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**Re.: Remedial Investigation Report and Updated Site Conceptual Model  
Automasters  
6200 Shattuck Avenue  
Oakland, California  
ACEH Case #RO0002935**

I declare, that to the best of my knowledge at the present time, the information and/or recommendations contained in the attached document are true and correct.

Submitted by,



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**REMEDIAL INVESTIGATION  
REPORT**

**AUTOMASTERS  
LEAKING UNDERGROUND TANK SITE  
CASE No. RO0002935  
6200 Shattuck Avenue  
Oakland**

*Prepared for:*

**JOHNNY BROWNING, TRUSTEE  
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*Submitted to:*

**ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH  
Oakland**

*Prepared by:*

**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.  
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**FEBRUARY 2016**

## ACKNOWLEDGMENTS

This Remedial Investigation Report was prepared under authorization of our client, the Automasters property owner, and is intended for his exclusive use.

Groundwater investigation at the Automasters site is under jurisdiction of Alameda County Department of Environmental Health; 5550 Skyline Blvd., Suite A, Oakland, California 95403. The case has been assigned No. RO0002935.

In the preparation of this Site Assessment reliance was made on previous environmental investigation performed by Pangea in 2006.

The Automasters site has been assigned the GeoTracker Global ID T0619748201.

Soil borings were completed by our drilling subcontractor, Penecore is licensed by the State of California Contractors Board for the work performed.

In the completion of this project reliance was made on chemical analytical testing performed by McCampbell Analytical in Pittsburg. McCampbell is certified by the State of California for the analyses performed.

This Report was prepared by West & Associates Environmental Engineers, Inc.; 630 Eubanks Ct., Unit G, Vacaville, California 95688. Principal author is Mr. Brian W. West, PE, (707) 451-1360; RCE 32319, expires 12/31/16.



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## 1.0 INTRODUCTION

This Remedial Investigation (RI) Report describes soil and groundwater investigation activities completed at the Automasters leaking underground tank site located at 6200 Shattuck Avenue in Oakland (the Site).

This remedial investigation focused on the shallow soils and first encountered water bearing zone underlying the Site.

The Automasters site regional setting is indicated on *Figure 1*. An aerial view of the property is presented on *Figure 2*. Both figures appear in *Appendix A*.

### 1.1 Scope

The scope of this project consisted of performing a remedial investigation in the shallow soils and first encountered groundwater zone at the Site. Specific scope items include:

- Development of a site-specific Health & Safety Plan
- Application for monitoring well and soil boring permit
- Contact USA to locate and mark underground utilities in the study area
- Arrange for a C-57 licensed driller to complete three groundwater monitoring wells, three soil borings, and seven shallow soil borings
- Supervise soil borings and monitoring well installation
- Collection of representative soil samples
- Development of each well in conformance with the Alameda County well ordinance
- XYZ survey of each monitoring well top by a licensed surveyor
- Hydrologic measurement to determine the local groundwater gradient direction and magnitude
- Collection of representative groundwater samples from each monitoring well
- Underground utility and subsurface structure study within the Site vicinity to identify potential preferred contaminant pathways
- Survey and research to locate groundwater supply wells in the Site vicinity
- Proper management of solid and liquid investigative derived wastes (IDW)
- Arranging for soil and groundwater sample analysis in a State certified laboratory
- Quality Control/Quality Assurance Measures and evaluation
- Development of a Site Conceptual Model (SCM)
- Preparation and submittal of this written technical report
- Data and report upload to GeoTracker

## 1.2 Summarized Background

The Automasters facility is an independent automotive repair facility located on the northeast corner of 62<sup>nd</sup> Street and Shattuck Avenue in Oakland, California. Formerly, the facility included two underground fuel storage tanks and dispensers for retail fuel sales. Also, there has historically been above ground storage for both new and used crankcase oil.

Shortly after purchasing the Site in 1986, Mr. Glenn Logan contracted with Ray Walker Hydraulics of Pleasanton, CA to remove the two small underground gasoline storage tanks (USTs) from the southern portion of the Site. W&A contacted Mr. Walker in December 2014 to gather more information on these USTs and determine whether any contaminated soil was encountered during their removal. Mr. Walker searched his archived files but did not have any written information on this Site as the work was performed almost 30 years ago. To the best of his recollection both USTs were used for gasoline and either 500 or 1,000 gallons in size.

Mr. Logan distinctly remembers that contaminated soil between the USTs was removed and transported offsite for disposal. Attempts to contact the Oakland Fire Department regarding this Site have been unsuccessful, so there is no written documentation of the quantity of soil removed or where it was taken.

**Previous Site Assessment:** The only known previous environmental assessment activities at the Automasters site were performed by Pangea in 2006. Pangea completed three soil borings (SB-1, SB-2 & SB-3) at the locations shown on *Figure 3*.

Soil samples collected by Pangea in borings SB-1 and SB-3 were reported to be uncontaminated, i.e. there were no detectable concentrations of TPH-g, BTEX compounds, fuel oxygenates, lead scavengers, TPH-d or TPH-motor oil detected in any of the soil samples collected from either boring. A soil sample collected from boring SB-2 at 11 feet below ground surface (BGS) was reported to contain TPH-g at 3,000 mg/kg, TPH-d at 850 mg/kg, naphthalene at 10 mg/kg, and negligible concentrations of BTEX compounds and fuel additives. The 8-foot and 16-foot deep samples from SB-2 had insignificant concentrations of TPH-g and TPH-d, indicating that the zone of contamination was very limited in vertical extent. Total lead concentrations reported in all soil samples were typical of background levels in the vicinity.

Pangea soil boring SB-2 was advanced to a total depth of 48 feet. It is recorded that no obvious water bearing zone was encountered during the drilling of SB-2. The SB-2 borehole was left open overnight with a 10-foot screen placed near the bottom. The following day groundwater had accumulated in SB-2 to a depth of 8 feet BGS, allowing a grab sample to be collected.

The groundwater grab sample collected from Pangea boring SB-2 was reported to be contaminated with TPH-g at 1,700 µg/L, TPH-d at 1,000 µg/L, TPH-motor oil at 1,100 µg/L, and naphthalene at 440 µg/L along with modest concentrations of BTEX compounds and fuel additives. Because accumulated groundwater in boring SB-2 was in direct contact with the contaminated sand and gravel layer at 11-12 feet BGS, it is unclear whether the analytical results are representative of actual groundwater concentrations.

## 2.0 SITE CHARACTERISTICS

In this Section, physical site characteristics pertinent to the remedial assessment are presented.

### 2.1 Physical Setting

The Automasters facility is located at the northeast corner of Shattuck Avenue and 62<sup>nd</sup> Street in an area of mixed residential and commercial land use. The elevation of the Site is 131 feet above mean sea level, with local topography sloping gently to the southwest (US Geological Survey [USGS], Oakland West Quadrangle, California). Surrounding properties are primarily single-family and multi-family residences with a few commercial buildings located along Shattuck Avenue to the south and northwest of the Site.

Utilities in the site vicinity are both underground and overhead. The Alameda County Assessor's Parcel Number for this Site is 15-1377-22.

### 2.2 Subsurface Conditions

**Soil:** The 2006 Soil and Groundwater Investigation Report prepared by Pangea describes soils underlying the Site as primarily clays and silts, with a silty sand layer at 10 feet below ground surface (BGS).

During the W&A investigation the observed soil stratigraphy was found to be consistent with conditions reported by Pangea. A detailed description of soil conditions encountered in each soil boring appears on the boring logs in *Appendix C*.

**Groundwater:** The local groundwater potentiometric surface in 2006 was estimated to be 8 feet BGS, based on the static water level observed in soil boring SB-2 after it was left to stand open overnight.

Depth to groundwater in the three monitoring wells installed for this project ranged from 3.7 to 5.2 feet BGS. The local groundwater gradient direction was determined to be southeast at approximately 140 degrees.

## 3.0 SOIL AND GROUNDWATER INVESTIGATION

In this Section, methods, equipment, materials and techniques utilized to successfully complete the soil and groundwater investigation are presented.

### 3.1 Pre-Field Activities

Prior to commencing field work, a site specific Health & Safety Plan (H&SP) was developed. All field work was safely performed in conformance with the H&SP.

As required by the Alameda County Well Ordinance, permits were obtained from Alameda County Public Works Agency for installation of soil borings and monitoring wells at this Site. These permits are as follows:

- Permit No. W2015-1063 for installation of 10 soil borings
- Permit No. W2015-1064 for installation of well MW-101

- Permit No. W2015-1065 for installation of well MW-102
- Permit No. W2015-1066 for installation of well MW-103

Copies of these permits are included in *Appendix B*. Advance notification for inspection purposes was made to the Alameda County Environmental Health Department in conformance with permit conditions.

The work site was marked for Underground Service Alert and USA ticket No. 058161 opened three days prior to starting subsurface work.

### **3.2 Soil Boring and Groundwater Monitoring Well Installation**

Seven shallow soil borings, three deeper soil borings to 20 feet BGS, and three groundwater monitoring wells were installed as proposed in the approved project Workplan. Soil samples were collected from each borehole, including those completed as monitoring wells.

#### **3.2.1 Soil Borings**

The shallow soil borings were advanced to 3 feet BGS on December 14, 2015 using a hand auger. Soil samples from each boring were collected in brass sleeves at 2.5 feet BGS. Deeper soil borings DP-1 and DP-3 and the borehole for MW-101 were installed using a GeoProbe rig on the same day. In addition, shallow boring B-6 was converted to a deep boring due to the apparent contamination observed in the sample collected at 2.5 feet BGS. Soil samples were collected in the upper 5 feet, at 10 feet, 15 feet and 20 feet BGS from all 4 of these boreholes.

The remaining boreholes were installed on December 15, 2015 using an 8-inch hollow stem auger driven by a CME 75 drill rig. This included DP-2 as well as the boreholes for MW-102 and MW-103. All borings were supervised and logged under the direction of a California licensed civil engineer.

Soil samples were inspected for lithography and field screened with a calibrated photoionization detector (PID) for the presence of volatile contamination. Soil samples selected for laboratory analysis were sealed, labeled and preserved pending transfer to the testing laboratory.

Drill cuttings were containerized on site in DOT 55-gallon drums. Drill cuttings are presumed to be contaminated until tested. Residue management is discussed in Section 3.2.8.

Each deep boring was advanced to a total depth of 20 feet BGS. Logs for all 13 borings appear in *Appendix C*.

All boreholes not completed as monitoring wells were backfilled on the same day they were installed, as specified in the permit. All site work was completed in conformance with West & Associates "Standard Field Procedures".



### 3.2.2 Monitoring Well Locations

As proposed in the approved Workplan, groundwater monitoring wells were installed as follows:

- Well MW-101 is installed near the sidewalk on the east side of Shattuck Avenue, 30 feet north of 62<sup>nd</sup> Street.
- Well MW-102 is installed 25 feet east of Shattuck Avenue and 55 feet north of 62<sup>nd</sup> Street.
- Well MW-103 is installed near the sidewalk on the north side of 62<sup>nd</sup> Street, 30 feet east of Shattuck Avenue.

The locations of all three groundwater monitoring wells are shown on *Figure 3*.

The locations of monitoring wells MW-101 & MW-103 were selected to intercept downgradient contaminant migration, if any. The location of monitoring well MW-102 was selected to be in the presumed upgradient direction. In addition, the well locations were configured to create an effective well triangle, allowing accurate calculation of the local groundwater gradient magnitude and direction.

### 3.2.3 Monitoring Well Construction

The as-built specifications for all three monitoring wells installed during this project are identical. Each well is constructed using 2" diameter, schedule 40, PVC casing. Each well is fitted with 0.020 slotted screen from 5' BGS to 20' BGS.

A filter pack composed of Monterrey No. 3 sand was placed around the screened interval. The filter pack was placed to an elevation one foot higher than the top of the well screen. Above the filter pack, one vertical feet of hydrated medium grade bentonite chips was placed. A Portland cement grout was placed on top of the bentonite chips. A traffic rated "Christy" box was cemented in place at the wellhead to complete the installation. The Christy box was positioned at an elevation slightly above the surrounding pavement to promote surface runoff.

Well completion diagrams for all three of the Automasters groundwater wells appear in *Appendix C*.

### 3.2.4 Well Development

In conformance with the Alameda County Well Ordinance, the three wells installed for this project were developed more than 48 hours after installation, specifically on December 19, 2015.

Each well was developed by surging and dewatering until purge water was free of visible silt or sediment. During the well development process field measurements and observations were recorded on a standardized field form. The Well Development Field Data Record forms for the Automasters site appear in *Appendix D*.

All purge water was considered contaminated and was properly managed as described in Section 3.2.9.

### 3.2.5 Top of Casing Survey

Each well top of casing was surveyed for latitude, longitude and elevation by Hawkins Land Surveying (PLS 7973). Survey data was uploaded to GeoTracker as described in *Section 7*. Top of casing elevations are listed in *Table 1*. XYZ Survey Data appears in *Appendix H*.

### 3.2.6 Hydrologic Measurement and Calculations

Hydrologic measurements were made at the Automasters site on December 31, 2015, ten days after completing well development activities. Hydrologic measurements consisted of measuring depth to groundwater (DTGW) in all three onsite monitoring wells with an electronic sounding tape. The DTGW in each well was measured to an accuracy of 0.01 foot.

DTGW data, top of casing (TOC) elevations and calculated groundwater elevations (GWE) for the December 31, 2015 measurement activity are presented in *Table 1*. Groundwater elevations on that date are displayed graphically on *Figure 4*. *Figure 4* also illustrates the calculated groundwater gradient direction (SSE @ 126 degrees) and slope (0.010 ft/ft) on December 31, 2015.

**TABLE 1**  
**HYDROLOGIC MEASUREMENTS**  
**Automasters LUST Site, Oakland**  
**December 2015**  
(mg/kg)

Well ID	TOC	DTGW	GWE	Date
MW-101	128.84	3.7	125.14	Dec 31, 2015
MW-102	130.35	5.2	125.15	
MW-103	130.03	5.1	124.93	
MW-101	128.84	3.65	125.19	Feb 25, 2106
Mw-102	130.35	4.68	125.67	
Mw-103	130.03	4.63	125.40	

A second set of hydrologic measurements was made at the Automasters site on February 25, 2016. On February 25 it was observed that the GWE in monitoring well MW-101 had risen 0.05 feet, however the GWE at well MW-102 had risen 0.52 feet and at well MW-103 0.53 feet. Hydrologic data for February 25, 2016 is presented in *Table 1*. Groundwater elevations on that date are displayed graphically on *Figure 5*. Also displayed on *Figure 5* is the calculated groundwater gradient direction (WSW 253 degrees) and slope (0.017 ft/ft).

Because the top of the groundwater column was above the screened section in all three Automasters groundwater monitoring wells on February 25, 2016, it is possible the hydrologic measurements made on that date were affected by air pressure in the well casing. It is also possible that leakage from the underground storm drains in Shattuck Avenue are affecting groundwater elevations in the southwest corner of the site.

### 3.2.7 Groundwater Sample Collection

On December 31, 2015 representative groundwater samples were collected from all three Automasters monitoring wells for chemical analysis in a commercial testing laboratory certified by the State of California.

The following groundwater sample procedure was employed at each well:

- A new bailer was used to retrieve a groundwater sample from the top of the water column. The groundwater in the bailer was inspected visually for the presence of free product.
- A minimum of three casing volumes of groundwater was purged from each well. During the purge process, groundwater temperature, electrical conductivity and pH were periodically measured. Purge data was recorded on standardized forms appearing in *Appendix E*.
- Once purging was complete, depth to groundwater rise was monitored as the well recharged. When the groundwater elevation rose to at least 80% of the original static level, a groundwater sample was collected.
- The bailer was lowered into the well to retrieve the water sample to the surface. The sample was transferred into appropriate, laboratory supplied, containers, labeled and then chilled prior to laboratory delivery. All samples collected were entered on a chain of custody record form in the field.

### 3.2.8 Laboratory Analysis of Soil and Groundwater Samples

Both the soil sample set and the groundwater sample set were submitted to McCampbell Analytical in Pittsburg for chemical analysis. Both sample sets were hand carried to the testing laboratory under chain of custody protocol. Chain of Custody records are presented in *Appendix F*.

McCampbell is certified by the State of California for chemical analyses performed.

The chemicals of concern at the Automasters site are derived from fuel leakage, specifically, gasoline, diesel and potentially motor oil. Consequently, both soil and groundwater samples were analyzed for total petroleum hydrocarbons in the gasoline, diesel, and motor oil range, aromatic hydrocarbons (BTEX) and volatile organic compounds (including the gasoline additive MtBE) by EPA Method 8260. All laboratory methods and procedures, including minimum detection limits and maximum hold times, complied with EPA guidelines.

Analytical results for the soil sample set are summarized in *Tables 2 and 3*. Analytical results for the groundwater sample set are summarized in *Table 4*. A copy of the original McCampbell analytical report for each sample set appears in *Appendix F*.

### **3.2.9 Quality Assurance/Quality Control**

QA/QC measures employed on the Automasters environmental assessment project conformed to West & Associates Standard Field Procedures. To summarize, QA/QC measures included:

- Assigning experienced and capable staff
- Following approved procedures and techniques
- Utilizing appropriate equipment and supplies
- Thorough and frequent decontamination of field equipment
- Maintaining detailed field notes
- Utilizing laboratory supplied sample containers
- Timely delivery of samples to the testing laboratory
- Keeping an unbroken Chain of Custody Record
- Adhering to EPA approved analytical procedures

All QA/QC procedures for this project were within acceptable parameters. A QA/QC review of the data set generated during this project reveals no anomalies. Analytical results are consistent with field observations and previously generated site data. The QA/QC report provided by the testing laboratory exhibits no flagged items. It is concluded that the data presented in this Report has an acceptable level of credibility and can be relied upon to accurately represent prevailing environmental conditions at the site.

### **3.2.10 Solid and Liquid Residue Management**

Both solid and liquid residues were generated during this environmental assessment project. Solid residues were generated during the soil boring process. Liquid residues were generated from equipment decontamination, well development and groundwater purging.

All residues are considered contaminated until proven otherwise. Soil cuttings were placed in labeled 55-gallon drums for effective protection from the environment and human contact. Liquid residues were also stored in labeled 55-gallon drums. All residue containers were properly labeled. All residue drums were moved to a secure onsite location pending arrangements for proper disposal.

**TABLE 2**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**SOIL BORINGS**  
**Automasters LUST Site, Oakland**  
**December 2015**  
(mg/kg)

Sample ID	TPH-g	B	T	E	X	MtBE	N	TPH-d	TPH-mo	Volatile Organics
B1-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B6-2.5	11	ND	ND	ND	ND	ND	0.008	2.2	ND	*
B6-4	ND	ND	ND	ND	ND	ND	0.006	ND	ND	*
B6-10	4.9	ND	ND	ND	ND	ND	0.052	10	53	*
B6-15	180	ND	ND	ND	ND	ND	1.6	11	ND	*
B6-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7-2.5	ND	ND	ND	ND	ND	0.006	ND	ND	ND	ND
DP1-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DP1-10	8.1	ND	ND	ND	ND	ND	0.016	1	ND	*
DP1-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DP1-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DP2-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DP2-10	850	ND	ND	5.8	ND	ND	ND	100	5.1	*
DP2-15	ND	ND	ND	ND	ND	ND	ND	2.6	ND	ND
DP2-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DP3-2.5	47	ND	ND	2.2	0.01	ND	ND	4.3	ND	*
DP3-10	28	ND	ND	ND	ND	ND	ND	1.8	ND	*
DP3-15	190	ND	ND	2.2	0.67	ND	3.7	13	5.7	*
DP3-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

\* See Table 3

Abbreviations:

B = Benzene  
T = Toluene  
E = Ethylbenzene  
X = Total Xylenes  
N = Naphthalene

MDLs:

TPH-g, TPH-d = 1.0 mg/kg  
TPH-mo = 5.0 mg/kg  
BTEX, MtBE, Naphthalene = 0.005 mg/kg

**TABLE 3**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**VOLATILE ORGANICS**  
**Automasters LUST Site, Oakland**  
**December 2015**

(mg/kg)

Sample ID	N-Butyl Benzene	Sec-Butyl Benzene	N-Propyl Benzene	Acetone	<sup>2</sup> Butanone	Iso Propyl Benzene	<sup>124</sup> Trimethyl Benzene	<sup>135</sup> Trimethyl Benzene
B6-2.5	ND	ND	ND	0.18	0.047	ND	ND	ND
B6-4	ND	ND	ND	ND	ND	ND	ND	ND
B6-10	0.010	0.0062	0.018	ND	ND	0.0063	0.0068	ND
B6-15	1.5	0.57	2.1	ND	ND	0.80	ND	ND
DP1-10	0.016	0.0065	0.025	ND	ND	ND	ND	ND
DP2-10	3.1	ND	4.9	ND	ND	1.4	13	1.4
DP3-2.5	0.094	0.026	0.020	ND	ND	ND	0.086	0.032
DP3-10	0.015	0.0096	0.0092	ND	ND	ND	ND	ND
DP3-15	1.0	0.35	1.7	ND	ND	0.47	0.53	0.12

**TABLE 4**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**MONITORING WELL BOREHOLES**  
**Automasters LUST Site, Oakland**  
**December 2015**

(mg/kg)

Sample ID	TPH-g	B	T	E	X	MtBE	N	TPH-d	TPH-mo	Volatile Organics
MW101-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW101-10	3,100	2.5	ND	16	3.4	ND	33	290	46	*
MW101-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW101-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW102-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW102-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW102-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW102-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW103-5	180	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW103-10	770	ND	ND	11	29	ND	12	41	11	*
MW103-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW103-20	ND	ND	ND	ND	0.005	ND	ND	ND	ND	ND

\* See Table 5

Abbreviations:

- B = Benzene
- T = Toluene
- E = Ethylbenzene
- X = Total Xylenes
- N = Naphthalene

MDLs:

- TPH-g, TPH-d = 1.0 mg/kg
- TPH-mo = 5.0 mg/kg
- BTEX, MtBE, Naphthalene = 0.005 mg/kg

**TABLE 5**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**VOLATILE ORGANICS**  
**MONITORING WELL BORHOLES**  
**Automasters LUST Site, Oakland**  
**December 2015**

(mg/kg)

Sample ID	N-Butyl Benzene	Sec-Butyl Benzene	Iso Propyl Benzene	N-Propyl Benzene	124 Trimethyl Benzene	135 Trimethyl Benzene
MW101-10	8.8	3.0	4.5	14	19	11
MW103-10	4.0	ND	1.3	4.8	31	9.0

**TABLE 6**  
**GROUNDWATER ANALYTICAL RESULTS**  
**Automasters LUST Site, Oakland**  
**December 2015**

(ug/l)

Sample ID	TPH-g	B	T	E	X	MtBE	N	TPH-d	TPH-mo	Volatile Organics
MW-101	4,700	110	11	140	430	ND	78	1,400	ND	*
MW-102	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-103	18,000	1,000	64	320	1,800	ND	170	5,100	ND	*

\* See Table 7

Abbreviations:

B = Benzene  
T = Toluene  
E = Ethylbenzene  
X = Total Xylenes  
N = Naphthalene

MDLs:

TPH-g, TPH-d = 1.0 mg/kg  
TPH-mo = 5.0 mg/kg  
BTEX, MtBE, Naphthalene = 0.005 mg/kg



**TABLE 7**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**VOLATILE ORGANICS**  
**Automasters LUST Site, Oakland**  
**December 2015**

(mg/kg)

Sample ID	Iso Propyl Benzene	4 Isopropyl Toluene	N-Propyl Benzene	124 Tri-Chloro-Benzene	135 Chloro-Benzene
MW-101	10	15	12	150	58
MW-103	ND	ND	ND	770	160

#### 4.0 SITE CONCEPTUAL MODEL

The approved scope of work for the Automasters environmental investigation includes preparation of a preliminary Site Conceptual Model (SCM).

Data generated during this project applicable to the SCM include depth to groundwater; presence or absence of LNAPL; lateral and vertical extent of contamination as well as information regarding potential sensitive receptors and exposure pathways. Additionally, the following activities were undertaken to provide input to the SCM:

- Expanded water well survey
- Underground utility survey
- Evaluation of existing and potential land use and exposure scenarios
- Planned land re-development activities in the vicinity

Results of each project activity listed above are described in the following Sections.

An updated version of the Site Conceptual Model and the list of remaining data gaps are included in Appendix G.

##### 4.1 Expanded Well Survey

A formal request was made to the Alameda County Public Works Agency (ACPWA) to supply a list of known water supply wells within a 2,000 ft radius of the Automasters site.

Review of the list of water wells provided by the ACPWA did not reveal any drinking water supply wells within the search area. All wells reported were either monitoring wells or used for non-potable purposes.

## 4.2 Underground Utility Survey

The following potential underground utilities were researched for this project:

- Storm Sewer
- Sanitary Sewer
- Electric Power
- Natural Gas
- Telephone
- Cable Television
- Water

There are storm sewer inlets located on both sides of the southwest corner of Shattuck and 62<sup>nd</sup> Street. The northerly inlet ties into the southerly inlet, which then ties into a storm drain line running down the centerline of Shattuck (see *Figure 6*).

A sanitary sewer main runs down the centerline of 62<sup>nd</sup> Street and a trunk line runs down the centerline of Shattuck. The two intersect under a manhole in the center of the Shattuck/62<sup>nd</sup> intersection.

A sewer lateral runs from the Automasters restroom to the sanitary sewer main in 62<sup>nd</sup> Street, as illustrated on *Figure 6*. Sewer laterals also extend from other properties on 62<sup>nd</sup> to the main in the street.

Most electrical distribution in the study area is overhead. However, the Automasters building is fed underground from a riser coming down a power pole in the sidewalk near the northwest corner of the property.

An underground gas main runs under the northerly half of 62<sup>nd</sup> Street. The gas line apparently ends at the Shattuck/62<sup>nd</sup> intersection. An underground gas lateral extends from the main in 62<sup>nd</sup> Street to the Automasters building. Other buildings on 62<sup>nd</sup> have similar gas laterals.

Telephone lines in the study area are overhead. However, there is an AT&T manhole in the northbound lane of Shattuck, immediately in front of the Automasters property. It would appear from USA markings that an AT&T underground communication cable of some sort runs north/south under Shattuck (see *Figure 6*).

There is no evidence of any underground cable TV utilities in the study area.

An East Bay Municipal Utility District underground water line runs under 62<sup>nd</sup> Street. A water lateral serves the Automasters building, as illustrated on *Figure 6*.

In summary, there are multiple underground utility trenches in the study area under both Shattuck Avenue and 62<sup>nd</sup> Street. The relatively permeable backfill materials in these utility corridors potentially could be preferential pathways for subsurface contaminant migration.

### 4.3 Existing and Potential Land Use

Land use in the Site vicinity is under jurisdiction of the the City of Oakland Planning Department. Land use and potential land use is governed based on the zoning regulations in Chapter 17 of the Oakland Municipal Code. The Automasters property surrounding properties are zoned RM-4, Mixed Housing Residential Zone – 4 as defined in Section 17.17.010 of the Municipal Code. The objective of this zoning classification is to maintain an enhanced residential area "Characterized by a mix of single family homes, townhouses, small multi-unit buildings at somewhat higher densities than than RM-3, and neighborhood businesses where appropriate."

The Automasters property is currently being used for commercial purposes. However, based on the existing zoning, the property could be re-developed with a residential component.

Based on the potential for residential land use, the exposure scenarios listed in the LTCP must be evaluated using residential standards. In particular, the soil concentrations of benzene, ethylbenzene and naphthalene in shallow soils (< 5 feet bgs) must be compared with those listed in the residential column on *Table 1* in the Direct Contact and Outdoor Air Exposure section of the LTCP. The concentrations of TPH-g and TPH-d in soils < 10 feet bgs exceed 100 ppm at MW-101, MW-103 and DP-2, consequently, the potential for vapor intrusion to indoor air cannot be dismissed without performing a soil vapor survey.

There are no known re-development activities in the immediate vicinity of the Site planned at this time. The Site vicinity is predominantly residential, which is consistent with the current zoning. Any significant change to the developed character of the Site vicinity would require a zoning change. Consequently, for purposes of evaluating site closure under the LTCP, future changes in the developed character of the Site vicinity is not a consideration.

## 5.0 DISCUSSION

This remedial investigation was completed in conformance with the Alameda County Environmental Health (ACEH) approved Workplan.

Sub-surface conditions encountered during this remedial investigation were consistent with those reported by Pangea in 2006. There is a relatively permeable silty sand strata (USCS "GM") found between 7-12 feet BGS. The silty sand strata is overlain and underlain by a much less permeable clayey silt strata (USCS "ML"). The potentiometric groundwater surface is 4-5 feet BGS.

The soil sample analytical results generated during this project are also consistent with the results reported during the limited site investigation program conducted by Pangea. Both sampling activities reported significant concentrations of TPH-g and TPH-d in the vicinity of the former fuel dispenser island. Contamination is predominantly found in the permeable silty sand strata between 7 to 12 feet BGS.

By combining subsurface data generated by this project with data generated by Pangea, two geologic cross sections were developed. Cross section A-A, appearing on *Figure 7*, trends from the corner of 62<sup>nd</sup> and Shattuck, northeast through the source area. Cross section B-B, appearing on *Figure 8*, trends perpendicular to A-A through the source area. The locations of both cross sections are indicated on *Figure 3*. Reported TPH-gas and TPH-diesel concentrations in soil are indicated on both cross sections.

Iso-contours for TPH-gas concentrations in soil are presented on *Figure 9*. Iso-contours for TPH-diesel concentrations in soil are presented on *Figure 10*. Iso-contours for TPH-gas concentrations in groundwater are presented on *Figure 11* and for TPH-diesel on *Figure 12*.

All shallow soil samples (<5 feet BGS) collected from locations adjacent to the facility's current and past waste oil storage containers during this investigation were reported to be uncontaminated, indicating that waste oil contamination is not a concern at the Automasters Site.

It is concluded that fuel leakage former the former UST system has contaminated both soil and groundwater at the Automasters Site.

The full magnitude and extent of soil and groundwater contamination remains undefined, based on the significant concentrations of TPH-g reported in both soil and groundwater at monitoring well locations MW-101 and MW-103.

In summary, this remedial investigation provided much of the information needed to address data gaps in the Site Conceptual Model and demonstrated that subsurface contamination extends to both the southern and western property boundaries.

## 6.0 RECOMMENDATIONS

It is recommended to conduct additional site assessment to fully define the magnitude and extent of contamination. It is proposed to prepare and submit a technical workplan to the Alameda County Environmental Health Department presenting details of the recommended supplemental site investigation.

In addition, monthly DTGW measurements are proposed to better define the local groundwater gradient direction.

## 7.0 ELECTRONIC DATA SUBMITTAL COMPLIANCE

Selected project work product was uploaded to the GeoTracker database in conformance with State requirements. The Automasters site has been assigned GeoTracker Global ID T0619748201. Work product that was uploaded includes:

- Boring logs/well completion diagrams
- Well top survey data
- Analytical data
- Report of Findings

The GeoTracker upload certificates associated with this project appear in *Appendix H*.



**APPENDIX A**

**Figures**

**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: February 2016

Location: 6200 Shattuck Avenue, Oakland, CA

Drawing By: DLG

Scale: No Scale

Legend

★ Site Location

**FIGURE 1**  
Regional Site Location



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: February 2016

Location: 6200 Shattuck Avenue, Oakland, CA

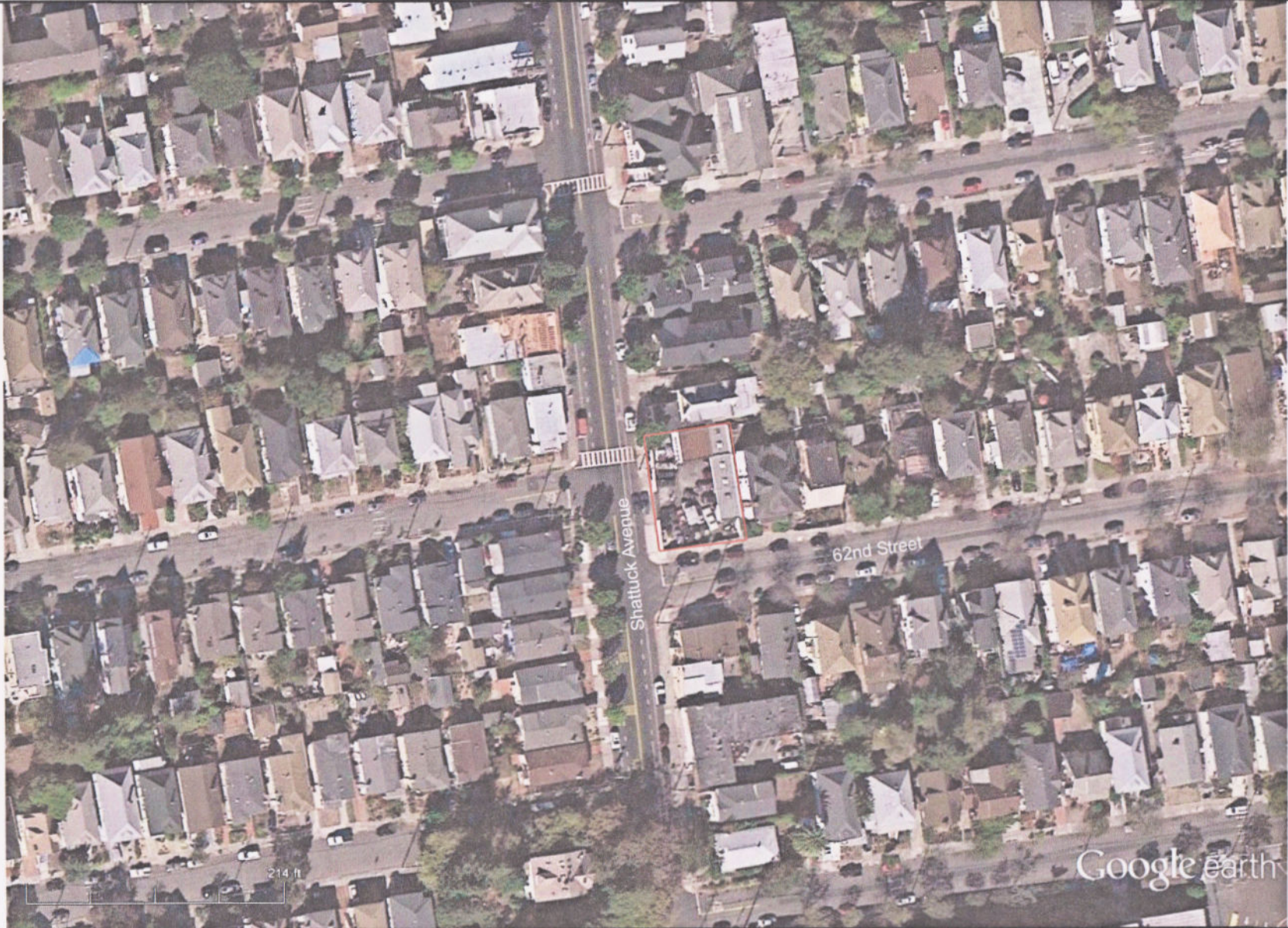
Drawing By: DLG

Scale: No Scale

**Legend**

 Site Location

**FIGURE 2**  
**Aerial Photo**



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

Drawing By: DLG

Scale: 1" = 14 ft

**Legend**

Monitoring Well

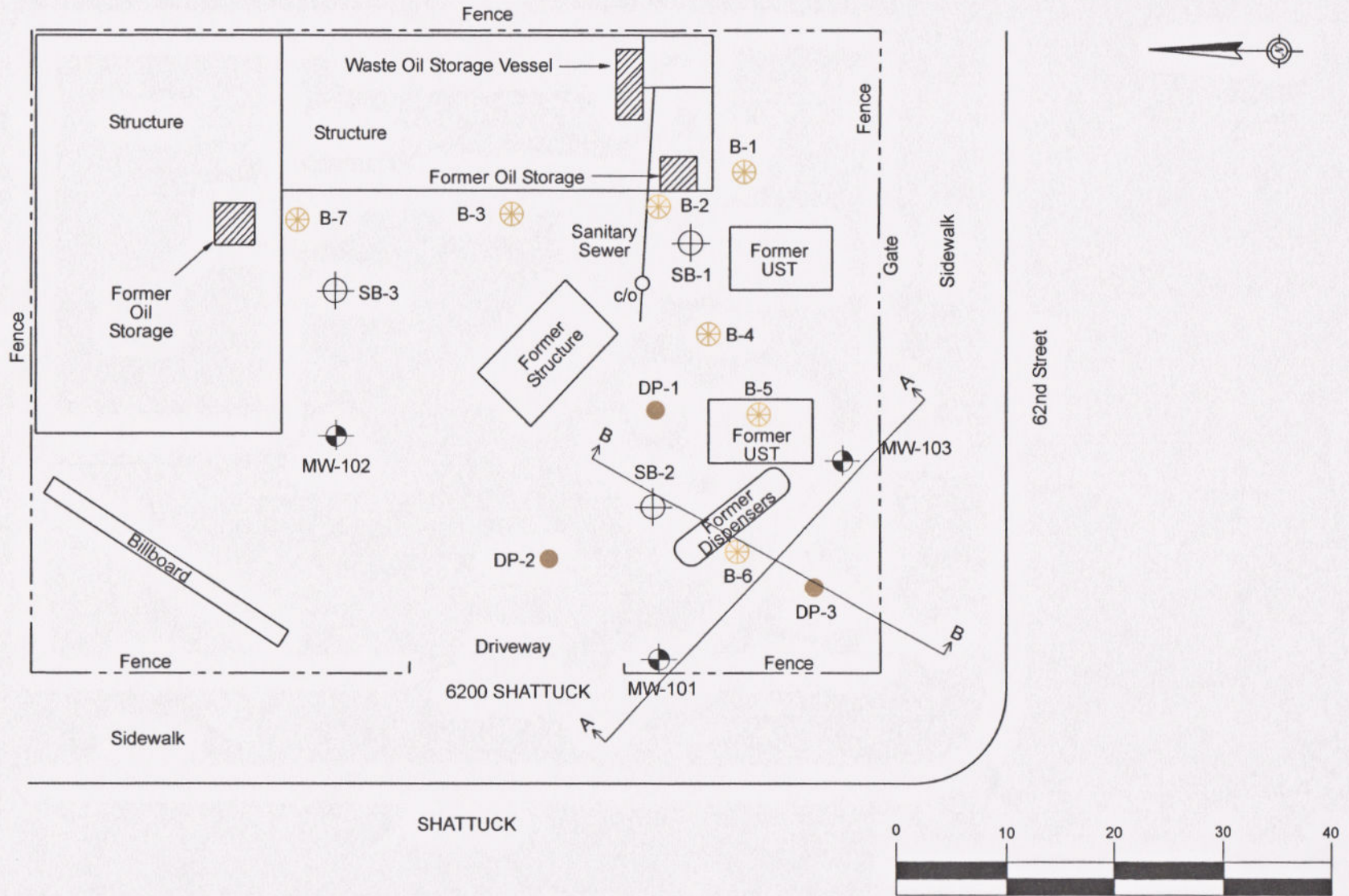
Soil Boring

Shallow Soil Sample (Backfill)

Pangea Boring (2006)

Geologic Cross Sections

**FIGURE 3  
Site Layout Map**





**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters





Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

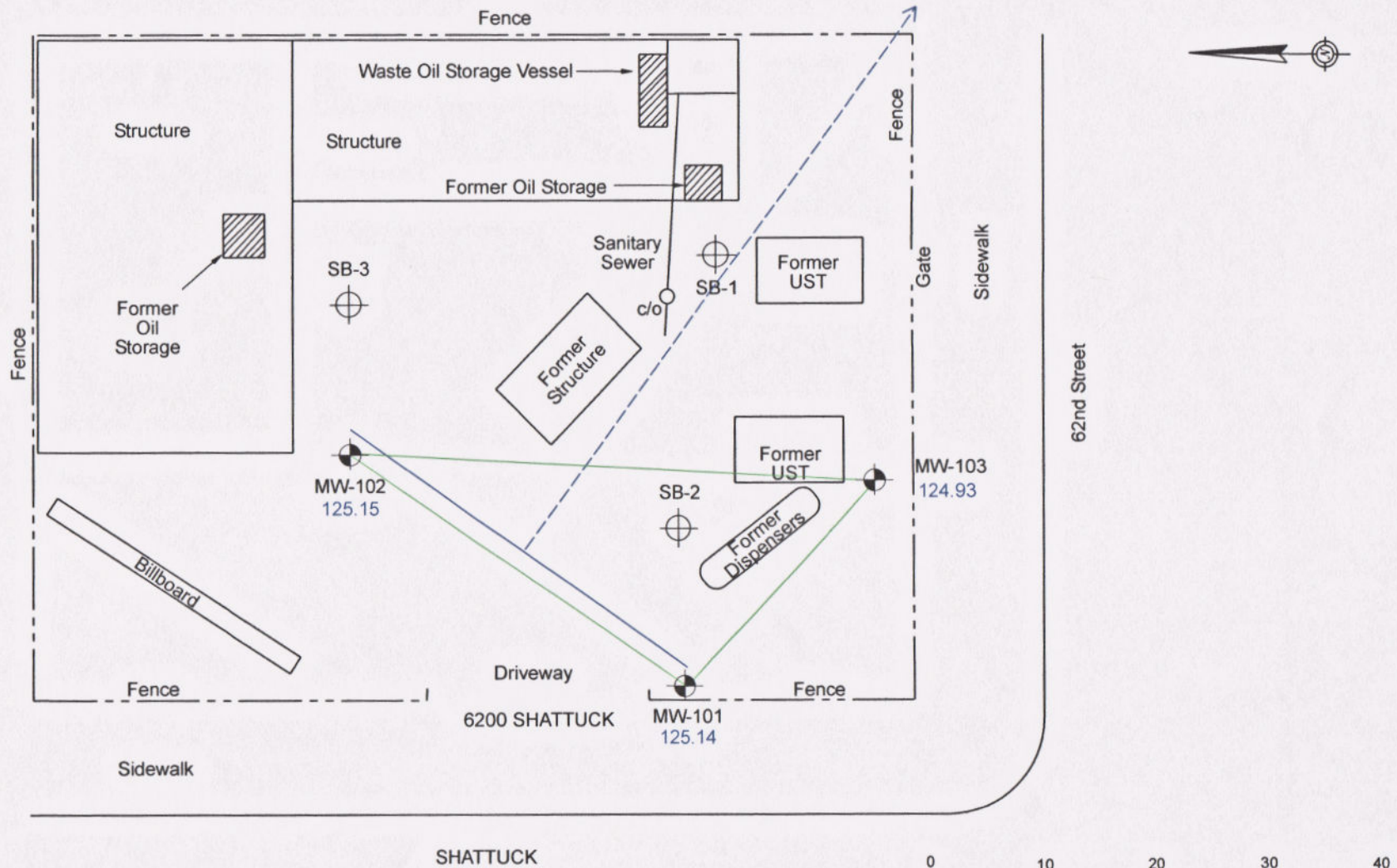
Drawing By: DLG

Scale: 1" = 14 ft

**Legend**

-  Monitoring Well
-  Well Triangle
-  Line of Equal Potentiometric Surface
-  Groundwater Gradient Direction
- 125.15** Groundwater Elevation Relative to MSL

