59	12/16/19 11:49	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 16:02	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/15/19 01:49	JDG	Mt. Juliet, TN

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B-4-SS-9.0 L1170116-12 Solid

Collected by: Adam P | Collected date/time: 12/11/19 09:40 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396077	1	12/14/19 13:37	12/14/19 13:45	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396619	1	12/14/19 20:20	12/16/19 19:36	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 16:10	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/14/19 23:38	JDG	Mt. Juliet, TN

B-5-SS-1.0 L1170116-13 Solid

Collected by: Adam P | Collected date/time: 12/11/19 09:50 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396077	1	12/14/19 13:37	12/14/19 13:45	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396619	1	12/14/19 20:20	12/16/19 19:38	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 16:13	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1396752	1	12/11/19 09:50	12/15/19 08:33	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396623	1	12/11/19 09:50	12/15/19 05:50	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	2	12/13/19 15:49	12/15/19 14:32	JDG	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1396175	1	12/13/19 16:00	12/14/19 11:12	LEL	Mt. Juliet, TN

B-5-SS-3.0 L1170116-14 Solid

Collected by: Adam P | Collected date/time: 12/11/19 09:55 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396077	1	12/14/19 13:37	12/14/19 13:45	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396619	1	12/14/19 20:20	12/16/19 19:45	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 16:15	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/15/19 02:18	JDG	Mt. Juliet, TN

B-5-SS-9.0 L1170116-15 Solid

Collected by: Adam P | Collected date/time: 12/11/19 10:05 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396077	1	12/14/19 13:37	12/14/19 13:45	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1396619	1	12/14/19 20:20	12/16/19 19:47	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1395913	1	12/13/19 08:44	12/14/19 16:18	EL	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1395893	1	12/13/19 15:49	12/14/19 23:53	JDG	Mt. Juliet, TN

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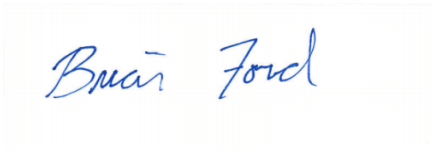
All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

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Mercury by Method 7471A

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-1-SS-1.0	L1170116-01	Mercury	0.160		0.00345	0.0369	1	12/16/2019 11:23	WG1396021
B-1-SS-3.0	L1170116-02	Mercury	0.0514		0.00349	0.0374	1	12/16/2019 11:25	WG1396021
B-1-SS-9.0	L1170116-03	Mercury	0.0308	J	0.00322	0.0345	1	12/16/2019 11:27	WG1396021
B-2-SS-1.0	L1170116-04	Mercury	0.311		0.00341	0.0365	1	12/16/2019 11:29	WG1396021
B-2-SS-3.0	L1170116-05	Mercury	0.211		0.00339	0.0363	1	12/16/2019 11:32	WG1396021
B-2-SS-9.0	L1170116-06	Mercury	0.0475		0.00347	0.0372	1	12/16/2019 11:38	WG1396021
B-3-SS-1.0	L1170116-07	Mercury	0.0259	J	0.00356	0.0381	1	12/16/2019 11:40	WG1396021
B-3-SS-3.0	L1170116-08	Mercury	0.0272	J	0.00346	0.0370	1	12/16/2019 11:43	WG1396021
B-3-SS-9.0	L1170116-09	Mercury	0.0372	J	0.00347	0.0372	1	12/16/2019 11:45	WG1396021
B-4-SS-1.0	L1170116-10	Mercury	0.0320	J	0.00352	0.0377	1	12/16/2019 11:47	WG1396021
B-4-SS-3.0	L1170116-11	Mercury	0.0418		0.00337	0.0361	1	12/16/2019 11:49	WG1396021
B-4-SS-9.0	L1170116-12	Mercury	0.0376		0.00331	0.0354	1	12/16/2019 19:36	WG1396619
B-5-SS-1.0	L1170116-13	Mercury	0.0637		0.00329	0.0352	1	12/16/2019 19:38	WG1396619
B-5-SS-3.0	L1170116-14	Mercury	0.0286	J	0.00328	0.0351	1	12/16/2019 19:45	WG1396619
B-5-SS-9.0	L1170116-15	Mercury	0.0269	J	0.00328	0.0351	1	12/16/2019 19:47	WG1396619

Metals (ICP) by Method 6010B

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-1-SS-1.0	L1170116-01	Antimony	1.25	J	0.924	2.46	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Arsenic	4.88		0.566	2.46	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Barium	185		0.209	0.616	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Beryllium	0.756		0.0862	0.246	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Cadmium	0.109	J	0.0862	0.616	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Chromium	64.2		0.172	1.23	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Cobalt	47.0		0.283	1.23	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Copper	21.2		0.653	2.46	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Lead	6.83		0.234	0.616	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Molybdenum	1.27		0.197	0.616	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Nickel	44.5		0.603	2.46	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Vanadium	77.9		0.296	2.46	1	12/14/2019 15:31	WG1395913
B-1-SS-1.0	L1170116-01	Zinc	41.7		0.727	6.16	1	12/14/2019 15:31	WG1395913
B-1-SS-3.0	L1170116-02	Antimony	1.31	J	0.935	2.49	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Arsenic	4.09		0.574	2.49	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Barium	187		0.212	0.623	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Beryllium	0.747		0.0873	0.249	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Cadmium	0.178	J	0.0873	0.623	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Chromium	70.1		0.175	1.25	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Cobalt	14.4		0.287	1.25	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Copper	25.5		0.661	2.49	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Lead	4.29	B	0.237	0.623	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Molybdenum	0.380	J	0.199	0.623	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Nickel	71.6		0.611	2.49	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Vanadium	84.9		0.299	2.49	1	12/14/2019 15:39	WG1395913
B-1-SS-3.0	L1170116-02	Zinc	57.6		0.736	6.23	1	12/14/2019 15:39	WG1395913
B-1-SS-9.0	L1170116-03	Antimony	0.978	J	0.864	2.30	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Arsenic	10.7		0.530	2.30	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Barium	159		0.196	0.576	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Beryllium	0.433		0.0806	0.230	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Cadmium	0.270	J	0.0806	0.576	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Chromium	61.2		0.161	1.15	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Cobalt	16.7		0.265	1.15	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Copper	32.3		0.610	2.30	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Lead	5.55		0.219	0.576	1	12/14/2019 15:42	WG1395913

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Metals (ICP) by Method 6010B

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-1-SS-9.0	L1170116-03	Antimony	0.978	J	0.864	2.30	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Arsenic	10.7		0.530	2.30	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Barium	159		0.196	0.576	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Beryllium	0.433		0.0806	0.230	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Cadmium	0.270	J	0.0806	0.576	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Molybdenum	0.505	J	0.184	0.576	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Nickel	46.8		0.564	2.30	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Vanadium	89.9		0.276	2.30	1	12/14/2019 15:42	WG1395913
B-1-SS-9.0	L1170116-03	Zinc	66.7		0.679	5.76	1	12/14/2019 15:42	WG1395913
B-2-SS-1.0	L1170116-04	Antimony	0.929	J	0.913	2.44	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Arsenic	2.47		0.560	2.44	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Barium	177		0.207	0.609	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Beryllium	0.430		0.0852	0.244	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Cadmium	0.245	J	0.0852	0.609	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Chromium	38.0		0.170	1.22	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Cobalt	9.72		0.280	1.22	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Copper	20.9		0.645	2.44	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Lead	71.9		0.231	0.609	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Molybdenum	0.360	J	0.195	0.609	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Nickel	29.8		0.597	2.44	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Vanadium	43.9		0.292	2.44	1	12/14/2019 15:44	WG1395913
B-2-SS-1.0	L1170116-04	Zinc	78.9		0.718	6.09	1	12/14/2019 15:44	WG1395913
B-2-SS-3.0	L1170116-05	Antimony	1.00	J	0.907	2.42	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Arsenic	2.46		0.557	2.42	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Barium	130		0.206	0.605	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Beryllium	0.568		0.0847	0.242	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Cadmium	0.173	J	0.0847	0.605	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Chromium	66.7		0.169	1.21	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Cobalt	9.21		0.278	1.21	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Copper	23.2		0.641	2.42	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Lead	3.80	B	0.230	0.605	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Molybdenum	0.302	J	0.194	0.605	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Nickel	49.8		0.593	2.42	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Vanadium	56.4		0.290	2.42	1	12/14/2019 15:47	WG1395913
B-2-SS-3.0	L1170116-05	Zinc	48.1		0.714	6.05	1	12/14/2019 15:47	WG1395913
B-2-SS-9.0	L1170116-06	Antimony	1.18	J	0.931	2.48	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Arsenic	4.99		0.571	2.48	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Barium	163		0.211	0.620	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Beryllium	0.557		0.0869	0.248	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Cadmium	0.156	J	0.0869	0.620	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Chromium	67.8		0.174	1.24	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Cobalt	19.1		0.285	1.24	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Copper	27.3		0.658	2.48	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Lead	6.01		0.236	0.620	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Molybdenum	0.523	J	0.199	0.620	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Nickel	77.3		0.608	2.48	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Vanadium	73.2		0.298	2.48	1	12/14/2019 15:50	WG1395913
B-2-SS-9.0	L1170116-06	Zinc	53.3		0.732	6.20	1	12/14/2019 15:50	WG1395913

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Metals (ICP) by Method 6010B

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-3-SS-1.0	L1170116-07	Arsenic	1.49	J	0.584	2.54	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Barium	163		0.216	0.635	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Beryllium	0.668		0.0889	0.254	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Cadmium	0.0897	J	0.0889	0.635	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Chromium	68.3		0.178	1.27	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Cobalt	11.5		0.292	1.27	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Copper	25.9		0.673	2.54	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Lead	5.44		0.241	0.635	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Nickel	54.2		0.622	2.54	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Vanadium	63.6		0.305	2.54	1	12/14/2019 15:52	WG1395913
B-3-SS-1.0	L1170116-07	Zinc	47.6		0.749	6.35	1	12/14/2019 15:52	WG1395913
B-3-SS-3.0	L1170116-08	Barium	361		0.210	0.617	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Beryllium	0.574		0.0864	0.247	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Cadmium	0.104	J	0.0864	0.617	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Chromium	56.1		0.173	1.23	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Cobalt	7.70		0.284	1.23	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Copper	20.2		0.654	2.47	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Lead	4.62		0.234	0.617	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Nickel	54.2		0.605	2.47	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Vanadium	42.2		0.296	2.47	1	12/14/2019 15:55	WG1395913
B-3-SS-3.0	L1170116-08	Zinc	45.3		0.728	6.17	1	12/14/2019 15:55	WG1395913
B-3-SS-9.0	L1170116-09	Antimony	1.55	J	0.929	2.48	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Arsenic	6.06		0.570	2.48	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Barium	124		0.211	0.619	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Beryllium	0.421		0.0867	0.248	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Cadmium	0.200	J	0.0867	0.619	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Chromium	53.2		0.173	1.24	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Cobalt	15.3		0.285	1.24	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Copper	24.1		0.657	2.48	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Lead	5.72		0.235	0.619	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Molybdenum	0.394	J	0.198	0.619	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Nickel	58.1		0.607	2.48	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Vanadium	64.7		0.297	2.48	1	12/14/2019 15:57	WG1395913
B-3-SS-9.0	L1170116-09	Zinc	52.2		0.731	6.19	1	12/14/2019 15:57	WG1395913
B-4-SS-1.0	L1170116-10	Arsenic	1.99	J	0.578	2.51	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Barium	247		0.214	0.628	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Beryllium	0.714		0.0879	0.251	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Cadmium	0.183	J	0.0879	0.628	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Chromium	69.2		0.176	1.26	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Cobalt	12.4		0.289	1.26	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Copper	26.3		0.666	2.51	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Lead	8.02		0.239	0.628	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Nickel	49.9		0.615	2.51	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Vanadium	66.6		0.301	2.51	1	12/14/2019 16:00	WG1395913
B-4-SS-1.0	L1170116-10	Zinc	41.9		0.741	6.28	1	12/14/2019 16:00	WG1395913
B-4-SS-3.0	L1170116-11	Barium	257		0.205	0.602	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Beryllium	0.517		0.0843	0.241	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Cadmium	0.141	J	0.0843	0.602	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Chromium	67.2		0.169	1.20	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Cobalt	11.3		0.277	1.20	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Copper	21.4		0.638	2.41	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Lead	4.76		0.229	0.602	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Nickel	61.0		0.590	2.41	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Vanadium	54.8		0.289	2.41	1	12/14/2019 16:02	WG1395913
B-4-SS-3.0	L1170116-11	Zinc	60.2		0.710	6.02	1	12/14/2019 16:02	WG1395913

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Metals (ICP) by Method 6010B

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-4-SS-9.0	L1170116-12	Arsenic	2.41		0.543	2.36	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Barium	158		0.201	0.591	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Beryllium	0.455		0.0827	0.236	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Cadmium	0.240	J	0.0827	0.591	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Chromium	55.5		0.165	1.18	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Cobalt	26.2		0.272	1.18	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Copper	21.9		0.626	2.36	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Lead	6.26		0.224	0.591	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Molybdenum	0.277	J	0.189	0.591	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Nickel	87.5		0.579	2.36	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Vanadium	54.9		0.284	2.36	1	12/14/2019 16:10	WG1395913
B-4-SS-9.0	L1170116-12	Zinc	38.0		0.697	5.91	1	12/14/2019 16:10	WG1395913
B-5-SS-1.0	L1170116-13	Antimony	1.30	J	0.881	2.35	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Arsenic	1.84	J	0.540	2.35	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Barium	133		0.200	0.587	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Beryllium	0.489		0.0822	0.235	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Cadmium	0.127	J	0.0822	0.587	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Chromium	63.3		0.164	1.17	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Cobalt	12.0		0.270	1.17	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Copper	20.5		0.622	2.35	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Lead	16.5		0.223	0.587	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Nickel	57.0		0.575	2.35	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Vanadium	49.3		0.282	2.35	1	12/14/2019 16:13	WG1395913
B-5-SS-1.0	L1170116-13	Zinc	46.2		0.693	5.87	1	12/14/2019 16:13	WG1395913
B-5-SS-3.0	L1170116-14	Antimony	0.936	J	0.878	2.34	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Arsenic	3.40		0.539	2.34	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Barium	111		0.199	0.585	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Beryllium	0.404		0.0820	0.234	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Cadmium	0.162	J	0.0820	0.585	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Chromium	54.0		0.164	1.17	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Cobalt	10.7		0.269	1.17	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Copper	20.1		0.620	2.34	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Lead	5.61		0.222	0.585	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Nickel	41.9		0.574	2.34	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Vanadium	45.4		0.281	2.34	1	12/14/2019 16:15	WG1395913
B-5-SS-3.0	L1170116-14	Zinc	39.9		0.691	5.85	1	12/14/2019 16:15	WG1395913
B-5-SS-9.0	L1170116-15	Antimony	1.27	J	0.878	2.34	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Arsenic	3.76		0.539	2.34	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Barium	124		0.199	0.586	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Beryllium	0.521		0.0820	0.234	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Cadmium	0.124	J	0.0820	0.586	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Chromium	60.1		0.164	1.17	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Cobalt	14.6		0.269	1.17	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Copper	20.0		0.621	2.34	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Lead	6.78		0.223	0.586	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Molybdenum	0.349	J	0.187	0.586	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Nickel	67.0		0.574	2.34	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Vanadium	60.1		0.281	2.34	1	12/14/2019 16:18	WG1395913
B-5-SS-9.0	L1170116-15	Zinc	40.6		0.691	5.86	1	12/14/2019 16:18	WG1395913

Volatile Organic Compounds (GC) by Method 8015

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-3-SS-1.0	L1170116-07	TPHG C5 - C12	0.0514	B J	0.0422	0.127	1	12/15/2019 07:49	WG1396752

