



December 2, 2016

Haig's Delicacies  
25673 Nickel Street  
Hayward, CA 94545

Attn: Mr. Steve Cherezian

Subject: Groundwater, Soil & Soil Vapor Sampling Results  
25673 Nickel Place  
Hayward, CA

Dear Mr. Cherezian:

Applied Water Resources, Corp. (AWR) has completed the multi medium sampling as noted above. AWR was requested to complete the sampling on behalf of Haig's Delicacies, the current property owner and occupant.

The property is in a light industrial area within the City of Hayward, California. The site is a light industrial office/warehouse property currently occupied by Haig's Delicacies, which produces Hummus and other similar types of dips and spreads.

**SITE INVESTIGATION**

Applied Water Resources, Corp. (AWR) was contracted to complete a Phase II investigation at the above captioned site. The Phase II investigation was recommended by ADR Environmental Group, Inc. in their Phase I ESA dated September 20, 2016. The need for the Phase II investigation is based on the fact that volatile organic compounds (VOCs) had been historically stored outside the building and used inside the building by a former tenant. Based on this condition, ADR recommended that a Phase II investigation be performed. AWR proposed to advance two shallow sample borings within the former Haz Mat Storage area identified in the Phase I report and in the rear portion of the site outside of where the former paint booth area.

The scope of work consisted of the following tasks:

- Task 1 - Utility Location, Permitting, and Health and Safety Plan
- Task 2 – Field Investigation of Soil, Ground Water, and Soil Vapor Quality

### **Task 1 - Utility Location, Permitting, and Health and Safety Plan**

As described below, investigation activities included drilling and collecting soil, ground water, and soil vapor samples at the Site. Subsurface investigation permits have been obtained from Alameda County.

Underground Services Alert (USA) was notified and the boring locations were cleared for underground utilities. The final drilling locations were selected based upon access limitations (i.e., site features, utilities).

As required by the Occupational Health and Safety Administration (OSHA) 29 CFR 1910.120, Hazardous Waste Operations and Emergency Responses, a site Health and Safety Plan (HSP) was prepared for use while conducting proposed field sampling activities.

### **Task 2 - Field Investigation of Soil, Ground Water, and Soil Vapor Quality**

AWR completed the following site assessment at the project site. AWR advanced three borings and one temporary soil gas points across the site in order to identify the presence or absence of petroleum hydrocarbons or solvents in the soil, groundwater and soil vapors within the property. The field investigation included the installation of three soil boring sample points (SB-1 through SB-3) and one soil vapor sample point adjacent to SB-1 (called SV-1). Sample locations are shown on the attached figure.

The drilling was performed using direct push methods advancing dual tube casing to allow for discrete ground water sample collection. All direct push work was performed by a licensed C-57 drilling contractor. Soil samples were collected continuously to a depth of 4 to 12 feet bgs for SB-1 and SB-2 and 4 feet for SB-3. SV-1 was advanced to 5 feet, and temporary built up with a vapor intake at 4.5 feet, sand from 4-5 feet, and hydrated bentonite from 1-4 feet deep.

Soil samples were collected at depths of two and four feet from the three borings. All two and four foot samples were analyzed for petroleum hydrocarbons and VOCs. Groundwater was encountered at a depth of approximately 8 feet below the surface in SB-1 and SB-2 and grab groundwater samples were collected from two of the soil borings.

#### **Soil Sampling and Analysis**

Soil samples were collected to characterize both residual concentrations posing a risk and residual mass of contaminant that might require removal.

Soil samples were collected using geoprobe acetate liners that were cut into approximately 6" sample and immediately capped with Teflon sheets and new endcaps and analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA method 8015 and the complete list of volatile organic compounds (VOCs) by EPA Method 8260, TPH as diesel (TPHd) and TPH as motor oil (TPHmo) by EPA Method 8015. The test results for the soil can be found in Table 1.

**Table 1 – Soil Sample Analysis Results**

<b>Sample Location and Depth</b>	<b>Date Sampled</b>	<b>TPH Gasoline C7-C12</b>	<b>TPH Diesel C10-C23</b>	<b>TPH Motor Oil C18-C36</b>	<b>VOCs</b>
SB-1 @ 2'	11/10/16	ND	ND	7.9 mg/kg	All were ND
SB-1 @ 4'	11/10/16	ND	ND	7.4 mg/kg	All were ND
SB-2 @ 2'	11/10/16	ND	ND	6.9 mg/kg	All were ND
SB-2 @ 4'	11/10/16	ND	ND	ND	All were ND
SB-3 @ 2'	11/10/16	ND	1.7 mg/kg	30 mg/kg	All were ND
SB-3 @ 4'	11/10/16	ND	ND	ND	All were ND
ESL		100 mg/kg	100 mg/kg	5100 mg/kg	various

**NOTES:**

1. ND is not detected - the compound was not present in concentrations exceeding the laboratory reporting limit.
2. These samples were run for the entire 8260 Volatile Organic Compounds list - only compounds detected in one or more samples are listed in the table. Please see the laboratory analysis report for a full list of analytes and respective reporting limits.
3. ESL is the Environmental Screening Level for unrestricted properties developed by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and published in February 2016 - Summary Table A. Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is Current or Potential Source of Drinking Water

### Grab Ground Water Sampling and Analysis

Grab ground water samples were collected from SB-1 and SB-2. The water samples collected from these borings were analyzed for TPHg, TPHd, and TPHmo by EPA Method 8015 and VOCs by EPA Method 8260. The analysis results are summarized in Table 2 below.

**Table 2 – Groundwater Sample Analysis Results**

Analyte	SB-1 GW	SB-2 GW	ESL
Acetone	11	ND	1,500 ug/L
cis-1,2-Dichloroethene	ND	14	6 ug/L
Methyl-t-butyl ether (MTBE)	ND	2.9	5 ug/L
Trichloroethene	ND	64	5 ug/L and 49 ug/L (see note 4)
TPH-gasoline (C6-C12)	ND	ND	220 ug/L
TPH-Diesel (C10-C23)	100 ug/L	150 ug/L	150 ug/L
TPH-Motor Oil (C18-C36)	1400 ug/L	3100 mg/L	5000 ug/L

**NOTES:**

1. ND is not detected - the compound was not present in concentrations exceeding the laboratory reporting limit.
2. These samples were run for the entire 8260 Volatile Organic Compounds list - only compounds detected in one or more samples are listed in the table. Please see the laboratory analysis report for a full list of analytes and respective reporting limits.
3. ESL is the Environmental Screening Level developed by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and published in February 2016 for commercial/industrial groundwater for non-drinking water.
4. The unrestricted ESL for Trichloroethene in water is 5.0 ug/L but is derived based on potential to impact drinking water. The shallow water at the site will not be used for drinking water. The ESL for commercial/industrial properties when impacts to drinking water are not considered is currently 49ug/L and is derived based on the potential for vapor intrusion.

### Soil Vapor Sampling and Analysis

The soil vapor sample was collected in accordance with AWR's Standard Operating Procedures (SOP). The soil boring was advanced to 5 feet, built with sand from 4-5 foot deep with a filter and sample port near the center of the sand layer, and then sealed with hydrated bentonite chips. The soil vapor sample was collected in a 1-liter suma canister using a helium shroud for leak detection. The soil vapor sample was analyzed for all volatile organic compounds including naphthalene by EPA Method TO-15. The soil vapor test results can be found in Table 3.

**Table 3 – Soil Vapor Sample Analysis Results**

	SV-1 - 5' 11/10/16	ESL
Benzene	2.5 ug/m3	420 ug/m3
Carbon Disulfide	2.0 ug/m3	No ESL developed
Dichlorodifluoromethane	2.6 ug/m3	No ESL developed
Ethylbenzene	2.4 ug/m3	4,900 ug/m3
2-Hexanone (methyl butyl ketone, MBK)	11 ug/m3	No ESL developed
4-Methyl-2-pentanone (MIBK)	2.4 ug/m3	420,000 ug/m3
Toluene	4.7 ug/m3	1,300,000 ug/m3
Trichloroethene (TCE)	3.1 ug/m3	3000 ug/m3
1,2,4-Trimethylbenzene	4.6 ug/m3	No ESL developed
Xylenes, Total	13 ug/m3	440,000 ug/m3

**NOTES:**

1. These samples were run for the entire TO-15 Volatile Organic Compounds list - only compounds detected in one or more samples are listed in the table. Please see the laboratory analysis report for a full list of analytes and respective reporting limits.
2. ESL is the Environmental Screening Level for subslab/soil gas developed by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and published in February 2016 for commercial/industrial properties.

### Boring Sealing

Upon completion of all sampling and data collection activities, the borings were tremie grouted to ground surface with neat cement under the supervision of an Alameda County inspector. Prior to sealing, the temporary hydrated bentonite seal was removed from the soil vapor sample location. The top of each boring was finished similar to surrounding materials.

### **Sample Preservation and Transport**

All samples for laboratory analysis were collected into containers supplied by the laboratory. Following collection, all samples were appropriately labeled with the sample ID, date and time of collection, and sampler's initials. The samples were placed on ice within an ice chest and transported to the laboratory under standard chain-of-custody procedures.

### **Waste Disposal**

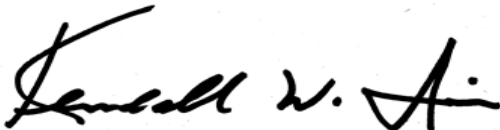
All soil cuttings and other investigation derived waste were placed in drums, labeled, and tested for appropriate disposal.

### **CONCLUSIONS**

As indicated in Table 2 the ESL value for TCE is 5 ug/l for groundwater protection and 49 ug/l for evaluating the potential for soil vapor intrusion. This shallow groundwater at the site is not considered drinking water. The groundwater sample collected at SB-1 was non-detect for TCE indicating that TCE in groundwater is not pervasive throughout the site. In addition the soil vapor result for TCE is multiple orders of magnitude below its ESL value, indicating that the detected TCE in groundwater is not a threat to adversely impact indoor air quality. Based on the comparison presented above, it is our opinion that the detected TCE is not a threat to drinking water or indoor air quality. Therefore, no additional investigation is recommended.

Should you have any questions or require supplemental data, please feel free to contact us at your convenience.

Very truly yours,  
APPLIED WATER RESOURCES, CORPORATION



Kendall W. Price CEG, REA  
Principal Consultant/Regional Manager

Enclosures: Figure 1 – Site Map  
Laboratory Analysis Report  
Permits



NOTE: Base photo from Google Earth

FIGURE 1 – Site Map

25673 Nickel  
Hayward, California





# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1611584

**Report Created for:** Applied Water Resources

1046 W. Taylor Street, Ste. 209  
San Jose, CA 95051-1333

**Project Contact:** Janelle Amendola

**Project P.O.:**

**Project Name:** 25673 Nickle Place

**Project Received:** 11/11/2016

Analytical Report reviewed & approved for release on 11/18/2016 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*







## Glossary of Terms & Qualifier Definitions

**Client:** Applied Water Resources  
**Project:** 25673 Nickle Place  
**WorkOrder:** 1611584

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Glossary of Terms & Qualifier Definitions

**Client:** Applied Water Resources  
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### Analytical Qualifiers

S surrogate spike recovery outside accepted recovery limits  
b1 aqueous sample that contains greater than ~1 vol. % sediment  
c4 surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.  
c8 sample pH is greater than 2  
d6 one to a few isolated non-target peaks present in the TPH(g) chromatogram  
e2 diesel range compounds are significant; no recognizable pattern  
e7 oil range compounds are significant



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 2'	1611584-001A	Soil	11/10/2016 09:48	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/16/2016 10:13
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/16/2016 10:13
Benzene	ND	0.0050	1	11/16/2016 10:13
Bromobenzene	ND	0.0050	1	11/16/2016 10:13
Bromochloromethane	ND	0.0050	1	11/16/2016 10:13
Bromodichloromethane	ND	0.0050	1	11/16/2016 10:13
Bromoform	ND	0.0050	1	11/16/2016 10:13
Bromomethane	ND	0.0050	1	11/16/2016 10:13
2-Butanone (MEK)	ND	0.020	1	11/16/2016 10:13
t-Butyl alcohol (TBA)	ND	0.050	1	11/16/2016 10:13
n-Butyl benzene	ND	0.0050	1	11/16/2016 10:13
sec-Butyl benzene	ND	0.0050	1	11/16/2016 10:13
tert-Butyl benzene	ND	0.0050	1	11/16/2016 10:13
Carbon Disulfide	ND	0.0050	1	11/16/2016 10:13
Carbon Tetrachloride	ND	0.0050	1	11/16/2016 10:13
Chlorobenzene	ND	0.0050	1	11/16/2016 10:13
Chloroethane	ND	0.0050	1	11/16/2016 10:13
Chloroform	ND	0.0050	1	11/16/2016 10:13
Chloromethane	ND	0.0050	1	11/16/2016 10:13
2-Chlorotoluene	ND	0.0050	1	11/16/2016 10:13
4-Chlorotoluene	ND	0.0050	1	11/16/2016 10:13
Dibromochloromethane	ND	0.0050	1	11/16/2016 10:13
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/16/2016 10:13
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/16/2016 10:13
Dibromomethane	ND	0.0050	1	11/16/2016 10:13
1,2-Dichlorobenzene	ND	0.0050	1	11/16/2016 10:13
1,3-Dichlorobenzene	ND	0.0050	1	11/16/2016 10:13
1,4-Dichlorobenzene	ND	0.0050	1	11/16/2016 10:13
Dichlorodifluoromethane	ND	0.0050	1	11/16/2016 10:13
1,1-Dichloroethane	ND	0.0050	1	11/16/2016 10:13
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/16/2016 10:13
1,1-Dichloroethene	ND	0.0050	1	11/16/2016 10:13
cis-1,2-Dichloroethene	ND	0.0050	1	11/16/2016 10:13
trans-1,2-Dichloroethene	ND	0.0050	1	11/16/2016 10:13
1,2-Dichloropropane	ND	0.0050	1	11/16/2016 10:13
1,3-Dichloropropane	ND	0.0050	1	11/16/2016 10:13
2,2-Dichloropropane	ND	0.0050	1	11/16/2016 10:13

(Cont.)