**FIGURE 4**  
**Groundwater Elevations & Gradient**  
**December 2015**



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

Drawing By: DLG

Scale: 1" = 14 ft

**Legend**



Monitoring Well

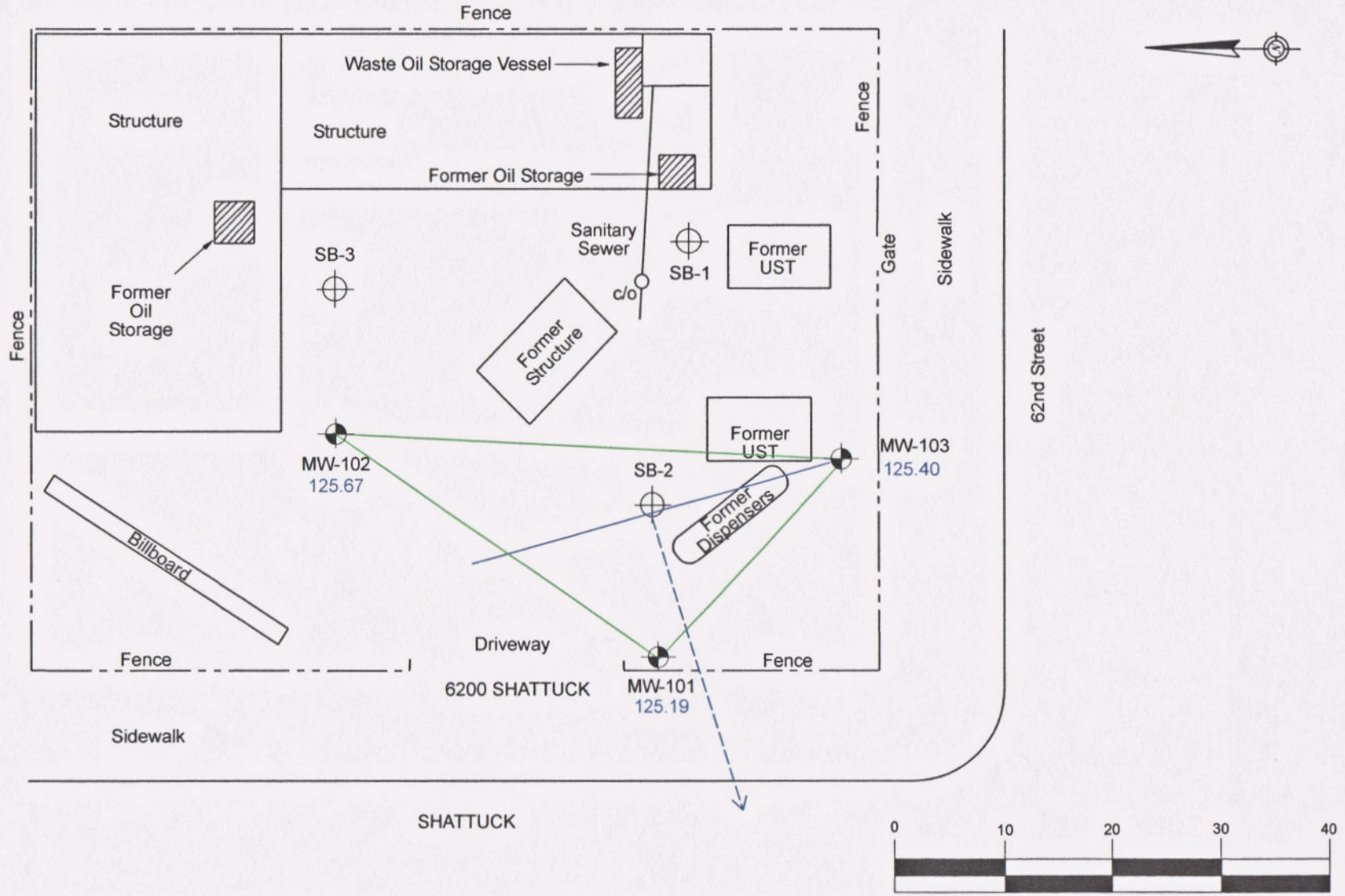
Well Triangle

Line of Equal Potentiometric Surface

Groundwater Gradient Direction

125.19 Groundwater Elevation Relative to MSL

**FIGURE 5**  
**Groundwater Elevations & Gradient**  
**February 2016**



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: March 2015

Location: 6200 Shattuck Avenue, Oakland, CA

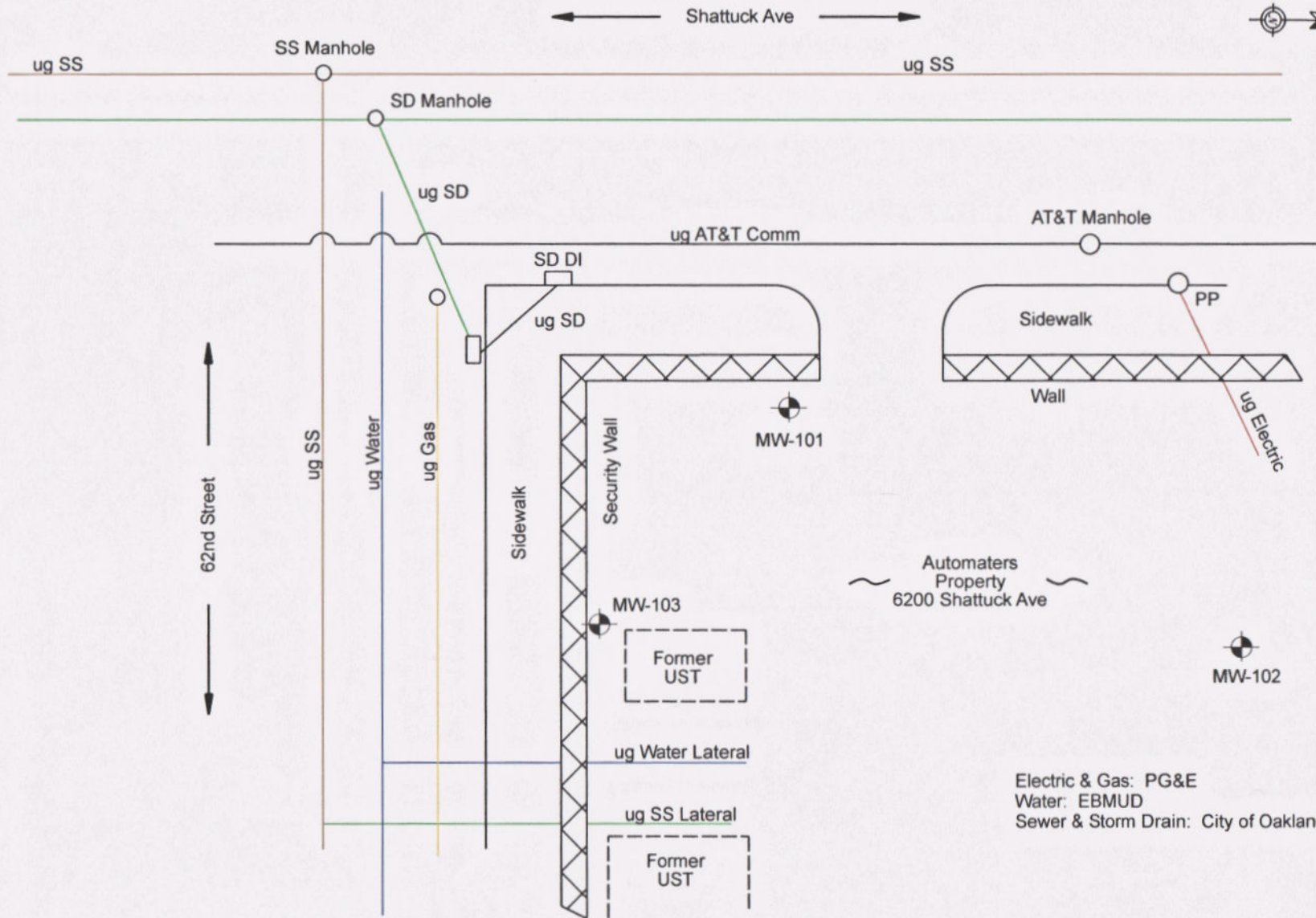
Drawing By: DLG

Scale: See Below

Legend

- SD - Storm Drain
- SS - Sanitary Sewer
- DI - Drop Inlet
- ug - Underground
- MW - Monitoring Well
- PP - Power Pole

**FIGURE 6**  
**Underground Utility Survey**



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

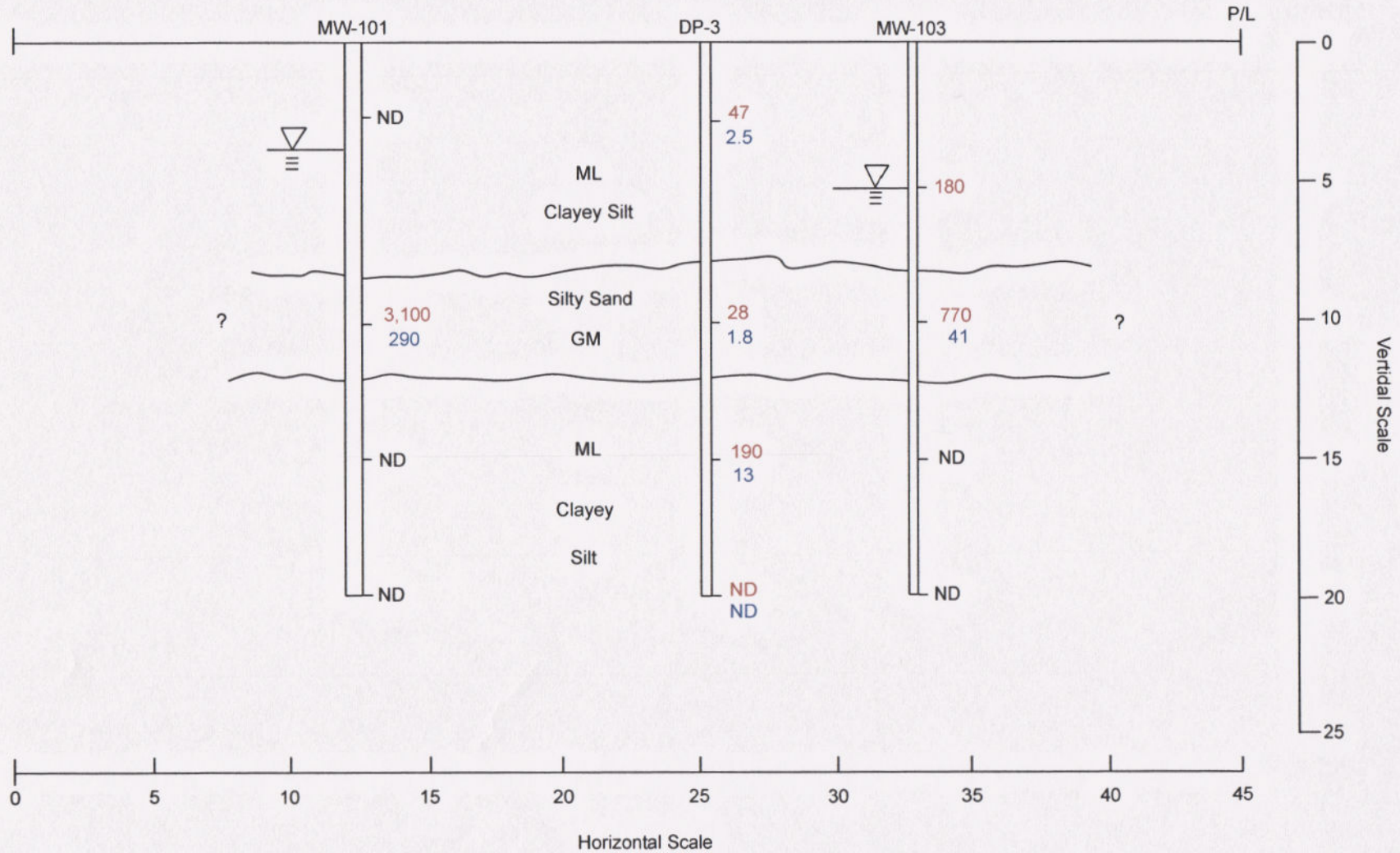
Drawing By: DLG

Scale: See Below

**Legend**

- 3,100 TPH-gas
- 290 TPH-diesel
- Soil Sample Analysis
- Static GWE 12/31/15

**FIGURE 7  
Cross Section A-A**



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

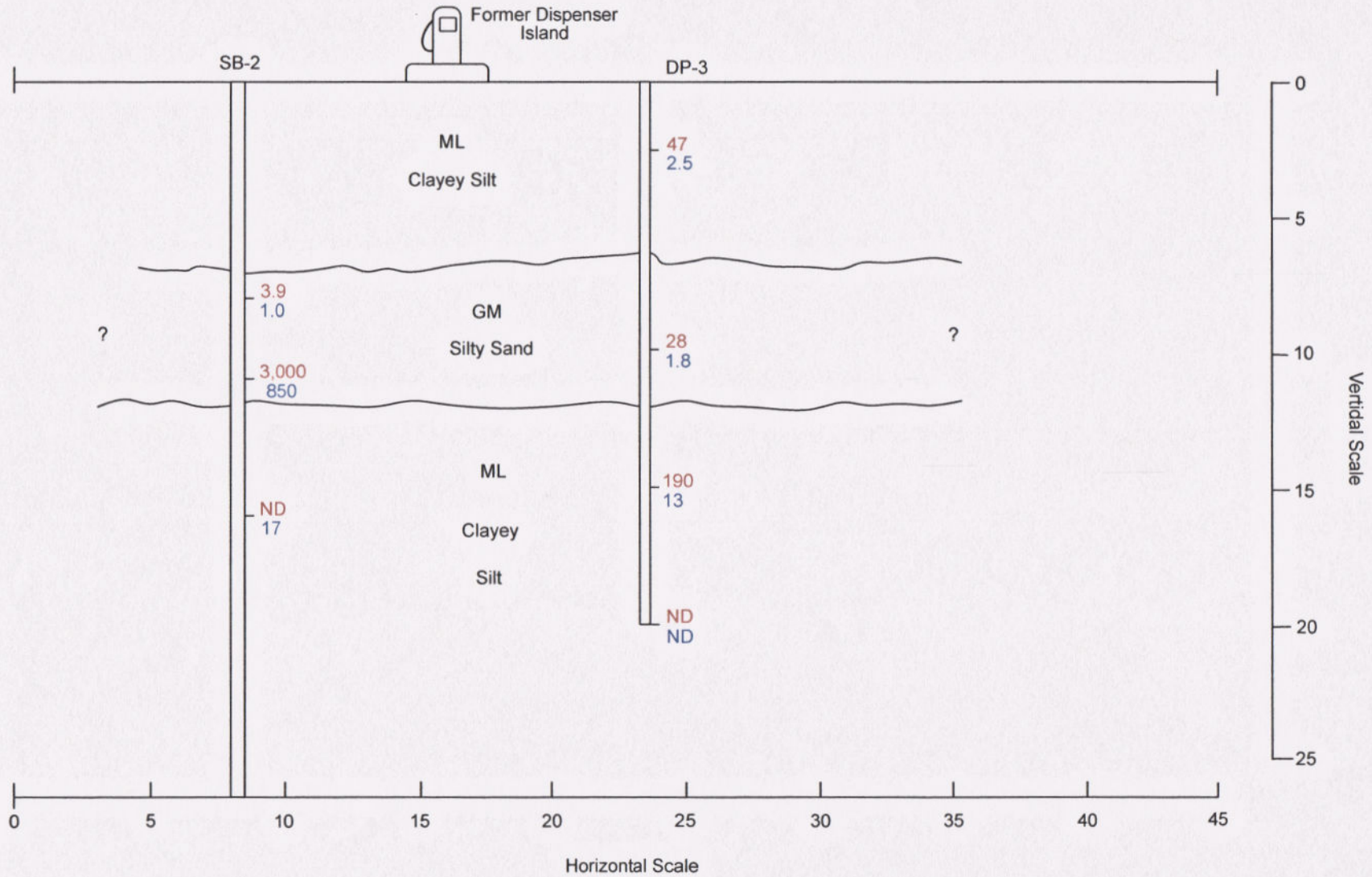
Drawing By: DLG

Scale: See Below

Legend

- 3,100 TPH-gas
- 290 TPH-diesel
- Soil Sample Analysis

**FIGURE 8**  
**Cross Section B-B**



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters




Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

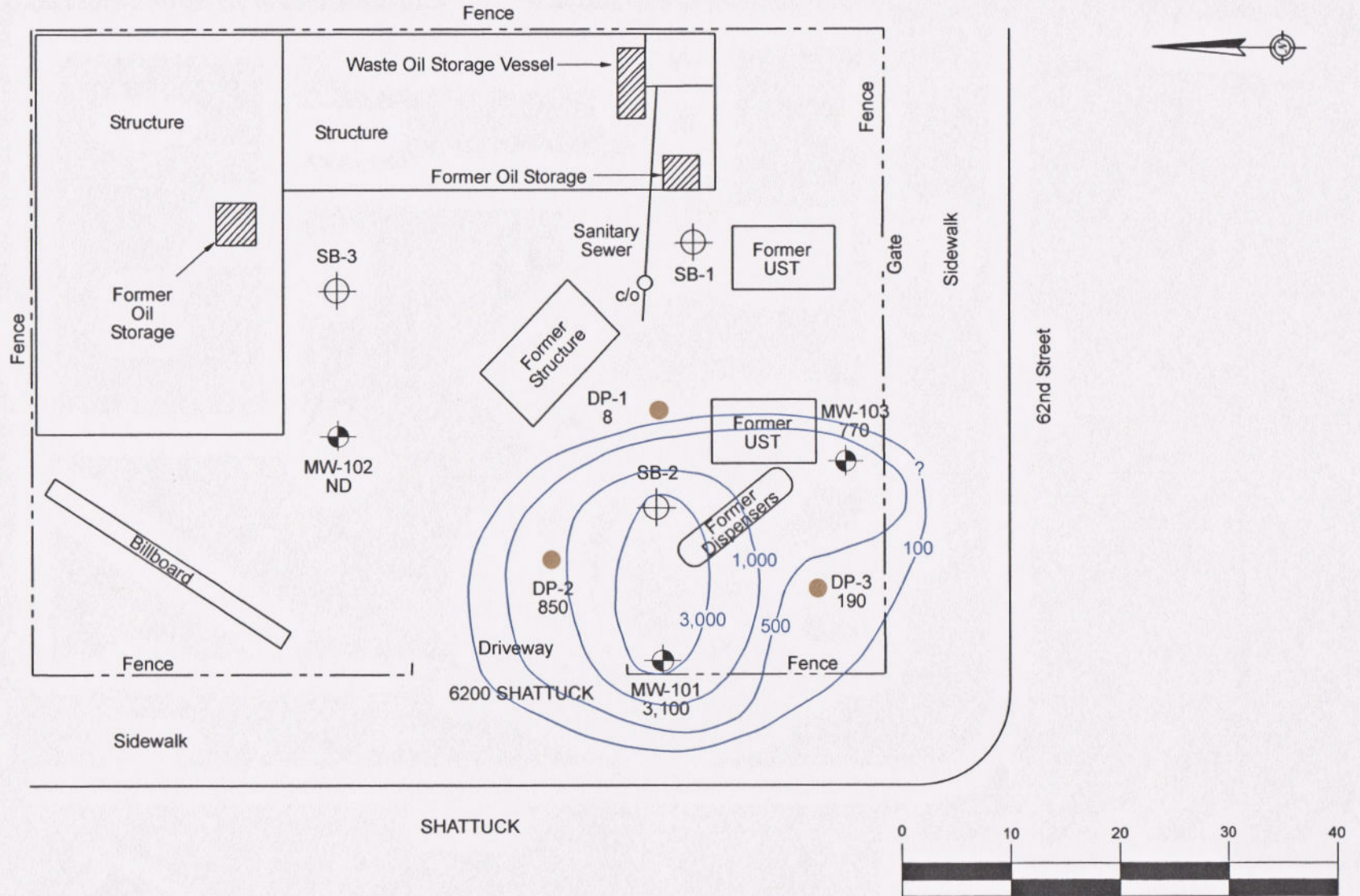
Drawing By: DLG

Scale: 1" = 14 ft

**Legend**

-  Monitoring Well
-  Soil Boring
-  TPH-gas IsoContour

**FIGURE 9**  
**Soil: TPH-gas**  
**(mg/kg)**



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters




Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

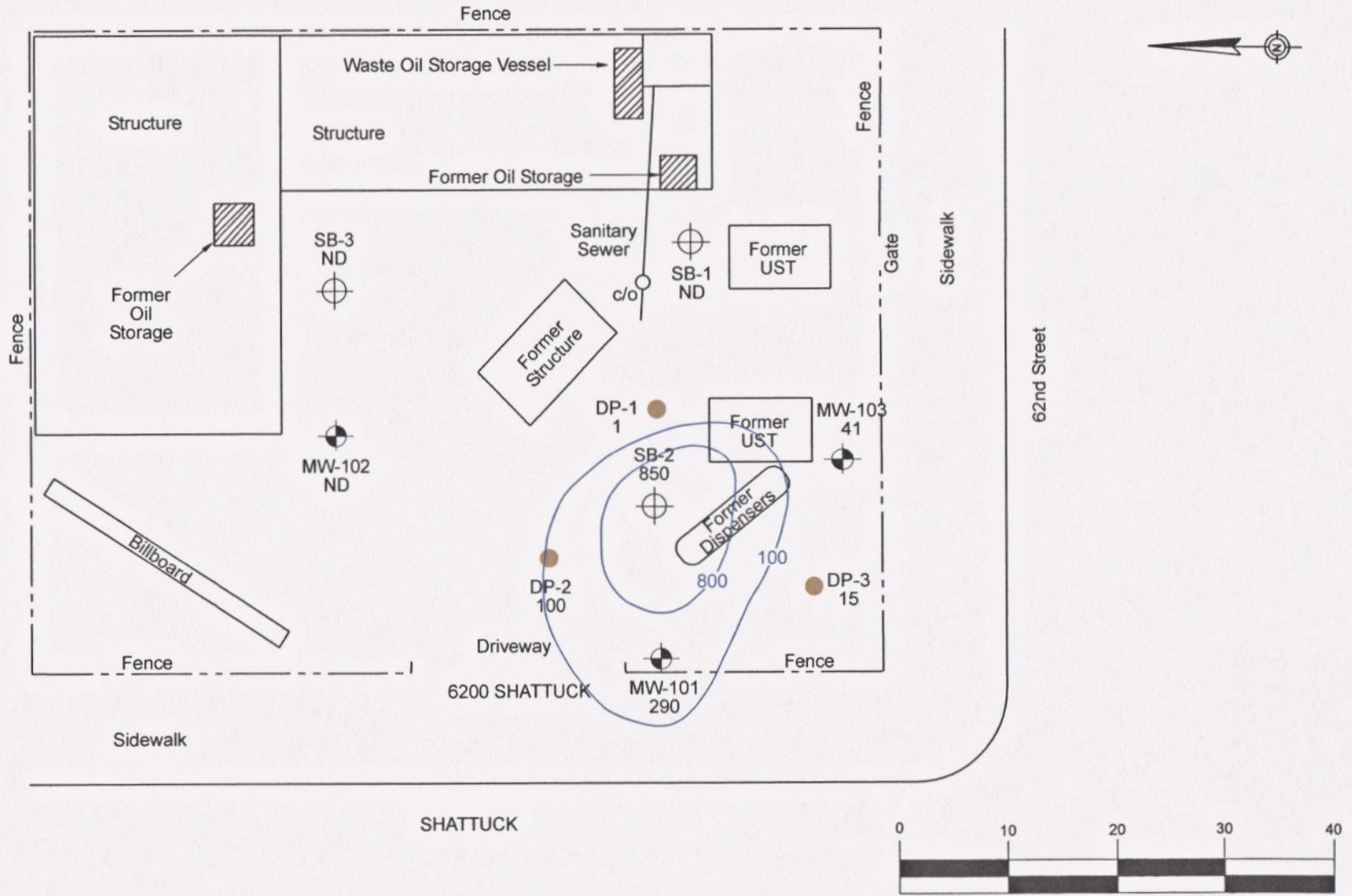
Drawing By: DLG

Scale: 1" = 14 ft

**Legend**

-  Monitoring Well
-  Soil Boring
-  TPH-diesel IsoContour

**FIGURE 10**  
**Soil: TPH-diesel**  
**(mg/kg)**



**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

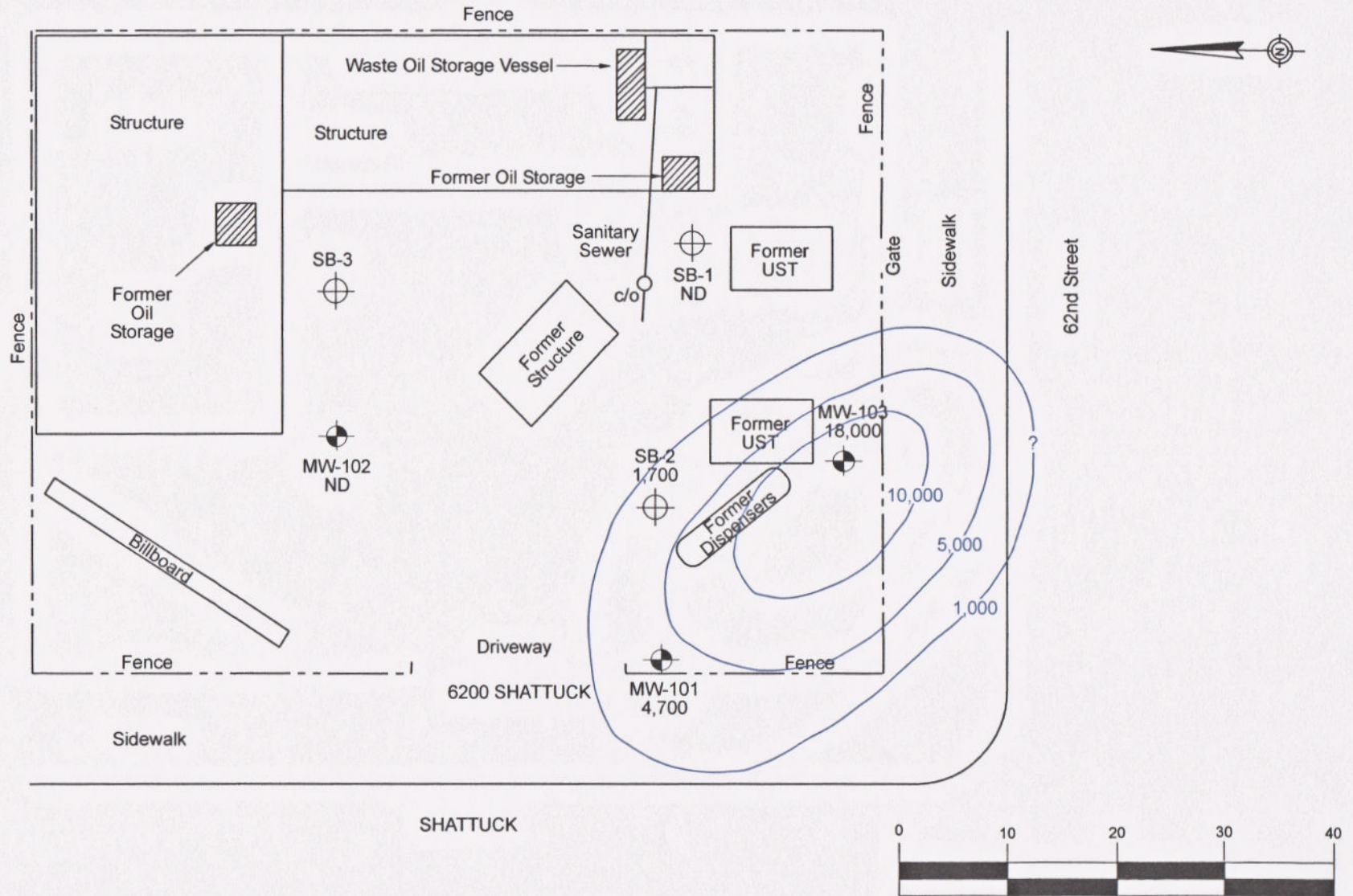
Drawing By: DLG

Scale: 1" = 14 ft

**Legend**

- Monitoring Well
- TPH-gas IsoContour

**FIGURE 11**  
**Groundwater: TPH-gas**  
**(ug/l)**





**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS**

PO Box 5891, Vacaville, CA 95696

Project Name: Automasters

Date: Feb 2016

Location: 6200 Shattuck Avenue, Oakland, CA

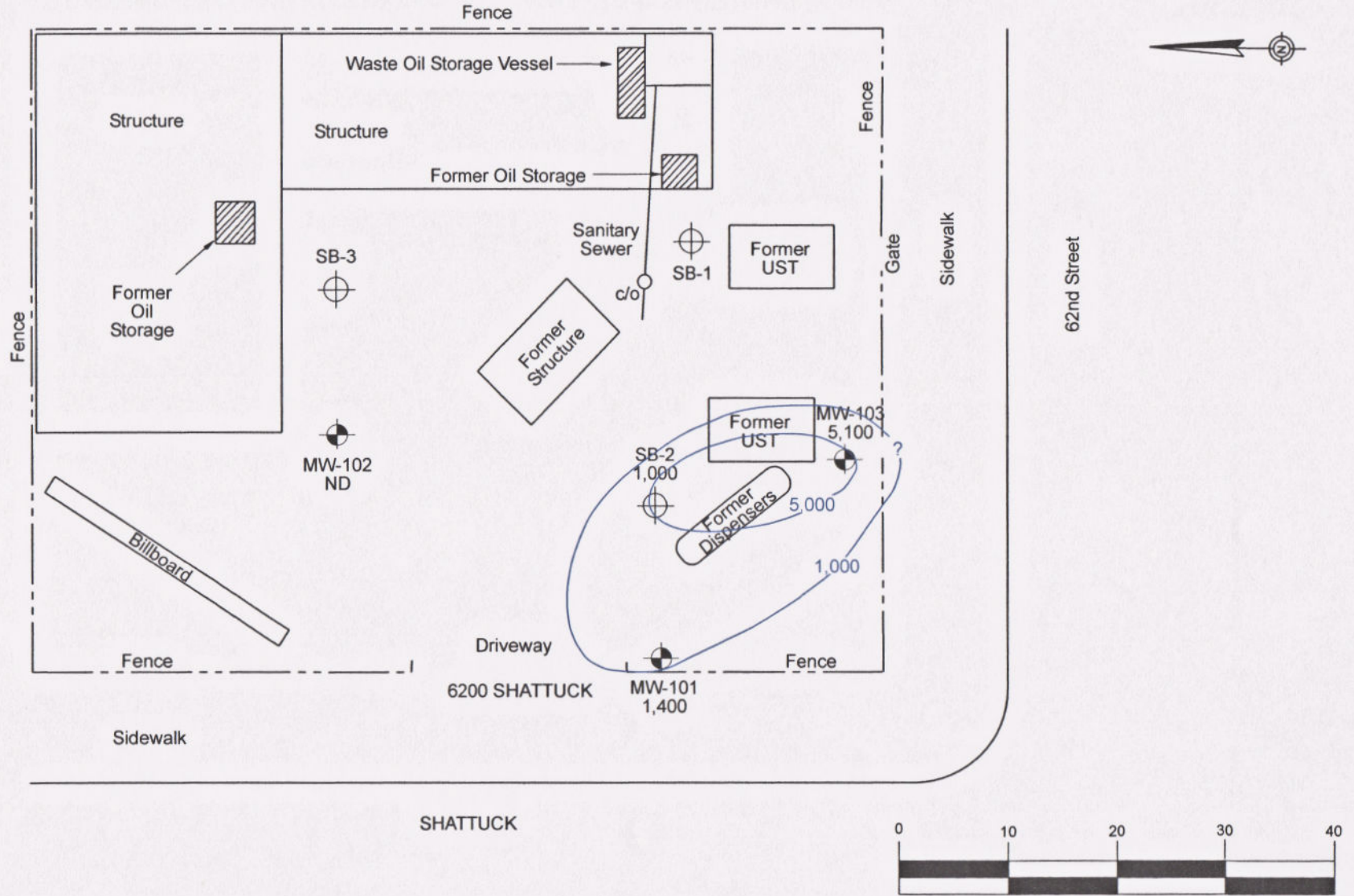
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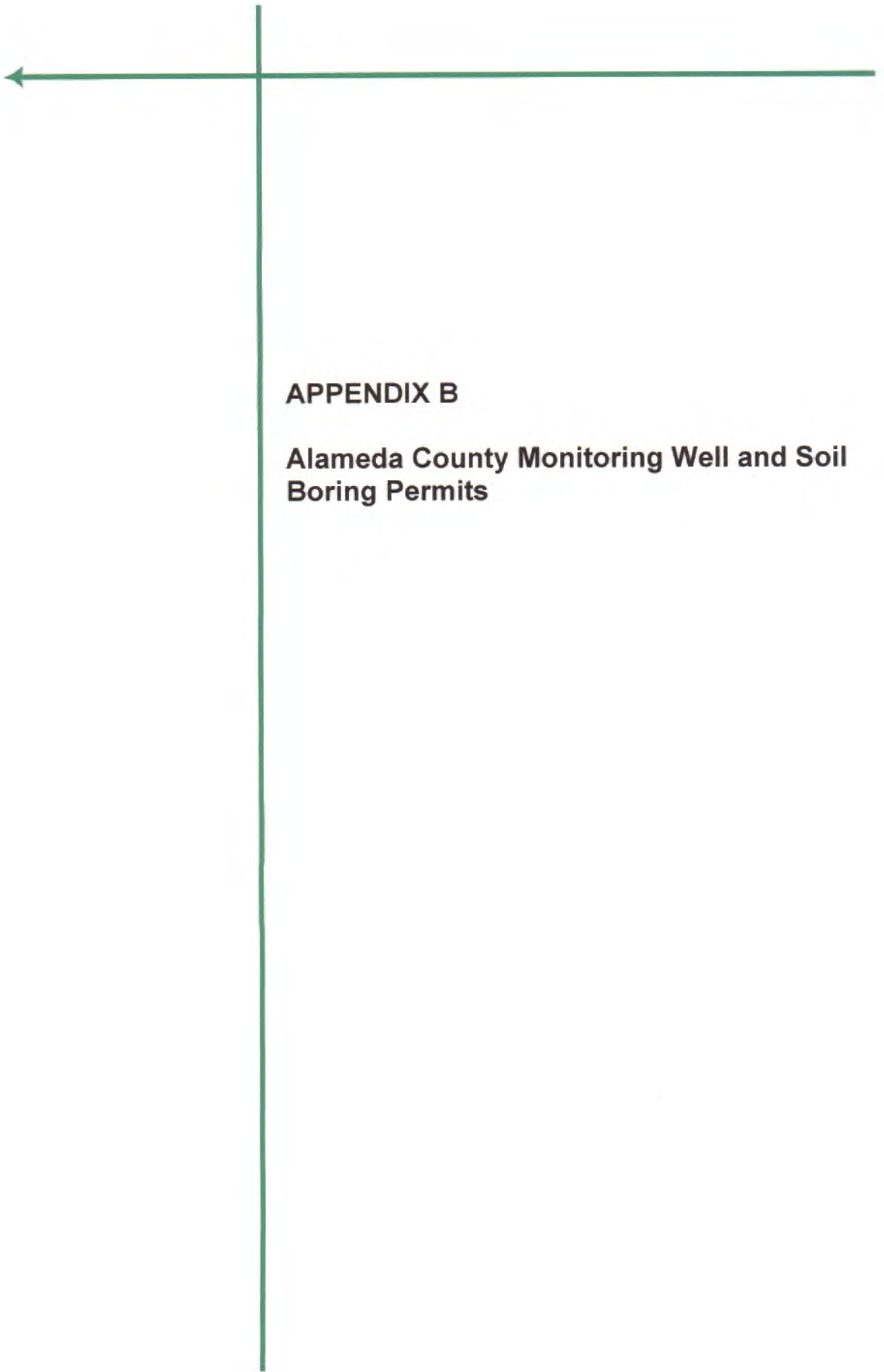
Scale: 1" = 14 ft

**Legend**

- Monitoring Well
- TPH-diesel IsoContour

**FIGURE 12**  
**Groundwater: TPH-diesel**  
**(ug/l)**





**APPENDIX B**

**Alameda County Monitoring Well and Soil  
Boring Permits**

# Alameda County Public Works Agency - Water Resources Well Permit



Public Works Agency

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

Application Approved on: 12/08/2015 By jamesy

Permit Numbers: W2015-1063 to W2015-1066  
Permits Valid from 12/15/2015 to 12/17/2015

Application Id: 1448995479090  
Site Location: 6200 Shattuck Avenue  
Oakland, CA 94609

City of Project Site:Oakland

Project Start Date: 12/15/2015  
Assigned Inspector: Contact Lindsay Furuyama at (925) 956-2311 or Lfuruyama@groundzonees.com

Completion Date:12/17/2015

Applicant: West & Associates - Brian West  
630 Eubanks Court, Unit G, Vacaville, CA 95688  
Property Owner: Glenn Glenn D. Logan Revocable Living Trust  
15 Mulberry Court, #5, Belmont, CA 94002

Phone: 707-451-1360

Phone: 650-271-6842

Client: \*\* same as Property Owner \*\*  
Contact: Bruce Jacobsen

Phone: 707-451-1360  
Cell: 925-705-1400

Receipt Number: WR2015-0583 Total Due: \$1456.00  
Payer Name : Eileen F Browning Total Amount Paid: \$1456.00  
Paid By: VISA PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitoring Study - 10 Boreholes  
Driller: Penecore Drilling - Lic #: 906899 - Method: DP

Work Total: \$265.00

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2015-1063	12/08/2015	03/14/2016	10	2.00 in.	20.00 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. 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.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit

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

application on site shall result in a fine of \$500.00.

6. 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.

### 7. 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.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a 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.

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.

---

Well Construction-Monitoring-Monitoring - 3 Wells

Driller: Penecore Drilling - Lic #: 906899 - Method: hstem

**Work Total: \$1191.00**

### Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2015-1064	12/08/2015	03/14/2016	MW-101	10.00 in.	2.00 in.	10.00 ft	20.00 ft
W2015-1065	12/08/2015	03/14/2016	MW-102	10.00 in.	2.00 in.	10.00 ft	20.00 ft
W2015-1066	12/08/2015	03/14/2016	MW-103	10.00 in.	2.00 in.	10.00 ft	20.00 ft

### Specific Work Permit Conditions

1. 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.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground

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

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.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.
  5. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.
  6. 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.
  7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
  8. Minimum surface seal thickness is two inches of cement grout placed by tremie.
  9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
  10. 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.
  11. 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.
-



**APPENDIX C**

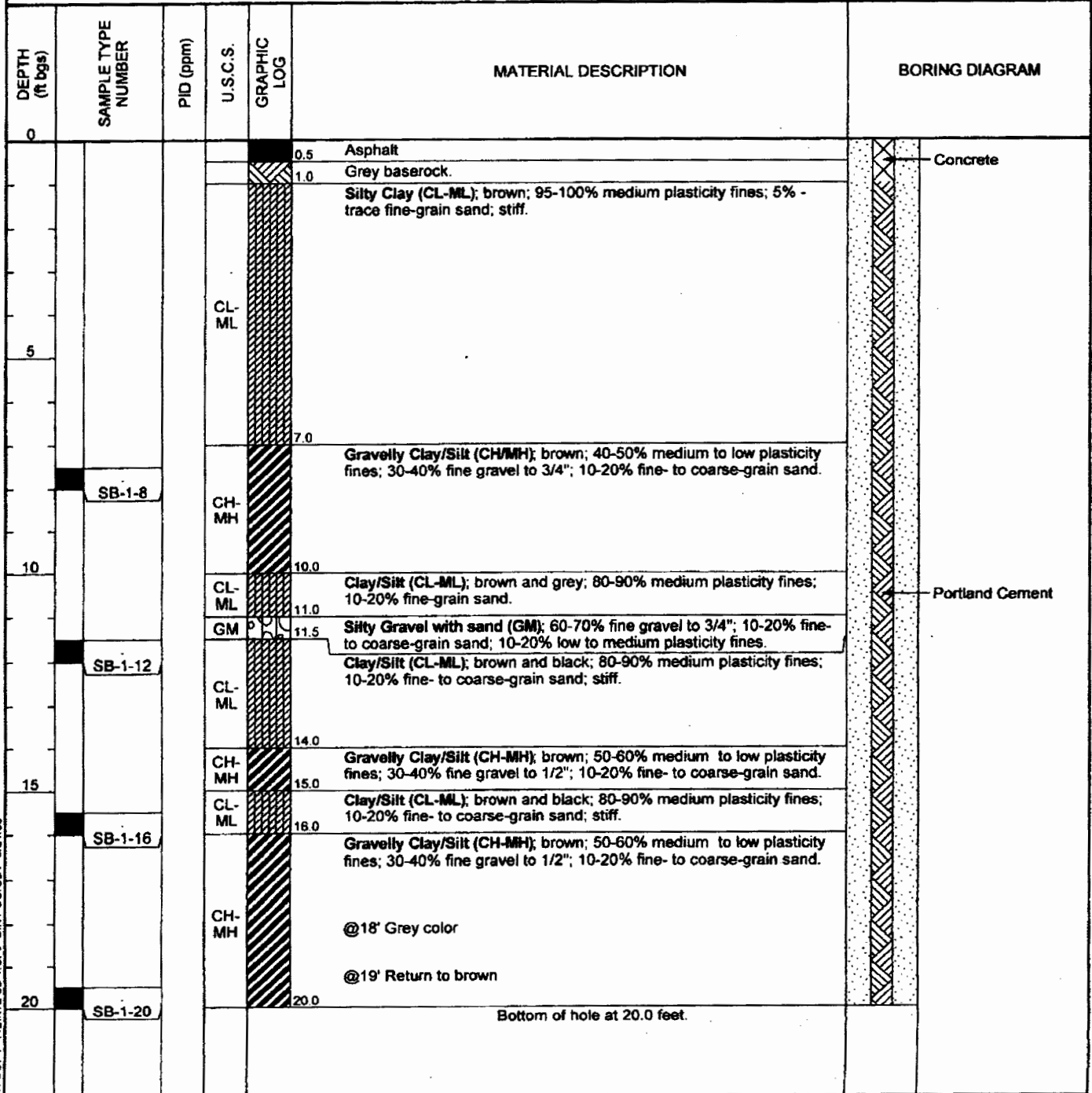
**Soil Boring Logs (Pangea – 2006)**

Pangea Environmental Services, Inc.  
 1710 Franklin Street, Suite 200  
 Oakland, CA, 94612  
 Telephone: 510-836-3700  
 Fax: 510-836-3709

# BORING NUMBER SB-1

PAGE 1 OF 1

CLIENT <u>Richard Heintz</u>	PROJECT NAME <u>Heintz - 6200 Shattuck</u>
PROJECT NUMBER <u>1130.001</u>	PROJECT LOCATION <u>6200 Shattuck Ave, Oakland</u>
DATE STARTED <u>6/3/06</u> COMPLETED <u>6/3/06</u>	GROUND ELEVATION _____ HOLE SIZE <u>2.5</u>
DRILLING CONTRACTOR <u>RSI</u>	GROUND WATER LEVELS:
DRILLING METHOD <u>Direct Push - Dual Wall</u>	AT TIME OF DRILLING <u>---</u>
LOGGED BY <u>Morgan Gillies</u> CHECKED BY <u>Bob Clark-Riddell</u>	AT END OF DRILLING <u>---</u>
NOTES <u>Hand auger to 4'</u>	AFTER DRILLING <u>---</u>



BH COPY HEINTZ SB-1.GPJ GINT US.GDT 6/21/06

Pangea Environmental Services, Inc.  
 1710 Franklin Street, Suite 200  
 Oakland, CA, 94612  
 Telephone: 510-836-3700  
 Fax: 510-836-3709

CLIENT Richard Heintz PROJECT NAME Heintz - 6200 Shattuck  
 PROJECT NUMBER 1130.001 PROJECT LOCATION 6200 Shattuck Ave, Oakland  
 DATE STARTED 8/3/06 COMPLETED 6/3/06 GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.5  
 DRILLING CONTRACTOR RSI GROUND WATER LEVELS:  
 DRILLING METHOD Direct Push - Dual Wall AT TIME OF DRILLING \_\_\_\_\_  
 LOGGED BY Morgan Gillies CHECKED BY Bob Clark-Riddell AT END OF DRILLING \_\_\_\_\_  
 NOTES \_\_\_\_\_  $\nabla$  23hrs AFTER DRILLING 8.0 ft

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
0					Concrete	Concrete
1.0			CL-ML		Clay/Silt (CL-ML); brown; 95-100% medium plasticity fines; 5%-trace fine-grain sand; stiff.	
5.0	SB-2-4		GM		Silty gravel with sand (GM); brown; 50-60% fine gravel to 1/2"; 20-30% fine- to coarse-grain sand; 10-20% medium to low plasticity fines.  $\nabla$ @8' Grey	
11.0	SB-2-8		SW		Poorly sorted sand with gravel (SW); 80-90% fine- to coarse-grain sand; 10-20% fine gravel to 1/2"; moist; hydrocarbon odor.	
12.0	SB-2-11		CL-ML		Clay/Silt (CL-ML); brown; 95-100% medium plasticity fines; 5%-trace fine-grain sand; stiff, no odor.	
15.0	SB-2-12		GC		Clayey gravel with sand (GC); 60-70% fine gravel to 3/4"; 10-20% medium plasticity fines; 10-20% fine grain sand; moist.	
17.0	SB-2-16		CL-ML		Clay/Silt (CL-ML); brown and grey; 95-100% medium plasticity fines; 5%- trace fine-grain sand; soft.	
20.0	SB-2-20		GC		Clayey gravel with sand (GC); 60-70% fine gravel to 3/4"; 10-20% medium plasticity fines; 10-20% fine grain sand; moist.	
21.0			CL-ML		Clay/Silt (CL-ML); brown and grey; 95-100% medium plasticity fines; 5%- trace fine-grain sand; soft.	
22.0			GC		Clayey gravel with sand (GC); 60-70% fine gravel to 3/4"; 10-20% medium plasticity fines; 10-20% fine grain sand; moist.	
23.0			CL-ML		Clay/Silt (CL-ML); brown and grey; 95-100% medium plasticity fines; 5%- trace fine-grain sand; soft.	

BH COPY HEINTZ SB-2 GP-J GINT US GDT 8/21/06

(Continued Next Page)




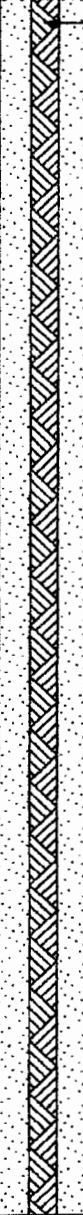




Pangea Environmental Services, Inc.  
 1710 Franklin Street, Suite 200  
 Oakland, CA, 94612  
 Telephone: 510-836-3700  
 Fax: 510-836-3709

CLIENT Richard Heintz

PROJECT NAME Heintz - 6200 Shattuck

PROJECT NUMBER 1130.001

PROJECT LOCATION 6200 Shattuck Ave. Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
25			CL-ML		Clay/Silt (CL-ML); brown and grey; 95-100% medium plasticity fines; 5%- trace fine-grain sand; soft. (continued)	 <p>Portland Cement</p>
			MH-CH		Gravelly silt and clay (MH-CH); brown; 60-70% medium plasticity fines; 20-30% fine gravel to 1/2"; trace - 10% fine- to coarse-grain sand.	
			MH		Sandy silt with gravel (MH); brown; 60-70% low plasticity fines; 10-20% fine gravel to 1/2"; 10-20% fine- to coarse-grain sand.	
30			CL-ML		Clay/Silt with sand (CL-ML); brown; 60-70% medium plasticity fines; 20-30% fine- to coarse-grain sand; 5-10% fine gravel.	
			CL-ML		Clay/Silt (CL-ML); brown and grey; 80-90% medium plasticity fines; 10-20% fine- to coarse-grain sand; stiff.	
35					@36' Liners collapsing due to stiff clay.	
					Continue to 48' with hydropunch, no water; pull rods and set temporary casing in open borehole. Depth to water was 8.00' after 23 hours. Sample SB-2-W taken. Boring was tremmi-grouted to surface with portland cement.	
40						
45						
					Bottom of hole at 48.0 feet.	

BH COPY HEINTZ SB-2 GPJ GINT US GDT 9/21/08

Pangea Environmental Services, Inc.  
 1710 Franklin Street, Suite 200  
 Oakland, CA, 94612  
 Telephone: 510-836-3700  
 Fax: 510-836-3709

CLIENT Richard Heintz PROJECT NAME Heintz - 6200 Shattuck  
 PROJECT NUMBER 1130.001 PROJECT LOCATION 6200 Shattuck Ave, Oakland  
 DATE STARTED 6/3/06 COMPLETED 6/3/06 GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.5  
 DRILLING CONTRACTOR RSI GROUND WATER LEVELS:  
 DRILLING METHOD Direct Push - Dual Wall AT TIME OF DRILLING ---  
 LOGGED BY Morgan Gillies CHECKED BY Bob Clark-Riddell AT END OF DRILLING ---  
 NOTES \_\_\_\_\_ AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
0					Asphalt	
				1.0		Concrete
			CL-ML		Silt/Clay (CL-ML); brown; 95-100% medium plasticity fines; trace - 5% fine grain sand; stiff.	
5	SB-3-4					
			CH-MH		7.0	
					Gravelly Clay/Silt (CH-MH); brown; 40-50% medium to low plasticity fines; 30-40% fine gravel to 1/2"; 10-20% fine- to coarse-grain sand.	
10	SB-3-8				@11.5' Moist.	Portland Cement
			CL-ML		12.0	
					Clay/Silt (CL-ML); brown; 80-90% medium plasticity fines; 10-20% fine- to coarse-grain sand.	
			CH-MH		14.0	
					Gravelly Clay/Silt with sand (CH-MH); brown; 40-50% medium to low plasticity fines; 30-40% fine gravel to 1/2"; 20-30% fine- to coarse-grain sand; moist.	
15	SB-3-16				16.0	
			CL-ML			
					Clay/Silt with sand (CL-ML); brown; 70-80% medium plasticity fines; 10-20% fine- to coarse-grain sand; 5-10% fine gravel; stiff.	
			CH-MH		17.0	
					Gravelly Clay/Silt (CH-MH); brown and grey; 40-50% medium to low plasticity fines; 30-40% fine gravel to 1/2"; 20-30% fine- to coarse-grain sand; moist.	
			CL-ML		18.0	
					Clay/Silt with sand (CL-ML); brown; 70-80% medium plasticity fines; 10-20% fine- to coarse-grain sand; 5-10% fine gravel; stiff.	
20	SB-3-20				20.0	
					Bottom of hole at 20.0 feet.	