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Volatile Organic Compounds (GC) by Method 8015

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-4-SS-1.0	L1170116-10	TPHG C5 - C12	0.0762	B J	0.0417	0.126	1	12/15/2019 08:11	WG1396752
B-5-SS-1.0	L1170116-13	TPHG C5 - C12	0.180	B	0.0390	0.117	1	12/15/2019 08:33	WG1396752

Volatile Organic Compounds (GC/MS) by Method 8260B

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-3-SS-1.0	L1170116-07	Acetone	0.0704		0.0174	0.0317	1	12/15/2019 05:09	WG1396623
B-3-SS-1.0	L1170116-07	Benzene	0.00177		0.000508	0.00127	1	12/15/2019 05:09	WG1396623
B-3-SS-1.0	L1170116-07	2-Butanone (MEK)	0.0324	B	0.0159	0.0317	1	12/15/2019 05:09	WG1396623
B-3-SS-1.0	L1170116-07	Toluene	0.0169		0.00159	0.00635	1	12/15/2019 05:09	WG1396623
B-4-SS-1.0	L1170116-10	Acetone	0.0406		0.0178	0.0327	1.04	12/15/2019 05:30	WG1396623
B-4-SS-1.0	L1170116-10	2-Butanone (MEK)	0.0264	B J	0.0163	0.0327	1.04	12/15/2019 05:30	WG1396623
B-4-SS-1.0	L1170116-10	Toluene	0.0124		0.00163	0.00653	1.04	12/15/2019 05:30	WG1396623
B-5-SS-1.0	L1170116-13	Acetone	0.0648		0.0161	0.0294	1	12/15/2019 05:50	WG1396623
B-5-SS-1.0	L1170116-13	Benzene	0.000567	J	0.000470	0.00117	1	12/15/2019 05:50	WG1396623
B-5-SS-1.0	L1170116-13	2-Butanone (MEK)	0.0256	B J	0.0147	0.0294	1	12/15/2019 05:50	WG1396623
B-5-SS-1.0	L1170116-13	Toluene	0.0169		0.00147	0.00587	1	12/15/2019 05:50	WG1396623

Semi-Volatile Organic Compounds (GC) by Method 8015

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
B-2-SS-1.0	L1170116-04	C22-C32 Hydrocarbons	4.18	J	1.62	4.87	1	12/15/2019 02:03	WG1395893
B-2-SS-1.0	L1170116-04	C32-C40 Hydrocarbons	4.53	J	1.62	4.87	1	12/15/2019 02:03	WG1395893
B-2-SS-3.0	L1170116-05	C32-C40 Hydrocarbons	2.13	J	1.61	4.84	1	12/15/2019 00:51	WG1395893
B-2-SS-9.0	L1170116-06	C12-C22 Hydrocarbons	1.87	J	0.910	4.96	1	12/14/2019 22:26	WG1395893
B-2-SS-9.0	L1170116-06	C22-C32 Hydrocarbons	1.92	J	1.65	4.96	1	12/14/2019 22:26	WG1395893
B-3-SS-1.0	L1170116-07	C22-C32 Hydrocarbons	1.77	J	1.69	5.08	1	12/15/2019 01:05	WG1395893
B-4-SS-1.0	L1170116-10	C12-C22 Hydrocarbons	1.65	J	0.921	5.02	1	12/15/2019 01:34	WG1395893
B-4-SS-1.0	L1170116-10	C22-C32 Hydrocarbons	4.41	J	1.67	5.02	1	12/15/2019 01:34	WG1395893
B-4-SS-1.0	L1170116-10	C32-C40 Hydrocarbons	3.49	J	1.67	5.02	1	12/15/2019 01:34	WG1395893
B-5-SS-1.0	L1170116-13	C12-C22 Hydrocarbons	3.15	J	1.73	9.39	2	12/15/2019 14:32	WG1395893
B-5-SS-1.0	L1170116-13	C22-C32 Hydrocarbons	35.0		3.12	9.39	2	12/15/2019 14:32	WG1395893
B-5-SS-1.0	L1170116-13	C32-C40 Hydrocarbons	31.3		3.12	9.39	2	12/15/2019 14:32	WG1395893
B-5-SS-3.0	L1170116-14	C12-C22 Hydrocarbons	0.871	J	0.858	4.68	1	12/15/2019 02:18	WG1395893
B-5-SS-3.0	L1170116-14	C22-C32 Hydrocarbons	4.76		1.56	4.68	1	12/15/2019 02:18	WG1395893
B-5-SS-3.0	L1170116-14	C32-C40 Hydrocarbons	4.21	J	1.56	4.68	1	12/15/2019 02:18	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.2		1	12/14/2019 13:55	WG1396075

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.160		0.00345	0.0369	1	12/16/2019 11:23	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.25	J	0.924	2.46	1	12/14/2019 15:31	WG1395913
Arsenic	4.88		0.566	2.46	1	12/14/2019 15:31	WG1395913
Barium	185		0.209	0.616	1	12/14/2019 15:31	WG1395913
Beryllium	0.756		0.0862	0.246	1	12/14/2019 15:31	WG1395913
Cadmium	0.109	J	0.0862	0.616	1	12/14/2019 15:31	WG1395913
Chromium	64.2		0.172	1.23	1	12/14/2019 15:31	WG1395913
Cobalt	47.0		0.283	1.23	1	12/14/2019 15:31	WG1395913
Copper	21.2		0.653	2.46	1	12/14/2019 15:31	WG1395913
Lead	6.83		0.234	0.616	1	12/14/2019 15:31	WG1395913
Molybdenum	1.27		0.197	0.616	1	12/14/2019 15:31	WG1395913
Nickel	44.5		0.603	2.46	1	12/14/2019 15:31	WG1395913
Selenium	U		0.763	2.46	1	12/14/2019 15:31	WG1395913
Silver	U		0.148	1.23	1	12/14/2019 15:31	WG1395913
Thallium	U		0.800	2.46	1	12/14/2019 15:31	WG1395913
Vanadium	77.9		0.296	2.46	1	12/14/2019 15:31	WG1395913
Zinc	41.7		0.727	6.16	1	12/14/2019 15:31	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.903	4.93	1	12/14/2019 21:42	WG1395893
C22-C32 Hydrocarbons	U		1.64	4.93	1	12/14/2019 21:42	WG1395893
C32-C40 Hydrocarbons	U		1.64	4.93	1	12/14/2019 21:42	WG1395893
(S) o-Terphenyl	*65.6*			*18.0-148*		*12/14/2019 21:42*	WG1395893

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000287	0.0246	1	12/14/2019 10:22	WG1396175
Alpha BHC	U		0.000238	0.0246	1	12/14/2019 10:22	WG1396175
Beta BHC	U		0.000373	0.0246	1	12/14/2019 10:22	WG1396175
Delta BHC	U		0.000186	0.0246	1	12/14/2019 10:22	WG1396175
Gamma BHC	U		0.000302	0.0246	1	12/14/2019 10:22	WG1396175
4,4-DDD	U		0.000202	0.0246	1	12/14/2019 10:22	WG1396175
4,4-DDE	U		0.000203	0.0246	1	12/14/2019 10:22	WG1396175
4,4-DDT	U		0.000328	0.0246	1	12/14/2019 10:22	WG1396175
Dieldrin	U		0.000110	0.00246	1	12/14/2019 10:22	WG1396175
Endosulfan I	U		0.000264	0.0246	1	12/14/2019 10:22	WG1396175
Endosulfan II	U		0.000283	0.0246	1	12/14/2019 10:22	WG1396175
Endosulfan sulfate	U		0.000209	0.0246	1	12/14/2019 10:22	WG1396175
Endrin	U		0.000270	0.0246	1	12/14/2019 10:22	WG1396175
Endrin aldehyde	U		0.000298	0.0246	1	12/14/2019 10:22	WG1396175
Endrin ketone	U		0.000196	0.0246	1	12/14/2019 10:22	WG1396175
Heptachlor	U		0.000124	0.0246	1	12/14/2019 10:22	WG1396175

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Pesticides (GC) by Method 8081

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Heptachlor epoxide	U		0.000465	0.0246	1	12/14/2019 10:22	WG1396175
Hexachlorobenzene	U		0.000276	0.0246	1	12/14/2019 10:22	WG1396175
Methoxychlor	U		0.000326	0.0246	1	12/14/2019 10:22	WG1396175
Chlordane	U		0.0480	0.246	1	12/14/2019 10:22	WG1396175
Toxaphene	U		0.0443	0.493	1	12/14/2019 10:22	WG1396175
(S) Decachlorobiphenyl	*72.0*			*10.0-135*		*12/14/2019 10:22*	WG1396175
(S) Tetrachloro-m-xylene	*75.0*			*10.0-139*		*12/14/2019 10:22*	WG1396175

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.2		1	12/14/2019 13:55	WG1396075

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0514		0.00349	0.0374	1	12/16/2019 11:25	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.31	J	0.935	2.49	1	12/14/2019 15:39	WG1395913
Arsenic	4.09		0.574	2.49	1	12/14/2019 15:39	WG1395913
Barium	187		0.212	0.623	1	12/14/2019 15:39	WG1395913
Beryllium	0.747		0.0873	0.249	1	12/14/2019 15:39	WG1395913
Cadmium	0.178	J	0.0873	0.623	1	12/14/2019 15:39	WG1395913
Chromium	70.1		0.175	1.25	1	12/14/2019 15:39	WG1395913
Cobalt	14.4		0.287	1.25	1	12/14/2019 15:39	WG1395913
Copper	25.5		0.661	2.49	1	12/14/2019 15:39	WG1395913
Lead	4.29	B	0.237	0.623	1	12/14/2019 15:39	WG1395913
Molybdenum	0.380	J	0.199	0.623	1	12/14/2019 15:39	WG1395913
Nickel	71.6		0.611	2.49	1	12/14/2019 15:39	WG1395913
Selenium	U		0.773	2.49	1	12/14/2019 15:39	WG1395913
Silver	U		0.150	1.25	1	12/14/2019 15:39	WG1395913
Thallium	U		0.810	2.49	1	12/14/2019 15:39	WG1395913
Vanadium	84.9		0.299	2.49	1	12/14/2019 15:39	WG1395913
Zinc	57.6		0.736	6.23	1	12/14/2019 15:39	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.914	4.99	1	12/14/2019 21:57	WG1395893
C22-C32 Hydrocarbons	U		1.66	4.99	1	12/14/2019 21:57	WG1395893
C32-C40 Hydrocarbons	U		1.66	4.99	1	12/14/2019 21:57	WG1395893
(S) o-Terphenyl	*75.1*			*18.0-148*		*12/14/2019 21:57*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.8		1	12/14/2019 13:55	WG1396075

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0308	J	0.00322	0.0345	1	12/16/2019 11:27	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.978	J	0.864	2.30	1	12/14/2019 15:42	WG1395913
Arsenic	10.7		0.530	2.30	1	12/14/2019 15:42	WG1395913
Barium	159		0.196	0.576	1	12/14/2019 15:42	WG1395913
Beryllium	0.433		0.0806	0.230	1	12/14/2019 15:42	WG1395913
Cadmium	0.270	J	0.0806	0.576	1	12/14/2019 15:42	WG1395913
Chromium	61.2		0.161	1.15	1	12/14/2019 15:42	WG1395913
Cobalt	16.7		0.265	1.15	1	12/14/2019 15:42	WG1395913
Copper	32.3		0.610	2.30	1	12/14/2019 15:42	WG1395913
Lead	5.55		0.219	0.576	1	12/14/2019 15:42	WG1395913
Molybdenum	0.505	J	0.184	0.576	1	12/14/2019 15:42	WG1395913
Nickel	46.8		0.564	2.30	1	12/14/2019 15:42	WG1395913
Selenium	U		0.714	2.30	1	12/14/2019 15:42	WG1395913
Silver	U		0.138	1.15	1	12/14/2019 15:42	WG1395913
Thallium	U		0.749	2.30	1	12/14/2019 15:42	WG1395913
Vanadium	89.9		0.276	2.30	1	12/14/2019 15:42	WG1395913
Zinc	66.7		0.679	5.76	1	12/14/2019 15:42	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.844	4.61	1	12/14/2019 22:11	WG1395893
C22-C32 Hydrocarbons	U		1.53	4.61	1	12/14/2019 22:11	WG1395893
C32-C40 Hydrocarbons	U		1.53	4.61	1	12/14/2019 22:11	WG1395893
(S) o-Terphenyl	*86.8*			*18.0-148*		*12/14/2019 22:11*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.1		1	12/14/2019 13:55	WG1396075

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.311		0.00341	0.0365	1	12/16/2019 11:29	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.929	J	0.913	2.44	1	12/14/2019 15:44	WG1395913
Arsenic	2.47		0.560	2.44	1	12/14/2019 15:44	WG1395913
Barium	177		0.207	0.609	1	12/14/2019 15:44	WG1395913
Beryllium	0.430		0.0852	0.244	1	12/14/2019 15:44	WG1395913
Cadmium	0.245	J	0.0852	0.609	1	12/14/2019 15:44	WG1395913
Chromium	38.0		0.170	1.22	1	12/14/2019 15:44	WG1395913
Cobalt	9.72		0.280	1.22	1	12/14/2019 15:44	WG1395913
Copper	20.9		0.645	2.44	1	12/14/2019 15:44	WG1395913
Lead	71.9		0.231	0.609	1	12/14/2019 15:44	WG1395913
Molybdenum	0.360	J	0.195	0.609	1	12/14/2019 15:44	WG1395913
Nickel	29.8		0.597	2.44	1	12/14/2019 15:44	WG1395913
Selenium	U		0.755	2.44	1	12/14/2019 15:44	WG1395913
Silver	U		0.146	1.22	1	12/14/2019 15:44	WG1395913
Thallium	U		0.791	2.44	1	12/14/2019 15:44	WG1395913
Vanadium	43.9		0.292	2.44	1	12/14/2019 15:44	WG1395913
Zinc	78.9		0.718	6.09	1	12/14/2019 15:44	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.892	4.87	1	12/15/2019 02:03	WG1395893
C22-C32 Hydrocarbons	4.18	J	1.62	4.87	1	12/15/2019 02:03	WG1395893
C32-C40 Hydrocarbons	4.53	J	1.62	4.87	1	12/15/2019 02:03	WG1395893
(S) o-Terphenyl	*77.2*			*18.0-148*		*12/15/2019 02:03*	WG1395893

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000284	0.0244	1	12/14/2019 10:35	WG1396175
Alpha BHC	U		0.000235	0.0244	1	12/14/2019 10:35	WG1396175
Beta BHC	U		0.000369	0.0244	1	12/14/2019 10:35	WG1396175
Delta BHC	U		0.000184	0.0244	1	12/14/2019 10:35	WG1396175
Gamma BHC	U		0.000298	0.0244	1	12/14/2019 10:35	WG1396175
4,4-DDD	U		0.000200	0.0244	1	12/14/2019 10:35	WG1396175
4,4-DDE	U		0.000201	0.0244	1	12/14/2019 10:35	WG1396175
4,4-DDT	U		0.000324	0.0244	1	12/14/2019 10:35	WG1396175
Dieldrin	U		0.000108	0.00244	1	12/14/2019 10:35	WG1396175
Endosulfan I	U		0.000261	0.0244	1	12/14/2019 10:35	WG1396175
Endosulfan II	U		0.000280	0.0244	1	12/14/2019 10:35	WG1396175
Endosulfan sulfate	U		0.000207	0.0244	1	12/14/2019 10:35	WG1396175
Endrin	U		0.000267	0.0244	1	12/14/2019 10:35	WG1396175
Endrin aldehyde	U		0.000295	0.0244	1	12/14/2019 10:35	WG1396175
Endrin ketone	U		0.000194	0.0244	1	12/14/2019 10:35	WG1396175
Heptachlor	U		0.000123	0.0244	1	12/14/2019 10:35	WG1396175