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**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
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**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 2'	1611584-001A	Soil	11/10/2016 09:48	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/16/2016 10:13
cis-1,3-Dichloropropene	ND	0.0050	1	11/16/2016 10:13
trans-1,3-Dichloropropene	ND	0.0050	1	11/16/2016 10:13
Diisopropyl ether (DIPE)	ND	0.0050	1	11/16/2016 10:13
Ethylbenzene	ND	0.0050	1	11/16/2016 10:13
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/16/2016 10:13
Freon 113	ND	0.0050	1	11/16/2016 10:13
Hexachlorobutadiene	ND	0.0050	1	11/16/2016 10:13
Hexachloroethane	ND	0.0050	1	11/16/2016 10:13
2-Hexanone	ND	0.0050	1	11/16/2016 10:13
Isopropylbenzene	ND	0.0050	1	11/16/2016 10:13
4-Isopropyl toluene	ND	0.0050	1	11/16/2016 10:13
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/16/2016 10:13
Methylene chloride	ND	0.0050	1	11/16/2016 10:13
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/16/2016 10:13
Naphthalene	ND	0.0050	1	11/16/2016 10:13
n-Propyl benzene	ND	0.0050	1	11/16/2016 10:13
Styrene	ND	0.0050	1	11/16/2016 10:13
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/16/2016 10:13
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/16/2016 10:13
Tetrachloroethene	ND	0.0050	1	11/16/2016 10:13
Toluene	ND	0.0050	1	11/16/2016 10:13
1,2,3-Trichlorobenzene	ND	0.0050	1	11/16/2016 10:13
1,2,4-Trichlorobenzene	ND	0.0050	1	11/16/2016 10:13
1,1,1-Trichloroethane	ND	0.0050	1	11/16/2016 10:13
1,1,2-Trichloroethane	ND	0.0050	1	11/16/2016 10:13
Trichloroethene	ND	0.0050	1	11/16/2016 10:13
Trichlorofluoromethane	ND	0.0050	1	11/16/2016 10:13
1,2,3-Trichloropropane	ND	0.0050	1	11/16/2016 10:13
1,2,4-Trimethylbenzene	ND	0.0050	1	11/16/2016 10:13
1,3,5-Trimethylbenzene	ND	0.0050	1	11/16/2016 10:13
Vinyl Chloride	ND	0.0050	1	11/16/2016 10:13
Xylenes, Total	ND	0.0050	1	11/16/2016 10:13

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**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 2'	1611584-001A	Soil	11/10/2016 09:48	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	110	70-130		11/16/2016 10:13
Toluene-d8	111	70-130		11/16/2016 10:13
4-BFB	95	70-130		11/16/2016 10:13
Benzene-d6	86	60-140		11/16/2016 10:13
Ethylbenzene-d10	90	60-140		11/16/2016 10:13
1,2-DCB-d4	82	60-140		11/16/2016 10:13

**Analyst(s):** KF



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**Extraction Method:** SW5030B  
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**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 4'	1611584-002A	Soil	11/10/2016 09:49	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/16/2016 10:53
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/16/2016 10:53
Benzene	ND	0.0050	1	11/16/2016 10:53
Bromobenzene	ND	0.0050	1	11/16/2016 10:53
Bromochloromethane	ND	0.0050	1	11/16/2016 10:53
Bromodichloromethane	ND	0.0050	1	11/16/2016 10:53
Bromoform	ND	0.0050	1	11/16/2016 10:53
Bromomethane	ND	0.0050	1	11/16/2016 10:53
2-Butanone (MEK)	ND	0.020	1	11/16/2016 10:53
t-Butyl alcohol (TBA)	ND	0.050	1	11/16/2016 10:53
n-Butyl benzene	ND	0.0050	1	11/16/2016 10:53
sec-Butyl benzene	ND	0.0050	1	11/16/2016 10:53
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Carbon Disulfide	ND	0.0050	1	11/16/2016 10:53
Carbon Tetrachloride	ND	0.0050	1	11/16/2016 10:53
Chlorobenzene	ND	0.0050	1	11/16/2016 10:53
Chloroethane	ND	0.0050	1	11/16/2016 10:53
Chloroform	ND	0.0050	1	11/16/2016 10:53
Chloromethane	ND	0.0050	1	11/16/2016 10:53
2-Chlorotoluene	ND	0.0050	1	11/16/2016 10:53
4-Chlorotoluene	ND	0.0050	1	11/16/2016 10:53
Dibromochloromethane	ND	0.0050	1	11/16/2016 10:53
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/16/2016 10:53
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/16/2016 10:53
Dibromomethane	ND	0.0050	1	11/16/2016 10:53
1,2-Dichlorobenzene	ND	0.0050	1	11/16/2016 10:53
1,3-Dichlorobenzene	ND	0.0050	1	11/16/2016 10:53
1,4-Dichlorobenzene	ND	0.0050	1	11/16/2016 10:53
Dichlorodifluoromethane	ND	0.0050	1	11/16/2016 10:53
1,1-Dichloroethane	ND	0.0050	1	11/16/2016 10:53
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/16/2016 10:53
1,1-Dichloroethene	ND	0.0050	1	11/16/2016 10:53
cis-1,2-Dichloroethene	ND	0.0050	1	11/16/2016 10:53
trans-1,2-Dichloroethene	ND	0.0050	1	11/16/2016 10:53
1,2-Dichloropropane	ND	0.0050	1	11/16/2016 10:53
1,3-Dichloropropane	ND	0.0050	1	11/16/2016 10:53
2,2-Dichloropropane	ND	0.0050	1	11/16/2016 10:53

(Cont.)



# Analytical Report

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**Unit:** mg/kg

## Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 4'	1611584-002A	Soil	11/10/2016 09:49	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/16/2016 10:53
cis-1,3-Dichloropropene	ND	0.0050	1	11/16/2016 10:53
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Freon 113	ND	0.0050	1	11/16/2016 10:53
Hexachlorobutadiene	ND	0.0050	1	11/16/2016 10:53
Hexachloroethane	ND	0.0050	1	11/16/2016 10:53
2-Hexanone	ND	0.0050	1	11/16/2016 10:53
Isopropylbenzene	ND	0.0050	1	11/16/2016 10:53
4-Isopropyl toluene	ND	0.0050	1	11/16/2016 10:53
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/16/2016 10:53
Methylene chloride	ND	0.0050	1	11/16/2016 10:53
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/16/2016 10:53
Naphthalene	ND	0.0050	1	11/16/2016 10:53
n-Propyl benzene	ND	0.0050	1	11/16/2016 10:53
Styrene	ND	0.0050	1	11/16/2016 10:53
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/16/2016 10:53
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/16/2016 10:53
Tetrachloroethene	ND	0.0050	1	11/16/2016 10:53
Toluene	ND	0.0050	1	11/16/2016 10:53
1,2,3-Trichlorobenzene	ND	0.0050	1	11/16/2016 10:53
1,2,4-Trichlorobenzene	ND	0.0050	1	11/16/2016 10:53
1,1,1-Trichloroethane	ND	0.0050	1	11/16/2016 10:53
1,1,2-Trichloroethane	ND	0.0050	1	11/16/2016 10:53
Trichloroethene	ND	0.0050	1	11/16/2016 10:53
Trichlorofluoromethane	ND	0.0050	1	11/16/2016 10:53
1,2,3-Trichloropropane	ND	0.0050	1	11/16/2016 10:53
1,2,4-Trimethylbenzene	ND	0.0050	1	11/16/2016 10:53
1,3,5-Trimethylbenzene	ND	0.0050	1	11/16/2016 10:53
Vinyl Chloride	ND	0.0050	1	11/16/2016 10:53
Xylenes, Total	ND	0.0050	1	11/16/2016 10:53

(Cont.)



# Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 4'	1611584-002A	Soil	11/10/2016 09:49	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	109	70-130		11/16/2016 10:53
Toluene-d8	111	70-130		11/16/2016 10:53
4-BFB	94	70-130		11/16/2016 10:53
Benzene-d6	84	60-140		11/16/2016 10:53
Ethylbenzene-d10	88	60-140		11/16/2016 10:53
1,2-DCB-d4	81	60-140		11/16/2016 10:53

Analyst(s): KF





## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 2'	1611584-004A	Soil	11/10/2016 11:40	GC16	129734

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/17/2016 04:38
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/17/2016 04:38
Benzene	ND	0.0050	1	11/17/2016 04:38
Bromobenzene	ND	0.0050	1	11/17/2016 04:38
Bromochloromethane	ND	0.0050	1	11/17/2016 04:38
Bromodichloromethane	ND	0.0050	1	11/17/2016 04:38
Bromoform	ND	0.0050	1	11/17/2016 04:38
Bromomethane	ND	0.0050	1	11/17/2016 04:38
2-Butanone (MEK)	ND	0.020	1	11/17/2016 04:38
t-Butyl alcohol (TBA)	ND	0.050	1	11/17/2016 04:38
n-Butyl benzene	ND	0.0050	1	11/17/2016 04:38
sec-Butyl benzene	ND	0.0050	1	11/17/2016 04:38
tert-Butyl benzene	ND	0.0050	1	11/17/2016 04:38
Carbon Disulfide	ND	0.0050	1	11/17/2016 04:38
Carbon Tetrachloride	ND	0.0050	1	11/17/2016 04:38
Chlorobenzene	ND	0.0050	1	11/17/2016 04:38
Chloroethane	ND	0.0050	1	11/17/2016 04:38
Chloroform	ND	0.0050	1	11/17/2016 04:38
Chloromethane	ND	0.0050	1	11/17/2016 04:38
2-Chlorotoluene	ND	0.0050	1	11/17/2016 04:38
4-Chlorotoluene	ND	0.0050	1	11/17/2016 04:38
Dibromochloromethane	ND	0.0050	1	11/17/2016 04:38
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/17/2016 04:38
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/17/2016 04:38
Dibromomethane	ND	0.0050	1	11/17/2016 04:38
1,2-Dichlorobenzene	ND	0.0050	1	11/17/2016 04:38
1,3-Dichlorobenzene	ND	0.0050	1	11/17/2016 04:38
1,4-Dichlorobenzene	ND	0.0050	1	11/17/2016 04:38
Dichlorodifluoromethane	ND	0.0050	1	11/17/2016 04:38
1,1-Dichloroethane	ND	0.0050	1	11/17/2016 04:38
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/17/2016 04:38
1,1-Dichloroethene	ND	0.0050	1	11/17/2016 04:38
cis-1,2-Dichloroethene	ND	0.0050	1	11/17/2016 04:38
trans-1,2-Dichloroethene	ND	0.0050	1	11/17/2016 04:38
1,2-Dichloropropane	ND	0.0050	1	11/17/2016 04:38
1,3-Dichloropropane	ND	0.0050	1	11/17/2016 04:38
2,2-Dichloropropane	ND	0.0050	1	11/17/2016 04:38