BH COPY HEINTZ SB-3.GPJ GINT US.GDT 9/20/06



**APPENDIX D**

**Soil Boring and Well Completion Logs  
2015**

# WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville, CA 95696

<b>Project:</b> Automasters		<b>Page</b> 1 <b>of</b> 1
<b>Location:</b> 6200 Shattuck, Oakland		<b>Date:</b> 12/14/15
<b>Boring Designation:</b> MW-101	<b>Driller:</b> Penecore	
<b>Logged By:</b> Brian West, PE RCE 32319 (Exp. 12/31/16)	<b>Base:</b> -	
<b>Boring Location:</b> By Driveway	<b>Drill Equipment:</b> Geoprobe	
<b>Soils Classification System:</b> USGS	<b>Diameter &amp; Type Well Casing:</b> 8" dia HSA; 2" PVC	
<b>Sample Type:</b> Brass Tube - Split Spoon	<b>Elevation &amp; Datum:</b>	
<b>Matrix:</b>	<b>Completion Depth:</b> 20'	
<b>Date Started:</b> 12/14/15	<b>Finished:</b> 12/14/15	<b>Depth to Groundwater:</b>
<b>Number of Samples:</b> Four		

Depth (feet)	Time	Sample Number	Sample	Lithology	Blow Counts	Observations	PID (ppm)	Well Construction
0	9:50					concrete		
30"				w/ hand auger		stiff competent clay, plastic cohesive		
5				ML		Clayey Silt	>2,000	
10		10'		geoprobe sleeve GM		strong gas odor discolored	1,500 - 2,000	
15		15'		geoprobe sleeve		Silty Sand		
15						approx bottom of contamination		
20		20'		ML geoprobe sleeve		Clean brown clay moist		
20						Clayey Silt		
25								
30								

# WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville, CA 95696

<b>Project:</b> Automasters		<b>Page</b> 1 of 1
<b>Location:</b> 6200 Shattuck, Oakland		<b>Date:</b> 12/15/15
<b>Boring Designation:</b> MW-102	<b>Driller:</b> Penecore	
<b>Logged By:</b> Brian West, PE RCE 32319 (Exp. 12/31/16)	<b>Base:</b>	
<b>Boring Location:</b> N Side, SW corner of main bldg	<b>Drill Equipment:</b> CME75	
<b>Soils Classification System:</b> USGS	<b>Diameter &amp; Type Well Casing:</b>	
<b>Sample Type:</b> Hollow Stem Auger	8" SCH 40 PVC 2"	
<b>Matrix:</b>	<b>Elevation &amp; Datum:</b>	
<b>Date Started:</b> 12/15/15	<b>Finished:</b> 12/15/15	<b>Completion Depth:</b> 20'
<b>Number of Samples:</b> Four	<b>Depth to Groundwater:</b>	

Depth (feet)	Time	Sample Number	Sample	Lithology	Blow Counts	Observations	PID (ppm)	Well Construction
0				ML		Asphalt stiff brown clay medium plasticity		
5		4.5'-5'	w/ hand auger			stiff brown clay medium plasticity with some gravel	>2,000	
10		9.5'-10'		HSA GM		stiff brown clay with gravel to 1"	1,500 - 2,000	
15		14.5'-15'		HSA		stiff brown clay with gravel to 1"		
20		19.5'-20'		ML HSA		stiff brown clay with gravel to 1" moist beginning ~17ft		
25								
30								

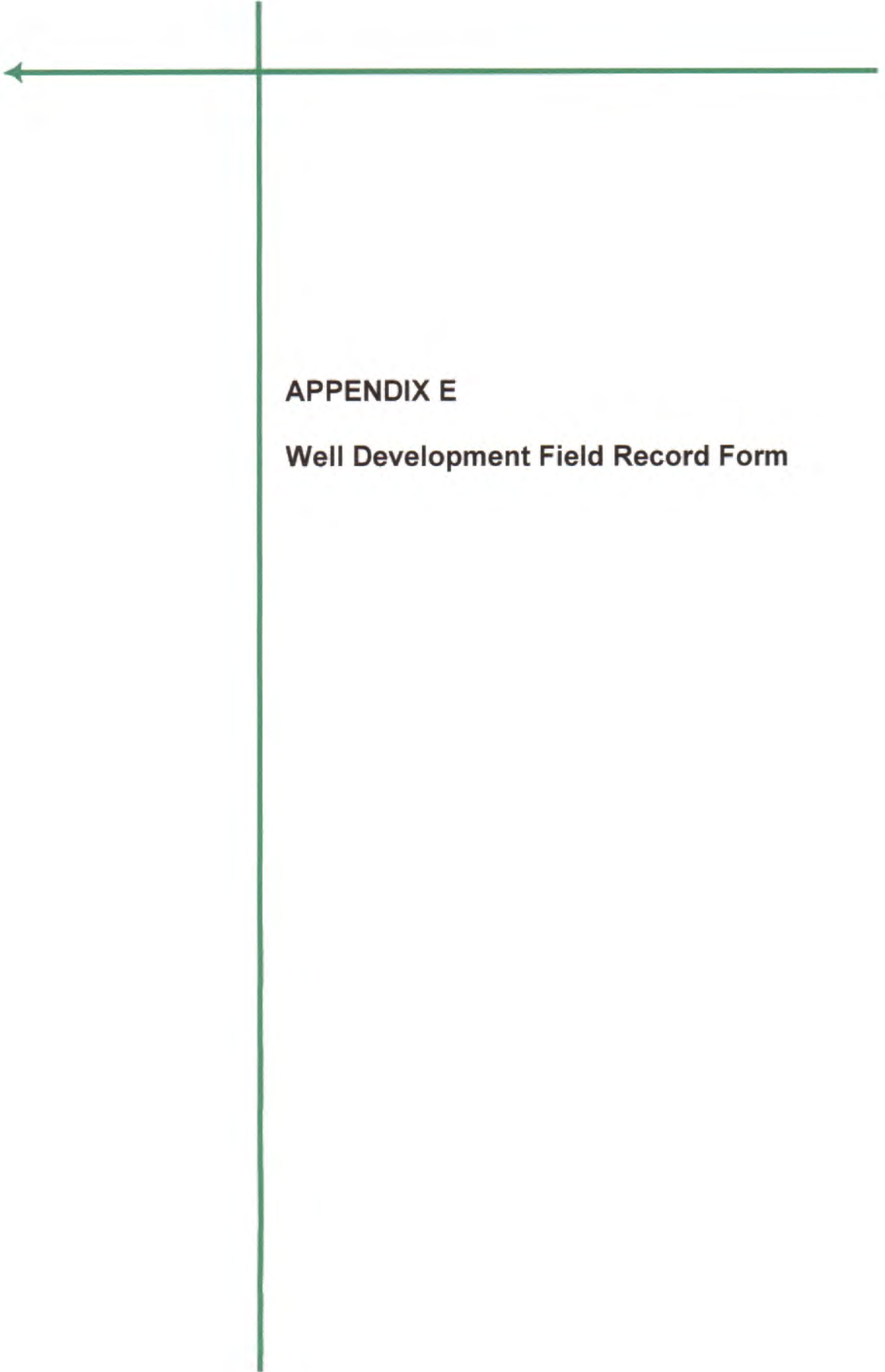












**APPENDIX E**

**Well Development Field Record Form**

WELL DEVELOPMENT  
FIELD DATA RECORD

Site Name: Automasters  
 Site Address: 6200 Shattuck Ave Oakland  
 Crew: Bruce Jacobsen  
 Date: 12-19-15  
 Weather: Cloudy, cool

Well ID: MW-101  
 Well Location: \_\_\_\_\_  
 Well Details: 2" dia, 20' depth  
 Initial DTGW: 3.7'  
 Purge Start: 8:35 Stop: 10:45 Rate: \_\_\_\_\_

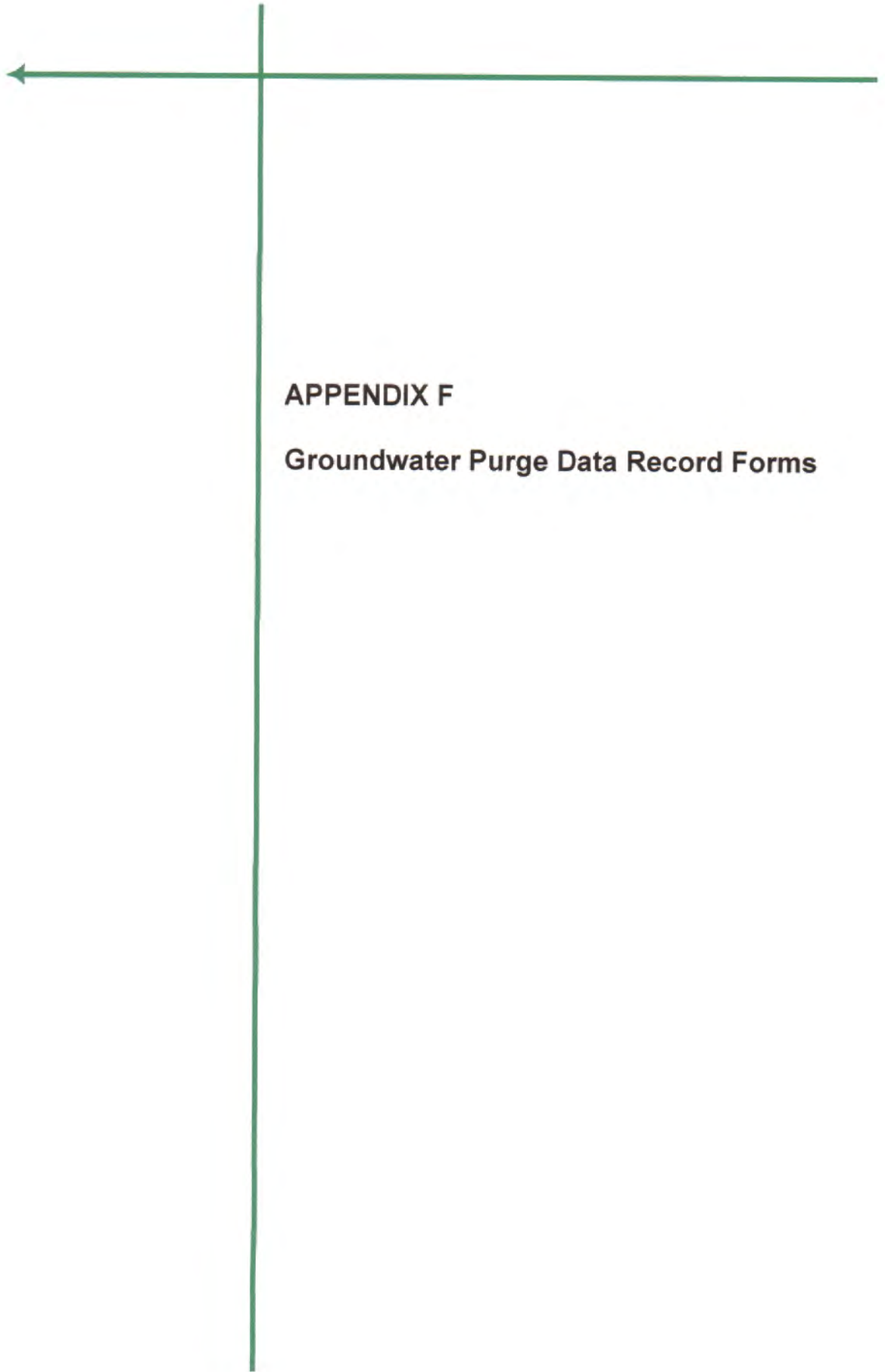
Total Gallons Purged: 3+3+3+3+2=14  
 Remarks: Initial: 14.6°, 7.1, 1660 3G: 15.7°, 7.0, 1560  
Rebal 9:30: 16.8, 6.9, 1430 6G: 17.2, 6.8, 1440  
9G: 17.5, 6.9, 1370 12G: 17.6, 7.0, 1030  
clean 14G: 18.0, 6.8, 1040

Well ID: MW-102  
 Well Location: \_\_\_\_\_  
 Well Details: 2" dia, 20' depth  
 Initial DTGW: 5.2  
 Purge Start: 9:10 Stop: 11:55 Rate: \_\_\_\_\_

Total Gallons Purged: 15  
 Remarks: Initial: 17.5°, 7.0, 2070 3G: 18.0°, 7.2, 1530  
Rebal: 18.1°, 6.8, 970 6G: 18.4°, 6.5, 1410  
9G: 18.5°, 6.6, 1130 12G: 18.2, 6.6, 1050  
medium turbidity 14G: 18.7, 6.6, 1050

Well ID: MW-103  
 Well Location: \_\_\_\_\_  
 Well Details: 2" dia 20' depth  
 Initial DTGW: 5.1'  
 Purge Start: 12:25 Stop: \_\_\_\_\_ Rate: \_\_\_\_\_

Total Gallons Purged: \_\_\_\_\_  
 Remarks: Initial: 17.5°, 6.8, 1610 3G: 18.3°, 6.9, 1650  
6G: 18.6°, 7.0, 1490 9G: 18.6°, 7.0, 1340  
12G: 18.3°, 7.0, 1080 15G: 18.1°, 7.1, 980  
18G: 18.3°, 6.9, 680 21G: 18.5°, 6.8, 820



**APPENDIX F**

**Groundwater Purge Data Record Forms**

**GROUNDWATER SAMPLING  
 PURGE DATA RECORD FORM**

PROJECT: Automasters

PROJECT LOCATION: 6200 Shattuck Ave., Oakland, CA

MONITORING WELL ID: MW-101 SAMPLER: BAJ

MONITORING WELL LOCATION: West side of property, 25 FT north of 62nd st

DATE: 12-31-15 TIME: 12<sup>10</sup> AM  PM

DISSOLVED OXYGEN CONCENTRATION: \_\_\_\_\_ Mg/L – BEFORE PURGE

\_\_\_\_\_ Mg/L – AFTER PURGE

FREE PHASE PRODUCT: Y  N  INCHES \_\_\_\_\_ PETROLEUM SHEEN: Y  N

ODOR/APPEARANCE: No odor / clear

$$\frac{20}{\text{WELL DEPTH}} - \frac{3.6}{\text{DTGW}} \times \frac{2''}{.17} \times 4'' = \frac{2.79}{\text{CASING VOLUME (GALS)}}$$

**PURGE MEASUREMENTS**

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °C	CONDUCTIVITY μS	pH	Turbidity
12 <sup>10</sup>	0	0	15.9	1130	7.0	
12 <sup>20</sup>	3	3	16.7	1060	6.9	
12 <sup>35</sup>	3	6	16.9	1040	6.8	
12 <sup>50</sup>	3	9	17.1	1050	6.8	

REMARKS: Sample collected at 12<sup>55</sup> pm

**GROUNDWATER SAMPLING  
 PURGE DATA RECORD FORM**

PROJECT: Automasters

PROJECT LOCATION: 6200 Shattuck Ave., Oakland, CA

MONITORING WELL ID: MW-102 SAMPLER: BAJ

MONITORING WELL LOCATION: 30 Ft north of former USTs, 25 Ft east of Shattuck

DATE: 12-31-15 TIME: 11:20  AM  PM

DISSOLVED OXYGEN CONCENTRATION: \_\_\_\_\_ Mg/L - BEFORE PURGE

\_\_\_\_\_ Mg/L - AFTER PURGE

FREE PHASE PRODUCT: Y  N \_\_\_\_\_ INCHES PETROLEUM SHEEN: Y  N

ODOR/APPEARANCE: No odor/clear

$$\frac{20}{\text{WELL DEPTH}} - \frac{4.9}{\text{DTGW}} \times \frac{2''}{.17} \frac{4''}{.66} = \frac{2.57}{\text{CASING VOLUME (GALS)}}$$

**PURGE MEASUREMENTS**

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °C	CONDUCTIVITY μS	pH	Turbidity
11:20	0	0	17.9	1090	6.9	
11:30	3	3	18.3	1040	6.7	
11:45	3	6	18.4	1050	6.6	
11:55	3	9	18.4	1040	6.6	

REMARKS: Sample collected at 12:02 PM

**GROUNDWATER SAMPLING  
 PURGE DATA RECORD FORM**

PROJECT: Automasters

PROJECT LOCATION: 6200 Shattuck Ave., Oakland, CA

MONITORING WELL ID: MW-103 SAMPLER: BAJ

MONITORING WELL LOCATION: South side of property, 25 feet east of Shattuck

DATE: 12-31-15 TIME: 10:40  AM  PM

DISSOLVED OXYGEN CONCENTRATION: \_\_\_\_\_ Mg/L – BEFORE PURGE  
 \_\_\_\_\_ Mg/L – AFTER PURGE

FREE PHASE PRODUCT: Y  N  INCHES \_\_\_\_\_ PETROLEUM SHEEN: Y  N

ODOR/APPEARANCE: Mild petroleum odor / clear

$$\frac{20}{\text{WELL DEPTH}} - \frac{4.8}{\text{DTGW}} \times \frac{2''}{17} \cdot \frac{4''}{.66} = \frac{2.58}{\text{CASING VOLUME (GALS)}}$$

**PURGE MEASUREMENTS**

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCTIVITY μS	pH	Turbidity
10:40	0	0	16.4	1240	6.8	
10:50	3	3	17.3	1260	7.0	
11:00	3	6	17.2	1170	6.8	
11:10	3	9	17.3	1180	6.9	

REMARKS: Sample collected at 11:15 AM



**APPENDIX G**

**McC Campbell Analytical Reports:**

**Work Order No. 1512799**

**Work Order No. 1512C31**





# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1512799

**Report Created for:** West & Associates

630 Eubanks Ct, Unit #G  
Vacaville, CA 95688

**Project Contact:** Bruce Jacobsen

**Project P.O.:**

**Project Name:** Automasters

**Project Received:** 12/18/2015

Analytical Report reviewed & approved for release on 12/28/2015 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:** West & Associates  
**Project:** Automasters  
**WorkOrder:** 1512799

### Glossary Abbreviation

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
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
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Glossary of Terms & Qualifier Definitions

**Client:** West & Associates  
**Project:** Automasters  
**WorkOrder:** 1512799

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
c2	surrogate recovery outside of the control limits due to matrix interference.
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
c7	Surrogate value diluted out of range
d1	weakly modified or unmodified gasoline is significant
d2	heavier gasoline range compounds are significant (aged gasoline?)
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9	no recognizable pattern
e1	unmodified or weakly modified diesel is significant
e2	diesel range compounds are significant; no recognizable pattern
e3	aged diesel is significant
e4	gasoline range compounds are significant.
e7	oil range compounds are significant
e11/e4	stoddard solvent/mineral spirit (?); and/or gasoline range compounds are significant.
e11	stoddard solvent/mineral spirit (?)

### Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validated the prep batch.
----	---



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-2.5	1512799-001A	Soil	12/14/2015 07:55	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/19/2015 17:32	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/19/2015 17:32	
Benzene	ND	0.0050	1	12/19/2015 17:32	
Bromobenzene	ND	0.0050	1	12/19/2015 17:32	
Bromochloromethane	ND	0.0050	1	12/19/2015 17:32	
Bromodichloromethane	ND	0.0050	1	12/19/2015 17:32	
Bromoform	ND	0.0050	1	12/19/2015 17:32	
Bromomethane	ND	0.0050	1	12/19/2015 17:32	
2-Butanone (MEK)	ND	0.020	1	12/19/2015 17:32	
t-Butyl alcohol (TBA)	ND	0.050	1	12/19/2015 17:32	
n-Butyl benzene	ND	0.0050	1	12/19/2015 17:32	
sec-Butyl benzene	ND	0.0050	1	12/19/2015 17:32	
tert-Butyl benzene	ND	0.0050	1	12/19/2015 17:32	
Carbon Disulfide	ND	0.0050	1	12/19/2015 17:32	
Carbon Tetrachloride	ND	0.0050	1	12/19/2015 17:32	
Chlorobenzene	ND	0.0050	1	12/19/2015 17:32	
Chloroethane	ND	0.0050	1	12/19/2015 17:32	
Chloroform	ND	0.0050	1	12/19/2015 17:32	
Chloromethane	ND	0.0050	1	12/19/2015 17:32	
2-Chlorotoluene	ND	0.0050	1	12/19/2015 17:32	
4-Chlorotoluene	ND	0.0050	1	12/19/2015 17:32	
Dibromochloromethane	ND	0.0050	1	12/19/2015 17:32	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/19/2015 17:32	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/19/2015 17:32	
Dibromomethane	ND	0.0050	1	12/19/2015 17:32	
1,2-Dichlorobenzene	ND	0.0050	1	12/19/2015 17:32	
1,3-Dichlorobenzene	ND	0.0050	1	12/19/2015 17:32	
1,4-Dichlorobenzene	ND	0.0050	1	12/19/2015 17:32	
Dichlorodifluoromethane	ND	0.0050	1	12/19/2015 17:32	
1,1-Dichloroethane	ND	0.0050	1	12/19/2015 17:32	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/19/2015 17:32	
1,1-Dichloroethene	ND	0.0050	1	12/19/2015 17:32	
cis-1,2-Dichloroethene	ND	0.0050	1	12/19/2015 17:32	
trans-1,2-Dichloroethene	ND	0.0050	1	12/19/2015 17:32	
1,2-Dichloropropane	ND	0.0050	1	12/19/2015 17:32	
1,3-Dichloropropane	ND	0.0050	1	12/19/2015 17:32	
2,2-Dichloropropane	ND	0.0050	1	12/19/2015 17:32	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-2.5	1512799-001A	Soil	12/14/2015 07:55	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/19/2015 17:32	
cis-1,3-Dichloropropene	ND	0.0050	1	12/19/2015 17:32	
trans-1,3-Dichloropropene	ND	0.0050	1	12/19/2015 17:32	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/19/2015 17:32	
Ethylbenzene	ND	0.0050	1	12/19/2015 17:32	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/19/2015 17:32	
Freon 113	ND	0.0050	1	12/19/2015 17:32	
Hexachlorobutadiene	ND	0.0050	1	12/19/2015 17:32	
Hexachloroethane	ND	0.0050	1	12/19/2015 17:32	
2-Hexanone	ND	0.0050	1	12/19/2015 17:32	
Isopropylbenzene	ND	0.0050	1	12/19/2015 17:32	
4-Isopropyl toluene	ND	0.0050	1	12/19/2015 17:32	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/19/2015 17:32	
Methylene chloride	ND	0.0050	1	12/19/2015 17:32	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/19/2015 17:32	
Naphthalene	ND	0.0050	1	12/19/2015 17:32	
n-Propyl benzene	ND	0.0050	1	12/19/2015 17:32	
Styrene	ND	0.0050	1	12/19/2015 17:32	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/19/2015 17:32	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/19/2015 17:32	
Tetrachloroethene	ND	0.0050	1	12/19/2015 17:32	
Toluene	ND	0.0050	1	12/19/2015 17:32	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/19/2015 17:32	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/19/2015 17:32	
1,1,1-Trichloroethane	ND	0.0050	1	12/19/2015 17:32	
1,1,2-Trichloroethane	ND	0.0050	1	12/19/2015 17:32	
Trichloroethene	ND	0.0050	1	12/19/2015 17:32	
Trichlorofluoromethane	ND	0.0050	1	12/19/2015 17:32	
1,2,3-Trichloropropane	ND	0.0050	1	12/19/2015 17:32	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/19/2015 17:32	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/19/2015 17:32	
Vinyl Chloride	ND	0.0050	1	12/19/2015 17:32	
Xylenes, Total	ND	0.0050	1	12/19/2015 17:32	

(Cont.)



# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-2.5	1512799-001A	Soil	12/14/2015 07:55	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	85	70-130		12/19/2015 17:32
Toluene-d8	84	70-130		12/19/2015 17:32
4-BFB	80	70-130		12/19/2015 17:32
Benzene-d6	86	60-140		12/19/2015 17:32
Ethylbenzene-d10	96	60-140		12/19/2015 17:32
1,2-DCB-d4	74	60-140		12/19/2015 17:32

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-2.5	1512799-002A	Soil	12/14/2015 08:10	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 14:55	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 14:55	
Benzene	ND	0.0050	1	12/22/2015 14:55	
Bromobenzene	ND	0.0050	1	12/22/2015 14:55	
Bromochloromethane	ND	0.0050	1	12/22/2015 14:55	
Bromodichloromethane	ND	0.0050	1	12/22/2015 14:55	
Bromoform	ND	0.0050	1	12/22/2015 14:55	
Bromomethane	ND	0.0050	1	12/22/2015 14:55	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 14:55	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 14:55	
n-Butyl benzene	ND	0.0050	1	12/22/2015 14:55	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 14:55	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 14:55	
Carbon Disulfide	ND	0.0050	1	12/22/2015 14:55	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 14:55	
Chlorobenzene	ND	0.0050	1	12/22/2015 14:55	
Chloroethane	ND	0.0050	1	12/22/2015 14:55	
Chloroform	ND	0.0050	1	12/22/2015 14:55	
Chloromethane	ND	0.0050	1	12/22/2015 14:55	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 14:55	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 14:55	
Dibromochloromethane	ND	0.0050	1	12/22/2015 14:55	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 14:55	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 14:55	
Dibromomethane	ND	0.0050	1	12/22/2015 14:55	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 14:55	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 14:55	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 14:55	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 14:55	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 14:55	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 14:55	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 14:55	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 14:55	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 14:55	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 14:55	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 14:55	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 14:55	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-2.5	1512799-002A	Soil	12/14/2015 08:10	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 14:55	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 14:55	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 14:55	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 14:55	
Ethylbenzene	ND	0.0050	1	12/22/2015 14:55	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 14:55	
Freon 113	ND	0.0050	1	12/22/2015 14:55	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 14:55	
Hexachloroethane	ND	0.0050	1	12/22/2015 14:55	
2-Hexanone	ND	0.0050	1	12/22/2015 14:55	
Isopropylbenzene	ND	0.0050	1	12/22/2015 14:55	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 14:55	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 14:55	
Methylene chloride	ND	0.0050	1	12/22/2015 14:55	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 14:55	
Naphthalene	ND	0.0050	1	12/22/2015 14:55	
n-Propyl benzene	ND	0.0050	1	12/22/2015 14:55	
Styrene	ND	0.0050	1	12/22/2015 14:55	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 14:55	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 14:55	
Tetrachloroethene	ND	0.0050	1	12/22/2015 14:55	
Toluene	ND	0.0050	1	12/22/2015 14:55	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 14:55	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 14:55	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 14:55	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 14:55	
Trichloroethene	ND	0.0050	1	12/22/2015 14:55	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 14:55	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 14:55	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 14:55	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 14:55	
Vinyl Chloride	ND	0.0050	1	12/22/2015 14:55	
Xylenes, Total	ND	0.0050	1	12/22/2015 14:55	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-2.5	1512799-002A	Soil	12/14/2015 08:10	GC16	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/22/2015 14:55
Toluene-d8	81	70-130		12/22/2015 14:55
4-BFB	80	70-130		12/22/2015 14:55
Benzene-d6	87	60-140		12/22/2015 14:55
Ethylbenzene-d10	93	60-140		12/22/2015 14:55
1,2-DCB-d4	72	60-140		12/22/2015 14:55

Analyst(s): AK



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5	1512799-003A	Soil	12/14/2015 08:25	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 19:08	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 19:08	
Benzene	ND	0.0050	1	12/22/2015 19:08	
Bromobenzene	ND	0.0050	1	12/22/2015 19:08	
Bromochloromethane	ND	0.0050	1	12/22/2015 19:08	
Bromodichloromethane	ND	0.0050	1	12/22/2015 19:08	
Bromoform	ND	0.0050	1	12/22/2015 19:08	
Bromomethane	ND	0.0050	1	12/22/2015 19:08	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 19:08	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 19:08	
n-Butyl benzene	ND	0.0050	1	12/22/2015 19:08	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 19:08	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 19:08	
Carbon Disulfide	ND	0.0050	1	12/22/2015 19:08	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 19:08	
Chlorobenzene	ND	0.0050	1	12/22/2015 19:08	
Chloroethane	ND	0.0050	1	12/22/2015 19:08	
Chloroform	ND	0.0050	1	12/22/2015 19:08	
Chloromethane	ND	0.0050	1	12/22/2015 19:08	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 19:08	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 19:08	
Dibromochloromethane	ND	0.0050	1	12/22/2015 19:08	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 19:08	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 19:08	
Dibromomethane	ND	0.0050	1	12/22/2015 19:08	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:08	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:08	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:08	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 19:08	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 19:08	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 19:08	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 19:08	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 19:08	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 19:08	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 19:08	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 19:08	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 19:08	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5	1512799-003A	Soil	12/14/2015 08:25	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 19:08	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 19:08	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 19:08	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 19:08	
Ethylbenzene	ND	0.0050	1	12/22/2015 19:08	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 19:08	
Freon 113	ND	0.0050	1	12/22/2015 19:08	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 19:08	
Hexachloroethane	ND	0.0050	1	12/22/2015 19:08	
2-Hexanone	ND	0.0050	1	12/22/2015 19:08	
Isopropylbenzene	ND	0.0050	1	12/22/2015 19:08	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 19:08	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 19:08	
Methylene chloride	ND	0.0050	1	12/22/2015 19:08	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 19:08	
Naphthalene	ND	0.0050	1	12/22/2015 19:08	
n-Propyl benzene	ND	0.0050	1	12/22/2015 19:08	
Styrene	ND	0.0050	1	12/22/2015 19:08	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 19:08	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 19:08	
Tetrachloroethene	ND	0.0050	1	12/22/2015 19:08	
Toluene	ND	0.0050	1	12/22/2015 19:08	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 19:08	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 19:08	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 19:08	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 19:08	
Trichloroethene	ND	0.0050	1	12/22/2015 19:08	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 19:08	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 19:08	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 19:08	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 19:08	
Vinyl Chloride	ND	0.0050	1	12/22/2015 19:08	
Xylenes, Total	ND	0.0050	1	12/22/2015 19:08	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5	1512799-003A	Soil	12/14/2015 08:25	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/22/2015 19:08
Toluene-d8	80	70-130		12/22/2015 19:08
4-BFB	84	70-130		12/22/2015 19:08
Benzene-d6	86	60-140		12/22/2015 19:08
Ethylbenzene-d10	88	60-140		12/22/2015 19:08
1,2-DCB-d4	73	60-140		12/22/2015 19:08

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B4-2.5	1512799-004A	Soil	12/14/2015 08:35	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 20:33	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 20:33	
Benzene	ND	0.0050	1	12/22/2015 20:33	
Bromobenzene	ND	0.0050	1	12/22/2015 20:33	
Bromochloromethane	ND	0.0050	1	12/22/2015 20:33	
Bromodichloromethane	ND	0.0050	1	12/22/2015 20:33	
Bromoform	ND	0.0050	1	12/22/2015 20:33	
Bromomethane	ND	0.0050	1	12/22/2015 20:33	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 20:33	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 20:33	
n-Butyl benzene	ND	0.0050	1	12/22/2015 20:33	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 20:33	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 20:33	
Carbon Disulfide	ND	0.0050	1	12/22/2015 20:33	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 20:33	
Chlorobenzene	ND	0.0050	1	12/22/2015 20:33	
Chloroethane	ND	0.0050	1	12/22/2015 20:33	
Chloroform	ND	0.0050	1	12/22/2015 20:33	
Chloromethane	ND	0.0050	1	12/22/2015 20:33	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 20:33	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 20:33	
Dibromochloromethane	ND	0.0050	1	12/22/2015 20:33	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 20:33	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 20:33	
Dibromomethane	ND	0.0050	1	12/22/2015 20:33	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 20:33	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 20:33	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 20:33	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 20:33	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 20:33	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 20:33	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 20:33	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 20:33	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 20:33	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 20:33	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 20:33	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 20:33	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B4-2.5	1512799-004A	Soil	12/14/2015 08:35	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 20:33	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 20:33	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 20:33	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 20:33	
Ethylbenzene	ND	0.0050	1	12/22/2015 20:33	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 20:33	
Freon 113	ND	0.0050	1	12/22/2015 20:33	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 20:33	
Hexachloroethane	ND	0.0050	1	12/22/2015 20:33	
2-Hexanone	ND	0.0050	1	12/22/2015 20:33	
Isopropylbenzene	ND	0.0050	1	12/22/2015 20:33	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 20:33	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 20:33	
Methylene chloride	ND	0.0050	1	12/22/2015 20:33	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 20:33	
Naphthalene	ND	0.0050	1	12/22/2015 20:33	
n-Propyl benzene	ND	0.0050	1	12/22/2015 20:33	
Styrene	ND	0.0050	1	12/22/2015 20:33	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 20:33	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 20:33	
Tetrachloroethene	ND	0.0050	1	12/22/2015 20:33	
Toluene	ND	0.0050	1	12/22/2015 20:33	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 20:33	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 20:33	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 20:33	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 20:33	
Trichloroethene	ND	0.0050	1	12/22/2015 20:33	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 20:33	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 20:33	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 20:33	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 20:33	
Vinyl Chloride	ND	0.0050	1	12/22/2015 20:33	
Xylenes, Total	ND	0.0050	1	12/22/2015 20:33	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B4-2.5	1512799-004A	Soil	12/14/2015 08:35	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/22/2015 20:33
Toluene-d8	83	70-130		12/22/2015 20:33
4-BFB	83	70-130		12/22/2015 20:33
Benzene-d6	71	60-140		12/22/2015 20:33
Ethylbenzene-d10	79	60-140		12/22/2015 20:33
1,2-DCB-d4	64	60-140		12/22/2015 20:33

Analyst(s): KF



# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5	1512799-005A	Soil	12/14/2015 08:50	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 01:05	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 01:05	
Benzene	ND	0.0050	1	12/22/2015 01:05	
Bromobenzene	ND	0.0050	1	12/22/2015 01:05	
Bromochloromethane	ND	0.0050	1	12/22/2015 01:05	
Bromodichloromethane	ND	0.0050	1	12/22/2015 01:05	
Bromoform	ND	0.0050	1	12/22/2015 01:05	
Bromomethane	ND	0.0050	1	12/22/2015 01:05	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 01:05	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 01:05	
n-Butyl benzene	ND	0.0050	1	12/22/2015 01:05	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 01:05	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 01:05	
Carbon Disulfide	ND	0.0050	1	12/22/2015 01:05	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 01:05	
Chlorobenzene	ND	0.0050	1	12/22/2015 01:05	
Chloroethane	ND	0.0050	1	12/22/2015 01:05	
Chloroform	ND	0.0050	1	12/22/2015 01:05	
Chloromethane	ND	0.0050	1	12/22/2015 01:05	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 01:05	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 01:05	
Dibromochloromethane	ND	0.0050	1	12/22/2015 01:05	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 01:05	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 01:05	
Dibromomethane	ND	0.0050	1	12/22/2015 01:05	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:05	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:05	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:05	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 01:05	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 01:05	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 01:05	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 01:05	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 01:05	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 01:05	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 01:05	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 01:05	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 01:05	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5	1512799-005A	Soil	12/14/2015 08:50	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 01:05	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 01:05	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 01:05	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 01:05	
Ethylbenzene	ND	0.0050	1	12/22/2015 01:05	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 01:05	
Freon 113	ND	0.0050	1	12/22/2015 01:05	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 01:05	
Hexachloroethane	ND	0.0050	1	12/22/2015 01:05	
2-Hexanone	ND	0.0050	1	12/22/2015 01:05	
Isopropylbenzene	ND	0.0050	1	12/22/2015 01:05	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 01:05	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 01:05	
Methylene chloride	ND	0.0050	1	12/22/2015 01:05	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 01:05	
Naphthalene	ND	0.0050	1	12/22/2015 01:05	
n-Propyl benzene	ND	0.0050	1	12/22/2015 01:05	
Styrene	ND	0.0050	1	12/22/2015 01:05	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 01:05	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 01:05	
Tetrachloroethene	ND	0.0050	1	12/22/2015 01:05	
Toluene	ND	0.0050	1	12/22/2015 01:05	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 01:05	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 01:05	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 01:05	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 01:05	
Trichloroethene	ND	0.0050	1	12/22/2015 01:05	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 01:05	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 01:05	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 01:05	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 01:05	
Vinyl Chloride	ND	0.0050	1	12/22/2015 01:05	
Xylenes, Total	ND	0.0050	1	12/22/2015 01:05	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5	1512799-005A	Soil	12/14/2015 08:50	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/22/2015 01:05
Toluene-d8	81	70-130		12/22/2015 01:05
4-BFB	83	70-130		12/22/2015 01:05
Benzene-d6	91	60-140		12/22/2015 01:05
Ethylbenzene-d10	96	60-140		12/22/2015 01:05
1,2-DCB-d4	73	60-140		12/22/2015 01:05

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-2.5	1512799-006A	Soil	12/14/2015 09:15	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 21:15	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 21:15	
Benzene	ND	0.0050	1	12/22/2015 21:15	
Bromobenzene	ND	0.0050	1	12/22/2015 21:15	
Bromochloromethane	ND	0.0050	1	12/22/2015 21:15	
Bromodichloromethane	ND	0.0050	1	12/22/2015 21:15	
Bromoform	ND	0.0050	1	12/22/2015 21:15	
Bromomethane	ND	0.0050	1	12/22/2015 21:15	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 21:15	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 21:15	
n-Butyl benzene	ND	0.0050	1	12/22/2015 21:15	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 21:15	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 21:15	
Carbon Disulfide	ND	0.0050	1	12/22/2015 21:15	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 21:15	
Chlorobenzene	ND	0.0050	1	12/22/2015 21:15	
Chloroethane	ND	0.0050	1	12/22/2015 21:15	
Chloroform	ND	0.0050	1	12/22/2015 21:15	
Chloromethane	ND	0.0050	1	12/22/2015 21:15	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 21:15	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 21:15	
Dibromochloromethane	ND	0.0050	1	12/22/2015 21:15	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 21:15	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 21:15	
Dibromomethane	ND	0.0050	1	12/22/2015 21:15	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 21:15	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 21:15	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 21:15	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 21:15	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 21:15	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 21:15	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 21:15	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 21:15	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 21:15	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 21:15	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 21:15	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 21:15	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-2.5	1512799-006A	Soil	12/14/2015 09:15	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 21:15	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 21:15	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 21:15	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 21:15	
Ethylbenzene	ND	0.0050	1	12/22/2015 21:15	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 21:15	
Freon 113	ND	0.0050	1	12/22/2015 21:15	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 21:15	
Hexachloroethane	ND	0.0050	1	12/22/2015 21:15	
2-Hexanone	ND	0.0050	1	12/22/2015 21:15	
Isopropylbenzene	ND	0.0050	1	12/22/2015 21:15	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 21:15	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 21:15	
Methylene chloride	ND	0.0050	1	12/22/2015 21:15	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 21:15	
Naphthalene	ND	0.0050	1	12/22/2015 21:15	
n-Propyl benzene	ND	0.0050	1	12/22/2015 21:15	
Styrene	ND	0.0050	1	12/22/2015 21:15	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 21:15	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 21:15	
Tetrachloroethene	ND	0.0050	1	12/22/2015 21:15	
Toluene	ND	0.0050	1	12/22/2015 21:15	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 21:15	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 21:15	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 21:15	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 21:15	
Trichloroethene	ND	0.0050	1	12/22/2015 21:15	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 21:15	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 21:15	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 21:15	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 21:15	
Vinyl Chloride	ND	0.0050	1	12/22/2015 21:15	
Xylenes, Total	ND	0.0050	1	12/22/2015 21:15	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-2.5	1512799-006A	Soil	12/14/2015 09:15	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/22/2015 21:15
Toluene-d8	83	70-130		12/22/2015 21:15
4-BFB	84	70-130		12/22/2015 21:15
Benzene-d6	70	60-140		12/22/2015 21:15
Ethylbenzene-d10	76	60-140		12/22/2015 21:15
1,2-DCB-d4	65	60-140		12/22/2015 21:15

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-10	1512799-007A	Soil	12/14/2015 09:35	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/24/2015 13:04	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/24/2015 13:04	
Benzene	ND	0.0050	1	12/24/2015 13:04	
Bromobenzene	ND	0.0050	1	12/24/2015 13:04	
Bromochloromethane	ND	0.0050	1	12/24/2015 13:04	
Bromodichloromethane	ND	0.0050	1	12/24/2015 13:04	
Bromoform	ND	0.0050	1	12/24/2015 13:04	
Bromomethane	ND	0.0050	1	12/24/2015 13:04	
2-Butanone (MEK)	ND	0.020	1	12/24/2015 13:04	
t-Butyl alcohol (TBA)	ND	0.050	1	12/24/2015 13:04	
n-Butyl benzene	<b>0.016</b>	0.0050	1	12/24/2015 13:04	
sec-Butyl benzene	<b>0.0065</b>	0.0050	1	12/24/2015 13:04	
tert-Butyl benzene	ND	0.0050	1	12/24/2015 13:04	
Carbon Disulfide	ND	0.0050	1	12/24/2015 13:04	
Carbon Tetrachloride	ND	0.0050	1	12/24/2015 13:04	
Chlorobenzene	ND	0.0050	1	12/24/2015 13:04	
Chloroethane	ND	0.0050	1	12/24/2015 13:04	
Chloroform	ND	0.0050	1	12/24/2015 13:04	
Chloromethane	ND	0.0050	1	12/24/2015 13:04	
2-Chlorotoluene	ND	0.0050	1	12/24/2015 13:04	
4-Chlorotoluene	ND	0.0050	1	12/24/2015 13:04	
Dibromochloromethane	ND	0.0050	1	12/24/2015 13:04	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/24/2015 13:04	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/24/2015 13:04	
Dibromomethane	ND	0.0050	1	12/24/2015 13:04	
1,2-Dichlorobenzene	ND	0.0050	1	12/24/2015 13:04	
1,3-Dichlorobenzene	ND	0.0050	1	12/24/2015 13:04	
1,4-Dichlorobenzene	ND	0.0050	1	12/24/2015 13:04	
Dichlorodifluoromethane	ND	0.0050	1	12/24/2015 13:04	
1,1-Dichloroethane	ND	0.0050	1	12/24/2015 13:04	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/24/2015 13:04	
1,1-Dichloroethene	ND	0.0050	1	12/24/2015 13:04	
cis-1,2-Dichloroethene	ND	0.0050	1	12/24/2015 13:04	
trans-1,2-Dichloroethene	ND	0.0050	1	12/24/2015 13:04	
1,2-Dichloropropane	ND	0.0050	1	12/24/2015 13:04	
1,3-Dichloropropane	ND	0.0050	1	12/24/2015 13:04	
2,2-Dichloropropane	ND	0.0050	1	12/24/2015 13:04	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-10	1512799-007A	Soil	12/14/2015 09:35	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/24/2015 13:04	
cis-1,3-Dichloropropene	ND	0.0050	1	12/24/2015 13:04	
trans-1,3-Dichloropropene	ND	0.0050	1	12/24/2015 13:04	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/24/2015 13:04	
Ethylbenzene	ND	0.0050	1	12/24/2015 13:04	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/24/2015 13:04	
Freon 113	ND	0.0050	1	12/24/2015 13:04	
Hexachlorobutadiene	ND	0.0050	1	12/24/2015 13:04	
Hexachloroethane	ND	0.0050	1	12/24/2015 13:04	
2-Hexanone	ND	0.0050	1	12/24/2015 13:04	
Isopropylbenzene	ND	0.0050	1	12/24/2015 13:04	
4-Isopropyl toluene	ND	0.0050	1	12/24/2015 13:04	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/24/2015 13:04	
Methylene chloride	ND	0.0050	1	12/24/2015 13:04	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/24/2015 13:04	
Naphthalene	<b>0.016</b>	0.0050	1	12/24/2015 13:04	
n-Propyl benzene	<b>0.025</b>	0.0050	1	12/24/2015 13:04	
Styrene	ND	0.0050	1	12/24/2015 13:04	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/24/2015 13:04	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/24/2015 13:04	
Tetrachloroethene	ND	0.0050	1	12/24/2015 13:04	
Toluene	ND	0.0050	1	12/24/2015 13:04	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/24/2015 13:04	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/24/2015 13:04	
1,1,1-Trichloroethane	ND	0.0050	1	12/24/2015 13:04	
1,1,2-Trichloroethane	ND	0.0050	1	12/24/2015 13:04	
Trichloroethene	ND	0.0050	1	12/24/2015 13:04	
Trichlorofluoromethane	ND	0.0050	1	12/24/2015 13:04	
1,2,3-Trichloropropane	ND	0.0050	1	12/24/2015 13:04	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/24/2015 13:04	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/24/2015 13:04	
Vinyl Chloride	ND	0.0050	1	12/24/2015 13:04	
Xylenes, Total	ND	0.0050	1	12/24/2015 13:04	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-10	1512799-007A	Soil	12/14/2015 09:35	GC18	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	85	70-130		12/24/2015 13:04
Toluene-d8	97	70-130		12/24/2015 13:04
4-BFB	72	70-130		12/24/2015 13:04
Benzene-d6	91	60-140		12/24/2015 13:04
Ethylbenzene-d10	95	60-140		12/24/2015 13:04
1,2-DCB-d4	94	60-140		12/24/2015 13:04

Analyst(s): KF





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-15	1512799-008A	Soil	12/14/2015 09:40	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 19:19	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 19:19	
Benzene	ND	0.0050	1	12/22/2015 19:19	
Bromobenzene	ND	0.0050	1	12/22/2015 19:19	
Bromochloromethane	ND	0.0050	1	12/22/2015 19:19	
Bromodichloromethane	ND	0.0050	1	12/22/2015 19:19	
Bromoform	ND	0.0050	1	12/22/2015 19:19	
Bromomethane	ND	0.0050	1	12/22/2015 19:19	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 19:19	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 19:19	
n-Butyl benzene	ND	0.0050	1	12/22/2015 19:19	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 19:19	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 19:19	
Carbon Disulfide	ND	0.0050	1	12/22/2015 19:19	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 19:19	
Chlorobenzene	ND	0.0050	1	12/22/2015 19:19	
Chloroethane	ND	0.0050	1	12/22/2015 19:19	
Chloroform	ND	0.0050	1	12/22/2015 19:19	
Chloromethane	ND	0.0050	1	12/22/2015 19:19	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 19:19	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 19:19	
Dibromochloromethane	ND	0.0050	1	12/22/2015 19:19	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 19:19	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 19:19	
Dibromomethane	ND	0.0050	1	12/22/2015 19:19	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:19	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:19	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:19	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 19:19	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 19:19	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 19:19	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 19:19	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 19:19	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 19:19	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 19:19	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 19:19	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 19:19	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-15	1512799-008A	Soil	12/14/2015 09:40	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 19:19	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 19:19	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 19:19	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 19:19	
Ethylbenzene	ND	0.0050	1	12/22/2015 19:19	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 19:19	
Freon 113	ND	0.0050	1	12/22/2015 19:19	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 19:19	
Hexachloroethane	ND	0.0050	1	12/22/2015 19:19	
2-Hexanone	ND	0.0050	1	12/22/2015 19:19	
Isopropylbenzene	ND	0.0050	1	12/22/2015 19:19	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 19:19	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 19:19	
Methylene chloride	ND	0.0050	1	12/22/2015 19:19	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 19:19	
Naphthalene	ND	0.0050	1	12/22/2015 19:19	
n-Propyl benzene	ND	0.0050	1	12/22/2015 19:19	
Styrene	ND	0.0050	1	12/22/2015 19:19	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 19:19	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 19:19	
Tetrachloroethene	ND	0.0050	1	12/22/2015 19:19	
Toluene	ND	0.0050	1	12/22/2015 19:19	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 19:19	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 19:19	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 19:19	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 19:19	
Trichloroethene	ND	0.0050	1	12/22/2015 19:19	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 19:19	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 19:19	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 19:19	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 19:19	
Vinyl Chloride	ND	0.0050	1	12/22/2015 19:19	
Xylenes, Total	ND	0.0050	1	12/22/2015 19:19	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-15	1512799-008A	Soil	12/14/2015 09:40	GC18	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	90	70-130		12/22/2015 19:19
Toluene-d8	105	70-130		12/22/2015 19:19
4-BFB	80	70-130		12/22/2015 19:19
Benzene-d6	84	60-140		12/22/2015 19:19
Ethylbenzene-d10	81	60-140		12/22/2015 19:19
1,2-DCB-d4	87	60-140		12/22/2015 19:19

