

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

551 Keyes Street, San Jose, CA

Prepared for: Charities Housing

Client Ref: 102.01358.00013

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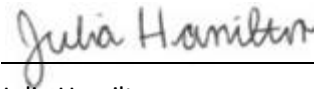
551 Keyes Street, San Jose, CA

Prepared for:

Charities Housing

551 Keyes Street
San Jose CA, 95112

This document has been prepared by SLR International Corporation. The material and data in this report were prepared under the supervision and direction of the undersigned.



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1. INTRODUCTION

SLR International Corporation (SLR) is pleased to submit this Phase II Environmental Site Assessment Report for the property located at 551 Keyes Street, San Jose, California (Site) (Figure 1). This work was performed for Charities Housing, who is considering developing the property. The purpose of the Phase II assessment activities was to evaluate the soil and groundwater quality at the Site based on potential impacts from recognized environmental conditions (RECs) identified during the completion of our Phase I Report.

1.1 DEFINITIONS

The ASTM Practice defines a REC as:

“...the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to release to the environment; under conditions indicative of a release to the environment or under conditions that pose a material threat of future release. De minimis conditions are not recognized environmental conditions.”

De minimis conditions are defined as “conditions that generally do not present a threat to human health or the environment and that generally would not be subject of an enforcement action if brought to the attention of appropriate governmental agencies.”

The ASTM Practice defines a HREC as:

“...a past release of any hazardous substances or petroleum products that have occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls...”

The ASTM Practice defines a CREC as:

“...a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls...)”

2. BACKGROUND

SLR completed Phase I ESA Report for 551 Keyes Street during November 2018. The Phase I ESA was performed in general conformance with the scope and limitations of ASTM Practice E1527-05, Standard Practice for Environmental Site Assessments.

SITE DESCRIPTION/ OPERATIONS

The Site consists of approximately 0.70 acres of land located in the southern portion of the Santa Clara Valley in San Jose, Santa Clara County, California.

HISTORICAL USE

A historical review determined that the Site has been an open lot for as long as it has been recorded.

RECOGNIZED ENVIRONMENTAL CONDITIONS

The past uses of the Site have been identified as RECs. These past uses may have been associated with hazardous materials that may have impacted the Site. Past uses of the Site include:

- *Former Agricultural Use* - The potential presence of chemical pesticides and/or insecticides may be present in the soil at the Site and is considered a REC. SLR recommends testing soil for potential pesticide and insecticide contamination. Soil sampling and analyses should be performed to evaluate potential residual pesticide and insecticide concentrations, if any, prior to Site redevelopment.
- *Former Railroad Use* - The potential presence of arsenic may be present in the soil at the Site and is considered a REC. Adjacent to the Site there is a railroad, which could have potentially sprayed arsenic into the Site since it was used a herbicide. SLR recommends testing soil for potential arsenic contamination. Soil sampling analyses should be performed to evaluate potential residual arsenic concentrations, if any, prior to Site redevelopment.
- *Lead-Based Paint* – There is an old building adjacent to the Site. Due to the age of the building lead-based paint was likely used. Due to proximity to the Site, onsite soils adjacent to the building may be impacted with total lead. Soil sampling and analyses should be performed to evaluate potential existence of lead concentrations around building structures remains, if any, prior to Site redevelopment.

Proximity to an Active Superfund Site

- *Volatile Organic Compounds (VOCs)* – Due to the fact that the Site is in near proximity to an active Superfund site, the groundwater monitoring data from nearby sites indicates that there is potential for presence of VOCs in groundwater at the Site. This is considered a REC. SLR recommends conducting groundwater analyses for potential VOCs contaminants. Groundwater sampling analyses should be performed to evaluate

potential residual VOCs concentrations, and develop risk management options to address vapor intrusion for future site development.

3. SCOPE OF WORK

3.1 SOIL SAMPLING

The scope of work for the Phase II Site Assessment Activities initial phase of soil sampling included the following:

- Collection and analysis of 14 near-surface soil samples to assess potential impacts from lead-based paint and railroad use.
- Collection and analysis of 6 near-surface soil samples to evaluate potential impacts from historic agricultural site use.

3.2 GROUNDWATER SAMPLING

The scope of work for the Phase II Site Assessment Activities initial phase of groundwater sampling included the collection of six samples to assess the potential impacts from the proximity to the superfund site nearby.

4. ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES

To evaluate soil quality and potential impacts to soil from REC's identified during the Phase I ESA at the Site; SLR collected 14 near-surface soil samples on December 4, 2018. The samples tested for lead were collected near a small foundation/brick wall area located on the northwest part of the property from the natural ground surface to a depth of approximately ½ foot using hand-sampling equipment. The samples tested for arsenic were collected near the eastern perimeter of the site, near where a railroad historically ran, from the natural ground surface to a depth of approximately ½ foot using hand-sampling equipment. The samples tested for pesticides were collected at 6 locations in the middle of the property using a direct push drill to get soil cores from the depths of ½ foot to 10 feet below grade. The soil samples at a depth of approximately ½ foot were analyzed first; deeper samples were kept on hold in the lab. The samples analyzed for pesticides also were tested for both lead and arsenic.

To evaluate the groundwater quality and potential impacts to the water table from REC's identified during the Phase I ESA, SLR collected six groundwater samples throughout the site. The groundwater was collected at depths of 16 and 20 feet below grade samples were tested for hydrocarbons and VOCs.

4.1 FORMER AGRICULTURAL USE

To screen the Site for potential impacts to soil from former agricultural activities, fourteen soil samples (SB1-SB6, SB7L-SB10L, SB11A-SB14A) were collected for the initial phase of sampling from randomly selected locations across the Site. Soil samples were analyzed at a state-certified laboratory for organochlorine pesticides (EPA Test Method 8081). Analytical results are presented in Table 1. Copies of the detailed laboratory reports are attached in Appendix A.

4.2 LEAD-BASED PAINT

To evaluate the current soil quality near buildings for potential lead-based paint impact, a total of four soil samples were initially collected at random locations near the small foundation/brick wall area located on the northwest part of the property. Additionally, all other soil samples were tested for lead. All soil samples collected and analyzed for lead were used to delineate impacts to soil from lead-based paint. All samples were analyzed at a California state-certified laboratory for lead by EPA Test Method 6010B. Analytical results are presented in Table 1. Copies of the detailed laboratory reports are attached in Appendix A.

4.3 RAILROAD ACTIVITIES

To test the soil for environmental impacts from previous railroad activities, four samples were taken on the eastern border of the property, near where a railroad line ran. Rail lines are known to have historically sprayed arsenic on the railroad tracks, leading to the arsenic appearing in the soil. All soil samples collected and analyzed for arsenic were used to delineate impacts to soil from railroad operations. Additionally, all other soil samples were tested for arsenic. All samples were analyzed at a

California state-certified laboratory for arsenic by EPA Test Method 6010B. Analytical results are presented in Table 1. Copies of the detailed laboratory reports are attached in Appendix A.

4.4 PROXIMITY TO SUPERFUND SITE

Since a superfund site was identified in close proximity to the Site during the Phase I ESA, groundwater was tested for hydrocarbons and volatile organic carbons (VOCs) to assess for potential impacts. All samples were analyzed at a California state-certified laboratory for hydrocarbons, and EPA Test Method 8260B for VOCs. Analytical results are presented in Table 2. Copies of the detailed laboratory reports are attached in Appendix A.

5. ANALYTICAL RESULTS

5.1 FORMER AGRICULTURE USE: SOIL PESTICIDE ANALYTICAL RESULTS

The analysis of the fourteen surface soil samples screened for pesticides revealed three of the 14 samples contained elevated levels above environmental screening levels (ESLs). Sample SB1 @ 0.5 feet contained a level of 2.09 mg/kg of 4,4-DDT, 0.0129 mg/kg of Dieldrin, and 0.706 mg/kg of Chlordane, all of which are above ESLs of 1.9 mg/kg, 0.00017 mg/kg, and 0.48 mg/kg, respectively. Sample SB3 @ 0.5 feet contained a level of 1.87 mg/kg of Chlordane, which is above the ESL of 0.48 mg/kg. Sample SB5 @ 0.5 feet contained 0.00229 mg/kg of Dieldrin, which is above the ESL of 0.00017 mg/kg. Complete soil sampling results can be found in Table 1. Figure 2 shows approximate location of samples with concentrations above ESLs.

5.2 LEAD-BASED PAINT: LEAD IN THE SOIL ANALYTICAL RESULTS

All fourteen surface soil samples collected on site were tested for lead. Four of the locations were strategically placed near a small foundation/brick wall area located on the northwest part of the property, which could potentially have had lead-based paint. Analytical results showed that eight of the fourteen samples had elevated levels of lead above the ESL of 80.0 mg/kg of soil. Sample SB1 @ 0.5 feet had a concentration of 275 mg/kg of lead. SB3 @ 0.5 feet contained 234 mg/kg of lead. Sample SB5 @ 0.5 feet had a concentration of 149 mg/kg of lead.

Of the four samples that were tested specifically for lead near the small foundation/brick wall area, two of the samples had concentrations above environmental screening levels: SB7L and SB10L, with concentrations of 84.7 mg/kg and 231 mg/kg, respectively.

The four samples that were strategically taken near the railroad line to be tested for arsenic were also tested for lead. Two of these four samples had elevated levels above ESLs. These two samples were SB12A with a concentration of 259 mg/kg and SB13A with a concentration of 125 mg/kg. Complete soil sampling results can be found in Table 1. Figure 2 shows approximate location of samples with concentrations above ESLs.

5.3 RAILROAD ACTIVITIES: ARSENIC IN THE SOIL ANALYTICAL RESULTS

The analysis of fourteen soil samples revealed the presence of arsenic in exceedance of residential ESLs. The SF Bay Area Regional Water Quality Control Board (RWQCB) states that background levels of Arsenic in soils in San Jose are in the range of about 11 mg/kg¹. None of the fourteen samples were above this background level. The concentration of arsenic in the soil ranged from 5.54 mg/kg to 8.6 mg/kg. Complete soil sampling results can be found in Table 1.

¹ Dylan J. Duverge, 2011, Establishing Background Arsenic in the Soil of the Urbanized San Francisco Bay Region. Thesis Master of Science in Geoscience, San Francisco State University.

5.4 PROXIMITY TO SUPERFUND SITE: HYDROCARBONS AND VOCs IN THE GROUNDWATER ANALYTICAL RESULTS

A total of six samples were taken for groundwater to be tested for hydrocarbons and VOCs. Most of the VOCs tested in all six samples were non-detect. Of the very few VOCs that were detected in this analysis, they were very low concentrations, all of which were below all ESLs for groundwater. However, 1,2 Dichloroethane was present in groundwater samples at concentrations ranging from 0.604 to 2.2 ug/L. While this concentration is not an issue for drinking water and construction exposure, it may pose an issue for long term residential development. California vapor intrusion guidelines are undergoing changes, and these concentrations may require to facility to entertain placement of a vapor barrier. The necessity for such evaluation should be revisited prior to development, once the California risk guidelines for vapor intrusion has been finalized. For the hydrocarbon analytical results, TPH-Gasoline was detected in all six samples. All of the samples were within the limits of the ESL of 100 micrograms/liter. The concentrations for TPH-Gasoline ranged from 47.9 micrograms/liter to 99.4 micrograms per liter. The six groundwater samples were also tested for C12-C22 Hydrocarbons, which was detected in three of the six samples with concentrations ranging from 27.0 to 48.6 micrograms/liter. Complete groundwater sampling results can be found in Table 2.

6. CONCLUSIONS

Based on the results of laboratory analysis from surface soil samples taken in various locations during the field work of the Phase II and in order to achieve a better characterization of the extent of the contamination SLR recommends additional sampling activities to further delineate the extent of soil contamination. In regard to groundwater, as identified in Section 5.4., while groundwater poses no risk based on ESLs, the current presence of 1,2 Dichloroethane may pose a vapor intrusion risk as California vapor intrusion risk models are undergoing change. The need for design and installation of a vapor barrier should be evaluated prior to development, once the risk assessment guidelines has been finalized.

7. REFERENCES

- Regional Water Quality Control Board (RWQCB) San Francisco Bay Region, 2013. User's Guide: Derivation and Application of Environmental Screening Levels, Environmental Screening Levels– Interim Final February 2016. February 2016.
- SLR International Corporation, 2018. Phase I Environmental Assessment Report, 551 Keyes Street, San Jose, CA. December 2018.

LIMITATIONS

The services described in this work product were performed in accordance with generally accepted professional consulting principles and practices. No other representations or warranties, expressed or implied, are made. These services were performed consistent with our agreement with our client. This work product is intended solely for the use and information of our client unless otherwise noted. Any reliance on this work product by a third party is at such party's sole risk.

Opinions and recommendations contained in this work product are based on conditions that existed at the time the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this work product.