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## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 2'	1611584-004A	Soil	11/10/2016 11:40	GC16	129734

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/17/2016 04:38
cis-1,3-Dichloropropene	ND	0.0050	1	11/17/2016 04:38
trans-1,3-Dichloropropene	ND	0.0050	1	11/17/2016 04:38
Diisopropyl ether (DIPE)	ND	0.0050	1	11/17/2016 04:38
Ethylbenzene	ND	0.0050	1	11/17/2016 04:38
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/17/2016 04:38
Freon 113	ND	0.0050	1	11/17/2016 04:38
Hexachlorobutadiene	ND	0.0050	1	11/17/2016 04:38
Hexachloroethane	ND	0.0050	1	11/17/2016 04:38
2-Hexanone	ND	0.0050	1	11/17/2016 04:38
Isopropylbenzene	ND	0.0050	1	11/17/2016 04:38
4-Isopropyl toluene	ND	0.0050	1	11/17/2016 04:38
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/17/2016 04:38
Methylene chloride	ND	0.0050	1	11/17/2016 04:38
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/17/2016 04:38
Naphthalene	ND	0.0050	1	11/17/2016 04:38
n-Propyl benzene	ND	0.0050	1	11/17/2016 04:38
Styrene	ND	0.0050	1	11/17/2016 04:38
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/17/2016 04:38
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/17/2016 04:38
Tetrachloroethene	ND	0.0050	1	11/17/2016 04:38
Toluene	ND	0.0050	1	11/17/2016 04:38
1,2,3-Trichlorobenzene	ND	0.0050	1	11/17/2016 04:38
1,2,4-Trichlorobenzene	ND	0.0050	1	11/17/2016 04:38
1,1,1-Trichloroethane	ND	0.0050	1	11/17/2016 04:38
1,1,2-Trichloroethane	ND	0.0050	1	11/17/2016 04:38
Trichloroethene	ND	0.0050	1	11/17/2016 04:38
Trichlorofluoromethane	ND	0.0050	1	11/17/2016 04:38
1,2,3-Trichloropropane	ND	0.0050	1	11/17/2016 04:38
1,2,4-Trimethylbenzene	ND	0.0050	1	11/17/2016 04:38
1,3,5-Trimethylbenzene	ND	0.0050	1	11/17/2016 04:38
Vinyl Chloride	ND	0.0050	1	11/17/2016 04:38
Xylenes, Total	ND	0.0050	1	11/17/2016 04:38

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## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 2'	1611584-004A	Soil	11/10/2016 11:40	GC16	129734

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	100	70-130		11/17/2016 04:38
Toluene-d8	108	70-130		11/17/2016 04:38
4-BFB	86	70-130		11/17/2016 04:38
Benzene-d6	91	60-140		11/17/2016 04:38
Ethylbenzene-d10	101	60-140		11/17/2016 04:38
1,2-DCB-d4	72	60-140		11/17/2016 04:38

**Analyst(s):** JEM



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 4	1611584-005A	Soil	11/10/2016 11:42	GC16	129734

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/17/2016 05:17
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/17/2016 05:17
Benzene	ND	0.0050	1	11/17/2016 05:17
Bromobenzene	ND	0.0050	1	11/17/2016 05:17
Bromochloromethane	ND	0.0050	1	11/17/2016 05:17
Bromodichloromethane	ND	0.0050	1	11/17/2016 05:17
Bromoform	ND	0.0050	1	11/17/2016 05:17
Bromomethane	ND	0.0050	1	11/17/2016 05:17
2-Butanone (MEK)	ND	0.020	1	11/17/2016 05:17
t-Butyl alcohol (TBA)	ND	0.050	1	11/17/2016 05:17
n-Butyl benzene	ND	0.0050	1	11/17/2016 05:17
sec-Butyl benzene	ND	0.0050	1	11/17/2016 05:17
tert-Butyl benzene	ND	0.0050	1	11/17/2016 05:17
Carbon Disulfide	ND	0.0050	1	11/17/2016 05:17
Carbon Tetrachloride	ND	0.0050	1	11/17/2016 05:17
Chlorobenzene	ND	0.0050	1	11/17/2016 05:17
Chloroethane	ND	0.0050	1	11/17/2016 05:17
Chloroform	ND	0.0050	1	11/17/2016 05:17
Chloromethane	ND	0.0050	1	11/17/2016 05:17
2-Chlorotoluene	ND	0.0050	1	11/17/2016 05:17
4-Chlorotoluene	ND	0.0050	1	11/17/2016 05:17
Dibromochloromethane	ND	0.0050	1	11/17/2016 05:17
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/17/2016 05:17
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/17/2016 05:17
Dibromomethane	ND	0.0050	1	11/17/2016 05:17
1,2-Dichlorobenzene	ND	0.0050	1	11/17/2016 05:17
1,3-Dichlorobenzene	ND	0.0050	1	11/17/2016 05:17
1,4-Dichlorobenzene	ND	0.0050	1	11/17/2016 05:17
Dichlorodifluoromethane	ND	0.0050	1	11/17/2016 05:17
1,1-Dichloroethane	ND	0.0050	1	11/17/2016 05:17
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/17/2016 05:17
1,1-Dichloroethene	ND	0.0050	1	11/17/2016 05:17
cis-1,2-Dichloroethene	ND	0.0050	1	11/17/2016 05:17
trans-1,2-Dichloroethene	ND	0.0050	1	11/17/2016 05:17
1,2-Dichloropropane	ND	0.0050	1	11/17/2016 05:17
1,3-Dichloropropane	ND	0.0050	1	11/17/2016 05:17
2,2-Dichloropropane	ND	0.0050	1	11/17/2016 05:17

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## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 4	1611584-005A	Soil	11/10/2016 11:42	GC16	129734

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/17/2016 05:17
cis-1,3-Dichloropropene	ND	0.0050	1	11/17/2016 05:17
trans-1,3-Dichloropropene	ND	0.0050	1	11/17/2016 05:17
Diisopropyl ether (DIPE)	ND	0.0050	1	11/17/2016 05:17
Ethylbenzene	ND	0.0050	1	11/17/2016 05:17
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/17/2016 05:17
Freon 113	ND	0.0050	1	11/17/2016 05:17
Hexachlorobutadiene	ND	0.0050	1	11/17/2016 05:17
Hexachloroethane	ND	0.0050	1	11/17/2016 05:17
2-Hexanone	ND	0.0050	1	11/17/2016 05:17
Isopropylbenzene	ND	0.0050	1	11/17/2016 05:17
4-Isopropyl toluene	ND	0.0050	1	11/17/2016 05:17
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/17/2016 05:17
Methylene chloride	ND	0.0050	1	11/17/2016 05:17
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/17/2016 05:17
Naphthalene	ND	0.0050	1	11/17/2016 05:17
n-Propyl benzene	ND	0.0050	1	11/17/2016 05:17
Styrene	ND	0.0050	1	11/17/2016 05:17
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/17/2016 05:17
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/17/2016 05:17
Tetrachloroethene	ND	0.0050	1	11/17/2016 05:17
Toluene	ND	0.0050	1	11/17/2016 05:17
1,2,3-Trichlorobenzene	ND	0.0050	1	11/17/2016 05:17
1,2,4-Trichlorobenzene	ND	0.0050	1	11/17/2016 05:17
1,1,1-Trichloroethane	ND	0.0050	1	11/17/2016 05:17
1,1,2-Trichloroethane	ND	0.0050	1	11/17/2016 05:17
Trichloroethene	ND	0.0050	1	11/17/2016 05:17
Trichlorofluoromethane	ND	0.0050	1	11/17/2016 05:17
1,2,3-Trichloropropane	ND	0.0050	1	11/17/2016 05:17
1,2,4-Trimethylbenzene	ND	0.0050	1	11/17/2016 05:17
1,3,5-Trimethylbenzene	ND	0.0050	1	11/17/2016 05:17
Vinyl Chloride	ND	0.0050	1	11/17/2016 05:17
Xylenes, Total	ND	0.0050	1	11/17/2016 05:17

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



# Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 4	1611584-005A	Soil	11/10/2016 11:42	GC16	129734

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	101	70-130		11/17/2016 05:17
Toluene-d8	111	70-130		11/17/2016 05:17
4-BFB	90	70-130		11/17/2016 05:17
Benzene-d6	99	60-140		11/17/2016 05:17
Ethylbenzene-d10	115	60-140		11/17/2016 05:17
1,2-DCB-d4	79	60-140		11/17/2016 05:17

Analyst(s): JEM



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 2'	1611584-007A	Soil	11/10/2016 12:18	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/16/2016 12:54
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/16/2016 12:54
Benzene	ND	0.0050	1	11/16/2016 12:54
Bromobenzene	ND	0.0050	1	11/16/2016 12:54
Bromochloromethane	ND	0.0050	1	11/16/2016 12:54
Bromodichloromethane	ND	0.0050	1	11/16/2016 12:54
Bromoform	ND	0.0050	1	11/16/2016 12:54
Bromomethane	ND	0.0050	1	11/16/2016 12:54
2-Butanone (MEK)	ND	0.020	1	11/16/2016 12:54
t-Butyl alcohol (TBA)	ND	0.050	1	11/16/2016 12:54
n-Butyl benzene	ND	0.0050	1	11/16/2016 12:54
sec-Butyl benzene	ND	0.0050	1	11/16/2016 12:54
tert-Butyl benzene	ND	0.0050	1	11/16/2016 12:54
Carbon Disulfide	ND	0.0050	1	11/16/2016 12:54
Carbon Tetrachloride	ND	0.0050	1	11/16/2016 12:54
Chlorobenzene	ND	0.0050	1	11/16/2016 12:54
Chloroethane	ND	0.0050	1	11/16/2016 12:54
Chloroform	ND	0.0050	1	11/16/2016 12:54
Chloromethane	ND	0.0050	1	11/16/2016 12:54
2-Chlorotoluene	ND	0.0050	1	11/16/2016 12:54
4-Chlorotoluene	ND	0.0050	1	11/16/2016 12:54
Dibromochloromethane	ND	0.0050	1	11/16/2016 12:54
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/16/2016 12:54
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/16/2016 12:54
Dibromomethane	ND	0.0050	1	11/16/2016 12:54
1,2-Dichlorobenzene	ND	0.0050	1	11/16/2016 12:54
1,3-Dichlorobenzene	ND	0.0050	1	11/16/2016 12:54
1,4-Dichlorobenzene	ND	0.0050	1	11/16/2016 12:54
Dichlorodifluoromethane	ND	0.0050	1	11/16/2016 12:54
1,1-Dichloroethane	ND	0.0050	1	11/16/2016 12:54
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/16/2016 12:54
1,1-Dichloroethene	ND	0.0050	1	11/16/2016 12:54
cis-1,2-Dichloroethene	ND	0.0050	1	11/16/2016 12:54
trans-1,2-Dichloroethene	ND	0.0050	1	11/16/2016 12:54
1,2-Dichloropropane	ND	0.0050	1	11/16/2016 12:54
1,3-Dichloropropane	ND	0.0050	1	11/16/2016 12:54
2,2-Dichloropropane	ND	0.0050	1	11/16/2016 12:54

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## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 2'	1611584-007A	Soil	11/10/2016 12:18	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/16/2016 12:54
cis-1,3-Dichloropropene	ND	0.0050	1	11/16/2016 12:54
trans-1,3-Dichloropropene	ND	0.0050	1	11/16/2016 12:54
Diisopropyl ether (DIPE)	ND	0.0050	1	11/16/2016 12:54
Ethylbenzene	ND	0.0050	1	11/16/2016 12:54
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/16/2016 12:54
Freon 113	ND	0.0050	1	11/16/2016 12:54
Hexachlorobutadiene	ND	0.0050	1	11/16/2016 12:54
Hexachloroethane	ND	0.0050	1	11/16/2016 12:54
2-Hexanone	ND	0.0050	1	11/16/2016 12:54
Isopropylbenzene	ND	0.0050	1	11/16/2016 12:54
4-Isopropyl toluene	ND	0.0050	1	11/16/2016 12:54
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/16/2016 12:54
Methylene chloride	ND	0.0050	1	11/16/2016 12:54
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/16/2016 12:54
Naphthalene	ND	0.0050	1	11/16/2016 12:54
n-Propyl benzene	ND	0.0050	1	11/16/2016 12:54
Styrene	ND	0.0050	1	11/16/2016 12:54
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/16/2016 12:54
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/16/2016 12:54
Tetrachloroethene	ND	0.0050	1	11/16/2016 12:54
Toluene	ND	0.0050	1	11/16/2016 12:54
1,2,3-Trichlorobenzene	ND	0.0050	1	11/16/2016 12:54
1,2,4-Trichlorobenzene	ND	0.0050	1	11/16/2016 12:54
1,1,1-Trichloroethane	ND	0.0050	1	11/16/2016 12:54
1,1,2-Trichloroethane	ND	0.0050	1	11/16/2016 12:54
Trichloroethene	ND	0.0050	1	11/16/2016 12:54
Trichlorofluoromethane	ND	0.0050	1	11/16/2016 12:54
1,2,3-Trichloropropane	ND	0.0050	1	11/16/2016 12:54
1,2,4-Trimethylbenzene	ND	0.0050	1	11/16/2016 12:54
1,3,5-Trimethylbenzene	ND	0.0050	1	11/16/2016 12:54
Vinyl Chloride	ND	0.0050	1	11/16/2016 12:54
Xylenes, Total	ND	0.0050	1	11/16/2016 12:54

(Cont.)





## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 2'	1611584-007A	Soil	11/10/2016 12:18	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	110	70-130		11/16/2016 12:54
Toluene-d8	113	70-130		11/16/2016 12:54
4-BFB	97	70-130		11/16/2016 12:54
Benzene-d6	93	60-140		11/16/2016 12:54
Ethylbenzene-d10	99	60-140		11/16/2016 12:54
1,2-DCB-d4	88	60-140		11/16/2016 12:54

**Analyst(s):** KF



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 4'	1611584-008A	Soil	11/10/2016 12:20	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/16/2016 13:34
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/16/2016 13:34
Benzene	ND	0.0050	1	11/16/2016 13:34
Bromobenzene	ND	0.0050	1	11/16/2016 13:34
Bromochloromethane	ND	0.0050	1	11/16/2016 13:34
Bromodichloromethane	ND	0.0050	1	11/16/2016 13:34
Bromoform	ND	0.0050	1	11/16/2016 13:34
Bromomethane	ND	0.0050	1	11/16/2016 13:34
2-Butanone (MEK)	ND	0.020	1	11/16/2016 13:34
t-Butyl alcohol (TBA)	ND	0.050	1	11/16/2016 13:34
n-Butyl benzene	ND	0.0050	1	11/16/2016 13:34
sec-Butyl benzene	ND	0.0050	1	11/16/2016 13:34
tert-Butyl benzene	ND	0.0050	1	11/16/2016 13:34
Carbon Disulfide	ND	0.0050	1	11/16/2016 13:34
Carbon Tetrachloride	ND	0.0050	1	11/16/2016 13:34
Chlorobenzene	ND	0.0050	1	11/16/2016 13:34
Chloroethane	ND	0.0050	1	11/16/2016 13:34
Chloroform	ND	0.0050	1	11/16/2016 13:34
Chloromethane	ND	0.0050	1	11/16/2016 13:34
2-Chlorotoluene	ND	0.0050	1	11/16/2016 13:34
4-Chlorotoluene	ND	0.0050	1	11/16/2016 13:34
Dibromochloromethane	ND	0.0050	1	11/16/2016 13:34
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/16/2016 13:34
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/16/2016 13:34
Dibromomethane	ND	0.0050	1	11/16/2016 13:34
1,2-Dichlorobenzene	ND	0.0050	1	11/16/2016 13:34
1,3-Dichlorobenzene	ND	0.0050	1	11/16/2016 13:34
1,4-Dichlorobenzene	ND	0.0050	1	11/16/2016 13:34
Dichlorodifluoromethane	ND	0.0050	1	11/16/2016 13:34
1,1-Dichloroethane	ND	0.0050	1	11/16/2016 13:34
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/16/2016 13:34
1,1-Dichloroethene	ND	0.0050	1	11/16/2016 13:34
cis-1,2-Dichloroethene	ND	0.0050	1	11/16/2016 13:34
trans-1,2-Dichloroethene	ND	0.0050	1	11/16/2016 13:34
1,2-Dichloropropane	ND	0.0050	1	11/16/2016 13:34
1,3-Dichloropropane	ND	0.0050	1	11/16/2016 13:34
2,2-Dichloropropane	ND	0.0050	1	11/16/2016 13:34

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# Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 4'	1611584-008A	Soil	11/10/2016 12:20	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/16/2016 13:34
cis-1,3-Dichloropropene	ND	0.0050	1	11/16/2016 13:34
trans-1,3-Dichloropropene	ND	0.0050	1	11/16/2016 13:34
Diisopropyl ether (DIPE)	ND	0.0050	1	11/16/2016 13:34
Ethylbenzene	ND	0.0050	1	11/16/2016 13:34
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/16/2016 13:34
Freon 113	ND	0.0050	1	11/16/2016 13:34
Hexachlorobutadiene	ND	0.0050	1	11/16/2016 13:34
Hexachloroethane	ND	0.0050	1	11/16/2016 13:34
2-Hexanone	ND	0.0050	1	11/16/2016 13:34
Isopropylbenzene	ND	0.0050	1	11/16/2016 13:34
4-Isopropyl toluene	ND	0.0050	1	11/16/2016 13:34
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/16/2016 13:34
Methylene chloride	ND	0.0050	1	11/16/2016 13:34
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/16/2016 13:34
Naphthalene	ND	0.0050	1	11/16/2016 13:34
n-Propyl benzene	ND	0.0050	1	11/16/2016 13:34
Styrene	ND	0.0050	1	11/16/2016 13:34
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/16/2016 13:34
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/16/2016 13:34
Tetrachloroethene	ND	0.0050	1	11/16/2016 13:34
Toluene	ND	0.0050	1	11/16/2016 13:34
1,2,3-Trichlorobenzene	ND	0.0050	1	11/16/2016 13:34
1,2,4-Trichlorobenzene	ND	0.0050	1	11/16/2016 13:34
1,1,1-Trichloroethane	ND	0.0050	1	11/16/2016 13:34
1,1,2-Trichloroethane	ND	0.0050	1	11/16/2016 13:34
Trichloroethene	ND	0.0050	1	11/16/2016 13:34
Trichlorofluoromethane	ND	0.0050	1	11/16/2016 13:34
1,2,3-Trichloropropane	ND	0.0050	1	11/16/2016 13:34
1,2,4-Trimethylbenzene	ND	0.0050	1	11/16/2016 13:34
1,3,5-Trimethylbenzene	ND	0.0050	1	11/16/2016 13:34
Vinyl Chloride	ND	0.0050	1	11/16/2016 13:34
Xylenes, Total	ND	0.0050	1	11/16/2016 13:34

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 4'	1611584-008A	Soil	11/10/2016 12:20	GC10	129717

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	109	70-130		11/16/2016 13:34
Toluene-d8	115	70-130		11/16/2016 13:34
4-BFB	97	70-130		11/16/2016 13:34
Benzene-d6	100	60-140		11/16/2016 13:34
Ethylbenzene-d10	111	60-140		11/16/2016 13:34
1,2-DCB-d4	93	60-140		11/16/2016 13:34

**Analyst(s):** KF



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/15/16-11/16/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 GW	1611584-003C	Water	11/10/2016 10:45	GC18	129798

Analytes	Result	RL	DF	Date Analyzed
Acetone	11	10	1	11/16/2016 15:52
tert-Amyl methyl ether (TAME)	ND	0.50	1	11/16/2016 15:52
Benzene	ND	0.50	1	11/16/2016 15:52
Bromobenzene	ND	0.50	1	11/16/2016 15:52
Bromochloromethane	ND	0.50	1	11/16/2016 15:52
Bromodichloromethane	ND	0.50	1	11/16/2016 15:52
Bromoform	ND	0.50	1	11/16/2016 15:52
Bromomethane	ND	0.50	1	11/16/2016 15:52
2-Butanone (MEK)	ND	2.0	1	11/16/2016 15:52
t-Butyl alcohol (TBA)	ND	2.0	1	11/16/2016 15:52
n-Butyl benzene	ND	0.50	1	11/16/2016 15:52
sec-Butyl benzene	ND	0.50	1	11/16/2016 15:52
tert-Butyl benzene	ND	0.50	1	11/16/2016 15:52
Carbon Disulfide	ND	0.50	1	11/16/2016 15:52
Carbon Tetrachloride	ND	0.50	1	11/16/2016 15:52
Chlorobenzene	ND	0.50	1	11/16/2016 15:52
Chloroethane	ND	0.50	1	11/16/2016 15:52
Chloroform	ND	0.50	1	11/16/2016 15:52
Chloromethane	ND	0.50	1	11/16/2016 15:52
2-Chlorotoluene	ND	0.50	1	11/16/2016 15:52
4-Chlorotoluene	ND	0.50	1	11/16/2016 15:52
Dibromochloromethane	ND	0.50	1	11/16/2016 15:52
1,2-Dibromo-3-chloropropane	ND	0.20	1	11/16/2016 15:52
1,2-Dibromoethane (EDB)	ND	0.50	1	11/16/2016 15:52
Dibromomethane	ND	0.50	1	11/16/2016 15:52
1,2-Dichlorobenzene	ND	0.50	1	11/16/2016 15:52
1,3-Dichlorobenzene	ND	0.50	1	11/16/2016 15:52
1,4-Dichlorobenzene	ND	0.50	1	11/16/2016 15:52
Dichlorodifluoromethane	ND	0.50	1	11/16/2016 15:52
1,1-Dichloroethane	ND	0.50	1	11/16/2016 15:52
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/16/2016 15:52
1,1-Dichloroethene	ND	0.50	1	11/16/2016 15:52
cis-1,2-Dichloroethene	ND	0.50	1	11/16/2016 15:52
trans-1,2-Dichloroethene	ND	0.50	1	11/16/2016 15:52
1,2-Dichloropropane	ND	0.50	1	11/16/2016 15:52
1,3-Dichloropropane	ND	0.50	1	11/16/2016 15:52
2,2-Dichloropropane	ND	0.50	1	11/16/2016 15:52

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# Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/15/16-11/16/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

## Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 GW	1611584-003C	Water	11/10/2016 10:45	GC18	129798

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	11/16/2016 15:52
cis-1,3-Dichloropropene	ND	0.50	1	11/16/2016 15:52
trans-1,3-Dichloropropene	ND	0.50	1	11/16/2016 15:52
Diisopropyl ether (DIPE)	ND	0.50	1	11/16/2016 15:52
Ethylbenzene	ND	0.50	1	11/16/2016 15:52
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	11/16/2016 15:52
Freon 113	ND	0.50	1	11/16/2016 15:52
Hexachlorobutadiene	ND	0.50	1	11/16/2016 15:52
Hexachloroethane	ND	0.50	1	11/16/2016 15:52
2-Hexanone	ND	0.50	1	11/16/2016 15:52
Isopropylbenzene	ND	0.50	1	11/16/2016 15:52
4-Isopropyl toluene	ND	0.50	1	11/16/2016 15:52
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/16/2016 15:52
Methylene chloride	ND	0.50	1	11/16/2016 15:52
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	11/16/2016 15:52
Naphthalene	ND	0.50	1	11/16/2016 15:52
n-Propyl benzene	ND	0.50	1	11/16/2016 15:52
Styrene	ND	0.50	1	11/16/2016 15:52
1,1,1,2-Tetrachloroethane	ND	0.50	1	11/16/2016 15:52
1,1,2,2-Tetrachloroethane	ND	0.50	1	11/16/2016 15:52
Tetrachloroethene	ND	0.50	1	11/16/2016 15:52
Toluene	ND	0.50	1	11/16/2016 15:52
1,2,3-Trichlorobenzene	ND	0.50	1	11/16/2016 15:52
1,2,4-Trichlorobenzene	ND	0.50	1	11/16/2016 15:52
1,1,1-Trichloroethane	ND	0.50	1	11/16/2016 15:52
1,1,2-Trichloroethane	ND	0.50	1	11/16/2016 15:52
Trichloroethene	ND	0.50	1	11/16/2016 15:52
Trichlorofluoromethane	ND	0.50	1	11/16/2016 15:52
1,2,3-Trichloropropane	ND	0.50	1	11/16/2016 15:52
1,2,4-Trimethylbenzene	ND	0.50	1	11/16/2016 15:52
1,3,5-Trimethylbenzene	ND	0.50	1	11/16/2016 15:52
Vinyl Chloride	ND	0.50	1	11/16/2016 15:52
Xylenes, Total	ND	0.50	1	11/16/2016 15:52

(Cont.)



# Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/15/16-11/16/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

## Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 GW	1611584-003C	Water	11/10/2016 10:45	GC18	129798

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	105	70-130		11/16/2016 15:52
Toluene-d8	96	70-130		11/16/2016 15:52
4-BFB	93	70-130		11/16/2016 15:52

Analyst(s): KF

Analytical Comments: b1



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/15/16-11/16/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 GW	1611584-006C	Water	11/10/2016 11:59	GC18	129798

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	50	5	11/15/2016 20:11
tert-Amyl methyl ether (TAME)	ND	2.5	5	11/15/2016 20:11
Benzene	ND	2.5	5	11/15/2016 20:11
Bromobenzene	ND	2.5	5	11/15/2016 20:11
Bromochloromethane	ND	2.5	5	11/15/2016 20:11
Bromodichloromethane	ND	2.5	5	11/15/2016 20:11
Bromoform	ND	2.5	5	11/15/2016 20:11
Bromomethane	ND	2.5	5	11/15/2016 20:11
2-Butanone (MEK)	ND	10	5	11/15/2016 20:11
t-Butyl alcohol (TBA)	ND	10	5	11/15/2016 20:11
n-Butyl benzene	ND	2.5	5	11/15/2016 20:11
sec-Butyl benzene	ND	2.5	5	11/15/2016 20:11
tert-Butyl benzene	ND	2.5	5	11/15/2016 20:11
Carbon Disulfide	ND	2.5	5	11/15/2016 20:11
Carbon Tetrachloride	ND	2.5	5	11/15/2016 20:11
Chlorobenzene	ND	2.5	5	11/15/2016 20:11
Chloroethane	ND	2.5	5	11/15/2016 20:11
Chloroform	ND	2.5	5	11/15/2016 20:11
Chloromethane	ND	2.5	5	11/15/2016 20:11
2-Chlorotoluene	ND	2.5	5	11/15/2016 20:11
4-Chlorotoluene	ND	2.5	5	11/15/2016 20:11
Dibromochloromethane	ND	2.5	5	11/15/2016 20:11
1,2-Dibromo-3-chloropropane	ND	1.0	5	11/15/2016 20:11
1,2-Dibromoethane (EDB)	ND	2.5	5	11/15/2016 20:11
Dibromomethane	ND	2.5	5	11/15/2016 20:11
1,2-Dichlorobenzene	ND	2.5	5	11/15/2016 20:11
1,3-Dichlorobenzene	ND	2.5	5	11/15/2016 20:11
1,4-Dichlorobenzene	ND	2.5	5	11/15/2016 20:11
Dichlorodifluoromethane	ND	2.5	5	11/15/2016 20:11
1,1-Dichloroethane	ND	2.5	5	11/15/2016 20:11
1,2-Dichloroethane (1,2-DCA)	ND	2.5	5	11/15/2016 20:11
1,1-Dichloroethene	ND	2.5	5	11/15/2016 20:11
cis-1,2-Dichloroethene	14	2.5	5	11/15/2016 20:11
trans-1,2-Dichloroethene	ND	2.5	5	11/15/2016 20:11
1,2-Dichloropropane	ND	2.5	5	11/15/2016 20:11
1,3-Dichloropropane	ND	2.5	5	11/15/2016 20:11
2,2-Dichloropropane	ND	2.5	5	11/15/2016 20:11

(Cont.)





## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/15/16-11/16/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 GW	1611584-006C	Water	11/10/2016 11:59	GC18	129798

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	2.5	5	11/15/2016 20:11
cis-1,3-Dichloropropene	ND	2.5	5	11/15/2016 20:11
trans-1,3-Dichloropropene	ND	2.5	5	11/15/2016 20:11
Diisopropyl ether (DIPE)	ND	2.5	5	11/15/2016 20:11
Ethylbenzene	ND	2.5	5	11/15/2016 20:11
Ethyl tert-butyl ether (ETBE)	ND	2.5	5	11/15/2016 20:11
Freon 113	ND	2.5	5	11/15/2016 20:11
Hexachlorobutadiene	ND	2.5	5	11/15/2016 20:11
Hexachloroethane	ND	2.5	5	11/15/2016 20:11
2-Hexanone	ND	2.5	5	11/15/2016 20:11
Isopropylbenzene	ND	2.5	5	11/15/2016 20:11
4-Isopropyl toluene	ND	2.5	5	11/15/2016 20:11
Methyl-t-butyl ether (MTBE)	<b>2.9</b>	2.5	5	11/15/2016 20:11
Methylene chloride	ND	2.5	5	11/15/2016 20:11
4-Methyl-2-pentanone (MIBK)	ND	2.5	5	11/15/2016 20:11
Naphthalene	ND	2.5	5	11/15/2016 20:11
n-Propyl benzene	ND	2.5	5	11/15/2016 20:11
Styrene	ND	2.5	5	11/15/2016 20:11
1,1,1,2-Tetrachloroethane	ND	2.5	5	11/15/2016 20:11
1,1,2,2-Tetrachloroethane	ND	2.5	5	11/15/2016 20:11
Tetrachloroethene	ND	2.5	5	11/15/2016 20:11
Toluene	ND	2.5	5	11/15/2016 20:11
1,2,3-Trichlorobenzene	ND	2.5	5	11/15/2016 20:11
1,2,4-Trichlorobenzene	ND	2.5	5	11/15/2016 20:11
1,1,1-Trichloroethane	ND	2.5	5	11/15/2016 20:11
1,1,2-Trichloroethane	ND	2.5	5	11/15/2016 20:11
Trichloroethene	<b>64</b>	2.5	5	11/15/2016 20:11
Trichlorofluoromethane	ND	2.5	5	11/15/2016 20:11
1,2,3-Trichloropropane	ND	2.5	5	11/15/2016 20:11
1,2,4-Trimethylbenzene	ND	2.5	5	11/15/2016 20:11
1,3,5-Trimethylbenzene	ND	2.5	5	11/15/2016 20:11
Vinyl Chloride	ND	2.5	5	11/15/2016 20:11
Xylenes, Total	ND	2.5	5	11/15/2016 20:11

(Cont.)





## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 2'	1611584-001A	Soil	11/10/2016 09:48	GC12	129693

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/15/2016 00:46
MTBE	ND	0.050	1	11/15/2016 00:46
Benzene	ND	0.0050	1	11/15/2016 00:46
Toluene	ND	0.0050	1	11/15/2016 00:46
Ethylbenzene	ND	0.0050	1	11/15/2016 00:46
Xylenes	ND	0.015	1	11/15/2016 00:46

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	79	69-117	11/15/2016 00:46

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 4'	1611584-002A	Soil	11/10/2016 09:49	GC12	129693

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/15/2016 01:18
MTBE	ND	0.050	1	11/15/2016 01:18
Benzene	ND	0.0050	1	11/15/2016 01:18
Toluene	ND	0.0050	1	11/15/2016 01:18
Ethylbenzene	ND	0.0050	1	11/15/2016 01:18
Xylenes	ND	0.015	1	11/15/2016 01:18

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	78	69-117	11/15/2016 01:18

Analyst(s): IA



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 2'	1611584-004A	Soil	11/10/2016 11:40	GC12	129753

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/15/2016 01:50
MTBE	ND	0.050	1	11/15/2016 01:50
Benzene	ND	0.0050	1	11/15/2016 01:50
Toluene	ND	0.0050	1	11/15/2016 01:50
Ethylbenzene	ND	0.0050	1	11/15/2016 01:50
Xylenes	ND	0.015	1	11/15/2016 01:50

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	83	69-117	11/15/2016 01:50

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 4	1611584-005A	Soil	11/10/2016 11:42	GC12	129753

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/15/2016 02:22
MTBE	ND	0.050	1	11/15/2016 02:22
Benzene	ND	0.0050	1	11/15/2016 02:22
Toluene	ND	0.0050	1	11/15/2016 02:22
Ethylbenzene	ND	0.0050	1	11/15/2016 02:22
Xylenes	ND	0.015	1	11/15/2016 02:22

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	84	69-117	11/15/2016 02:22

Analyst(s): IA



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 2'	1611584-007A	Soil	11/10/2016 12:18	GC12	129693

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/16/2016 21:34
MTBE	ND	0.050	1	11/16/2016 21:34
Benzene	ND	0.0050	1	11/16/2016 21:34
Toluene	ND	0.0050	1	11/16/2016 21:34
Ethylbenzene	ND	0.0050	1	11/16/2016 21:34
Xylenes	ND	0.015	1	11/16/2016 21:34

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	85	69-117	11/16/2016 21:34

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 4'	1611584-008A	Soil	11/10/2016 12:20	GC12	129693

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/16/2016 22:06
MTBE	ND	0.050	1	11/16/2016 22:06
Benzene	ND	0.0050	1	11/16/2016 22:06
Toluene	ND	0.0050	1	11/16/2016 22:06
Ethylbenzene	ND	0.0050	1	11/16/2016 22:06
Xylenes	ND	0.015	1	11/16/2016 22:06

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	83	69-117	11/16/2016 22:06

Analyst(s): IA



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/17/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 GW	1611584-003A	Water	11/10/2016 10:45	GC3	129928

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/17/2016 07:37
MTBE	ND	5.0	1	11/17/2016 07:37
Benzene	ND	0.50	1	11/17/2016 07:37
Toluene	ND	0.50	1	11/17/2016 07:37
Ethylbenzene	ND	0.50	1	11/17/2016 07:37
Xylenes	ND	1.5	1	11/17/2016 07:37

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	110	89-115	11/17/2016 07:37

Analyst(s): IA

Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 GW	1611584-006A	Water	11/10/2016 11:59	GC3	129928

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/17/2016 08:07
MTBE	ND	5.0	1	11/17/2016 08:07
Benzene	ND	0.50	1	11/17/2016 08:07
Toluene	ND	0.50	1	11/17/2016 08:07
Ethylbenzene	ND	0.50	1	11/17/2016 08:07
Xylenes	ND	1.5	1	11/17/2016 08:07

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
aaa-TFT	534	S	89-115	11/17/2016 08:07

Analyst(s): IA

Analytical Comments: d6,c4,b1



# Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %

## Helium

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV-1 @ 5'	1611584-009A	SoilGas	11/10/2016 13:15	GC26	129810

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.75	25.47	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	11/14/2016 17:00

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/15/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** µg/m<sup>3</sup>

### Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV-1 @ 5'	1611584-009A	SoilGas	11/10/2016 13:15	GC29	129877

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.75	25.47	AK

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	11/15/2016 17:28
Acrolein	ND	5.8	1	11/15/2016 17:28
Acrylonitrile	ND	1.1	1	11/15/2016 17:28
tert-Amyl methyl ether (TAME)	ND	2.1	1	11/15/2016 17:28
Benzene	<b>2.5</b>	1.6	1	11/15/2016 17:28
Benzyl chloride	ND	2.6	1	11/15/2016 17:28
Bromodichloromethane	ND	3.5	1	11/15/2016 17:28
Bromoform	ND	5.2	1	11/15/2016 17:28
Bromomethane	ND	2.0	1	11/15/2016 17:28
1,3-Butadiene	ND	1.1	1	11/15/2016 17:28
2-Butanone (MEK)	ND	75	1	11/15/2016 17:28
t-Butyl alcohol (TBA)	ND	31	1	11/15/2016 17:28
Carbon Disulfide	<b>2.0</b>	1.6	1	11/15/2016 17:28
Carbon Tetrachloride	ND	3.2	1	11/15/2016 17:28
Chlorobenzene	ND	2.4	1	11/15/2016 17:28
Chloroethane	ND	1.3	1	11/15/2016 17:28
Chloroform	ND	2.4	1	11/15/2016 17:28
Chloromethane	ND	1.0	1	11/15/2016 17:28
Cyclohexane	ND	18	1	11/15/2016 17:28
Dibromochloromethane	ND	4.4	1	11/15/2016 17:28
1,2-Dibromo-3-chloropropane	ND	0.12	1	11/15/2016 17:28
1,2-Dibromoethane (EDB)	ND	3.9	1	11/15/2016 17:28
1,2-Dichlorobenzene	ND	3.0	1	11/15/2016 17:28
1,3-Dichlorobenzene	ND	3.0	1	11/15/2016 17:28
1,4-Dichlorobenzene	ND	3.0	1	11/15/2016 17:28
Dichlorodifluoromethane	<b>2.6</b>	2.5	1	11/15/2016 17:28
1,1-Dichloroethane	ND	2.0	1	11/15/2016 17:28
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	11/15/2016 17:28
1,1-Dichloroethene	ND	2.0	1	11/15/2016 17:28
cis-1,2-Dichloroethene	ND	2.0	1	11/15/2016 17:28
trans-1,2-Dichloroethene	ND	2.0	1	11/15/2016 17:28
1,2-Dichloropropane	ND	2.4	1	11/15/2016 17:28
cis-1,3-Dichloropropene	ND	2.3	1	11/15/2016 17:28

(Cont.)