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-20	1512799-009A	Soil	12/14/2015 09:50	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 21:57	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 21:57	
Benzene	ND	0.0050	1	12/22/2015 21:57	
Bromobenzene	ND	0.0050	1	12/22/2015 21:57	
Bromochloromethane	ND	0.0050	1	12/22/2015 21:57	
Bromodichloromethane	ND	0.0050	1	12/22/2015 21:57	
Bromoform	ND	0.0050	1	12/22/2015 21:57	
Bromomethane	ND	0.0050	1	12/22/2015 21:57	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 21:57	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 21:57	
n-Butyl benzene	ND	0.0050	1	12/22/2015 21:57	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 21:57	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 21:57	
Carbon Disulfide	ND	0.0050	1	12/22/2015 21:57	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 21:57	
Chlorobenzene	ND	0.0050	1	12/22/2015 21:57	
Chloroethane	ND	0.0050	1	12/22/2015 21:57	
Chloroform	ND	0.0050	1	12/22/2015 21:57	
Chloromethane	ND	0.0050	1	12/22/2015 21:57	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 21:57	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 21:57	
Dibromochloromethane	ND	0.0050	1	12/22/2015 21:57	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 21:57	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 21:57	
Dibromomethane	ND	0.0050	1	12/22/2015 21:57	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 21:57	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 21:57	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 21:57	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 21:57	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 21:57	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 21:57	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 21:57	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 21:57	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 21:57	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 21:57	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 21:57	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 21:57	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-20	1512799-009A	Soil	12/14/2015 09:50	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 21:57	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 21:57	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 21:57	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 21:57	
Ethylbenzene	ND	0.0050	1	12/22/2015 21:57	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 21:57	
Freon 113	ND	0.0050	1	12/22/2015 21:57	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 21:57	
Hexachloroethane	ND	0.0050	1	12/22/2015 21:57	
2-Hexanone	ND	0.0050	1	12/22/2015 21:57	
Isopropylbenzene	ND	0.0050	1	12/22/2015 21:57	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 21:57	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 21:57	
Methylene chloride	ND	0.0050	1	12/22/2015 21:57	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 21:57	
Naphthalene	ND	0.0050	1	12/22/2015 21:57	
n-Propyl benzene	ND	0.0050	1	12/22/2015 21:57	
Styrene	ND	0.0050	1	12/22/2015 21:57	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 21:57	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 21:57	
Tetrachloroethene	ND	0.0050	1	12/22/2015 21:57	
Toluene	ND	0.0050	1	12/22/2015 21:57	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 21:57	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 21:57	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 21:57	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 21:57	
Trichloroethene	ND	0.0050	1	12/22/2015 21:57	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 21:57	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 21:57	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 21:57	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 21:57	
Vinyl Chloride	ND	0.0050	1	12/22/2015 21:57	
Xylenes, Total	ND	0.0050	1	12/22/2015 21:57	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-20	1512799-009A	Soil	12/14/2015 09:50	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/22/2015 21:57
Toluene-d8	82	70-130		12/22/2015 21:57
4-BFB	82	70-130		12/22/2015 21:57
Benzene-d6	70	60-140		12/22/2015 21:57
Ethylbenzene-d10	75	60-140		12/22/2015 21:57
1,2-DCB-d4	65	60-140		12/22/2015 21:57

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-2.5	1512799-010A	Soil	12/14/2015 10:05	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/21/2015 22:09	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/21/2015 22:09	
Benzene	ND	0.0050	1	12/21/2015 22:09	
Bromobenzene	ND	0.0050	1	12/21/2015 22:09	
Bromochloromethane	ND	0.0050	1	12/21/2015 22:09	
Bromodichloromethane	ND	0.0050	1	12/21/2015 22:09	
Bromoform	ND	0.0050	1	12/21/2015 22:09	
Bromomethane	ND	0.0050	1	12/21/2015 22:09	
2-Butanone (MEK)	ND	0.020	1	12/21/2015 22:09	
t-Butyl alcohol (TBA)	ND	0.050	1	12/21/2015 22:09	
n-Butyl benzene	ND	0.0050	1	12/21/2015 22:09	
sec-Butyl benzene	ND	0.0050	1	12/21/2015 22:09	
tert-Butyl benzene	ND	0.0050	1	12/21/2015 22:09	
Carbon Disulfide	ND	0.0050	1	12/21/2015 22:09	
Carbon Tetrachloride	ND	0.0050	1	12/21/2015 22:09	
Chlorobenzene	ND	0.0050	1	12/21/2015 22:09	
Chloroethane	ND	0.0050	1	12/21/2015 22:09	
Chloroform	ND	0.0050	1	12/21/2015 22:09	
Chloromethane	ND	0.0050	1	12/21/2015 22:09	
2-Chlorotoluene	ND	0.0050	1	12/21/2015 22:09	
4-Chlorotoluene	ND	0.0050	1	12/21/2015 22:09	
Dibromochloromethane	ND	0.0050	1	12/21/2015 22:09	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/21/2015 22:09	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/21/2015 22:09	
Dibromomethane	ND	0.0050	1	12/21/2015 22:09	
1,2-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:09	
1,3-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:09	
1,4-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:09	
Dichlorodifluoromethane	ND	0.0050	1	12/21/2015 22:09	
1,1-Dichloroethane	ND	0.0050	1	12/21/2015 22:09	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/21/2015 22:09	
1,1-Dichloroethene	ND	0.0050	1	12/21/2015 22:09	
cis-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 22:09	
trans-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 22:09	
1,2-Dichloropropane	ND	0.0050	1	12/21/2015 22:09	
1,3-Dichloropropane	ND	0.0050	1	12/21/2015 22:09	
2,2-Dichloropropane	ND	0.0050	1	12/21/2015 22:09	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-2.5	1512799-010A	Soil	12/14/2015 10:05	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/21/2015 22:09	
cis-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 22:09	
trans-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 22:09	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/21/2015 22:09	
Ethylbenzene	ND	0.0050	1	12/21/2015 22:09	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/21/2015 22:09	
Freon 113	ND	0.0050	1	12/21/2015 22:09	
Hexachlorobutadiene	ND	0.0050	1	12/21/2015 22:09	
Hexachloroethane	ND	0.0050	1	12/21/2015 22:09	
2-Hexanone	ND	0.0050	1	12/21/2015 22:09	
Isopropylbenzene	ND	0.0050	1	12/21/2015 22:09	
4-Isopropyl toluene	ND	0.0050	1	12/21/2015 22:09	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/21/2015 22:09	
Methylene chloride	ND	0.0050	1	12/21/2015 22:09	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/21/2015 22:09	
Naphthalene	ND	0.0050	1	12/21/2015 22:09	
n-Propyl benzene	ND	0.0050	1	12/21/2015 22:09	
Styrene	ND	0.0050	1	12/21/2015 22:09	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 22:09	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 22:09	
Tetrachloroethene	ND	0.0050	1	12/21/2015 22:09	
Toluene	ND	0.0050	1	12/21/2015 22:09	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/21/2015 22:09	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/21/2015 22:09	
1,1,1-Trichloroethane	ND	0.0050	1	12/21/2015 22:09	
1,1,2-Trichloroethane	ND	0.0050	1	12/21/2015 22:09	
Trichloroethene	ND	0.0050	1	12/21/2015 22:09	
Trichlorofluoromethane	ND	0.0050	1	12/21/2015 22:09	
1,2,3-Trichloropropane	ND	0.0050	1	12/21/2015 22:09	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/21/2015 22:09	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/21/2015 22:09	
Vinyl Chloride	ND	0.0050	1	12/21/2015 22:09	
Xylenes, Total	ND	0.0050	1	12/21/2015 22:09	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-2.5	1512799-010A	Soil	12/14/2015 10:05	GC18	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	92	70-130		12/21/2015 22:09
Toluene-d8	104	70-130		12/21/2015 22:09
4-BFB	80	70-130		12/21/2015 22:09
Benzene-d6	105	60-140		12/21/2015 22:09
Ethylbenzene-d10	95	60-140		12/21/2015 22:09
1,2-DCB-d4	98	60-140		12/21/2015 22:09

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-10	1512799-011A	Soil	12/14/2015 10:20	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	20	200	12/28/2015 11:07	
tert-Amyl methyl ether (TAME)	ND	1.0	200	12/28/2015 11:07	
Benzene	<b>2.5</b>	1.0	200	12/28/2015 11:07	
Bromobenzene	ND	1.0	200	12/28/2015 11:07	
Bromochloromethane	ND	1.0	200	12/28/2015 11:07	
Bromodichloromethane	ND	1.0	200	12/28/2015 11:07	
Bromoform	ND	1.0	200	12/28/2015 11:07	
Bromomethane	ND	1.0	200	12/28/2015 11:07	
2-Butanone (MEK)	ND	4.0	200	12/28/2015 11:07	
t-Butyl alcohol (TBA)	ND	10	200	12/28/2015 11:07	
n-Butyl benzene	<b>8.8</b>	1.0	200	12/28/2015 11:07	
sec-Butyl benzene	<b>3.0</b>	1.0	200	12/28/2015 11:07	
tert-Butyl benzene	ND	1.0	200	12/28/2015 11:07	
Carbon Disulfide	ND	1.0	200	12/28/2015 11:07	
Carbon Tetrachloride	ND	1.0	200	12/28/2015 11:07	
Chlorobenzene	ND	1.0	200	12/28/2015 11:07	
Chloroethane	ND	1.0	200	12/28/2015 11:07	
Chloroform	ND	1.0	200	12/28/2015 11:07	
Chloromethane	ND	1.0	200	12/28/2015 11:07	
2-Chlorotoluene	ND	1.0	200	12/28/2015 11:07	
4-Chlorotoluene	ND	1.0	200	12/28/2015 11:07	
Dibromochloromethane	ND	1.0	200	12/28/2015 11:07	
1,2-Dibromo-3-chloropropane	ND	0.80	200	12/28/2015 11:07	
1,2-Dibromoethane (EDB)	ND	0.80	200	12/28/2015 11:07	
Dibromomethane	ND	1.0	200	12/28/2015 11:07	
1,2-Dichlorobenzene	ND	1.0	200	12/28/2015 11:07	
1,3-Dichlorobenzene	ND	1.0	200	12/28/2015 11:07	
1,4-Dichlorobenzene	ND	1.0	200	12/28/2015 11:07	
Dichlorodifluoromethane	ND	1.0	200	12/28/2015 11:07	
1,1-Dichloroethane	ND	1.0	200	12/28/2015 11:07	
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200	12/28/2015 11:07	
1,1-Dichloroethene	ND	1.0	200	12/28/2015 11:07	
cis-1,2-Dichloroethene	ND	1.0	200	12/28/2015 11:07	
trans-1,2-Dichloroethene	ND	1.0	200	12/28/2015 11:07	
1,2-Dichloropropane	ND	1.0	200	12/28/2015 11:07	
1,3-Dichloropropane	ND	1.0	200	12/28/2015 11:07	
2,2-Dichloropropane	ND	1.0	200	12/28/2015 11:07	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-10	1512799-011A	Soil	12/14/2015 10:20	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	1.0	200	12/28/2015 11:07	
cis-1,3-Dichloropropene	ND	1.0	200	12/28/2015 11:07	
trans-1,3-Dichloropropene	ND	1.0	200	12/28/2015 11:07	
Diisopropyl ether (DIPE)	ND	1.0	200	12/28/2015 11:07	
Ethylbenzene	16	1.0	200	12/28/2015 11:07	
Ethyl tert-butyl ether (ETBE)	ND	1.0	200	12/28/2015 11:07	
Freon 113	ND	1.0	200	12/28/2015 11:07	
Hexachlorobutadiene	ND	1.0	200	12/28/2015 11:07	
Hexachloroethane	ND	1.0	200	12/28/2015 11:07	
2-Hexanone	ND	1.0	200	12/28/2015 11:07	
Isopropylbenzene	4.5	1.0	200	12/28/2015 11:07	
4-Isopropyl toluene	ND	1.0	200	12/28/2015 11:07	
Methyl-t-butyl ether (MTBE)	ND	1.0	200	12/28/2015 11:07	
Methylene chloride	ND	1.0	200	12/28/2015 11:07	
4-Methyl-2-pentanone (MIBK)	ND	1.0	200	12/28/2015 11:07	
Naphthalene	33	1.0	200	12/28/2015 11:07	
n-Propyl benzene	14	1.0	200	12/28/2015 11:07	
Styrene	ND	1.0	200	12/28/2015 11:07	
1,1,1,2-Tetrachloroethane	ND	1.0	200	12/28/2015 11:07	
1,1,2,2-Tetrachloroethane	ND	1.0	200	12/28/2015 11:07	
Tetrachloroethene	ND	1.0	200	12/28/2015 11:07	
Toluene	ND	1.0	200	12/28/2015 11:07	
1,2,3-Trichlorobenzene	ND	1.0	200	12/28/2015 11:07	
1,2,4-Trichlorobenzene	ND	1.0	200	12/28/2015 11:07	
1,1,1-Trichloroethane	ND	1.0	200	12/28/2015 11:07	
1,1,2-Trichloroethane	ND	1.0	200	12/28/2015 11:07	
Trichloroethene	ND	1.0	200	12/28/2015 11:07	
Trichlorofluoromethane	ND	1.0	200	12/28/2015 11:07	
1,2,3-Trichloropropane	ND	1.0	200	12/28/2015 11:07	
1,2,4-Trimethylbenzene	19	1.0	200	12/28/2015 11:07	
1,3,5-Trimethylbenzene	11	1.0	200	12/28/2015 11:07	
Vinyl Chloride	ND	1.0	200	12/28/2015 11:07	
Xylenes, Total	3.4	1.0	200	12/28/2015 11:07	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-10	1512799-011A	Soil	12/14/2015 10:20	GC18	114407

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
Dibromofluoromethane	91		70-130		12/28/2015 11:07
Toluene-d8	90		70-130		12/28/2015 11:07
4-BFB	71		70-130		12/28/2015 11:07
Benzene-d6	121		60-140		12/28/2015 11:07
Ethylbenzene-d10	393	S	60-140		12/28/2015 11:07
1,2-DCB-d4	218	S	60-140		12/28/2015 11:07

Analyst(s): KF

Analytical Comments: c7



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-15	1512799-012A	Soil	12/14/2015 10:25	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 02:29	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 02:29	
Benzene	ND	0.0050	1	12/22/2015 02:29	
Bromobenzene	ND	0.0050	1	12/22/2015 02:29	
Bromochloromethane	ND	0.0050	1	12/22/2015 02:29	
Bromodichloromethane	ND	0.0050	1	12/22/2015 02:29	
Bromoform	ND	0.0050	1	12/22/2015 02:29	
Bromomethane	ND	0.0050	1	12/22/2015 02:29	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 02:29	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 02:29	
n-Butyl benzene	ND	0.0050	1	12/22/2015 02:29	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 02:29	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 02:29	
Carbon Disulfide	ND	0.0050	1	12/22/2015 02:29	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 02:29	
Chlorobenzene	ND	0.0050	1	12/22/2015 02:29	
Chloroethane	ND	0.0050	1	12/22/2015 02:29	
Chloroform	ND	0.0050	1	12/22/2015 02:29	
Chloromethane	ND	0.0050	1	12/22/2015 02:29	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 02:29	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 02:29	
Dibromochloromethane	ND	0.0050	1	12/22/2015 02:29	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 02:29	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 02:29	
Dibromomethane	ND	0.0050	1	12/22/2015 02:29	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:29	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:29	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:29	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 02:29	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 02:29	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 02:29	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 02:29	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 02:29	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 02:29	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 02:29	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 02:29	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 02:29	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-15	1512799-012A	Soil	12/14/2015 10:25	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 02:29	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 02:29	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 02:29	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 02:29	
Ethylbenzene	ND	0.0050	1	12/22/2015 02:29	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 02:29	
Freon 113	ND	0.0050	1	12/22/2015 02:29	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 02:29	
Hexachloroethane	ND	0.0050	1	12/22/2015 02:29	
2-Hexanone	ND	0.0050	1	12/22/2015 02:29	
Isopropylbenzene	ND	0.0050	1	12/22/2015 02:29	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 02:29	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 02:29	
Methylene chloride	ND	0.0050	1	12/22/2015 02:29	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 02:29	
Naphthalene	ND	0.0050	1	12/22/2015 02:29	
n-Propyl benzene	ND	0.0050	1	12/22/2015 02:29	
Styrene	ND	0.0050	1	12/22/2015 02:29	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 02:29	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 02:29	
Tetrachloroethene	ND	0.0050	1	12/22/2015 02:29	
Toluene	ND	0.0050	1	12/22/2015 02:29	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 02:29	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 02:29	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 02:29	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 02:29	
Trichloroethene	ND	0.0050	1	12/22/2015 02:29	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 02:29	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 02:29	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 02:29	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 02:29	
Vinyl Chloride	ND	0.0050	1	12/22/2015 02:29	
Xylenes, Total	ND	0.0050	1	12/22/2015 02:29	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-15	1512799-012A	Soil	12/14/2015 10:25	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/22/2015 02:29
Toluene-d8	81	70-130		12/22/2015 02:29
4-BFB	83	70-130		12/22/2015 02:29
Benzene-d6	84	60-140		12/22/2015 02:29
Ethylbenzene-d10	88	60-140		12/22/2015 02:29
1,2-DCB-d4	70	60-140		12/22/2015 02:29

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-20	1512799-013A	Soil	12/14/2015 10:35	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/21/2015 22:48	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/21/2015 22:48	
Benzene	ND	0.0050	1	12/21/2015 22:48	
Bromobenzene	ND	0.0050	1	12/21/2015 22:48	
Bromochloromethane	ND	0.0050	1	12/21/2015 22:48	
Bromodichloromethane	ND	0.0050	1	12/21/2015 22:48	
Bromoform	ND	0.0050	1	12/21/2015 22:48	
Bromomethane	ND	0.0050	1	12/21/2015 22:48	
2-Butanone (MEK)	ND	0.020	1	12/21/2015 22:48	
t-Butyl alcohol (TBA)	ND	0.050	1	12/21/2015 22:48	
n-Butyl benzene	ND	0.0050	1	12/21/2015 22:48	
sec-Butyl benzene	ND	0.0050	1	12/21/2015 22:48	
tert-Butyl benzene	ND	0.0050	1	12/21/2015 22:48	
Carbon Disulfide	ND	0.0050	1	12/21/2015 22:48	
Carbon Tetrachloride	ND	0.0050	1	12/21/2015 22:48	
Chlorobenzene	ND	0.0050	1	12/21/2015 22:48	
Chloroethane	ND	0.0050	1	12/21/2015 22:48	
Chloroform	ND	0.0050	1	12/21/2015 22:48	
Chloromethane	ND	0.0050	1	12/21/2015 22:48	
2-Chlorotoluene	ND	0.0050	1	12/21/2015 22:48	
4-Chlorotoluene	ND	0.0050	1	12/21/2015 22:48	
Dibromochloromethane	ND	0.0050	1	12/21/2015 22:48	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/21/2015 22:48	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/21/2015 22:48	
Dibromomethane	ND	0.0050	1	12/21/2015 22:48	
1,2-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:48	
1,3-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:48	
1,4-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:48	
Dichlorodifluoromethane	ND	0.0050	1	12/21/2015 22:48	
1,1-Dichloroethane	ND	0.0050	1	12/21/2015 22:48	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/21/2015 22:48	
1,1-Dichloroethene	ND	0.0050	1	12/21/2015 22:48	
cis-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 22:48	
trans-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 22:48	
1,2-Dichloropropane	ND	0.0050	1	12/21/2015 22:48	
1,3-Dichloropropane	ND	0.0050	1	12/21/2015 22:48	
2,2-Dichloropropane	ND	0.0050	1	12/21/2015 22:48	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-20	1512799-013A	Soil	12/14/2015 10:35	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/21/2015 22:48	
cis-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 22:48	
trans-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 22:48	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/21/2015 22:48	
Ethylbenzene	ND	0.0050	1	12/21/2015 22:48	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/21/2015 22:48	
Freon 113	ND	0.0050	1	12/21/2015 22:48	
Hexachlorobutadiene	ND	0.0050	1	12/21/2015 22:48	
Hexachloroethane	ND	0.0050	1	12/21/2015 22:48	
2-Hexanone	ND	0.0050	1	12/21/2015 22:48	
Isopropylbenzene	ND	0.0050	1	12/21/2015 22:48	
4-Isopropyl toluene	ND	0.0050	1	12/21/2015 22:48	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/21/2015 22:48	
Methylene chloride	ND	0.0050	1	12/21/2015 22:48	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/21/2015 22:48	
Naphthalene	ND	0.0050	1	12/21/2015 22:48	
n-Propyl benzene	ND	0.0050	1	12/21/2015 22:48	
Styrene	ND	0.0050	1	12/21/2015 22:48	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 22:48	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 22:48	
Tetrachloroethene	ND	0.0050	1	12/21/2015 22:48	
Toluene	ND	0.0050	1	12/21/2015 22:48	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/21/2015 22:48	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/21/2015 22:48	
1,1,1-Trichloroethane	ND	0.0050	1	12/21/2015 22:48	
1,1,2-Trichloroethane	ND	0.0050	1	12/21/2015 22:48	
Trichloroethene	ND	0.0050	1	12/21/2015 22:48	
Trichlorofluoromethane	ND	0.0050	1	12/21/2015 22:48	
1,2,3-Trichloropropane	ND	0.0050	1	12/21/2015 22:48	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/21/2015 22:48	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/21/2015 22:48	
Vinyl Chloride	ND	0.0050	1	12/21/2015 22:48	
Xylenes, Total	ND	0.0050	1	12/21/2015 22:48	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-20	1512799-013A	Soil	12/14/2015 10:35	GC18	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	92	70-130		12/21/2015 22:48
Toluene-d8	103	70-130		12/21/2015 22:48
4-BFB	78	70-130		12/21/2015 22:48
Benzene-d6	105	60-140		12/21/2015 22:48
Ethylbenzene-d10	96	60-140		12/21/2015 22:48
1,2-DCB-d4	98	60-140		12/21/2015 22:48

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-2.5	1512799-014A	Soil	12/14/2015 10:50	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	0.18	0.10	1	12/22/2015 00:22	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 00:22	
Benzene	ND	0.0050	1	12/22/2015 00:22	
Bromobenzene	ND	0.0050	1	12/22/2015 00:22	
Bromochloromethane	ND	0.0050	1	12/22/2015 00:22	
Bromodichloromethane	ND	0.0050	1	12/22/2015 00:22	
Bromoform	ND	0.0050	1	12/22/2015 00:22	
Bromomethane	ND	0.0050	1	12/22/2015 00:22	
2-Butanone (MEK)	0.047	0.020	1	12/22/2015 00:22	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 00:22	
n-Butyl benzene	ND	0.0050	1	12/22/2015 00:22	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 00:22	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 00:22	
Carbon Disulfide	ND	0.0050	1	12/22/2015 00:22	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 00:22	
Chlorobenzene	ND	0.0050	1	12/22/2015 00:22	
Chloroethane	ND	0.0050	1	12/22/2015 00:22	
Chloroform	ND	0.0050	1	12/22/2015 00:22	
Chloromethane	ND	0.0050	1	12/22/2015 00:22	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 00:22	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 00:22	
Dibromochloromethane	ND	0.0050	1	12/22/2015 00:22	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 00:22	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 00:22	
Dibromomethane	ND	0.0050	1	12/22/2015 00:22	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:22	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:22	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:22	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 00:22	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 00:22	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 00:22	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 00:22	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 00:22	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 00:22	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 00:22	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 00:22	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 00:22	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-2.5	1512799-014A	Soil	12/14/2015 10:50	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 00:22	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 00:22	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 00:22	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 00:22	
Ethylbenzene	ND	0.0050	1	12/22/2015 00:22	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 00:22	
Freon 113	ND	0.0050	1	12/22/2015 00:22	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 00:22	
Hexachloroethane	ND	0.0050	1	12/22/2015 00:22	
2-Hexanone	ND	0.0050	1	12/22/2015 00:22	
Isopropylbenzene	ND	0.0050	1	12/22/2015 00:22	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 00:22	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 00:22	
Methylene chloride	ND	0.0050	1	12/22/2015 00:22	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 00:22	
Naphthalene	<b>0.0083</b>	0.0050	1	12/22/2015 00:22	
n-Propyl benzene	ND	0.0050	1	12/22/2015 00:22	
Styrene	ND	0.0050	1	12/22/2015 00:22	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 00:22	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 00:22	
Tetrachloroethene	ND	0.0050	1	12/22/2015 00:22	
Toluene	ND	0.0050	1	12/22/2015 00:22	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 00:22	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 00:22	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 00:22	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 00:22	
Trichloroethene	ND	0.0050	1	12/22/2015 00:22	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 00:22	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 00:22	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 00:22	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 00:22	
Vinyl Chloride	ND	0.0050	1	12/22/2015 00:22	
Xylenes, Total	ND	0.0050	1	12/22/2015 00:22	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-2.5	1512799-014A	Soil	12/14/2015 10:50	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/22/2015 00:22
Toluene-d8	77	70-130		12/22/2015 00:22
4-BFB	93	70-130		12/22/2015 00:22
Benzene-d6	80	60-140		12/22/2015 00:22
Ethylbenzene-d10	85	60-140		12/22/2015 00:22
1,2-DCB-d4	67	60-140		12/22/2015 00:22

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-4	1512799-015A	Soil	12/14/2015 11:00	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/23/2015 12:19	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/23/2015 12:19	
Benzene	ND	0.0050	1	12/23/2015 12:19	
Bromobenzene	ND	0.0050	1	12/23/2015 12:19	
Bromochloromethane	ND	0.0050	1	12/23/2015 12:19	
Bromodichloromethane	ND	0.0050	1	12/23/2015 12:19	
Bromoform	ND	0.0050	1	12/23/2015 12:19	
Bromomethane	ND	0.0050	1	12/23/2015 12:19	
2-Butanone (MEK)	ND	0.020	1	12/23/2015 12:19	
t-Butyl alcohol (TBA)	ND	0.050	1	12/23/2015 12:19	
n-Butyl benzene	ND	0.0050	1	12/23/2015 12:19	
sec-Butyl benzene	ND	0.0050	1	12/23/2015 12:19	
tert-Butyl benzene	ND	0.0050	1	12/23/2015 12:19	
Carbon Disulfide	ND	0.0050	1	12/23/2015 12:19	
Carbon Tetrachloride	ND	0.0050	1	12/23/2015 12:19	
Chlorobenzene	ND	0.0050	1	12/23/2015 12:19	
Chloroethane	ND	0.0050	1	12/23/2015 12:19	
Chloroform	ND	0.0050	1	12/23/2015 12:19	
Chloromethane	ND	0.0050	1	12/23/2015 12:19	
2-Chlorotoluene	ND	0.0050	1	12/23/2015 12:19	
4-Chlorotoluene	ND	0.0050	1	12/23/2015 12:19	
Dibromochloromethane	ND	0.0050	1	12/23/2015 12:19	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/23/2015 12:19	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/23/2015 12:19	
Dibromomethane	ND	0.0050	1	12/23/2015 12:19	
1,2-Dichlorobenzene	ND	0.0050	1	12/23/2015 12:19	
1,3-Dichlorobenzene	ND	0.0050	1	12/23/2015 12:19	
1,4-Dichlorobenzene	ND	0.0050	1	12/23/2015 12:19	
Dichlorodifluoromethane	ND	0.0050	1	12/23/2015 12:19	
1,1-Dichloroethane	ND	0.0050	1	12/23/2015 12:19	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/23/2015 12:19	
1,1-Dichloroethene	ND	0.0050	1	12/23/2015 12:19	
cis-1,2-Dichloroethene	ND	0.0050	1	12/23/2015 12:19	
trans-1,2-Dichloroethene	ND	0.0050	1	12/23/2015 12:19	
1,2-Dichloropropane	ND	0.0050	1	12/23/2015 12:19	
1,3-Dichloropropane	ND	0.0050	1	12/23/2015 12:19	
2,2-Dichloropropane	ND	0.0050	1	12/23/2015 12:19	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-4	1512799-015A	Soil	12/14/2015 11:00	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/23/2015 12:19	
cis-1,3-Dichloropropene	ND	0.0050	1	12/23/2015 12:19	
trans-1,3-Dichloropropene	ND	0.0050	1	12/23/2015 12:19	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/23/2015 12:19	
Ethylbenzene	ND	0.0050	1	12/23/2015 12:19	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/23/2015 12:19	
Freon 113	ND	0.0050	1	12/23/2015 12:19	
Hexachlorobutadiene	ND	0.0050	1	12/23/2015 12:19	
Hexachloroethane	ND	0.0050	1	12/23/2015 12:19	
2-Hexanone	ND	0.0050	1	12/23/2015 12:19	
Isopropylbenzene	ND	0.0050	1	12/23/2015 12:19	
4-Isopropyl toluene	ND	0.0050	1	12/23/2015 12:19	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/23/2015 12:19	
Methylene chloride	ND	0.0050	1	12/23/2015 12:19	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/23/2015 12:19	
Naphthalene	<b>0.0064</b>	0.0050	1	12/23/2015 12:19	
n-Propyl benzene	ND	0.0050	1	12/23/2015 12:19	
Styrene	ND	0.0050	1	12/23/2015 12:19	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/23/2015 12:19	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/23/2015 12:19	
Tetrachloroethene	ND	0.0050	1	12/23/2015 12:19	
Toluene	ND	0.0050	1	12/23/2015 12:19	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/23/2015 12:19	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/23/2015 12:19	
1,1,1-Trichloroethane	ND	0.0050	1	12/23/2015 12:19	
1,1,2-Trichloroethane	ND	0.0050	1	12/23/2015 12:19	
Trichloroethene	ND	0.0050	1	12/23/2015 12:19	
Trichlorofluoromethane	ND	0.0050	1	12/23/2015 12:19	
1,2,3-Trichloropropane	ND	0.0050	1	12/23/2015 12:19	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/23/2015 12:19	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/23/2015 12:19	
Vinyl Chloride	ND	0.0050	1	12/23/2015 12:19	
Xylenes, Total	ND	0.0050	1	12/23/2015 12:19	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-4	1512799-015A	Soil	12/14/2015 11:00	GC18	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	87	70-130		12/23/2015 12:19
Toluene-d8	103	70-130		12/23/2015 12:19
4-BFB	78	70-130		12/23/2015 12:19
Benzene-d6	98	60-140		12/23/2015 12:19
Ethylbenzene-d10	98	60-140		12/23/2015 12:19
1,2-DCB-d4	101	60-140		12/23/2015 12:19

Analyst(s): KF





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-10	1512799-016A	Soil	12/14/2015 11:15	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 19:57	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 19:57	
Benzene	ND	0.0050	1	12/22/2015 19:57	
Bromobenzene	ND	0.0050	1	12/22/2015 19:57	
Bromochloromethane	ND	0.0050	1	12/22/2015 19:57	
Bromodichloromethane	ND	0.0050	1	12/22/2015 19:57	
Bromoform	ND	0.0050	1	12/22/2015 19:57	
Bromomethane	ND	0.0050	1	12/22/2015 19:57	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 19:57	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 19:57	
n-Butyl benzene	<b>0.010</b>	0.0050	1	12/22/2015 19:57	
sec-Butyl benzene	<b>0.0062</b>	0.0050	1	12/22/2015 19:57	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 19:57	
Carbon Disulfide	ND	0.0050	1	12/22/2015 19:57	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 19:57	
Chlorobenzene	ND	0.0050	1	12/22/2015 19:57	
Chloroethane	ND	0.0050	1	12/22/2015 19:57	
Chloroform	ND	0.0050	1	12/22/2015 19:57	
Chloromethane	ND	0.0050	1	12/22/2015 19:57	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 19:57	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 19:57	
Dibromochloromethane	ND	0.0050	1	12/22/2015 19:57	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 19:57	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 19:57	
Dibromomethane	ND	0.0050	1	12/22/2015 19:57	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:57	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:57	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 19:57	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 19:57	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 19:57	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 19:57	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 19:57	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 19:57	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 19:57	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 19:57	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 19:57	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 19:57	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-10	1512799-016A	Soil	12/14/2015 11:15	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 19:57	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 19:57	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 19:57	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 19:57	
Ethylbenzene	ND	0.0050	1	12/22/2015 19:57	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 19:57	
Freon 113	ND	0.0050	1	12/22/2015 19:57	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 19:57	
Hexachloroethane	ND	0.0050	1	12/22/2015 19:57	
2-Hexanone	ND	0.0050	1	12/22/2015 19:57	
Isopropylbenzene	<b>0.0063</b>	0.0050	1	12/22/2015 19:57	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 19:57	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 19:57	
Methylene chloride	ND	0.0050	1	12/22/2015 19:57	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 19:57	
Naphthalene	<b>0.052</b>	0.0050	1	12/22/2015 19:57	
n-Propyl benzene	<b>0.018</b>	0.0050	1	12/22/2015 19:57	
Styrene	ND	0.0050	1	12/22/2015 19:57	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 19:57	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 19:57	
Tetrachloroethene	ND	0.0050	1	12/22/2015 19:57	
Toluene	ND	0.0050	1	12/22/2015 19:57	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 19:57	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 19:57	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 19:57	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 19:57	
Trichloroethene	ND	0.0050	1	12/22/2015 19:57	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 19:57	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 19:57	
1,2,4-Trimethylbenzene	<b>0.0068</b>	0.0050	1	12/22/2015 19:57	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 19:57	
Vinyl Chloride	ND	0.0050	1	12/22/2015 19:57	
Xylenes, Total	ND	0.0050	1	12/22/2015 19:57	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-10	1512799-016A	Soil	12/14/2015 11:15	GC18	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	88	70-130		12/22/2015 19:57
Toluene-d8	97	70-130		12/22/2015 19:57
4-BFB	78	70-130		12/22/2015 19:57
Benzene-d6	84	60-140		12/22/2015 19:57
Ethylbenzene-d10	85	60-140		12/22/2015 19:57
1,2-DCB-d4	92	60-140		12/22/2015 19:57

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-15	1512799-017A	Soil	12/14/2015 11:20	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	10	100	12/23/2015 22:06	
tert-Amyl methyl ether (TAME)	ND	0.50	100	12/23/2015 22:06	
Benzene	ND	0.50	100	12/23/2015 22:06	
Bromobenzene	ND	0.50	100	12/23/2015 22:06	
Bromochloromethane	ND	0.50	100	12/23/2015 22:06	
Bromodichloromethane	ND	0.50	100	12/23/2015 22:06	
Bromoform	ND	0.50	100	12/23/2015 22:06	
Bromomethane	ND	0.50	100	12/23/2015 22:06	
2-Butanone (MEK)	ND	2.0	100	12/23/2015 22:06	
t-Butyl alcohol (TBA)	ND	5.0	100	12/23/2015 22:06	
n-Butyl benzene	1.5	0.50	100	12/23/2015 22:06	
sec-Butyl benzene	0.57	0.50	100	12/23/2015 22:06	
tert-Butyl benzene	ND	0.50	100	12/23/2015 22:06	
Carbon Disulfide	ND	0.50	100	12/23/2015 22:06	
Carbon Tetrachloride	ND	0.50	100	12/23/2015 22:06	
Chlorobenzene	ND	0.50	100	12/23/2015 22:06	
Chloroethane	ND	0.50	100	12/23/2015 22:06	
Chloroform	ND	0.50	100	12/23/2015 22:06	
Chloromethane	ND	0.50	100	12/23/2015 22:06	
2-Chlorotoluene	ND	0.50	100	12/23/2015 22:06	
4-Chlorotoluene	ND	0.50	100	12/23/2015 22:06	
Dibromochloromethane	ND	0.50	100	12/23/2015 22:06	
1,2-Dibromo-3-chloropropane	ND	0.40	100	12/23/2015 22:06	
1,2-Dibromoethane (EDB)	ND	0.40	100	12/23/2015 22:06	
Dibromomethane	ND	0.50	100	12/23/2015 22:06	
1,2-Dichlorobenzene	ND	0.50	100	12/23/2015 22:06	
1,3-Dichlorobenzene	ND	0.50	100	12/23/2015 22:06	
1,4-Dichlorobenzene	ND	0.50	100	12/23/2015 22:06	
Dichlorodifluoromethane	ND	0.50	100	12/23/2015 22:06	
1,1-Dichloroethane	ND	0.50	100	12/23/2015 22:06	
1,2-Dichloroethane (1,2-DCA)	ND	0.40	100	12/23/2015 22:06	
1,1-Dichloroethene	ND	0.50	100	12/23/2015 22:06	
cis-1,2-Dichloroethene	ND	0.50	100	12/23/2015 22:06	
trans-1,2-Dichloroethene	ND	0.50	100	12/23/2015 22:06	
1,2-Dichloropropane	ND	0.50	100	12/23/2015 22:06	
1,3-Dichloropropane	ND	0.50	100	12/23/2015 22:06	
2,2-Dichloropropane	ND	0.50	100	12/23/2015 22:06	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-15	1512799-017A	Soil	12/14/2015 11:20	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.50	100	12/23/2015 22:06	
cis-1,3-Dichloropropene	ND	0.50	100	12/23/2015 22:06	
trans-1,3-Dichloropropene	ND	0.50	100	12/23/2015 22:06	
Diisopropyl ether (DIPE)	ND	0.50	100	12/23/2015 22:06	
Ethylbenzene	ND	0.50	100	12/23/2015 22:06	
Ethyl tert-butyl ether (ETBE)	ND	0.50	100	12/23/2015 22:06	
Freon 113	ND	0.50	100	12/23/2015 22:06	
Hexachlorobutadiene	ND	0.50	100	12/23/2015 22:06	
Hexachloroethane	ND	0.50	100	12/23/2015 22:06	
2-Hexanone	ND	0.50	100	12/23/2015 22:06	
Isopropylbenzene	<b>0.80</b>	0.50	100	12/23/2015 22:06	
4-Isopropyl toluene	ND	0.50	100	12/23/2015 22:06	
Methyl-t-butyl ether (MTBE)	ND	0.50	100	12/23/2015 22:06	
Methylene chloride	ND	0.50	100	12/23/2015 22:06	
4-Methyl-2-pentanone (MIBK)	ND	0.50	100	12/23/2015 22:06	
Naphthalene	<b>1.6</b>	0.50	100	12/23/2015 22:06	
n-Propyl benzene	<b>2.1</b>	0.50	100	12/23/2015 22:06	
Styrene	ND	0.50	100	12/23/2015 22:06	
1,1,1,2-Tetrachloroethane	ND	0.50	100	12/23/2015 22:06	
1,1,2,2-Tetrachloroethane	ND	0.50	100	12/23/2015 22:06	
Tetrachloroethene	ND	0.50	100	12/23/2015 22:06	
Toluene	ND	0.50	100	12/23/2015 22:06	
1,2,3-Trichlorobenzene	ND	0.50	100	12/23/2015 22:06	
1,2,4-Trichlorobenzene	ND	0.50	100	12/23/2015 22:06	
1,1,1-Trichloroethane	ND	0.50	100	12/23/2015 22:06	
1,1,2-Trichloroethane	ND	0.50	100	12/23/2015 22:06	
Trichloroethene	ND	0.50	100	12/23/2015 22:06	
Trichlorofluoromethane	ND	0.50	100	12/23/2015 22:06	
1,2,3-Trichloropropane	ND	0.50	100	12/23/2015 22:06	
1,2,4-Trimethylbenzene	ND	0.50	100	12/23/2015 22:06	
1,3,5-Trimethylbenzene	ND	0.50	100	12/23/2015 22:06	
Vinyl Chloride	ND	0.50	100	12/23/2015 22:06	
Xylenes, Total	ND	0.50	100	12/23/2015 22:06	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-15	1512799-017A	Soil	12/14/2015 11:20	GC16	114407

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
Dibromofluoromethane	87		70-130		12/23/2015 22:06
Toluene-d8	76		70-130		12/23/2015 22:06
4-BFB	89		70-130		12/23/2015 22:06
Benzene-d6	106		60-140		12/23/2015 22:06
Ethylbenzene-d10	150	S	60-140		12/23/2015 22:06
1,2-DCB-d4	133		60-140		12/23/2015 22:06

Analyst(s): KBO

Analytical Comments: c4



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-20	1512799-018A	Soil	12/14/2015 11:30	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 01:47	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 01:47	
Benzene	ND	0.0050	1	12/22/2015 01:47	
Bromobenzene	ND	0.0050	1	12/22/2015 01:47	
Bromochloromethane	ND	0.0050	1	12/22/2015 01:47	
Bromodichloromethane	ND	0.0050	1	12/22/2015 01:47	
Bromoform	ND	0.0050	1	12/22/2015 01:47	
Bromomethane	ND	0.0050	1	12/22/2015 01:47	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 01:47	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 01:47	
n-Butyl benzene	ND	0.0050	1	12/22/2015 01:47	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 01:47	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 01:47	
Carbon Disulfide	ND	0.0050	1	12/22/2015 01:47	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 01:47	
Chlorobenzene	ND	0.0050	1	12/22/2015 01:47	
Chloroethane	ND	0.0050	1	12/22/2015 01:47	
Chloroform	ND	0.0050	1	12/22/2015 01:47	
Chloromethane	ND	0.0050	1	12/22/2015 01:47	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 01:47	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 01:47	
Dibromochloromethane	ND	0.0050	1	12/22/2015 01:47	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 01:47	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 01:47	
Dibromomethane	ND	0.0050	1	12/22/2015 01:47	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:47	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:47	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:47	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 01:47	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 01:47	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 01:47	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 01:47	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 01:47	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 01:47	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 01:47	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 01:47	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 01:47	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-20	1512799-018A	Soil	12/14/2015 11:30	GC16	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 01:47	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 01:47	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 01:47	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 01:47	
Ethylbenzene	ND	0.0050	1	12/22/2015 01:47	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 01:47	
Freon 113	ND	0.0050	1	12/22/2015 01:47	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 01:47	
Hexachloroethane	ND	0.0050	1	12/22/2015 01:47	
2-Hexanone	ND	0.0050	1	12/22/2015 01:47	
Isopropylbenzene	ND	0.0050	1	12/22/2015 01:47	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 01:47	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 01:47	
Methylene chloride	ND	0.0050	1	12/22/2015 01:47	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 01:47	
Naphthalene	ND	0.0050	1	12/22/2015 01:47	
n-Propyl benzene	ND	0.0050	1	12/22/2015 01:47	
Styrene	ND	0.0050	1	12/22/2015 01:47	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 01:47	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 01:47	
Tetrachloroethene	ND	0.0050	1	12/22/2015 01:47	
Toluene	ND	0.0050	1	12/22/2015 01:47	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 01:47	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 01:47	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 01:47	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 01:47	
Trichloroethene	ND	0.0050	1	12/22/2015 01:47	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 01:47	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 01:47	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 01:47	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 01:47	
Vinyl Chloride	ND	0.0050	1	12/22/2015 01:47	
Xylenes, Total	ND	0.0050	1	12/22/2015 01:47	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-20	1512799-018A	Soil	12/14/2015 11:30	GC16	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	85	70-130		12/22/2015 01:47
Toluene-d8	81	70-130		12/22/2015 01:47
4-BFB	80	70-130		12/22/2015 01:47
Benzene-d6	82	60-140		12/22/2015 01:47
Ethylbenzene-d10	85	60-140		12/22/2015 01:47
1,2-DCB-d4	68	60-140		12/22/2015 01:47

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-2.5	1512799-019A	Soil	12/14/2015 12:55	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/28/2015 09:12	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/28/2015 09:12	
Benzene	ND	0.0050	1	12/28/2015 09:12	
Bromobenzene	ND	0.0050	1	12/28/2015 09:12	
Bromochloromethane	ND	0.0050	1	12/28/2015 09:12	
Bromodichloromethane	ND	0.0050	1	12/28/2015 09:12	
Bromoform	ND	0.0050	1	12/28/2015 09:12	
Bromomethane	ND	0.0050	1	12/28/2015 09:12	
2-Butanone (MEK)	ND	0.020	1	12/28/2015 09:12	
t-Butyl alcohol (TBA)	ND	0.050	1	12/28/2015 09:12	
n-Butyl benzene	<b>0.094</b>	0.0050	1	12/28/2015 09:12	
sec-Butyl benzene	<b>0.026</b>	0.0050	1	12/28/2015 09:12	
tert-Butyl benzene	ND	0.0050	1	12/28/2015 09:12	
Carbon Disulfide	ND	0.0050	1	12/28/2015 09:12	
Carbon Tetrachloride	ND	0.0050	1	12/28/2015 09:12	
Chlorobenzene	ND	0.0050	1	12/28/2015 09:12	
Chloroethane	ND	0.0050	1	12/28/2015 09:12	
Chloroform	ND	0.0050	1	12/28/2015 09:12	
Chloromethane	ND	0.0050	1	12/28/2015 09:12	
2-Chlorotoluene	ND	0.0050	1	12/28/2015 09:12	
4-Chlorotoluene	ND	0.0050	1	12/28/2015 09:12	
Dibromochloromethane	ND	0.0050	1	12/28/2015 09:12	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/28/2015 09:12	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/28/2015 09:12	
Dibromomethane	ND	0.0050	1	12/28/2015 09:12	
1,2-Dichlorobenzene	ND	0.0050	1	12/28/2015 09:12	
1,3-Dichlorobenzene	ND	0.0050	1	12/28/2015 09:12	
1,4-Dichlorobenzene	ND	0.0050	1	12/28/2015 09:12	
Dichlorodifluoromethane	ND	0.0050	1	12/28/2015 09:12	
1,1-Dichloroethane	ND	0.0050	1	12/28/2015 09:12	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/28/2015 09:12	
1,1-Dichloroethene	ND	0.0050	1	12/28/2015 09:12	
cis-1,2-Dichloroethene	ND	0.0050	1	12/28/2015 09:12	
trans-1,2-Dichloroethene	ND	0.0050	1	12/28/2015 09:12	
1,2-Dichloropropane	ND	0.0050	1	12/28/2015 09:12	
1,3-Dichloropropane	ND	0.0050	1	12/28/2015 09:12	
2,2-Dichloropropane	ND	0.0050	1	12/28/2015 09:12	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-2.5	1512799-019A	Soil	12/14/2015 12:55	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/28/2015 09:12	
cis-1,3-Dichloropropene	ND	0.0050	1	12/28/2015 09:12	
trans-1,3-Dichloropropene	ND	0.0050	1	12/28/2015 09:12	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/28/2015 09:12	
Ethylbenzene	ND	0.0050	1	12/28/2015 09:12	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/28/2015 09:12	
Freon 113	ND	0.0050	1	12/28/2015 09:12	
Hexachlorobutadiene	ND	0.0050	1	12/28/2015 09:12	
Hexachloroethane	ND	0.0050	1	12/28/2015 09:12	
2-Hexanone	ND	0.0050	1	12/28/2015 09:12	
Isopropylbenzene	ND	0.0050	1	12/28/2015 09:12	
4-Isopropyl toluene	ND	0.0050	1	12/28/2015 09:12	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/28/2015 09:12	
Methylene chloride	ND	0.0050	1	12/28/2015 09:12	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/28/2015 09:12	
Naphthalene	ND	0.0050	1	12/28/2015 09:12	
n-Propyl benzene	<b>0.020</b>	0.0050	1	12/28/2015 09:12	
Styrene	ND	0.0050	1	12/28/2015 09:12	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/28/2015 09:12	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/28/2015 09:12	
Tetrachloroethene	ND	0.0050	1	12/28/2015 09:12	
Toluene	ND	0.0050	1	12/28/2015 09:12	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/28/2015 09:12	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/28/2015 09:12	
1,1,1-Trichloroethane	ND	0.0050	1	12/28/2015 09:12	
1,1,2-Trichloroethane	ND	0.0050	1	12/28/2015 09:12	
Trichloroethene	ND	0.0050	1	12/28/2015 09:12	
Trichlorofluoromethane	ND	0.0050	1	12/28/2015 09:12	
1,2,3-Trichloropropane	ND	0.0050	1	12/28/2015 09:12	
1,2,4-Trimethylbenzene	<b>0.086</b>	0.0050	1	12/28/2015 09:12	
1,3,5-Trimethylbenzene	<b>0.032</b>	0.0050	1	12/28/2015 09:12	
Vinyl Chloride	ND	0.0050	1	12/28/2015 09:12	
Xylenes, Total	<b>0.0069</b>	0.0050	1	12/28/2015 09:12	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-2.5	1512799-019A	Soil	12/14/2015 12:55	GC18	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	87	70-130		12/28/2015 09:12
Toluene-d8	90	70-130		12/28/2015 09:12
4-BFB	81	70-130		12/28/2015 09:12
Benzene-d6	113	60-140		12/28/2015 09:12
Ethylbenzene-d10	114	60-140		12/28/2015 09:12
1,2-DCB-d4	111	60-140		12/28/2015 09:12