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Pesticides (GC) by Method 8081

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Heptachlor epoxide	U		0.000460	0.0244	1	12/14/2019 10:35	WG1396175
Hexachlorobenzene	U		0.000273	0.0244	1	12/14/2019 10:35	WG1396175
Methoxychlor	U		0.000323	0.0244	1	12/14/2019 10:35	WG1396175
Chlordane	U		0.0475	0.244	1	12/14/2019 10:35	WG1396175
Toxaphene	U		0.0438	0.487	1	12/14/2019 10:35	WG1396175
(S) Decachlorobiphenyl	*56.4*			*10.0-135*		*12/14/2019 10:35*	WG1396175
(S) Tetrachloro-m-xylene	*54.7*			*10.0-139*		*12/14/2019 10:35*	WG1396175

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.7		1	12/14/2019 13:55	WG1396075

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.211		0.00339	0.0363	1	12/16/2019 11:32	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.00	J	0.907	2.42	1	12/14/2019 15:47	WG1395913
Arsenic	2.46		0.557	2.42	1	12/14/2019 15:47	WG1395913
Barium	130		0.206	0.605	1	12/14/2019 15:47	WG1395913
Beryllium	0.568		0.0847	0.242	1	12/14/2019 15:47	WG1395913
Cadmium	0.173	J	0.0847	0.605	1	12/14/2019 15:47	WG1395913
Chromium	66.7		0.169	1.21	1	12/14/2019 15:47	WG1395913
Cobalt	9.21		0.278	1.21	1	12/14/2019 15:47	WG1395913
Copper	23.2		0.641	2.42	1	12/14/2019 15:47	WG1395913
Lead	3.80	B	0.230	0.605	1	12/14/2019 15:47	WG1395913
Molybdenum	0.302	J	0.194	0.605	1	12/14/2019 15:47	WG1395913
Nickel	49.8		0.593	2.42	1	12/14/2019 15:47	WG1395913
Selenium	U		0.750	2.42	1	12/14/2019 15:47	WG1395913
Silver	U		0.145	1.21	1	12/14/2019 15:47	WG1395913
Thallium	U		0.786	2.42	1	12/14/2019 15:47	WG1395913
Vanadium	56.4		0.290	2.42	1	12/14/2019 15:47	WG1395913
Zinc	48.1		0.714	6.05	1	12/14/2019 15:47	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.887	4.84	1	12/15/2019 00:51	WG1395893
C22-C32 Hydrocarbons	U		1.61	4.84	1	12/15/2019 00:51	WG1395893
C32-C40 Hydrocarbons	2.13	J	1.61	4.84	1	12/15/2019 00:51	WG1395893
(S) o-Terphenyl	*74.1*			*18.0-148*		*12/15/2019 00:51*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.6		1	12/14/2019 13:55	WG1396075

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0475		0.00347	0.0372	1	12/16/2019 11:38	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.18	J	0.931	2.48	1	12/14/2019 15:50	WG1395913
Arsenic	4.99		0.571	2.48	1	12/14/2019 15:50	WG1395913
Barium	163		0.211	0.620	1	12/14/2019 15:50	WG1395913
Beryllium	0.557		0.0869	0.248	1	12/14/2019 15:50	WG1395913
Cadmium	0.156	J	0.0869	0.620	1	12/14/2019 15:50	WG1395913
Chromium	67.8		0.174	1.24	1	12/14/2019 15:50	WG1395913
Cobalt	19.1		0.285	1.24	1	12/14/2019 15:50	WG1395913
Copper	27.3		0.658	2.48	1	12/14/2019 15:50	WG1395913
Lead	6.01		0.236	0.620	1	12/14/2019 15:50	WG1395913
Molybdenum	0.523	J	0.199	0.620	1	12/14/2019 15:50	WG1395913
Nickel	77.3		0.608	2.48	1	12/14/2019 15:50	WG1395913
Selenium	U		0.769	2.48	1	12/14/2019 15:50	WG1395913
Silver	U		0.149	1.24	1	12/14/2019 15:50	WG1395913
Thallium	U		0.807	2.48	1	12/14/2019 15:50	WG1395913
Vanadium	73.2		0.298	2.48	1	12/14/2019 15:50	WG1395913
Zinc	53.3		0.732	6.20	1	12/14/2019 15:50	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	1.87	J	0.910	4.96	1	12/14/2019 22:26	WG1395893
C22-C32 Hydrocarbons	1.92	J	1.65	4.96	1	12/14/2019 22:26	WG1395893
C32-C40 Hydrocarbons	U		1.65	4.96	1	12/14/2019 22:26	WG1395893
(S) o-Terphenyl	*82.5*			*18.0-148*		*12/14/2019 22:26*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.7		1	12/14/2019 13:55	WG1396075

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0259	J	0.00356	0.0381	1	12/16/2019 11:40	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.952	2.54	1	12/14/2019 15:52	WG1395913
Arsenic	1.49	J	0.584	2.54	1	12/14/2019 15:52	WG1395913
Barium	163		0.216	0.635	1	12/14/2019 15:52	WG1395913
Beryllium	0.668		0.0889	0.254	1	12/14/2019 15:52	WG1395913
Cadmium	0.0897	J	0.0889	0.635	1	12/14/2019 15:52	WG1395913
Chromium	68.3		0.178	1.27	1	12/14/2019 15:52	WG1395913
Cobalt	11.5		0.292	1.27	1	12/14/2019 15:52	WG1395913
Copper	25.9		0.673	2.54	1	12/14/2019 15:52	WG1395913
Lead	5.44		0.241	0.635	1	12/14/2019 15:52	WG1395913
Molybdenum	U		0.203	0.635	1	12/14/2019 15:52	WG1395913
Nickel	54.2		0.622	2.54	1	12/14/2019 15:52	WG1395913
Selenium	U		0.787	2.54	1	12/14/2019 15:52	WG1395913
Silver	U		0.152	1.27	1	12/14/2019 15:52	WG1395913
Thallium	U		0.825	2.54	1	12/14/2019 15:52	WG1395913
Vanadium	63.6		0.305	2.54	1	12/14/2019 15:52	WG1395913
Zinc	47.6		0.749	6.35	1	12/14/2019 15:52	WG1395913

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	0.0514	B J	0.0422	0.127	1	12/15/2019 07:49	WG1396752
(S) a,a,a-Trifluorotoluene(FID)	*109*			*77.0-120*		*12/15/2019 07:49*	WG1396752

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0704		0.0174	0.0317	1	12/15/2019 05:09	WG1396623
Acrylonitrile	U		0.00241	0.0159	1	12/15/2019 05:09	WG1396623
Benzene	0.00177		0.000508	0.00127	1	12/15/2019 05:09	WG1396623
Bromobenzene	U		0.00133	0.0159	1	12/15/2019 05:09	WG1396623
Bromodichloromethane	U		0.00100	0.00317	1	12/15/2019 05:09	WG1396623
Bromoform	U		0.00759	0.0317	1	12/15/2019 05:09	WG1396623
Bromomethane	U		0.00470	0.0159	1	12/15/2019 05:09	WG1396623
n-Butylbenzene	U		0.00488	0.0159	1	12/15/2019 05:09	WG1396623
sec-Butylbenzene	U		0.00321	0.0159	1	12/15/2019 05:09	WG1396623
tert-Butylbenzene	U		0.00197	0.00635	1	12/15/2019 05:09	WG1396623
Carbon tetrachloride	U		0.00137	0.00635	1	12/15/2019 05:09	WG1396623
Chlorobenzene	U		0.000728	0.00317	1	12/15/2019 05:09	WG1396623
Chlorodibromomethane	U		0.000571	0.00317	1	12/15/2019 05:09	WG1396623
Chloroethane	U		0.00137	0.00635	1	12/15/2019 05:09	WG1396623
Chloroform	U		0.000527	0.00317	1	12/15/2019 05:09	WG1396623
Chloromethane	U	J4	0.00177	0.0159	1	12/15/2019 05:09	WG1396623
2-Chlorotoluene	U		0.00117	0.00317	1	12/15/2019 05:09	WG1396623
4-Chlorotoluene	U		0.00144	0.00635	1	12/15/2019 05:09	WG1396623

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00648	0.0317	1	12/15/2019 05:09	WG1396623
1,2-Dibromoethane	U		0.000667	0.00317	1	12/15/2019 05:09	WG1396623
Dibromomethane	U		0.00127	0.00635	1	12/15/2019 05:09	WG1396623
1,2-Dichlorobenzene	U		0.00184	0.00635	1	12/15/2019 05:09	WG1396623
1,3-Dichlorobenzene	U		0.00216	0.00635	1	12/15/2019 05:09	WG1396623
1,4-Dichlorobenzene	U		0.00250	0.00635	1	12/15/2019 05:09	WG1396623
Dichlorodifluoromethane	U		0.00104	0.00317	1	12/15/2019 05:09	WG1396623
1,1-Dichloroethane	U		0.000730	0.00317	1	12/15/2019 05:09	WG1396623
1,2-Dichloroethane	U		0.000603	0.00317	1	12/15/2019 05:09	WG1396623
1,1-Dichloroethene	U		0.000635	0.00317	1	12/15/2019 05:09	WG1396623
cis-1,2-Dichloroethene	U		0.000876	0.00317	1	12/15/2019 05:09	WG1396623
trans-1,2-Dichloroethene	U		0.00182	0.00635	1	12/15/2019 05:09	WG1396623
1,2-Dichloropropane	U	J4	0.00161	0.00635	1	12/15/2019 05:09	WG1396623
1,1-Dichloropropene	U		0.000889	0.00317	1	12/15/2019 05:09	WG1396623
1,3-Dichloropropane	U		0.00222	0.00635	1	12/15/2019 05:09	WG1396623
cis-1,3-Dichloropropene	U		0.000861	0.00317	1	12/15/2019 05:09	WG1396623
trans-1,3-Dichloropropene	U		0.00194	0.00635	1	12/15/2019 05:09	WG1396623
2,2-Dichloropropane	U	J4	0.00101	0.00317	1	12/15/2019 05:09	WG1396623
Di-isopropyl ether	U	J4	0.000444	0.00127	1	12/15/2019 05:09	WG1396623
Ethylbenzene	U		0.000673	0.00317	1	12/15/2019 05:09	WG1396623
Hexachloro-1,3-butadiene	U		0.0161	0.0317	1	12/15/2019 05:09	WG1396623
Isopropylbenzene	U		0.00110	0.00317	1	12/15/2019 05:09	WG1396623
p-Isopropyltoluene	U		0.00296	0.00635	1	12/15/2019 05:09	WG1396623
2-Butanone (MEK)	0.0324	B	0.0159	0.0317	1	12/15/2019 05:09	WG1396623
Methylene Chloride	U		0.00843	0.0317	1	12/15/2019 05:09	WG1396623
4-Methyl-2-pentanone (MIBK)	U		0.0127	0.0317	1	12/15/2019 05:09	WG1396623
Methyl tert-butyl ether	U		0.000375	0.00127	1	12/15/2019 05:09	WG1396623
Naphthalene	U		0.00396	0.0159	1	12/15/2019 05:09	WG1396623
n-Propylbenzene	U		0.00150	0.00635	1	12/15/2019 05:09	WG1396623
Styrene	U		0.00347	0.0159	1	12/15/2019 05:09	WG1396623
1,1,1,2-Tetrachloroethane	U		0.000635	0.00317	1	12/15/2019 05:09	WG1396623
1,1,2,2-Tetrachloroethane	U		0.000495	0.00317	1	12/15/2019 05:09	WG1396623
1,1,2-Trichlorotrifluoroethane	U		0.000857	0.00317	1	12/15/2019 05:09	WG1396623
Tetrachloroethene	U		0.000889	0.00317	1	12/15/2019 05:09	WG1396623
Toluene	0.0169		0.00159	0.00635	1	12/15/2019 05:09	WG1396623
1,2,3-Trichlorobenzene	U		0.000794	0.00317	1	12/15/2019 05:09	WG1396623
1,2,4-Trichlorobenzene	U		0.00612	0.0159	1	12/15/2019 05:09	WG1396623
1,1,1-Trichloroethane	U		0.000349	0.00317	1	12/15/2019 05:09	WG1396623
1,1,2-Trichloroethane	U		0.00112	0.00317	1	12/15/2019 05:09	WG1396623
Trichloroethene	U		0.000508	0.00127	1	12/15/2019 05:09	WG1396623
Trichlorofluoromethane	U		0.000635	0.00317	1	12/15/2019 05:09	WG1396623
1,2,3-Trichloropropane	U		0.00648	0.0159	1	12/15/2019 05:09	WG1396623
1,2,4-Trimethylbenzene	U		0.00147	0.00635	1	12/15/2019 05:09	WG1396623
1,2,3-Trimethylbenzene	U		0.00146	0.00635	1	12/15/2019 05:09	WG1396623
1,3,5-Trimethylbenzene	U		0.00137	0.00635	1	12/15/2019 05:09	WG1396623
Vinyl chloride	U		0.000867	0.00317	1	12/15/2019 05:09	WG1396623
Xylenes, Total	U		0.00607	0.00825	1	12/15/2019 05:09	WG1396623
(S) Toluene-d8	*106*			*75.0-131*		*12/15/2019 05:09*	WG1396623
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*12/15/2019 05:09*	WG1396623
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*12/15/2019 05:09*	WG1396623

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Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.931	5.08	1	12/15/2019 01:05	WG1395893
C22-C32 Hydrocarbons	1.77	J	1.69	5.08	1	12/15/2019 01:05	WG1395893
C32-C40 Hydrocarbons	U		1.69	5.08	1	12/15/2019 01:05	WG1395893
(S) o-Terphenyl	*65.5*			*18.0-148*		*12/15/2019 01:05*	WG1395893

Pesticides (GC) by Method 8081

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.000296	0.0254	1	12/14/2019 10:47	WG1396175
Alpha BHC	U		0.000245	0.0254	1	12/14/2019 10:47	WG1396175
Beta BHC	U		0.000385	0.0254	1	12/14/2019 10:47	WG1396175
Delta BHC	U		0.000192	0.0254	1	12/14/2019 10:47	WG1396175
Gamma BHC	U		0.000311	0.0254	1	12/14/2019 10:47	WG1396175
4,4-DDD	U		0.000208	0.0254	1	12/14/2019 10:47	WG1396175
4,4-DDE	U		0.000210	0.0254	1	12/14/2019 10:47	WG1396175
4,4-DDT	U		0.000338	0.0254	1	12/14/2019 10:47	WG1396175
Dieldrin	U		0.000113	0.00254	1	12/14/2019 10:47	WG1396175
Endosulfan I	U		0.000272	0.0254	1	12/14/2019 10:47	WG1396175
Endosulfan II	U		0.000292	0.0254	1	12/14/2019 10:47	WG1396175
Endosulfan sulfate	U		0.000216	0.0254	1	12/14/2019 10:47	WG1396175
Endrin	U		0.000278	0.0254	1	12/14/2019 10:47	WG1396175
Endrin aldehyde	U		0.000307	0.0254	1	12/14/2019 10:47	WG1396175
Endrin ketone	U		0.000202	0.0254	1	12/14/2019 10:47	WG1396175
Heptachlor	U		0.000128	0.0254	1	12/14/2019 10:47	WG1396175
Heptachlor epoxide	U		0.000480	0.0254	1	12/14/2019 10:47	WG1396175
Hexachlorobenzene	U		0.000284	0.0254	1	12/14/2019 10:47	WG1396175
Methoxychlor	U		0.000337	0.0254	1	12/14/2019 10:47	WG1396175
Chlordane	U		0.0495	0.254	1	12/14/2019 10:47	WG1396175
Toxaphene	U		0.0457	0.508	1	12/14/2019 10:47	WG1396175
(S) Decachlorobiphenyl	*59.3*			*10.0-135*		*12/14/2019 10:47*	WG1396175
(S) Tetrachloro-m-xylene	*64.8*			*10.0-139*		*12/14/2019 10:47*	WG1396175