The purpose of an environmental assessment is to reasonably evaluate the potential for, or actual impact of, past practices on a given site area. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an appropriate level of analysis for each conceivable issue of potential concern. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

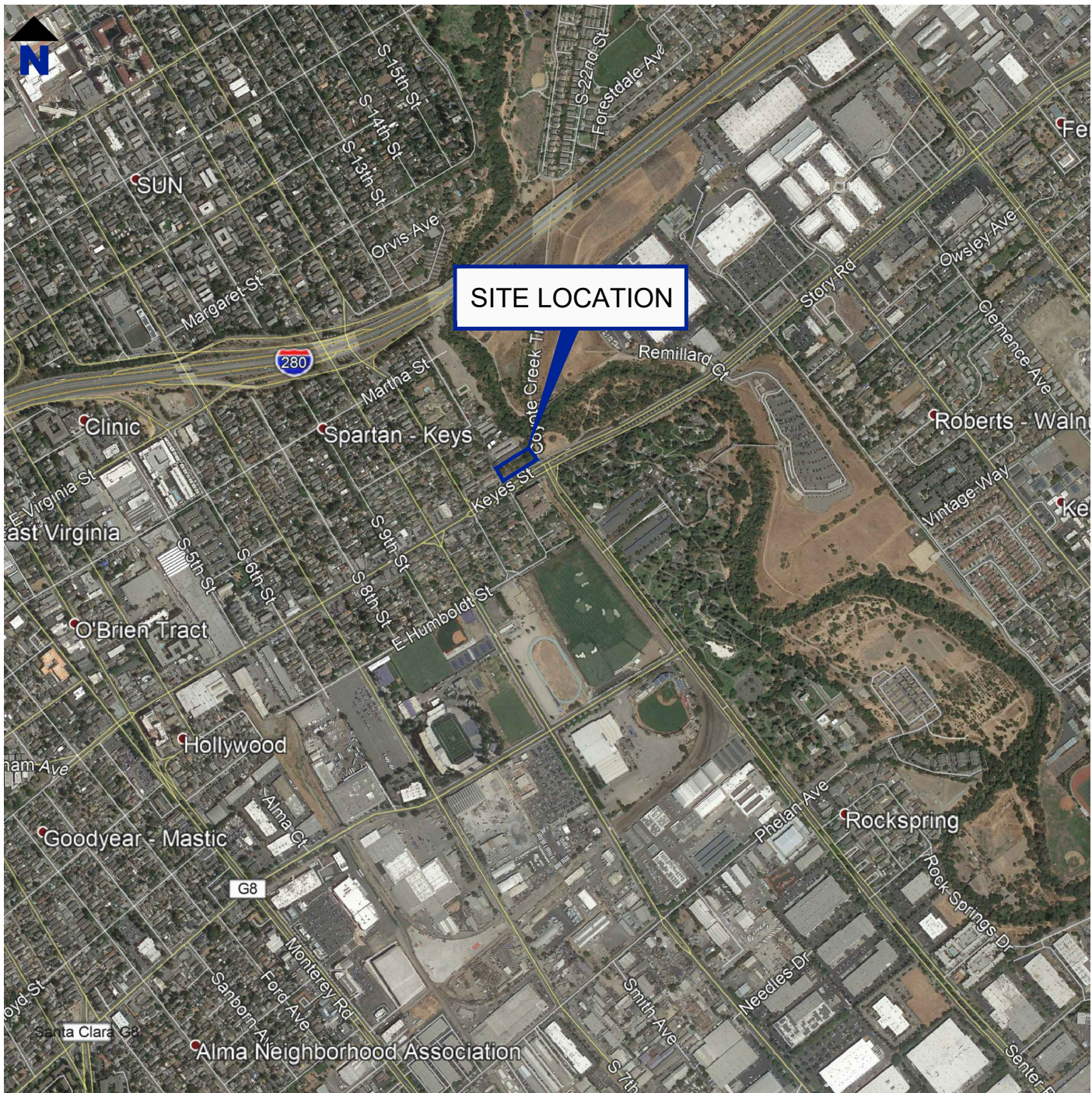
No investigation can be thorough enough to exclude the presence of hazardous materials at a given site. If hazardous conditions have not been identified during the assessment, such a finding should not therefore be construed as a guarantee of the absence of such materials on the site, but rather as the result of the services performed within the scope, practical limitations, and cost of the work performed.

Environmental conditions that are not apparent may exist at the site. Our professional opinions are based in part on interpretation of data from a limited number of discrete sampling locations and therefore may not be representative of the actual overall site environmental conditions.

The passage of time, manifestation of latent conditions, or occurrence of future events may require further study at the site, analysis of the data, and/or reevaluation of the findings, observations, and conclusions in the work product.

This work product presents professional opinions and findings of a scientific and technical nature. The work product shall not be construed to offer legal opinion or representations as to the requirements of, nor the compliance with, environmental laws rules, regulations, or policies of federal, state or local governmental agencies.

FIGURES



REFERENCED FROM : GOOGLE EARTH PRO

SCALE 1:50,000



THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

Charities Housing
551 Keyes Street
San Jose, CA 95126

Report
PHASE II ESA

Drawing
Vicinity Map

Date November 6, 2018

Scale AS SHOWN

Fig. No.

File Name 551 Keyes St.dwg Phase II

Project No. 102.01358.00013

1

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REFERENCED FROM : GOOGLE EARTH PRO

LEGEND

- - - - - PROPERTY BOUNDARY
- ⊕ APPROXIMATE LOCATION OF SAMPLE

THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

Charities Housing
 555 Keyes Street
 San Jose, CA 95126

Report
PHASE II ESA

Drawing
Site Map Showing Approximate Location of Soil Samples Exceeding ESLs

Date November 6, 2018

Scale 1" = 15'

Fig. No.

File Name 551 Keyes St.dwg Phase II

Project No. 102.01358.00013

2



TABLES

Table 1. Soil Analytical Results
Charities Housing Development Corps
551 Keyes St, San Jose, CA

Sample ID		Screening Level Values			SB1 @ 0.5ft	SB2 @ 0.5ft	SB3 @ 0.5ft	SB4 @ 0.5ft	SB5 @ 0.5ft	SB6 @ 0.5ft	SB7L	SB8L	SB9L	SB10L	SB11A	SB12A	SB13A	SB14A														
Depth	Collect Date				0.5		0.5		0.5		0.5		0.5		0.5		0.5		0.5													
Method	Parameter	Units	CA CI ESLs	SF Bay RWQCB	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier														
Metals																																
6010 B	Lead	mg/kg	80.0	NE	275		20.1		234		28.5		149		16.1		84.7		73.5		53.6		231		54.2		259		125		36.2	
6010 B	Arsenic	mg/kg	0.067	11	8.17		6.41		7.48		8.11		7.24		5.86		5.94		7.73		6.83		5.54		8.6		7.42		7.91		7.27	
Pesticides																																
8081	Aldrin	mg/kg	0.036	NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Alpha BHC	mg/kg		NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Beta BHC	mg/kg		NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Delta BHC	mg/kg		NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Gamma BHC	mg/kg		NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	4,4-DDD	mg/kg	2.7	NE	0.208		ND		0.00469		ND		0.0042		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	4,4-DDE	mg/kg	1.9	NE	1.18		ND		0.00416		ND		0.00438		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	4,4-DDT	mg/kg	1.9	NE	2.09		ND		0.0146		ND		0.0287		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Dieldrin	mg/kg	0.00017	NE	0.0129		ND		ND		ND		0.00229		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Endosulfan I	mg/kg	0.0046	NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Endosulfan II	mg/kg		NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Endosulfan sulfate	mg/kg		NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Endrin	mg/kg	0.00065	NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Endrin aldehyde	mg/kg		NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Endrin ketone	mg/kg		NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Heptachlor	mg/kg	0.00077	NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Heptachlor epoxide	mg/kg	0.00042	NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Hexachlorobenzene	mg/kg	0.34	NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Methoxychlor	mg/kg	19.0	NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Chlordane	mg/kg	0.48	NE	0.706		ND		1.87		ND		0.272		NA		NA		NA		NA		NA		NA		NA		NA		NA	
8081	Toxaphene	mg/kg	0.00042	NE	ND		ND		ND		ND		ND		NA		NA		NA		NA		NA		NA		NA		NA		NA	

Notes:
CA CI ESLs = Environmental Screening Levels - Regional Water Quality Control Board (RWQCB), February 2016
Red = Exceedance of Screening Levels
NE = Not Established
NA = Not Analyzed
ND = Not Detectable at or above stated laboratory detection limit

Table 2. Groundwater Analytical Results
Charities Housing Development Corps
551 Keyes St, San Jose, CA

Sample ID		Screening Level Values			SB1		SB2		SB3		SB4		SB5		SB6	
Depth	Collect Date				20	16	16	16	16	16	16	20				
Method	Parameter	Units	CA CI ESLs	SF Bay RWQCB	12/4/2018		12/4/2018		12/4/2018		12/4/2018		12/4/2018		12/4/2018	
					Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Hydrocarbons																
8015	TPH - G	ug/L	100		59.7	B J	55.2	B J	99.4	B J	47.9	B J	69.5	B J	65.8	B J
8015	C12-C22 Hydrocarbons	ug/L	100		ND		48.6		ND		ND		27.0	J	32.8	J
Volatile Organic Compounds																
8260B	Acetone	ug/L	1000		ND		ND		ND		ND		ND		ND	
8260B	Acrolein	ug/L			ND	J4	ND	J4	ND	J4	ND	J4	ND	J4	ND	J4
8260B	Acrylonitrile	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Benzene	ug/L	1.0		ND		ND		ND		ND		ND		ND	
8260B	Bromodichloromethane	ug/L	80.0		ND		ND		ND		ND		ND		ND	
8260B	Bromoform	ug/L	80.0		ND		ND		ND		ND		ND		ND	
8260B	Bromomethane	ug/L	7.5		ND		ND		ND		ND		ND		ND	
8260B	n-Butylbenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	sec-Butylbenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	tert-Butylbenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Carbon Tetrachloride	ug/L	0.22		ND		ND		ND		ND		ND		ND	
8260B	Chlorobenzene	ug/L	25.0		ND	J4	ND	J4	ND	J4	ND	J4	ND	J4	ND	J4
8260B	Chlorodibromomethane	ug/L			ND	J4	ND	J4	ND	J4	ND	J4	ND	J4	ND	J4
8260B	Chloroethane	ug/L	16.0		ND		ND		ND		ND		ND		ND	
8260B	Chloroform	ug/L	2.3		ND		ND		ND		ND		ND		ND	
8260B	Chloromethane	ug/L	190.0		ND		ND		ND		ND		ND		ND	
8260B	2-Chlorotoluene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	4-Chlorotoluene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,2-Dibromo-3-Chloropropane	ug/L	0.2		ND		ND		ND		ND		ND		ND	
8260B	1,2-Dibromoethane	ug/L	0.05		ND		ND		ND		ND		ND		ND	
8260B	Dibromomethane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,2-Dichlorobenzene	ug/L	14.0		ND		ND		ND		ND		ND		ND	
8260B	1,3-Dichlorobenzene	ug/L	65.0		ND		ND		ND		ND		ND		ND	
8260B	1,4-Dichlorobenzene	ug/L	5.0		ND		ND		ND		ND		ND		ND	
8260B	Dichlorodifluoromethane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,1-Dichloroethane	ug/L			2.20		2.46		2.36		0.604	J	1.38		1.10	
8260B	1,2-Dichloroethane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,1-Dichloroethene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	cis-1,2-Dichloroethene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	trans-1,2-Dichloroethene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,2-Dichloropropane	ug/L	5.0		ND		ND		ND		ND		ND		ND	
8260B	1,1-Dichloropropene	ug/L	0.5		ND		ND		ND		ND		ND		ND	
8260B	1,3-Dichloropropene	ug/L	3.2		ND		ND		ND		ND		ND		ND	
8260B	cis-1,3-Dichloropropene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	trans-1,3-Dichloropropene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	2,2-Dichloropropane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Di-isopropyl ether	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Ethylbenzene	ug/L	13.0		ND		ND		ND		ND		ND		ND	
8260B	Hexachloro-1,3-butadiene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Isopropylbenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	p-Isopropyltoluene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	2-Butanone (MEK)	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Methylene Chloride	ug/L	5.0		ND		ND		ND		ND		ND		ND	
8260B	4-Methyl-2-pentanone (MIBK)	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Methyl tert-butyl ether	ug/L	5.0		ND		ND		ND		ND		ND		ND	
8260B	Naphthalene	ug/L	0.17		ND		ND		ND		ND		ND		ND	
8260B	n-Propylbenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Styrene	ug/L	10.0		ND		ND		ND		ND		ND		ND	
8260B	1,1,1,2-Tetrachloroethane	ug/L	0.57		ND		ND		ND		ND		ND		ND	
8260B	1,1,1,2,2-Tetrachloroethane	ug/L	1.0		ND		ND		ND		ND		ND		ND	
8260B	1,1,2-Trichlorotrifluoroethane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Tetrachloroethene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Toluene	ug/L	40.0		ND		ND		ND		ND		0.426	J	ND	
8260B	1,2,3-Trichlorobenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,2,4-Trichlorobenzene	ug/L	5.0		ND		ND		ND		ND		ND		ND	
8260B	1,1,1-Trichloroethane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,1,2-Trichloroethane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Trichloroethene	ug/L	5.0		ND		ND		ND		ND		ND		ND	
8260B	Trichlorofluoromethane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,2,3-Trichloropropane	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,2,4-Trimethylbenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,2,3-Trimethylbenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	1,3,5-Trimethylbenzene	ug/L			ND		ND		ND		ND		ND		ND	
8260B	Vinyl Chloride	ug/L	0.061		ND		ND		ND		ND		ND		ND	
8260B	Xylenes, Total	ug/L	20.0		ND		ND		ND		ND		ND		ND	

Notes:
CA CI ESLs = Environmental Screening Levels - Regional Water Quality Board (RWQCB), February 2016
ND = Not Detectable at or above state laboratory detection limit
J = The identification of the analyte is acceptable; the report value is an estimate.
B= The analyte was found in both the sample and the blank

APPENDIX A

FULL ANALYTICAL RESULTS AND ORIGINAL LABORATORY REPORT

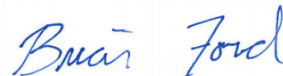
December 12, 2018

SLR International Corporation - Oakland

Sample Delivery Group: L1050114
Samples Received: 12/05/2018
Project Number:
Description: 551 Keyes St.