 Angela Rydelius, Lab Manager





## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/15/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** µg/m<sup>3</sup>

### Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV-1 @ 5'	1611584-009A	SoilGas	11/10/2016 13:15	GC29	129877

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.75	25.47	AK

Analytes	Result	RL	DF	Date Analyzed
trans-1,3-Dichloropropene	ND	2.3	1	11/15/2016 17:28
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	11/15/2016 17:28
Diisopropyl ether (DIPE)	ND	2.1	1	11/15/2016 17:28
1,4-Dioxane	ND	1.8	1	11/15/2016 17:28
Ethanol	ND	96	1	11/15/2016 17:28
Ethyl acetate	ND	1.8	1	11/15/2016 17:28
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	11/15/2016 17:28
Ethylbenzene	2.4	2.2	1	11/15/2016 17:28
4-Ethyltoluene	ND	2.5	1	11/15/2016 17:28
Freon 113	ND	3.9	1	11/15/2016 17:28
Heptane	ND	21	1	11/15/2016 17:28
Hexachlorobutadiene	ND	5.4	1	11/15/2016 17:28
Hexane	ND	18	1	11/15/2016 17:28
2-Hexanone	11	2.1	1	11/15/2016 17:28
4-Methyl-2-pentanone (MIBK)	2.4	2.1	1	11/15/2016 17:28
Methyl-t-butyl ether (MTBE)	ND	1.8	1	11/15/2016 17:28
Methylene chloride	ND	8.8	1	11/15/2016 17:28
Methyl methacrylate	ND	2.1	1	11/15/2016 17:28
Naphthalene	ND	5.3	1	11/15/2016 17:28
Propene	ND	88	1	11/15/2016 17:28
Styrene	ND	2.2	1	11/15/2016 17:28
1,1,1,2-Tetrachloroethane	ND	3.5	1	11/15/2016 17:28
1,1,2,2-Tetrachloroethane	ND	3.5	1	11/15/2016 17:28
Tetrachloroethene	ND	3.4	1	11/15/2016 17:28
Tetrahydrofuran	ND	3.0	1	11/15/2016 17:28
Toluene	4.7	1.9	1	11/15/2016 17:28
1,2,4-Trichlorobenzene	ND	3.8	1	11/15/2016 17:28
1,1,1-Trichloroethane	ND	2.8	1	11/15/2016 17:28
1,1,2-Trichloroethane	ND	2.8	1	11/15/2016 17:28
Trichloroethene	3.1	2.8	1	11/15/2016 17:28
Trichlorofluoromethane	ND	2.8	1	11/15/2016 17:28
1,2,4-Trimethylbenzene	4.6	2.5	1	11/15/2016 17:28
1,3,5-Trimethylbenzene	ND	2.5	1	11/15/2016 17:28

(Cont.)

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/15/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** µg/m<sup>3</sup>

### Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV-1 @ 5'	1611584-009A	SoilGas	11/10/2016 13:15	GC29	129877

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.75	25.47	AK

Analytes	Result	RL	DF	Date Analyzed
Vinyl Acetate	ND	18	1	11/15/2016 17:28
Vinyl Chloride	ND	1.3	1	11/15/2016 17:28
Xylenes, Total	<b>13</b>	6.6	1	11/15/2016 17:28
Surrogates	REC (%)	Limits		Date Analyzed
1,2-DCA-d4	108	70-130		11/15/2016 17:28
Toluene-d8	75	70-130		11/15/2016 17:28
4-BFB	101	70-130		11/15/2016 17:28

Angela Rydelius, Lab Manager



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 2'	1611584-001A	Soil	11/10/2016 09:48	GC11B	129666
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/14/2016 20:23
TPH-Motor Oil (C18-C36)	7.9		5.0	1	11/14/2016 20:23
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	87		72-114		11/14/2016 20:23
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e7		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 @ 4'	1611584-002A	Soil	11/10/2016 09:49	GC11A	129666
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/14/2016 20:23
TPH-Motor Oil (C18-C36)	7.4		5.0	1	11/14/2016 20:23
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	97		72-114		11/14/2016 20:23
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e7		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 2'	1611584-004A	Soil	11/10/2016 11:40	GC11B	129764
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/14/2016 23:23
TPH-Motor Oil (C18-C36)	6.9		5.0	1	11/14/2016 23:23
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	87		72-114		11/14/2016 23:23
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e7		

(Cont.)



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16-11/14/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 @ 4	1611584-005A	Soil	11/10/2016 11:42	GC11B	129764

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/15/2016 00:41
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/15/2016 00:41

Surrogates	REC (%)	Limits	Date Analyzed
C9	87	72-114	11/15/2016 00:41

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 2'	1611584-007A	Soil	11/10/2016 12:18	GC9b	129719

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.7	1.0	1	11/14/2016 19:58
TPH-Motor Oil (C18-C36)	30	5.0	1	11/14/2016 19:58

Surrogates	REC (%)	Limits	Date Analyzed
C9	86	72-114	11/14/2016 19:58

Analyst(s): TK

Analytical Comments: e7,e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3 @ 4'	1611584-008A	Soil	11/10/2016 12:20	GC9a	129719

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/14/2016 19:58
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/14/2016 19:58

Surrogates	REC (%)	Limits	Date Analyzed
C9	96	72-114	11/14/2016 19:58

Analyst(s): TK



## Analytical Report

**Client:** Applied Water Resources  
**Date Received:** 11/11/16 17:00  
**Date Prepared:** 11/11/16  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**Extraction Method:** SW3510C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1 GW	1611584-003B	Water	11/10/2016 10:45	GC9a	129714

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	100	100	2	11/14/2016 21:16
TPH-Motor Oil (C18-C36)	1400	500	2	11/14/2016 21:16

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	89	72-117	11/14/2016 21:16

Analyst(s): TK Analytical Comments: e7,e2,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2 GW	1611584-006B	Water	11/10/2016 11:59	GC11B	129714

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	150	100	2	11/17/2016 03:02
TPH-Motor Oil (C18-C36)	3100	500	2	11/17/2016 03:02

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	112	72-117	11/17/2016 03:02

Analyst(s): TK Analytical Comments: e7,e2,b1



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/11/16  
**Date Analyzed:** 11/13/16  
**Instrument:** GC19  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129693  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-129693  
 1611558-002AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.579	0.40	0.60	-	97	89-118
MTBE	ND	0.0898	0.050	0.10	-	90	68-116
Benzene	ND	0.105	0.0050	0.10	-	105	85-118
Toluene	ND	0.108	0.0050	0.10	-	108	87-121
Ethylbenzene	ND	0.111	0.0050	0.10	-	111	91-124
Xylenes	ND	0.333	0.015	0.30	-	111	92-126
<b>Surrogate Recovery</b>							
2-Fluorotoluene	0.109	0.109		0.10	109	109	88-119

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		290	NR	NR	-	NR	
MTBE	NR	NR		ND<25	NR	NR	-	NR	
Benzene	NR	NR		ND<2.5	NR	NR	-	NR	
Toluene	NR	NR		6	NR	NR	-	NR	
Ethylbenzene	NR	NR		12	NR	NR	-	NR	
Xylenes	NR	NR		80	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
2-Fluorotoluene	NR	NR			NR	NR	-	NR	



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/11/16  
**Date Analyzed:** 11/14/16 - 11/15/16  
**Instrument:** GC10, GC28  
**Matrix:** Soil  
**Project:** 25673 Nickle Place


**WorkOrder:** 1611584  
**BatchID:** 129717  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-129717  
 1611580-010AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0435	0.0050	0.050	-	87	53-116
Benzene	ND	0.0488	0.0050	0.050	-	98	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.175	0.050	0.20	-	87	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0488	0.0050	0.050	-	98	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0444	0.0040	0.050	-	89	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0445	0.0040	0.050	-	89	58-135
1,1-Dichloroethene	ND	0.0498	0.0050	0.050	-	100	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-

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 QA/QC Officer



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/11/16  
**Date Analyzed:** 11/14/16 - 11/15/16  
**Instrument:** GC10, GC28  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129717  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-129717  
 1611580-010AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
Diisopropyl ether (DIPE)	ND	0.0425	0.0050	0.050	-	85	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0452	0.0050	0.050	-	90	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0440	0.0050	0.050	-	88	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0527	0.0050	0.050	-	105	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0523	0.0050	0.050	-	105	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-





## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/11/16  
**Date Analyzed:** 11/14/16 - 11/15/16  
**Instrument:** GC10, GC28  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129717  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-129717  
 1611580-010AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
<b>Surrogate Recovery</b>							
Dibromofluoromethane	0.122	0.135		0.12	97	108	70-130
Toluene-d8	0.147	0.148		0.12	117	119	70-130
4-BFB	0.0144	0.0137		0.012	115	110	70-130
Benzene-d6	0.0964	0.0973		0.10	96	97	60-140
Ethylbenzene-d10	0.122	0.112		0.10	122	112	60-140
1,2-DCB-d4	0.0902	0.0896		0.10	90	90	60-140

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0416	0.0421	0.050	ND	83	84	53-116	1.29	20
Benzene	0.0452	0.0459	0.050	ND	90	92	63-137	1.53	20
t-Butyl alcohol (TBA)	0.164	0.161	0.20	ND	82	80	41-135	2.39	20
Chlorobenzene	0.0453	0.0460	0.050	ND	91	92	77-121	1.50	20
1,2-Dibromoethane (EDB)	0.0416	0.0425	0.050	ND	83	85	67-119	1.97	20
1,2-Dichloroethane (1,2-DCA)	0.0415	0.0421	0.050	ND	83	84	58-135	1.45	20
1,1-Dichloroethene	0.0462	0.0458	0.050	ND	92	92	42-145	0	20
Diisopropyl ether (DIPE)	0.0394	0.0401	0.050	ND	79	80	52-129	1.76	20
Ethyl tert-butyl ether (ETBE)	0.0422	0.0430	0.050	ND	84	86	53-125	1.87	20
Methyl-t-butyl ether (MTBE)	0.0414	0.0422	0.050	ND	83	84	58-122	2.11	20
Toluene	0.0482	0.0498	0.050	ND	92	95	76-130	3.13	20
Trichloroethene	0.0483	0.0492	0.050	ND	97	98	72-132	1.75	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.135	0.136	0.12		108	109	70-130	0.369	20
Toluene-d8	0.144	0.145	0.12		115	116	70-130	0.261	20
4-BFB	0.0136	0.0139	0.012		109	111	70-130	2.35	20
Benzene-d6	0.0901	0.0899	0.10		90	90	60-140	0	20
Ethylbenzene-d10	0.103	0.103	0.10		103	103	60-140	0	20
1,2-DCB-d4	0.0868	0.0875	0.10		87	88	60-140	0.789	20



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** 25673 Nickle Place


**WorkOrder:** 1611584  
**BatchID:** 129734  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-129734  
 1611588-044AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0431	0.0050	0.050	-	86	53-116
Benzene	ND	0.0488	0.0050	0.050	-	98	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.161	0.050	0.20	-	80	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0490	0.0050	0.050	-	98	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0448	0.0040	0.050	-	90	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0432	0.0040	0.050	-	86	58-135
1,1-Dichloroethene	ND	0.0508	0.0050	0.050	-	102	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-

