February 9, 2017

Johnny Browning
6200 Shattuck Partners, LLC
15 Mulberry Court, #5
Belmont, CA 94002
Phone: 650-271-6842
Email: johnnywgroup@gmail.com

Re.: Fourth Quarter 2016 Groundwater Monitoring Report
Automasters
6200 Shattuck Avenue
Oakland, California
ACEH Case #RO2935

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,

Johnny Browning
LLC Manager
15 Mulberry Court, #5
Belmont, CA 94002

WEST ASSOCIATES
ENVIRONMENTAL ENGINEERS, INC.

GROUNDWATER MONITORING REPORT
FOURTH QUARTER 2016

Automasters
Leaking Underground Tank Site
6200 Shattuck Avenue
Oakland
Case No. RO2935

Prepared for:

6200 Shattuck Partners LLC
Oakland

Submitted to:

Alameda County Department of Environmental Health
Oakland

Prepared by:

West & Associates Environmental Engineers, Inc.
Vacaville

February 2017

California State Contractor's License No. 734244
PHONE: 707. 451.1360 • FAX: 707.447.0631 • 630 EUBANKS CT, STE G • VACAVILLE, CALIFORNIA 95688

ACKNOWLEDGMENTS

This Groundwater Monitoring 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.

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 12/31/18.

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APPENDICES

1.0 INTRODUCTION

This Groundwater Monitoring Report presents results of field measurements, hydrologic evaluation and groundwater analysis activities completed at the Automasters leaking underground fuel tank site located at 6200 Shattuck Avenue in Oakland, CA.

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

1.1 Scope

The scope of this project consisted of performing groundwater monitoring in the first encountered groundwater zone at the subject site. Specific scope items include:

- Hydrologic measurement to determine the local groundwater gradient direction and magnitude
- Collection of representative groundwater samples from three existing wells
- Proper management of investigative derived wastes (IDW)
- Arrange for groundwater sample analysis in a State certified laboratory
- Quality Control/ Quality Assurance Measures
- Prepare and submit this written monitoring report
- Data upload to GeoTracker

1.2 Summarized Background

The Automasters facility is located at the northeast corner of Shattuck Avenue and 62nd 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.

Shortly after purchasing the Site in 1986, Mr. Glenn Logan contracted with Ray Walker Hydraulics of Pleasanton, CA to remove 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 off-site for disposal. Attempts to contact the Oakland Fire Department regarding this Site were unsuccessful, so there is no written documentation of the quantity of soil removed or where it was taken.

The initial site assessment activities at this Site were performed by Pangea in 2006. Three soil borings were advanced across the Site at the locations shown on *Figure 2*. Borings SB-1 and SB-3 were clean, 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 these borings. The 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 in all samples were typical of background levels in the vicinity.

No groundwater was encountered during the drilling of this 48-foot deep borehole. The SB-2 borehole was left open overnight with a 10-foot screen placed near the bottom and a groundwater "grab" sample was collected from SB-2 the following day. The depth to groundwater in this borehole was 8 feet bgs. TPH-g at 1,700 µg/L, TPH-d at 1,000 µg/, TPH-motor oil at 1,100 µg/L, and naphthalene at 440 µg/L were reported in this sample along with modest concentrations of BTEX compounds and fuel additives. This groundwater was in direct contact with the sand and gravel layer at 11-12 feet bgs, so it is unclear whether these results are indicative of actual groundwater concentrations.

Sub-surface conditions encountered during the 2015 remedial investigation were consistent with those reported by Pangea in 2006. There is a relatively permeable silty sand strata (USCS 'GM') found between 7 to 12 feet BGS. The silty sand strata is overlain and underlain by a much less permeable clayey silt strata (USCS 'ML').

Soil borings advanced to 20 feet BGS are observed to be dry. However, when these borings are converted to groundwater monitoring wells the potentiometric groundwater surface rises to 4-7 feet bgs, indicating that shallow groundwater is at least partially confined.

The soil sample analytical results obtained by West & Associates in 2015 from 7 boreholes sampled to 20 feet bgs 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.

Two of the groundwater monitoring wells installed in 2015 had significant concentrations of TPH-g, TPH-d, BTEX compounds and naphthalene when first sampled on December 31st. MW-101, the well located west of the former USTs and dispenser island, was reported to contain TPH-g at 18,000 µg/L, TPH-d at 5,100 µg/L, benzene at 1,000 µg/L, and naphthalene at 170 µg/L. MW-103, south of the former USTs, was reported to contain TPH-g at 4,700 µg/L, TPH-d at 1,400 µg/L, benzene at 110 µg/L, and naphthalene at 78 µg/L The groundwater sample from upgradient well MW-102 was clean.

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, suggesting that waste oil contamination is not a concern at the Automasters Site.

The full magnitude and extent of soil and groundwater contamination remains undefined, based on the significant concentrations of TPH-g and BTEX compounds reported in both soil and groundwater at monitoring well locations on the west side of the property (MW-101) and the south side of the property (MW-103).