Report To: Julia Hamilton
110 - 11th Street
2nd Floor
Oakland, CA 94607










Entire Report Reviewed By:



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 National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



SB11A L1050114-01 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 08:29
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207323	1	12/08/18 07:50	12/08/18 08:53	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:21	TRB

1
Cp

2
Tc

3
Ss

SB12A L1050114-02 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 08:31
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207323	1	12/08/18 07:50	12/08/18 08:53	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:24	TRB

4
Cn

5
Sr

6
Qc

SB13A L1050114-03 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 08:32
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:27	TRB

7
Gl

8
Al

9
Sc

SB14A L1050114-04 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 08:35
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:29	TRB

SB1@0.5FT L1050114-05 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 08:38
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:32	TRB
Pesticides (GC) by Method 8081	WG1206724	1	12/06/18 15:33	12/08/18 18:28	VKS
Pesticides (GC) by Method 8081	WG1206724	10	12/06/18 15:33	12/11/18 11:11	VKS

SB2@0.5FT L1050114-06 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 09:08
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:35	TRB
Pesticides (GC) by Method 8081	WG1206724	1	12/06/18 15:33	12/08/18 18:41	VKS

SB3@0.5FT L1050114-07 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 09:27
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:37	TRB
Pesticides (GC) by Method 8081	WG1206724	1	12/06/18 15:33	12/08/18 18:53	VKS

SAMPLE SUMMARY



SB4@0.5FT L1050114-08 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:46	TRB
Pesticides (GC) by Method 8081	WG1206724	1	12/06/18 15:33	12/08/18 19:06	VKS

Collected by Julia Hamilton
 Collected date/time 12/04/18 09:49
 Received date/time 12/05/18 08:00



SB7L L1050114-09 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:48	TRB

Collected by Julia Hamilton
 Collected date/time 12/04/18 09:59
 Received date/time 12/05/18 08:00



SB8L L1050114-10 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:51	TRB

Collected by Julia Hamilton
 Collected date/time 12/04/18 10:00
 Received date/time 12/05/18 08:00



SB9L L1050114-11 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:54	TRB

Collected by Julia Hamilton
 Collected date/time 12/04/18 10:02
 Received date/time 12/05/18 08:00

SB10L L1050114-12 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207325	1	12/08/18 07:38	12/08/18 07:48	KDW
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:57	TRB

Collected by Julia Hamilton
 Collected date/time 12/04/18 10:04
 Received date/time 12/05/18 08:00

SB5 L1050114-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015	WG1208277	1	12/10/18 18:06	12/10/18 18:06	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1207220	1	12/07/18 17:37	12/07/18 17:37	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1206721	1	12/07/18 09:59	12/08/18 10:57	MTJ

Collected by Julia Hamilton
 Collected date/time 12/04/18 11:53
 Received date/time 12/05/18 08:00

SB6 L1050114-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015	WG1208277	1	12/10/18 18:29	12/10/18 18:29	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1207220	1	12/07/18 17:58	12/07/18 17:58	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1206721	1	12/07/18 09:59	12/08/18 11:19	MTJ

Collected by Julia Hamilton
 Collected date/time 12/04/18 11:00
 Received date/time 12/05/18 08:00

SAMPLE SUMMARY



SB5@0.5FT L1050114-15 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 10:07
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207667	1	12/08/18 13:23	12/08/18 13:37	JD
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 16:59	TRB
Pesticides (GC) by Method 8081	WG1206724	1	12/06/18 15:33	12/08/18 19:18	VKS

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

SB6@0.5FT L1050114-16 Solid

Collected by
Julia Hamilton
Collected date/time
12/04/18 10:28
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1207667	1	12/08/18 13:23	12/08/18 13:37	JD
Metals (ICP) by Method 6010B	WG1206607	1	12/06/18 14:29	12/07/18 17:02	TRB
Pesticides (GC) by Method 8081	WG1206724	1	12/06/18 15:33	12/08/18 19:30	VKS

SB1 L1050114-17 GW

Collected by
Julia Hamilton
Collected date/time
12/04/18 11:16
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015	WG1208277	1	12/10/18 18:51	12/10/18 18:51	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1207220	1	12/07/18 18:19	12/07/18 18:19	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1206721	1.08	12/07/18 09:59	12/08/18 11:41	MTJ

SB2 L1050114-18 GW

Collected by
Julia Hamilton
Collected date/time
12/04/18 11:22
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015	WG1208277	1	12/10/18 19:14	12/10/18 19:14	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1207220	1	12/07/18 18:41	12/07/18 18:41	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1206721	1.03	12/07/18 09:59	12/08/18 12:03	MTJ

SB3 L1050114-19 GW

Collected by
Julia Hamilton
Collected date/time
12/04/18 11:31
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015	WG1208277	2	12/10/18 19:37	12/10/18 19:37	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1207220	1	12/07/18 19:02	12/07/18 19:02	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1206721	1.14	12/07/18 09:59	12/08/18 12:25	MTJ

SB4 L1050114-20 GW

Collected by
Julia Hamilton
Collected date/time
12/04/18 11:40
Received date/time
12/05/18 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015	WG1208277	1	12/10/18 20:00	12/10/18 20:00	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1207220	1	12/07/18 19:23	12/07/18 19:23	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1206721	1	12/07/18 09:59	12/08/18 12:47	MTJ



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

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.2		1	12/08/2018 08:53	WG1207323

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Arsenic	8.60		0.516	2.24	1	12/07/2018 16:21	WG1206607
Lead	54.2		0.213	0.561	1	12/07/2018 16:21	WG1206607

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.9		1	12/08/2018 08:53	WG1207323

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Arsenic	7.42		0.542	2.35	1	12/07/2018 16:24	WG1206607
Lead	259		0.224	0.589	1	12/07/2018 16:24	WG1206607

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	79.6		1	12/08/2018 07:48	WG1207325

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Arsenic	7.91		0.578	2.51	1	12/07/2018 16:27	WG1206607
Lead	125		0.239	0.628	1	12/07/2018 16:27	WG1206607

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.2		1	12/08/2018 07:48	WG1207325

1 Cp

2 Tc

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Arsenic	7.27		0.546	2.37	1	12/07/2018 16:29	WG1206607
Lead	36.2		0.226	0.594	1	12/07/2018 16:29	WG1206607

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.6		1	12/08/2018 07:48	WG1207325

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.17		0.481	2.09	1	12/07/2018 16:32	WG1206607
Lead	275		0.199	0.523	1	12/07/2018 16:32	WG1206607

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	J3	0.000244	0.0209	1	12/08/2018 18:28	WG1206724
Alpha BHC	U	J3	0.000202	0.0209	1	12/08/2018 18:28	WG1206724
Beta BHC	U	J3	0.000317	0.0209	1	12/08/2018 18:28	WG1206724
Delta BHC	U	J3	0.000158	0.0209	1	12/08/2018 18:28	WG1206724
Gamma BHC	U	J3	0.000256	0.0209	1	12/08/2018 18:28	WG1206724
4,4-DDD	0.208	J3	0.000171	0.0209	1	12/08/2018 18:28	WG1206724
4,4-DDE	1.18	J3	0.00173	0.209	10	12/11/2018 11:11	WG1206724
4,4-DDT	2.09	J3	0.00278	0.209	10	12/11/2018 11:11	WG1206724
Dieldrin	0.0129	J3 P	0.0000931	0.00209	1	12/08/2018 18:28	WG1206724
Endosulfan I	U	J3	0.000224	0.0209	1	12/08/2018 18:28	WG1206724
Endosulfan II	U	J3	0.000240	0.0209	1	12/08/2018 18:28	WG1206724
Endosulfan sulfate	U	J3	0.000178	0.0209	1	12/08/2018 18:28	WG1206724
Endrin	U	J3	0.000229	0.0209	1	12/08/2018 18:28	WG1206724
Endrin aldehyde	U	J3	0.000253	0.0209	1	12/08/2018 18:28	WG1206724
Endrin ketone	U	J3	0.000166	0.0209	1	12/08/2018 18:28	WG1206724
Heptachlor	U	J3	0.000106	0.0209	1	12/08/2018 18:28	WG1206724
Heptachlor epoxide	U	J3	0.000395	0.0209	1	12/08/2018 18:28	WG1206724
Hexachlorobenzene	U	J3	0.000234	0.0209	1	12/08/2018 18:28	WG1206724
Methoxychlor	U	J3	0.000277	0.0209	1	12/08/2018 18:28	WG1206724
Chlordane	0.706		0.0408	0.209	1	12/08/2018 18:28	WG1206724
Toxaphene	U		0.0376	0.418	1	12/08/2018 18:28	WG1206724
(S) Decachlorobiphenyl	157	J1		10.0-135		12/11/2018 11:11	WG1206724
(S) Decachlorobiphenyl	152	J1		10.0-135		12/08/2018 18:28	WG1206724
(S) Tetrachloro-m-xylene	78.4			10.0-139		12/11/2018 11:11	WG1206724
(S) Tetrachloro-m-xylene	86.9			10.0-139		12/08/2018 18:28	WG1206724

Sample Narrative:

L1050114-05 WG1206724: Surrogate failure due to matrix interference

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	12/08/2018 07:48	WG1207325

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.41		0.478	2.08	1	12/07/2018 16:35	WG1206607
Lead	20.1		0.198	0.520	1	12/07/2018 16:35	WG1206607

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	J3	0.000242	0.0208	1	12/08/2018 18:41	WG1206724
Alpha BHC	U	J3	0.000201	0.0208	1	12/08/2018 18:41	WG1206724
Beta BHC	U	J3	0.000315	0.0208	1	12/08/2018 18:41	WG1206724
Delta BHC	U	J3	0.000157	0.0208	1	12/08/2018 18:41	WG1206724
Gamma BHC	U	J3	0.000255	0.0208	1	12/08/2018 18:41	WG1206724
4,4-DDD	U	J3	0.000171	0.0208	1	12/08/2018 18:41	WG1206724
4,4-DDE	U	J3	0.000172	0.0208	1	12/08/2018 18:41	WG1206724
4,4-DDT	U	J3	0.000277	0.0208	1	12/08/2018 18:41	WG1206724
Dieldrin	U	J3	0.0000926	0.00208	1	12/08/2018 18:41	WG1206724
Endosulfan I	U	J3	0.000223	0.0208	1	12/08/2018 18:41	WG1206724
Endosulfan II	U	J3	0.000239	0.0208	1	12/08/2018 18:41	WG1206724
Endosulfan sulfate	U	J3	0.000177	0.0208	1	12/08/2018 18:41	WG1206724
Endrin	U	J3	0.000228	0.0208	1	12/08/2018 18:41	WG1206724
Endrin aldehyde	U	J3	0.000252	0.0208	1	12/08/2018 18:41	WG1206724
Endrin ketone	U	J3	0.000165	0.0208	1	12/08/2018 18:41	WG1206724
Heptachlor	U	J3	0.000105	0.0208	1	12/08/2018 18:41	WG1206724
Heptachlor epoxide	U	J3	0.000393	0.0208	1	12/08/2018 18:41	WG1206724
Hexachlorobenzene	U	J3	0.000233	0.0208	1	12/08/2018 18:41	WG1206724
Methoxychlor	U	J3	0.000276	0.0208	1	12/08/2018 18:41	WG1206724
Chlordane	U		0.0406	0.208	1	12/08/2018 18:41	WG1206724
Toxaphene	U		0.0374	0.416	1	12/08/2018 18:41	WG1206724
(S) Decachlorobiphenyl	87.4			10.0-135		12/08/2018 18:41	WG1206724
(S) Tetrachloro-m-xylene	89.9			10.0-139		12/08/2018 18:41	WG1206724

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.6		1	12/08/2018 07:48	WG1207325

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.48		0.531	2.31	1	12/07/2018 16:37	WG1206607
Lead	234		0.220	0.578	1	12/07/2018 16:37	WG1206607

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	J3	0.000269	0.0231	1	12/08/2018 18:53	WG1206724
Alpha BHC	U	J3	0.000223	0.0231	1	12/08/2018 18:53	WG1206724
Beta BHC	U	J3	0.000350	0.0231	1	12/08/2018 18:53	WG1206724
Delta BHC	U	J3	0.000174	0.0231	1	12/08/2018 18:53	WG1206724
Gamma BHC	U	J3	0.000283	0.0231	1	12/08/2018 18:53	WG1206724
4,4-DDD	0.00469	J J3	0.000189	0.0231	1	12/08/2018 18:53	WG1206724
4,4-DDE	0.00416	J J3 P	0.000191	0.0231	1	12/08/2018 18:53	WG1206724
4,4-DDT	0.0146	J J3	0.000307	0.0231	1	12/08/2018 18:53	WG1206724
Dieldrin	U	J3	0.000103	0.00231	1	12/08/2018 18:53	WG1206724
Endosulfan I	U	J3	0.000247	0.0231	1	12/08/2018 18:53	WG1206724
Endosulfan II	U	J3	0.000266	0.0231	1	12/08/2018 18:53	WG1206724
Endosulfan sulfate	U	J3	0.000196	0.0231	1	12/08/2018 18:53	WG1206724
Endrin	U	J3	0.000253	0.0231	1	12/08/2018 18:53	WG1206724
Endrin aldehyde	U	J3	0.000280	0.0231	1	12/08/2018 18:53	WG1206724
Endrin ketone	U	J3	0.000184	0.0231	1	12/08/2018 18:53	WG1206724
Heptachlor	U	J3	0.000117	0.0231	1	12/08/2018 18:53	WG1206724
Heptachlor epoxide	U	J3	0.000437	0.0231	1	12/08/2018 18:53	WG1206724
Hexachlorobenzene	U	J3	0.000259	0.0231	1	12/08/2018 18:53	WG1206724
Methoxychlor	U	J3	0.000306	0.0231	1	12/08/2018 18:53	WG1206724
Chlordane	1.87		0.0451	0.231	1	12/08/2018 18:53	WG1206724
Toxaphene	U		0.0416	0.462	1	12/08/2018 18:53	WG1206724
(S) Decachlorobiphenyl	59.1			10.0-135		12/08/2018 18:53	WG1206724
(S) Tetrachloro-m-xylene	60.3			10.0-139		12/08/2018 18:53	WG1206724

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	12/08/2018 07:48	WG1207325

1 Cp

2 Tc

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.11		0.506	2.20	1	12/07/2018 16:46	WG1206607
Lead	28.5		0.209	0.550	1	12/07/2018 16:46	WG1206607