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.0		1	12/14/2019 13:45	WG1396077

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0272	J	0.00346	0.0370	1	12/16/2019 11:43	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.926	2.47	1	12/14/2019 15:55	WG1395913
Arsenic	U		0.568	2.47	1	12/14/2019 15:55	WG1395913
Barium	361		0.210	0.617	1	12/14/2019 15:55	WG1395913
Beryllium	0.574		0.0864	0.247	1	12/14/2019 15:55	WG1395913
Cadmium	0.104	J	0.0864	0.617	1	12/14/2019 15:55	WG1395913
Chromium	56.1		0.173	1.23	1	12/14/2019 15:55	WG1395913
Cobalt	7.70		0.284	1.23	1	12/14/2019 15:55	WG1395913
Copper	20.2		0.654	2.47	1	12/14/2019 15:55	WG1395913
Lead	4.62		0.234	0.617	1	12/14/2019 15:55	WG1395913
Molybdenum	U		0.197	0.617	1	12/14/2019 15:55	WG1395913
Nickel	54.2		0.605	2.47	1	12/14/2019 15:55	WG1395913
Selenium	U		0.765	2.47	1	12/14/2019 15:55	WG1395913
Silver	U		0.148	1.23	1	12/14/2019 15:55	WG1395913
Thallium	U		0.802	2.47	1	12/14/2019 15:55	WG1395913
Vanadium	42.2		0.296	2.47	1	12/14/2019 15:55	WG1395913
Zinc	45.3		0.728	6.17	1	12/14/2019 15:55	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.905	4.94	1	12/14/2019 23:09	WG1395893
C22-C32 Hydrocarbons	U		1.64	4.94	1	12/14/2019 23:09	WG1395893
C32-C40 Hydrocarbons	U		1.64	4.94	1	12/14/2019 23:09	WG1395893
(S) o-Terphenyl	*79.7*			*18.0-148*		*12/14/2019 23:09*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.7		1	12/14/2019 13:45	WG1396077

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0372	J	0.00347	0.0372	1	12/16/2019 11:45	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.55	J	0.929	2.48	1	12/14/2019 15:57	WG1395913
Arsenic	6.06		0.570	2.48	1	12/14/2019 15:57	WG1395913
Barium	124		0.211	0.619	1	12/14/2019 15:57	WG1395913
Beryllium	0.421		0.0867	0.248	1	12/14/2019 15:57	WG1395913
Cadmium	0.200	J	0.0867	0.619	1	12/14/2019 15:57	WG1395913
Chromium	53.2		0.173	1.24	1	12/14/2019 15:57	WG1395913
Cobalt	15.3		0.285	1.24	1	12/14/2019 15:57	WG1395913
Copper	24.1		0.657	2.48	1	12/14/2019 15:57	WG1395913
Lead	5.72		0.235	0.619	1	12/14/2019 15:57	WG1395913
Molybdenum	0.394	J	0.198	0.619	1	12/14/2019 15:57	WG1395913
Nickel	58.1		0.607	2.48	1	12/14/2019 15:57	WG1395913
Selenium	U		0.768	2.48	1	12/14/2019 15:57	WG1395913
Silver	U		0.149	1.24	1	12/14/2019 15:57	WG1395913
Thallium	U		0.805	2.48	1	12/14/2019 15:57	WG1395913
Vanadium	64.7		0.297	2.48	1	12/14/2019 15:57	WG1395913
Zinc	52.2		0.731	6.19	1	12/14/2019 15:57	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.908	4.96	1	12/14/2019 23:24	WG1395893
C22-C32 Hydrocarbons	U		1.65	4.96	1	12/14/2019 23:24	WG1395893
C32-C40 Hydrocarbons	U		1.65	4.96	1	12/14/2019 23:24	WG1395893
(S) o-Terphenyl	*75.8*			*18.0-148*		*12/14/2019 23:24*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.6		1	12/14/2019 13:45	WG1396077

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0320	J	0.00352	0.0377	1	12/16/2019 11:47	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.942	2.51	1	12/14/2019 16:00	WG1395913
Arsenic	1.99	J	0.578	2.51	1	12/14/2019 16:00	WG1395913
Barium	247		0.214	0.628	1	12/14/2019 16:00	WG1395913
Beryllium	0.714		0.0879	0.251	1	12/14/2019 16:00	WG1395913
Cadmium	0.183	J	0.0879	0.628	1	12/14/2019 16:00	WG1395913
Chromium	69.2		0.176	1.26	1	12/14/2019 16:00	WG1395913
Cobalt	12.4		0.289	1.26	1	12/14/2019 16:00	WG1395913
Copper	26.3		0.666	2.51	1	12/14/2019 16:00	WG1395913
Lead	8.02		0.239	0.628	1	12/14/2019 16:00	WG1395913
Molybdenum	U		0.201	0.628	1	12/14/2019 16:00	WG1395913
Nickel	49.9		0.615	2.51	1	12/14/2019 16:00	WG1395913
Selenium	U		0.779	2.51	1	12/14/2019 16:00	WG1395913
Silver	U		0.151	1.26	1	12/14/2019 16:00	WG1395913
Thallium	U		0.816	2.51	1	12/14/2019 16:00	WG1395913
Vanadium	66.6		0.301	2.51	1	12/14/2019 16:00	WG1395913
Zinc	41.9		0.741	6.28	1	12/14/2019 16:00	WG1395913

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	0.0762	B J	0.0417	0.126	1	12/15/2019 08:11	WG1396752
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*12/15/2019 08:11*	WG1396752

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0406		0.0178	0.0327	1.04	12/15/2019 05:30	WG1396623
Acrylonitrile	U		0.00249	0.0163	1.04	12/15/2019 05:30	WG1396623
Benzene	U		0.000522	0.00131	1.04	12/15/2019 05:30	WG1396623
Bromobenzene	U		0.00137	0.0163	1.04	12/15/2019 05:30	WG1396623
Bromodichloromethane	U		0.00103	0.00327	1.04	12/15/2019 05:30	WG1396623
Bromoform	U		0.00781	0.0327	1.04	12/15/2019 05:30	WG1396623
Bromomethane	U		0.00484	0.0163	1.04	12/15/2019 05:30	WG1396623
n-Butylbenzene	U		0.00501	0.0163	1.04	12/15/2019 05:30	WG1396623
sec-Butylbenzene	U		0.00330	0.0163	1.04	12/15/2019 05:30	WG1396623
tert-Butylbenzene	U		0.00202	0.00653	1.04	12/15/2019 05:30	WG1396623
Carbon tetrachloride	U		0.00141	0.00653	1.04	12/15/2019 05:30	WG1396623
Chlorobenzene	U		0.000749	0.00327	1.04	12/15/2019 05:30	WG1396623
Chlorodibromomethane	U		0.000588	0.00327	1.04	12/15/2019 05:30	WG1396623
Chloroethane	U		0.00141	0.00653	1.04	12/15/2019 05:30	WG1396623
Chloroform	U		0.000543	0.00327	1.04	12/15/2019 05:30	WG1396623
Chloromethane	U	J4	0.00182	0.0163	1.04	12/15/2019 05:30	WG1396623
2-Chlorotoluene	U		0.00120	0.00327	1.04	12/15/2019 05:30	WG1396623
4-Chlorotoluene	U		0.00148	0.00653	1.04	12/15/2019 05:30	WG1396623

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00666	0.0327	1.04	12/15/2019 05:30	WG1396623
1,2-Dibromoethane	U		0.000686	0.00327	1.04	12/15/2019 05:30	WG1396623
Dibromomethane	U		0.00131	0.00653	1.04	12/15/2019 05:30	WG1396623
1,2-Dichlorobenzene	U		0.00190	0.00653	1.04	12/15/2019 05:30	WG1396623
1,3-Dichlorobenzene	U		0.00222	0.00653	1.04	12/15/2019 05:30	WG1396623
1,4-Dichlorobenzene	U		0.00257	0.00653	1.04	12/15/2019 05:30	WG1396623
Dichlorodifluoromethane	U		0.00107	0.00327	1.04	12/15/2019 05:30	WG1396623
1,1-Dichloroethane	U		0.000751	0.00327	1.04	12/15/2019 05:30	WG1396623
1,2-Dichloroethane	U		0.000620	0.00327	1.04	12/15/2019 05:30	WG1396623
1,1-Dichloroethene	U		0.000653	0.00327	1.04	12/15/2019 05:30	WG1396623
cis-1,2-Dichloroethene	U		0.000902	0.00327	1.04	12/15/2019 05:30	WG1396623
trans-1,2-Dichloroethene	U		0.00187	0.00653	1.04	12/15/2019 05:30	WG1396623
1,2-Dichloropropane	U	J4	0.00166	0.00653	1.04	12/15/2019 05:30	WG1396623
1,1-Dichloropropene	U		0.000914	0.00327	1.04	12/15/2019 05:30	WG1396623
1,3-Dichloropropane	U		0.00229	0.00653	1.04	12/15/2019 05:30	WG1396623
cis-1,3-Dichloropropene	U		0.000885	0.00327	1.04	12/15/2019 05:30	WG1396623
trans-1,3-Dichloropropene	U		0.00200	0.00653	1.04	12/15/2019 05:30	WG1396623
2,2-Dichloropropane	U	J4	0.00104	0.00327	1.04	12/15/2019 05:30	WG1396623
Di-isopropyl ether	U	J4	0.000457	0.00131	1.04	12/15/2019 05:30	WG1396623
Ethylbenzene	U		0.000692	0.00327	1.04	12/15/2019 05:30	WG1396623
Hexachloro-1,3-butadiene	U		0.0166	0.0327	1.04	12/15/2019 05:30	WG1396623
Isopropylbenzene	U		0.00113	0.00327	1.04	12/15/2019 05:30	WG1396623
p-Isopropyltoluene	U		0.00304	0.00653	1.04	12/15/2019 05:30	WG1396623
2-Butanone (MEK)	0.0264	B J	0.0163	0.0327	1.04	12/15/2019 05:30	WG1396623
Methylene Chloride	U		0.00868	0.0327	1.04	12/15/2019 05:30	WG1396623
4-Methyl-2-pentanone (MIBK)	U		0.0131	0.0327	1.04	12/15/2019 05:30	WG1396623
Methyl tert-butyl ether	U		0.000386	0.00131	1.04	12/15/2019 05:30	WG1396623
Naphthalene	U		0.00407	0.0163	1.04	12/15/2019 05:30	WG1396623
n-Propylbenzene	U		0.00154	0.00653	1.04	12/15/2019 05:30	WG1396623
Styrene	U		0.00357	0.0163	1.04	12/15/2019 05:30	WG1396623
1,1,1,2-Tetrachloroethane	U		0.000653	0.00327	1.04	12/15/2019 05:30	WG1396623
1,1,2,2-Tetrachloroethane	U		0.000510	0.00327	1.04	12/15/2019 05:30	WG1396623
1,1,2-Trichlorotrifluoroethane	U		0.000882	0.00327	1.04	12/15/2019 05:30	WG1396623
Tetrachloroethene	U		0.000914	0.00327	1.04	12/15/2019 05:30	WG1396623
Toluene	0.0124		0.00163	0.00653	1.04	12/15/2019 05:30	WG1396623
1,2,3-Trichlorobenzene	U		0.000816	0.00327	1.04	12/15/2019 05:30	WG1396623
1,2,4-Trichlorobenzene	U		0.00629	0.0163	1.04	12/15/2019 05:30	WG1396623
1,1,1-Trichloroethane	U		0.000359	0.00327	1.04	12/15/2019 05:30	WG1396623
1,1,2-Trichloroethane	U		0.00115	0.00327	1.04	12/15/2019 05:30	WG1396623
Trichloroethene	U		0.000522	0.00131	1.04	12/15/2019 05:30	WG1396623
Trichlorofluoromethane	U		0.000653	0.00327	1.04	12/15/2019 05:30	WG1396623
1,2,3-Trichloropropane	U		0.00666	0.0163	1.04	12/15/2019 05:30	WG1396623
1,2,4-Trimethylbenzene	U		0.00152	0.00653	1.04	12/15/2019 05:30	WG1396623
1,2,3-Trimethylbenzene	U		0.00151	0.00653	1.04	12/15/2019 05:30	WG1396623
1,3,5-Trimethylbenzene	U		0.00141	0.00653	1.04	12/15/2019 05:30	WG1396623
Vinyl chloride	U		0.000892	0.00327	1.04	12/15/2019 05:30	WG1396623
Xylenes, Total	U		0.00624	0.00849	1.04	12/15/2019 05:30	WG1396623
(S) Toluene-d8	*108*			*75.0-131*		*12/15/2019 05:30*	WG1396623
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*12/15/2019 05:30*	WG1396623
(S) 1,2-Dichloroethane-d4	*99.6*			*70.0-130*		*12/15/2019 05:30*	WG1396623

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Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.65	J	0.921	5.02	1	12/15/2019 01:34	WG1395893
C22-C32 Hydrocarbons	4.41	J	1.67	5.02	1	12/15/2019 01:34	WG1395893
C32-C40 Hydrocarbons	3.49	J	1.67	5.02	1	12/15/2019 01:34	WG1395893
(S) o-Terphenyl	*65.9*			*18.0-148*		*12/15/2019 01:34*	WG1395893

Pesticides (GC) by Method 8081

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.000293	0.0251	1	12/14/2019 11:00	WG1396175
Alpha BHC	U		0.000242	0.0251	1	12/14/2019 11:00	WG1396175
Beta BHC	U		0.000381	0.0251	1	12/14/2019 11:00	WG1396175
Delta BHC	U		0.000190	0.0251	1	12/14/2019 11:00	WG1396175
Gamma BHC	U		0.000308	0.0251	1	12/14/2019 11:00	WG1396175
4,4-DDD	U		0.000206	0.0251	1	12/14/2019 11:00	WG1396175
4,4-DDE	U		0.000207	0.0251	1	12/14/2019 11:00	WG1396175
4,4-DDT	U		0.000334	0.0251	1	12/14/2019 11:00	WG1396175
Dieldrin	U		0.000112	0.00251	1	12/14/2019 11:00	WG1396175
Endosulfan I	U		0.000269	0.0251	1	12/14/2019 11:00	WG1396175
Endosulfan II	U		0.000289	0.0251	1	12/14/2019 11:00	WG1396175
Endosulfan sulfate	U		0.000214	0.0251	1	12/14/2019 11:00	WG1396175
Endrin	U		0.000275	0.0251	1	12/14/2019 11:00	WG1396175
Endrin aldehyde	U		0.000304	0.0251	1	12/14/2019 11:00	WG1396175
Endrin ketone	U		0.000200	0.0251	1	12/14/2019 11:00	WG1396175
Heptachlor	U		0.000127	0.0251	1	12/14/2019 11:00	WG1396175
Heptachlor epoxide	U		0.000475	0.0251	1	12/14/2019 11:00	WG1396175
Hexachlorobenzene	U		0.000281	0.0251	1	12/14/2019 11:00	WG1396175
Methoxychlor	U		0.000333	0.0251	1	12/14/2019 11:00	WG1396175
Chlordane	U		0.0490	0.251	1	12/14/2019 11:00	WG1396175
Toxaphene	U		0.0452	0.502	1	12/14/2019 11:00	WG1396175
(S) Decachlorobiphenyl	*66.8*			*10.0-135*		*12/14/2019 11:00*	WG1396175
(S) Tetrachloro-m-xylene	*72.3*			*10.0-139*		*12/14/2019 11:00*	WG1396175

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	12/14/2019 13:45	WG1396077

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0418		0.00337	0.0361	1	12/16/2019 11:49	WG1396021