2.0 SITE CHARACTERISTICS

This section presents, physical site characteristics pertinent to the hydrogeologic assessment.

2.1 Physical Setting

The Automasters site is located at 6200 Shattuck Avenue, Oakland, California. It is an active motor vehicle repair facility approximately 0.1 acres in size. The site is surrounded by individual and multi-family private residences along with a few small commercial establishments. *Figure 3* shows the locations of the former USTs and dispenser island at the site.

The lead regulatory agency for UST and groundwater issues at the site is Alameda County Environmental Health Services, Environmental Protection Division (ACEH), the LOP for Alameda County. The site is also in the jurisdiction of the Regional Water Quality Control Board, San Francisco Bay Region.

2.2 Subsurface Conditions

Soil types encountered during the 2006 and 2015 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 in 2006 closest to the former USTs and dispenser islands had a distinct sand and gravel lens at 10 to 12 feet bgs. 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.

The depth to first groundwater ranges from approximately 3 to 8 feet bgs. This shallow groundwater appears to comprise a perched aquifer that is not capable of providing a sustained yield of 200 gallons per day (the threshold for beneficial use designation).

3.0 HYDROLOGIC MONITORING

Hydrologic measurements were made at the Automasters site on January 6, 2017. This work was scheduled for December 30th but the site owner had a large, inoperable vehicle parked in a manner that was blocking MW-101. The vehicle was unable to be moved out of the way until January 6th, so monitoring and sampling were performed on that day. The static depth to groundwater (dtw) on that date was measured in each of the wells using a Solinst electronic sounding meter with a measurement accuracy of +/- 0.01 feet.

Table 1 presents top-of-casing (TOC) elevations, DTW measurements and groundwater elevations for the January 6, 2017 monitoring event. Hydrologic field data is presented on the "Purge Data Record Forms" included in *Appendix B.*

Groundwater elevations from this sampling event are plotted on *Figure 4*. The local groundwater gradient direction as calculated using the January 6, 2017 data is to the WSW with a gradient of approximately 0.005 feet per foot.

TABLE 1
HYDROLOGIC MEASUREMENTS
Automasters
January 6, 2017

(all measurements in feet)

Well ID	TOC	DTW	GWE
MW-101	128.84	3.53	125.31
MW-102	130.35	4.68	125.67
MW-103	130.03	4.51	125.52

Notes & Abbreviations:
TOC: Top of Casing
DTW: Depth to Groundwater
GWE: Groundwater Elevation

4.0 GROUNDWATER SAMPLE COLLECTION

Groundwater monitoring wells MW-101, MW-102, and MW-103 were purged and sampled on January 6, 2017. All techniques, equipment and procedures used in the collection of groundwater samples conformed to West & Associates "Standard Field Procedures". Groundwater purging data was recorded on the "Purge Data Record Forms" included in *Appendix B*.

Groundwater samples were collected using new, disposable plastic bailers. Upon retrieval to the surface, each water sample was transferred to laboratory-supplied containers for analysis of petroleum compounds as described below. All water samples were labeled, placed into an ice chilled cooler and transported under EPA chain-of-custody protocol to a State certified analytical laboratory for testing.

4.1 Purge Water

Monitoring well purge water was stored on site in a labeled 55-gallon drum pending laboratory chemical analysis results and subsequent proper disposal.

4.2 Groundwater Sample Analysis

On January 9, 2017, the Automasters groundwater sample set was submitted under chain of custody protocol to McCampbell Laboratories for chemical analysis. McCampbell is certified by the State of California for the analyses performed.

Each groundwater sample was analyzed for the following:

- Total Petroleum Hydrocarbons as gasoline (TPH-g) by Method 8015b
- Total Petroleum Hydrocarbons as diesel (TPH-d) by Method 8015b
- Total Petroleum Hydrocarbons as Motor Oil (TPH-mo) by Method 8015b

- Volatile Organic Compounds (VOCs) by EPA Method 8260 (including BTEX, MtBE and naphthalene)

Minimum laboratory detection limits for all analyses are presented in the original laboratory reports appearing in *Appendix C*.

4.3 Groundwater Sample Analytical Results

Groundwater sample analytical results for contaminants of concern are presented in *Table 2*. A summary of historical groundwater sample analytical results is presented in *Appendix D*.

TABLE 2
GROUNDWATER SAMPLE ANALYSIS
Automasters
January 6, 2017

(All values in micrograms per liter, i.e. ug/l or ppb)

Sample ID	TPH-g	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MtBE	Naphthalene	TPH-d	TPH-mo	Other VOCs
MW-101	17,000	900	35	680	1,100	<5	190	6,200	<250	*
MW-102	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<250	No
MW-103	5,800	97	10	220	310	<5	47	1,100	<250	*

** See Table 2.1*

TABLE 2.1
VOC GROUNDWATER RESULTS
Automasters

(Other than BTEX, MtBE & Naphthalene)

Sample ID	Isopropyl Benzene	N-Propyl Benzene	1,2,4 Trimethyl Benzene	1,3,5 Trimethyl Benzene	N-Butyl Benzene
MW-101	64	150	850	160	55
MW-102	<0.5	<0.5	<0.5	<0.5	<0.5
MW-103	25	64	260	35	22

Groundwater quality data for this reporting period is displayed graphically on *Figure 3*.