3 Ss

4 Cn

5 Sr

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	J3	0.000257	0.0220	1	12/08/2018 19:06	WG1206724
Alpha BHC	U	J3	0.000212	0.0220	1	12/08/2018 19:06	WG1206724
Beta BHC	U	J3	0.000334	0.0220	1	12/08/2018 19:06	WG1206724
Delta BHC	U	J3	0.000166	0.0220	1	12/08/2018 19:06	WG1206724
Gamma BHC	U	J3	0.000270	0.0220	1	12/08/2018 19:06	WG1206724
4,4-DDD	U	J3	0.000181	0.0220	1	12/08/2018 19:06	WG1206724
4,4-DDE	U	J3	0.000182	0.0220	1	12/08/2018 19:06	WG1206724
4,4-DDT	U	J3	0.000293	0.0220	1	12/08/2018 19:06	WG1206724
Dieldrin	U	J3	0.0000980	0.00220	1	12/08/2018 19:06	WG1206724
Endosulfan I	U	J3	0.000236	0.0220	1	12/08/2018 19:06	WG1206724
Endosulfan II	U	J3	0.000253	0.0220	1	12/08/2018 19:06	WG1206724
Endosulfan sulfate	U	J3	0.000187	0.0220	1	12/08/2018 19:06	WG1206724
Endrin	U	J3	0.000241	0.0220	1	12/08/2018 19:06	WG1206724
Endrin aldehyde	U	J3	0.000266	0.0220	1	12/08/2018 19:06	WG1206724
Endrin ketone	U	J3	0.000175	0.0220	1	12/08/2018 19:06	WG1206724
Heptachlor	U	J3	0.000111	0.0220	1	12/08/2018 19:06	WG1206724
Heptachlor epoxide	U	J3	0.000416	0.0220	1	12/08/2018 19:06	WG1206724
Hexachlorobenzene	U	J3	0.000247	0.0220	1	12/08/2018 19:06	WG1206724
Methoxychlor	U	J3	0.000292	0.0220	1	12/08/2018 19:06	WG1206724
Chlordane	U		0.0429	0.220	1	12/08/2018 19:06	WG1206724
Toxaphene	U		0.0396	0.440	1	12/08/2018 19:06	WG1206724
(S) Decachlorobiphenyl	74.1			10.0-135		12/08/2018 19:06	WG1206724
(S) Tetrachloro-m-xylene	82.0			10.0-139		12/08/2018 19:06	WG1206724

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.3		1	12/08/2018 07:48	WG1207325

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Arsenic	5.94		0.540	2.35	1	12/07/2018 16:48	WG1206607
Lead	84.7		0.223	0.586	1	12/07/2018 16:48	WG1206607

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.8		1	12/08/2018 07:48	WG1207325

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.73		0.555	2.41	1	12/07/2018 16:51	WG1206607
Lead	73.5		0.229	0.604	1	12/07/2018 16:51	WG1206607

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	81.9		1	12/08/2018 07:48	WG1207325

1 Cp

2 Tc

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Arsenic	6.83		0.562	2.44	1	12/07/2018 16:54	WG1206607
Lead	53.6		0.232	0.610	1	12/07/2018 16:54	WG1206607

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	90.8		1	12/08/2018 07:48	WG1207325

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.54		0.507	2.20	1	12/07/2018 16:57	WG1206607
Lead	231		0.209	0.551	1	12/07/2018 16:57	WG1206607

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/04/18 11:53

L1050114

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	69.5	<u>BJ</u>	30.4	100	1	12/10/2018 18:06	WG1208277
(S) a,a,a-Trifluorotoluene(FID)	92.8			78.0-120		12/10/2018 18:06	WG1208277

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	12/07/2018 17:37	WG1207220
Acrolein	U	<u>J4</u>	8.87	50.0	1	12/07/2018 17:37	WG1207220
Acrylonitrile	U		1.87	10.0	1	12/07/2018 17:37	WG1207220
Benzene	U		0.331	1.00	1	12/07/2018 17:37	WG1207220
Bromobenzene	U		0.352	1.00	1	12/07/2018 17:37	WG1207220
Bromodichloromethane	U		0.380	1.00	1	12/07/2018 17:37	WG1207220
Bromoform	U		0.469	1.00	1	12/07/2018 17:37	WG1207220
Bromomethane	U		0.866	5.00	1	12/07/2018 17:37	WG1207220
n-Butylbenzene	U		0.361	1.00	1	12/07/2018 17:37	WG1207220
sec-Butylbenzene	U		0.365	1.00	1	12/07/2018 17:37	WG1207220
tert-Butylbenzene	U		0.399	1.00	1	12/07/2018 17:37	WG1207220
Carbon tetrachloride	U		0.379	1.00	1	12/07/2018 17:37	WG1207220
Chlorobenzene	U	<u>J4</u>	0.348	1.00	1	12/07/2018 17:37	WG1207220
Chlorodibromomethane	U	<u>J4</u>	0.327	1.00	1	12/07/2018 17:37	WG1207220
Chloroethane	U		0.453	5.00	1	12/07/2018 17:37	WG1207220
Chloroform	U		0.324	5.00	1	12/07/2018 17:37	WG1207220
Chloromethane	U		0.276	2.50	1	12/07/2018 17:37	WG1207220
2-Chlorotoluene	U		0.375	1.00	1	12/07/2018 17:37	WG1207220
4-Chlorotoluene	U		0.351	1.00	1	12/07/2018 17:37	WG1207220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/07/2018 17:37	WG1207220
1,2-Dibromoethane	U		0.381	1.00	1	12/07/2018 17:37	WG1207220
Dibromomethane	U		0.346	1.00	1	12/07/2018 17:37	WG1207220
1,2-Dichlorobenzene	U		0.349	1.00	1	12/07/2018 17:37	WG1207220
1,3-Dichlorobenzene	U		0.220	1.00	1	12/07/2018 17:37	WG1207220
1,4-Dichlorobenzene	U		0.274	1.00	1	12/07/2018 17:37	WG1207220
Dichlorodifluoromethane	U		0.551	5.00	1	12/07/2018 17:37	WG1207220
1,1-Dichloroethane	1.38		0.259	1.00	1	12/07/2018 17:37	WG1207220
1,2-Dichloroethane	U		0.361	1.00	1	12/07/2018 17:37	WG1207220
1,1-Dichloroethene	U		0.398	1.00	1	12/07/2018 17:37	WG1207220
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/07/2018 17:37	WG1207220
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/07/2018 17:37	WG1207220
1,2-Dichloropropane	U		0.306	1.00	1	12/07/2018 17:37	WG1207220
1,1-Dichloropropene	U		0.352	1.00	1	12/07/2018 17:37	WG1207220
1,3-Dichloropropane	U		0.366	1.00	1	12/07/2018 17:37	WG1207220
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/07/2018 17:37	WG1207220
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/07/2018 17:37	WG1207220
2,2-Dichloropropane	U		0.321	1.00	1	12/07/2018 17:37	WG1207220
Di-isopropyl ether	U		0.320	1.00	1	12/07/2018 17:37	WG1207220
Ethylbenzene	U		0.384	1.00	1	12/07/2018 17:37	WG1207220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/07/2018 17:37	WG1207220
Isopropylbenzene	U		0.326	1.00	1	12/07/2018 17:37	WG1207220
p-Isopropyltoluene	U		0.350	1.00	1	12/07/2018 17:37	WG1207220
2-Butanone (MEK)	U		3.93	10.0	1	12/07/2018 17:37	WG1207220
Methylene Chloride	U		1.00	5.00	1	12/07/2018 17:37	WG1207220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/07/2018 17:37	WG1207220
Methyl tert-butyl ether	U		0.367	1.00	1	12/07/2018 17:37	WG1207220
Naphthalene	U		1.00	5.00	1	12/07/2018 17:37	WG1207220
n-Propylbenzene	U		0.349	1.00	1	12/07/2018 17:37	WG1207220
Styrene	U		0.307	1.00	1	12/07/2018 17:37	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/04/18 11:53

L1050114

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/07/2018 17:37	WG1207220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/07/2018 17:37	WG1207220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/07/2018 17:37	WG1207220
Tetrachloroethene	U		0.372	1.00	1	12/07/2018 17:37	WG1207220
Toluene	0.426	J	0.412	1.00	1	12/07/2018 17:37	WG1207220
1,2,3-Trichlorobenzene	U		0.230	1.00	1	12/07/2018 17:37	WG1207220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/07/2018 17:37	WG1207220
1,1,1-Trichloroethane	U		0.319	1.00	1	12/07/2018 17:37	WG1207220
1,1,2-Trichloroethane	U		0.383	1.00	1	12/07/2018 17:37	WG1207220
Trichloroethene	U		0.398	1.00	1	12/07/2018 17:37	WG1207220
Trichlorofluoromethane	U		1.20	5.00	1	12/07/2018 17:37	WG1207220
1,2,3-Trichloropropane	U		0.807	2.50	1	12/07/2018 17:37	WG1207220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/07/2018 17:37	WG1207220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	12/07/2018 17:37	WG1207220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/07/2018 17:37	WG1207220
Vinyl chloride	U		0.259	1.00	1	12/07/2018 17:37	WG1207220
Xylenes, Total	U		1.06	3.00	1	12/07/2018 17:37	WG1207220
(S) Toluene-d8	108			80.0-120		12/07/2018 17:37	WG1207220
(S) Dibromofluoromethane	109			75.0-120		12/07/2018 17:37	WG1207220
(S) 4-Bromofluorobenzene	95.7			77.0-126		12/07/2018 17:37	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	27.0	J	24.7	100	1	12/08/2018 10:57	WG1206721
(S) o-Terphenyl	52.3			31.0-160		12/08/2018 10:57	WG1206721



Collected date/time: 12/04/18 11:00

L1050114

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	65.8	<u>BJ</u>	30.4	100	1	12/10/2018 18:29	WG1208277
(S) a,a,a-Trifluorotoluene(FID)	93.5			78.0-120		12/10/2018 18:29	WG1208277

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	12/07/2018 17:58	WG1207220
Acrolein	U	<u>J4</u>	8.87	50.0	1	12/07/2018 17:58	WG1207220
Acrylonitrile	U		1.87	10.0	1	12/07/2018 17:58	WG1207220
Benzene	U		0.331	1.00	1	12/07/2018 17:58	WG1207220
Bromobenzene	U		0.352	1.00	1	12/07/2018 17:58	WG1207220
Bromodichloromethane	U		0.380	1.00	1	12/07/2018 17:58	WG1207220
Bromoform	U		0.469	1.00	1	12/07/2018 17:58	WG1207220
Bromomethane	U		0.866	5.00	1	12/07/2018 17:58	WG1207220
n-Butylbenzene	U		0.361	1.00	1	12/07/2018 17:58	WG1207220
sec-Butylbenzene	U		0.365	1.00	1	12/07/2018 17:58	WG1207220
tert-Butylbenzene	U		0.399	1.00	1	12/07/2018 17:58	WG1207220
Carbon tetrachloride	U		0.379	1.00	1	12/07/2018 17:58	WG1207220
Chlorobenzene	U	<u>J4</u>	0.348	1.00	1	12/07/2018 17:58	WG1207220
Chlorodibromomethane	U	<u>J4</u>	0.327	1.00	1	12/07/2018 17:58	WG1207220
Chloroethane	U		0.453	5.00	1	12/07/2018 17:58	WG1207220
Chloroform	U		0.324	5.00	1	12/07/2018 17:58	WG1207220
Chloromethane	U		0.276	2.50	1	12/07/2018 17:58	WG1207220
2-Chlorotoluene	U		0.375	1.00	1	12/07/2018 17:58	WG1207220
4-Chlorotoluene	U		0.351	1.00	1	12/07/2018 17:58	WG1207220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/07/2018 17:58	WG1207220
1,2-Dibromoethane	U		0.381	1.00	1	12/07/2018 17:58	WG1207220
Dibromomethane	U		0.346	1.00	1	12/07/2018 17:58	WG1207220
1,2-Dichlorobenzene	U		0.349	1.00	1	12/07/2018 17:58	WG1207220
1,3-Dichlorobenzene	U		0.220	1.00	1	12/07/2018 17:58	WG1207220
1,4-Dichlorobenzene	U		0.274	1.00	1	12/07/2018 17:58	WG1207220
Dichlorodifluoromethane	U		0.551	5.00	1	12/07/2018 17:58	WG1207220
1,1-Dichloroethane	1.10		0.259	1.00	1	12/07/2018 17:58	WG1207220
1,2-Dichloroethane	U		0.361	1.00	1	12/07/2018 17:58	WG1207220
1,1-Dichloroethene	U		0.398	1.00	1	12/07/2018 17:58	WG1207220
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/07/2018 17:58	WG1207220
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/07/2018 17:58	WG1207220
1,2-Dichloropropane	U		0.306	1.00	1	12/07/2018 17:58	WG1207220
1,1-Dichloropropene	U		0.352	1.00	1	12/07/2018 17:58	WG1207220
1,3-Dichloropropane	U		0.366	1.00	1	12/07/2018 17:58	WG1207220
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/07/2018 17:58	WG1207220
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/07/2018 17:58	WG1207220
2,2-Dichloropropane	U		0.321	1.00	1	12/07/2018 17:58	WG1207220
Di-isopropyl ether	U		0.320	1.00	1	12/07/2018 17:58	WG1207220
Ethylbenzene	U		0.384	1.00	1	12/07/2018 17:58	WG1207220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/07/2018 17:58	WG1207220
Isopropylbenzene	U		0.326	1.00	1	12/07/2018 17:58	WG1207220
p-Isopropyltoluene	U		0.350	1.00	1	12/07/2018 17:58	WG1207220
2-Butanone (MEK)	U		3.93	10.0	1	12/07/2018 17:58	WG1207220
Methylene Chloride	U		1.00	5.00	1	12/07/2018 17:58	WG1207220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/07/2018 17:58	WG1207220
Methyl tert-butyl ether	U		0.367	1.00	1	12/07/2018 17:58	WG1207220
Naphthalene	U		1.00	5.00	1	12/07/2018 17:58	WG1207220
n-Propylbenzene	U		0.349	1.00	1	12/07/2018 17:58	WG1207220
Styrene	U		0.307	1.00	1	12/07/2018 17:58	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/04/18 11:00

L1050114

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/07/2018 17:58	WG1207220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/07/2018 17:58	WG1207220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/07/2018 17:58	WG1207220
Tetrachloroethene	U		0.372	1.00	1	12/07/2018 17:58	WG1207220
Toluene	U		0.412	1.00	1	12/07/2018 17:58	WG1207220
1,2,3-Trichlorobenzene	U		0.230	1.00	1	12/07/2018 17:58	WG1207220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/07/2018 17:58	WG1207220
1,1,1-Trichloroethane	U		0.319	1.00	1	12/07/2018 17:58	WG1207220
1,1,2-Trichloroethane	U		0.383	1.00	1	12/07/2018 17:58	WG1207220
Trichloroethene	U		0.398	1.00	1	12/07/2018 17:58	WG1207220
Trichlorofluoromethane	U		1.20	5.00	1	12/07/2018 17:58	WG1207220
1,2,3-Trichloropropane	U		0.807	2.50	1	12/07/2018 17:58	WG1207220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/07/2018 17:58	WG1207220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	12/07/2018 17:58	WG1207220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/07/2018 17:58	WG1207220
Vinyl chloride	U		0.259	1.00	1	12/07/2018 17:58	WG1207220
Xylenes, Total	U		1.06	3.00	1	12/07/2018 17:58	WG1207220
(S) Toluene-d8	104			80.0-120		12/07/2018 17:58	WG1207220
(S) Dibromofluoromethane	111			75.0-120		12/07/2018 17:58	WG1207220
(S) 4-Bromofluorobenzene	97.2			77.0-126		12/07/2018 17:58	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	32.8	U	24.7	100	1	12/08/2018 11:19	WG1206721
(S) o-Terphenyl	48.1			31.0-160		12/08/2018 11:19	WG1206721