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-10	1512799-020A	Soil	12/14/2015 13:10	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 00:05	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 00:05	
Benzene	ND	0.0050	1	12/22/2015 00:05	
Bromobenzene	ND	0.0050	1	12/22/2015 00:05	
Bromochloromethane	ND	0.0050	1	12/22/2015 00:05	
Bromodichloromethane	ND	0.0050	1	12/22/2015 00:05	
Bromoform	ND	0.0050	1	12/22/2015 00:05	
Bromomethane	ND	0.0050	1	12/22/2015 00:05	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 00:05	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 00:05	
n-Butyl benzene	<b>0.015</b>	0.0050	1	12/22/2015 00:05	
sec-Butyl benzene	<b>0.0096</b>	0.0050	1	12/22/2015 00:05	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 00:05	
Carbon Disulfide	ND	0.0050	1	12/22/2015 00:05	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 00:05	
Chlorobenzene	ND	0.0050	1	12/22/2015 00:05	
Chloroethane	ND	0.0050	1	12/22/2015 00:05	
Chloroform	ND	0.0050	1	12/22/2015 00:05	
Chloromethane	ND	0.0050	1	12/22/2015 00:05	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 00:05	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 00:05	
Dibromochloromethane	ND	0.0050	1	12/22/2015 00:05	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 00:05	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 00:05	
Dibromomethane	ND	0.0050	1	12/22/2015 00:05	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:05	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:05	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:05	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 00:05	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 00:05	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 00:05	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 00:05	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 00:05	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 00:05	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 00:05	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 00:05	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 00:05	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-10	1512799-020A	Soil	12/14/2015 13:10	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 00:05	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 00:05	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 00:05	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 00:05	
Ethylbenzene	ND	0.0050	1	12/22/2015 00:05	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 00:05	
Freon 113	ND	0.0050	1	12/22/2015 00:05	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 00:05	
Hexachloroethane	ND	0.0050	1	12/22/2015 00:05	
2-Hexanone	ND	0.0050	1	12/22/2015 00:05	
Isopropylbenzene	ND	0.0050	1	12/22/2015 00:05	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 00:05	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 00:05	
Methylene chloride	ND	0.0050	1	12/22/2015 00:05	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 00:05	
Naphthalene	ND	0.0050	1	12/22/2015 00:05	
n-Propyl benzene	<b>0.0092</b>	0.0050	1	12/22/2015 00:05	
Styrene	ND	0.0050	1	12/22/2015 00:05	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 00:05	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 00:05	
Tetrachloroethene	ND	0.0050	1	12/22/2015 00:05	
Toluene	ND	0.0050	1	12/22/2015 00:05	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 00:05	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 00:05	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 00:05	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 00:05	
Trichloroethene	ND	0.0050	1	12/22/2015 00:05	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 00:05	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 00:05	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 00:05	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 00:05	
Vinyl Chloride	ND	0.0050	1	12/22/2015 00:05	
Xylenes, Total	ND	0.0050	1	12/22/2015 00:05	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-10	1512799-020A	Soil	12/14/2015 13:10	GC18	114407

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	92	70-130		12/22/2015 00:05
Toluene-d8	96	70-130		12/22/2015 00:05
4-BFB	88	70-130		12/22/2015 00:05
Benzene-d6	102	60-140		12/22/2015 00:05
Ethylbenzene-d10	98	60-140		12/22/2015 00:05
1,2-DCB-d4	97	60-140		12/22/2015 00:05

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-15	1512799-021A	Soil	12/14/2015 13:20	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	2.0	20	12/28/2015 10:29	
tert-Amyl methyl ether (TAME)	ND	0.10	20	12/28/2015 10:29	
Benzene	ND	0.10	20	12/28/2015 10:29	
Bromobenzene	ND	0.10	20	12/28/2015 10:29	
Bromochloromethane	ND	0.10	20	12/28/2015 10:29	
Bromodichloromethane	ND	0.10	20	12/28/2015 10:29	
Bromoform	ND	0.10	20	12/28/2015 10:29	
Bromomethane	ND	0.10	20	12/28/2015 10:29	
2-Butanone (MEK)	ND	0.40	20	12/28/2015 10:29	
t-Butyl alcohol (TBA)	ND	1.0	20	12/28/2015 10:29	
n-Butyl benzene	<b>1.0</b>	0.10	20	12/28/2015 10:29	
sec-Butyl benzene	<b>0.35</b>	0.10	20	12/28/2015 10:29	
tert-Butyl benzene	ND	0.10	20	12/28/2015 10:29	
Carbon Disulfide	ND	0.10	20	12/28/2015 10:29	
Carbon Tetrachloride	ND	0.10	20	12/28/2015 10:29	
Chlorobenzene	ND	0.10	20	12/28/2015 10:29	
Chloroethane	ND	0.10	20	12/28/2015 10:29	
Chloroform	ND	0.10	20	12/28/2015 10:29	
Chloromethane	ND	0.10	20	12/28/2015 10:29	
2-Chlorotoluene	ND	0.10	20	12/28/2015 10:29	
4-Chlorotoluene	ND	0.10	20	12/28/2015 10:29	
Dibromochloromethane	ND	0.10	20	12/28/2015 10:29	
1,2-Dibromo-3-chloropropane	ND	0.080	20	12/28/2015 10:29	
1,2-Dibromoethane (EDB)	ND	0.080	20	12/28/2015 10:29	
Dibromomethane	ND	0.10	20	12/28/2015 10:29	
1,2-Dichlorobenzene	ND	0.10	20	12/28/2015 10:29	
1,3-Dichlorobenzene	ND	0.10	20	12/28/2015 10:29	
1,4-Dichlorobenzene	ND	0.10	20	12/28/2015 10:29	
Dichlorodifluoromethane	ND	0.10	20	12/28/2015 10:29	
1,1-Dichloroethane	ND	0.10	20	12/28/2015 10:29	
1,2-Dichloroethane (1,2-DCA)	ND	0.080	20	12/28/2015 10:29	
1,1-Dichloroethene	ND	0.10	20	12/28/2015 10:29	
cis-1,2-Dichloroethene	ND	0.10	20	12/28/2015 10:29	
trans-1,2-Dichloroethene	ND	0.10	20	12/28/2015 10:29	
1,2-Dichloropropane	ND	0.10	20	12/28/2015 10:29	
1,3-Dichloropropane	ND	0.10	20	12/28/2015 10:29	
2,2-Dichloropropane	ND	0.10	20	12/28/2015 10:29	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-15	1512799-021A	Soil	12/14/2015 13:20	GC18	114407
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.10	20	12/28/2015 10:29	
cis-1,3-Dichloropropene	ND	0.10	20	12/28/2015 10:29	
trans-1,3-Dichloropropene	ND	0.10	20	12/28/2015 10:29	
Diisopropyl ether (DIPE)	ND	0.10	20	12/28/2015 10:29	
Ethylbenzene	<b>2.2</b>	0.10	20	12/28/2015 10:29	
Ethyl tert-butyl ether (ETBE)	ND	0.10	20	12/28/2015 10:29	
Freon 113	ND	0.10	20	12/28/2015 10:29	
Hexachlorobutadiene	ND	0.10	20	12/28/2015 10:29	
Hexachloroethane	ND	0.10	20	12/28/2015 10:29	
2-Hexanone	ND	0.10	20	12/28/2015 10:29	
Isopropylbenzene	<b>0.47</b>	0.10	20	12/28/2015 10:29	
4-Isopropyl toluene	ND	0.10	20	12/28/2015 10:29	
Methyl-t-butyl ether (MTBE)	ND	0.10	20	12/28/2015 10:29	
Methylene chloride	ND	0.10	20	12/28/2015 10:29	
4-Methyl-2-pentanone (MIBK)	ND	0.10	20	12/28/2015 10:29	
Naphthalene	<b>3.7</b>	0.10	20	12/28/2015 10:29	
n-Propyl benzene	<b>1.7</b>	0.10	20	12/28/2015 10:29	
Styrene	ND	0.10	20	12/28/2015 10:29	
1,1,1,2-Tetrachloroethane	ND	0.10	20	12/28/2015 10:29	
1,1,2,2-Tetrachloroethane	ND	0.10	20	12/28/2015 10:29	
Tetrachloroethene	ND	0.10	20	12/28/2015 10:29	
Toluene	ND	0.10	20	12/28/2015 10:29	
1,2,3-Trichlorobenzene	ND	0.10	20	12/28/2015 10:29	
1,2,4-Trichlorobenzene	ND	0.10	20	12/28/2015 10:29	
1,1,1-Trichloroethane	ND	0.10	20	12/28/2015 10:29	
1,1,2-Trichloroethane	ND	0.10	20	12/28/2015 10:29	
Trichloroethene	ND	0.10	20	12/28/2015 10:29	
Trichlorofluoromethane	ND	0.10	20	12/28/2015 10:29	
1,2,3-Trichloropropane	ND	0.10	20	12/28/2015 10:29	
1,2,4-Trimethylbenzene	<b>0.53</b>	0.10	20	12/28/2015 10:29	
1,3,5-Trimethylbenzene	<b>0.12</b>	0.10	20	12/28/2015 10:29	
Vinyl Chloride	ND	0.10	20	12/28/2015 10:29	
Xylenes, Total	<b>0.67</b>	0.10	20	12/28/2015 10:29	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-15	1512799-021A	Soil	12/14/2015 13:20	GC18	114407

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
Dibromofluoromethane	92		70-130		12/28/2015 10:29
Toluene-d8	90		70-130		12/28/2015 10:29
4-BFB	78		70-130		12/28/2015 10:29
Benzene-d6	122		60-140		12/28/2015 10:29
Ethylbenzene-d10	153	S	60-140		12/28/2015 10:29
1,2-DCB-d4	137		60-140		12/28/2015 10:29

Analyst(s): KF

Analytical Comments: c7



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-20	1512799-022A	Soil	12/14/2015 13:30	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 00:43	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 00:43	
Benzene	ND	0.0050	1	12/22/2015 00:43	
Bromobenzene	ND	0.0050	1	12/22/2015 00:43	
Bromochloromethane	ND	0.0050	1	12/22/2015 00:43	
Bromodichloromethane	ND	0.0050	1	12/22/2015 00:43	
Bromoform	ND	0.0050	1	12/22/2015 00:43	
Bromomethane	ND	0.0050	1	12/22/2015 00:43	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 00:43	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 00:43	
n-Butyl benzene	ND	0.0050	1	12/22/2015 00:43	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 00:43	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 00:43	
Carbon Disulfide	ND	0.0050	1	12/22/2015 00:43	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 00:43	
Chlorobenzene	ND	0.0050	1	12/22/2015 00:43	
Chloroethane	ND	0.0050	1	12/22/2015 00:43	
Chloroform	ND	0.0050	1	12/22/2015 00:43	
Chloromethane	ND	0.0050	1	12/22/2015 00:43	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 00:43	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 00:43	
Dibromochloromethane	ND	0.0050	1	12/22/2015 00:43	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 00:43	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 00:43	
Dibromomethane	ND	0.0050	1	12/22/2015 00:43	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:43	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:43	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 00:43	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 00:43	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 00:43	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 00:43	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 00:43	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 00:43	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 00:43	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 00:43	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 00:43	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 00:43	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-20	1512799-022A	Soil	12/14/2015 13:30	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 00:43	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 00:43	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 00:43	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 00:43	
Ethylbenzene	ND	0.0050	1	12/22/2015 00:43	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 00:43	
Freon 113	ND	0.0050	1	12/22/2015 00:43	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 00:43	
Hexachloroethane	ND	0.0050	1	12/22/2015 00:43	
2-Hexanone	ND	0.0050	1	12/22/2015 00:43	
Isopropylbenzene	ND	0.0050	1	12/22/2015 00:43	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 00:43	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 00:43	
Methylene chloride	ND	0.0050	1	12/22/2015 00:43	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 00:43	
Naphthalene	ND	0.0050	1	12/22/2015 00:43	
n-Propyl benzene	ND	0.0050	1	12/22/2015 00:43	
Styrene	ND	0.0050	1	12/22/2015 00:43	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 00:43	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 00:43	
Tetrachloroethene	ND	0.0050	1	12/22/2015 00:43	
Toluene	ND	0.0050	1	12/22/2015 00:43	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 00:43	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 00:43	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 00:43	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 00:43	
Trichloroethene	ND	0.0050	1	12/22/2015 00:43	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 00:43	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 00:43	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 00:43	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 00:43	
Vinyl Chloride	ND	0.0050	1	12/22/2015 00:43	
Xylenes, Total	ND	0.0050	1	12/22/2015 00:43	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-20	1512799-022A	Soil	12/14/2015 13:30	GC18	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	92	70-130		12/22/2015 00:43
Toluene-d8	103	70-130		12/22/2015 00:43
4-BFB	82	70-130		12/22/2015 00:43
Benzene-d6	111	60-140		12/22/2015 00:43
Ethylbenzene-d10	102	60-140		12/22/2015 00:43
1,2-DCB-d4	103	60-140		12/22/2015 00:43

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-5	1512799-023A	Soil	12/15/2015 10:05	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/21/2015 13:09	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/21/2015 13:09	
Benzene	ND	0.0050	1	12/21/2015 13:09	
Bromobenzene	ND	0.0050	1	12/21/2015 13:09	
Bromochloromethane	ND	0.0050	1	12/21/2015 13:09	
Bromodichloromethane	ND	0.0050	1	12/21/2015 13:09	
Bromoform	ND	0.0050	1	12/21/2015 13:09	
Bromomethane	ND	0.0050	1	12/21/2015 13:09	
2-Butanone (MEK)	ND	0.020	1	12/21/2015 13:09	
t-Butyl alcohol (TBA)	ND	0.050	1	12/21/2015 13:09	
n-Butyl benzene	ND	0.0050	1	12/21/2015 13:09	
sec-Butyl benzene	ND	0.0050	1	12/21/2015 13:09	
tert-Butyl benzene	ND	0.0050	1	12/21/2015 13:09	
Carbon Disulfide	ND	0.0050	1	12/21/2015 13:09	
Carbon Tetrachloride	ND	0.0050	1	12/21/2015 13:09	
Chlorobenzene	ND	0.0050	1	12/21/2015 13:09	
Chloroethane	ND	0.0050	1	12/21/2015 13:09	
Chloroform	ND	0.0050	1	12/21/2015 13:09	
Chloromethane	ND	0.0050	1	12/21/2015 13:09	
2-Chlorotoluene	ND	0.0050	1	12/21/2015 13:09	
4-Chlorotoluene	ND	0.0050	1	12/21/2015 13:09	
Dibromochloromethane	ND	0.0050	1	12/21/2015 13:09	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/21/2015 13:09	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/21/2015 13:09	
Dibromomethane	ND	0.0050	1	12/21/2015 13:09	
1,2-Dichlorobenzene	ND	0.0050	1	12/21/2015 13:09	
1,3-Dichlorobenzene	ND	0.0050	1	12/21/2015 13:09	
1,4-Dichlorobenzene	ND	0.0050	1	12/21/2015 13:09	
Dichlorodifluoromethane	ND	0.0050	1	12/21/2015 13:09	
1,1-Dichloroethane	ND	0.0050	1	12/21/2015 13:09	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/21/2015 13:09	
1,1-Dichloroethene	ND	0.0050	1	12/21/2015 13:09	
cis-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 13:09	
trans-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 13:09	
1,2-Dichloropropane	ND	0.0050	1	12/21/2015 13:09	
1,3-Dichloropropane	ND	0.0050	1	12/21/2015 13:09	
2,2-Dichloropropane	ND	0.0050	1	12/21/2015 13:09	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-5	1512799-023A	Soil	12/15/2015 10:05	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/21/2015 13:09	
cis-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 13:09	
trans-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 13:09	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/21/2015 13:09	
Ethylbenzene	ND	0.0050	1	12/21/2015 13:09	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/21/2015 13:09	
Freon 113	ND	0.0050	1	12/21/2015 13:09	
Hexachlorobutadiene	ND	0.0050	1	12/21/2015 13:09	
Hexachloroethane	ND	0.0050	1	12/21/2015 13:09	
2-Hexanone	ND	0.0050	1	12/21/2015 13:09	
Isopropylbenzene	ND	0.0050	1	12/21/2015 13:09	
4-Isopropyl toluene	ND	0.0050	1	12/21/2015 13:09	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/21/2015 13:09	
Methylene chloride	ND	0.0050	1	12/21/2015 13:09	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/21/2015 13:09	
Naphthalene	ND	0.0050	1	12/21/2015 13:09	
n-Propyl benzene	ND	0.0050	1	12/21/2015 13:09	
Styrene	ND	0.0050	1	12/21/2015 13:09	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 13:09	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 13:09	
Tetrachloroethene	ND	0.0050	1	12/21/2015 13:09	
Toluene	ND	0.0050	1	12/21/2015 13:09	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/21/2015 13:09	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/21/2015 13:09	
1,1,1-Trichloroethane	ND	0.0050	1	12/21/2015 13:09	
1,1,2-Trichloroethane	ND	0.0050	1	12/21/2015 13:09	
Trichloroethene	ND	0.0050	1	12/21/2015 13:09	
Trichlorofluoromethane	ND	0.0050	1	12/21/2015 13:09	
1,2,3-Trichloropropane	ND	0.0050	1	12/21/2015 13:09	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/21/2015 13:09	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/21/2015 13:09	
Vinyl Chloride	ND	0.0050	1	12/21/2015 13:09	
Xylenes, Total	ND	0.0050	1	12/21/2015 13:09	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-5	1512799-023A	Soil	12/15/2015 10:05	GC18	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	89	70-130		12/21/2015 13:09
Toluene-d8	105	70-130		12/21/2015 13:09
4-BFB	74	70-130		12/21/2015 13:09
Benzene-d6	106	60-140		12/21/2015 13:09
Ethylbenzene-d10	100	60-140		12/21/2015 13:09
1,2-DCB-d4	107	60-140		12/21/2015 13:09

Analyst(s): KF





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-10	1512799-024A	Soil	12/15/2015 10:25	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	20	200	12/28/2015 11:45	
tert-Amyl methyl ether (TAME)	ND	1.0	200	12/28/2015 11:45	
Benzene	ND	1.0	200	12/28/2015 11:45	
Bromobenzene	ND	1.0	200	12/28/2015 11:45	
Bromochloromethane	ND	1.0	200	12/28/2015 11:45	
Bromodichloromethane	ND	1.0	200	12/28/2015 11:45	
Bromoform	ND	1.0	200	12/28/2015 11:45	
Bromomethane	ND	1.0	200	12/28/2015 11:45	
2-Butanone (MEK)	ND	4.0	200	12/28/2015 11:45	
t-Butyl alcohol (TBA)	ND	10	200	12/28/2015 11:45	
n-Butyl benzene	<b>4.0</b>	1.0	200	12/28/2015 11:45	
sec-Butyl benzene	ND	1.0	200	12/28/2015 11:45	
tert-Butyl benzene	ND	1.0	200	12/28/2015 11:45	
Carbon Disulfide	ND	1.0	200	12/28/2015 11:45	
Carbon Tetrachloride	ND	1.0	200	12/28/2015 11:45	
Chlorobenzene	ND	1.0	200	12/28/2015 11:45	
Chloroethane	ND	1.0	200	12/28/2015 11:45	
Chloroform	ND	1.0	200	12/28/2015 11:45	
Chloromethane	ND	1.0	200	12/28/2015 11:45	
2-Chlorotoluene	ND	1.0	200	12/28/2015 11:45	
4-Chlorotoluene	ND	1.0	200	12/28/2015 11:45	
Dibromochloromethane	ND	1.0	200	12/28/2015 11:45	
1,2-Dibromo-3-chloropropane	ND	0.80	200	12/28/2015 11:45	
1,2-Dibromoethane (EDB)	ND	0.80	200	12/28/2015 11:45	
Dibromomethane	ND	1.0	200	12/28/2015 11:45	
1,2-Dichlorobenzene	ND	1.0	200	12/28/2015 11:45	
1,3-Dichlorobenzene	ND	1.0	200	12/28/2015 11:45	
1,4-Dichlorobenzene	ND	1.0	200	12/28/2015 11:45	
Dichlorodifluoromethane	ND	1.0	200	12/28/2015 11:45	
1,1-Dichloroethane	ND	1.0	200	12/28/2015 11:45	
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200	12/28/2015 11:45	
1,1-Dichloroethene	ND	1.0	200	12/28/2015 11:45	
cis-1,2-Dichloroethene	ND	1.0	200	12/28/2015 11:45	
trans-1,2-Dichloroethene	ND	1.0	200	12/28/2015 11:45	
1,2-Dichloropropane	ND	1.0	200	12/28/2015 11:45	
1,3-Dichloropropane	ND	1.0	200	12/28/2015 11:45	
2,2-Dichloropropane	ND	1.0	200	12/28/2015 11:45	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-10	1512799-024A	Soil	12/15/2015 10:25	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	1.0	200	12/28/2015 11:45	
cis-1,3-Dichloropropene	ND	1.0	200	12/28/2015 11:45	
trans-1,3-Dichloropropene	ND	1.0	200	12/28/2015 11:45	
Diisopropyl ether (DIPE)	ND	1.0	200	12/28/2015 11:45	
Ethylbenzene	11	1.0	200	12/28/2015 11:45	
Ethyl tert-butyl ether (ETBE)	ND	1.0	200	12/28/2015 11:45	
Freon 113	ND	1.0	200	12/28/2015 11:45	
Hexachlorobutadiene	ND	1.0	200	12/28/2015 11:45	
Hexachloroethane	ND	1.0	200	12/28/2015 11:45	
2-Hexanone	ND	1.0	200	12/28/2015 11:45	
Isopropylbenzene	1.3	1.0	200	12/28/2015 11:45	
4-Isopropyl toluene	ND	1.0	200	12/28/2015 11:45	
Methyl-t-butyl ether (MTBE)	ND	1.0	200	12/28/2015 11:45	
Methylene chloride	ND	1.0	200	12/28/2015 11:45	
4-Methyl-2-pentanone (MIBK)	ND	1.0	200	12/28/2015 11:45	
Naphthalene	12	1.0	200	12/28/2015 11:45	
n-Propyl benzene	4.8	1.0	200	12/28/2015 11:45	
Styrene	ND	1.0	200	12/28/2015 11:45	
1,1,1,2-Tetrachloroethane	ND	1.0	200	12/28/2015 11:45	
1,1,2,2-Tetrachloroethane	ND	1.0	200	12/28/2015 11:45	
Tetrachloroethene	ND	1.0	200	12/28/2015 11:45	
Toluene	ND	1.0	200	12/28/2015 11:45	
1,2,3-Trichlorobenzene	ND	1.0	200	12/28/2015 11:45	
1,2,4-Trichlorobenzene	ND	1.0	200	12/28/2015 11:45	
1,1,1-Trichloroethane	ND	1.0	200	12/28/2015 11:45	
1,1,2-Trichloroethane	ND	1.0	200	12/28/2015 11:45	
Trichloroethene	ND	1.0	200	12/28/2015 11:45	
Trichlorofluoromethane	ND	1.0	200	12/28/2015 11:45	
1,2,3-Trichloropropane	ND	1.0	200	12/28/2015 11:45	
1,2,4-Trimethylbenzene	31	1.0	200	12/28/2015 11:45	
1,3,5-Trimethylbenzene	9.0	1.0	200	12/28/2015 11:45	
Vinyl Chloride	ND	1.0	200	12/28/2015 11:45	
Xylenes, Total	29	1.0	200	12/28/2015 11:45	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-10	1512799-024A	Soil	12/15/2015 10:25	GC18	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	92		70-130	12/28/2015 11:45
Toluene-d8	91		70-130	12/28/2015 11:45
4-BFB	79		70-130	12/28/2015 11:45
Benzene-d6	96		60-140	12/28/2015 11:45
Ethylbenzene-d10	68		60-140	12/28/2015 11:45
1,2-DCB-d4	190	S	60-140	12/28/2015 11:45

Analyst(s): KF

Analytical Comments: c7



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-15	1512799-025A	Soil	12/15/2015 10:30	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/24/2015 18:11	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/24/2015 18:11	
Benzene	ND	0.0050	1	12/24/2015 18:11	
Bromobenzene	ND	0.0050	1	12/24/2015 18:11	
Bromochloromethane	ND	0.0050	1	12/24/2015 18:11	
Bromodichloromethane	ND	0.0050	1	12/24/2015 18:11	
Bromoform	ND	0.0050	1	12/24/2015 18:11	
Bromomethane	ND	0.0050	1	12/24/2015 18:11	
2-Butanone (MEK)	ND	0.020	1	12/24/2015 18:11	
t-Butyl alcohol (TBA)	ND	0.050	1	12/24/2015 18:11	
n-Butyl benzene	ND	0.0050	1	12/24/2015 18:11	
sec-Butyl benzene	ND	0.0050	1	12/24/2015 18:11	
tert-Butyl benzene	ND	0.0050	1	12/24/2015 18:11	
Carbon Disulfide	ND	0.0050	1	12/24/2015 18:11	
Carbon Tetrachloride	ND	0.0050	1	12/24/2015 18:11	
Chlorobenzene	ND	0.0050	1	12/24/2015 18:11	
Chloroethane	ND	0.0050	1	12/24/2015 18:11	
Chloroform	ND	0.0050	1	12/24/2015 18:11	
Chloromethane	ND	0.0050	1	12/24/2015 18:11	
2-Chlorotoluene	ND	0.0050	1	12/24/2015 18:11	
4-Chlorotoluene	ND	0.0050	1	12/24/2015 18:11	
Dibromochloromethane	ND	0.0050	1	12/24/2015 18:11	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/24/2015 18:11	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/24/2015 18:11	
Dibromomethane	ND	0.0050	1	12/24/2015 18:11	
1,2-Dichlorobenzene	ND	0.0050	1	12/24/2015 18:11	
1,3-Dichlorobenzene	ND	0.0050	1	12/24/2015 18:11	
1,4-Dichlorobenzene	ND	0.0050	1	12/24/2015 18:11	
Dichlorodifluoromethane	ND	0.0050	1	12/24/2015 18:11	
1,1-Dichloroethane	ND	0.0050	1	12/24/2015 18:11	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/24/2015 18:11	
1,1-Dichloroethene	ND	0.0050	1	12/24/2015 18:11	
cis-1,2-Dichloroethene	ND	0.0050	1	12/24/2015 18:11	
trans-1,2-Dichloroethene	ND	0.0050	1	12/24/2015 18:11	
1,2-Dichloropropane	ND	0.0050	1	12/24/2015 18:11	
1,3-Dichloropropane	ND	0.0050	1	12/24/2015 18:11	
2,2-Dichloropropane	ND	0.0050	1	12/24/2015 18:11	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-15	1512799-025A	Soil	12/15/2015 10:30	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/24/2015 18:11	
cis-1,3-Dichloropropene	ND	0.0050	1	12/24/2015 18:11	
trans-1,3-Dichloropropene	ND	0.0050	1	12/24/2015 18:11	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/24/2015 18:11	
Ethylbenzene	ND	0.0050	1	12/24/2015 18:11	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/24/2015 18:11	
Freon 113	ND	0.0050	1	12/24/2015 18:11	
Hexachlorobutadiene	ND	0.0050	1	12/24/2015 18:11	
Hexachloroethane	ND	0.0050	1	12/24/2015 18:11	
2-Hexanone	ND	0.0050	1	12/24/2015 18:11	
Isopropylbenzene	ND	0.0050	1	12/24/2015 18:11	
4-Isopropyl toluene	ND	0.0050	1	12/24/2015 18:11	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/24/2015 18:11	
Methylene chloride	ND	0.0050	1	12/24/2015 18:11	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/24/2015 18:11	
Naphthalene	ND	0.0050	1	12/24/2015 18:11	
n-Propyl benzene	ND	0.0050	1	12/24/2015 18:11	
Styrene	ND	0.0050	1	12/24/2015 18:11	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/24/2015 18:11	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/24/2015 18:11	
Tetrachloroethene	ND	0.0050	1	12/24/2015 18:11	
Toluene	ND	0.0050	1	12/24/2015 18:11	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/24/2015 18:11	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/24/2015 18:11	
1,1,1-Trichloroethane	ND	0.0050	1	12/24/2015 18:11	
1,1,2-Trichloroethane	ND	0.0050	1	12/24/2015 18:11	
Trichloroethene	ND	0.0050	1	12/24/2015 18:11	
Trichlorofluoromethane	ND	0.0050	1	12/24/2015 18:11	
1,2,3-Trichloropropane	ND	0.0050	1	12/24/2015 18:11	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/24/2015 18:11	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/24/2015 18:11	
Vinyl Chloride	ND	0.0050	1	12/24/2015 18:11	
Xylenes, Total	ND	0.0050	1	12/24/2015 18:11	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-15	1512799-025A	Soil	12/15/2015 10:30	GC18	114409

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
Dibromofluoromethane	86		70-130		12/24/2015 18:11
Toluene-d8	103		70-130		12/24/2015 18:11
4-BFB	69	S	70-130		12/24/2015 18:11
Benzene-d6	88		60-140		12/24/2015 18:11
Ethylbenzene-d10	89		60-140		12/24/2015 18:11
1,2-DCB-d4	91		60-140		12/24/2015 18:11

Analyst(s): KF

Analytical Comments: c2



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-20	1512799-026A	Soil	12/15/2015 10:40	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 01:22	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 01:22	
Benzene	ND	0.0050	1	12/22/2015 01:22	
Bromobenzene	ND	0.0050	1	12/22/2015 01:22	
Bromochloromethane	ND	0.0050	1	12/22/2015 01:22	
Bromodichloromethane	ND	0.0050	1	12/22/2015 01:22	
Bromoform	ND	0.0050	1	12/22/2015 01:22	
Bromomethane	ND	0.0050	1	12/22/2015 01:22	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 01:22	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 01:22	
n-Butyl benzene	ND	0.0050	1	12/22/2015 01:22	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 01:22	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 01:22	
Carbon Disulfide	ND	0.0050	1	12/22/2015 01:22	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 01:22	
Chlorobenzene	ND	0.0050	1	12/22/2015 01:22	
Chloroethane	ND	0.0050	1	12/22/2015 01:22	
Chloroform	ND	0.0050	1	12/22/2015 01:22	
Chloromethane	ND	0.0050	1	12/22/2015 01:22	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 01:22	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 01:22	
Dibromochloromethane	ND	0.0050	1	12/22/2015 01:22	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 01:22	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 01:22	
Dibromomethane	ND	0.0050	1	12/22/2015 01:22	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:22	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:22	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 01:22	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 01:22	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 01:22	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 01:22	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 01:22	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 01:22	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 01:22	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 01:22	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 01:22	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 01:22	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-20	1512799-026A	Soil	12/15/2015 10:40	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 01:22	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 01:22	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 01:22	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 01:22	
Ethylbenzene	ND	0.0050	1	12/22/2015 01:22	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 01:22	
Freon 113	ND	0.0050	1	12/22/2015 01:22	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 01:22	
Hexachloroethane	ND	0.0050	1	12/22/2015 01:22	
2-Hexanone	ND	0.0050	1	12/22/2015 01:22	
Isopropylbenzene	ND	0.0050	1	12/22/2015 01:22	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 01:22	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 01:22	
Methylene chloride	ND	0.0050	1	12/22/2015 01:22	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 01:22	
Naphthalene	ND	0.0050	1	12/22/2015 01:22	
n-Propyl benzene	ND	0.0050	1	12/22/2015 01:22	
Styrene	ND	0.0050	1	12/22/2015 01:22	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 01:22	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 01:22	
Tetrachloroethene	ND	0.0050	1	12/22/2015 01:22	
Toluene	ND	0.0050	1	12/22/2015 01:22	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 01:22	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 01:22	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 01:22	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 01:22	
Trichloroethene	ND	0.0050	1	12/22/2015 01:22	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 01:22	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 01:22	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 01:22	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 01:22	
Vinyl Chloride	ND	0.0050	1	12/22/2015 01:22	
Xylenes, Total	<b>0.0053</b>	0.0050	1	12/22/2015 01:22	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-20	1512799-026A	Soil	12/15/2015 10:40	GC18	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	92	70-130		12/22/2015 01:22
Toluene-d8	103	70-130		12/22/2015 01:22
4-BFB	80	70-130		12/22/2015 01:22
Benzene-d6	110	60-140		12/22/2015 01:22
Ethylbenzene-d10	100	60-140		12/22/2015 01:22
1,2-DCB-d4	101	60-140		12/22/2015 01:22

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-5	1512799-027A	Soil	12/15/2015 12:10	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 02:00	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 02:00	
Benzene	ND	0.0050	1	12/22/2015 02:00	
Bromobenzene	ND	0.0050	1	12/22/2015 02:00	
Bromochloromethane	ND	0.0050	1	12/22/2015 02:00	
Bromodichloromethane	ND	0.0050	1	12/22/2015 02:00	
Bromoform	ND	0.0050	1	12/22/2015 02:00	
Bromomethane	ND	0.0050	1	12/22/2015 02:00	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 02:00	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 02:00	
n-Butyl benzene	ND	0.0050	1	12/22/2015 02:00	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 02:00	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 02:00	
Carbon Disulfide	ND	0.0050	1	12/22/2015 02:00	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 02:00	
Chlorobenzene	ND	0.0050	1	12/22/2015 02:00	
Chloroethane	ND	0.0050	1	12/22/2015 02:00	
Chloroform	ND	0.0050	1	12/22/2015 02:00	
Chloromethane	ND	0.0050	1	12/22/2015 02:00	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 02:00	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 02:00	
Dibromochloromethane	ND	0.0050	1	12/22/2015 02:00	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 02:00	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 02:00	
Dibromomethane	ND	0.0050	1	12/22/2015 02:00	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:00	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:00	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:00	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 02:00	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 02:00	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 02:00	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 02:00	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 02:00	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 02:00	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 02:00	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 02:00	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 02:00	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-5	1512799-027A	Soil	12/15/2015 12:10	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 02:00	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 02:00	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 02:00	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 02:00	
Ethylbenzene	ND	0.0050	1	12/22/2015 02:00	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 02:00	
Freon 113	ND	0.0050	1	12/22/2015 02:00	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 02:00	
Hexachloroethane	ND	0.0050	1	12/22/2015 02:00	
2-Hexanone	ND	0.0050	1	12/22/2015 02:00	
Isopropylbenzene	ND	0.0050	1	12/22/2015 02:00	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 02:00	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 02:00	
Methylene chloride	ND	0.0050	1	12/22/2015 02:00	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 02:00	
Naphthalene	ND	0.0050	1	12/22/2015 02:00	
n-Propyl benzene	ND	0.0050	1	12/22/2015 02:00	
Styrene	ND	0.0050	1	12/22/2015 02:00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 02:00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 02:00	
Tetrachloroethene	ND	0.0050	1	12/22/2015 02:00	
Toluene	ND	0.0050	1	12/22/2015 02:00	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 02:00	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 02:00	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 02:00	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 02:00	
Trichloroethene	ND	0.0050	1	12/22/2015 02:00	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 02:00	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 02:00	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 02:00	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 02:00	
Vinyl Chloride	ND	0.0050	1	12/22/2015 02:00	
Xylenes, Total	ND	0.0050	1	12/22/2015 02:00	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-5	1512799-027A	Soil	12/15/2015 12:10	GC18	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	93	70-130		12/22/2015 02:00
Toluene-d8	104	70-130		12/22/2015 02:00
4-BFB	80	70-130		12/22/2015 02:00
Benzene-d6	109	60-140		12/22/2015 02:00
Ethylbenzene-d10	99	60-140		12/22/2015 02:00
1,2-DCB-d4	100	60-140		12/22/2015 02:00

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-10	1512799-028A	Soil	12/15/2015 12:30	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	20	200	12/28/2015 09:50	
tert-Amyl methyl ether (TAME)	ND	1.0	200	12/28/2015 09:50	
Benzene	ND	1.0	200	12/28/2015 09:50	
Bromobenzene	ND	1.0	200	12/28/2015 09:50	
Bromochloromethane	ND	1.0	200	12/28/2015 09:50	
Bromodichloromethane	ND	1.0	200	12/28/2015 09:50	
Bromoform	ND	1.0	200	12/28/2015 09:50	
Bromomethane	ND	1.0	200	12/28/2015 09:50	
2-Butanone (MEK)	ND	4.0	200	12/28/2015 09:50	
t-Butyl alcohol (TBA)	ND	10	200	12/28/2015 09:50	
n-Butyl benzene	3.1	1.0	200	12/28/2015 09:50	
sec-Butyl benzene	ND	1.0	200	12/28/2015 09:50	
tert-Butyl benzene	ND	1.0	200	12/28/2015 09:50	
Carbon Disulfide	ND	1.0	200	12/28/2015 09:50	
Carbon Tetrachloride	ND	1.0	200	12/28/2015 09:50	
Chlorobenzene	ND	1.0	200	12/28/2015 09:50	
Chloroethane	ND	1.0	200	12/28/2015 09:50	
Chloroform	ND	1.0	200	12/28/2015 09:50	
Chloromethane	ND	1.0	200	12/28/2015 09:50	
2-Chlorotoluene	ND	1.0	200	12/28/2015 09:50	
4-Chlorotoluene	ND	1.0	200	12/28/2015 09:50	
Dibromochloromethane	ND	1.0	200	12/28/2015 09:50	
1,2-Dibromo-3-chloropropane	ND	0.80	200	12/28/2015 09:50	
1,2-Dibromoethane (EDB)	ND	0.80	200	12/28/2015 09:50	
Dibromomethane	ND	1.0	200	12/28/2015 09:50	
1,2-Dichlorobenzene	ND	1.0	200	12/28/2015 09:50	
1,3-Dichlorobenzene	ND	1.0	200	12/28/2015 09:50	
1,4-Dichlorobenzene	ND	1.0	200	12/28/2015 09:50	
Dichlorodifluoromethane	ND	1.0	200	12/28/2015 09:50	
1,1-Dichloroethane	ND	1.0	200	12/28/2015 09:50	
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200	12/28/2015 09:50	
1,1-Dichloroethene	ND	1.0	200	12/28/2015 09:50	
cis-1,2-Dichloroethene	ND	1.0	200	12/28/2015 09:50	
trans-1,2-Dichloroethene	ND	1.0	200	12/28/2015 09:50	
1,2-Dichloropropane	ND	1.0	200	12/28/2015 09:50	
1,3-Dichloropropane	ND	1.0	200	12/28/2015 09:50	
2,2-Dichloropropane	ND	1.0	200	12/28/2015 09:50	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-10	1512799-028A	Soil	12/15/2015 12:30	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	1.0	200	12/28/2015 09:50	
cis-1,3-Dichloropropene	ND	1.0	200	12/28/2015 09:50	
trans-1,3-Dichloropropene	ND	1.0	200	12/28/2015 09:50	
Diisopropyl ether (DIPE)	ND	1.0	200	12/28/2015 09:50	
Ethylbenzene	<b>5.8</b>	1.0	200	12/28/2015 09:50	
Ethyl tert-butyl ether (ETBE)	ND	1.0	200	12/28/2015 09:50	
Freon 113	ND	1.0	200	12/28/2015 09:50	
Hexachlorobutadiene	ND	1.0	200	12/28/2015 09:50	
Hexachloroethane	ND	1.0	200	12/28/2015 09:50	
2-Hexanone	ND	1.0	200	12/28/2015 09:50	
Isopropylbenzene	<b>1.4</b>	1.0	200	12/28/2015 09:50	
4-Isopropyl toluene	ND	1.0	200	12/28/2015 09:50	
Methyl-t-butyl ether (MTBE)	ND	1.0	200	12/28/2015 09:50	
Methylene chloride	ND	1.0	200	12/28/2015 09:50	
4-Methyl-2-pentanone (MIBK)	ND	1.0	200	12/28/2015 09:50	
Naphthalene	<b>11</b>	1.0	200	12/28/2015 09:50	
n-Propyl benzene	<b>4.9</b>	1.0	200	12/28/2015 09:50	
Styrene	ND	1.0	200	12/28/2015 09:50	
1,1,1,2-Tetrachloroethane	ND	1.0	200	12/28/2015 09:50	
1,1,2,2-Tetrachloroethane	ND	1.0	200	12/28/2015 09:50	
Tetrachloroethene	ND	1.0	200	12/28/2015 09:50	
Toluene	ND	1.0	200	12/28/2015 09:50	
1,2,3-Trichlorobenzene	ND	1.0	200	12/28/2015 09:50	
1,2,4-Trichlorobenzene	ND	1.0	200	12/28/2015 09:50	
1,1,1-Trichloroethane	ND	1.0	200	12/28/2015 09:50	
1,1,2-Trichloroethane	ND	1.0	200	12/28/2015 09:50	
Trichloroethene	ND	1.0	200	12/28/2015 09:50	
Trichlorofluoromethane	ND	1.0	200	12/28/2015 09:50	
1,2,3-Trichloropropane	ND	1.0	200	12/28/2015 09:50	
1,2,4-Trimethylbenzene	<b>13</b>	1.0	200	12/28/2015 09:50	
1,3,5-Trimethylbenzene	<b>1.4</b>	1.0	200	12/28/2015 09:50	
Vinyl Chloride	ND	1.0	200	12/28/2015 09:50	
Xylenes, Total	ND	1.0	200	12/28/2015 09:50	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-10	1512799-028A	Soil	12/15/2015 12:30	GC18	114409

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
Dibromofluoromethane	92		70-130		12/28/2015 09:50
Toluene-d8	88		70-130		12/28/2015 09:50
4-BFB	75		70-130		12/28/2015 09:50
Benzene-d6	154	S	60-140		12/28/2015 09:50
Ethylbenzene-d10	315	S	60-140		12/28/2015 09:50
1,2-DCB-d4	362	S	60-140		12/28/2015 09:50

Analyst(s): KF

Analytical Comments: c7



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-15	1512799-029A	Soil	12/15/2015 12:40	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/21/2015 22:58	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/21/2015 22:58	
Benzene	ND	0.0050	1	12/21/2015 22:58	
Bromobenzene	ND	0.0050	1	12/21/2015 22:58	
Bromochloromethane	ND	0.0050	1	12/21/2015 22:58	
Bromodichloromethane	ND	0.0050	1	12/21/2015 22:58	
Bromoform	ND	0.0050	1	12/21/2015 22:58	
Bromomethane	ND	0.0050	1	12/21/2015 22:58	
2-Butanone (MEK)	ND	0.020	1	12/21/2015 22:58	
t-Butyl alcohol (TBA)	ND	0.050	1	12/21/2015 22:58	
n-Butyl benzene	ND	0.0050	1	12/21/2015 22:58	
sec-Butyl benzene	ND	0.0050	1	12/21/2015 22:58	
tert-Butyl benzene	ND	0.0050	1	12/21/2015 22:58	
Carbon Disulfide	ND	0.0050	1	12/21/2015 22:58	
Carbon Tetrachloride	ND	0.0050	1	12/21/2015 22:58	
Chlorobenzene	ND	0.0050	1	12/21/2015 22:58	
Chloroethane	ND	0.0050	1	12/21/2015 22:58	
Chloroform	ND	0.0050	1	12/21/2015 22:58	
Chloromethane	ND	0.0050	1	12/21/2015 22:58	
2-Chlorotoluene	ND	0.0050	1	12/21/2015 22:58	
4-Chlorotoluene	ND	0.0050	1	12/21/2015 22:58	
Dibromochloromethane	ND	0.0050	1	12/21/2015 22:58	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/21/2015 22:58	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/21/2015 22:58	
Dibromomethane	ND	0.0050	1	12/21/2015 22:58	
1,2-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:58	
1,3-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:58	
1,4-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:58	
Dichlorodifluoromethane	ND	0.0050	1	12/21/2015 22:58	
1,1-Dichloroethane	ND	0.0050	1	12/21/2015 22:58	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/21/2015 22:58	
1,1-Dichloroethene	ND	0.0050	1	12/21/2015 22:58	
cis-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 22:58	
trans-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 22:58	
1,2-Dichloropropane	ND	0.0050	1	12/21/2015 22:58	
1,3-Dichloropropane	ND	0.0050	1	12/21/2015 22:58	
2,2-Dichloropropane	ND	0.0050	1	12/21/2015 22:58	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-15	1512799-029A	Soil	12/15/2015 12:40	GC16	114409

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	12/21/2015 22:58
cis-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 22:58
trans-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 22:58
Diisopropyl ether (DIPE)	ND	0.0050	1	12/21/2015 22:58
Ethylbenzene	ND	0.0050	1	12/21/2015 22:58
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/21/2015 22:58
Freon 113	ND	0.0050	1	12/21/2015 22:58
Hexachlorobutadiene	ND	0.0050	1	12/21/2015 22:58
Hexachloroethane	ND	0.0050	1	12/21/2015 22:58
2-Hexanone	ND	0.0050	1	12/21/2015 22:58
Isopropylbenzene	ND	0.0050	1	12/21/2015 22:58
4-Isopropyl toluene	ND	0.0050	1	12/21/2015 22:58
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/21/2015 22:58
Methylene chloride	ND	0.0050	1	12/21/2015 22:58
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/21/2015 22:58
Naphthalene	ND	0.0050	1	12/21/2015 22:58
n-Propyl benzene	ND	0.0050	1	12/21/2015 22:58
Styrene	ND	0.0050	1	12/21/2015 22:58
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 22:58
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 22:58
Tetrachloroethene	ND	0.0050	1	12/21/2015 22:58
Toluene	ND	0.0050	1	12/21/2015 22:58
1,2,3-Trichlorobenzene	ND	0.0050	1	12/21/2015 22:58
1,2,4-Trichlorobenzene	ND	0.0050	1	12/21/2015 22:58
1,1,1-Trichloroethane	ND	0.0050	1	12/21/2015 22:58
1,1,2-Trichloroethane	ND	0.0050	1	12/21/2015 22:58
Trichloroethene	ND	0.0050	1	12/21/2015 22:58
Trichlorofluoromethane	ND	0.0050	1	12/21/2015 22:58
1,2,3-Trichloropropane	ND	0.0050	1	12/21/2015 22:58
1,2,4-Trimethylbenzene	ND	0.0050	1	12/21/2015 22:58
1,3,5-Trimethylbenzene	ND	0.0050	1	12/21/2015 22:58
Vinyl Chloride	ND	0.0050	1	12/21/2015 22:58
Xylenes, Total	ND	0.0050	1	12/21/2015 22:58