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.903	2.41	1	12/14/2019 16:02	WG1395913
Arsenic	U		0.554	2.41	1	12/14/2019 16:02	WG1395913
Barium	257		0.205	0.602	1	12/14/2019 16:02	WG1395913
Beryllium	0.517		0.0843	0.241	1	12/14/2019 16:02	WG1395913
Cadmium	0.141	J	0.0843	0.602	1	12/14/2019 16:02	WG1395913
Chromium	67.2		0.169	1.20	1	12/14/2019 16:02	WG1395913
Cobalt	11.3		0.277	1.20	1	12/14/2019 16:02	WG1395913
Copper	21.4		0.638	2.41	1	12/14/2019 16:02	WG1395913
Lead	4.76		0.229	0.602	1	12/14/2019 16:02	WG1395913
Molybdenum	U		0.193	0.602	1	12/14/2019 16:02	WG1395913
Nickel	61.0		0.590	2.41	1	12/14/2019 16:02	WG1395913
Selenium	U		0.746	2.41	1	12/14/2019 16:02	WG1395913
Silver	U		0.144	1.20	1	12/14/2019 16:02	WG1395913
Thallium	U		0.782	2.41	1	12/14/2019 16:02	WG1395913
Vanadium	54.8		0.289	2.41	1	12/14/2019 16:02	WG1395913
Zinc	60.2		0.710	6.02	1	12/14/2019 16:02	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.882	4.81	1	12/15/2019 01:49	WG1395893
C22-C32 Hydrocarbons	U		1.60	4.81	1	12/15/2019 01:49	WG1395893
C32-C40 Hydrocarbons	U		1.60	4.81	1	12/15/2019 01:49	WG1395893
(S) o-Terphenyl	*79.6*			*18.0-148*		*12/15/2019 01:49*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.6		1	12/14/2019 13:45	WG1396077

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0376		0.00331	0.0354	1	12/16/2019 19:36	WG1396619

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.886	2.36	1	12/14/2019 16:10	WG1395913
Arsenic	2.41		0.543	2.36	1	12/14/2019 16:10	WG1395913
Barium	158		0.201	0.591	1	12/14/2019 16:10	WG1395913
Beryllium	0.455		0.0827	0.236	1	12/14/2019 16:10	WG1395913
Cadmium	0.240	J	0.0827	0.591	1	12/14/2019 16:10	WG1395913
Chromium	55.5		0.165	1.18	1	12/14/2019 16:10	WG1395913
Cobalt	26.2		0.272	1.18	1	12/14/2019 16:10	WG1395913
Copper	21.9		0.626	2.36	1	12/14/2019 16:10	WG1395913
Lead	6.26		0.224	0.591	1	12/14/2019 16:10	WG1395913
Molybdenum	0.277	J	0.189	0.591	1	12/14/2019 16:10	WG1395913
Nickel	87.5		0.579	2.36	1	12/14/2019 16:10	WG1395913
Selenium	U		0.733	2.36	1	12/14/2019 16:10	WG1395913
Silver	U		0.142	1.18	1	12/14/2019 16:10	WG1395913
Thallium	U		0.768	2.36	1	12/14/2019 16:10	WG1395913
Vanadium	54.9		0.284	2.36	1	12/14/2019 16:10	WG1395913
Zinc	38.0		0.697	5.91	1	12/14/2019 16:10	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.866	4.73	1	12/14/2019 23:38	WG1395893
C22-C32 Hydrocarbons	U		1.57	4.73	1	12/14/2019 23:38	WG1395893
C32-C40 Hydrocarbons	U		1.57	4.73	1	12/14/2019 23:38	WG1395893
(S) o-Terphenyl	*85.3*			*18.0-148*		*12/14/2019 23:38*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.2		1	12/14/2019 13:45	WG1396077

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0637		0.00329	0.0352	1	12/16/2019 19:38	WG1396619

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.30	J	0.881	2.35	1	12/14/2019 16:13	WG1395913
Arsenic	1.84	J	0.540	2.35	1	12/14/2019 16:13	WG1395913
Barium	133		0.200	0.587	1	12/14/2019 16:13	WG1395913
Beryllium	0.489		0.0822	0.235	1	12/14/2019 16:13	WG1395913
Cadmium	0.127	J	0.0822	0.587	1	12/14/2019 16:13	WG1395913
Chromium	63.3		0.164	1.17	1	12/14/2019 16:13	WG1395913
Cobalt	12.0		0.270	1.17	1	12/14/2019 16:13	WG1395913
Copper	20.5		0.622	2.35	1	12/14/2019 16:13	WG1395913
Lead	16.5		0.223	0.587	1	12/14/2019 16:13	WG1395913
Molybdenum	U		0.188	0.587	1	12/14/2019 16:13	WG1395913
Nickel	57.0		0.575	2.35	1	12/14/2019 16:13	WG1395913
Selenium	U		0.728	2.35	1	12/14/2019 16:13	WG1395913
Silver	U		0.141	1.17	1	12/14/2019 16:13	WG1395913
Thallium	U		0.763	2.35	1	12/14/2019 16:13	WG1395913
Vanadium	49.3		0.282	2.35	1	12/14/2019 16:13	WG1395913
Zinc	46.2		0.693	5.87	1	12/14/2019 16:13	WG1395913

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	0.180	B	0.0390	0.117	1	12/15/2019 08:33	WG1396752
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*		*12/15/2019 08:33*	WG1396752

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0648		0.0161	0.0294	1	12/15/2019 05:50	WG1396623
Acrylonitrile	U		0.00223	0.0147	1	12/15/2019 05:50	WG1396623
Benzene	0.000567	J	0.000470	0.00117	1	12/15/2019 05:50	WG1396623
Bromobenzene	U		0.00123	0.0147	1	12/15/2019 05:50	WG1396623
Bromodichloromethane	U		0.000925	0.00294	1	12/15/2019 05:50	WG1396623
Bromoform	U		0.00702	0.0294	1	12/15/2019 05:50	WG1396623
Bromomethane	U		0.00434	0.0147	1	12/15/2019 05:50	WG1396623
n-Butylbenzene	U		0.00451	0.0147	1	12/15/2019 05:50	WG1396623
sec-Butylbenzene	U		0.00297	0.0147	1	12/15/2019 05:50	WG1396623
tert-Butylbenzene	U		0.00182	0.00587	1	12/15/2019 05:50	WG1396623
Carbon tetrachloride	U		0.00127	0.00587	1	12/15/2019 05:50	WG1396623
Chlorobenzene	U		0.000673	0.00294	1	12/15/2019 05:50	WG1396623
Chlorodibromomethane	U		0.000528	0.00294	1	12/15/2019 05:50	WG1396623
Chloroethane	U		0.00127	0.00587	1	12/15/2019 05:50	WG1396623
Chloroform	U		0.000487	0.00294	1	12/15/2019 05:50	WG1396623
Chloromethane	U	J4	0.00163	0.0147	1	12/15/2019 05:50	WG1396623
2-Chlorotoluene	U		0.00108	0.00294	1	12/15/2019 05:50	WG1396623
4-Chlorotoluene	U		0.00133	0.00587	1	12/15/2019 05:50	WG1396623

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00599	0.0294	1	12/15/2019 05:50	WG1396623
1,2-Dibromoethane	U		0.000616	0.00294	1	12/15/2019 05:50	WG1396623
Dibromomethane	U		0.00117	0.00587	1	12/15/2019 05:50	WG1396623
1,2-Dichlorobenzene	U		0.00170	0.00587	1	12/15/2019 05:50	WG1396623
1,3-Dichlorobenzene	U		0.00200	0.00587	1	12/15/2019 05:50	WG1396623
1,4-Dichlorobenzene	U		0.00231	0.00587	1	12/15/2019 05:50	WG1396623
Dichlorodifluoromethane	U		0.000960	0.00294	1	12/15/2019 05:50	WG1396623
1,1-Dichloroethane	U		0.000675	0.00294	1	12/15/2019 05:50	WG1396623
1,2-Dichloroethane	U		0.000558	0.00294	1	12/15/2019 05:50	WG1396623
1,1-Dichloroethene	U		0.000587	0.00294	1	12/15/2019 05:50	WG1396623
cis-1,2-Dichloroethene	U		0.000810	0.00294	1	12/15/2019 05:50	WG1396623
trans-1,2-Dichloroethene	U		0.00168	0.00587	1	12/15/2019 05:50	WG1396623
1,2-Dichloropropane	U	J4	0.00149	0.00587	1	12/15/2019 05:50	WG1396623
1,1-Dichloropropene	U		0.000822	0.00294	1	12/15/2019 05:50	WG1396623
1,3-Dichloropropane	U		0.00205	0.00587	1	12/15/2019 05:50	WG1396623
cis-1,3-Dichloropropene	U		0.000796	0.00294	1	12/15/2019 05:50	WG1396623
trans-1,3-Dichloropropene	U		0.00180	0.00587	1	12/15/2019 05:50	WG1396623
2,2-Dichloropropane	U	J4	0.000931	0.00294	1	12/15/2019 05:50	WG1396623
Di-isopropyl ether	U	J4	0.000411	0.00117	1	12/15/2019 05:50	WG1396623
Ethylbenzene	U		0.000622	0.00294	1	12/15/2019 05:50	WG1396623
Hexachloro-1,3-butadiene	U		0.0149	0.0294	1	12/15/2019 05:50	WG1396623
Isopropylbenzene	U		0.00101	0.00294	1	12/15/2019 05:50	WG1396623
p-Isopropyltoluene	U		0.00274	0.00587	1	12/15/2019 05:50	WG1396623
2-Butanone (MEK)	0.0256	B J	0.0147	0.0294	1	12/15/2019 05:50	WG1396623
Methylene Chloride	U		0.00780	0.0294	1	12/15/2019 05:50	WG1396623
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0294	1	12/15/2019 05:50	WG1396623
Methyl tert-butyl ether	U		0.000346	0.00117	1	12/15/2019 05:50	WG1396623
Naphthalene	U		0.00366	0.0147	1	12/15/2019 05:50	WG1396623
n-Propylbenzene	U		0.00139	0.00587	1	12/15/2019 05:50	WG1396623
Styrene	U		0.00321	0.0147	1	12/15/2019 05:50	WG1396623
1,1,1,2-Tetrachloroethane	U		0.000587	0.00294	1	12/15/2019 05:50	WG1396623
1,1,2,2-Tetrachloroethane	U		0.000458	0.00294	1	12/15/2019 05:50	WG1396623
1,1,2-Trichlorotrifluoroethane	U		0.000792	0.00294	1	12/15/2019 05:50	WG1396623
Tetrachloroethene	U		0.000822	0.00294	1	12/15/2019 05:50	WG1396623
Toluene	0.0169		0.00147	0.00587	1	12/15/2019 05:50	WG1396623
1,2,3-Trichlorobenzene	U		0.000734	0.00294	1	12/15/2019 05:50	WG1396623
1,2,4-Trichlorobenzene	U		0.00566	0.0147	1	12/15/2019 05:50	WG1396623
1,1,1-Trichloroethane	U		0.000323	0.00294	1	12/15/2019 05:50	WG1396623
1,1,2-Trichloroethane	U		0.00104	0.00294	1	12/15/2019 05:50	WG1396623
Trichloroethene	U		0.000470	0.00117	1	12/15/2019 05:50	WG1396623
Trichlorofluoromethane	U		0.000587	0.00294	1	12/15/2019 05:50	WG1396623
1,2,3-Trichloropropane	U		0.00599	0.0147	1	12/15/2019 05:50	WG1396623
1,2,4-Trimethylbenzene	U		0.00136	0.00587	1	12/15/2019 05:50	WG1396623
1,2,3-Trimethylbenzene	U		0.00135	0.00587	1	12/15/2019 05:50	WG1396623
1,3,5-Trimethylbenzene	U		0.00127	0.00587	1	12/15/2019 05:50	WG1396623
Vinyl chloride	U		0.000802	0.00294	1	12/15/2019 05:50	WG1396623
Xylenes, Total	U		0.00561	0.00763	1	12/15/2019 05:50	WG1396623
(S) Toluene-d8	*106*			*75.0-131*		*12/15/2019 05:50*	WG1396623
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*12/15/2019 05:50*	WG1396623
(S) 1,2-Dichloroethane-d4	*99.6*			*70.0-130*		*12/15/2019 05:50*	WG1396623

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Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	3.15	J	1.73	9.39	2	12/15/2019 14:32	WG1395893
C22-C32 Hydrocarbons	35.0		3.12	9.39	2	12/15/2019 14:32	WG1395893
C32-C40 Hydrocarbons	31.3		3.12	9.39	2	12/15/2019 14:32	WG1395893
(S) o-Terphenyl	*78.9*			*18.0-148*		*12/15/2019 14:32*	WG1395893

Pesticides (GC) by Method 8081

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.000274	0.0235	1	12/14/2019 11:12	WG1396175
Alpha BHC	U		0.000227	0.0235	1	12/14/2019 11:12	WG1396175
Beta BHC	U		0.000356	0.0235	1	12/14/2019 11:12	WG1396175
Delta BHC	U		0.000177	0.0235	1	12/14/2019 11:12	WG1396175
Gamma BHC	U		0.000288	0.0235	1	12/14/2019 11:12	WG1396175
4,4-DDD	U		0.000193	0.0235	1	12/14/2019 11:12	WG1396175
4,4-DDE	U		0.000194	0.0235	1	12/14/2019 11:12	WG1396175
4,4-DDT	U		0.000312	0.0235	1	12/14/2019 11:12	WG1396175
Dieldrin	U		0.000104	0.00235	1	12/14/2019 11:12	WG1396175
Endosulfan I	U		0.000251	0.0235	1	12/14/2019 11:12	WG1396175
Endosulfan II	U		0.000270	0.0235	1	12/14/2019 11:12	WG1396175
Endosulfan sulfate	U		0.000200	0.0235	1	12/14/2019 11:12	WG1396175
Endrin	U		0.000257	0.0235	1	12/14/2019 11:12	WG1396175
Endrin aldehyde	U		0.000284	0.0235	1	12/14/2019 11:12	WG1396175
Endrin ketone	U		0.000187	0.0235	1	12/14/2019 11:12	WG1396175
Heptachlor	U		0.000119	0.0235	1	12/14/2019 11:12	WG1396175
Heptachlor epoxide	U		0.000444	0.0235	1	12/14/2019 11:12	WG1396175
Hexachlorobenzene	U		0.000263	0.0235	1	12/14/2019 11:12	WG1396175
Methoxychlor	U		0.000311	0.0235	1	12/14/2019 11:12	WG1396175
Chlordane	U		0.0458	0.235	1	12/14/2019 11:12	WG1396175
Toxaphene	U		0.0423	0.470	1	12/14/2019 11:12	WG1396175
(S) Decachlorobiphenyl	*34.4*			*10.0-135*		*12/14/2019 11:12*	WG1396175
(S) Tetrachloro-m-xylene	*37.0*			*10.0-139*		*12/14/2019 11:12*	WG1396175

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.4		1	12/14/2019 13:45	WG1396077

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0286	J	0.00328	0.0351	1	12/16/2019 19:45	WG1396619