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	12/08/2018 13:37	WG1207667

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.24		0.512	2.23	1	12/07/2018 16:59	WG1206607
Lead	149		0.212	0.557	1	12/07/2018 16:59	WG1206607

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	J3	0.000260	0.0223	1	12/08/2018 19:18	WG1206724
Alpha BHC	U	J3	0.000215	0.0223	1	12/08/2018 19:18	WG1206724
Beta BHC	U	J3	0.000337	0.0223	1	12/08/2018 19:18	WG1206724
Delta BHC	U	J3	0.000168	0.0223	1	12/08/2018 19:18	WG1206724
Gamma BHC	U	J3	0.000273	0.0223	1	12/08/2018 19:18	WG1206724
4,4-DDD	0.00420	J J3 P	0.000183	0.0223	1	12/08/2018 19:18	WG1206724
4,4-DDE	0.00438	J J3	0.000184	0.0223	1	12/08/2018 19:18	WG1206724
4,4-DDT	0.0287	J3	0.000296	0.0223	1	12/08/2018 19:18	WG1206724
Dieldrin	0.00229	J3	0.0000991	0.00223	1	12/08/2018 19:18	WG1206724
Endosulfan I	U	J3	0.000238	0.0223	1	12/08/2018 19:18	WG1206724
Endosulfan II	U	J3	0.000256	0.0223	1	12/08/2018 19:18	WG1206724
Endosulfan sulfate	U	J3	0.000189	0.0223	1	12/08/2018 19:18	WG1206724
Endrin	U	J3	0.000244	0.0223	1	12/08/2018 19:18	WG1206724
Endrin aldehyde	U	J3	0.000270	0.0223	1	12/08/2018 19:18	WG1206724
Endrin ketone	U	J3	0.000177	0.0223	1	12/08/2018 19:18	WG1206724
Heptachlor	U	J3	0.000112	0.0223	1	12/08/2018 19:18	WG1206724
Heptachlor epoxide	U	J3	0.000421	0.0223	1	12/08/2018 19:18	WG1206724
Hexachlorobenzene	U	J3	0.000249	0.0223	1	12/08/2018 19:18	WG1206724
Methoxychlor	U	J3	0.000295	0.0223	1	12/08/2018 19:18	WG1206724
Chlordane	0.272		0.0434	0.223	1	12/08/2018 19:18	WG1206724
Toxaphene	U		0.0401	0.446	1	12/08/2018 19:18	WG1206724
(S) Decachlorobiphenyl	80.6			10.0-135		12/08/2018 19:18	WG1206724
(S) Tetrachloro-m-xylene	82.5			10.0-139		12/08/2018 19:18	WG1206724

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.0		1	12/08/2018 13:37	WG1207667

1 Cp

2 Tc

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.86		0.489	2.13	1	12/07/2018 17:02	WG1206607
Lead	16.1		0.202	0.532	1	12/07/2018 17:02	WG1206607

3 Ss

4 Cn

5 Sr

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	J3	0.000248	0.0213	1	12/08/2018 19:30	WG1206724
Alpha BHC	U	J3	0.000205	0.0213	1	12/08/2018 19:30	WG1206724
Beta BHC	U	J3	0.000322	0.0213	1	12/08/2018 19:30	WG1206724
Delta BHC	U	J3	0.000161	0.0213	1	12/08/2018 19:30	WG1206724
Gamma BHC	U	J3	0.000261	0.0213	1	12/08/2018 19:30	WG1206724
4,4-DDD	U	J3	0.000174	0.0213	1	12/08/2018 19:30	WG1206724
4,4-DDE	U	J3	0.000175	0.0213	1	12/08/2018 19:30	WG1206724
4,4-DDT	U	J3	0.000283	0.0213	1	12/08/2018 19:30	WG1206724
Dieldrin	U	J3	0.0000946	0.00213	1	12/08/2018 19:30	WG1206724
Endosulfan I	U	J3	0.000228	0.0213	1	12/08/2018 19:30	WG1206724
Endosulfan II	U	J3	0.000245	0.0213	1	12/08/2018 19:30	WG1206724
Endosulfan sulfate	U	J3	0.000181	0.0213	1	12/08/2018 19:30	WG1206724
Endrin	U	J3	0.000233	0.0213	1	12/08/2018 19:30	WG1206724
Endrin aldehyde	U	J3	0.000257	0.0213	1	12/08/2018 19:30	WG1206724
Endrin ketone	U	J3	0.000169	0.0213	1	12/08/2018 19:30	WG1206724
Heptachlor	U	J3	0.000107	0.0213	1	12/08/2018 19:30	WG1206724
Heptachlor epoxide	U	J3	0.000402	0.0213	1	12/08/2018 19:30	WG1206724
Hexachlorobenzene	U	J3	0.000238	0.0213	1	12/08/2018 19:30	WG1206724
Methoxychlor	U	J3	0.000282	0.0213	1	12/08/2018 19:30	WG1206724
Chlordane	U		0.0415	0.213	1	12/08/2018 19:30	WG1206724
Toxaphene	U		0.0383	0.425	1	12/08/2018 19:30	WG1206724
(S) Decachlorobiphenyl	76.9			10.0-135		12/08/2018 19:30	WG1206724
(S) Tetrachloro-m-xylene	82.1			10.0-139		12/08/2018 19:30	WG1206724

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/04/18 11:16

L1050114

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	59.7	<u>BJ</u>	30.4	100	1	12/10/2018 18:51	WG1208277
(S) a,a,a-Trifluorotoluene(FID)	94.3			78.0-120		12/10/2018 18:51	WG1208277

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	12/07/2018 18:19	WG1207220
Acrolein	U	<u>J4</u>	8.87	50.0	1	12/07/2018 18:19	WG1207220
Acrylonitrile	U		1.87	10.0	1	12/07/2018 18:19	WG1207220
Benzene	U		0.331	1.00	1	12/07/2018 18:19	WG1207220
Bromobenzene	U		0.352	1.00	1	12/07/2018 18:19	WG1207220
Bromodichloromethane	U		0.380	1.00	1	12/07/2018 18:19	WG1207220
Bromoform	U		0.469	1.00	1	12/07/2018 18:19	WG1207220
Bromomethane	U		0.866	5.00	1	12/07/2018 18:19	WG1207220
n-Butylbenzene	U		0.361	1.00	1	12/07/2018 18:19	WG1207220
sec-Butylbenzene	U		0.365	1.00	1	12/07/2018 18:19	WG1207220
tert-Butylbenzene	U		0.399	1.00	1	12/07/2018 18:19	WG1207220
Carbon tetrachloride	U		0.379	1.00	1	12/07/2018 18:19	WG1207220
Chlorobenzene	U	<u>J4</u>	0.348	1.00	1	12/07/2018 18:19	WG1207220
Chlorodibromomethane	U	<u>J4</u>	0.327	1.00	1	12/07/2018 18:19	WG1207220
Chloroethane	U		0.453	5.00	1	12/07/2018 18:19	WG1207220
Chloroform	U		0.324	5.00	1	12/07/2018 18:19	WG1207220
Chloromethane	U		0.276	2.50	1	12/07/2018 18:19	WG1207220
2-Chlorotoluene	U		0.375	1.00	1	12/07/2018 18:19	WG1207220
4-Chlorotoluene	U		0.351	1.00	1	12/07/2018 18:19	WG1207220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/07/2018 18:19	WG1207220
1,2-Dibromoethane	U		0.381	1.00	1	12/07/2018 18:19	WG1207220
Dibromomethane	U		0.346	1.00	1	12/07/2018 18:19	WG1207220
1,2-Dichlorobenzene	U		0.349	1.00	1	12/07/2018 18:19	WG1207220
1,3-Dichlorobenzene	U		0.220	1.00	1	12/07/2018 18:19	WG1207220
1,4-Dichlorobenzene	U		0.274	1.00	1	12/07/2018 18:19	WG1207220
Dichlorodifluoromethane	U		0.551	5.00	1	12/07/2018 18:19	WG1207220
1,1-Dichloroethane	2.20		0.259	1.00	1	12/07/2018 18:19	WG1207220
1,2-Dichloroethane	U		0.361	1.00	1	12/07/2018 18:19	WG1207220
1,1-Dichloroethene	U		0.398	1.00	1	12/07/2018 18:19	WG1207220
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/07/2018 18:19	WG1207220
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/07/2018 18:19	WG1207220
1,2-Dichloropropane	U		0.306	1.00	1	12/07/2018 18:19	WG1207220
1,1-Dichloropropene	U		0.352	1.00	1	12/07/2018 18:19	WG1207220
1,3-Dichloropropane	U		0.366	1.00	1	12/07/2018 18:19	WG1207220
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/07/2018 18:19	WG1207220
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/07/2018 18:19	WG1207220
2,2-Dichloropropane	U		0.321	1.00	1	12/07/2018 18:19	WG1207220
Di-isopropyl ether	U		0.320	1.00	1	12/07/2018 18:19	WG1207220
Ethylbenzene	U		0.384	1.00	1	12/07/2018 18:19	WG1207220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/07/2018 18:19	WG1207220
Isopropylbenzene	U		0.326	1.00	1	12/07/2018 18:19	WG1207220
p-Isopropyltoluene	U		0.350	1.00	1	12/07/2018 18:19	WG1207220
2-Butanone (MEK)	U		3.93	10.0	1	12/07/2018 18:19	WG1207220
Methylene Chloride	U		1.00	5.00	1	12/07/2018 18:19	WG1207220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/07/2018 18:19	WG1207220
Methyl tert-butyl ether	U		0.367	1.00	1	12/07/2018 18:19	WG1207220
Naphthalene	U		1.00	5.00	1	12/07/2018 18:19	WG1207220
n-Propylbenzene	U		0.349	1.00	1	12/07/2018 18:19	WG1207220
Styrene	U		0.307	1.00	1	12/07/2018 18:19	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/04/18 11:16

L1050114

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/07/2018 18:19	WG1207220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/07/2018 18:19	WG1207220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/07/2018 18:19	WG1207220
Tetrachloroethene	U		0.372	1.00	1	12/07/2018 18:19	WG1207220
Toluene	U		0.412	1.00	1	12/07/2018 18:19	WG1207220
1,2,3-Trichlorobenzene	U		0.230	1.00	1	12/07/2018 18:19	WG1207220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/07/2018 18:19	WG1207220
1,1,1-Trichloroethane	U		0.319	1.00	1	12/07/2018 18:19	WG1207220
1,1,2-Trichloroethane	U		0.383	1.00	1	12/07/2018 18:19	WG1207220
Trichloroethene	U		0.398	1.00	1	12/07/2018 18:19	WG1207220
Trichlorofluoromethane	U		1.20	5.00	1	12/07/2018 18:19	WG1207220
1,2,3-Trichloropropane	U		0.807	2.50	1	12/07/2018 18:19	WG1207220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/07/2018 18:19	WG1207220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	12/07/2018 18:19	WG1207220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/07/2018 18:19	WG1207220
Vinyl chloride	U		0.259	1.00	1	12/07/2018 18:19	WG1207220
Xylenes, Total	U		1.06	3.00	1	12/07/2018 18:19	WG1207220
(S) Toluene-d8	106			80.0-120		12/07/2018 18:19	WG1207220
(S) Dibromofluoromethane	108			75.0-120		12/07/2018 18:19	WG1207220
(S) 4-Bromofluorobenzene	95.9			77.0-126		12/07/2018 18:19	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		26.7	108	1.08	12/08/2018 11:41	WG1206721
(S) o-Terphenyl	42.0			31.0-160		12/08/2018 11:41	WG1206721



Collected date/time: 12/04/18 11:22

L1050114

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	55.2	<u>BJ</u>	30.4	100	1	12/10/2018 19:14	WG1208277
(S) a,a,a-Trifluorotoluene(FID)	93.3			78.0-120		12/10/2018 19:14	WG1208277