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-15	1512799-029A	Soil	12/15/2015 12:40	GC16	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	84	70-130		12/21/2015 22:58
Toluene-d8	81	70-130		12/21/2015 22:58
4-BFB	79	70-130		12/21/2015 22:58
Benzene-d6	83	60-140		12/21/2015 22:58
Ethylbenzene-d10	86	60-140		12/21/2015 22:58
1,2-DCB-d4	68	60-140		12/21/2015 22:58

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-20	1512799-030A	Soil	12/15/2015 12:45	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 22:40	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 22:40	
Benzene	ND	0.0050	1	12/22/2015 22:40	
Bromobenzene	ND	0.0050	1	12/22/2015 22:40	
Bromochloromethane	ND	0.0050	1	12/22/2015 22:40	
Bromodichloromethane	ND	0.0050	1	12/22/2015 22:40	
Bromoform	ND	0.0050	1	12/22/2015 22:40	
Bromomethane	ND	0.0050	1	12/22/2015 22:40	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 22:40	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 22:40	
n-Butyl benzene	ND	0.0050	1	12/22/2015 22:40	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 22:40	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 22:40	
Carbon Disulfide	ND	0.0050	1	12/22/2015 22:40	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 22:40	
Chlorobenzene	ND	0.0050	1	12/22/2015 22:40	
Chloroethane	ND	0.0050	1	12/22/2015 22:40	
Chloroform	ND	0.0050	1	12/22/2015 22:40	
Chloromethane	ND	0.0050	1	12/22/2015 22:40	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 22:40	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 22:40	
Dibromochloromethane	ND	0.0050	1	12/22/2015 22:40	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 22:40	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 22:40	
Dibromomethane	ND	0.0050	1	12/22/2015 22:40	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 22:40	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 22:40	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 22:40	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 22:40	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 22:40	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 22:40	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 22:40	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 22:40	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 22:40	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 22:40	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 22:40	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 22:40	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-20	1512799-030A	Soil	12/15/2015 12:45	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 22:40	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 22:40	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 22:40	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 22:40	
Ethylbenzene	ND	0.0050	1	12/22/2015 22:40	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 22:40	
Freon 113	ND	0.0050	1	12/22/2015 22:40	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 22:40	
Hexachloroethane	ND	0.0050	1	12/22/2015 22:40	
2-Hexanone	ND	0.0050	1	12/22/2015 22:40	
Isopropylbenzene	ND	0.0050	1	12/22/2015 22:40	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 22:40	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 22:40	
Methylene chloride	ND	0.0050	1	12/22/2015 22:40	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 22:40	
Naphthalene	ND	0.0050	1	12/22/2015 22:40	
n-Propyl benzene	ND	0.0050	1	12/22/2015 22:40	
Styrene	ND	0.0050	1	12/22/2015 22:40	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 22:40	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 22:40	
Tetrachloroethene	ND	0.0050	1	12/22/2015 22:40	
Toluene	ND	0.0050	1	12/22/2015 22:40	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 22:40	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 22:40	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 22:40	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 22:40	
Trichloroethene	ND	0.0050	1	12/22/2015 22:40	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 22:40	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 22:40	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 22:40	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 22:40	
Vinyl Chloride	ND	0.0050	1	12/22/2015 22:40	
Xylenes, Total	ND	0.0050	1	12/22/2015 22:40	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-20	1512799-030A	Soil	12/15/2015 12:45	GC16	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	84	70-130		12/22/2015 22:40
Toluene-d8	83	70-130		12/22/2015 22:40
4-BFB	82	70-130		12/22/2015 22:40
Benzene-d6	66	60-140		12/22/2015 22:40
Ethylbenzene-d10	72	60-140		12/22/2015 22:40
1,2-DCB-d4	64	60-140		12/22/2015 22:40

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2.5	1512799-031A	Soil	12/15/2015 12:55	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/23/2015 20:41	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/23/2015 20:41	
Benzene	ND	0.0050	1	12/23/2015 20:41	
Bromobenzene	ND	0.0050	1	12/23/2015 20:41	
Bromochloromethane	ND	0.0050	1	12/23/2015 20:41	
Bromodichloromethane	ND	0.0050	1	12/23/2015 20:41	
Bromoform	ND	0.0050	1	12/23/2015 20:41	
Bromomethane	ND	0.0050	1	12/23/2015 20:41	
2-Butanone (MEK)	ND	0.020	1	12/23/2015 20:41	
t-Butyl alcohol (TBA)	ND	0.050	1	12/23/2015 20:41	
n-Butyl benzene	ND	0.0050	1	12/23/2015 20:41	
sec-Butyl benzene	ND	0.0050	1	12/23/2015 20:41	
tert-Butyl benzene	ND	0.0050	1	12/23/2015 20:41	
Carbon Disulfide	ND	0.0050	1	12/23/2015 20:41	
Carbon Tetrachloride	ND	0.0050	1	12/23/2015 20:41	
Chlorobenzene	ND	0.0050	1	12/23/2015 20:41	
Chloroethane	ND	0.0050	1	12/23/2015 20:41	
Chloroform	ND	0.0050	1	12/23/2015 20:41	
Chloromethane	ND	0.0050	1	12/23/2015 20:41	
2-Chlorotoluene	ND	0.0050	1	12/23/2015 20:41	
4-Chlorotoluene	ND	0.0050	1	12/23/2015 20:41	
Dibromochloromethane	ND	0.0050	1	12/23/2015 20:41	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/23/2015 20:41	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/23/2015 20:41	
Dibromomethane	ND	0.0050	1	12/23/2015 20:41	
1,2-Dichlorobenzene	ND	0.0050	1	12/23/2015 20:41	
1,3-Dichlorobenzene	ND	0.0050	1	12/23/2015 20:41	
1,4-Dichlorobenzene	ND	0.0050	1	12/23/2015 20:41	
Dichlorodifluoromethane	ND	0.0050	1	12/23/2015 20:41	
1,1-Dichloroethane	ND	0.0050	1	12/23/2015 20:41	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/23/2015 20:41	
1,1-Dichloroethene	ND	0.0050	1	12/23/2015 20:41	
cis-1,2-Dichloroethene	ND	0.0050	1	12/23/2015 20:41	
trans-1,2-Dichloroethene	ND	0.0050	1	12/23/2015 20:41	
1,2-Dichloropropane	ND	0.0050	1	12/23/2015 20:41	
1,3-Dichloropropane	ND	0.0050	1	12/23/2015 20:41	
2,2-Dichloropropane	ND	0.0050	1	12/23/2015 20:41	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2.5	1512799-031A	Soil	12/15/2015 12:55	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/23/2015 20:41	
cis-1,3-Dichloropropene	ND	0.0050	1	12/23/2015 20:41	
trans-1,3-Dichloropropene	ND	0.0050	1	12/23/2015 20:41	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/23/2015 20:41	
Ethylbenzene	ND	0.0050	1	12/23/2015 20:41	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/23/2015 20:41	
Freon 113	ND	0.0050	1	12/23/2015 20:41	
Hexachlorobutadiene	ND	0.0050	1	12/23/2015 20:41	
Hexachloroethane	ND	0.0050	1	12/23/2015 20:41	
2-Hexanone	ND	0.0050	1	12/23/2015 20:41	
Isopropylbenzene	ND	0.0050	1	12/23/2015 20:41	
4-Isopropyl toluene	ND	0.0050	1	12/23/2015 20:41	
Methyl-t-butyl ether (MTBE)	<b>0.0062</b>	0.0050	1	12/23/2015 20:41	
Methylene chloride	ND	0.0050	1	12/23/2015 20:41	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/23/2015 20:41	
Naphthalene	ND	0.0050	1	12/23/2015 20:41	
n-Propyl benzene	ND	0.0050	1	12/23/2015 20:41	
Styrene	ND	0.0050	1	12/23/2015 20:41	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/23/2015 20:41	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/23/2015 20:41	
Tetrachloroethene	ND	0.0050	1	12/23/2015 20:41	
Toluene	ND	0.0050	1	12/23/2015 20:41	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/23/2015 20:41	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/23/2015 20:41	
1,1,1-Trichloroethane	ND	0.0050	1	12/23/2015 20:41	
1,1,2-Trichloroethane	ND	0.0050	1	12/23/2015 20:41	
Trichloroethene	ND	0.0050	1	12/23/2015 20:41	
Trichlorofluoromethane	ND	0.0050	1	12/23/2015 20:41	
1,2,3-Trichloropropane	ND	0.0050	1	12/23/2015 20:41	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/23/2015 20:41	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/23/2015 20:41	
Vinyl Chloride	ND	0.0050	1	12/23/2015 20:41	
Xylenes, Total	ND	0.0050	1	12/23/2015 20:41	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2.5	1512799-031A	Soil	12/15/2015 12:55	GC16	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	83	70-130		12/23/2015 20:41
Toluene-d8	84	70-130		12/23/2015 20:41
4-BFB	79	70-130		12/23/2015 20:41
Benzene-d6	73	60-140		12/23/2015 20:41
Ethylbenzene-d10	82	60-140		12/23/2015 20:41
1,2-DCB-d4	65	60-140		12/23/2015 20:41

**Analyst(s):** KBO





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-5	1512799-032A	Soil	12/15/2015 14:00	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 03:18	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 03:18	
Benzene	ND	0.0050	1	12/22/2015 03:18	
Bromobenzene	ND	0.0050	1	12/22/2015 03:18	
Bromochloromethane	ND	0.0050	1	12/22/2015 03:18	
Bromodichloromethane	ND	0.0050	1	12/22/2015 03:18	
Bromoform	ND	0.0050	1	12/22/2015 03:18	
Bromomethane	ND	0.0050	1	12/22/2015 03:18	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 03:18	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 03:18	
n-Butyl benzene	ND	0.0050	1	12/22/2015 03:18	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 03:18	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 03:18	
Carbon Disulfide	ND	0.0050	1	12/22/2015 03:18	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 03:18	
Chlorobenzene	ND	0.0050	1	12/22/2015 03:18	
Chloroethane	ND	0.0050	1	12/22/2015 03:18	
Chloroform	ND	0.0050	1	12/22/2015 03:18	
Chloromethane	ND	0.0050	1	12/22/2015 03:18	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 03:18	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 03:18	
Dibromochloromethane	ND	0.0050	1	12/22/2015 03:18	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 03:18	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 03:18	
Dibromomethane	ND	0.0050	1	12/22/2015 03:18	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 03:18	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 03:18	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 03:18	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 03:18	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 03:18	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 03:18	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 03:18	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 03:18	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 03:18	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 03:18	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 03:18	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 03:18	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-5	1512799-032A	Soil	12/15/2015 14:00	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 03:18	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 03:18	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 03:18	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 03:18	
Ethylbenzene	ND	0.0050	1	12/22/2015 03:18	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 03:18	
Freon 113	ND	0.0050	1	12/22/2015 03:18	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 03:18	
Hexachloroethane	ND	0.0050	1	12/22/2015 03:18	
2-Hexanone	ND	0.0050	1	12/22/2015 03:18	
Isopropylbenzene	ND	0.0050	1	12/22/2015 03:18	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 03:18	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 03:18	
Methylene chloride	ND	0.0050	1	12/22/2015 03:18	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 03:18	
Naphthalene	ND	0.0050	1	12/22/2015 03:18	
n-Propyl benzene	ND	0.0050	1	12/22/2015 03:18	
Styrene	ND	0.0050	1	12/22/2015 03:18	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 03:18	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 03:18	
Tetrachloroethene	ND	0.0050	1	12/22/2015 03:18	
Toluene	ND	0.0050	1	12/22/2015 03:18	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 03:18	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 03:18	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 03:18	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 03:18	
Trichloroethene	ND	0.0050	1	12/22/2015 03:18	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 03:18	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 03:18	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 03:18	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 03:18	
Vinyl Chloride	ND	0.0050	1	12/22/2015 03:18	
Xylenes, Total	ND	0.0050	1	12/22/2015 03:18	

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# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-5	1512799-032A	Soil	12/15/2015 14:00	GC18	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	92	70-130		12/22/2015 03:18
Toluene-d8	104	70-130		12/22/2015 03:18
4-BFB	77	70-130		12/22/2015 03:18
Benzene-d6	115	60-140		12/22/2015 03:18
Ethylbenzene-d10	104	60-140		12/22/2015 03:18
1,2-DCB-d4	106	60-140		12/22/2015 03:18

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-10	1512799-033A	Soil	12/15/2015 14:20	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/22/2015 02:39	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/22/2015 02:39	
Benzene	ND	0.0050	1	12/22/2015 02:39	
Bromobenzene	ND	0.0050	1	12/22/2015 02:39	
Bromochloromethane	ND	0.0050	1	12/22/2015 02:39	
Bromodichloromethane	ND	0.0050	1	12/22/2015 02:39	
Bromoform	ND	0.0050	1	12/22/2015 02:39	
Bromomethane	ND	0.0050	1	12/22/2015 02:39	
2-Butanone (MEK)	ND	0.020	1	12/22/2015 02:39	
t-Butyl alcohol (TBA)	ND	0.050	1	12/22/2015 02:39	
n-Butyl benzene	ND	0.0050	1	12/22/2015 02:39	
sec-Butyl benzene	ND	0.0050	1	12/22/2015 02:39	
tert-Butyl benzene	ND	0.0050	1	12/22/2015 02:39	
Carbon Disulfide	ND	0.0050	1	12/22/2015 02:39	
Carbon Tetrachloride	ND	0.0050	1	12/22/2015 02:39	
Chlorobenzene	ND	0.0050	1	12/22/2015 02:39	
Chloroethane	ND	0.0050	1	12/22/2015 02:39	
Chloroform	ND	0.0050	1	12/22/2015 02:39	
Chloromethane	ND	0.0050	1	12/22/2015 02:39	
2-Chlorotoluene	ND	0.0050	1	12/22/2015 02:39	
4-Chlorotoluene	ND	0.0050	1	12/22/2015 02:39	
Dibromochloromethane	ND	0.0050	1	12/22/2015 02:39	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/22/2015 02:39	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/22/2015 02:39	
Dibromomethane	ND	0.0050	1	12/22/2015 02:39	
1,2-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:39	
1,3-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:39	
1,4-Dichlorobenzene	ND	0.0050	1	12/22/2015 02:39	
Dichlorodifluoromethane	ND	0.0050	1	12/22/2015 02:39	
1,1-Dichloroethane	ND	0.0050	1	12/22/2015 02:39	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/22/2015 02:39	
1,1-Dichloroethene	ND	0.0050	1	12/22/2015 02:39	
cis-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 02:39	
trans-1,2-Dichloroethene	ND	0.0050	1	12/22/2015 02:39	
1,2-Dichloropropane	ND	0.0050	1	12/22/2015 02:39	
1,3-Dichloropropane	ND	0.0050	1	12/22/2015 02:39	
2,2-Dichloropropane	ND	0.0050	1	12/22/2015 02:39	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-10	1512799-033A	Soil	12/15/2015 14:20	GC18	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/22/2015 02:39	
cis-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 02:39	
trans-1,3-Dichloropropene	ND	0.0050	1	12/22/2015 02:39	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/22/2015 02:39	
Ethylbenzene	ND	0.0050	1	12/22/2015 02:39	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/22/2015 02:39	
Freon 113	ND	0.0050	1	12/22/2015 02:39	
Hexachlorobutadiene	ND	0.0050	1	12/22/2015 02:39	
Hexachloroethane	ND	0.0050	1	12/22/2015 02:39	
2-Hexanone	ND	0.0050	1	12/22/2015 02:39	
Isopropylbenzene	ND	0.0050	1	12/22/2015 02:39	
4-Isopropyl toluene	ND	0.0050	1	12/22/2015 02:39	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/22/2015 02:39	
Methylene chloride	ND	0.0050	1	12/22/2015 02:39	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/22/2015 02:39	
Naphthalene	ND	0.0050	1	12/22/2015 02:39	
n-Propyl benzene	ND	0.0050	1	12/22/2015 02:39	
Styrene	ND	0.0050	1	12/22/2015 02:39	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 02:39	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/22/2015 02:39	
Tetrachloroethene	ND	0.0050	1	12/22/2015 02:39	
Toluene	ND	0.0050	1	12/22/2015 02:39	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/22/2015 02:39	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/22/2015 02:39	
1,1,1-Trichloroethane	ND	0.0050	1	12/22/2015 02:39	
1,1,2-Trichloroethane	ND	0.0050	1	12/22/2015 02:39	
Trichloroethene	ND	0.0050	1	12/22/2015 02:39	
Trichlorofluoromethane	ND	0.0050	1	12/22/2015 02:39	
1,2,3-Trichloropropane	ND	0.0050	1	12/22/2015 02:39	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/22/2015 02:39	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/22/2015 02:39	
Vinyl Chloride	ND	0.0050	1	12/22/2015 02:39	
Xylenes, Total	ND	0.0050	1	12/22/2015 02:39	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-10	1512799-033A	Soil	12/15/2015 14:20	GC18	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	92	70-130		12/22/2015 02:39
Toluene-d8	105	70-130		12/22/2015 02:39
4-BFB	78	70-130		12/22/2015 02:39
Benzene-d6	113	60-140		12/22/2015 02:39
Ethylbenzene-d10	102	60-140		12/22/2015 02:39
1,2-DCB-d4	101	60-140		12/22/2015 02:39

**Analyst(s):** KF



# Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-15	1512799-034A	Soil	12/15/2015 14:25	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/21/2015 21:34	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/21/2015 21:34	
Benzene	ND	0.0050	1	12/21/2015 21:34	
Bromobenzene	ND	0.0050	1	12/21/2015 21:34	
Bromochloromethane	ND	0.0050	1	12/21/2015 21:34	
Bromodichloromethane	ND	0.0050	1	12/21/2015 21:34	
Bromoform	ND	0.0050	1	12/21/2015 21:34	
Bromomethane	ND	0.0050	1	12/21/2015 21:34	
2-Butanone (MEK)	ND	0.020	1	12/21/2015 21:34	
t-Butyl alcohol (TBA)	ND	0.050	1	12/21/2015 21:34	
n-Butyl benzene	ND	0.0050	1	12/21/2015 21:34	
sec-Butyl benzene	ND	0.0050	1	12/21/2015 21:34	
tert-Butyl benzene	ND	0.0050	1	12/21/2015 21:34	
Carbon Disulfide	ND	0.0050	1	12/21/2015 21:34	
Carbon Tetrachloride	ND	0.0050	1	12/21/2015 21:34	
Chlorobenzene	ND	0.0050	1	12/21/2015 21:34	
Chloroethane	ND	0.0050	1	12/21/2015 21:34	
Chloroform	ND	0.0050	1	12/21/2015 21:34	
Chloromethane	ND	0.0050	1	12/21/2015 21:34	
2-Chlorotoluene	ND	0.0050	1	12/21/2015 21:34	
4-Chlorotoluene	ND	0.0050	1	12/21/2015 21:34	
Dibromochloromethane	ND	0.0050	1	12/21/2015 21:34	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/21/2015 21:34	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/21/2015 21:34	
Dibromomethane	ND	0.0050	1	12/21/2015 21:34	
1,2-Dichlorobenzene	ND	0.0050	1	12/21/2015 21:34	
1,3-Dichlorobenzene	ND	0.0050	1	12/21/2015 21:34	
1,4-Dichlorobenzene	ND	0.0050	1	12/21/2015 21:34	
Dichlorodifluoromethane	ND	0.0050	1	12/21/2015 21:34	
1,1-Dichloroethane	ND	0.0050	1	12/21/2015 21:34	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/21/2015 21:34	
1,1-Dichloroethene	ND	0.0050	1	12/21/2015 21:34	
cis-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 21:34	
trans-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 21:34	
1,2-Dichloropropane	ND	0.0050	1	12/21/2015 21:34	
1,3-Dichloropropane	ND	0.0050	1	12/21/2015 21:34	
2,2-Dichloropropane	ND	0.0050	1	12/21/2015 21:34	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-15	1512799-034A	Soil	12/15/2015 14:25	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/21/2015 21:34	
cis-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 21:34	
trans-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 21:34	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/21/2015 21:34	
Ethylbenzene	ND	0.0050	1	12/21/2015 21:34	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/21/2015 21:34	
Freon 113	ND	0.0050	1	12/21/2015 21:34	
Hexachlorobutadiene	ND	0.0050	1	12/21/2015 21:34	
Hexachloroethane	ND	0.0050	1	12/21/2015 21:34	
2-Hexanone	ND	0.0050	1	12/21/2015 21:34	
Isopropylbenzene	ND	0.0050	1	12/21/2015 21:34	
4-Isopropyl toluene	ND	0.0050	1	12/21/2015 21:34	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/21/2015 21:34	
Methylene chloride	ND	0.0050	1	12/21/2015 21:34	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/21/2015 21:34	
Naphthalene	ND	0.0050	1	12/21/2015 21:34	
n-Propyl benzene	ND	0.0050	1	12/21/2015 21:34	
Styrene	ND	0.0050	1	12/21/2015 21:34	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 21:34	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 21:34	
Tetrachloroethene	ND	0.0050	1	12/21/2015 21:34	
Toluene	ND	0.0050	1	12/21/2015 21:34	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/21/2015 21:34	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/21/2015 21:34	
1,1,1-Trichloroethane	ND	0.0050	1	12/21/2015 21:34	
1,1,2-Trichloroethane	ND	0.0050	1	12/21/2015 21:34	
Trichloroethene	ND	0.0050	1	12/21/2015 21:34	
Trichlorofluoromethane	ND	0.0050	1	12/21/2015 21:34	
1,2,3-Trichloropropane	ND	0.0050	1	12/21/2015 21:34	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/21/2015 21:34	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/21/2015 21:34	
Vinyl Chloride	ND	0.0050	1	12/21/2015 21:34	
Xylenes, Total	ND	0.0050	1	12/21/2015 21:34	

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-15	1512799-034A	Soil	12/15/2015 14:25	GC16	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/21/2015 21:34
Toluene-d8	81	70-130		12/21/2015 21:34
4-BFB	79	70-130		12/21/2015 21:34
Benzene-d6	85	60-140		12/21/2015 21:34
Ethylbenzene-d10	89	60-140		12/21/2015 21:34
1,2-DCB-d4	68	60-140		12/21/2015 21:34

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-20	1512799-035A	Soil	12/15/2015 14:35	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	12/21/2015 22:16	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	12/21/2015 22:16	
Benzene	ND	0.0050	1	12/21/2015 22:16	
Bromobenzene	ND	0.0050	1	12/21/2015 22:16	
Bromochloromethane	ND	0.0050	1	12/21/2015 22:16	
Bromodichloromethane	ND	0.0050	1	12/21/2015 22:16	
Bromoform	ND	0.0050	1	12/21/2015 22:16	
Bromomethane	ND	0.0050	1	12/21/2015 22:16	
2-Butanone (MEK)	ND	0.020	1	12/21/2015 22:16	
t-Butyl alcohol (TBA)	ND	0.050	1	12/21/2015 22:16	
n-Butyl benzene	ND	0.0050	1	12/21/2015 22:16	
sec-Butyl benzene	ND	0.0050	1	12/21/2015 22:16	
tert-Butyl benzene	ND	0.0050	1	12/21/2015 22:16	
Carbon Disulfide	ND	0.0050	1	12/21/2015 22:16	
Carbon Tetrachloride	ND	0.0050	1	12/21/2015 22:16	
Chlorobenzene	ND	0.0050	1	12/21/2015 22:16	
Chloroethane	ND	0.0050	1	12/21/2015 22:16	
Chloroform	ND	0.0050	1	12/21/2015 22:16	
Chloromethane	ND	0.0050	1	12/21/2015 22:16	
2-Chlorotoluene	ND	0.0050	1	12/21/2015 22:16	
4-Chlorotoluene	ND	0.0050	1	12/21/2015 22:16	
Dibromochloromethane	ND	0.0050	1	12/21/2015 22:16	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	12/21/2015 22:16	
1,2-Dibromoethane (EDB)	ND	0.0040	1	12/21/2015 22:16	
Dibromomethane	ND	0.0050	1	12/21/2015 22:16	
1,2-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:16	
1,3-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:16	
1,4-Dichlorobenzene	ND	0.0050	1	12/21/2015 22:16	
Dichlorodifluoromethane	ND	0.0050	1	12/21/2015 22:16	
1,1-Dichloroethane	ND	0.0050	1	12/21/2015 22:16	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	12/21/2015 22:16	
1,1-Dichloroethene	ND	0.0050	1	12/21/2015 22:16	
cis-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 22:16	
trans-1,2-Dichloroethene	ND	0.0050	1	12/21/2015 22:16	
1,2-Dichloropropane	ND	0.0050	1	12/21/2015 22:16	
1,3-Dichloropropane	ND	0.0050	1	12/21/2015 22:16	
2,2-Dichloropropane	ND	0.0050	1	12/21/2015 22:16	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-20	1512799-035A	Soil	12/15/2015 14:35	GC16	114409
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	12/21/2015 22:16	
cis-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 22:16	
trans-1,3-Dichloropropene	ND	0.0050	1	12/21/2015 22:16	
Diisopropyl ether (DIPE)	ND	0.0050	1	12/21/2015 22:16	
Ethylbenzene	ND	0.0050	1	12/21/2015 22:16	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	12/21/2015 22:16	
Freon 113	ND	0.0050	1	12/21/2015 22:16	
Hexachlorobutadiene	ND	0.0050	1	12/21/2015 22:16	
Hexachloroethane	ND	0.0050	1	12/21/2015 22:16	
2-Hexanone	ND	0.0050	1	12/21/2015 22:16	
Isopropylbenzene	ND	0.0050	1	12/21/2015 22:16	
4-Isopropyl toluene	ND	0.0050	1	12/21/2015 22:16	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	12/21/2015 22:16	
Methylene chloride	ND	0.0050	1	12/21/2015 22:16	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	12/21/2015 22:16	
Naphthalene	ND	0.0050	1	12/21/2015 22:16	
n-Propyl benzene	ND	0.0050	1	12/21/2015 22:16	
Styrene	ND	0.0050	1	12/21/2015 22:16	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 22:16	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	12/21/2015 22:16	
Tetrachloroethene	ND	0.0050	1	12/21/2015 22:16	
Toluene	ND	0.0050	1	12/21/2015 22:16	
1,2,3-Trichlorobenzene	ND	0.0050	1	12/21/2015 22:16	
1,2,4-Trichlorobenzene	ND	0.0050	1	12/21/2015 22:16	
1,1,1-Trichloroethane	ND	0.0050	1	12/21/2015 22:16	
1,1,2-Trichloroethane	ND	0.0050	1	12/21/2015 22:16	
Trichloroethene	ND	0.0050	1	12/21/2015 22:16	
Trichlorofluoromethane	ND	0.0050	1	12/21/2015 22:16	
1,2,3-Trichloropropane	ND	0.0050	1	12/21/2015 22:16	
1,2,4-Trimethylbenzene	ND	0.0050	1	12/21/2015 22:16	
1,3,5-Trimethylbenzene	ND	0.0050	1	12/21/2015 22:16	
Vinyl Chloride	ND	0.0050	1	12/21/2015 22:16	
Xylenes, Total	ND	0.0050	1	12/21/2015 22:16	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-20	1512799-035A	Soil	12/15/2015 14:35	GC16	114409

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	84	70-130		12/21/2015 22:16
Toluene-d8	80	70-130		12/21/2015 22:16
4-BFB	81	70-130		12/21/2015 22:16
Benzene-d6	84	60-140		12/21/2015 22:16
Ethylbenzene-d10	87	60-140		12/21/2015 22:16
1,2-DCB-d4	69	60-140		12/21/2015 22:16

Analyst(s): KF



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B1-2.5	1512799-001A	Soil	12/14/2015 07:55	GC19	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 17:45
MTBE	---	0.050	1	12/21/2015 17:45
Benzene	---	0.0050	1	12/21/2015 17:45
Toluene	---	0.0050	1	12/21/2015 17:45
Ethylbenzene	---	0.0050	1	12/21/2015 17:45
Xylenes	---	0.015	1	12/21/2015 17:45
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	113	70-130		12/21/2015 17:45

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-2.5	1512799-002A	Soil	12/14/2015 08:10	GC7	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 03:25
MTBE	---	0.050	1	12/21/2015 03:25
Benzene	---	0.0050	1	12/21/2015 03:25
Toluene	---	0.0050	1	12/21/2015 03:25
Ethylbenzene	---	0.0050	1	12/21/2015 03:25
Xylenes	---	0.015	1	12/21/2015 03:25
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	98	70-130		12/21/2015 03:25

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B3-2.5	1512799-003A	Soil	12/14/2015 08:25	GC19	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 01:52
MTBE	---	0.050	1	12/21/2015 01:52
Benzene	---	0.0050	1	12/21/2015 01:52
Toluene	---	0.0050	1	12/21/2015 01:52
Ethylbenzene	---	0.0050	1	12/21/2015 01:52
Xylenes	---	0.015	1	12/21/2015 01:52
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	112	70-130		12/21/2015 01:52

**Analyst(s):** IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B4-2.5	1512799-004A	Soil	12/14/2015 08:35	GC7	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 19:23
MTBE	---	0.050	1	12/20/2015 19:23
Benzene	---	0.0050	1	12/20/2015 19:23
Toluene	---	0.0050	1	12/20/2015 19:23
Ethylbenzene	---	0.0050	1	12/20/2015 19:23
Xylenes	---	0.015	1	12/20/2015 19:23
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	102	70-130		12/20/2015 19:23

**Analyst(s):** IA



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B5-2.5	1512799-005A	Soil	12/14/2015 08:50	GC19	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 05:23
MTBE	---	0.050	1	12/21/2015 05:23
Benzene	---	0.0050	1	12/21/2015 05:23
Toluene	---	0.0050	1	12/21/2015 05:23
Ethylbenzene	---	0.0050	1	12/21/2015 05:23
Xylenes	---	0.015	1	12/21/2015 05:23
Surrogates	REC (%)	Limits		
2-Fluorotoluene	110	70-130		12/21/2015 05:23

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-2.5	1512799-006A	Soil	12/14/2015 09:15	GC7	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 22:24
MTBE	---	0.050	1	12/20/2015 22:24
Benzene	---	0.0050	1	12/20/2015 22:24
Toluene	---	0.0050	1	12/20/2015 22:24
Ethylbenzene	---	0.0050	1	12/20/2015 22:24
Xylenes	---	0.015	1	12/20/2015 22:24
Surrogates	REC (%)	Limits		
2-Fluorotoluene	99	70-130		12/20/2015 22:24

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP1-10	1512799-007A	Soil	12/14/2015 09:35	GC19	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	8.1	1.0	1	12/20/2015 21:20
MTBE	---	0.050	1	12/20/2015 21:20
Benzene	---	0.0050	1	12/20/2015 21:20
Toluene	---	0.0050	1	12/20/2015 21:20
Ethylbenzene	---	0.0050	1	12/20/2015 21:20
Xylenes	---	0.015	1	12/20/2015 21:20

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	112	70-130	12/20/2015 21:20

**Analyst(s):** IA

**Analytical Comments:** d7,d9

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-15	1512799-008A	Soil	12/14/2015 09:40	GC19	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 00:51
MTBE	---	0.050	1	12/21/2015 00:51
Benzene	---	0.0050	1	12/21/2015 00:51
Toluene	---	0.0050	1	12/21/2015 00:51
Ethylbenzene	---	0.0050	1	12/21/2015 00:51
Xylenes	---	0.015	1	12/21/2015 00:51

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	114	70-130	12/21/2015 00:51

**Analyst(s):** IA

(Cont.)





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP1-20	1512799-009A	Soil	12/14/2015 09:50	GC7	114375

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 01:24
MTBE	---	0.050	1	12/21/2015 01:24
Benzene	---	0.0050	1	12/21/2015 01:24
Toluene	---	0.0050	1	12/21/2015 01:24
Ethylbenzene	---	0.0050	1	12/21/2015 01:24
Xylenes	---	0.015	1	12/21/2015 01:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	93	70-130		12/21/2015 01:24

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-2.5	1512799-010A	Soil	12/14/2015 10:05	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 02:31
MTBE	---	0.050	1	12/20/2015 02:31
Benzene	---	0.0050	1	12/20/2015 02:31
Toluene	---	0.0050	1	12/20/2015 02:31
Ethylbenzene	---	0.0050	1	12/20/2015 02:31
Xylenes	---	0.015	1	12/20/2015 02:31
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	108	70-130		12/20/2015 02:31

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW101-10	1512799-011A	Soil	12/14/2015 10:20	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	3100	100	100	12/20/2015 22:21
MTBE	---	5.0	100	12/20/2015 22:21
Benzene	---	0.50	100	12/20/2015 22:21
Toluene	---	0.50	100	12/20/2015 22:21
Ethylbenzene	---	0.50	100	12/20/2015 22:21
Xylenes	---	1.5	100	12/20/2015 22:21

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
2-Fluorotoluene	15	S	70-130	12/20/2015 22:21

**Analyst(s):** IA

**Analytical Comments:** d7,d9,c4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-15	1512799-012A	Soil	12/14/2015 10:25	GC7	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 20:23
MTBE	---	0.050	1	12/20/2015 20:23
Benzene	---	0.0050	1	12/20/2015 20:23
Toluene	---	0.0050	1	12/20/2015 20:23
Ethylbenzene	---	0.0050	1	12/20/2015 20:23
Xylenes	---	0.015	1	12/20/2015 20:23

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	104	70-130	12/20/2015 20:23

**Analyst(s):** IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW101-20	1512799-013A	Soil	12/14/2015 10:35	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 18:16
MTBE	---	0.050	1	12/21/2015 18:16
Benzene	---	0.0050	1	12/21/2015 18:16
Toluene	---	0.0050	1	12/21/2015 18:16
Ethylbenzene	---	0.0050	1	12/21/2015 18:16
Xylenes	---	0.015	1	12/21/2015 18:16
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	103	70-130		12/21/2015 18:16

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-2.5	1512799-014A	Soil	12/14/2015 10:50	GC7	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	11	1.0	1	12/20/2015 17:53
MTBE	---	0.050	1	12/20/2015 17:53
Benzene	---	0.0050	1	12/20/2015 17:53
Toluene	---	0.0050	1	12/20/2015 17:53
Ethylbenzene	---	0.0050	1	12/20/2015 17:53
Xylenes	---	0.015	1	12/20/2015 17:53
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	92	70-130		12/20/2015 17:53

Analyst(s): IA

Analytical Comments: d7,d9



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B6-4	1512799-015A	Soil	12/14/2015 11:00	GC19	114623

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/23/2015 23:10
MTBE	---	0.050	1	12/23/2015 23:10
Benzene	---	0.0050	1	12/23/2015 23:10
Toluene	---	0.0050	1	12/23/2015 23:10
Ethylbenzene	---	0.0050	1	12/23/2015 23:10
Xylenes	---	0.015	1	12/23/2015 23:10
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	117	70-130		12/23/2015 23:10

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-10	1512799-016A	Soil	12/14/2015 11:15	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	4.9	1.0	1	12/21/2015 22:51
MTBE	---	0.050	1	12/21/2015 22:51
Benzene	---	0.0050	1	12/21/2015 22:51
Toluene	---	0.0050	1	12/21/2015 22:51
Ethylbenzene	---	0.0050	1	12/21/2015 22:51
Xylenes	---	0.015	1	12/21/2015 22:51
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	104	70-130		12/21/2015 22:51

Analyst(s): IA

Analytical Comments: d1,d9



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B6-15	1512799-017A	Soil	12/14/2015 11:20	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	180	20	20	12/22/2015 16:41
MTBE	---	1.0	20	12/22/2015 16:41
Benzene	---	0.10	20	12/22/2015 16:41
Toluene	---	0.10	20	12/22/2015 16:41
Ethylbenzene	---	0.10	20	12/22/2015 16:41
Xylenes	---	0.30	20	12/22/2015 16:41

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
2-Fluorotoluene	133	S	70-130	12/22/2015 16:41

**Analyst(s):** IA

**Analytical Comments:** d7,d9,c4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-20	1512799-018A	Soil	12/14/2015 11:30	GC7	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 00:54
MTBE	---	0.050	1	12/21/2015 00:54
Benzene	---	0.0050	1	12/21/2015 00:54
Toluene	---	0.0050	1	12/21/2015 00:54
Ethylbenzene	---	0.0050	1	12/21/2015 00:54
Xylenes	---	0.015	1	12/21/2015 00:54

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	95	70-130	12/21/2015 00:54

**Analyst(s):** IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP3-2.5	1512799-019A	Soil	12/14/2015 12:55	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	47	10	10	12/22/2015 18:13
MTBE	---	0.50	10	12/22/2015 18:13
Benzene	---	0.050	10	12/22/2015 18:13
Toluene	---	0.050	10	12/22/2015 18:13
Ethylbenzene	---	0.050	10	12/22/2015 18:13
Xylenes	---	0.15	10	12/22/2015 18:13
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	107	70-130		12/22/2015 18:13

Analyst(s): IA

Analytical Comments: d7,d9

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-10	1512799-020A	Soil	12/14/2015 13:10	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	28	1.0	1	12/20/2015 03:01
MTBE	---	0.050	1	12/20/2015 03:01
Benzene	---	0.0050	1	12/20/2015 03:01
Toluene	---	0.0050	1	12/20/2015 03:01
Ethylbenzene	---	0.0050	1	12/20/2015 03:01
Xylenes	---	0.015	1	12/20/2015 03:01
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	109	70-130		12/20/2015 03:01

Analyst(s): IA

Analytical Comments: d7,d9

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP3-15	1512799-021A	Soil	12/14/2015 13:20	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	190	10	10	12/20/2015 23:51
MTBE	---	0.50	10	12/20/2015 23:51
Benzene	---	0.050	10	12/20/2015 23:51
Toluene	---	0.050	10	12/20/2015 23:51
Ethylbenzene	---	0.050	10	12/20/2015 23:51
Xylenes	---	0.15	10	12/20/2015 23:51

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
2-Fluorotoluene	152	S	70-130	12/20/2015 23:51

Analyst(s): IA

Analytical Comments: d2,d9,c4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-20	1512799-022A	Soil	12/14/2015 13:30	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 20:50
MTBE	---	0.050	1	12/20/2015 20:50
Benzene	---	0.0050	1	12/20/2015 20:50
Toluene	---	0.0050	1	12/20/2015 20:50
Ethylbenzene	---	0.0050	1	12/20/2015 20:50
Xylenes	---	0.015	1	12/20/2015 20:50

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	113	70-130	12/20/2015 20:50

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW103-5	1512799-023A	Soil	12/15/2015 10:05	GC7	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 07:27
MTBE	---	0.050	1	12/21/2015 07:27
Benzene	---	0.0050	1	12/21/2015 07:27
Toluene	---	0.0050	1	12/21/2015 07:27
Ethylbenzene	---	0.0050	1	12/21/2015 07:27
Xylenes	---	0.015	1	12/21/2015 07:27
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	86	70-130		12/21/2015 07:27

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-10	1512799-024A	Soil	12/15/2015 10:25	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	<b>770</b>	100	100	12/21/2015 00:21
MTBE	---	5.0	100	12/21/2015 00:21
Benzene	---	0.50	100	12/21/2015 00:21
Toluene	---	0.50	100	12/21/2015 00:21
Ethylbenzene	---	0.50	100	12/21/2015 00:21
Xylenes	---	1.5	100	12/21/2015 00:21
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
2-Fluorotoluene	294	S	70-130	12/21/2015 00:21

Analyst(s): IA

Analytical Comments: d2,d9,c4





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW103-15	1512799-025A	Soil	12/15/2015 10:30	GC7	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 03:55
MTBE	---	0.050	1	12/21/2015 03:55
Benzene	---	0.0050	1	12/21/2015 03:55
Toluene	---	0.0050	1	12/21/2015 03:55
Ethylbenzene	---	0.0050	1	12/21/2015 03:55
Xylenes	---	0.015	1	12/21/2015 03:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	93	70-130		12/21/2015 03:55

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-20	1512799-026A	Soil	12/15/2015 10:40	GC7	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 20:53
MTBE	---	0.050	1	12/20/2015 20:53
Benzene	---	0.0050	1	12/20/2015 20:53
Toluene	---	0.0050	1	12/20/2015 20:53
Ethylbenzene	---	0.0050	1	12/20/2015 20:53
Xylenes	---	0.015	1	12/20/2015 20:53
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	101	70-130		12/20/2015 20:53

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP2-5	1512799-027A	Soil	12/15/2015 12:10	GC19	114623

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/23/2015 16:09
MTBE	---	0.050	1	12/23/2015 16:09
Benzene	---	0.0050	1	12/23/2015 16:09
Toluene	---	0.0050	1	12/23/2015 16:09
Ethylbenzene	---	0.0050	1	12/23/2015 16:09
Xylenes	---	0.015	1	12/23/2015 16:09
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	121	70-130		12/23/2015 16:09

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-10	1512799-028A	Soil	12/15/2015 12:30	GC19	114405

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	<b>850</b>	100	100	12/20/2015 23:21
MTBE	---	5.0	100	12/20/2015 23:21
Benzene	---	0.50	100	12/20/2015 23:21
Toluene	---	0.50	100	12/20/2015 23:21
Ethylbenzene	---	0.50	100	12/20/2015 23:21
Xylenes	---	1.5	100	12/20/2015 23:21
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
2-Fluorotoluene	386	S	70-130	12/20/2015 23:21

Analyst(s): IA

Analytical Comments: d7,d9,c4



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP2-15	1512799-029A	Soil	12/15/2015 12:40	GC19	114623

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/23/2015 16:40
MTBE	---	0.050	1	12/23/2015 16:40
Benzene	---	0.0050	1	12/23/2015 16:40
Toluene	---	0.0050	1	12/23/2015 16:40
Ethylbenzene	---	0.0050	1	12/23/2015 16:40
Xylenes	---	0.015	1	12/23/2015 16:40
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	113	70-130		12/23/2015 16:40

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-20	1512799-030A	Soil	12/15/2015 12:45	GC19	114623

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/23/2015 23:40
MTBE	---	0.050	1	12/23/2015 23:40
Benzene	---	0.0050	1	12/23/2015 23:40
Toluene	---	0.0050	1	12/23/2015 23:40
Ethylbenzene	---	0.0050	1	12/23/2015 23:40
Xylenes	---	0.015	1	12/23/2015 23:40
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	110	70-130		12/23/2015 23:40

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B7-2.5	1512799-031A	Soil	12/15/2015 12:55	GC7	114406

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 23:24
MTBE	---	0.050	1	12/20/2015 23:24
Benzene	---	0.0050	1	12/20/2015 23:24
Toluene	---	0.0050	1	12/20/2015 23:24
Ethylbenzene	---	0.0050	1	12/20/2015 23:24
Xylenes	---	0.015	1	12/20/2015 23:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	105	70-130		12/20/2015 23:24

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-5	1512799-032A	Soil	12/15/2015 14:00	GC7	114406

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 18:53
MTBE	---	0.050	1	12/20/2015 18:53
Benzene	---	0.0050	1	12/20/2015 18:53
Toluene	---	0.0050	1	12/20/2015 18:53
Ethylbenzene	---	0.0050	1	12/20/2015 18:53
Xylenes	---	0.015	1	12/20/2015 18:53
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	104	70-130		12/20/2015 18:53

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW102-10	1512799-033A	Soil	12/15/2015 14:20	GC19	114406

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 23:22
MTBE	---	0.050	1	12/21/2015 23:22
Benzene	---	0.0050	1	12/21/2015 23:22
Toluene	---	0.0050	1	12/21/2015 23:22
Ethylbenzene	---	0.0050	1	12/21/2015 23:22
Xylenes	---	0.015	1	12/21/2015 23:22
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	105	70-130		12/21/2015 23:22

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-15	1512799-034A	Soil	12/15/2015 14:25	GC7	114406

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/20/2015 18:23
MTBE	---	0.050	1	12/20/2015 18:23
Benzene	---	0.0050	1	12/20/2015 18:23
Toluene	---	0.0050	1	12/20/2015 18:23
Ethylbenzene	---	0.0050	1	12/20/2015 18:23
Xylenes	---	0.015	1	12/20/2015 18:23
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	104	70-130		12/20/2015 18:23

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15-12/23/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW102-20	1512799-035A	Soil	12/15/2015 14:35	GC7	114406

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	12/21/2015 00:24
MTBE	---	0.050	1	12/21/2015 00:24
Benzene	---	0.0050	1	12/21/2015 00:24
Toluene	---	0.0050	1	12/21/2015 00:24
Ethylbenzene	---	0.0050	1	12/21/2015 00:24
Xylenes	---	0.015	1	12/21/2015 00:24

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	96	70-130	12/21/2015 00:24

**Analyst(s):** IA



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B1-2.5	1512799-001A	Soil	12/14/2015 07:55	GC11A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 20:09
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 20:09
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	104		70-130		12/19/2015 20:09
Analyst(s): TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-2.5	1512799-002A	Soil	12/14/2015 08:10	GC6A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 12:39
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 12:39
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	108		70-130		12/19/2015 12:39
Analyst(s): TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5	1512799-003A	Soil	12/14/2015 08:25	GC11A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/22/2015 15:36
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/22/2015 15:36
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		12/22/2015 15:36
Analyst(s): TK					

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B4-2.5	1512799-004A	Soil	12/14/2015 08:35	GC11A	114403

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	12/20/2015 06:26
TPH-Motor Oil (C18-C36)	ND	5.0	1	12/20/2015 06:26
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
C9	101	70-130		12/20/2015 06:26

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5	1512799-005A	Soil	12/14/2015 08:50	GC11A	114403

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	12/20/2015 01:52
TPH-Motor Oil (C18-C36)	ND	5.0	1	12/20/2015 01:52
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
C9	102	70-130		12/20/2015 01:52

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-2.5	1512799-006A	Soil	12/14/2015 09:15	GC6A	114403

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	12/19/2015 05:28
TPH-Motor Oil (C18-C36)	ND	5.0	1	12/19/2015 05:28
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
C9	106	70-130		12/19/2015 05:28

Analyst(s): TK

(Cont.)