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.936	J	0.878	2.34	1	12/14/2019 16:15	WG1395913
Arsenic	3.40		0.539	2.34	1	12/14/2019 16:15	WG1395913
Barium	111		0.199	0.585	1	12/14/2019 16:15	WG1395913
Beryllium	0.404		0.0820	0.234	1	12/14/2019 16:15	WG1395913
Cadmium	0.162	J	0.0820	0.585	1	12/14/2019 16:15	WG1395913
Chromium	54.0		0.164	1.17	1	12/14/2019 16:15	WG1395913
Cobalt	10.7		0.269	1.17	1	12/14/2019 16:15	WG1395913
Copper	20.1		0.620	2.34	1	12/14/2019 16:15	WG1395913
Lead	5.61		0.222	0.585	1	12/14/2019 16:15	WG1395913
Molybdenum	U		0.187	0.585	1	12/14/2019 16:15	WG1395913
Nickel	41.9		0.574	2.34	1	12/14/2019 16:15	WG1395913
Selenium	U		0.726	2.34	1	12/14/2019 16:15	WG1395913
Silver	U		0.140	1.17	1	12/14/2019 16:15	WG1395913
Thallium	U		0.761	2.34	1	12/14/2019 16:15	WG1395913
Vanadium	45.4		0.281	2.34	1	12/14/2019 16:15	WG1395913
Zinc	39.9		0.691	5.85	1	12/14/2019 16:15	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	0.871	J	0.858	4.68	1	12/15/2019 02:18	WG1395893
C22-C32 Hydrocarbons	4.76		1.56	4.68	1	12/15/2019 02:18	WG1395893
C32-C40 Hydrocarbons	4.21	J	1.56	4.68	1	12/15/2019 02:18	WG1395893
(S) o-Terphenyl	*78.9*			*18.0-148*		*12/15/2019 02:18*	WG1395893

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.4		1	12/14/2019 13:45	WG1396077

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0269	J	0.00328	0.0351	1	12/16/2019 19:47	WG1396619

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.27	J	0.878	2.34	1	12/14/2019 16:18	WG1395913
Arsenic	3.76		0.539	2.34	1	12/14/2019 16:18	WG1395913
Barium	124		0.199	0.586	1	12/14/2019 16:18	WG1395913
Beryllium	0.521		0.0820	0.234	1	12/14/2019 16:18	WG1395913
Cadmium	0.124	J	0.0820	0.586	1	12/14/2019 16:18	WG1395913
Chromium	60.1		0.164	1.17	1	12/14/2019 16:18	WG1395913
Cobalt	14.6		0.269	1.17	1	12/14/2019 16:18	WG1395913
Copper	20.0		0.621	2.34	1	12/14/2019 16:18	WG1395913
Lead	6.78		0.223	0.586	1	12/14/2019 16:18	WG1395913
Molybdenum	0.349	J	0.187	0.586	1	12/14/2019 16:18	WG1395913
Nickel	67.0		0.574	2.34	1	12/14/2019 16:18	WG1395913
Selenium	U		0.726	2.34	1	12/14/2019 16:18	WG1395913
Silver	U		0.141	1.17	1	12/14/2019 16:18	WG1395913
Thallium	U		0.761	2.34	1	12/14/2019 16:18	WG1395913
Vanadium	60.1		0.281	2.34	1	12/14/2019 16:18	WG1395913
Zinc	40.6		0.691	5.86	1	12/14/2019 16:18	WG1395913

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.858	4.68	1	12/14/2019 23:53	WG1395893
C22-C32 Hydrocarbons	U		1.56	4.68	1	12/14/2019 23:53	WG1395893
C32-C40 Hydrocarbons	U		1.56	4.68	1	12/14/2019 23:53	WG1395893
(S) o-Terphenyl	*90.8*			*18.0-148*		*12/14/2019 23:53*	WG1395893

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Method Blank (MB)

(MB) R3482655-1 12/14/19 13:55

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1170105-32 Original Sample (OS) • Duplicate (DUP)

(OS) L1170105-32 12/14/19 13:55 • (DUP) R3482655-3 12/14/19 13:55

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	96.0	95.9	1	0.109		10

Laboratory Control Sample (LCS)

(LCS) R3482655-2 12/14/19 13:55

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

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Method Blank (MB)

(MB) R3482654-1 12/14/19 13:45

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1170116-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1170116-11 12/14/19 13:45 • (DUP) R3482654-3 12/14/19 13:45

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.1	83.1	1	0.0171		10

Laboratory Control Sample (LCS)

(LCS) R3482654-2 12/14/19 13:45

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

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Method Blank (MB)

(MB) R3482781-1 12/16/19 11:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.00280	0.0300

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3482781-2 12/16/19 11:12 • (LCSD) R3482781-3 12/16/19 11:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.500	0.485	0.418	97.0	83.7	80.0-120			14.8	20

L1170231-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170231-04 12/16/19 11:16 • (MS) R3482781-4 12/16/19 11:18 • (MSD) R3482781-5 12/16/19 11:21

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.591	ND	0.368	0.360	59.7	58.4	1	75.0-125	J6	J6	2.03	20

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Method Blank (MB)

(MB) R3482958-1 12/16/19 18:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.00280	0.0300

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3482958-2 12/16/19 18:54 • (LCSD) R3482958-3 12/16/19 18:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.500	0.455	0.475	91.0	95.0	80.0-120			4.30	20

L1170385-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170385-01 12/16/19 18:59 • (MS) R3482958-4 12/16/19 19:01 • (MSD) R3482958-5 12/16/19 19:03

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.500	ND	0.453	0.430	86.9	82.1	1	75.0-125			5.33	20

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Method Blank (MB)

(MB) R3482546-1 12/14/19 15:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.750	2.00
Arsenic	U		0.460	2.00
Barium	U		0.170	0.500
Beryllium	U		0.0700	0.200
Cadmium	U		0.0700	0.500
Chromium	0.171	J	0.140	1.00
Cobalt	U		0.230	1.00
Copper	U		0.530	2.00
Lead	0.373	J	0.190	0.500
Molybdenum	U		0.160	0.500
Nickel	U		0.490	2.00
Selenium	U		0.620	2.00
Silver	U		0.120	1.00
Thallium	U		0.650	2.00
Vanadium	0.495	J	0.240	2.00
Zinc	U		0.590	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3482546-2 12/14/19 15:11 • (LCSD) R3482546-3 12/14/19 15:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Antimony	100	97.1	97.6	97.1	97.6	80.0-120			0.568	20
Arsenic	100	93.5	94.0	93.5	94.0	80.0-120			0.523	20
Barium	100	99.5	99.9	99.5	99.9	80.0-120			0.346	20
Beryllium	100	98.8	98.6	98.8	98.6	80.0-120			0.161	20
Cadmium	100	95.2	95.4	95.2	95.4	80.0-120			0.226	20
Chromium	100	98.8	98.8	98.8	98.8	80.0-120			0.00589	20
Cobalt	100	97.8	97.8	97.8	97.8	80.0-120			0.0322	20
Copper	100	98.3	98.3	98.3	98.3	80.0-120			0.0341	20
Lead	100	96.6	97.3	96.6	97.3	80.0-120			0.707	20
Molybdenum	100	101	100	101	100	80.0-120			0.208	20
Nickel	100	96.9	97.0	96.9	97.0	80.0-120			0.0865	20
Selenium	100	93.1	94.4	93.1	94.4	80.0-120			1.36	20
Silver	20.0	18.4	18.5	92.1	92.3	80.0-120			0.121	20
Thallium	100	97.2	98.0	97.2	98.0	80.0-120			0.767	20
Vanadium	100	97.7	97.2	97.7	97.2	80.0-120			0.451	20
Zinc	100	96.0	96.1	96.0	96.1	80.0-120			0.140	20

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L1170231-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170231-04 12/14/19 15:16 • (MS) R3482546-6 12/14/19 15:23 • (MSD) R3482546-7 12/14/19 15:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	118	ND	63.1	62.0	53.4	52.4	1	75.0-125	J6	J6	1.80	20
Arsenic	118	ND	95.1	98.7	79.7	82.8	1	75.0-125			3.79	20
Barium	118	197	598	411	339	181	1	75.0-125	J5	J3 J5	37.1	20
Beryllium	118	0.742	99.9	103	83.9	86.1	1	75.0-125			2.61	20
Cadmium	118	ND	97.5	99.7	82.5	84.4	1	75.0-125			2.30	20
Chromium	118	16.2	117	119	85.0	87.0	1	75.0-125			1.96	20
Cobalt	118	20.7	126	128	89.0	90.7	1	75.0-125			1.67	20
Copper	118	6.62	110	112	87.1	88.8	1	75.0-125			1.82	20
Lead	118	9.13	114	117	88.8	90.9	1	75.0-125			2.22	20
Molybdenum	118	ND	98.5	99.4	83.3	84.0	1	75.0-125			0.851	20
Nickel	118	19.0	123	126	87.8	90.2	1	75.0-125			2.30	20
Selenium	118	ND	94.0	96.6	79.5	81.7	1	75.0-125			2.69	20
Silver	23.6	ND	18.8	19.3	79.4	81.6	1	75.0-125			2.70	20
Thallium	118	ND	104	107	87.6	90.9	1	75.0-125			3.71	20
Vanadium	118	28.9	130	132	85.8	87.3	1	75.0-125			1.41	20
Zinc	118	28.3	126	128	82.6	84.0	1	75.0-125			1.38	20

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Method Blank (MB)

(MB) R3483195-3 12/15/19 07:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C5 - C12	0.0593	J	0.0332	0.100
(S) a,a,a-Trifluorotoluene(FID)	*112*			*77.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3483195-1 12/15/19 05:56 • (LCSD) R3483195-2 12/15/19 06:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHG C5 - C12	5.50	6.53	6.61	119	120	72.0-125			1.22	20
(S) a,a,a-Trifluorotoluene(FID)				*115*	*116*	*77.0-120*				

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1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3482753-2 12/15/19 02:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

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Method Blank (MB)

(MB) R3482753-2 12/15/19 02:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	0.0416		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*107*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3482753-1 12/15/19 00:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.930	149	10.0-160	
Acrylonitrile	0.625	0.836	134	45.0-153	
Benzene	0.125	0.136	109	70.0-123	
Bromobenzene	0.125	0.137	110	73.0-121	
Bromodichloromethane	0.125	0.137	110	73.0-121	

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Laboratory Control Sample (LCS)

(LCS) R3482753-1 12/15/19 00:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.131	105	64.0-132	
Bromomethane	0.125	0.103	82.4	56.0-147	
n-Butylbenzene	0.125	0.132	106	68.0-135	
sec-Butylbenzene	0.125	0.144	115	74.0-130	
tert-Butylbenzene	0.125	0.141	113	75.0-127	
Carbon tetrachloride	0.125	0.143	114	66.0-128	
Chlorobenzene	0.125	0.127	102	76.0-128	
Chlorodibromomethane	0.125	0.129	103	74.0-127	
Chloroethane	0.125	0.104	83.2	61.0-134	
Chloroform	0.125	0.137	110	72.0-123	
Chloromethane	0.125	0.188	150	51.0-138	J4
2-Chlorotoluene	0.125	0.138	110	75.0-124	
4-Chlorotoluene	0.125	0.141	113	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.0996	79.7	59.0-130	
1,2-Dibromoethane	0.125	0.136	109	74.0-128	
Dibromomethane	0.125	0.140	112	75.0-122	
1,2-Dichlorobenzene	0.125	0.133	106	76.0-124	
1,3-Dichlorobenzene	0.125	0.139	111	76.0-125	
1,4-Dichlorobenzene	0.125	0.134	107	77.0-121	
Dichlorodifluoromethane	0.125	0.174	139	43.0-156	
1,1-Dichloroethane	0.125	0.157	126	70.0-127	
1,2-Dichloroethane	0.125	0.140	112	65.0-131	
1,1-Dichloroethene	0.125	0.135	108	65.0-131	
cis-1,2-Dichloroethene	0.125	0.129	103	73.0-125	
trans-1,2-Dichloroethene	0.125	0.137	110	71.0-125	
1,2-Dichloropropane	0.125	0.158	126	74.0-125	J4
1,1-Dichloropropene	0.125	0.148	118	73.0-125	
1,3-Dichloropropane	0.125	0.139	111	80.0-125	
cis-1,3-Dichloropropene	0.125	0.134	107	76.0-127	
trans-1,3-Dichloropropene	0.125	0.134	107	73.0-127	
2,2-Dichloropropane	0.125	0.175	140	59.0-135	J4
Di-isopropyl ether	0.125	0.172	138	60.0-136	J4
Ethylbenzene	0.125	0.128	102	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.146	117	57.0-150	
Isopropylbenzene	0.125	0.133	106	72.0-127	
p-Isopropyltoluene	0.125	0.141	113	72.0-133	
2-Butanone (MEK)	0.625	0.850	136	30.0-160	
Methylene Chloride	0.125	0.153	122	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.775	124	56.0-143	
Methyl tert-butyl ether	0.125	0.159	127	66.0-132	

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Laboratory Control Sample (LCS)

(LCS) R3482753-1 12/15/19 00:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.0924	73.9	59.0-130	
n-Propylbenzene	0.125	0.141	113	74.0-126	
Styrene	0.125	0.130	104	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.136	109	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.152	122	68.0-128	
Tetrachloroethene	0.125	0.143	114	70.0-136	
Toluene	0.125	0.129	103	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.136	109	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.109	87.2	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.126	101	62.0-137	
1,1,1-Trichloroethane	0.125	0.148	118	69.0-126	
1,1,2-Trichloroethane	0.125	0.134	107	78.0-123	
Trichloroethene	0.125	0.145	116	76.0-126	
Trichlorofluoromethane	0.125	0.151	121	61.0-142	
1,2,3-Trichloropropane	0.125	0.152	122	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.138	110	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.134	107	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.138	110	73.0-127	
Vinyl chloride	0.125	0.130	104	63.0-134	
Xylenes, Total	0.375	0.396	106	72.0-127	
(S) Toluene-d8			*105*	*75.0-131*	
(S) 4-Bromofluorobenzene			*101*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*107*	*70.0-130*	

L1170250-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170250-02 12/15/19 08:35 • (MS) R3482753-3 12/15/19 09:17 • (MSD) R3482753-4 12/15/19 09:38

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	ND	0.313	0.359	50.1	57.4	1	10.0-160			13.7	40
Acrylonitrile	0.625	ND	0.721	0.731	115	117	1	10.0-160			1.38	40
Benzene	0.125	ND	0.149	0.0540	119	43.2	1	10.0-149		J3	93.6	37
Bromobenzene	0.125	ND	0.149	0.0798	119	63.8	1	10.0-156		J3	60.5	38
Bromodichloromethane	0.125	ND	0.145	0.0815	116	65.2	1	10.0-143		J3	56.1	37
Bromoform	0.125	ND	0.124	0.112	99.2	89.6	1	10.0-146			10.2	36
Bromomethane	0.125	ND	0.0848	0.0266	67.8	21.3	1	10.0-149		J3	104	38
n-Butylbenzene	0.125	ND	0.154	0.0492	123	39.4	1	10.0-160		J3	103	40
sec-Butylbenzene	0.125	ND	0.163	0.0467	130	37.4	1	10.0-159		J3	111	39
tert-Butylbenzene	0.125	ND	0.163	0.0503	130	40.2	1	10.0-156		J3	106	39

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L1170250-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170250-02 12/15/19 08:35 • (MS) R3482753-3 12/15/19 09:17 • (MSD) R3482753-4 12/15/19 09:38