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 QA/QC Officer



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129734  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-129734  
 1611588-044AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
Diisopropyl ether (DIPE)	ND	0.0412	0.0050	0.050	-	82	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0435	0.0050	0.050	-	87	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0433	0.0050	0.050	-	87	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0521	0.0050	0.050	-	104	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0526	0.0050	0.050	-	105	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129734  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-129734  
 1611588-044AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
<b>Surrogate Recovery</b>							
Dibromofluoromethane	0.133	0.132		0.12	106	106	70-130
Toluene-d8	0.143	0.148		0.12	114	119	70-130
4-BFB	0.0128	0.0142		0.012	102	114	70-130
Benzene-d6	0.0877	0.107		0.10	88	107	60-140
Ethylbenzene-d10	0.0984	0.121		0.10	98	121	60-140
1,2-DCB-d4	0.0886	0.0945		0.10	89	94	60-140

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0406	0.0410	0.050	ND	81	82	53-116	1.04	20
Benzene	0.0451	0.0448	0.050	ND	90	90	63-137	0	20
t-Butyl alcohol (TBA)	0.146	0.154	0.20	ND	73	77	41-135	5.29	20
Chlorobenzene	0.0459	0.0448	0.050	ND	92	90	77-121	2.52	20
1,2-Dibromoethane (EDB)	0.0418	0.0417	0.050	ND	84	83	67-119	0.244	20
1,2-Dichloroethane (1,2-DCA)	0.0404	0.0401	0.050	ND	81	80	58-135	0.889	20
1,1-Dichloroethene	0.0461	0.0456	0.050	ND	92	91	42-145	0.999	20
Diisopropyl ether (DIPE)	0.0379	0.0382	0.050	ND	76	76	52-129	0	20
Ethyl tert-butyl ether (ETBE)	0.0408	0.0410	0.050	ND	82	82	53-125	0	20
Methyl-t-butyl ether (MTBE)	0.0399	0.0401	0.050	ND	80	80	58-122	0	20
Toluene	0.0472	0.0469	0.050	ND	94	94	76-130	0	20
Trichloroethene	0.0490	0.0480	0.050	ND	98	96	72-132	2.03	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.133	0.134	0.12		106	107	70-130	0.842	20
Toluene-d8	0.146	0.146	0.12		117	117	70-130	0	20
4-BFB	0.0142	0.0141	0.012		114	113	70-130	0.783	20
Benzene-d6	0.0983	0.0947	0.10		98	95	60-140	3.71	20
Ethylbenzene-d10	0.109	0.107	0.10		109	107	60-140	2.22	20
1,2-DCB-d4	0.0890	0.0889	0.10		89	89	60-140	0	20



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/15/16  
**Instrument:** GC19  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129753  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-129753  
 1611602-001AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.574	0.40	0.60	-	96	89-118
MTBE	ND	0.0871	0.050	0.10	-	87	68-116
Benzene	ND	0.102	0.0050	0.10	-	102	85-118
Toluene	ND	0.104	0.0050	0.10	-	104	87-121
Ethylbenzene	ND	0.106	0.0050	0.10	-	106	91-124
Xylenes	ND	0.317	0.015	0.30	-	106	92-126
<b>Surrogate Recovery</b>							
2-Fluorotoluene	0.116	0.107		0.10	116	107	88-119

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.539	0.563	0.60	ND	90	94	66-122	4.29	20
MTBE	0.0825	0.0860	0.10	ND	82	86	58-106	4.21	20
Benzene	0.0956	0.0989	0.10	ND	96	99	63-116	3.38	20
Toluene	0.0985	0.102	0.10	ND	99	101	66-118	2.91	20
Ethylbenzene	0.101	0.104	0.10	ND	101	104	69-121	3.23	20
Xylenes	0.304	0.316	0.30	ND	101	105	70-125	3.81	20
<b>Surrogate Recovery</b>									
2-Fluorotoluene	0.102	0.104	0.10		102	104	69-117	1.63	20



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/16/16 - 11/17/16  
**Date Analyzed:** 11/16/16 - 11/17/16  
**Instrument:** GC3  
**Matrix:** Water  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129928  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L  
**Sample ID:** MB/LCS-129928  
 1611584-003AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	54.4	40	60	-	91	85-112
MTBE	ND	10.2	5.0	10	-	102	74-127
Benzene	ND	10.3	0.50	10	-	103	81-124
Toluene	ND	10.7	0.50	10	-	107	79-131
Ethylbenzene	ND	10.9	0.50	10	-	109	86-127
Xylenes	ND	34.4	1.5	30	-	115	87-133
<b>Surrogate Recovery</b>							
aaa-TFT	11.0	10.7		10	110	107	87-117

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	61.0	58.9	60	ND	102	98	85-113	3.62	20
MTBE	9.38	9.09	10	ND	94	91	73-120	3.22	20
Benzene	10.4	10.8	10	ND	104	108	84-121	3.98	20
Toluene	10.8	11.3	10	ND	109	113	86-125	4.24	20
Ethylbenzene	11.2	11.6	10	ND	112	116	93-124	3.98	20
Xylenes	35.4	35.8	30	ND	118	119	93-130	1.04	20
<b>Surrogate Recovery</b>									
aaa-TFT	10.6	10.8	10		106	108	89-115	2.10	20



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC16  
**Matrix:** Water  
**Project:** 25673 Nickle Place


**WorkOrder:** 1611584  
**BatchID:** 129798  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-129798  
 1611569-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	9.66	0.50	10	-	97	54-140
Benzene	ND	10.2	0.50	10	-	102	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	36.5	2.0	40	-	91	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	8.87	0.50	10	-	89	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	8.73	0.50	10	-	87	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	9.68	0.50	10	-	97	66-125
1,1-Dichloroethene	ND	9.90	0.50	10	-	99	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-

(Cont.)

NELAP 4033ORELAP

 QA/QC Officer



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC16  
**Matrix:** Water  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129798  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-129798  
 1611569-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	9.76	0.50	10	-	98	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	10.1	0.50	10	-	101	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	9.66	0.50	10	-	97	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	8.60	0.50	10	-	86	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.17	0.50	10	-	92	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-





## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC16  
**Matrix:** Water  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129798  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-129798  
 1611569-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
<b>Surrogate Recovery</b>							
Dibromofluoromethane	28.2	28.6		25	113	115	70-130
Toluene-d8	25.2	25.0		25	101	100	70-130
4-BFB	2.42	2.91		2.5	97	117	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.88	10.1	10	ND	99	101	69-139	2.28	20
Benzene	10.4	10.2	10	ND	104	102	69-141	2.15	20
t-Butyl alcohol (TBA)	37.6	40.1	40	ND	89	95	41-152	6.32	20
Chlorobenzene	8.71	8.50	10	ND	87	85	77-120	2.44	20
1,2-Dibromoethane (EDB)	8.84	8.98	10	ND	88	90	76-135	1.47	20
1,2-Dichloroethane (1,2-DCA)	9.45	9.91	10	ND	94	99	73-139	4.79	20
1,1-Dichloroethene	10.2	10.3	10	ND	98	99	59-140	0.614	20
Diisopropyl ether (DIPE)	9.99	10.0	10	ND	100	100	72-140	0	20
Ethyl tert-butyl ether (ETBE)	10.2	10.4	10	ND	102	104	71-140	1.95	20
Methyl-t-butyl ether (MTBE)	9.94	10.2	10	ND	99	102	73-139	2.91	20
Toluene	8.45	8.21	10	ND	84	82	71-128	2.84	20
Trichloroethene	8.81	8.71	10	ND	88	87	64-132	1.16	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	28.8	28.8	25		115	115	73-131	0	20
Toluene-d8	24.9	24.8	25		100	99	72-117	0.500	20
4-BFB	2.62	2.50	2.5		105	100	74-116	4.61	20



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC26  
**Matrix:** Soilgas  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129810  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %  
**Sample ID:** MB/LCS-129810

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### QC Summary Report for ASTM D1946-90

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.0764	0.025	0.10	-	76	60-140

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QA/QC Officer



## Quality Control Report


**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16 - 11/15/16  
**Date Analyzed:** 11/14/16 - 11/15/16  
**Instrument:** GC29  
**Matrix:** SoilGas  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129877  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS-129877

### QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	61.4	30	60	-	102	60-140
Acrolein	ND	62.1	2.9	58.25	-	107	60-140
Acrylonitrile	ND	63.0	0.55	55	-	115	60-140
tert-Amyl methyl ether (TAME)	ND	94.8	1.0	105	-	90	60-140
Benzene	ND	75.0	0.80	80	-	94	60-140
Benzyl chloride	ND	121	1.3	132.5	-	91	60-140
Bromodichloromethane	ND	141	1.8	175	-	80	60-140
Bromoform	ND	312	2.6	262.5	-	119	60-140
Bromomethane	ND	102	1.0	97.5	-	105	60-140
1,3-Butadiene	ND	60.2	0.55	55	-	110	60-140
2-Butanone (MEK)	ND	81.3	38	75	-	108	60-140
t-Butyl alcohol (TBA)	ND	79.3	16	77.5	-	102	60-140
Carbon Disulfide	ND	89.1	0.80	80	-	111	60-140
Carbon Tetrachloride	ND	140	1.6	160	-	87	60-140
Chlorobenzene	ND	124	1.2	117.5	-	105	60-140
Chloroethane	ND	71.4	0.65	67.5	-	106	60-140
Chloroform	ND	119	1.2	122.5	-	97	60-140
Chloromethane	ND	62.0	0.50	52.5	-	118	60-140
Cyclohexane	ND	91.6	9.0	87.5	-	105	60-140
Dibromochloromethane	ND	201	2.2	217.5	-	92	60-140
1,2-Dibromo-3-chloropropane	ND	242	0.060	245	-	99	60-140
1,2-Dibromoethane (EDB)	ND	161	2.0	195	-	83	60-140
1,2-Dichlorobenzene	ND	158	1.5	152.5	-	104	60-140
1,3-Dichlorobenzene	ND	158	1.5	152.5	-	104	60-140
1,4-Dichlorobenzene	ND	156	1.5	152.5	-	103	60-140
Dichlorodifluoromethane	ND	131	1.2	125	-	105	60-140
1,1-Dichloroethane	ND	108	1.0	102.5	-	105	60-140
1,2-Dichloroethane (1,2-DCA)	ND	96.5	1.0	102.5	-	94	60-140
1,1-Dichloroethene	ND	96.8	1.0	100	-	97	60-140
cis-1,2-Dichloroethene	ND	104	1.0	100	-	104	60-140
trans-1,2-Dichloroethene	ND	106	1.0	100	-	106	60-140
1,2-Dichloropropane	ND	99.9	1.2	117.5	-	85	60-140
cis-1,3-Dichloropropene	ND	102	1.2	115	-	89	60-140
trans-1,3-Dichloropropene	ND	100	1.2	115	-	87	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	202	1.8	177.5	-	114	60-140
Diisopropyl ether (DIPE)	ND	120	1.0	105	-	114	60-140
1,4-Dioxane	ND	93.6	0.90	92.5	-	101	60-140

(Cont.)

 QA/QC Officer



## Quality Control Report


**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16 - 11/15/16  
**Date Analyzed:** 11/14/16 - 11/15/16  
**Instrument:** GC29  
**Matrix:** SoilGas  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129877  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS-129877

### QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethanol	ND	39.1	48	47.5	-	82	60-140
Ethyl acetate	ND	99.5	0.90	92.5	-	108	60-140
Ethyl tert-butyl ether (ETBE)	ND	113	1.0	105	-	107	60-140
Ethylbenzene	ND	116	1.1	110	-	105	60-140
4-Ethyltoluene	ND	136	1.2	125	-	109	60-140
Freon 113	ND	201	2.0	195	-	103	60-140
Heptane	ND	98.0	10	105	-	93	60-140
Hexachlorobutadiene	ND	307	2.7	270	-	114	60-140
Hexane	ND	98.7	9.0	90	-	110	60-140
2-Hexanone	ND	88.8	1.0	105	-	85	60-140
Isopropyl Alcohol	ND	65.2	25	62.5	-	104	60-140
4-Methyl-2-pentanone (MIBK)	ND	96.2	1.0	105	-	92	60-140
Methyl-t-butyl ether (MTBE)	ND	95.4	0.90	92.5	-	103	60-140
Methylene chloride	ND	90.7	4.4	87.5	-	104	60-140
Methyl methacrylate	ND	94.9	1.0	104	-	91	60-140
Naphthalene	ND	279	2.6	265	-	105	60-140
Propene	ND	42.5	44	42.5	-	100	60-140
Styrene	ND	114	1.1	107.5	-	106	60-140
1,1,1,2-Tetrachloroethane	ND	184	1.8	175	-	105	60-140
1,1,2,2-Tetrachloroethane	ND	180	1.8	175	-	103	60-140
Tetrachloroethene	ND	154	1.7	172	-	89	60-140
Tetrahydrofuran	ND	78.9	1.5	75	-	105	60-140
Toluene	ND	83.2	0.95	95	-	88	60-140
1,2,4-Trichlorobenzene	ND	214	1.9	187.5	-	114	60-140
1,1,1-Trichloroethane	ND	120	1.4	137.5	-	87	60-140
1,1,2-Trichloroethane	ND	118	1.4	137.5	-	86	60-140
Trichloroethene	ND	119	1.4	137.5	-	86	60-140
Trichlorofluoromethane	ND	147	1.4	142.5	-	103	60-140
1,2,4-Trimethylbenzene	ND	135	1.2	125	-	108	60-140
1,3,5-Trimethylbenzene	ND	144	1.2	125	-	115	60-140
Vinyl Acetate	ND	93.8	9.0	90	-	104	60-140
Vinyl Chloride	ND	68.6	0.65	65	-	105	60-140
Xylenes, Total	ND	353	3.3	330	-	107	60-140

(Cont.)