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	12/07/2018 18:41	WG1207220
Acrolein	U	<u>J4</u>	8.87	50.0	1	12/07/2018 18:41	WG1207220
Acrylonitrile	U		1.87	10.0	1	12/07/2018 18:41	WG1207220
Benzene	U		0.331	1.00	1	12/07/2018 18:41	WG1207220
Bromobenzene	U		0.352	1.00	1	12/07/2018 18:41	WG1207220
Bromodichloromethane	U		0.380	1.00	1	12/07/2018 18:41	WG1207220
Bromoform	U		0.469	1.00	1	12/07/2018 18:41	WG1207220
Bromomethane	U		0.866	5.00	1	12/07/2018 18:41	WG1207220
n-Butylbenzene	U		0.361	1.00	1	12/07/2018 18:41	WG1207220
sec-Butylbenzene	U		0.365	1.00	1	12/07/2018 18:41	WG1207220
tert-Butylbenzene	U		0.399	1.00	1	12/07/2018 18:41	WG1207220
Carbon tetrachloride	U		0.379	1.00	1	12/07/2018 18:41	WG1207220
Chlorobenzene	U	<u>J4</u>	0.348	1.00	1	12/07/2018 18:41	WG1207220
Chlorodibromomethane	U	<u>J4</u>	0.327	1.00	1	12/07/2018 18:41	WG1207220
Chloroethane	U		0.453	5.00	1	12/07/2018 18:41	WG1207220
Chloroform	U		0.324	5.00	1	12/07/2018 18:41	WG1207220
Chloromethane	U		0.276	2.50	1	12/07/2018 18:41	WG1207220
2-Chlorotoluene	U		0.375	1.00	1	12/07/2018 18:41	WG1207220
4-Chlorotoluene	U		0.351	1.00	1	12/07/2018 18:41	WG1207220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/07/2018 18:41	WG1207220
1,2-Dibromoethane	U		0.381	1.00	1	12/07/2018 18:41	WG1207220
Dibromomethane	U		0.346	1.00	1	12/07/2018 18:41	WG1207220
1,2-Dichlorobenzene	U		0.349	1.00	1	12/07/2018 18:41	WG1207220
1,3-Dichlorobenzene	U		0.220	1.00	1	12/07/2018 18:41	WG1207220
1,4-Dichlorobenzene	U		0.274	1.00	1	12/07/2018 18:41	WG1207220
Dichlorodifluoromethane	U		0.551	5.00	1	12/07/2018 18:41	WG1207220
1,1-Dichloroethane	2.46		0.259	1.00	1	12/07/2018 18:41	WG1207220
1,2-Dichloroethane	U		0.361	1.00	1	12/07/2018 18:41	WG1207220
1,1-Dichloroethene	U		0.398	1.00	1	12/07/2018 18:41	WG1207220
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/07/2018 18:41	WG1207220
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/07/2018 18:41	WG1207220
1,2-Dichloropropane	U		0.306	1.00	1	12/07/2018 18:41	WG1207220
1,1-Dichloropropene	U		0.352	1.00	1	12/07/2018 18:41	WG1207220
1,3-Dichloropropane	U		0.366	1.00	1	12/07/2018 18:41	WG1207220
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/07/2018 18:41	WG1207220
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/07/2018 18:41	WG1207220
2,2-Dichloropropane	U		0.321	1.00	1	12/07/2018 18:41	WG1207220
Di-isopropyl ether	U		0.320	1.00	1	12/07/2018 18:41	WG1207220
Ethylbenzene	U		0.384	1.00	1	12/07/2018 18:41	WG1207220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/07/2018 18:41	WG1207220
Isopropylbenzene	U		0.326	1.00	1	12/07/2018 18:41	WG1207220
p-Isopropyltoluene	U		0.350	1.00	1	12/07/2018 18:41	WG1207220
2-Butanone (MEK)	U		3.93	10.0	1	12/07/2018 18:41	WG1207220
Methylene Chloride	U		1.00	5.00	1	12/07/2018 18:41	WG1207220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/07/2018 18:41	WG1207220
Methyl tert-butyl ether	U		0.367	1.00	1	12/07/2018 18:41	WG1207220
Naphthalene	U		1.00	5.00	1	12/07/2018 18:41	WG1207220
n-Propylbenzene	U		0.349	1.00	1	12/07/2018 18:41	WG1207220
Styrene	U		0.307	1.00	1	12/07/2018 18:41	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/04/18 11:22

L1050114

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/07/2018 18:41	WG1207220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/07/2018 18:41	WG1207220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/07/2018 18:41	WG1207220
Tetrachloroethene	U		0.372	1.00	1	12/07/2018 18:41	WG1207220
Toluene	U		0.412	1.00	1	12/07/2018 18:41	WG1207220
1,2,3-Trichlorobenzene	U		0.230	1.00	1	12/07/2018 18:41	WG1207220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/07/2018 18:41	WG1207220
1,1,1-Trichloroethane	U		0.319	1.00	1	12/07/2018 18:41	WG1207220
1,1,2-Trichloroethane	U		0.383	1.00	1	12/07/2018 18:41	WG1207220
Trichloroethene	U		0.398	1.00	1	12/07/2018 18:41	WG1207220
Trichlorofluoromethane	U		1.20	5.00	1	12/07/2018 18:41	WG1207220
1,2,3-Trichloropropane	U		0.807	2.50	1	12/07/2018 18:41	WG1207220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/07/2018 18:41	WG1207220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	12/07/2018 18:41	WG1207220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/07/2018 18:41	WG1207220
Vinyl chloride	U		0.259	1.00	1	12/07/2018 18:41	WG1207220
Xylenes, Total	U		1.06	3.00	1	12/07/2018 18:41	WG1207220
(S) Toluene-d8	106			80.0-120		12/07/2018 18:41	WG1207220
(S) Dibromofluoromethane	109			75.0-120		12/07/2018 18:41	WG1207220
(S) 4-Bromofluorobenzene	97.7			77.0-126		12/07/2018 18:41	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	48.6	U	25.4	103	1.03	12/08/2018 12:03	WG1206721
(S) o-Terphenyl	50.2			31.0-160		12/08/2018 12:03	WG1206721



Collected date/time: 12/04/18 11:31

L1050114

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	99.4	<u>BJ</u>	60.8	200	2	12/10/2018 19:37	WG1208277
(S) a,a,a-Trifluorotoluene(FID)	93.4			78.0-120		12/10/2018 19:37	WG1208277

Sample Narrative:

L1050114-19 WG1208277: Lowest possible dilution due to sediment in sample vial.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	12/07/2018 19:02	WG1207220
Acrolein	U	<u>J4</u>	8.87	50.0	1	12/07/2018 19:02	WG1207220
Acrylonitrile	U		1.87	10.0	1	12/07/2018 19:02	WG1207220
Benzene	U		0.331	1.00	1	12/07/2018 19:02	WG1207220
Bromobenzene	U		0.352	1.00	1	12/07/2018 19:02	WG1207220
Bromodichloromethane	U		0.380	1.00	1	12/07/2018 19:02	WG1207220
Bromoform	U		0.469	1.00	1	12/07/2018 19:02	WG1207220
Bromomethane	U		0.866	5.00	1	12/07/2018 19:02	WG1207220
n-Butylbenzene	U		0.361	1.00	1	12/07/2018 19:02	WG1207220
sec-Butylbenzene	U		0.365	1.00	1	12/07/2018 19:02	WG1207220
tert-Butylbenzene	U		0.399	1.00	1	12/07/2018 19:02	WG1207220
Carbon tetrachloride	U		0.379	1.00	1	12/07/2018 19:02	WG1207220
Chlorobenzene	U	<u>J4</u>	0.348	1.00	1	12/07/2018 19:02	WG1207220
Chlorodibromomethane	U	<u>J4</u>	0.327	1.00	1	12/07/2018 19:02	WG1207220
Chloroethane	U		0.453	5.00	1	12/07/2018 19:02	WG1207220
Chloroform	U		0.324	5.00	1	12/07/2018 19:02	WG1207220
Chloromethane	U		0.276	2.50	1	12/07/2018 19:02	WG1207220
2-Chlorotoluene	U		0.375	1.00	1	12/07/2018 19:02	WG1207220
4-Chlorotoluene	U		0.351	1.00	1	12/07/2018 19:02	WG1207220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/07/2018 19:02	WG1207220
1,2-Dibromoethane	U		0.381	1.00	1	12/07/2018 19:02	WG1207220
Dibromomethane	U		0.346	1.00	1	12/07/2018 19:02	WG1207220
1,2-Dichlorobenzene	U		0.349	1.00	1	12/07/2018 19:02	WG1207220
1,3-Dichlorobenzene	U		0.220	1.00	1	12/07/2018 19:02	WG1207220
1,4-Dichlorobenzene	U		0.274	1.00	1	12/07/2018 19:02	WG1207220
Dichlorodifluoromethane	U		0.551	5.00	1	12/07/2018 19:02	WG1207220
1,1-Dichloroethane	2.36		0.259	1.00	1	12/07/2018 19:02	WG1207220
1,2-Dichloroethane	U		0.361	1.00	1	12/07/2018 19:02	WG1207220
1,1-Dichloroethene	U		0.398	1.00	1	12/07/2018 19:02	WG1207220
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/07/2018 19:02	WG1207220
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/07/2018 19:02	WG1207220
1,2-Dichloropropane	U		0.306	1.00	1	12/07/2018 19:02	WG1207220
1,1-Dichloropropene	U		0.352	1.00	1	12/07/2018 19:02	WG1207220
1,3-Dichloropropane	U		0.366	1.00	1	12/07/2018 19:02	WG1207220
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/07/2018 19:02	WG1207220
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/07/2018 19:02	WG1207220
2,2-Dichloropropane	U		0.321	1.00	1	12/07/2018 19:02	WG1207220
Di-isopropyl ether	U		0.320	1.00	1	12/07/2018 19:02	WG1207220
Ethylbenzene	U		0.384	1.00	1	12/07/2018 19:02	WG1207220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/07/2018 19:02	WG1207220
Isopropylbenzene	U		0.326	1.00	1	12/07/2018 19:02	WG1207220
p-Isopropyltoluene	U		0.350	1.00	1	12/07/2018 19:02	WG1207220
2-Butanone (MEK)	U		3.93	10.0	1	12/07/2018 19:02	WG1207220
Methylene Chloride	U		1.00	5.00	1	12/07/2018 19:02	WG1207220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/07/2018 19:02	WG1207220
Methyl tert-butyl ether	U		0.367	1.00	1	12/07/2018 19:02	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/04/18 11:31

L1050114

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	U		1.00	5.00	1	12/07/2018 19:02	WG1207220
n-Propylbenzene	U		0.349	1.00	1	12/07/2018 19:02	WG1207220
Styrene	U		0.307	1.00	1	12/07/2018 19:02	WG1207220
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/07/2018 19:02	WG1207220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/07/2018 19:02	WG1207220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/07/2018 19:02	WG1207220
Tetrachloroethene	U		0.372	1.00	1	12/07/2018 19:02	WG1207220
Toluene	U		0.412	1.00	1	12/07/2018 19:02	WG1207220
1,2,3-Trichlorobenzene	U		0.230	1.00	1	12/07/2018 19:02	WG1207220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/07/2018 19:02	WG1207220
1,1,1-Trichloroethane	U		0.319	1.00	1	12/07/2018 19:02	WG1207220
1,1,2-Trichloroethane	U		0.383	1.00	1	12/07/2018 19:02	WG1207220
Trichloroethene	U		0.398	1.00	1	12/07/2018 19:02	WG1207220
Trichlorofluoromethane	U		1.20	5.00	1	12/07/2018 19:02	WG1207220
1,2,3-Trichloropropane	U		0.807	2.50	1	12/07/2018 19:02	WG1207220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/07/2018 19:02	WG1207220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	12/07/2018 19:02	WG1207220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/07/2018 19:02	WG1207220
Vinyl chloride	U		0.259	1.00	1	12/07/2018 19:02	WG1207220
Xylenes, Total	U		1.06	3.00	1	12/07/2018 19:02	WG1207220
(S) Toluene-d8	106			80.0-120		12/07/2018 19:02	WG1207220
(S) Dibromofluoromethane	108			75.0-120		12/07/2018 19:02	WG1207220
(S) 4-Bromofluorobenzene	95.6			77.0-126		12/07/2018 19:02	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		28.2	114	1.14	12/08/2018 12:25	WG1206721
(S) o-Terphenyl	40.7			31.0-160		12/08/2018 12:25	WG1206721



Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	47.9	<u>BJ</u>	30.4	100	1	12/10/2018 20:00	WG1208277
(S) a,a,a-Trifluorotoluene(FID)	93.4			78.0-120		12/10/2018 20:00	WG1208277

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	12/07/2018 19:23	WG1207220
Acrolein	U	<u>J4</u>	8.87	50.0	1	12/07/2018 19:23	WG1207220
Acrylonitrile	U		1.87	10.0	1	12/07/2018 19:23	WG1207220
Benzene	U		0.331	1.00	1	12/07/2018 19:23	WG1207220
Bromobenzene	U		0.352	1.00	1	12/07/2018 19:23	WG1207220
Bromodichloromethane	U		0.380	1.00	1	12/07/2018 19:23	WG1207220
Bromoform	U		0.469	1.00	1	12/07/2018 19:23	WG1207220
Bromomethane	U		0.866	5.00	1	12/07/2018 19:23	WG1207220
n-Butylbenzene	U		0.361	1.00	1	12/07/2018 19:23	WG1207220
sec-Butylbenzene	U		0.365	1.00	1	12/07/2018 19:23	WG1207220
tert-Butylbenzene	U		0.399	1.00	1	12/07/2018 19:23	WG1207220
Carbon tetrachloride	U		0.379	1.00	1	12/07/2018 19:23	WG1207220
Chlorobenzene	U	<u>J4</u>	0.348	1.00	1	12/07/2018 19:23	WG1207220
Chlorodibromomethane	U	<u>J4</u>	0.327	1.00	1	12/07/2018 19:23	WG1207220
Chloroethane	U		0.453	5.00	1	12/07/2018 19:23	WG1207220
Chloroform	U		0.324	5.00	1	12/07/2018 19:23	WG1207220
Chloromethane	U		0.276	2.50	1	12/07/2018 19:23	WG1207220
2-Chlorotoluene	U		0.375	1.00	1	12/07/2018 19:23	WG1207220
4-Chlorotoluene	U		0.351	1.00	1	12/07/2018 19:23	WG1207220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/07/2018 19:23	WG1207220
1,2-Dibromoethane	U		0.381	1.00	1	12/07/2018 19:23	WG1207220
Dibromomethane	U		0.346	1.00	1	12/07/2018 19:23	WG1207220
1,2-Dichlorobenzene	U		0.349	1.00	1	12/07/2018 19:23	WG1207220
1,3-Dichlorobenzene	U		0.220	1.00	1	12/07/2018 19:23	WG1207220
1,4-Dichlorobenzene	U		0.274	1.00	1	12/07/2018 19:23	WG1207220
Dichlorodifluoromethane	U		0.551	5.00	1	12/07/2018 19:23	WG1207220
1,1-Dichloroethane	0.604	<u>J</u>	0.259	1.00	1	12/07/2018 19:23	WG1207220
1,2-Dichloroethane	U		0.361	1.00	1	12/07/2018 19:23	WG1207220
1,1-Dichloroethene	U		0.398	1.00	1	12/07/2018 19:23	WG1207220
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/07/2018 19:23	WG1207220
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/07/2018 19:23	WG1207220
1,2-Dichloropropane	U		0.306	1.00	1	12/07/2018 19:23	WG1207220
1,1-Dichloropropene	U		0.352	1.00	1	12/07/2018 19:23	WG1207220
1,3-Dichloropropane	U		0.366	1.00	1	12/07/2018 19:23	WG1207220
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/07/2018 19:23	WG1207220
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/07/2018 19:23	WG1207220
2,2-Dichloropropane	U		0.321	1.00	1	12/07/2018 19:23	WG1207220
Di-isopropyl ether	U		0.320	1.00	1	12/07/2018 19:23	WG1207220
Ethylbenzene	U		0.384	1.00	1	12/07/2018 19:23	WG1207220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/07/2018 19:23	WG1207220
Isopropylbenzene	U		0.326	1.00	1	12/07/2018 19:23	WG1207220
p-Isopropyltoluene	U		0.350	1.00	1	12/07/2018 19:23	WG1207220
2-Butanone (MEK)	U		3.93	10.0	1	12/07/2018 19:23	WG1207220
Methylene Chloride	U		1.00	5.00	1	12/07/2018 19:23	WG1207220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/07/2018 19:23	WG1207220
Methyl tert-butyl ether	U		0.367	1.00	1	12/07/2018 19:23	WG1207220
Naphthalene	U		1.00	5.00	1	12/07/2018 19:23	WG1207220
n-Propylbenzene	U		0.349	1.00	1	12/07/2018 19:23	WG1207220
Styrene	U		0.307	1.00	1	12/07/2018 19:23	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/04/18 11:40