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.125	ND	0.153	0.0334	122	26.7	1	10.0-145		J3	128	37
Chlorobenzene	0.125	ND	0.142	0.0672	114	53.8	1	10.0-152		J3	71.5	39
Chlorodibromomethane	0.125	ND	0.137	0.101	110	80.8	1	10.0-146			30.3	37
Chloroethane	0.125	ND	0.0815	0.0203	65.2	16.2	1	10.0-146		J3	120	40
Chloroform	0.125	ND	0.154	0.0597	123	47.8	1	10.0-146		J3	88.3	37
Chloromethane	0.125	ND	0.189	0.0489	151	39.1	1	10.0-159		J3	118	37
2-Chlorotoluene	0.125	ND	0.152	0.0619	122	49.5	1	10.0-159		J3	84.2	38
4-Chlorotoluene	0.125	ND	0.157	0.0716	126	57.3	1	10.0-155		J3	74.7	39
1,2-Dibromo-3-Chloropropane	0.125	ND	0.0908	0.0994	72.6	79.5	1	10.0-151			9.04	39
1,2-Dibromoethane	0.125	ND	0.143	0.119	114	95.2	1	10.0-148			18.3	34
Dibromomethane	0.125	ND	0.148	0.107	118	85.6	1	10.0-147			32.2	35
1,2-Dichlorobenzene	0.125	ND	0.146	0.0915	117	73.2	1	10.0-155		J3	45.9	37
1,3-Dichlorobenzene	0.125	ND	0.158	0.0806	126	64.5	1	10.0-153		J3	64.9	38
1,4-Dichlorobenzene	0.125	ND	0.146	0.0809	117	64.7	1	10.0-151		J3	57.4	38
Dichlorodifluoromethane	0.125	ND	0.164	0.0218	131	17.4	1	10.0-160		J3	153	35
1,1-Dichloroethane	0.125	ND	0.166	0.0585	133	46.8	1	10.0-147		J3	95.8	37
1,2-Dichloroethane	0.125	ND	0.149	0.0984	119	78.7	1	10.0-148		J3	40.9	35
1,1-Dichloroethene	0.125	ND	0.0657	0.0287	52.6	23.0	1	10.0-155		J3	78.4	37
cis-1,2-Dichloroethene	0.125	ND	0.138	0.0554	110	44.3	1	10.0-149		J3	85.4	37
trans-1,2-Dichloroethene	0.125	ND	0.145	0.0398	116	31.8	1	10.0-150		J3	114	37
1,2-Dichloropropane	0.125	ND	0.162	0.0832	130	66.6	1	10.0-148		J3	64.3	37
1,1-Dichloropropene	0.125	ND	0.165	0.0352	132	28.2	1	10.0-153		J3	130	35
1,3-Dichloropropane	0.125	ND	0.151	0.114	121	91.2	1	10.0-154			27.9	35
cis-1,3-Dichloropropene	0.125	ND	0.151	0.0873	121	69.8	1	10.0-151		J3	53.5	37
trans-1,3-Dichloropropene	0.125	ND	0.148	0.102	118	81.6	1	10.0-148			36.8	37
2,2-Dichloropropane	0.125	ND	0.137	0.0339	110	27.1	1	10.0-138		J3	121	36
Di-isopropyl ether	0.125	ND	0.184	0.106	147	84.8	1	10.0-147		J3	53.8	36
Ethylbenzene	0.125	ND	0.146	0.0511	117	40.9	1	10.0-160		J3	96.3	38
Hexachloro-1,3-butadiene	0.125	ND	0.178	0.0670	142	53.6	1	10.0-160		J3	90.6	40
Isopropylbenzene	0.125	ND	0.151	0.0498	121	39.8	1	10.0-155		J3	101	38
p-Isopropyltoluene	0.125	ND	0.159	0.0510	127	40.8	1	10.0-160		J3	103	40
2-Butanone (MEK)	0.625	0.0328	0.687	0.774	105	119	1	10.0-160			11.9	40
Methylene Chloride	0.125	ND	0.150	0.0476	120	38.1	1	10.0-141		J3	104	37
4-Methyl-2-pentanone (MIBK)	0.625	ND	0.725	0.754	116	121	1	10.0-160			3.92	35
Methyl tert-butyl ether	0.125	ND	0.157	0.117	126	93.6	1	11.0-147			29.2	35
Naphthalene	0.125	ND	0.0842	0.0955	67.4	76.4	1	10.0-160			12.6	36
n-Propylbenzene	0.125	ND	0.163	0.0488	130	39.0	1	10.0-158		J3	108	38
Styrene	0.125	ND	0.142	0.0717	114	57.4	1	10.0-160		J3	65.8	40
1,1,1,2-Tetrachloroethane	0.125	ND	0.140	0.0814	112	65.1	1	10.0-149		J3	52.9	39
1,1,2,2-Tetrachloroethane	0.125	ND	0.141	0.123	113	98.4	1	10.0-160			13.6	35

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L1170250-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170250-02 12/15/19 08:35 • (MS) R3482753-3 12/15/19 09:17 • (MSD) R3482753-4 12/15/19 09:38

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.125	ND	0.172	0.0469	138	37.5	1	10.0-156		J3	114	39
Toluene	0.125	ND	0.145	0.0546	116	43.7	1	10.0-156		J3	90.6	38
1,1,2-Trichlorotrifluoroethane	0.125	ND	0.163	0.0205	130	16.4	1	10.0-160		J3	155	36
1,2,3-Trichlorobenzene	0.125	ND	0.112	0.109	89.6	87.2	1	10.0-160			2.71	40
1,2,4-Trichlorobenzene	0.125	ND	0.146	0.110	117	88.0	1	10.0-160			28.1	40
1,1,1-Trichloroethane	0.125	ND	0.162	0.0383	130	30.6	1	10.0-144		J3	124	35
1,1,2-Trichloroethane	0.125	ND	0.157	0.121	126	96.8	1	10.0-160			25.9	35
Trichloroethene	0.125	ND	0.174	0.0669	139	53.5	1	10.0-156		J3	88.9	38
Trichlorofluoromethane	0.125	ND	0.112	0.0157	89.6	12.6	1	10.0-160		J3	151	40
1,2,3-Trichloropropane	0.125	ND	0.151	0.137	121	110	1	10.0-156			9.72	35
1,2,3-Trimethylbenzene	0.125	ND	0.147	0.0754	118	60.3	1	10.0-160		J3	64.4	36
1,2,4-Trimethylbenzene	0.125	ND	0.154	0.0668	123	53.4	1	10.0-160		J3	79.0	36
1,3,5-Trimethylbenzene	0.125	ND	0.152	0.0569	122	45.5	1	10.0-160		J3	91.0	38
Vinyl chloride	0.125	ND	0.136	0.0235	109	18.8	1	10.0-160		J3	141	37
Xylenes, Total	0.375	ND	0.441	0.176	118	46.9	1	10.0-160		J3	85.9	38
(S) Toluene-d8					*106*	*107*		*75.0-131*				
(S) 4-Bromofluorobenzene					*101*	*105*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*103*	*102*		*70.0-130*				

DRAFT

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3482479-1 12/14/19 21:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	*97.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3482479-2 12/14/19 21:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C22-C32 Hydrocarbons	25.0	21.8	87.2	50.0-150	
C12-C22 Hydrocarbons	25.0	21.9	87.6	50.0-150	
(S) o-Terphenyl			*79.7*	*18.0-148*	

L1170116-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170116-06 12/14/19 22:26 • (MS) R3482479-3 12/14/19 22:40 • (MSD) R3482479-4 12/14/19 22:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C22-C32 Hydrocarbons	30.4	1.92	20.8	22.6	62.2	68.0	1	50.0-150			8.00	20
C12-C22 Hydrocarbons	30.4	1.87	20.3	23.0	60.8	69.3	1	50.0-150			12.0	20
(S) o-Terphenyl					*60.4*	*67.8*		*18.0-148*				

DRAFT

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3482511-1 12/14/19 08:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.000233	0.0200
Alpha BHC	U		0.000193	0.0200
Beta BHC	U		0.000303	0.0200
Delta BHC	U		0.000151	0.0200
Gamma BHC	U		0.000245	0.0200
4,4-DDD	U		0.000164	0.0200
4,4-DDE	U		0.000165	0.0200
4,4-DDT	U		0.000266	0.0200
Dieldrin	U		0.0000890	0.00200
Endosulfan I	U		0.000214	0.0200
Endosulfan II	U		0.000230	0.0200
Endosulfan sulfate	U		0.000170	0.0200
Endrin	U		0.000219	0.0200
Endrin aldehyde	U		0.000242	0.0200
Endrin ketone	U		0.000159	0.0200
Heptachlor	U		0.000101	0.0200
Heptachlor epoxide	U		0.000378	0.0200
Hexachlorobenzene	U		0.000224	0.0200
Methoxychlor	U		0.000265	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	*80.9*			*10.0-135*
(S) Tetrachloro-m-xylene	*76.1*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3482511-2 12/14/19 08:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0642	96.4	34.0-136	
Alpha BHC	0.0666	0.0679	102	34.0-139	
Beta BHC	0.0666	0.0698	105	34.0-133	
Delta BHC	0.0666	0.0712	107	34.0-135	
Gamma BHC	0.0666	0.0665	99.8	34.0-136	
4,4-DDD	0.0666	0.0756	114	33.0-141	
4,4-DDE	0.0666	0.0683	103	34.0-134	
4,4-DDT	0.0666	0.0671	101	30.0-143	
Dieldrin	0.0666	0.0656	98.5	35.0-137	
Endosulfan I	0.0666	0.0622	93.4	34.0-134	

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Laboratory Control Sample (LCS)

(LCS) R3482511-2 12/14/19 08:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	0.0666	0.0579	86.9	35.0-132	
Endosulfan sulfate	0.0666	0.0654	98.2	35.0-132	
Endrin	0.0666	0.0635	95.3	34.0-137	
Endrin aldehyde	0.0666	0.0399	59.9	23.0-121	
Endrin ketone	0.0666	0.0626	94.0	35.0-144	
Heptachlor	0.0666	0.0683	103	36.0-141	
Heptachlor epoxide	0.0666	0.0645	96.8	36.0-134	
Hexachlorobenzene	0.0666	0.0617	92.6	33.0-129	P
Methoxychlor	0.0666	0.0671	101	28.0-150	
(S) Decachlorobiphenyl			*86.2*	*10.0-135*	
(S) Tetrachloro-m-xylene			*82.0*	*10.0-139*	

L1170024-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170024-02 12/14/19 09:20 • (MS) R3482511-3 12/14/19 09:33 • (MSD) R3482511-4 12/14/19 09:45

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0766	U	0.0526	0.0477	68.8	62.3	1	20.0-135			9.85	37
Alpha BHC	0.0766	U	0.0560	0.0506	73.1	66.1	1	27.0-140			10.1	35
Beta BHC	0.0766	U	0.0578	0.0528	75.5	68.9	1	23.0-141			9.15	37
Delta BHC	0.0766	U	0.0585	0.0539	76.4	70.4	1	21.0-138			8.18	35
Gamma BHC	0.0766	U	0.0545	0.0493	71.2	64.4	1	27.0-137			9.97	36
4,4-DDD	0.0766	U	0.0636	0.0620	83.0	80.9	1	15.0-152			2.56	39
4,4-DDE	0.0766	U	0.0545	0.0495	71.2	64.7	1	10.0-152			9.50	40
4,4-DDT	0.0766	U	0.0533	0.0508	69.7	66.4	1	10.0-151			4.86	40
Dieldrin	0.0766	U	0.0554	0.0506	72.4	66.1	1	17.0-145			9.11	37
Endosulfan I	0.0766	U	0.0514	0.0466	67.1	60.8	1	20.0-137			9.86	36
Endosulfan II	0.0766	U	0.0493	0.0460	64.4	60.1	1	15.0-141			7.00	37
Endosulfan sulfate	0.0766	U	0.0535	0.0491	69.8	64.1	1	15.0-143			8.52	38
Endrin	0.0766	U	0.0530	0.0483	69.2	63.1	1	19.0-143			9.31	37
Endrin aldehyde	0.0766	U	0.0513	0.0474	67.0	61.9	1	10.0-139			7.93	40
Endrin ketone	0.0766	U	0.0518	0.0475	67.7	62.0	1	17.0-149			8.80	38
Heptachlor	0.0766	U	0.0566	0.0510	73.9	66.7	1	22.0-138			10.3	37
Heptachlor epoxide	0.0766	U	0.0516	0.0468	67.4	61.1	1	22.0-138			9.81	36
Hexachlorobenzene	0.0766	U	0.0508	0.0460	66.4	60.1	1	25.0-126		P	9.98	35
Methoxychlor	0.0766	U	0.0566	0.0540	73.9	70.6	1	10.0-159			4.57	40
(S) Decachlorobiphenyl					*62.6*	*56.6*		*10.0-135*				
(S) Tetrachloro-m-xylene					*62.5*	*56.3*		*10.0-139*				

DRAFT

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P	RPD between the primary and confirmatory analysis exceeded 40%.

DRAFT

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

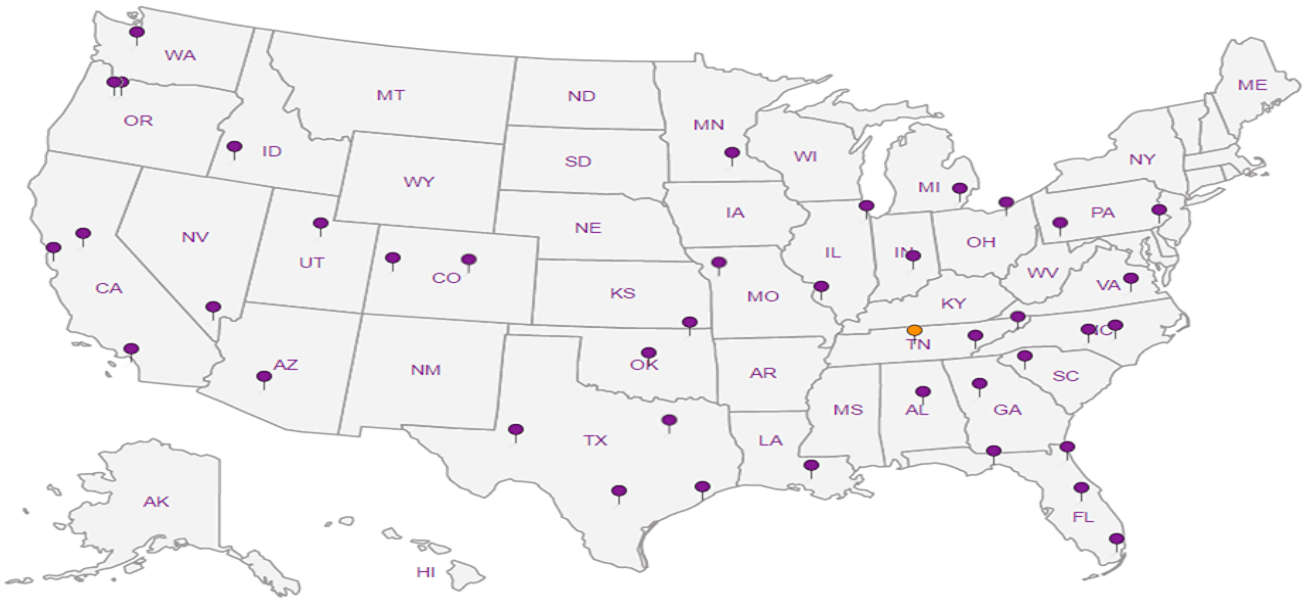
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

DRAFT

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Pace Analytical
www.pacelabs.com

HALEY ALDRICH

CHAIN-OF-CUSTODY / Analytical Request D[illegible]t

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields m[illegible]

D091

Section A
Required Client Information:

Company:	Haley & Aldrich
Address:	2033 N Main St. Suite 309
	Walnut Creek, CA 94596
Email To:	jgrant@haleyaldrich.com
Phone:	925.949.4412 Fax:
Requested Due Date/TAT:	Stand. 5-day TAT

Section B
Required Project Information:

Report To:	jgrant@haleyaldrich.com
Copy To:	apiestrzeniewicz@haleyaldrich.com
BSA #:	2015-18-Pace
H&A Client Name:	Steelwave
H&A Project #:	134361-002

Section C
Invoice Information:

Attention:	Acounts Payable
Company Name:	Haley & Aldrich
Address:	70 Blanchard Rd. Ste. 204
Pace Quote Reference:	
Pace Project Manager:	Brian Ford/Jason Romer
Pace Profile #:	HALALDWCCA

X	12065 Lebanon Rd. Mount Juliet, TN, 37122 (National)
	1700 Elm Street SE - Minneapolis, MN 55414
	7726 Moller Road - Indianapolis, IN 46268

REGULATORY AGENCY

☐ NPDES ☐ GROUND W[illegible]TER ☐ DRINKING W[illegible]

☐ UST ☐ RCRA ☐ _____

Site Location CA

STATE: _____

Pace's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement #2015-18-Pace by and between Haley & Aldrich, Inc., its subsidiaries and affiliates and Pace Analytical Services, Inc.