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP1-10	1512799-007A	Soil	12/14/2015 09:35	GC6A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1.0		1.0	1	12/19/2015 16:15
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 16:15
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	109		70-130		12/19/2015 16:15
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11/e4		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-15	1512799-008A	Soil	12/14/2015 09:40	GC6A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 00:41
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 00:41
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	109		70-130		12/19/2015 00:41
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP1-20	1512799-009A	Soil	12/14/2015 09:50	GC11A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/22/2015 13:09
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/22/2015 13:09
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		12/22/2015 13:09
<u>Analyst(s):</u> TK					

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW101-2.5	1512799-010A	Soil	12/14/2015 10:05	GC6A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 22:13
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 22:13
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	103		70-130		12/19/2015 22:13
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-10	1512799-011A	Soil	12/14/2015 10:20	GC11A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	<b>290</b>		1.0	1	12/19/2015 15:35
TPH-Motor Oil (C18-C36)	<b>46</b>		5.0	1	12/19/2015 15:35
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	113		70-130		12/19/2015 15:35
<u>Analyst(s):</u> TK	<u>Analytical Comments:</u> e11,e3				

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW101-15	1512799-012A	Soil	12/14/2015 10:25	GC11A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 12:09
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 12:09
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	104		70-130		12/19/2015 12:09
<u>Analyst(s):</u> TK					

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW101-20	1512799-013A	Soil	12/14/2015 10:35	GC6A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 21:02
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 21:02
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	105		70-130		12/19/2015 21:02
Analyst(s): TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-2.5	1512799-014A	Soil	12/14/2015 10:50	GC6A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	2.2		1.0	1	12/19/2015 01:53
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 01:53
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	112		70-130		12/19/2015 01:53
Analyst(s): TK		Analytical Comments: e11			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-4	1512799-015A	Soil	12/14/2015 11:00	GC11A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/20/2015 03:00
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/20/2015 03:00
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	101		70-130		12/20/2015 03:00
Analyst(s): TK					

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B6-10	1512799-016A	Soil	12/14/2015 11:15	GC6A	114403
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	10		1.0	1	12/19/2015 13:51
TPH-Motor Oil (C18-C36)	53		5.0	1	12/19/2015 13:51
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	109		70-130		12/19/2015 13:51
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e7,e11		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-15	1512799-017A	Soil	12/14/2015 11:20	GC11A	114403
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	11		1.0	1	12/22/2015 14:17
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/22/2015 14:17
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	103		70-130		12/22/2015 14:17
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11,e2		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B6-20	1512799-018A	Soil	12/14/2015 11:30	GC11A	114403
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/22/2015 18:10
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/22/2015 18:10
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	103		70-130		12/22/2015 18:10
<u>Analyst(s):</u> TK					

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP3-2.5	1512799-019A	Soil	12/14/2015 12:55	GC11A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	4.3		1.0	1	12/19/2015 11:01
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 11:01
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	105		70-130		12/19/2015 11:01
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-10	1512799-020A	Soil	12/14/2015 13:10	GC11A	114403
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1.8		1.0	1	12/19/2015 14:26
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 14:26
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	105		70-130		12/19/2015 14:26
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP3-15	1512799-021A	Soil	12/14/2015 13:20	GC6A	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	13		1.0	1	12/19/2015 04:17
TPH-Motor Oil (C18-C36)	5.7		5.0	1	12/19/2015 04:17
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	107		70-130		12/19/2015 04:17
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e4,e7		

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP3-20	1512799-022A	Soil	12/14/2015 13:30	GC11A	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 22:26
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 22:26
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		12/19/2015 22:26
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-5	1512799-023A	Soil	12/15/2015 10:05	GC11A	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 19:00
TPH-Motor Oil (C18-C36)	5.1		5.0	1	12/19/2015 19:00
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	105		70-130		12/19/2015 19:00
<u>Analyst(s):</u> TK	<u>Analytical Comments:</u> e3,e7				

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-10	1512799-024A	Soil	12/15/2015 10:25	GC6A	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	41		1.0	1	12/19/2015 09:03
TPH-Motor Oil (C18-C36)	11		5.0	1	12/19/2015 09:03
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	106		70-130		12/19/2015 09:03
<u>Analyst(s):</u> TK	<u>Analytical Comments:</u> e4,e3				

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## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW103-15	1512799-025A	Soil	12/15/2015 10:30	GC11A	114404

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	12/22/2015 16:45
TPH-Motor Oil (C18-C36)	ND	5.0	1	12/22/2015 16:45

Surrogates	REC (%)	Limits	Date Analyzed
C9	104	70-130	12/22/2015 16:45

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW103-20	1512799-026A	Soil	12/15/2015 10:40	GC39A	114404

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	12/19/2015 19:08
TPH-Motor Oil (C18-C36)	ND	5.0	1	12/19/2015 19:08

Surrogates	REC (%)	Limits	Date Analyzed
C9	97	70-130	12/19/2015 19:08

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-5	1512799-027A	Soil	12/15/2015 12:10	GC6A	114404

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	12/19/2015 10:15
TPH-Motor Oil (C18-C36)	ND	5.0	1	12/19/2015 10:15

Surrogates	REC (%)	Limits	Date Analyzed
C9	110	70-130	12/19/2015 10:15

Analyst(s): TK

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
DP2-10	1512799-028A	Soil	12/15/2015 12:30	GC39A	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	100		1.0	1	12/19/2015 16:32
TPH-Motor Oil (C18-C36)	5.1		5.0	1	12/19/2015 16:32
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	105		70-130		12/19/2015 16:32
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11,e3		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-15	1512799-029A	Soil	12/15/2015 12:40	GC39A	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	2.6		1.0	1	12/19/2015 17:50
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 17:50
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	96		70-130		12/19/2015 17:50
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DP2-20	1512799-030A	Soil	12/15/2015 12:45	GC6A	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/19/2015 17:27
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/19/2015 17:27
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	107		70-130		12/19/2015 17:27
<u>Analyst(s):</u> TK					

(Cont.)





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
B7-2.5	1512799-031A	Soil	12/15/2015 12:55	GC39B	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/20/2015 10:05
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/20/2015 10:05
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		12/20/2015 10:05
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-5	1512799-032A	Soil	12/15/2015 14:00	GC39B	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/20/2015 08:08
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/20/2015 08:08
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		12/20/2015 08:08
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-10	1512799-033A	Soil	12/15/2015 14:20	GC39B	114404
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	12/20/2015 06:50
TPH-Motor Oil (C18-C36)	ND		5.0	1	12/20/2015 06:50
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	103		70-130		12/20/2015 06:50
<u>Analyst(s):</u> TK					

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/18/15 12:09  
**Date Prepared:** 12/18/15  
**Project:** Automasters

**WorkOrder:** 1512799  
**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
MW102-15	1512799-034A	Soil	12/15/2015 14:25	GC39A	114404

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	12/20/2015 06:50
TPH-Motor Oil (C18-C36)	ND	5.0	1	12/20/2015 06:50
Surrogates	REC (%)	Limits		
C9	96	70-130		12/20/2015 06:50

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW102-20	1512799-035A	Soil	12/15/2015 14:35	GC39B	114404

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	12/20/2015 11:23
TPH-Motor Oil (C18-C36)	ND	5.0	1	12/20/2015 11:23
Surrogates	REC (%)	Limits		
C9	102	70-130		12/20/2015 11:23

Analyst(s): TK



## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/19/15  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114407  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114407  
 1512799-001AMS/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	0.0470	0.0050	0.050	-	94	53-116
Benzene	ND	0.0496	0.0050	0.050	-	99	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	0.215	0.050	0.20	-	107	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	0.0515	0.0050	0.050	-	103	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	0.0508	0.0040	0.050	-	102	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	0.0495	0.0040	0.050	-	99	58-135
1,1-Dichloroethene	ND	0.0501	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	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/19/15  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114407  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114407  
 1512799-001AMS/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	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
Diisopropyl ether (DIPE)	ND	0.0444	0.0050	0.050	-	89	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0479	0.0050	0.050	-	96	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	0.0472	0.0050	0.050	-	94	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	0.0558	0.0050	0.050	-	112	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	0.0560	0.0050	0.050	-	112	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	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/19/15  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114407  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114407  
 1512799-001AMS/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	0.104	0.104		0.12	83	83	70-130
Toluene-d8	0.106	0.105		0.12	85	84	70-130
4-BFB	0.0110	0.0113		0.012	88	91	70-130
Benzene-d6	0.0859	0.0879		0.10	86	88	60-140
Ethylbenzene-d10	0.0948	0.0999		0.10	95	100	60-140
1,2-DCB-d4	0.0727	0.0785		0.10	73	78	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)	0.0443	0.0441	0.050	ND	89	88	70-130	0.572	20
Benzene	0.0461	0.0470	0.050	ND	92	94	70-130	1.86	20
t-Butyl alcohol (TBA)	0.191	0.192	0.20	ND	96	96	70-130	0	20
Chlorobenzene	0.0480	0.0477	0.050	ND	96	95	70-130	0.676	20
1,2-Dibromoethane (EDB)	0.0477	0.0471	0.050	ND	95	94	70-130	1.25	20
1,2-Dichloroethane (1,2-DCA)	0.0460	0.0470	0.050	ND	92	94	70-130	2.14	20
1,1-Dichloroethene	0.0446	0.0458	0.050	ND	89	92	70-130	2.70	20
Diisopropyl ether (DIPE)	0.0416	0.0419	0.050	ND	83	84	70-130	0.603	20
Ethyl tert-butyl ether (ETBE)	0.0446	0.0446	0.050	ND	89	89	70-130	0	20
Methyl-t-butyl ether (MTBE)	0.0442	0.0440	0.050	ND	88	88	70-130	0	20
Toluene	0.0522	0.0508	0.050	ND	104	102	70-130	2.84	20
Trichloroethene	0.0490	0.0497	0.050	ND	98	99	70-130	1.30	20

<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.105	0.105	0.12		84	84	70-130	0	20
Toluene-d8	0.106	0.102	0.12		85	82	70-130	3.42	20
4-BFB	0.0107	0.0115	0.012		86	92	70-130	7.44	20
Benzene-d6	0.0844	0.0851	0.10		84	85	60-140	0.887	20
Ethylbenzene-d10	0.0943	0.0943	0.10		94	94	60-140	0	20
1,2-DCB-d4	0.0783	0.0762	0.10		78	76	60-140	2.67	20

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## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/19/15  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114409  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114409  
 1512799-023AMS/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	0.0450	0.0050	0.050	-	90	53-116
Benzene	ND	0.0481	0.0050	0.050	-	96	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	0.199	0.050	0.20	-	99	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	0.0489	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	0.0480	0.0040	0.050	-	96	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	0.0477	0.0040	0.050	-	95	58-135
1,1-Dichloroethene	ND	0.0486	0.0050	0.050	-	97	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	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/19/15  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114409  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114409  
 1512799-023AMS/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	0.0431	0.0050	0.050	-	86	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0461	0.0050	0.050	-	92	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	0.0452	0.0050	0.050	-	90	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	0.0536	0.0050	0.050	-	107	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	0.0519	0.0050	0.050	-	104	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	-	-	-	-

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## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/19/15  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114409  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114409  
 1512799-023AMS/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	0.105	0.104		0.12	84	83	70-130
Toluene-d8	0.107	0.104		0.12	85	83	70-130
4-BFB	0.0106	0.0111		0.012	85	89	70-130
Benzene-d6	0.0882	0.0882		0.10	88	88	60-140
Ethylbenzene-d10	0.0983	0.0988		0.10	98	99	60-140
1,2-DCB-d4	0.0745	0.0779		0.10	75	78	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)	0.0430	0.0456	0.050	ND	86	91	70-130	5.69	20
Benzene	0.0448	0.0474	0.050	ND	90	95	70-130	5.53	20
t-Butyl alcohol (TBA)	0.184	0.199	0.20	ND	92	100	70-130	7.99	20
Chlorobenzene	0.0455	0.0481	0.050	ND	91	96	70-130	5.55	20
1,2-Dibromoethane (EDB)	0.0452	0.0477	0.050	ND	90	95	70-130	5.27	20
1,2-Dichloroethane (1,2-DCA)	0.0448	0.0480	0.050	ND	90	96	70-130	6.77	20
1,1-Dichloroethene	0.0447	0.0470	0.050	ND	89	94	70-130	5.01	20
Diisopropyl ether (DIPE)	0.0404	0.0425	0.050	ND	81	85	70-130	5.20	20
Ethyl tert-butyl ether (ETBE)	0.0435	0.0461	0.050	ND	87	92	70-130	5.73	20
Methyl-t-butyl ether (MTBE)	0.0432	0.0456	0.050	ND	86	91	70-130	5.28	20
Toluene	0.0489	0.0518	0.050	ND	98	104	70-130	5.80	20
Trichloroethene	0.0471	0.0502	0.050	ND	94	100	70-130	6.25	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.105	0.106	0.12		84	84	70-130	0	20
Toluene-d8	0.103	0.103	0.12		82	82	70-130	0	20
4-BFB	0.0106	0.0109	0.012		85	87	70-130	2.46	20
Benzene-d6	0.0822	0.0861	0.10		82	86	60-140	4.63	20
Ethylbenzene-d10	0.0908	0.0963	0.10		91	96	60-140	5.91	20
1,2-DCB-d4	0.0755	0.0782	0.10		76	78	60-140	3.50	20





## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/17/15  
**Date Analyzed:** 12/19/15  
**Instrument:** GC19  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114375  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114375  
 1512785-001AMS/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	0.577	0.40	0.60	-	96	70-130
MTBE	ND	0.0792	0.050	0.10	-	79	70-130
Benzene	ND	0.109	0.0050	0.10	-	109	70-130
Toluene	ND	0.111	0.0050	0.10	-	111	70-130
Ethylbenzene	ND	0.113	0.0050	0.10	-	113	70-130
Xylenes	ND	0.362	0.015	0.30	-	121	70-130

**Surrogate Recovery**

2-Fluorotoluene	0.120	0.127		0.10	120	127	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		ND	NR	NR	-	NR	
MTBE	NR	NR		ND	NR	NR	-	NR	
Benzene	NR	NR		ND	NR	NR	-	NR	
Toluene	NR	NR		ND	NR	NR	-	NR	
Ethylbenzene	NR	NR		ND	NR	NR	-	NR	
Xylenes	NR	NR		ND	NR	NR	-	NR	

**Surrogate Recovery**

2-Fluorotoluene	NR	NR			NR	NR	-	NR	
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## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/20/15  
**Instrument:** GC7  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114405  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114405  
 1512799-010AMS/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	0.541	0.40	0.60	-	90	70-130
MTBE	ND	0.0942	0.050	0.10	-	94	70-130
Benzene	ND	0.100	0.0050	0.10	-	100	70-130
Toluene	ND	0.0977	0.0050	0.10	-	98	70-130
Ethylbenzene	ND	0.100	0.0050	0.10	-	100	70-130
Xylenes	ND	0.318	0.015	0.30	-	106	70-130

**Surrogate Recovery**

2-Fluorotoluene	0.111	0.116		0.10	111	116	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.541	0.540	0.60	ND	90	90	70-130	0	20
MTBE	0.0674	0.0658	0.10	ND	67,F1	66,F1	70-130	2.56	20
Benzene	0.0927	0.0949	0.10	ND	93	95	70-130	2.36	20
Toluene	0.0962	0.0987	0.10	ND	96	99	70-130	2.63	20
Ethylbenzene	0.101	0.103	0.10	ND	101	103	70-130	2.54	20
Xylenes	0.319	0.327	0.30	ND	106	109	70-130	2.29	20

**Surrogate Recovery**

2-Fluorotoluene	0.109	0.112	0.10		109	113	70-130	2.95	20
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## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/20/15  
**Instrument:** GC7  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114406  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114406

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.546	0.40	0.60	-	91	70-130
MTBE	ND	0.0873	0.050	0.10	-	87	70-130
Benzene	ND	0.0980	0.0050	0.10	-	98	70-130
Toluene	ND	0.0962	0.0050	0.10	-	96	70-130
Ethylbenzene	ND	0.100	0.0050	0.10	-	100	70-130
Xylenes	ND	0.317	0.015	0.30	-	106	70-130
<b>Surrogate Recovery</b>							
2-Fluorotoluene	0.113	0.114		0.10	113	114	70-130



## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/23/15  
**Date Analyzed:** 12/23/15  
**Instrument:** GC3  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114623  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114623  
 1512975-001AMS/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	0.645	0.40	0.60	-	107	70-130
MTBE	ND	0.0985	0.050	0.10	-	98	70-130
Benzene	ND	0.117	0.0050	0.10	-	117	70-130
Toluene	ND	0.121	0.0050	0.10	-	121	70-130
Ethylbenzene	ND	0.120	0.0050	0.10	-	120	70-130
Xylenes	ND	0.359	0.015	0.30	-	120	70-130

**Surrogate Recovery**

2-Fluorotoluene	0.106	0.113		0.10	106	113	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.555	0.573	0.60	ND	92	95	70-130	3.21	20
MTBE	0.0708	0.0732	0.10	ND	71	73	70-130	3.38	20
Benzene	0.0934	0.0928	0.10	ND	91	91	70-130	0	20
Toluene	0.0966	0.0961	0.10	ND	97	96	70-130	0.467	20
Ethylbenzene	0.101	0.101	0.10	ND	101	101	70-130	0	20
Xylenes	0.326	0.323	0.30	ND	109	108	70-130	0.827	20

**Surrogate Recovery**

2-Fluorotoluene	0.111	0.110	0.10		111	109	70-130	1.48	20
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## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/18/15 - 12/19/15  
**Instrument:** GC11A, GC9b  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114403  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114403  
 1512799-001AMS/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	46.8	1.0	40	-	117	70-130
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
<b>Surrogate Recovery</b>							
C9	25.9	26.0		25	103	104	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	48.9	44.3	40	ND	122	111	70-130	9.88	30
<b>Surrogate Recovery</b>									
C9	24.4	24.5	25		98	98	70-130	0	30

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## Quality Control Report

**Client:** West & Associates  
**Date Prepared:** 12/18/15  
**Date Analyzed:** 12/18/15 - 12/19/15  
**Instrument:** GC11A, GC9b  
**Matrix:** Soil  
**Project:** Automasters

**WorkOrder:** 1512799  
**BatchID:** 114404  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-114404  
 1512799-021AMS/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	44.0	1.0	40	-	110	70-130
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
<b>Surrogate Recovery</b>							
C9	26.2	25.4		25	105	102	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	56.0	59.2	40	13.47	106	114	70-130	5.52	30
<b>Surrogate Recovery</b>									
C9	24.9	25.4	25		99	102	70-130	2.09	30

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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1512799

ClientCode: WAA

WaterTrax     WriteOn     EDF     Excel     EQUIS     Email     HardCopy     ThirdParty     J-flag

**Report to:**

Bruce Jacobsen  
West & Associates  
630 Eubanks Ct, Unit #G  
Vacaville, CA 95688  
(707) 451-1360    FAX: (707) 447-0631

Email: bjacobsen@astound.net; dganzer@westen  
cc/3rd Party:  
PO:  
ProjectNo: Automasters

**Bill to:**

Accounts Payable  
West & Associates  
630 Eubanks Ct, Unit #G  
Vacaville, CA 95688

**Requested TAT: 5 days;**

**Date Received: 12/18/2015**

**Date Logged: 12/18/2015**

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	
1512799-001	B1-2.5	Soil	12/14/2015 7:55	<input type="checkbox"/>	A	A	A	A									
1512799-002	B2-2.5	Soil	12/14/2015 8:10	<input type="checkbox"/>	A	A		A									
1512799-003	B3-2.5	Soil	12/14/2015 8:25	<input type="checkbox"/>	A	A		A									
1512799-004	B4-2.5	Soil	12/14/2015 8:35	<input type="checkbox"/>	A	A		A									
1512799-005	B5-2.5	Soil	12/14/2015 8:50	<input type="checkbox"/>	A	A		A									
1512799-006	DP1-2.5	Soil	12/14/2015 9:15	<input type="checkbox"/>	A	A		A									
1512799-007	DP1-10	Soil	12/14/2015 9:35	<input type="checkbox"/>	A	A		A									
1512799-008	DP1-15	Soil	12/14/2015 9:40	<input type="checkbox"/>	A	A		A									
1512799-009	DP1-20	Soil	12/14/2015 9:50	<input type="checkbox"/>	A	A		A									
1512799-010	MW101-2.5	Soil	12/14/2015 10:05	<input type="checkbox"/>	A	A		A									
1512799-011	MW101-10	Soil	12/14/2015 10:20	<input type="checkbox"/>	A	A		A									
1512799-012	MW101-15	Soil	12/14/2015 10:25	<input type="checkbox"/>	A	A		A									
1512799-013	MW101-20	Soil	12/14/2015 10:35	<input type="checkbox"/>	A	A		A									
1512799-014	B6-2.5	Soil	12/14/2015 10:50	<input type="checkbox"/>	A	A		A									
1512799-015	B6-4	Soil	12/14/2015 11:00	<input type="checkbox"/>	A	A		A									

**Test Legend:**

1	8260B_S	2	G-MBTX_S	3	PREFD REPORT	4	TPH(DMO)_S
5		6		7		8	
9		10		11		12	

The following SamplIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A, 019A, 020A, 021A, 022A, 023A, 024A, 025A, 026A, 027A, 028A, 029A, 030A, 031A, 032A, 033A, 034A, 035A contain testgroup.

**Prepared by: Elisa Venegas**

**Comments:**

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.

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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1512799

ClientCode: WAA

WaterTrax     WriteOn     EDF     Excel     EQUIS     Email     HardCopy     ThirdParty     J-flag

**Report to:**

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630 Eubanks Ct, Unit #G  
Vacaville, CA 95688  
(707) 451-1360    FAX: (707) 447-0631

Email: bjacobsen@astound.net; dganzer@westen  
cc/3rd Party:  
PO:  
ProjectNo: Automasters

**Bill to:**

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**Requested TAT: 5 days;**

**Date Received: 12/18/2015**

**Date Logged: 12/18/2015**

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
1512799-016	B6-10	Soil	12/14/2015 11:15	<input type="checkbox"/>	A	A		A								
1512799-017	B6-15	Soil	12/14/2015 11:20	<input type="checkbox"/>	A	A		A								
1512799-018	B6-20	Soil	12/14/2015 11:30	<input type="checkbox"/>	A	A		A								
1512799-019	DP3-2.5	Soil	12/14/2015 12:55	<input type="checkbox"/>	A	A		A								
1512799-020	DP3-10	Soil	12/14/2015 13:10	<input type="checkbox"/>	A	A		A								
1512799-021	DP3-15	Soil	12/14/2015 13:20	<input type="checkbox"/>	A	A		A								
1512799-022	DP3-20	Soil	12/14/2015 13:30	<input type="checkbox"/>	A	A		A								
1512799-023	MW103-5	Soil	12/15/2015 10:05	<input type="checkbox"/>	A	A		A								
1512799-024	MW103-10	Soil	12/15/2015 10:25	<input type="checkbox"/>	A	A		A								
1512799-025	MW103-15	Soil	12/15/2015 10:30	<input type="checkbox"/>	A	A		A								
1512799-026	MW103-20	Soil	12/15/2015 10:40	<input type="checkbox"/>	A	A		A								
1512799-027	DP2-5	Soil	12/15/2015 12:10	<input type="checkbox"/>	A	A		A								
1512799-028	DP2-10	Soil	12/15/2015 12:30	<input type="checkbox"/>	A	A		A								
1512799-029	DP2-15	Soil	12/15/2015 12:40	<input type="checkbox"/>	A	A		A								
1512799-030	DP2-20	Soil	12/15/2015 12:45	<input type="checkbox"/>	A	A		A								

**Test Legend:**

1	8260B_S	2	G-MBTEX_S	3	PREFD REPORT	4	TPH(DMO)_S
5		6		7		8	
9		10		11		12	

The following SamplIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A, 019A, 020A, 021A, 022A, 023A, 024A, 025A, 026A, 027A, 028A, 029A, 030A, 031A, 032A, 033A, 034A, 035A contain testgroup.

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ClientCode: WAA

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Email: bjacobsen@astound.net; dganzer@westen  
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 ProjectNo: Automasters

**Bill to:**  
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**Date Received: 12/18/2015**  
**Date Logged: 12/18/2015**

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
1512799-031	B7-2.5	Soil	12/15/2015 12:55	<input type="checkbox"/>	A	A		A								
1512799-032	MW102-5	Soil	12/15/2015 14:00	<input type="checkbox"/>	A	A		A								
1512799-033	MW102-10	Soil	12/15/2015 14:20	<input type="checkbox"/>	A	A		A								
1512799-034	MW102-15	Soil	12/15/2015 14:25	<input type="checkbox"/>	A	A		A								
1512799-035	MW102-20	Soil	12/15/2015 14:35	<input type="checkbox"/>	A	A		A								

**Test Legend:**

1	8260B_S	2	G-MBTEX_S	3	PREFD REPORT	4	TPH(DMO)_S
5		6		7		8	
9		10		11		12	

The following SamplIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A, 019A, 020A, 021A, 022A, 023A, 024A, 025A, 026A, 027A, 028A, 029A, 030A, 031A, 032A, 033A, 034A, 035A contain testgroup.

**Prepared by: Elisa Venegas**

**Comments:**

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:** WEST & ASSOCIATES

**QC Level:** LEVEL 2

**Work Order:** 1512799

**Project:** Automasters

**Client Contact:** Bruce Jacobsen

**Date Logged:** 12/18/2015

**Comments:**

**Contact's Email:** bjacobsen@astound.net; dganzer@westengineers.com

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
1512799-001A	B1-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 7:55	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-002A	B2-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 8:10	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-003A	B3-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 8:25	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-004A	B4-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 8:35	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-005A	B5-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 8:50	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-006A	DPI-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 9:15	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-007A	DPI-10	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 9:35	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-008A	DPI-15	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 9:40	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<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:** WEST & ASSOCIATES

**QC Level:** LEVEL 2

**Work Order:** 1512799

**Project:** Automasters

**Client Contact:** Bruce Jacobsen

**Date Logged:** 12/18/2015

**Comments:**

**Contact's Email:** bjacobsen@astound.net; dganzer@westengineers.com

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
1512799-009A	DP1-20	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 9:50	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1512799-010A	MW101-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 10:05	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1512799-011A	MW101-10	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 10:20	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1512799-012A	MW101-15	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 10:25	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1512799-013A	MW101-20	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 10:35	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1512799-014A	B6-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 10:50	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1512799-015A	B6-4	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 11:00	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1512799-016A	B6-10	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 11:15	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			

**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).  
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## WORK ORDER SUMMARY

**Client Name:** WEST & ASSOCIATES

**QC Level:** LEVEL 2

**Work Order:** 1512799

**Project:** Automasters

**Client Contact:** Bruce Jacobsen

**Date Logged:** 12/18/2015

**Comments:**

**Contact's Email:** bjacobsen@astound.net; dganzer@westengineers.com

WaterTrax   
  WriteOn   
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  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1512799-017A	B6-15	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 11:20	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-018A	B6-20	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 11:30	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-019A	DP3-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/14/2015 12:55	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-020A	DP3-10	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 13:10	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-021A	DP3-15	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 13:20	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-022A	DP3-20	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	12/14/2015 13:30	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-023A	MW103-5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 10:05	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-024A	MW103-10	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 10:25	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	

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**Work Order:** 1512799

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**Comments:**

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WaterTrax   
  WriteOn   
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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1512799-025A	MW103-15	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 10:30	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-026A	MW103-20	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 10:40	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-027A	DP2-5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 12:10	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-028A	DP2-10	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 12:30	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-029A	DP2-15	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 12:40	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-030A	DP2-20	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 12:45	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-031A	B7-2.5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 12:55	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1512799-032A	MW102-5	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 14:00	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	

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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
1512799-033A	MW102-10	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 14:20	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-034A	MW102-15	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 14:25	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>					
1512799-035A	MW102-20	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x3"	<input type="checkbox"/>	12/15/2015 14:35	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<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.

WAA

T 0619748201



**McCAMPBELL ANALYTICAL, INC.**  
 1534 WILLOW PASS ROAD  
 PITTSBURG, CA 94565-1701  
 Website: [www.mccampbell.com](http://www.mccampbell.com) Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
 Telephone: (877) 252-9262 Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**  
**TURN AROUND TIME**       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 GeoTracker EDF  PDF  Excel  Write On (DW)   
 Check if sample is effluent and "J" flag is required

Report To: Bruce Jacobsen Bill To: W&A  
 Company: West & Associates Engineers  
 630 Eubanks Ct, #G, Vacaville, CA bjacobsen@astound.net  
 E-Mail: deborah@westengineers.com  
 Tele: (707) 451-1360 Fax: (707) 447-0631  
 Project #: \_\_\_\_\_ Project Name: Automasters  
 Project Location: 6200 Shattuck Ave., Oakland  
 Sampler Signature: Bruce Jacobsen

Analysis Request										Other	Comments	
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE												Filter Samples for Metals analysis: Yes / No
TPH as Diesel (8015) + Gas + Motor Oil												
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)												
Total Petroleum Hydrocarbons (418.1)												
EPA 502.2 / 601 / 8010 / 8021 (HVOCS)												
MTBE / BTEX ONLY (EPA 602 / 8021)												
EPA 505 / 608 / 8081 (CI Pesticides)												
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners												
EPA 507 / 8141 (NP Pesticides)												
EPA 515 / 8151 (Acidic CI Herbicides)												
EPA 524.2 / 624 / 8260 (VOCs)												
EPA 525.2 / 625 / 8270 (SVOCs)												
EPA 8270 SIM / 8310 (PAHs / PNAS)												
CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)												
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)												
Lead (200.7 / 200.8 / 6010 / 6020)												

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX				METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other				
MW103-5	MW-103	12/15	1005	1	Sluave	✓				✓								
MW103-10	MW-103	"	1025	1	"	✓				✓								
MW103-15	MW-103	"	1030	1	"	✓				✓								
MW103-20	MW-103	"	1040	1	"	✓				✓								
DP2-5	DP-2	"	1210	1	"	✓				✓								
DP2-10	DP-2	"	1230	1	"	✓				✓								
DP2-15	DP-2	"	1240	1	"	✓				✓								
DP2-20	DP-2	"	1245	1	"	✓				✓								
B7-2.5	B-7	"	1255	1	"	✓				✓								
MW102-5	MW-102	"	1400	1	"	✓				✓								
MW102-10	MW-102	"	1420	1	"	✓				✓								
MW102-15	MW-102	"	1425	1	"	✓				✓								
MW102-20	MW-102	"	1435	1	"	✓				✓								

Relinquished By: Bruce Jacobsen Date: 12/15 Time: 1104 Received By: Muen  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE # 101-2   
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 COMMENTS:  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

T 0619748201



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**CHAIN OF CUSTODY RECORD**  
 TURN AROUND TIME       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 GeoTracker EDF  PDF  Excel  Write On (DW)   
 Check if sample is effluent and "J" flag is required

Report To: Bruce Jacobsen Bill To: W&A  
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 E-Mail: deborah@westengineers.com  
 Tele: (707) 451-1360 Fax: (707) 447-0631  
 Project #: \_\_\_\_\_ Project Name: Automasters  
 Project Location: 6200 Shattuck Ave., Oakland  
 Sampler Signature: Bruce Jacobsen

Analysis Request										Other	Comments
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Filter Samples for Metals analysis: Yes / No
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED					
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other		
B1-2.5	B-1	12/14	755	1	Sieve	✓					✓					
B2-2.5	B-2	"	810	1	"	✓					✓					
B3-2.5	B-3	"	825	1	"	✓					✓					
B4-2.5	B-4	"	835	1	"	✓					✓					
B5-2.5	B-5	"	850	1	"	✓					✓					
DPI-2.5	DP-1	"	915	1	"	✓					✓					
DPI-10	DP-1	"	935	1	"	✓					✓					
DPI-15	DP-1	"	940	1	"	✓					✓					
DPI-20	DP-1	"	950	1	"	✓					✓					
MW101-2.5	MW-101	"	1005	1	"	✓					✓					
MW101-10	MW-101	"	10 <sup>20</sup>	1	"	✓					✓					
MW101-15	MW-101	"	10 <sup>25</sup>	1	"	✓					✓					
MW101-20	MW-101	"	10 <sup>35</sup>	1	"	✓					✓					

Relinquished By: Bruce Jacobsen Date: 12/16/15 Time: 1104 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICEN<sup>o</sup> 4-2 COMMENTS:  
 GOOD CONDITION   
 HEAD SPACE ABSENT   
 DECHLORINATED IN LAB   
 APPROPRIATE CONTAINERS   
 PRESERVED IN LAB   
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2



T 0619748201



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**CHAIN OF CUSTODY RECORD**  
**TURN AROUND TIME**       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 GeoTracker EDF  PDF  Excel  Write On (DW)   
 Check if sample is effluent and "J" flag is required

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 E-Mail: deborah@westengineers.com  
 Tele: (707) 451-1360 Fax: (707) 447-0631  
 Project #: \_\_\_\_\_ Project Name: Automasters  
 Project Location: 6200 Shattuck Ave., Oakland  
 Sampler Signature: Bruce Jacobsen

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other			
B6-2.5	B-6	12/14	1050	1	5 liter	✓					✓						Filter Samples for Metals analysis: Yes/No
B6-4	B-6	"	1100	1	"	✓					✓						
B6-10	B-6	"	1115	1	"	✓					✓						
B6-15	B-6	"	1120	1	"	✓					✓						
B6-20	B-6	"	1130	1	"	✓					✓						
DP3-2.5	DP-3	"	1255	1	"	✓					✓						
DP3-10	DP-3	"	1310	1	"	✓					✓						
DP3-15	DP-3	"	1320	1	"	✓					✓						
DP3-20	DP-3	"	1330	1	"	✓					✓						

Relinquished By: Bruce Jacobsen Date: 12/18/15 Time: 1104 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/° 7-8 ✓  
 GOOD CONDITION ✓  
 HEAD SPACE ABSENT ✓  
 DECHLORINATED IN LAB ✓  
 APPROPRIATE CONTAINERS ✓  
 PRESERVED IN LAB ✓  
 COMMENTS:  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2



### Sample Receipt Checklist

Client Name:	<b>West &amp; Associates</b>	Date and Time Received:	<b>12/18/2015 11:04</b>
Project Name:	<b>Automasters</b>	Date Logged:	<b>12/18/2015</b>
WorkOrder No:	<b>1512799</b>	Matrix:	<u>Soil</u>
Carrier:	<u>Client Drop-In</u>	Received by:	Maria Venegas
		Logged by:	Elisa Venegas

#### Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

#### Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

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

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample/Temp Blank temperature	Temp: 7.2°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE )

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:



## Glossary of Terms & Qualifier Definitions

**Client:** West & Associates  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA  
**WorkOrder:** 1512C31

### Glossary Abbreviation

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
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
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Glossary of Terms & Qualifier Definitions

**Client:** West & Associates  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA  
**WorkOrder:** 1512C31

### Analytical Qualifiers

S 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.  
d1 weakly modified or unmodified gasoline is significant  
d17 Reporting limit for MTBE raised due to co-elution with non-target peaks.  
e4 gasoline range compounds are significant.

### Quality Control Qualifiers

F2 LCS recovery for this compound is outside of acceptance limits.



## Analytical Report

<b>Client:</b> West & Associates	<b>WorkOrder:</b> 1512C31
<b>Date Received:</b> 12/31/15 16:36	<b>Extraction Method:</b> SW5030B
<b>Date Prepared:</b> 1/5/16-1/8/16	<b>Analytical Method:</b> SW8021B/8015Bm
<b>Project:</b> Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Unit:</b> µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	1512C31-001A	Water	12/31/2015 11:15	GC3	115036

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	18,000	500	10	01/06/2016 05:59
MTBE	---	200	10	01/06/2016 05:59
Benzene	---	5.0	10	01/06/2016 05:59
Toluene	---	5.0	10	01/06/2016 05:59
Ethylbenzene	---	5.0	10	01/06/2016 05:59
Xylenes	---	15	10	01/06/2016 05:59

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
aaa-TFT	156	S	70-130	01/06/2016 05:59

**Analyst(s):** IA

**Analytical Comments:** d1,d17,c4,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	1512C31-002A	Water	12/31/2015 12:02	GC3	115036

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	01/05/2016 23:03
MTBE	---	5.0	1	01/05/2016 23:03
Benzene	---	0.50	1	01/05/2016 23:03
Toluene	---	0.50	1	01/05/2016 23:03
Ethylbenzene	---	0.50	1	01/05/2016 23:03
Xylenes	---	1.5	1	01/05/2016 23:03

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	102	70-130	01/05/2016 23:03

**Analyst(s):** IA

**Analytical Comments:** b1

(Cont.)



## Analytical Report

<b>Client:</b> West & Associates	<b>WorkOrder:</b> 1512C31
<b>Date Received:</b> 12/31/15 16:36	<b>Extraction Method:</b> SW5030B
<b>Date Prepared:</b> 1/5/16-1/8/16	<b>Analytical Method:</b> SW8021B/8015Bm
<b>Project:</b> Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Unit:</b> µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	1512C31-003A	Water	12/31/2015 12:55	GC3	115092

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	4700	500	10	01/08/2016 00:18
MTBE	---	50	10	01/08/2016 00:18
Benzene	---	5.0	10	01/08/2016 00:18
Toluene	---	5.0	10	01/08/2016 00:18
Ethylbenzene	---	5.0	10	01/08/2016 00:18
Xylenes	---	15	10	01/08/2016 00:18

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	125	70-130	01/08/2016 00:18

**Analyst(s):** IA

**Analytical Comments:** d1,b1



## Analytical Report

<b>Client:</b> West & Associates	<b>WorkOrder:</b> 1512C31
<b>Date Received:</b> 12/31/15 16:36	<b>Extraction Method:</b> SW3510C
<b>Date Prepared:</b> 12/31/15	<b>Analytical Method:</b> SW8015B
<b>Project:</b> Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Unit:</b> µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	1512C31-001A	Water	12/31/2015 11:15	GC39A	114866
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	<b>5100</b>		50	1	01/05/2016 15:27
TPH-Motor Oil (C18-C36)	ND		250	1	01/05/2016 15:27
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C26	107		70-130		01/05/2016 15:27
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e4,b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	1512C31-002A	Water	12/31/2015 12:02	GC39A	114866
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	01/05/2016 16:06
TPH-Motor Oil (C18-C36)	ND		250	1	01/05/2016 16:06
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	101		70-130		01/05/2016 16:06
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	1512C31-003A	Water	12/31/2015 12:55	GC39A	114866
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	<b>1400</b>		50	1	01/05/2016 12:51
TPH-Motor Oil (C18-C36)	ND		250	1	01/05/2016 12:51
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	107		70-130		01/05/2016 12:51
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e4,b1		



## Quality Control Report

<b>Client:</b> West & Associates	<b>WorkOrder:</b> 1512C31
<b>Date Prepared:</b> 1/5/16	<b>BatchID:</b> 115036
<b>Date Analyzed:</b> 1/5/16	<b>Extraction Method:</b> SW5030B
<b>Instrument:</b> GC3	<b>Analytical Method:</b> SW8021B/8015Bm
<b>Matrix:</b> Water	<b>Unit:</b> µg/L
<b>Project:</b> Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b> MB/LCS-115036 1601035-002AMS/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	60.5	40	60	-	101	70-130
MTBE	ND	9.77	5.0	10	-	98	70-130
Benzene	ND	10.2	0.50	10	-	102	70-130
Toluene	ND	10.4	0.50	10	-	104	70-130
Ethylbenzene	ND	10.5	0.50	10	-	105	70-130
Xylenes	ND	31.8	1.5	30	-	106	70-130

**Surrogate Recovery**

aaa-TFT	10.4	-		10	104	-	-
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	59.0	61.5	60	ND	98	102	70-130	4.21	20
MTBE	9.68	10.4	10	ND	97	104	70-130	7.47	20
Benzene	10.3	11.0	10	ND	103	110	70-130	7.00	20
Toluene	10.5	11.1	10	ND	105	111	70-130	5.71	20
Ethylbenzene	10.6	11.1	10	ND	106	111	70-130	4.78	20
Xylenes	31.8	33.2	30	ND	106	111	70-130	4.51	20

**Surrogate Recovery**

aaa-TFT	9.15	8.94	10		92	89	70-130	2.34	20
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## Quality Control Report

<b>Client:</b> West & Associates	<b>WorkOrder:</b> 1512C31
<b>Date Prepared:</b> 1/6/16	<b>BatchID:</b> 115092
<b>Date Analyzed:</b> 1/6/16	<b>Extraction Method:</b> SW5030B
<b>Instrument:</b> GC3	<b>Analytical Method:</b> SW8021B/8015Bm
<b>Matrix:</b> Water	<b>Unit:</b> µg/L
<b>Project:</b> Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b> MB/LCS-115092 1601120-001AMS/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	58.4	40	60	-	97	70-130
MTBE	ND	10.6	5.0	10	-	106	70-130
Benzene	ND	10.5	0.50	10	-	105	70-130
Toluene	ND	10.6	0.50	10	-	106	70-130
Ethylbenzene	ND	10.9	0.50	10	-	109	70-130
Xylenes	ND	32.7	1.5	30	-	109	70-130

**Surrogate Recovery**

aaa-TFT	8.02	8.84		10	80	88	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	58.4	58.4	60	ND	97	97	70-130	0	20
MTBE	9.17	9.36	10	ND	92	94	70-130	2.09	20
Benzene	10.2	10.3	10	ND	102	103	70-130	1.18	20
Toluene	10.3	10.5	10	ND	103	105	70-130	1.43	20
Ethylbenzene	10.5	10.6	10	ND	105	106	70-130	1.09	20
Xylenes	31.7	32.0	30	ND	106	107	70-130	0.661	20

**Surrogate Recovery**

aaa-TFT	8.93	9.06	10		89	91	70-130	1.50	20
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## Quality Control Report

<b>Client:</b> West & Associates	<b>WorkOrder:</b> 1512C31
<b>Date Prepared:</b> 12/31/15	<b>BatchID:</b> 114866
<b>Date Analyzed:</b> 12/31/15 - 1/1/16	<b>Extraction Method:</b> SW3510C
<b>Instrument:</b> GC11A, GC39B	<b>Analytical Method:</b> SW8015B
<b>Matrix:</b> Water	<b>Unit:</b> µg/L
<b>Project:</b> Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b> MB/LCS-114866

### 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	823	50	1000	-	82	61-157
TPH-Motor Oil (C18-C36)	ND	-	250	-	-	-	-
<b>Surrogate Recovery</b>							
C9	653	640		625	104	102	65-122



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1512C31

ClientCode: WAA

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQuIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Bruce Jacobsen  
West & Associates  
630 Eubanks Ct, Unit #G  
Vacaville, CA 95688  
(707) 451-1360    FAX: (707) 447-0631

Email: bjacobsen@astound.net; dganzer@westen  
cc/3rd Party:  
PO:  
ProjectNo: Automasters, 6200 Shattuck Ave.,  
Oakland, CA

**Bill to:**

Accounts Payable  
West & Associates  
630 Eubanks Ct, Unit #G  
Vacaville, CA 95688

**Requested TAT: 5 days;**

**Date Received: 12/31/2015**

**Date Logged: 12/31/2015**

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	
1512C31-001	MW-103	Water	12/31/2015 11:15	<input type="checkbox"/>	A	A											
1512C31-002	MW-102	Water	12/31/2015 12:02	<input type="checkbox"/>	A	A											
1512C31-003	MW-101	Water	12/31/2015 12:55	<input type="checkbox"/>	A	A											

**Test Legend:**

1	G-MBTEX_W	2	TPH(DMO)_W	3		4	
5		6		7		8	
9		10		11		12	

The following SamplIDs: 001A, 002A, 003A contain testgroup.

**Prepared by: Alexandra Iniguez**

**Comments:**

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:** WEST & ASSOCIATES

**QC Level:** LEVEL 2

**Work Order:** 1512C31

**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA

**Client Contact:** Bruce Jacobsen

**Date Logged:** 12/31/2015

**Comments:**

**Contact's Email:** bjacobsen@astound.net; dganzer@westengineers.com

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
1512C31-001A	MW-103	Water	Multi-Range TPH(g,d,mo)	1	1LA	<input type="checkbox"/>	12/31/2015 11:15	5 days	1%+	<input type="checkbox"/>	
				1	1LA	<input type="checkbox"/>				1%+	<input type="checkbox"/>
1512C31-002A	MW-102	Water	Multi-Range TPH(g,d,mo)	1	1LA	<input type="checkbox"/>	12/31/2015 12:02	5 days	2%+	<input type="checkbox"/>	
				1	1LA	<input type="checkbox"/>				2%+	<input type="checkbox"/>
1512C31-003A	MW-101	Water	Multi-Range TPH(g,d,mo)	1	1LA	<input type="checkbox"/>	12/31/2015 12:55	5 days	1%+	<input type="checkbox"/>	
				1	1LA	<input type="checkbox"/>				1%+	<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.

1512031

T0619748201



# McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD  
PITTSBURG, CA 94565-1701

Website: [www.mccampbell.com](http://www.mccampbell.com) Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: (877) 252-9262 Fax: (925) 252-9269

## CHAIN OF CUSTODY RECORD

### TURN AROUND TIME

RUSH  24 HR  48 HR  72 HR  5 DAY

GeoTracker EDF  PDF  Excel  Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: Bruce Jacobsen Bill To: W&A  
Company: West & Associates Engineers  
630 Eubanks Ct, #G, Vacaville, CA bjacobsen@astound.net  
E-Mail: deborah@westengineers.com  
Tele: (707) 451-1360 Fax: (707) 447-0631  
Project #: \_\_\_\_\_ Project Name: Automasters  
Project Location: 6200 Shattuck Ave., Oakland, CA  
Sampler Signature: Bruce Jacobsen

### Analysis Request

### Other

### Comments

BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	
TPH as Diesel (8015) + TPH-g + TPH-Mo	X
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	
Total Petroleum Hydrocarbons (418.1)	
EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	
MTBE / BTEX ONLY (EPA 602 / 8021)	
EPA 505 / 608 / 8081 (CI Pesticides)	
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	
EPA 507 / 8141 (NP Pesticides)	
EPA 515 / 8151 (Acidic CI Herbicides)	
EPA 524.2 / 624 / 8260 (VOCs)	
EPA 525.2 / 625 / 8270 (SVOCs)	
EPA 8270 SIM / 8310 (PAHs / PNAs)	
CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	
Lead (200.7 / 200.8 / 6010 / 6020)	

Filter Samples for Metals analysis: Yes / No

SAMPLE ID	LOCATION / Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED						
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other			
MW-103	MW-103	12-31	11:15	3	①	✓					✓	②					
MW-102	MW-102	"	12:02	3	"	✓					✓	"					
MW-101	MW-101	"	12:55	3	"	✓					✓	"					

① VOAs (2) and Ambers 1L (1)  
② VOAs w/ HCl for 8260, Ambers ~~unpreserved~~ for TPH

Relinquished By: Bruce Jacobsen Date: 12/31/15 Time: 1445 Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE# 8.4 COMMENTS:  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER  
 PRESERVATION pH-2



### Sample Receipt Checklist

Client Name: **West & Associates**  
 Project Name: **Automasters, 6200 Shattuck Ave., Oakland, CA**  
 WorkOrder No: **1512C31** Matrix: Water  
 Carrier: Client Drop-In

Date and Time Received: **12/31/2015 14:45**  
 Date Logged: **12/31/2015**  
 Received by: **Jena Alfaro**  
 Logged by: **Alexandra Iniguez**

#### 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   
 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

\* NOTE: If the "No" box is checked, see comments below.

Comments:



## Glossary of Terms & Qualifier Definitions

**Client:** West & Associates  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA  
**WorkOrder:** 1512C31

### Glossary Abbreviation

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
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
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## **Glossary of Terms & Qualifier Definitions**

**Client:** West & Associates  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA  
**WorkOrder:** 1512C31

### **Analytical Qualifiers**

S 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.  
d1 weakly modified or unmodified gasoline is significant  
d17 Reporting limit for MTBE raised due to co-elution with non-target peaks.  
e4 gasoline range compounds are significant.