4.4 Quality Assurance/Quality Control

QA/QC measures employed on the Automasters groundwater monitoring 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 or credibility and can be relied upon to accurately represent prevailing environmental conditions at the site.

5.0 DISCUSSION

The Automasters 4th Quarter 2016 groundwater monitoring project was completed in conformance with the ACEH and San Francisco Bay RWQCB guidelines for groundwater sampling and analysis. No deviations from the standard QA/QC protocols occurred during this monitoring activity. The data presented in this report is considered representative of prevailing site conditions.

Hydrologic measurements made at the Automasters site on January 6, 2017 were interpreted to represent a groundwater gradient flowing to the WSW at 266 degrees. The gradient magnitude was calculated to be 0.005 feet per foot. This hydrologic data is consistent with previous site measurements.

Elevated concentrations of gasoline constituent contaminants were reported in groundwater samples collected from wells MW-101 and MW-103. This data is consistent with results of the previous monitoring activity in October 2016.

6.0 CONCLUSIONS AND RECOMMENDATIONS

No anomalies were observed during the fourth quarter 2016 Automasters groundwater monitoring event. Hydrologic conditions were found to be very similar to those measured during the second and third quarters 2016. Contaminant concentrations in groundwater at wells MW-101 and MW-103 were within the range previously reported. No detectable groundwater contamination was again observed at well MW-102.

No information was generated by the fourth quarter 2016 groundwater monitoring event which would alter project recommendations previously made, specifically:

- Conduct a geophysical site survey
- Perform additional sub-surface investigation
- Study the potential for indoor air intrusion and direct exposure

7.0 ELECTRONIC DATA SUBMITTAL COMPLIANCE

This Groundwater Monitoring Report has been uploaded to the ACEH web site per instructions included with the ACEH letter requesting it. Once approved by ACEH, it will be uploaded to the Automasters GeoTracker Domain, Global ID T0619748201. The upload certificate is presented in *Appendix E*. Selected future work products will be uploaded to the GeoTracker database in conformance with State requirements.

Monitoring data from the Automasters Leaking Underground Tank site can be accessed through the ACEH web site or through GeoTracker at http://www.geotracker.swrcb.ca.gov/.