L1050114

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/07/2018 19:23	WG1207220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/07/2018 19:23	WG1207220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/07/2018 19:23	WG1207220
Tetrachloroethene	U		0.372	1.00	1	12/07/2018 19:23	WG1207220
Toluene	U		0.412	1.00	1	12/07/2018 19:23	WG1207220
1,2,3-Trichlorobenzene	U		0.230	1.00	1	12/07/2018 19:23	WG1207220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/07/2018 19:23	WG1207220
1,1,1-Trichloroethane	U		0.319	1.00	1	12/07/2018 19:23	WG1207220
1,1,2-Trichloroethane	U		0.383	1.00	1	12/07/2018 19:23	WG1207220
Trichloroethene	U		0.398	1.00	1	12/07/2018 19:23	WG1207220
Trichlorofluoromethane	U		1.20	5.00	1	12/07/2018 19:23	WG1207220
1,2,3-Trichloropropane	U		0.807	2.50	1	12/07/2018 19:23	WG1207220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/07/2018 19:23	WG1207220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	12/07/2018 19:23	WG1207220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/07/2018 19:23	WG1207220
Vinyl chloride	U		0.259	1.00	1	12/07/2018 19:23	WG1207220
Xylenes, Total	U		1.06	3.00	1	12/07/2018 19:23	WG1207220
(S) Toluene-d8	105			80.0-120		12/07/2018 19:23	WG1207220
(S) Dibromofluoromethane	110			75.0-120		12/07/2018 19:23	WG1207220
(S) 4-Bromofluorobenzene	94.5			77.0-126		12/07/2018 19:23	WG1207220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		24.7	100	1	12/08/2018 12:47	WG1206721
(S) o-Terphenyl	44.8			31.0-160		12/08/2018 12:47	WG1206721



Method Blank (MB)

(MB) R3366756-1 12/08/18 08:53

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L1050109-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1050109-02 12/08/18 08:53 • (DUP) R3366756-3 12/08/18 08:53

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	86.3	86.6	1	0.396		10

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3366756-2 12/08/18 08:53

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



Method Blank (MB)

(MB) R3366754-1 12/08/18 07:48

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L1050114-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1050114-10 12/08/18 07:48 • (DUP) R3366754-3 12/08/18 07:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	82.8	83.0	1	0.168		10

⁷ Gl

⁸ Al

Laboratory Control Sample (LCS)

(LCS) R3366754-2 12/08/18 07:48

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

⁹ Sc



Method Blank (MB)

(MB) R3366660-1 12/08/18 13:37

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1049983-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1049983-03 12/08/18 13:37 • (DUP) R3366660-3 12/08/18 13:37

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	83.7	84.6	1	1.07		10

Laboratory Control Sample (LCS)

(LCS) R3366660-2 12/08/18 13:37

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



Method Blank (MB)

(MB) R3366363-1 12/07/18 15:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.460	2.00
Lead	U		0.190	0.500

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

(LCS) R3366363-2 12/07/18 15:43 • (LCSD) R3366363-3 12/07/18 15:46

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 %
Arsenic	100	96.2	100	96.2	100	80.0-120			4.13	20
Lead	100	96.8	100	96.8	100	80.0-120			3.65	20

L1049859-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1049859-01 12/07/18 15:48 • (MS) R3366363-6 12/07/18 15:57 • (MSD) R3366363-7 12/07/18 15:59

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 %
Arsenic	115	15.6	122	124	92.4	94.7	1	75.0-125			2.09	20
Lead	115	13.6	127	130	98.8	101	1	75.0-125			2.29	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3367177-2 12/10/18 11:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C5 - C12	51.6	↓	30.4	100
^(S) a,a,a-Trifluorotoluene(FID)	91.6			78.0-120

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3367177-1 12/10/18 10:19 • (LCSD) R3367177-3 12/10/18 14:04

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C5 - C12	5500	6170	5120	112	93.0	71.0-127			18.6	20
^(S) a,a,a-Trifluorotoluene(FID)				120	96.0	78.0-120				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3366531-2 12/07/18 12:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	0.279	U	0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Hexachloro-1,3-butadiene	0.455	U	0.256	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3366531-2 12/07/18 12:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	0.321	<u>J</u>	0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	105			75.0-120
(S) 4-Bromofluorobenzene	96.6			77.0-126

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3366531-1 12/07/18 10:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	125	98.0	78.4	19.0-160	
Acrolein	125	221	177	10.0-160	<u>J4</u>
Acrylonitrile	125	98.1	78.5	55.0-149	
Benzene	25.0	27.4	110	70.0-123	



Laboratory Control Sample (LCS)

(LCS) R3366531-1 12/07/18 10:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromobenzene	25.0	26.7	107	73.0-121	
Bromodichloromethane	25.0	29.3	117	75.0-120	
Bromoform	25.0	27.1	108	68.0-132	
Bromomethane	25.0	15.0	59.8	10.0-160	
n-Butylbenzene	25.0	27.4	110	73.0-125	
sec-Butylbenzene	25.0	27.1	108	75.0-125	
tert-Butylbenzene	25.0	27.8	111	76.0-124	
Carbon tetrachloride	25.0	29.4	118	68.0-126	
Chlorobenzene	25.0	31.2	125	80.0-121	J4
Chlorodibromomethane	25.0	31.9	128	77.0-125	J4
Chloroethane	25.0	30.3	121	47.0-150	
Chloroform	25.0	28.0	112	73.0-120	
Chloromethane	25.0	22.7	91.0	41.0-142	
2-Chlorotoluene	25.0	27.0	108	76.0-123	
4-Chlorotoluene	25.0	27.1	109	75.0-122	
1,2-Dibromo-3-Chloropropane	25.0	20.2	80.6	58.0-134	
1,2-Dibromoethane	25.0	28.7	115	80.0-122	
Dibromomethane	25.0	28.2	113	80.0-120	
1,2-Dichlorobenzene	25.0	28.2	113	79.0-121	
1,3-Dichlorobenzene	25.0	28.7	115	79.0-120	
1,4-Dichlorobenzene	25.0	27.5	110	79.0-120	
Dichlorodifluoromethane	25.0	36.0	144	51.0-149	
1,1-Dichloroethane	25.0	27.5	110	70.0-126	
1,2-Dichloroethane	25.0	27.7	111	70.0-128	
1,1-Dichloroethene	25.0	30.7	123	71.0-124	
cis-1,2-Dichloroethene	25.0	28.8	115	73.0-120	
trans-1,2-Dichloroethene	25.0	29.6	118	73.0-120	
1,2-Dichloropropane	25.0	27.6	110	77.0-125	
1,1-Dichloropropene	25.0	29.3	117	74.0-126	
1,3-Dichloropropane	25.0	28.5	114	80.0-120	
cis-1,3-Dichloropropene	25.0	29.2	117	80.0-123	
trans-1,3-Dichloropropene	25.0	30.0	120	78.0-124	
2,2-Dichloropropane	25.0	28.9	116	58.0-130	
Di-isopropyl ether	25.0	25.5	102	58.0-138	
Ethylbenzene	25.0	29.6	118	79.0-123	
Hexachloro-1,3-butadiene	25.0	25.5	102	54.0-138	
Isopropylbenzene	25.0	28.0	112	76.0-127	
p-Isopropyltoluene	25.0	28.3	113	76.0-125	
2-Butanone (MEK)	125	93.0	74.4	44.0-160	
Methylene Chloride	25.0	27.3	109	67.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3366531-1 12/07/18 10:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
4-Methyl-2-pentanone (MIBK)	125	104	83.6	68.0-142	
Methyl tert-butyl ether	25.0	27.8	111	68.0-125	
Naphthalene	25.0	20.1	80.5	54.0-135	
n-Propylbenzene	25.0	27.7	111	77.0-124	
Styrene	25.0	29.1	116	73.0-130	
1,1,1,2-Tetrachloroethane	25.0	31.1	124	75.0-125	
1,1,2,2-Tetrachloroethane	25.0	24.6	98.3	65.0-130	
Tetrachloroethene	25.0	30.9	124	72.0-132	
Toluene	25.0	29.6	119	79.0-120	
1,1,2-Trichlorotrifluoroethane	25.0	31.0	124	69.0-132	
1,2,3-Trichlorobenzene	25.0	23.0	92.0	50.0-138	
1,2,4-Trichlorobenzene	25.0	26.0	104	57.0-137	
1,1,1-Trichloroethane	25.0	29.7	119	73.0-124	
1,1,2-Trichloroethane	25.0	30.0	120	80.0-120	
Trichloroethene	25.0	29.5	118	78.0-124	
Trichlorofluoromethane	25.0	31.4	126	59.0-147	
1,2,3-Trichloropropane	25.0	23.9	95.7	73.0-130	
1,2,3-Trimethylbenzene	25.0	26.8	107	77.0-120	
1,2,4-Trimethylbenzene	25.0	27.4	110	76.0-121	
1,3,5-Trimethylbenzene	25.0	27.3	109	76.0-122	
Vinyl chloride	25.0	30.3	121	67.0-131	
Xylenes, Total	75.0	90.4	121	79.0-123	
<i>(S) Toluene-d8</i>			105	80.0-120	
<i>(S) Dibromofluoromethane</i>			106	75.0-120	
<i>(S) 4-Bromofluorobenzene</i>			98.2	77.0-126	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3366447-1 12/08/18 09:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
C12-C22 Hydrocarbons	U		24.7	100
<i>(S) o-Terphenyl</i>	46.0			31.0-160

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3366447-2 12/08/18 10:13 • (LCSD) R3366447-3 12/08/18 10:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
C12-C22 Hydrocarbons	1500	1310	1390	87.3	92.7	50.0-150			5.93	20
<i>(S) o-Terphenyl</i>				86.0	89.0	31.0-160				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3366247-1 12/07/18 10:30

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	86.8			10.0-135
(S) Tetrachloro-m-xylene	80.8			10.0-139

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

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

(LCS) R3366247-2 12/07/18 10:43 • (LCSD) R3366247-3 12/07/18 10:55

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 %
Aldrin	0.0666	0.0389	0.0611	58.4	91.7	34.0-136		J3	44.4	38
Alpha BHC	0.0666	0.0410	0.0648	61.6	97.3	34.0-139		J3	45.0	38
Beta BHC	0.0666	0.0422	0.0659	63.4	98.9	34.0-133		J3	43.8	37
Delta BHC	0.0666	0.0395	0.0622	59.3	93.4	34.0-135		J3	44.6	38
Gamma BHC	0.0666	0.0391	0.0613	58.7	92.0	34.0-136		J3	44.2	38
4,4-DDD	0.0666	0.0403	0.0630	60.5	94.6	33.0-141		J3	43.9	39
4,4-DDE	0.0666	0.0385	0.0601	57.8	90.2	34.0-134		J3	43.8	38
4,4-DDT	0.0666	0.0408	0.0640	61.3	96.1	30.0-143		J3	44.3	40
Dieldrin	0.0666	0.0443	0.0697	66.5	105	35.0-137		J3	44.6	37
Endosulfan I	0.0666	0.0397	0.0619	59.6	92.9	34.0-134		J3	43.7	37



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

(LCS) R3366247-2 12/07/18 10:43 • (LCSD) R3366247-3 12/07/18 10:55

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 %
Endosulfan II	0.0666	0.0377	0.0592	56.6	88.9	35.0-132		J3	44.4	38
Endosulfan sulfate	0.0666	0.0418	0.0660	62.8	99.1	35.0-132		J3	44.9	37
Endrin	0.0666	0.0427	0.0669	64.1	100	34.0-137		J3	44.2	37
Endrin aldehyde	0.0666	0.0374	0.0589	56.2	88.4	23.0-121		J3	44.7	39
Endrin ketone	0.0666	0.0410	0.0652	61.6	97.9	35.0-144		J3	45.6	37
Heptachlor	0.0666	0.0418	0.0644	62.8	96.7	36.0-141		J3	42.6	37
Heptachlor epoxide	0.0666	0.0412	0.0639	61.9	95.9	36.0-134		J3	43.2	37
Hexachlorobenzene	0.0666	0.0392	0.0617	58.9	92.6	33.0-129		J3	44.6	37
Methoxychlor	0.0666	0.0427	0.0668	64.1	100	28.0-150		J3	44.0	38
(S) Decachlorobiphenyl				81.8	99.2	10.0-135				
(S) Tetrachloro-m-xylene				79.7	93.5	10.0-139				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1050207-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1050207-01 12/07/18 11:08 • (MS) R3366247-4 12/07/18 11:20 • (MSD) R3366247-5 12/07/18 11:32

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	0.0729	U	0.0674	0.0626	92.5	85.9	1	20.0-135			7.41	37
Alpha BHC	0.0729	U	0.0709	0.0655	97.3	89.9	1	27.0-140			7.86	35
Beta BHC	0.0729	U	0.0730	0.0680	100	93.4	1	23.0-141			6.98	37
Delta BHC	0.0729	U	0.0693	0.0644	95.0	88.4	1	21.0-138			7.20	35
Gamma BHC	0.0729	U	0.0682	0.0635	93.5	87.1	1	27.0-137			7.15	36
4,4-DDD	0.0729	U	0.0919	0.0804	126	110	1	15.0-152			13.3	39
4,4-DDE	0.0729	0.00799	0.0744	0.0680	91.1	82.4	1	10.0-152			8.91	40
4,4-DDT	0.0729	0.00481	0.0746	0.0689	95.8	88.0	1	10.0-151			7.93	40
Dieldrin	0.0729	U	0.0778	0.0724	107	99.4	1	17.0-145			7.14	37
Endosulfan I	0.0729	0.00696	0.0771	0.0690	96.3	85.2	1	20.0-137			11.1	36
Endosulfan II	0.0729	0.00258	0.0691	0.0628	91.4	82.6	1	15.0-141			9.62	37
Endosulfan sulfate	0.0729	0.000952	0.0758	0.0697	103	94.3	1	15.0-143			8.42	38
Endrin	0.0729	U	0.0747	0.0683	103	93.7	1	19.0-143			9.03	37
Endrin aldehyde	0.0729	U	0.0683	0.0624	93.7	85.6	1	10.0-139			9.05	40
Endrin ketone	0.0729	U	0.0735	0.0679	101	93.2	1	17.0-149			7.89	38
Heptachlor	0.0729	U	0.0714	0.0666	98.0	91.4	1	22.0-138			6.97	37
Heptachlor epoxide	0.0729	U	0.0707	0.0658	97.0	90.2	1	22.0-138			7.22	36
Hexachlorobenzene	0.0729	U	0.0662	0.0618	90.8	84.8	1	25.0-126			6.84	35
Methoxychlor	0.0729	U	0.0731	0.0672	100	92.2	1	10.0-159			8.42	40
(S) Decachlorobiphenyl					99.2	91.7		10.0-135				
(S) Tetrachloro-m-xylene					93.7	87.5		10.0-139				



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.