 QA/QC Officer



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16 - 11/15/16  
**Date Analyzed:** 11/14/16 - 11/15/16  
**Instrument:** GC29  
**Matrix:** SoilGas  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129877  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS-129877

### QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
<b>Surrogate Recovery</b>							
1,2-DCA-d4	514	514		500	103	103	70-130
Toluene-d8	461	439		500	92	88	70-130
4-BFB	501	497		500	100	99	70-130

 QA/QC Officer



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/10/16  
**Date Analyzed:** 11/11/16  
**Instrument:** GC9b  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129666  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-129666  
 1611355-002AMS/MSD

### QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	39.8	1.0	40	-	99	91-127
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
<b>Surrogate Recovery</b>							
C26	22.1	-		25	88	-	-

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		1800	NR	NR	-	NR	



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/11/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC9b  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129719  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-129719  
 1611584-007AMS/MSD

### QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	37.7	1.0	40	-	94	91-127
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
<b>Surrogate Recovery</b>							
C9	21.2	21.5		25	85	86	74-110

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	37.3	37.7	40	1.713	89	90	74-143	1.10	30



## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/14/16  
**Date Analyzed:** 11/14/16 - 11/15/16  
**Instrument:** GC9b  
**Matrix:** Soil  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129764  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-129764  
 1611601-001AMS/MSD

### QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	43.3	1.0	40	-	108	91-127
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
<b>Surrogate Recovery</b>							
C9	21.7	21.7		25	87	87	74-110

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	62.4	70.2	40	23.03	98	118	74-143	11.8	30





## Quality Control Report

**Client:** Applied Water Resources  
**Date Prepared:** 11/11/16  
**Date Analyzed:** 11/14/16  
**Instrument:** GC9b  
**Matrix:** Water  
**Project:** 25673 Nickle Place

**WorkOrder:** 1611584  
**BatchID:** 129714  
**Extraction Method:** SW3510C  
**Analytical Method:** SW8015B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-129714

### QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
<b>Surrogate Recovery</b>					
C9	542		625	87	74-107

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1300	1070	1000	129	107	95-136	18.8	30
<b>Surrogate Recovery</b>								
C9	537	536	625	86	86	74-107	0	30

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1611584

ClientCode: AWRS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Report to:  
Janelle Amendola  
Applied Water Resources  
1046 W. Taylor Street, Ste. 209  
San Jose, CA 95051-1333  
(408) 496-0801    FAX:

Email: jamendola@awrcorp.net  
cc/3rd Party: kprice@awrcorp.net;  
PO:  
ProjectNo: 25673 Nickle Place

Bill to:  
Candy Curtis  
Applied Water Resources  
2363 Mariner Square Drive, Ste. 245  
Alameda, CA 94501  
ccurtis@awrcorp.net

Requested TAT: 5 days;  
  
Date Received: 11/11/2016  
Date Logged: 11/11/2016

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1611584-001	SB-1 @ 2'	Soil	11/10/2016 09:48	<input type="checkbox"/>	A		A					A				
1611584-002	SB-1 @ 4'	Soil	11/10/2016 09:49	<input type="checkbox"/>	A		A					A				
1611584-003	SB-1 GW	Water	11/10/2016 10:45	<input type="checkbox"/>		C		A					B			
1611584-004	SB-2 @ 2'	Soil	11/10/2016 11:40	<input type="checkbox"/>	A		A					A				
1611584-005	SB-2 @ 4'	Soil	11/10/2016 11:42	<input type="checkbox"/>	A		A					A				
1611584-006	SB-2 GW	Water	11/10/2016 11:59	<input type="checkbox"/>		C		A					B			
1611584-007	SB-3 @ 2'	Soil	11/10/2016 12:18	<input type="checkbox"/>	A		A					A				
1611584-008	SB-3 @ 4'	Soil	11/10/2016 12:20	<input type="checkbox"/>	A		A					A				
1611584-009	SV-1 @ 5'	SoilGas	11/10/2016 13:15	<input type="checkbox"/>					A	A	A					

**Test Legend:**

1	8260B_S	2	8260B_W	3	G-MBTEX_S	4	G-MBTEX_W
5	HELIUM_LC_SOILGAS(%)	6	TO15_Scan-SIM_SOIL(UG/M3)	7	TO15-8260_SOIL(UG/M3)	8	TPH(DMO)_S
9	TPH(DMO)_W	10		11		12	

Prepared by: Alexandra Iniguez

The following SampID: 009A contains testgroup TO15He\_SG(UG/M3).

Comments: Samples 004 & 005 taken off hold 11/14/16

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** APPLIED WATER RESOURCES

**Project:** 25673 Nickle Place

**Work Order:** 1611584

**Client Contact:** Janelle Amendola

**QC Level:** LEVEL 2

**Contact's Email:** jamendola@awrcorp.net

**Comments:**

**Date Logged:** 11/11/2016

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611584-001A	SB-1 @ 2'	Soil	SW8015B (Diesel & Motor Oil)	1	Acetate Liner	<input type="checkbox"/>	11/10/2016 9:48	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1611584-002A	SB-1 @ 4'	Soil	SW8015B (Diesel & Motor Oil)	1	Acetate Liner	<input type="checkbox"/>	11/10/2016 9:49	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1611584-003A	SB-1 GW	Water	SW8021B/8015Bm (G/MBTEX)	1	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 10:45	5 days	30%+	<input type="checkbox"/>	
				2	1LA	<input type="checkbox"/>			30%+	<input type="checkbox"/>	
1611584-003B	SB-1 GW	Water	SW8015B (Diesel & Motor Oil)	1	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 10:45	5 days	30%+	<input type="checkbox"/>	
1611584-003C	SB-1 GW	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 10:45	5 days	30%+	<input type="checkbox"/>	
1611584-004A	SB-2 @ 2'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/10/2016 11:40				<input checked="" type="checkbox"/>
1611584-005A	SB-2 @ 4'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/10/2016 11:42				<input checked="" type="checkbox"/>
1611584-006A	SB-2 GW	Water	SW8021B/8015Bm (G/MBTEX)	1	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 11:59	5 days	20%+	<input type="checkbox"/>	
				2	1LA	<input type="checkbox"/>			20%+	<input type="checkbox"/>	
1611584-006B	SB-2 GW	Water	SW8015B (Diesel & Motor Oil)	1	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 11:59	5 days	20%+	<input type="checkbox"/>	
1611584-006C	SB-2 GW	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 11:59	5 days	20%+	<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



### WORK ORDER SUMMARY

**Client Name:** APPLIED WATER RESOURCES

**Project:** 25673 Nickle Place

**Work Order:** 1611584

**Client Contact:** Janelle Amendola

**QC Level:** LEVEL 2

**Contact's Email:** jamendola@awrcorp.net

**Comments:**

**Date Logged:** 11/11/2016

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1611584-007A	SB-3 @ 2'	Soil	SW8015B (Diesel & Motor Oil)	1	Acetate Liner	<input type="checkbox"/>	11/10/2016 12:18	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1611584-008A	SB-3 @ 4'	Soil	SW8015B (Diesel & Motor Oil)	1	Acetate Liner	<input type="checkbox"/>	11/10/2016 12:20	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1611584-009A	SV-1 @ 5'	SoilGas	TO15 w/ Helium	1	1L Summa	<input type="checkbox"/>	11/10/2016 13:15	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

**McCAMPBELL ANALYTICAL, INC.**  
 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269  
 www.mccampbell.com      main@mccampbell.com

**CHAIN OF CUSTODY RECORD**

Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD	Quote #
J-Flag / MDL	ESL	Cleanup Approved	Bottle Order #	
Delivery Format: GeoTracker EDF	PDF <input checked="" type="checkbox"/>	EDD	Write On (DW)	EQuIS

Report To: J. Amendola / K. Price Bill To: AWK  
 Company: Applied Water Resources  
 Email: j.amendola@awrcorp.net  
 Alt Email: kprice@awrcorp.net Tele:  
 Project Name/ #: 25673 Nickel Place  
 Project Location: 25673 Nickel Place PO #  
 Sampler Signature: [Signature]

**Analysis Requested**

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative
	Date	Time			
SB-1 @ 2'	11/10/16	9:48	1	S	
SB-1 @ 4'	11/10/16	9:49	1	S	
SB-1 GW	11/10/16	10:45	6	W	H <sub>2</sub> O
SB-2 @ 2'	11/10/16	11:40	1	S	
SB-2 @ 4'	11/10/16	11:42	1	S	
SB-2 GW	11/10/16	11:59	6	W	H <sub>2</sub> O
SB-3 @ 2'	11/10/16	12:18	1	S	
SB-3 @ 4'	11/10/16	12:20	1	S	
SV-1 @ 5'	11/11/16	13:15	1	Air	

BTEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505 / 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	TD-15	Helium Leak Check
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MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

\* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<u>[Signature]</u>	11/11/16	<del>1700</del> 1700	<u>[Signature]</u>	11/11/16	<del>1700</del> 1700
<u>[Signature]</u>	11/11/16	1700	<u>[Signature]</u>	11/11/16	1700

Comments / Instructions  
 SV-1 @ 5' used Helium should for leak detection

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other  
 Preservative Code: 1=4°C 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=ZnOAc/NaOH 7=None  
 Temp \_\_\_\_\_ °C Initials \_\_\_\_\_

*\* samples were received unlabeled.*



### Sample Receipt Checklist

Client Name: **Applied Water Resources**  
 Project Name: **25673 Nickle Place**

Date and Time Received: **11/11/2016 17:00**  
 Date Logged: **11/11/2016**  
 Received by: **Agustina Venegas**  
 Logged by: **Alexandra Iniguez**

WorkOrder No: **1611584** Matrix: Soil/SoilGas/Water  
 Carrier: Benjamin Yslas (MAI Courier)

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

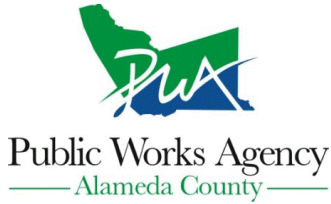
All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/04/2016 By jamesy

Permit Numbers: W2016-0782  
Permits Valid from 11/10/2016 to 11/10/2016

Application Id: 1477422992634  
Site Location: 25673 Nickel Place, Hayward, CA  
Project Start Date: 11/10/2016  
Assigned Inspector: Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@acpwa.org

City of Project Site: Hayward

Completion Date: 11/10/2016

Applicant: Applied Water Resources, Corp. - Kendall Price  
10460 West Taylor St., Ste. 209, San Jose, CA 95126  
Property Owner: Steven Haig's Delicacies  
25673 Nickel Place, Hayward, CA 94545  
Client: Steven Haig's Delicacies  
25673 Nickel Place, Hayward, CA 94545  
Contact: Kendall Price

Phone: 408-220-4876

Phone: 510-782-6285 x104

Phone: 510-782-6285 x104

Phone: 408-220-4876

Cell: 408-220-4876

Receipt Number: WR2016-0539 Total Due: \$265.00  
Payer Name : Kendall W. Price Total Amount Paid: \$265.00  
Paid By: VISA PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 3 Boreholes  
Driller: Enprobe - Lic #: 1012248 - Method: DP

Work Total: \$265.00

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2016-0782	11/04/2016	02/08/2017	3	2.00 in.	30.00 ft

### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

## Alameda County Public Works Agency - Water Resources Well Permit

5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
  6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
  7. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.
  8. NOTE:  
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.
  9. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
-