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

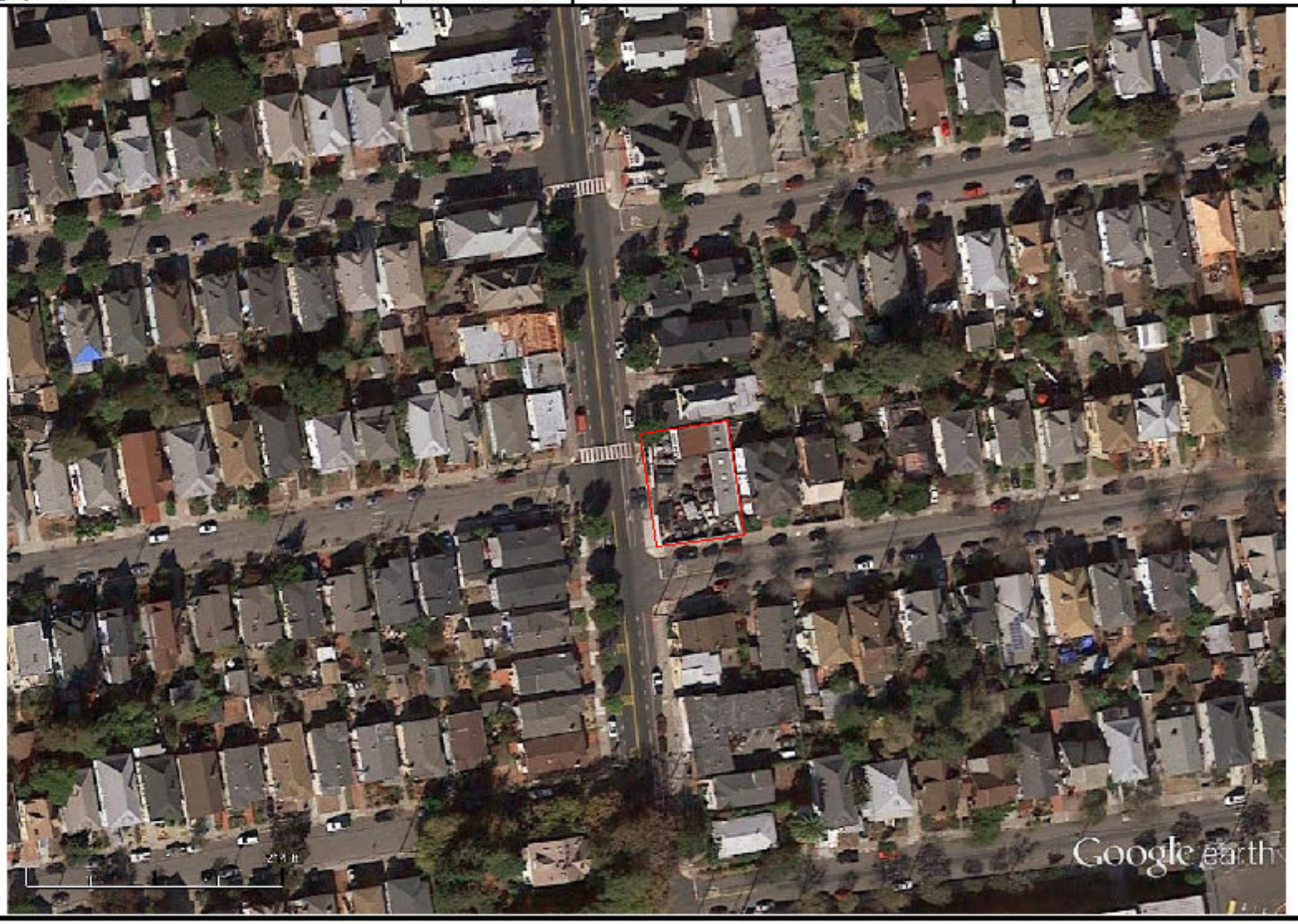
PO Box 5891, Vacaville, CA 95696

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

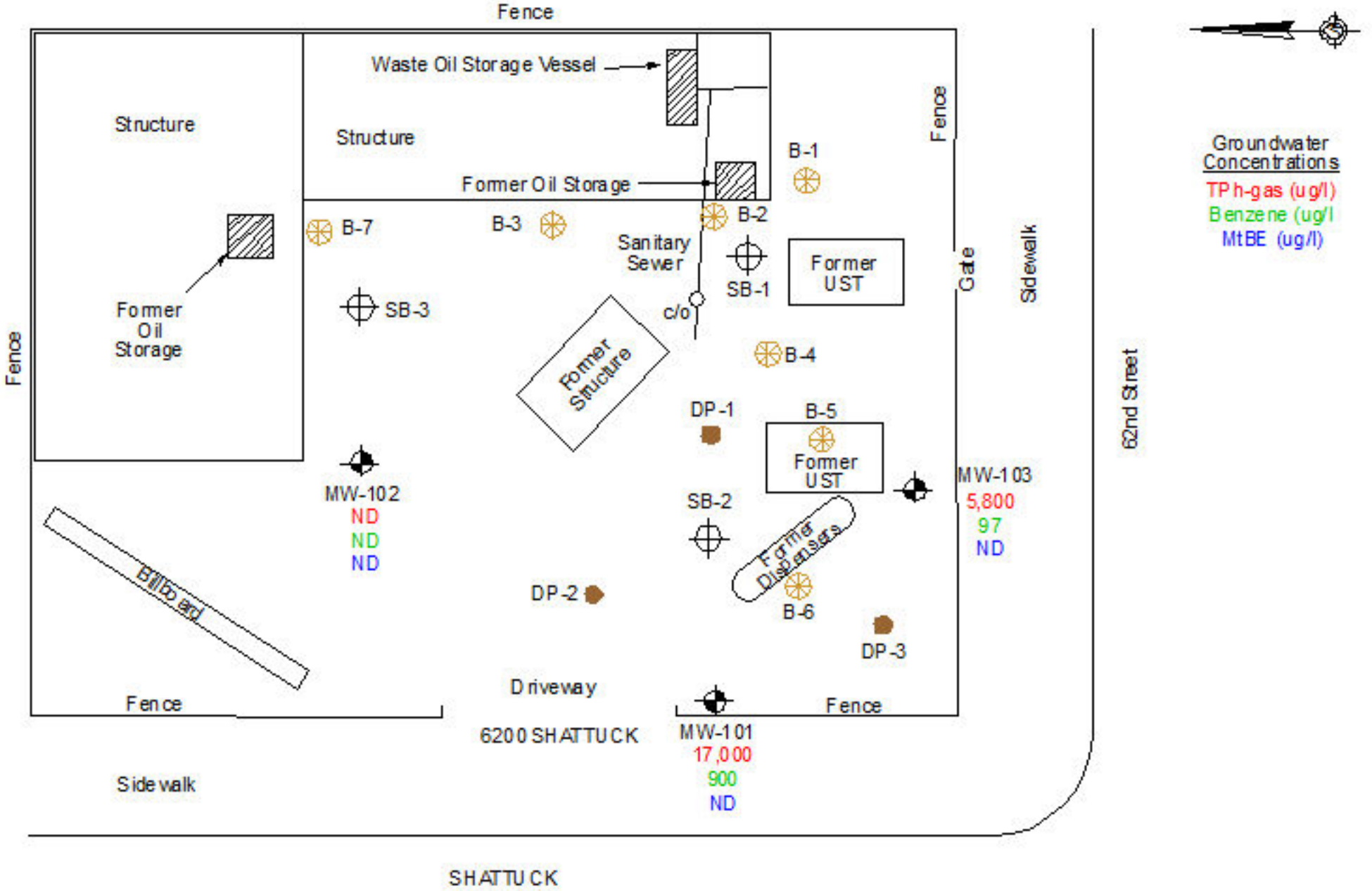
PO Box 5891, Vacaville, CA 95696

Project Name: Automasters	**Date:** Feb 2017
Location: 6200 Shattuck Avenue, Oakland, CA	
Drawing By: DLG	**Scale:** NS

Legend

- Monitoring Well
- Pangea Boring (2006)
- Soil Boring
- Shallow Soil Sample (Backfill)