### **Quality Control Qualifiers**

F2 LCS recovery for this compound is outside of acceptance limits.





## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/31/15 16:36  
**Date Prepared:** 1/12/16  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA

**WorkOrder:** 1512C31  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	1512C31-001A	Water	12/31/2015 11:15	GC10	115218
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	1000	100	01/12/2016 21:44	
tert-Amyl methyl ether (TAME)	ND	50	100	01/12/2016 21:44	
Benzene	<b>1000</b>	50	100	01/12/2016 21:44	
Bromobenzene	ND	50	100	01/12/2016 21:44	
Bromochloromethane	ND	50	100	01/12/2016 21:44	
Bromodichloromethane	ND	50	100	01/12/2016 21:44	
Bromoform	ND	50	100	01/12/2016 21:44	
Bromomethane	ND	50	100	01/12/2016 21:44	
2-Butanone (MEK)	ND	200	100	01/12/2016 21:44	
t-Butyl alcohol (TBA)	ND	200	100	01/12/2016 21:44	
n-Butyl benzene	ND	50	100	01/12/2016 21:44	
sec-Butyl benzene	ND	50	100	01/12/2016 21:44	
tert-Butyl benzene	ND	50	100	01/12/2016 21:44	
Carbon Disulfide	ND	50	100	01/12/2016 21:44	
Carbon Tetrachloride	ND	50	100	01/12/2016 21:44	
Chlorobenzene	ND	50	100	01/12/2016 21:44	
Chloroethane	ND	50	100	01/12/2016 21:44	
Chloroform	ND	50	100	01/12/2016 21:44	
Chloromethane	ND	50	100	01/12/2016 21:44	
2-Chlorotoluene	ND	50	100	01/12/2016 21:44	
4-Chlorotoluene	ND	50	100	01/12/2016 21:44	
Dibromochloromethane	ND	50	100	01/12/2016 21:44	
1,2-Dibromo-3-chloropropane	ND	20	100	01/12/2016 21:44	
1,2-Dibromoethane (EDB)	ND	50	100	01/12/2016 21:44	
Dibromomethane	ND	50	100	01/12/2016 21:44	
1,2-Dichlorobenzene	ND	50	100	01/12/2016 21:44	
1,3-Dichlorobenzene	ND	50	100	01/12/2016 21:44	
1,4-Dichlorobenzene	ND	50	100	01/12/2016 21:44	
Dichlorodifluoromethane	ND	50	100	01/12/2016 21:44	
1,1-Dichloroethane	ND	50	100	01/12/2016 21:44	
1,2-Dichloroethane (1,2-DCA)	ND	50	100	01/12/2016 21:44	
1,1-Dichloroethene	ND	50	100	01/12/2016 21:44	
cis-1,2-Dichloroethene	ND	50	100	01/12/2016 21:44	
trans-1,2-Dichloroethene	ND	50	100	01/12/2016 21:44	
1,2-Dichloropropane	ND	50	100	01/12/2016 21:44	
1,3-Dichloropropane	ND	50	100	01/12/2016 21:44	
2,2-Dichloropropane	ND	50	100	01/12/2016 21:44	

(Cont.)



## Analytical Report

**Client:** West & Associates **WorkOrder:** 1512C31  
**Date Received:** 12/31/15 16:36 **Extraction Method:** SW5030B  
**Date Prepared:** 1/12/16 **Analytical Method:** SW8260B  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA **Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	1512C31-001A	Water	12/31/2015 11:15	GC10	115218
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	50	100	01/12/2016 21:44	
cis-1,3-Dichloropropene	ND	50	100	01/12/2016 21:44	
trans-1,3-Dichloropropene	ND	50	100	01/12/2016 21:44	
Diisopropyl ether (DIPE)	ND	50	100	01/12/2016 21:44	
Ethylbenzene	<b>320</b>	50	100	01/12/2016 21:44	
Ethyl tert-butyl ether (ETBE)	ND	50	100	01/12/2016 21:44	
Freon 113	ND	50	100	01/12/2016 21:44	
Hexachlorobutadiene	ND	50	100	01/12/2016 21:44	
Hexachloroethane	ND	50	100	01/12/2016 21:44	
2-Hexanone	ND	50	100	01/12/2016 21:44	
Isopropylbenzene	ND	50	100	01/12/2016 21:44	
4-Isopropyl toluene	ND	50	100	01/12/2016 21:44	
Methyl-t-butyl ether (MTBE)	ND	50	100	01/12/2016 21:44	
Methylene chloride	ND	50	100	01/12/2016 21:44	
4-Methyl-2-pentanone (MIBK)	ND	50	100	01/12/2016 21:44	
Naphthalene	<b>170</b>	50	100	01/12/2016 21:44	
n-Propyl benzene	ND	50	100	01/12/2016 21:44	
Styrene	ND	50	100	01/12/2016 21:44	
1,1,1,2-Tetrachloroethane	ND	50	100	01/12/2016 21:44	
1,1,2,2-Tetrachloroethane	ND	50	100	01/12/2016 21:44	
Tetrachloroethene	ND	50	100	01/12/2016 21:44	
Toluene	<b>64</b>	50	100	01/12/2016 21:44	
1,2,3-Trichlorobenzene	ND	50	100	01/12/2016 21:44	
1,2,4-Trichlorobenzene	ND	50	100	01/12/2016 21:44	
1,1,1-Trichloroethane	ND	50	100	01/12/2016 21:44	
1,1,2-Trichloroethane	ND	50	100	01/12/2016 21:44	
Trichloroethene	ND	50	100	01/12/2016 21:44	
Trichlorofluoromethane	ND	50	100	01/12/2016 21:44	
1,2,3-Trichloropropane	ND	50	100	01/12/2016 21:44	
1,2,4-Trimethylbenzene	<b>770</b>	50	100	01/12/2016 21:44	
1,3,5-Trimethylbenzene	<b>160</b>	50	100	01/12/2016 21:44	
Vinyl Chloride	ND	50	100	01/12/2016 21:44	
Xylenes, Total	<b>1800</b>	50	100	01/12/2016 21:44	

(Cont.)



# Analytical Report

**Client:** West & Associates

**WorkOrder:** 1512C31

**Date Received:** 12/31/15 16:36

**Extraction Method:** SW5030B

**Date Prepared:** 1/12/16

**Analytical Method:** SW8260B

**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA

**Unit:** µg/L

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	1512C31-001A	Water	12/31/2015 11:15	GC10	115218

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	86	70-130		01/12/2016 21:44
Toluene-d8	79	70-130		01/12/2016 21:44
4-BFB	88	70-130		01/12/2016 21:44

**Analyst(s):** KF

**Analytical Comments:** b1



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/31/15 16:36  
**Date Prepared:** 1/12/16  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA

**WorkOrder:** 1512C31  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	1512C31-002A	Water	12/31/2015 12:02	GC28	115264
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	10	1	01/12/2016 02:54	
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/12/2016 02:54	
Benzene	ND	0.50	1	01/12/2016 02:54	
Bromobenzene	ND	0.50	1	01/12/2016 02:54	
Bromochloromethane	ND	0.50	1	01/12/2016 02:54	
Bromodichloromethane	ND	0.50	1	01/12/2016 02:54	
Bromoform	ND	0.50	1	01/12/2016 02:54	
Bromomethane	ND	0.50	1	01/12/2016 02:54	
2-Butanone (MEK)	ND	2.0	1	01/12/2016 02:54	
t-Butyl alcohol (TBA)	ND	2.0	1	01/12/2016 02:54	
n-Butyl benzene	ND	0.50	1	01/12/2016 02:54	
sec-Butyl benzene	ND	0.50	1	01/12/2016 02:54	
tert-Butyl benzene	ND	0.50	1	01/12/2016 02:54	
Carbon Disulfide	ND	0.50	1	01/12/2016 02:54	
Carbon Tetrachloride	ND	0.50	1	01/12/2016 02:54	
Chlorobenzene	ND	0.50	1	01/12/2016 02:54	
Chloroethane	ND	0.50	1	01/12/2016 02:54	
Chloroform	ND	0.50	1	01/12/2016 02:54	
Chloromethane	ND	0.50	1	01/12/2016 02:54	
2-Chlorotoluene	ND	0.50	1	01/12/2016 02:54	
4-Chlorotoluene	ND	0.50	1	01/12/2016 02:54	
Dibromochloromethane	ND	0.50	1	01/12/2016 02:54	
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/12/2016 02:54	
1,2-Dibromoethane (EDB)	ND	0.50	1	01/12/2016 02:54	
Dibromomethane	ND	0.50	1	01/12/2016 02:54	
1,2-Dichlorobenzene	ND	0.50	1	01/12/2016 02:54	
1,3-Dichlorobenzene	ND	0.50	1	01/12/2016 02:54	
1,4-Dichlorobenzene	ND	0.50	1	01/12/2016 02:54	
Dichlorodifluoromethane	ND	0.50	1	01/12/2016 02:54	
1,1-Dichloroethane	ND	0.50	1	01/12/2016 02:54	
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/12/2016 02:54	
1,1-Dichloroethene	ND	0.50	1	01/12/2016 02:54	
cis-1,2-Dichloroethene	ND	0.50	1	01/12/2016 02:54	
trans-1,2-Dichloroethene	ND	0.50	1	01/12/2016 02:54	
1,2-Dichloropropane	ND	0.50	1	01/12/2016 02:54	
1,3-Dichloropropane	ND	0.50	1	01/12/2016 02:54	
2,2-Dichloropropane	ND	0.50	1	01/12/2016 02:54	

(Cont.)



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/31/15 16:36  
**Date Prepared:** 1/12/16  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA

**WorkOrder:** 1512C31  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	1512C31-002A	Water	12/31/2015 12:02	GC28	115264
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.50	1	01/12/2016 02:54	
cis-1,3-Dichloropropene	ND	0.50	1	01/12/2016 02:54	
trans-1,3-Dichloropropene	ND	0.50	1	01/12/2016 02:54	
Diisopropyl ether (DIPE)	ND	0.50	1	01/12/2016 02:54	
Ethylbenzene	ND	0.50	1	01/12/2016 02:54	
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/12/2016 02:54	
Freon 113	ND	0.50	1	01/12/2016 02:54	
Hexachlorobutadiene	ND	0.50	1	01/12/2016 02:54	
Hexachloroethane	ND	0.50	1	01/12/2016 02:54	
2-Hexanone	ND	0.50	1	01/12/2016 02:54	
Isopropylbenzene	ND	0.50	1	01/12/2016 02:54	
4-Isopropyl toluene	ND	0.50	1	01/12/2016 02:54	
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/12/2016 02:54	
Methylene chloride	ND	0.50	1	01/12/2016 02:54	
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/12/2016 02:54	
Naphthalene	ND	0.50	1	01/12/2016 02:54	
n-Propyl benzene	ND	0.50	1	01/12/2016 02:54	
Styrene	ND	0.50	1	01/12/2016 02:54	
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/12/2016 02:54	
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/12/2016 02:54	
Tetrachloroethene	ND	0.50	1	01/12/2016 02:54	
Toluene	ND	0.50	1	01/12/2016 02:54	
1,2,3-Trichlorobenzene	ND	0.50	1	01/12/2016 02:54	
1,2,4-Trichlorobenzene	ND	0.50	1	01/12/2016 02:54	
1,1,1-Trichloroethane	ND	0.50	1	01/12/2016 02:54	
1,1,2-Trichloroethane	ND	0.50	1	01/12/2016 02:54	
Trichloroethene	ND	0.50	1	01/12/2016 02:54	
Trichlorofluoromethane	ND	0.50	1	01/12/2016 02:54	
1,2,3-Trichloropropane	ND	0.50	1	01/12/2016 02:54	
1,2,4-Trimethylbenzene	ND	0.50	1	01/12/2016 02:54	
1,3,5-Trimethylbenzene	ND	0.50	1	01/12/2016 02:54	
Vinyl Chloride	ND	0.50	1	01/12/2016 02:54	
Xylenes, Total	ND	0.50	1	01/12/2016 02:54	

(Cont.)



# Analytical Report

**Client:** West & Associates

**WorkOrder:** 1512C31

**Date Received:** 12/31/15 16:36

**Extraction Method:** SW5030B

**Date Prepared:** 1/12/16

**Analytical Method:** SW8260B

**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA

**Unit:** µg/L

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	1512C31-002A	Water	12/31/2015 12:02	GC28	115264

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	82	70-130		01/12/2016 02:54
Toluene-d8	78	70-130		01/12/2016 02:54
4-BFB	80	70-130		01/12/2016 02:54

**Analyst(s):** KF

**Analytical Comments:** b1



## Analytical Report

**Client:** West & Associates  
**Date Received:** 12/31/15 16:36  
**Date Prepared:** 1/12/16  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA

**WorkOrder:** 1512C31  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	1512C31-003A	Water	12/31/2015 12:55	GC28	115264
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	200	20	01/12/2016 03:32	
tert-Amyl methyl ether (TAME)	ND	10	20	01/12/2016 03:32	
Benzene	<b>110</b>	10	20	01/12/2016 03:32	
Bromobenzene	ND	10	20	01/12/2016 03:32	
Bromochloromethane	ND	10	20	01/12/2016 03:32	
Bromodichloromethane	ND	10	20	01/12/2016 03:32	
Bromoform	ND	10	20	01/12/2016 03:32	
Bromomethane	ND	10	20	01/12/2016 03:32	
2-Butanone (MEK)	ND	40	20	01/12/2016 03:32	
t-Butyl alcohol (TBA)	ND	40	20	01/12/2016 03:32	
n-Butyl benzene	ND	10	20	01/12/2016 03:32	
sec-Butyl benzene	ND	10	20	01/12/2016 03:32	
tert-Butyl benzene	ND	10	20	01/12/2016 03:32	
Carbon Disulfide	ND	10	20	01/12/2016 03:32	
Carbon Tetrachloride	ND	10	20	01/12/2016 03:32	
Chlorobenzene	ND	10	20	01/12/2016 03:32	
Chloroethane	ND	10	20	01/12/2016 03:32	
Chloroform	ND	10	20	01/12/2016 03:32	
Chloromethane	ND	10	20	01/12/2016 03:32	
2-Chlorotoluene	ND	10	20	01/12/2016 03:32	
4-Chlorotoluene	ND	10	20	01/12/2016 03:32	
Dibromochloromethane	ND	10	20	01/12/2016 03:32	
1,2-Dibromo-3-chloropropane	ND	4.0	20	01/12/2016 03:32	
1,2-Dibromoethane (EDB)	ND	10	20	01/12/2016 03:32	
Dibromomethane	ND	10	20	01/12/2016 03:32	
1,2-Dichlorobenzene	ND	10	20	01/12/2016 03:32	
1,3-Dichlorobenzene	ND	10	20	01/12/2016 03:32	
1,4-Dichlorobenzene	ND	10	20	01/12/2016 03:32	
Dichlorodifluoromethane	ND	10	20	01/12/2016 03:32	
1,1-Dichloroethane	ND	10	20	01/12/2016 03:32	
1,2-Dichloroethane (1,2-DCA)	ND	10	20	01/12/2016 03:32	
1,1-Dichloroethene	ND	10	20	01/12/2016 03:32	
cis-1,2-Dichloroethene	ND	10	20	01/12/2016 03:32	
trans-1,2-Dichloroethene	ND	10	20	01/12/2016 03:32	
1,2-Dichloropropane	ND	10	20	01/12/2016 03:32	
1,3-Dichloropropane	ND	10	20	01/12/2016 03:32	
2,2-Dichloropropane	ND	10	20	01/12/2016 03:32	

(Cont.)



## Analytical Report

**Client:** West & Associates **WorkOrder:** 1512C31  
**Date Received:** 12/31/15 16:36 **Extraction Method:** SW5030B  
**Date Prepared:** 1/12/16 **Analytical Method:** SW8260B  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA **Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	1512C31-003A	Water	12/31/2015 12:55	GC28	115264
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1-Dichloropropene	ND		10	20	01/12/2016 03:32
cis-1,3-Dichloropropene	ND		10	20	01/12/2016 03:32
trans-1,3-Dichloropropene	ND		10	20	01/12/2016 03:32
Diisopropyl ether (DIPE)	ND		10	20	01/12/2016 03:32
Ethylbenzene	140		10	20	01/12/2016 03:32
Ethyl tert-butyl ether (ETBE)	ND		10	20	01/12/2016 03:32
Freon 113	ND		10	20	01/12/2016 03:32
Hexachlorobutadiene	ND		10	20	01/12/2016 03:32
Hexachloroethane	ND		10	20	01/12/2016 03:32
2-Hexanone	ND		10	20	01/12/2016 03:32
Isopropylbenzene	10		10	20	01/12/2016 03:32
4-Isopropyl toluene	15		10	20	01/12/2016 03:32
Methyl-t-butyl ether (MTBE)	ND		10	20	01/12/2016 03:32
Methylene chloride	ND		10	20	01/12/2016 03:32
4-Methyl-2-pentanone (MIBK)	ND		10	20	01/12/2016 03:32
Naphthalene	78		10	20	01/12/2016 03:32
n-Propyl benzene	12		10	20	01/12/2016 03:32
Styrene	ND		10	20	01/12/2016 03:32
1,1,1,2-Tetrachloroethane	ND		10	20	01/12/2016 03:32
1,1,2,2-Tetrachloroethane	ND		10	20	01/12/2016 03:32
Tetrachloroethene	ND		10	20	01/12/2016 03:32
Toluene	11		10	20	01/12/2016 03:32
1,2,3-Trichlorobenzene	ND		10	20	01/12/2016 03:32
1,2,4-Trichlorobenzene	ND		10	20	01/12/2016 03:32
1,1,1-Trichloroethane	ND		10	20	01/12/2016 03:32
1,1,2-Trichloroethane	ND		10	20	01/12/2016 03:32
Trichloroethene	ND		10	20	01/12/2016 03:32
Trichlorofluoromethane	ND		10	20	01/12/2016 03:32
1,2,3-Trichloropropane	ND		10	20	01/12/2016 03:32
1,2,4-Trimethylbenzene	150		10	20	01/12/2016 03:32
1,3,5-Trimethylbenzene	58		10	20	01/12/2016 03:32
Vinyl Chloride	ND		10	20	01/12/2016 03:32
Xylenes, Total	430		10	20	01/12/2016 03:32

(Cont.)





## Analytical Report

**Client:** West & Associates **WorkOrder:** 1512C31  
**Date Received:** 12/31/15 16:36 **Extraction Method:** SW5030B  
**Date Prepared:** 1/12/16 **Analytical Method:** SW8260B  
**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA **Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	1512C31-003A	Water	12/31/2015 12:55	GC28	115264

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	82	70-130		01/12/2016 03:32
Toluene-d8	79	70-130		01/12/2016 03:32
4-BFB	99	70-130		01/12/2016 03:32

**Analyst(s):** KF **Analytical Comments:** b1



## Quality Control Report

<b>Client:</b>	West & Associates	<b>WorkOrder:</b>	1512C31
<b>Date Prepared:</b>	1/11/16	<b>BatchID:</b>	115218
<b>Date Analyzed:</b>	1/11/16	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC10	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b>	MB/LCS-115218 1601256-028BMS/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	8.74	0.50	10	-	87	54-140
Benzene	ND	9.01	0.50	10	-	90	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	32.5	2.0	40	-	81	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	8.90	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	8.50	0.50	10	-	85	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	8.63	0.50	10	-	86	66-125
1,1-Dichloroethene	ND	9.04	0.50	10	-	90	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.)



## Quality Control Report

<b>Client:</b>	West & Associates	<b>WorkOrder:</b>	1512C31
<b>Date Prepared:</b>	1/11/16	<b>BatchID:</b>	115218
<b>Date Analyzed:</b>	1/11/16	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC10	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b>	MB/LCS-115218 1601256-028BMS/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	8.93	0.50	10	-	89	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	8.94	0.50	10	-	89	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	8.75	0.50	10	-	87	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	8.89	0.50	10	-	89	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	8.84	0.50	10	-	88	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	-	-	-	-

(Cont.)



## Quality Control Report

<b>Client:</b>	West & Associates	<b>WorkOrder:</b>	1512C31
<b>Date Prepared:</b>	1/11/16	<b>BatchID:</b>	115218
<b>Date Analyzed:</b>	1/11/16	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC10	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b>	MB/LCS-115218 1601256-028BMS/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	22.2	22.6		25	89	90	70-130
Toluene-d8	20.8	20.4		25	83	82	70-130
4-BFB	2.51	2.81		2.5	100	112	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)	8.76	9.13	10	ND	88	91	69-139	4.21	20
Benzene	8.58	9.07	10	ND	86	91	69-141	5.52	20
t-Butyl alcohol (TBA)	35.2	36.0	40	ND	88	90	41-152	2.19	20
Chlorobenzene	8.66	9.30	10	ND	87	93	77-120	7.13	20
1,2-Dibromoethane (EDB)	9.09	9.65	10	ND	91	97	76-135	6.01	20
1,2-Dichloroethane (1,2-DCA)	8.30	8.81	10	ND	83	88	73-139	5.99	20
1,1-Dichloroethene	9.04	9.56	10	ND	90	96	59-140	5.61	20
Diisopropyl ether (DIPE)	8.29	8.74	10	ND	83	87	72-140	5.24	20
Ethyl tert-butyl ether (ETBE)	8.46	8.86	10	ND	85	89	71-140	4.69	20
Methyl-t-butyl ether (MTBE)	8.77	9.12	10	ND	88	91	73-139	3.93	20
Toluene	8.50	9.12	10	ND	83	89	71-128	7.05	20
Trichloroethene	8.80	9.50	10	ND	88	95	64-132	7.69	20

<b>Surrogate Recovery</b>									
Dibromofluoromethane	22.3	22.4	25		89	89	70-130	0	20
Toluene-d8	20.4	20.3	25		82	81	70-130	0.670	20
4-BFB	3.08	3.12	2.5		123	125	70-130	1.28	20

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## Quality Control Report

<b>Client:</b>	West & Associates	<b>WorkOrder:</b>	1512C31
<b>Date Prepared:</b>	1/11/16	<b>BatchID:</b>	115264
<b>Date Analyzed:</b>	1/11/16	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC28	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b>	MB/LCS-115264 1601172-001CMS/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	7.74	0.50	10	-	77	54-140
Benzene	ND	9.23	0.50	10	-	92	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	46.0	2.0	40	-	115	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	8.51	0.50	10	-	85	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	9.12	0.50	10	-	91	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	8.15	0.50	10	-	81	66-125
1,1-Dichloroethene	ND	11.5	0.50	10	-	115	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.)



## Quality Control Report

<b>Client:</b>	West & Associates	<b>WorkOrder:</b>	1512C31
<b>Date Prepared:</b>	1/11/16	<b>BatchID:</b>	115264
<b>Date Analyzed:</b>	1/11/16	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC28	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b>	MB/LCS-115264 1601172-001CMS/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	9.52	0.50	10	-	95	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.33	0.50	10	-	93	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	10.6	0.50	10	-	106	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	8.70	0.50	10	-	87	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	9.70	0.50	10	-	97	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	-	-	-	-

(Cont.)



## Quality Control Report

<b>Client:</b>	West & Associates	<b>WorkOrder:</b>	1512C31
<b>Date Prepared:</b>	1/11/16	<b>BatchID:</b>	115264
<b>Date Analyzed:</b>	1/11/16	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC28	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	Automasters, 6200 Shattuck Ave., Oakland, CA	<b>Sample ID:</b>	MB/LCS-115264 1601172-001CMS/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	20.3	21.0		25	81	84	70-130
Toluene-d8	20.1	19.8		25	80	79	70-130
4-BFB	2.12	2.75		2.5	85	110	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)	8.47	8.45	10	ND	85	85	69-139	0	20
Benzene	9.07	9.31	10	ND	91	93	69-141	2.57	20
t-Butyl alcohol (TBA)	49.9	51.5	40	ND	122	126	41-152	3.23	20
Chlorobenzene	8.34	8.30	10	ND	83	83	77-120	0	20
1,2-Dibromoethane (EDB)	9.50	9.25	10	ND	95	92	76-135	2.71	20
1,2-Dichloroethane (1,2-DCA)	8.41	8.66	10	ND	84	87	73-139	2.93	20
1,1-Dichloroethene	11.4	11.5	10	ND	114	115	59-140	0.845	20
Diisopropyl ether (DIPE)	9.51	9.86	10	ND	95	99	72-140	3.62	20
Ethyl tert-butyl ether (ETBE)	9.38	9.58	10	ND	94	96	71-140	2.13	20
Methyl-t-butyl ether (MTBE)	11.1	11.1	10	ND	111	111	73-139	0	20
Toluene	8.35	8.50	10	ND	84	85	71-128	1.77	20
Trichloroethene	10.5	10.4	10	ND	105	104	64-132	0.813	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	21.1	21.4	25		84	86	70-130	1.35	20
Toluene-d8	19.8	19.5	25		79	78	70-130	1.41	20
4-BFB	2.66	2.82	2.5		106	113	70-130	5.91	20



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1512C31 **A** ClientCode: WAA

WaterTrax  
  WriteOn  
  EDF  
  Excel  
  Fax  
  Email  
  HardCopy  
  ThirdParty  
  J-flag

**Report to:**

Bruce Jacobsen  
 West & Associates  
 630 Eubanks Ct, Unit #G  
 Vacaville, CA 95688  
 (707) 451-1360    FAX: (707) 447-0631

Email: bjacobsen@astound.net; dganzer@westen  
 cc/3rd Party:  
 PO:  
 ProjectNo: Automasters, 6200 Shattuck Ave.,  
 Oakland, CA

**Bill to:**

Accounts Payable  
 West & Associates  
 630 Eubanks Ct, Unit #G  
 Vacaville, CA 95688

**Requested TAT: 5 days;**

**Date Received: 12/31/2015**

**Date Logged: 12/31/2015**

**Date Add-On: 01/08/2016**

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		
1512C31-001	MW-103	Water	12/31/2015 11:15	<input type="checkbox"/>	A													
1512C31-002	MW-102	Water	12/31/2015 12:02	<input type="checkbox"/>	A													
1512C31-003	MW-101	Water	12/31/2015 12:55	<input type="checkbox"/>	A													

**Test Legend:**

1	8260B_W	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Alexandra Iniguez**

**Add-On Prepared By: Briana Cutino**

**Comments:**

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:** WEST & ASSOCIATES

**QC Level:** LEVEL 2

**Work Order:** 1512C31

**Project:** Automasters, 6200 Shattuck Ave., Oakland, CA

**Client Contact:** Bruce Jacobsen

**Date Logged:** 12/31/2015

**Comments:**

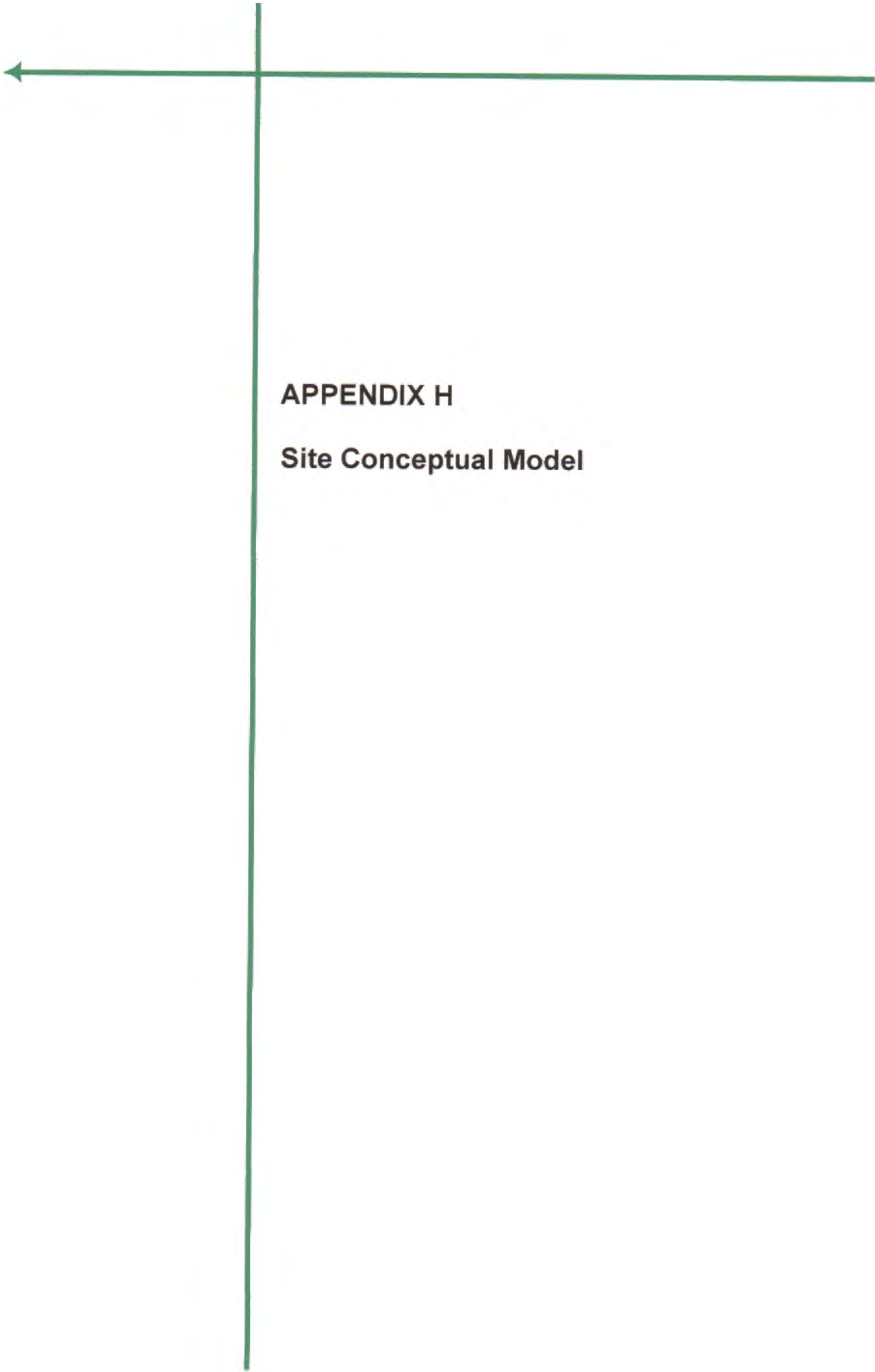
**Contact's Email:** bjacobsen@astound.net; dganzer@westengineers.com

**Date Add-On:** 1/8/2016

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1512C31-001A	MW-103	Water	SW8260B (VOCs)	1	1LA	12/31/2015 11:15	5 days	1%+	<input type="checkbox"/>	
1512C31-002A	MW-102	Water	SW8260B (VOCs)	1	1LA	12/31/2015 12:02	5 days	2%+	<input type="checkbox"/>	
1512C31-003A	MW-101	Water	SW8260B (VOCs)	1	1LA	12/31/2015 12:55	5 days	1%+	<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.





**APPENDIX H**

**Site Conceptual Model**

**TABLE 1 - SITE CONCEPTUAL MODEL – REVISED FEBRUARY 2016**  
**Automasters**  
**6200 Shattuck Ave, Oakland**  
**February 2016**

SCM Element	SCM Sub-Element	Description	Data Gap Item #	Resolution
Geology and Hydrogeology	Regional	<p>The Site is located within the San Francisco Bay structural depression of the Coast Ranges Physiographic Province, within the Oakland Sub-Area of the East Bay Plain. The Site is situated in a relatively flat area between the San Francisco Bay and the Oakland Hills. Bedrock in the area consists of sedimentary, metasedimentary, volcanic, and intrusive rocks from the Jurassic through Paleozoene geologic periods. Quaternary-age marine and alluvial sediments ranging in thickness from 300 to 700 feet cover the bedrock. Near the surface this Site is underlain by Holocene alluvium and marsh deposits comprised of silts and clay.</p> <p>The Site lies within the Berkeley Alluvial Plain sub-area of the East Bay Plain groundwater basin. The primary water-bearing unit in this area is comprised of unconsolidated alluvial deposits from the Late Quaternary period. There is also a secondary, older, semi-consolidated deposit from the Neogene-Quaternary period. Groundwater within these deposits is primarily confined although some of the aquifers are unconfined.</p> <p>Throughout most of the Alameda County portion of the East Bay Plain the general direction of groundwater flow follows the surface topography and runs from east to west, i.e. from the Hayward Fault to the San Francisco Bay. Flow direction and velocity are occasionally influenced by buried stream channels that typically are oriented in an east to west direction.</p>	None	N/A
	Site	<p>Soil types encountered during the 2006 site investigation activities consisted predominantly of silty clay to clayey silt with some sands and gravels to 36 feet below ground surface (bgs) and stiff clay from 36 feet to 48 feet bgs. The two borings advanced by Pangea closest to the former USTs and dispenser islands had a distinct sand and gravel lens at 11 to 12 feet bgs.</p> <p>The 2015 remedial investigation confirmed that shallow soils are predominately silty clay to clayey silt with a sand and gravel lens at 10 to 12 feet bgs. Copies of the boring logs for all soil borings are included in <i>Attachment N</i>.</p> <p>The depth to first groundwater ranges from approximately 3 to 5 feet bgs.</p>	None	N/A
Surface Water Bodies		The nearest surface water body is Claremont Creek, located approximately 0.8 miles northwest of the Site. Claremont Creek flows generally east to west near the Site vicinity. The San Francisco Bay is located approximately 2 miles west of the Site.	None	N/A

**TABLE 1 - SITE CONCEPTUAL MODEL – REVISED FEBRUARY 2016**  
**Automasters**  
**6200 Shattuck Ave, Oakland**  
**February 2016**

SCM Element	SCM Sub-Element	Description	Data Gap Item #	Resolution
Nearby Wells		<p>A well survey of the area performed by Woodward Clyde Consultants (WCC) in 1986 found five wells within a one mile radius of the Site. Two of these wells are (or were) used for industrial purposes, two for irrigation, and one for domestic purposes. No municipal wells were identified anywhere near the Site.</p> <p>The closest well is the irrigation well at 3215 Adeline Street in Berkeley, approximately 1,340 feet west-northwest of the Site. The only other well within a 2000-foot radius of the Site is the domestic well, which is located 1,800 feet south-southeast (cross-gradient) from the Site.</p> <p>A well survey was also performed by Alameda County Public Works Agency (ACPWA) in 2016. The only wells identified by ACPWA within the 2,000-foot search radius were groundwater monitoring wells and cathodic protection wells.</p>	None	N/A
Release Source and Volume		<p>The two USTs removed in 1986 comprise the only known release mechanism impacting soil and groundwater underlying this Site. The surrounding area is primarily residential and there are no current or former UST cases within 1,000 feet of the Site listed on GeoTracker. It is not known whether the UST release was from the piping, dispensers, and/or USTs themselves.</p> <p>There is no known history of leaks or spills from the aboveground waste oil storage vessel (former or current) or other aspects of the automotive repair operation. Seven shallow soil samples collected near the current and former waste oil storage areas were all clean, indicating that there has been no environmental impact from waste oil handling operations at the site.</p> <p>The volume of this release is very difficult to ascertain.</p>	None	N/A
LNAPL		Light non-aqueous phase liquids (LNAPL) have not been encountered in any of the three groundwater monitoring wells installed in December 2015, either during the well development or subsequent sampling activities.	None	N/A
Source Removal Activities		It is reported that contaminated soil between the USTs was excavated and transported offsite for disposal. No records are available regarding the quantity or final destination of this soil.	None	N/A

**TABLE 1 - SITE CONCEPTUAL MODEL – REVISED FEBRUARY 2016**  
**Automasters**  
**6200 Shattuck Ave, Oakland**  
**February 2016**

SCM Element	SCM Sub-Element	Description	Data Gap Item #	Resolution
Contaminants of Concern		Based on the information available from the Site owner and the 2006 remedial investigation report, contaminants of concern (COCs) are TPH-g, TPH-d, TPH-mo, and VOCs by EPA Method 8260B (including naphthalene). MtBE and other fuel oxygenates/additives were all reported as N.D. at the standard method detection limits in the 2006 report, so they are not COCs at this Site.	None	N/A
Petroleum Hydrocarbons in Soil		Significant concentrations of COCs were reported in five of the seven 20-foot deep borings installed in December 2015 (three of which were completed as monitoring wells). The highest concentrations were reported in the soil sample from MW-101 at 10 feet bgs, which had 3,100 mg/kg TPH-g, 2.5 mg/kg benzene, and 33 mg/kg naphthalene.  Additional site investigation will be required to fully characterize the lateral extent of soil contamination.	1. Lateral extent of soil contamination	Determine during additional RI to be performed in 2016
Petroleum Hydrocarbons in Groundwater		Three groundwater monitoring wells were installed in December 2015. The initial samples from MW-101 and MW-103 had significant concentrations of COCs, while upgradient well MW-102 was clean. TPH-g and benzene concentrations in MW-103 were 18,000 µg/L and 1,000 µg/L, respectively.  Additional wells will be required to determine the lateral extent of groundwater contamination as a result of this release.  A utility survey performed in February 2016 determined that there are several utility corridors running along 62 <sup>nd</sup> Street directly south of the Site and along Shattuck Avenue directly west of the Site. It is conceivable that these corridors are acting as preferential pathways for groundwater migration. Some utilities (notably East Bay MUD) do not have accurate drawings of their underground pipelines in the area, so additional work is required to determine their locations.	2. Extent of groundwater contamination  3. Utility corridors that may act as preferential pathways for groundwater migration	Determine during additional RI in 2016  Get underground utility locating service to mark EBMUD pipelines

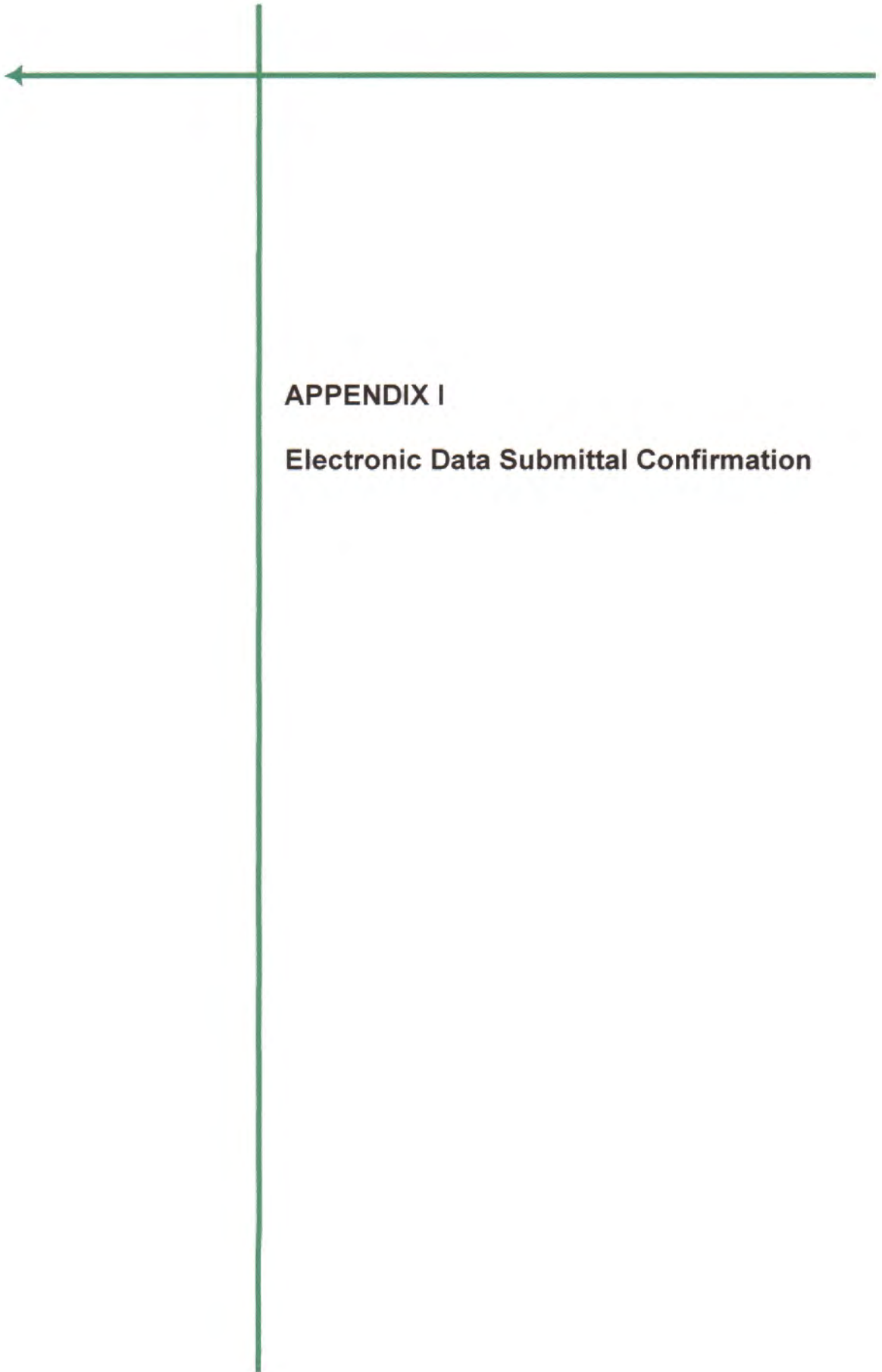
**TABLE 1 - SITE CONCEPTUAL MODEL – REVISED FEBRUARY 2016**  
**Automasters**  
**6200 Shattuck Ave, Oakland**  
**February 2016**

SCM Element	SCM Sub-Element	Description	Data Gap Item #	Resolution
Risk Evaluation		<p>The Site is currently used as an independent automotive repair facility. 6200 Shattuck Partners, LLC would like to proceed with development of the Site, involving mixed-use commercial and residential facilities. The Site and surrounding properties are zoned RM-4, Mixed Housing Residential Zone 4 as defined in Section 17.17.010 of the Municipal Code. The objective of this zoning classification is to maintain an enhanced residential area “characterized by a mix of single family homes, townhouses, small multi-unit buildings... and neighborhood businesses where appropriate”.</p> <p>Identified potential human receptors include residents at the Site and nearby homes and apartments, workers and patrons of nearby commercial establishments, and construction workers involved with Site development. The homes and small commercial establishments located downgradient from the Site are considered the only likely off-site receptors.</p> <p>A soil vapor survey has not been performed at the Site. Based on the soil data from 2015 and the potential for residential land use, the exposure scenarios listed in the LTCP have been evaluated using residential standards for shallow soils (&lt; 5 feet bgs). The concentrations of benzene, ethylbenzene and naphthalene in shallow soil samples from all 13 locations were mostly non-detect and in all cases significantly below the thresholds listed in the residential column on <i>Table 1</i> in the Direct Contact and Outdoor Air Exposure section of the LTCP. It is concluded, therefore, that this is not a complete exposure pathway.</p> <p>In order to evaluate the potential for vapor intrusion to indoor air, the concentrations of TPH-g and TPH-d in soils &lt; 10 feet bgs and the benzene concentration in groundwater must be compared with the scenarios depicted in the appendices of the LTCP. The sum of TPH-g &amp; TPH-d concentrations in shallow soil samples from MW-101, MW-103 and DP-2 exceed 100 ppm and the benzene concentration in MW-103 is 1,000 µg/L. Consequently, the potential for vapor intrusion to indoor air cannot be dismissed without performing a soil vapor survey.</p> <p>A limited sensitive receptor evaluation of the area within a 2,000-foot radius of the Site has been performed based on Sensitive Receptor Surveys performed at nearby sites. Potential receptors within 2,000 feet of the Site include the Sankofa Academy Elementary School, whose property begins 400 feet south of the Site, and Colby Park, located 1,800 feet east of the Site. Based on the known direction of groundwater flow in the area these receptors are cross-gradient and upgradient of the Site, so it is unlikely that they would be impacted by this release.</p>	4. Potential for soil vapor intrusion to indoor air	Perform a soil vapor survey

**Table 2 - DATA GAP SUMMARY AND PROPOSED INVESTIGATION – REVISED FEBRUARY 2016**  
**Automasters**  
**6200 Shattuck Ave, Oakland**  
**February 2016**

Item #	Data Gap	Proposed Investigation	Rationale	Analyses
1	Lateral extent of soil contamination	Install additional “step out” soil borings to the south and west of the borings installed in December 2015	Significant levels of soil contamination were reported in some of the borings installed near the Site perimeter in December 2015, indicating that the lateral extent was not fully characterized	TPH-g, TPH-d, TPH-mo, and VOCs (including naphthalene) by EPA Method 8260B
2	Lateral extent of groundwater contamination	Install additional groundwater monitoring wells, measure the depth to groundwater and COC concentrations in all wells	The high concentrations of TPH-g in well MW-101 on the west side of the property and well MW-103 on the south side of the property indicate that the lateral extent of the groundwater plume is not fully defined; additional wells will also help to clarify the groundwater gradient	TPH-g, TPH-d, TPH-mo, and VOCs by EPA Method 8260B in all wells
3	Utility corridors that may act as preferential pathways	Get underground utility locating service to mark EBMUD pipelines	Some utilities (notably East Bay MUD) do not have accurate drawings of their underground pipelines in the area, so additional work is required to determine their locations	N/A
4	Potential for soil vapor intrusion to indoor air	Perform a soil vapor survey	The LTCP requires a soil vapor survey when (TPH-g + TPH-d ) in shallow soils exceed 100 mg/kg or benzene in groundwater $\geq$ 1,000 $\mu$ g/L. Both are the case at this Site.	TPH-g, VOCs by EPA Method 8260B





**APPENDIX I**

**Electronic Data Submittal Confirmation**

**Your GEO\_REPORT file has been successfully submitted!**

**Submittal Type:** GEO\_REPORT  
**Report Title:** Remed Investigation Rpt - Feb 2016  
**Report Type:** Remedial Investigation Report  
**Report Date:** 2/26/2016  
**Facility Global ID:** T0619748201  
**Facility Name:** AUTOMASTERS  
**File Name:** Remed Invest Rpt - Feb 2016.pdf  
**Organization Name:** West & Associates Environmental Engineers, Inc.  
**Username:** WESTENGINEERS  
**IP Address:** 38.102.44.215  
**Submittal Date/Time:** 3/15/2016 10:16:43 AM  
**Confirmation Number:** 5892951667

**Processing is complete. No errors were found!  
Your file has been successfully submitted!**

**Submittal Type:** EDF  
**Report Title:** Remed Investigation Rpt - Feb 2016  
**Report Type:** Remedial Investigation Report  
**Facility Global ID:** T0619748201  
**Facility Name:** AUTOMASTERS  
**File Name:** 1512C31.zip  
**Organization Name:** West & Associates Environmental Engineers, Inc.  
**Username:** WESTENGINEERS  
**IP Address:** 38.102.44.215  
**Submittal Date/Time:** 3/14/2016 11:51:02 AM  
**Confirmation Number:** 5557672858

**Submittal Type:** EDF  
**Report Title:** Remed Investigation Rpt - Feb 2016  
**Report Type:** Remedial Investigation Report  
**Facility Global ID:** T0619748201  
**Facility Name:** AUTOMASTERS  
**File Name:** 1512799.zip  
**Organization Name:** West & Associates Environmental Engineers, Inc.  
**Username:** WESTENGINEERS  
**IP Address:** 38.102.44.215  
**Submittal Date/Time:** 3/14/2016 11:58:09 AM  
**Confirmation Number:** 2194505691