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: Collection Info DATE	COLLECTED: Collection Info TIME	Sample Depth: Start Depth (Circle: feet or inches)	Sample Depth: End Depth (Circle: feet or inches)	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	NaHS04	MeOH	Y/N: Analysis Test: CA Title 22 Metals (6010B/7471A)	TPHd/mo (8015B)	Organochlorine Pesticides (8081A)	VOCs (8260B: 5035)	TPHg (8015: 5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B-1-SS-1.0	SL	G	12/11/19	1050	1	1.5	55	1	X								X	X	X				L1176116-01
2	B-1-SS-3.0	SL	G	12/11/19	1105	3	3.5		1	X								X	X					02
3	B-1-SS-~~8.0~~9.0 MP	SL	G	12/11/19	1110	9	9.5		1	X								X	X					03
4	B-2-SS-1.0	SL	G	12/11/19	1130	1	1.5		1	X								X	X	X				04
5	B-2-SS-3.0	SL	G	12/11/19	1145	3	3.5		1	X								X	X					05
6	B-2-SS-~~8.0~~9.0 MP	SL	G	12/11/19	1155	9	9.5		1	X								X	X					06
7	B-3-SS-1.0	SL	G	12/11/19	0825	1	1.5		5							X	X	X	X	X	X	X		07
8	B-3-SS-3.0	SL	G	12/11/19	0835	3	3.5		1	X								X	X					08
9	B-3-SS-~~8.0~~9.0 MP	SL	G	12/11/19	0850	9	9.5		1	X								X	X					09
10	B-4-SS-1.0	SL	G	12/11/19	0900	1	1.5		5							X	X	X	X	X	X	X		10
11	B-4-SS-3.0	SL	G	12/11/19	0915	3	3.5		1	X								X	X					11
12	B-4-SS-~~8.0~~9.0 MP	SL	G	12/11/19	0940	9	9.5		1	X								X	X					12

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	A. Piestrzeniewicz (H&A)	12/11/19	1530	FedEx	12/11/19	1530	1.4
				Harley	12/12/19	845	+0=
							1.4
							MY AG

4802 8629 9159

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: ADAM PIESTRZENIEWICZ

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 12/11/19

Temp in °C | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

RAD SCREEN: <0.5 mR/hr

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
Required Client Information:

Company:	Haley & Aldrich
Address:	2033 N Main St. Suite 309
	Walnut Creek, CA 94596
Email To:	jgrant@haleyaldrich.com
Phone:	925.949.4412 Fax:
Requested Due Date/TAT:	Stand. 5-day TAT

Section B
Required Project Information:

Report To:	jgrant@haleyaldrich.com
Copy To:	apiestrzeniewicz@haleyaldrich.com
BSA #:	2015-18-Pace
H&A Client Name:	Steelwave
H&A Project #:	134361-002

Section C
Invoice Information:

Attention:	Acounts Payable
Company Name:	Haley & Aldrich
Address:	70 Blanchard Rd. Ste. 204
Pace Quote Reference:	
Pace Project Manager:	Brian Ford/Jason Romer
Pace Profile #:	HALALDWCCA

X 12065 Lebanon Rd. Mount Juliet, TN, 37122 (National)
1700 Elm Street SE - Minneapolis, MN 55414
7726 Moller Road - Indianapolis, IN 46268

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER DRINKING W
☐ UST ☐ RCRA ☐ _____

Site Location STATE: CA

Pace's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement #2015-18-Pace by and between Haley & Aldrich, Inc., its subsidiaries and Pace Analytical Services, Inc.

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Collection Info DATE	COLLECTED Collection Info TIME	Sample Depth Start Depth (Circle: feet or inches)	Sample Depth End Depth (Circle: feet or inches)	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	NaHS04	MeOH	Y/N	Analysis Test: CA Title 22 Metals (6010B/7471A)	TPHd/mo (8015B)	Organochlorine Pesticides (8081A)	VOCs (8260B: 5035)	TPHg (8015, 5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B-5-SS-1.0	SL	G	12/11/19	0950	1	1.5	SS	5							X	X		X	X	X	X	X		L1170116-13
2	B-5-SS-3.0	SL	G	12/11/19	0955	3	3.5	SS	1	X									X	X					14
3	B-5-SS-~~10.0~~ 9.0 MS	SL	G	12/11/19	1005	9	9.5	SS	1	X									X	X					15
4	~~B-6-SS-1.0~~	SL	G	~~12/11/19~~ MS																					
5	~~B-6-SS-3.0~~	SL	G	~~12/11/19~~ MS																					
6	~~B-6-SS-10.0~~	SL	G	~~12/11/19~~ MS																					
7	~~TRIP BLANK = 12.11.19~~	SO	C	12/11/19	1900	—	—	SS	5							X	X		X	X	X	X	X		
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	A. Piestrzeniewicz (H&A)	12/11/19	1530	FedEx	12/11/19	1530	1.4±
					12/12/19	845	0=
							1.4
							MM AG

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Adam Piestrzeniewicz
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 12/11/19

Temp in °C | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

RAD SCREEN: <0.5 mR/hr

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Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: HALALDWLCA	L1170116	
Cooler Received/Opened On: 12/12/19 Temperature:	1.4	
Received By: Hailey Melson		
Signature: Hailey Melson		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

December 26, 2019

Haley & Aldrich - Walnut Creek, CA

Sample Delivery Group:	L1172914
Samples Received:	12/12/2019
Project Number:	134361-002
Description:	Steelwave

Report To: Jason Grant
2033 N Main Street
Suite 309
Walnut Creek, CA 94596

DRAFT

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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B-1-SS-3.0 L1172914-01 GW

Collected by: Adam P | Collected date/time: 12/11/19 11:05 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1401980	1	12/24/19 08:51	12/24/19 08:51	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1402510	9	12/26/19 09:01	12/26/19 10:40	TRB	Mt. Juliet, TN

B-2-SS-1.0 L1172914-02 GW

Collected by: Adam P | Collected date/time: 12/11/19 11:30 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1401980	1	12/24/19 08:51	12/24/19 08:51	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1402510	9	12/26/19 09:01	12/26/19 10:51	TRB	Mt. Juliet, TN

B-4-SS-1.0 L1172914-03 GW

Collected by: Adam P | Collected date/time: 12/11/19 09:00 | Received date/time: 12/12/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1401980	1	12/24/19 08:51	12/24/19 08:51	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1402510	9	12/26/19 09:01	12/26/19 10:54	TRB	Mt. Juliet, TN

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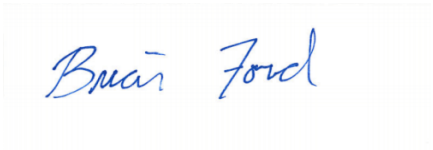
All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

DRAFT

Metals (ICP) by Method 6010B

Client ID	Lab Sample ID	Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
B-1-SS-3.0	L1172914-01	Chromium	94.2	B O1	12.6	90.0	9	12/26/2019 10:40	WG1402510
B-2-SS-1.0	L1172914-02	Lead	615		17.1	45.0	9	12/26/2019 10:51	WG1402510
B-4-SS-1.0	L1172914-03	Chromium	190	B	12.6	90.0	9	12/26/2019 10:54	WG1402510

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Preparation by Method 22CCRA2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
STLC Extraction	-				1	12/24/2019 08:51	WG1401980
Final pH	5.12				1	12/24/2019 08:51	WG1401980

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chromium	94.2	B O1	12.6	90.0	9	12/26/2019 10:40	WG1402510

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Preparation by Method 22CCRA2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
STLC Extraction	-				1	12/24/2019 08:51	WG1401980
Final pH	5.18				1	12/24/2019 08:51	WG1401980

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Lead	615		17.1	45.0	9	12/26/2019 10:51	WG1402510

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Preparation by Method 22CCRA2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
STLC Extraction	-				1	12/24/2019 08:51	WG1401980
Final pH	5.07				1	12/24/2019 08:51	WG1401980

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Chromium	190	B	12.6	90.0	9	12/26/2019 10:54	WG1402510

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Method Blank (MB)

(MB) R3485951-1 12/26/19 10:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Chromium	22.5	J	12.6	90.0
Lead	U		17.1	45.0

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3485951-2 12/26/19 10:34 • (LCSD) R3485951-3 12/26/19 10:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Chromium	1000	1070	1070	107	107	80.0-120			0.0324	20
Lead	1000	1110	1110	111	111	80.0-120			0.573	20

L1172914-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1172914-01 12/26/19 10:40 • (MS) R3485951-5 12/26/19 10:45 • (MSD) R3485951-6 12/26/19 10:48

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chromium	1000	94.2	9530	9430	105	104	9	75.0-125			1.05	20
Lead	1000	28.8	10000	9970	111	110	9	75.0-125			0.525	20

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Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

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Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

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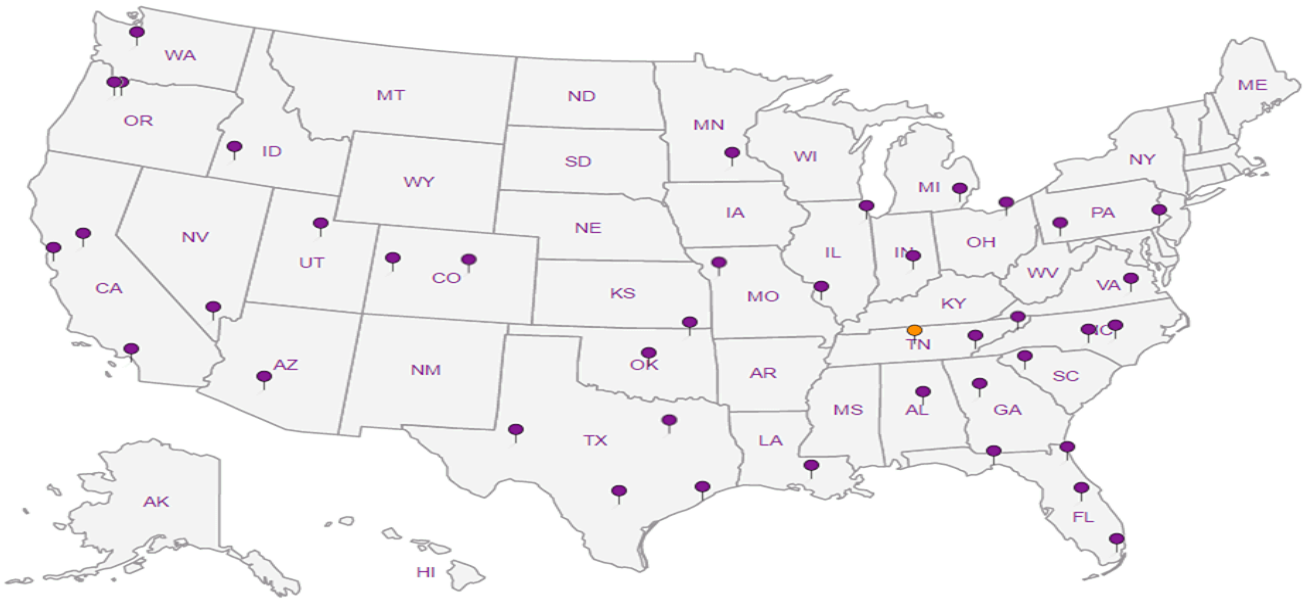
Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Pace Analytical
www.pacelabs.com

HALEY ALDRICH

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

D091

Section A
Required Client Information:

Company:	Haley & Aldrich
Address:	2033 N Main St. Suite 309
	Walnut Creek, CA 94596
Email To:	jgrant@haleyaldrich.com
Phone:	925.949.4412 Fax:
Requested Due Date/TAT:	Stand. 5-day TAT

Section B
Required Project Information:

Report To:	jgrant@haleyaldrich.com
Copy To:	apiestrzeniewicz@haleyaldrich.com
BSA #:	2015-18-Pace
H&A Client Name:	Steelwave
H&A Project #:	134361-002

Section C
Invoice Information:

Attention:	Acounts Payable
Company Name:	Haley & Aldrich
Address:	70 Blanchard Rd. Ste. 204
Pace Quote Reference:	
Pace Project Manager:	Brian Ford/Jason Romer
Pace Profile #:	HALALDWCCA

X	12065 Lebanon Rd. Mount Juliet, TN, 37122 (National)
	1700 Elm Street SE - Minneapolis, MN 55414
	7726 Moller Road - Indianapolis, IN 46268

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING W
☐ UST ☐ RCRA ☐

Site Location STATE: CA

Pace's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement #2015-18-Pace by and between Haley & Aldrich, Inc., its subsidiaries and affiliates and Pace Analytical Services, Inc.

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: Collection Info DATE	COLLECTED: Collection Info TIME	Sample Depth: Start Depth (Circle feet or inches)	Sample Depth: End Depth (Circle feet or inches)	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	NaHSO4	MeOH	Y/N	Analysis Test: CA Title 22 Metals (6010B/7471A)	TPHd/mo (8015B)	Organochlorine Pesticides (8081A)	VOCs (8260B, 5035)	TPHg (8015, 5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B-1-SS-1.0	SL	G	12/11/19	1050	1	1.5		1	X									X	X	X				L1172914
2	B-1-SS-3.0	SL	G	12/11/19	1105	3	3.5		1	X									X	X					~~L1172916-01~~
3	B-1-SS-~~10.0~~ 9.0 AP	SL	G	12/11/19	1110	9	9.5		1	X									X	X					~~-07~~ -01
4	B-2-SS-1.0	SL	G	12/11/19	1130	1	1.5		1	X									X	X	X				~~-03~~
5	B-2-SS-3.0	SL	G	12/11/19	1145	3	3.5		1	X									X	X					~~-04~~ -02
6	B-2-SS-~~10.0~~ 9.0 AP	SL	G	12/11/19	1155	9	9.5		1	X									X	X					~~-09~~
7	B-3-SS-1.0	SL	G	12/11/19	0825	1	1.5		5							X	X		X	X	X	X	X		~~-06~~ -07
8	B-3-SS-3.0	SL	G	12/11/19	0835	3	3.5		1	X									X	X					~~-08~~
9	B-3-SS-~~10.0~~ 9.0 AP	SL	G	12/11/19	0850	9	9.5		1	X									X	X					~~-09~~
10	B-4-SS-1.0	SL	G	12/11/19	0900	1	1.5		5							X	X		X	X	X	X	X		~~-10~~ -03
11	B-4-SS-3.0	SL	G	12/11/19	0915	3	3.5		1	X									X	X					~~-11~~
12	B-4-SS-~~10.0~~ 9.0 AP	SL	G	12/11/19	0940	9	9.5	↓	1	X									X	X					~~-12~~

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	A. Piestrzeniewicz (H&A)	12/11/19	1530	FedEx	12/11/19	1550	1.4
				Hanley	12/12/19	845	20=
							1.4
							AA AG

4802 8629 9159

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: ADAM PIESTRZENIEWICZ

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12/11/19

Temp in °C | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

RAD SCREEN: <0.5 mR/hr

Andy Vann

From: Brian Ford
Sent: Friday, December 20, 2019 12:38 PM
To: Project Service; Sample Storage; Brian Ford; TCLP; Metals Prep; Due Metals
Subject: L1170116 *HALALDWCCA* re-log ***Rush***

Please re-log the following as R4 due 12/26pm.

L1170116-02 (B-1-SS-3.0): STLC CRICP
L1170116-04 (B-2-SS-1.0): STLC PBICP
L1170116-10 (B-4-SS-1.0): STLC CRICP

Thanks,

Brian Ford
Project Manager
Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road | Mt. Juliet, TN 37122
direct 615.773.9772 | cell 615.881.4570
bford@pacenational.com | pacenational.com

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