FIGURE 3
Site Layout Map



WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS

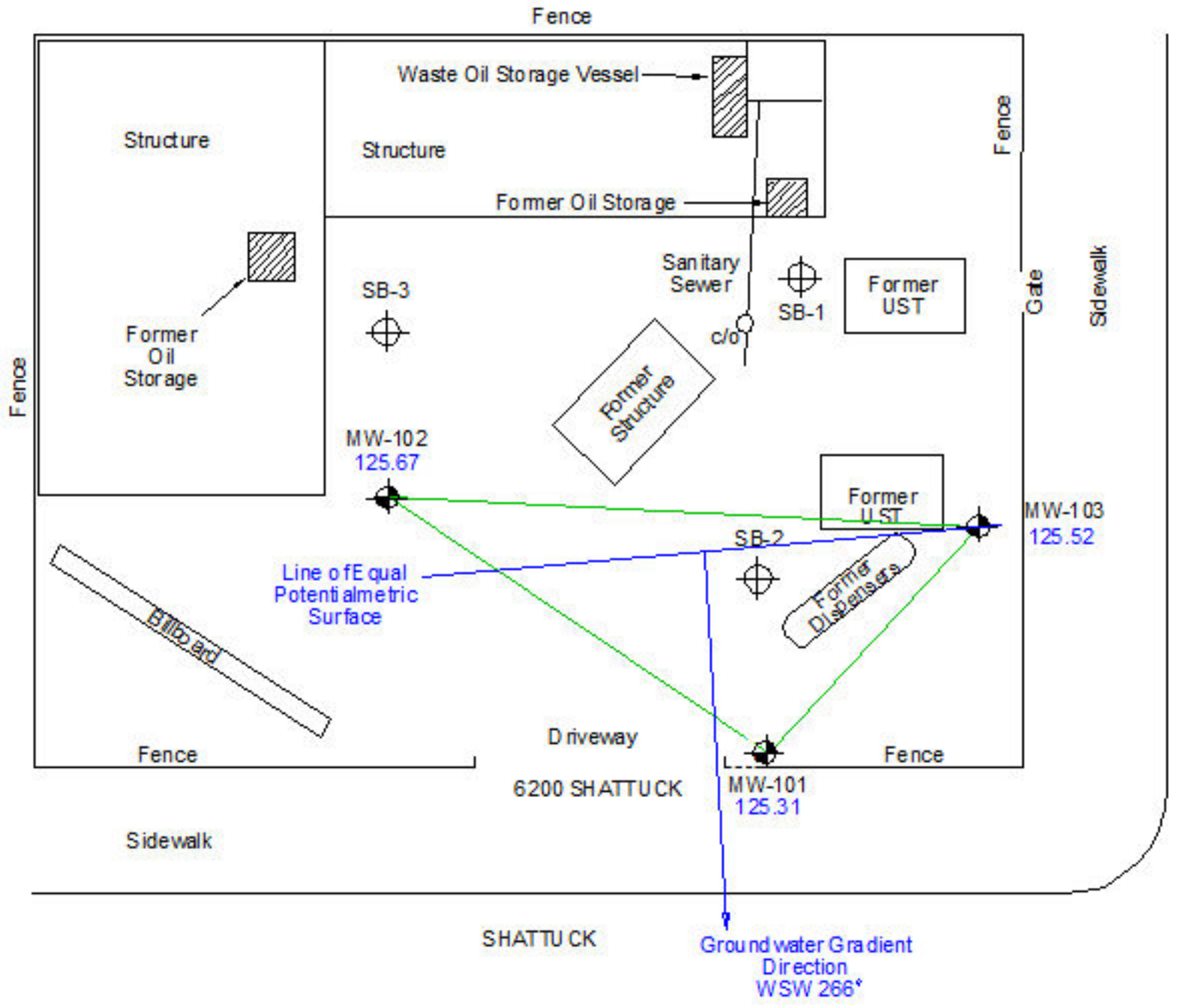
PO Box 5891, Vacaville, CA 95696

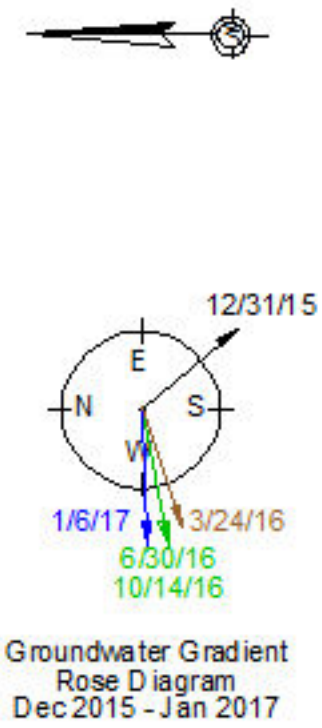
Project Name: Automasters	**Date:** Feb 2017
Location: 6200 Shattuck Avenue, Oakland, CA	
Drawing By: DLG	**Scale:** NS

Legend

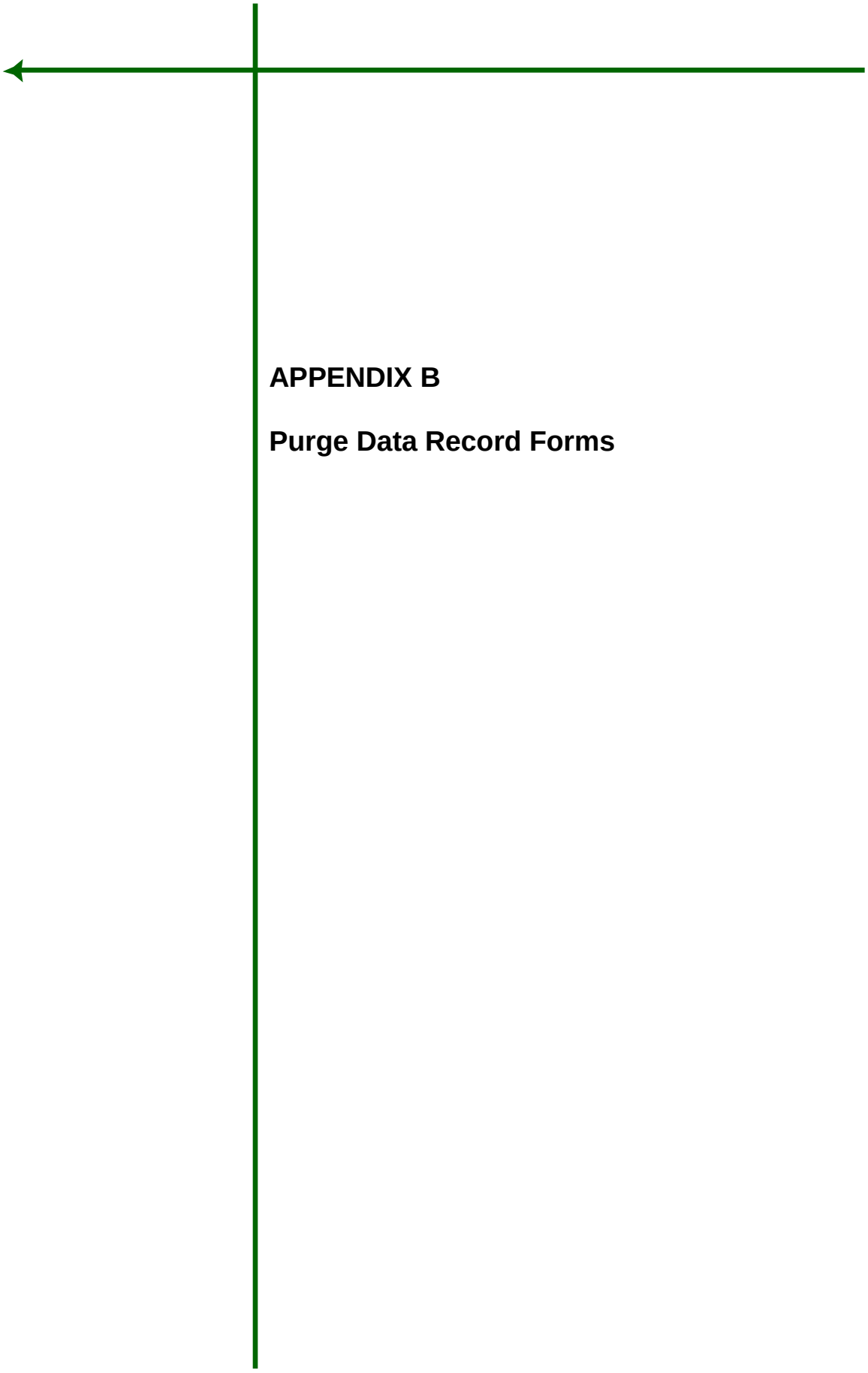
- Monitoring Well
- Well Triangle
- Line of Equal Potentiametric Surface
- Groundwater Gradient Direction
- 122.67 Groundwater Elevation Relative to MSL

FIGURE 4
Groundwater Elevations & Gradient
January 6, 2017





Groundwater Gradient
Rose Diagram
Dec 2015 - Jan 2017



APPENDIX B

Purge Data Record Forms

WEST ASSOCIATES
ENVIRONMENTAL ENGINEERS, INC.