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.
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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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.
P	RPD between the primary and confirmatory analysis exceeded 40%.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
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

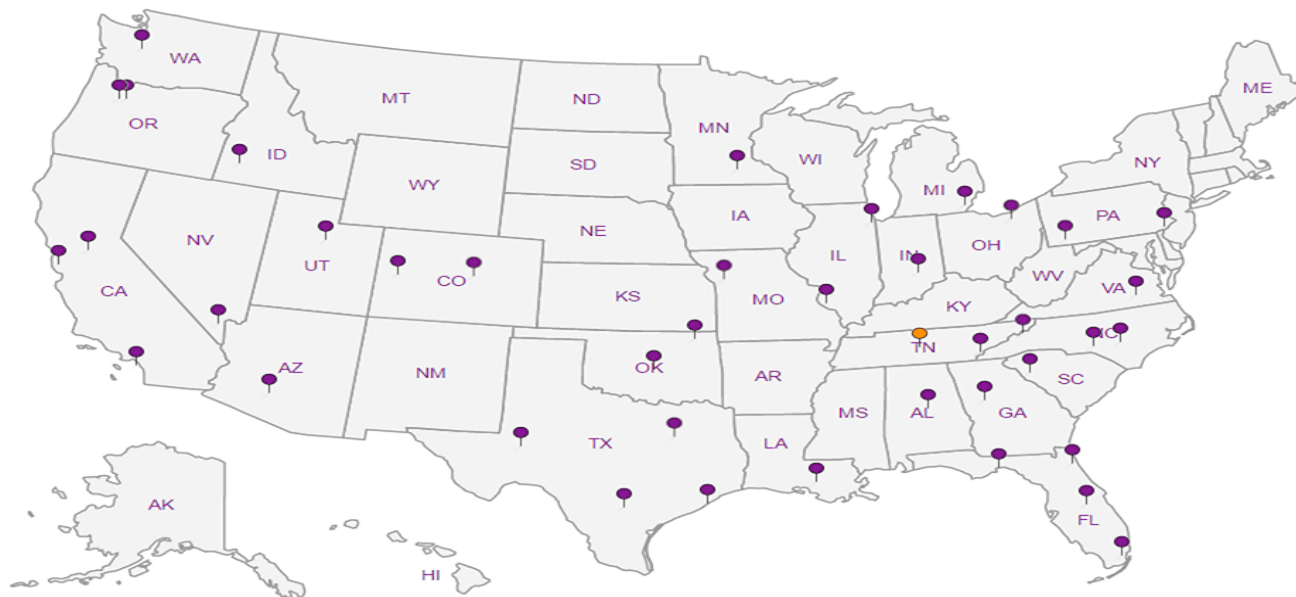
Third Party Federal Accreditations

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

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.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SLR International Corporation - Oakland

Billing Information:
Attn: Accounts Payable
 110 11th St., 2nd Floor
 Oakland, CA 94607

110 - 11th Street

Report to:
Julia Hamilton

Email To: jhamilton@slrconsulting.com

Project Description: **551 Keyes St.**

City/State Collected: **San Jose, CA**

Phone: **510-451-1761**

Client Project #

Lab Project #
SLROCA-HAMILTON

Collected by (print):
Julia Hamilton

Site/Facility ID #

P.O. #

Collected by (signature):
Julia Hamilton

Rush? (Lab MUST Be Notified)

Quote #

Immediately Packed on Ice N Y

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed
STD. TAT.

No. of Containers

Analysis / Container / Preservative

Chain of Custody Page 1 of 4

Pace Analytical
 National Center for Testing & Innovation

12965 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# **L1050114**
H107

Acctnum: **SLROCA**
 Template: **T143417**
 Prelogin: **P682427**
 TSR: **110 - Brian Ford**

PB:
 Shipped Via:
 Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	As, Pb 6010 4ozClr-NoPres	DRO (DROCALVI) 40mlAmb-HCl-BT	GRO (GROCA) 40mlAmb HCl	OCPs (SV8081CA) 4ozClr-NoPres	VOGs (V8260) 40mlAmb-HCl
SB11A	Grab	SS	0.5ft	12/4/18	8:29 AM	X				
SB12A	↓	SS	↓		8:31 AM	X				
SB13A	↓	SS	↓		8:32 AM	X				
SB14A	↓	SS	↓		8:35 AM	X				
SB1@0.5	Grab	SS	0.5ft		8:38 AM	X		X		
SB1@4-5ft	↓	SS	4ft		8:44 AM				X	
SB1@8-9ft	↓	SS	8ft		8:45 AM			X	X	
SB2@0.5ft	↓	SS	0.5ft		9:08 AM	X		X		
SB2@4-5ft	↓	SS	4ft		9:10 AM				X	
SB2@8-9ft	↓	SS	8ft		9:11 AM				X	

HOLD

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

Samples returned via:
 UPS FedEx Courier **SWA**

Tracking #

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)
Julia Hamilton

Relinquished by: (Signature)
By PAEE

Relinquished by: (Signature)
PAEE

Date: 12/4/18
 Time: 1:25 PM

Date: 12/4/18
 Time: 1600

Received by: (Signature)
PAEE

Received by: (Signature)
SWA CARGO

Received for lab by: (Signature)
FAIR

Trip Blank Received: Yes No
 2 HCl/MeOH TBR

Bottles Received: 68

Temp: 0.4-10.5 °C

Date: 12/5/18 Time: 0800

RAD SCREEN: 0.5 mR/hr

If preservation required by Login: Date/Time

12-0017

Condition: NCF /

SLR International Corporation - Oakland

Billing Information:
 Attn: Accounts Payable
 110 11th St., 2nd Floor
 Oakland, CA 94607

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 4



12965 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



110 - 11th Street

Report to:
Julia Hamilton

Email To: jhamilton@slrconsulting.com

Project Description: **551 Keyes St**

City/State Collected: **San Jose, CA**

Phone: **510-451-1761**

Client Project #

Lab Project #
SLROCA-HAMILTON

Fax:

Collected by (print):
Julia Hamilton

Site/Facility ID #

P.O. #

Collected by (signature):
Julia Hamilton

Rush? (Lab MUST Be Notified)

Quote #

Immediately Packed on Ice N Y

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed

STD. TAT.

No. of Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	As, Pb 6010 4ozClr-NoPres	DRO (DROCALVI) 40mlAmb-HCl-BT	GRO (GROCA) 40mlAmb HCl	OCPs (SV8081CA) 4ozClr-NoPres	VOCs (V8260) 40mlAmb-HCl									
SB3 @ 0.5ft	Grab	GWSS	0.5ft	12/4/18	9:27AM	1	X			X										-07
SB3 @ 4-5ft		GWSS	4ft		9:30AM	1							X							
SB3 @ 8-9ft		GWSS	8ft		9:32AM	1							X							
SB4 @ 0.5ft		GWSS	0.5ft		9:49AM	1	X			X										-08
SB4 @ 4-6ft		GWSS	4ft		9:53AM	1							X							
SB4 @ 8-9ft		GWSS	8ft		9:54AM	1							X							
SB7L		GWSS	0.5ft		9:59AM	1	X													-09
SB8L		GWSS	0.5ft		10:00AM	1	X													-10
SB9L		SS	0.5ft		10:02AM	1	X													-11
SB10L		SS	0.5ft		10:04AM	1	X													-12

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

Samples returned via: **SWA**
 UPS FedEx Courier

Tracking #

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist
 COC Seal Present/Intact: NP Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)
Julia Hamilton

Date: **12/4/18**
 Time: **1:25PM**

Received by: (Signature)
B. PACE

Trip Blank Received: Yes No
 MCL/MeoH TBR
2

RAD SCREEN: <0.5 mR/hr

Relinquished by: (Signature)
B. PACE

Date: **12/4/18**
 Time: **1600**

Received by: (Signature)
SWA CARGO

Temp: _____ °C
 Bottles Received: **68**

If preservation required by Login: Date/Time

Relinquished by: (Signature)
BR Farris

Date: **12/5/18**
 Time: **0800**

Received by: (Signature)
BR Farris

Date: **12/5/18**
 Time: **0800**

Hold: _____ Condition: **NCF / OK**

SIR International Corporation - Oakland

111 - 11th Street

Report to:
Julia Hamilton

Project Description: **551 Keys St.**

Phone: **510-451-1761**
Fax:

Collected by (print):
Julia Hamilton

Collected by (signature):
Julia Hamilton

Immediately Packed on Ice: N Y

Billing Information:
Attn: Accounts Payable
110 11th St., 2nd Floor
Oakland, CA 94607

Email To: **jhamilton@sirconsulting.com**

City/State Collected: **San Jose, CA**

Lab Project #
SLROCA-HAMILTON

P.O. #

Quote #

Date Results Needed
STD TAX

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page **3** of **4**



12065 Lebanon Rd
Moonf Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L # **L105014**

Table #

Acctnum: **SLROCA**

Template: **T143417**

Prelogin: **P682427**

TSR: **110 - Brian Ford**

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
SB5	Grab	SS GW	16ft	12/4/18	11:53AM	7
SB6	↓	SS GW	20ft	↓	11:00AM	7
Blanks		SS GW				2
		SS				
		SS				
		SS				

As, Pb 6010 4ozClr-NoPres	DRO (DROCALV) 40mlAmb-HCl-BT	GRO (GROCA) 40mlAmb HCl	OCPs (SV8081CA) 4ozClr-NoPres	VOCs (V8260) 40mlAmb-HCl	HOLD
	X	X		X	
	X	X		X	
					X

Remarks	Sample # (lab only)
	-13
	-14

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:
_ UPS _ FedEx _ Courier **SWA**

Tracking #

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero HeadSpace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature)
Julia Hamilton

Date: **12/4/18**
Time: **1:25PM**

Received by: (Signature)
By Pace

Trip Blank Received: **2** Yes No
HCl / MeOH TBR

Relinquished by: (Signature)
By Pace

Date: **12/4/18**
Time: **1600**

Received by: (Signature)
SWA Cargo

Temp: **0.4+/-0.5** °C
Bottles Received: **68**

Relinquished by: (Signature)

Date: **12/5/18**
Time: **0800**

Received for lab by: (Signature)
Bk Farris

Date: **12/5/18**
Time: **0800**

If preservation required by Login: Date/Time
Hold: _____ Condition: **NCF / OX**

SLR International Corporation - Oakland

110 - 11th Street

Report to:
Julia Hamilton

Project Description: **551 Keyes St**

Phone: **510-451-1761**
Fax:

Collected by (print):
Julia Hamilton

Collected by (signature):
Julia Hamilton

Immediately Packed on Ice: N Y

Billing Information:
Attn: Accounts Payable
110 11th St., 2nd Floor
Oakland, CA 94607

Email To: **jhamilton@slrconsulting.com**

City/State Collected: **San Jose, CA**

Lab Project #
SLROCA-HAMILTON

P.O. #

Quote #

Rush? (Lab MUST Be Notified)

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

STD TAT

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page **4** of **4**

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **L105014**

Table #

Acctnum: **SLROCA**

Template: **T143417**

Prelogin: **P682427**

TSR: **110 - Brian Ford**

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	As, Pb 6010 4ozClr-NoPres	DRO (DROCALVI) 40mlAmb-HCl-BT	GRO (GROCA) 40mlAmb HCl	OCPs (SV8081CA) 4ozClr-NoPres	VOCs (V8260) 40mlAmb-HCl	HOLD	Remarks	Sample # (lab only)
SB5 @ 0.5ft	Grab	SS	0.5ft	12/4/18	10:07AM	1	X			X				-5
SB5 @ 4-5ft		GW	4ft		10:09AM	1						X		
SB5 @ 8-9ft		GW	8ft		10:10AM	1						X		
SB6 @ 0.5ft		GW	0.5ft		10:28AM	1	X		X					-16
SB6 @ 4-5ft		GW	4ft		10:31AM	1						X		
SB6 @ 8-9ft		GW	8ft		10:32AM	1						X		
SB1		GW	20ft		11:16AM	7		X	X		X			-17
SB2		GW	16ft		11:22AM	7		X	X		X			-18
SB3		SSGW	16ft		11:31AM	7		X	X		X			-19
SB4		SSGW	16ft		11:40AM	7		X	X		X			-20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:
UPS FedEx Courier **SWA**

Tracking #

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: NP Y
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: Y N

Relinquished by: (Signature)
Julia Hamilton

Date: **12/4/18**

Time: **1:25PM**

Received by: (Signature)
B Pace

Trip Blank Received: Yes / No
(HCl) / MeOH
TBR

Relinquished by: (Signature)
B Pace

Date: **12/4/18**

Time: **1600**

Received by: (Signature)
SWA CARGO

Temp: **0.4 ± 0.05 °C** Bottles Received: **68**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)
BK Farin

Date: **12/5/18** Time: **0800**

Hold: Condition: **NCF / OK**