GROUNDWATER SAMPLING
PURGE DATA RECORD FORM

PROJECT: Automasters

PROJECT LOCATION: 6200 Shattuck Avenue, Oakland

MONITORING WELL ID: MW-101 **SAMPLER:** BAJ

MONITORING WELL LOCATION:

DATE: 1.6.17 **TIME:** 12:15 **AM** (**PM**)

DISSOLVED OXYGEN CONCENTRATION: N/A **Mg/L – BEFORE PURGE**

N/A **Mg/L – AFTER PURGE**

FREE PHASE PRODUCT: Y (N) **INCHES** _____ **PETROLEUM SHEEN:** Y (N)

ODOR/APPEARANCE: Mild petroleum odor/clear

20'	—	3.53	X	(2") 4"	=	2.80
WELL DEPTH	—	DTGW	X	.17 .66	=	CASING VOLUME (GALS)

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °C	CONDUCTIVITY µS	pH	Turbidity
12:38	0	0	17.1	903	6.82	
12:47	3	3	18.0	934	6.72	
12:59	3	6	18.4	885	6.77	
13:26	3	9	18.6	840	6.83	

REMARKS: Sample collected at 13:31 (1:31 pm)

WEST ASSOCIATES
ENVIRONMENTAL ENGINEERS, INC.

GROUNDWATER SAMPLING
PURGE DATA RECORD FORM

PROJECT: Automasters

PROJECT LOCATION: 6200 Shattuck Avenue, Oakland

MONITORING WELL ID: MW-102 **SAMPLER:** BAJ

MONITORING WELL LOCATION:

DATE: 1.6.17 **TIME:** 1:45 **AM** (**PM**)

DISSOLVED OXYGEN CONCENTRATION: N/A **Mg/L – BEFORE PURGE**

N/A **Mg/L – AFTER PURGE**

FREE PHASE PRODUCT: Y (N) **INCHES** _____ **PETROLEUM SHEEN:** Y (N)

ODOR/APPEARANCE: No odor/clear

20'		4.68		(2") 4"		2.60
WELL DEPTH	—	**DTGW**	**X**	**.17**	**.66**	**=**	**CASING VOLUME (GALS)**

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °C	CONDUCTIVITY µS	pH	Turbidity
13:48	0	0	17.3	695	6.84	
13:55	3	3	18.4	711	6.76	
14:05	3	6	18.7	694	6.74	
14:15	3	9	18.7	694	6.76	

REMARKS: Sample collected at 14:21 (2:21 pm)

WEST ASSOCIATES
ENVIRONMENTAL ENGINEERS, INC.

GROUNDWATER SAMPLING
PURGE DATA RECORD FORM

PROJECT: Automasters

PROJECT LOCATION: 6200 Shattuck Avenue, Oakland

MONITORING WELL ID: MW-103 **SAMPLER:** BAJ

MONITORING WELL LOCATION:

DATE: 1.6.17 **TIME:** 2:25 **AM** (**PM**)

DISSOLVED OXYGEN CONCENTRATION: N/A **Mg/L – BEFORE PURGE**

N/A **Mg/L – AFTER PURGE**

FREE PHASE PRODUCT: Y (N) **INCHES** _____ **PETROLEUM SHEEN:** Y (N)

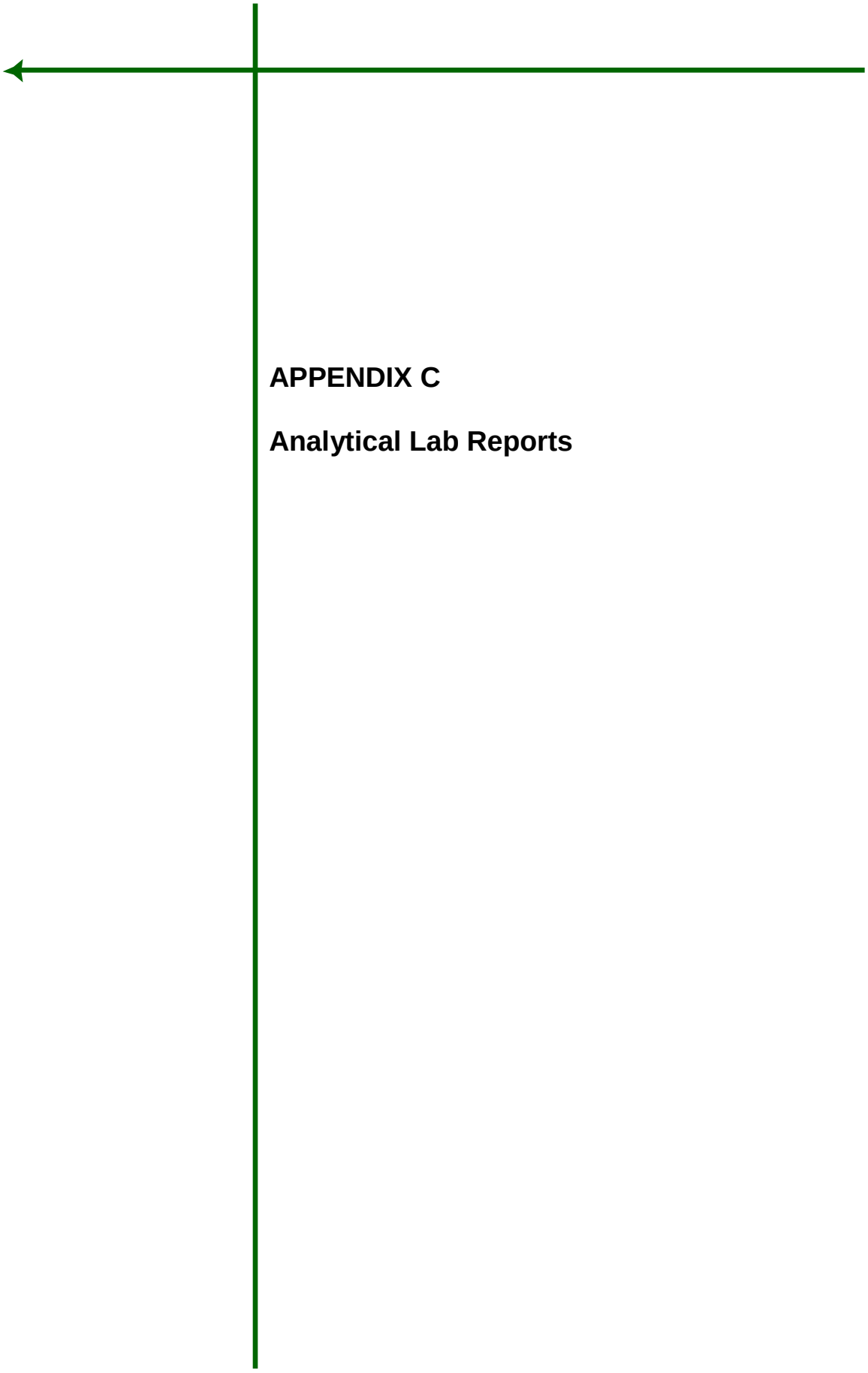
ODOR/APPEARANCE: Mild petroleum odor/clear

20'	—	4.51	X	(2") 4"	=	2.63
WELL DEPTH		DTGW		.17 .66		CASING VOLUME (GALS)

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °C	CONDUCTIVITY µS	pH	Turbidity
14:29	0	0	16.5	706	6.97	
14:37	3	3	17.4	824	6.92	
14:47	3	6	18.2	833	6.93	
14:59	3	9	18.4	797	6.98	

REMARKS: Sample collected at 15:06 (3:06 pm)



APPENDIX C

Analytical Lab Reports

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1701287

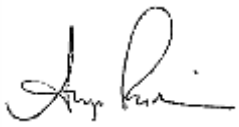
Report Created for: West & Associates

630 Eubanks Ct, Unit #G
Vacaville, CA 95688

Project Contact: Bruce Jacobsen
Project P.O.:
Project Name: Automaster

Project Received: 01/09/2017

Analytical Report reviewed & approved for release on 01/13/2017 by:



Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: West & Associates
Project: Automaster
WorkOrder: 1701287

Glossary Abbreviation

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

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: West & Associates
Project: Automaster
WorkOrder: 1701287

Analytical Qualifiers

S	surrogate spike recovery outside accepted recovery limits
b1	aqueous sample that contains greater than ~1 vol. % sediment
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant
e4	gasoline range compounds are significant.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	1701287-001B	Water	01/06/2017 13:31	GC18	132428

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	500	50	01/11/2017 23:43
tert-Amyl methyl ether (TAME)	ND	25	50	01/11/2017 23:43
Benzene	**900**	25	50	01/11/2017 23:43
Bromobenzene	ND	25	50	01/11/2017 23:43
Bromochloromethane	ND	25	50	01/11/2017 23:43
Bromodichloromethane	ND	25	50	01/11/2017 23:43
Bromoform	ND	25	50	01/11/2017 23:43
Bromomethane	ND	25	50	01/11/2017 23:43
2-Butanone (MEK)	ND	100	50	01/11/2017 23:43
t-Butyl alcohol (TBA)	ND	100	50	01/11/2017 23:43
n-Butyl benzene	**55**	25	50	01/11/2017 23:43
sec-Butyl benzene	ND	25	50	01/11/2017 23:43
tert-Butyl benzene	ND	25	50	01/11/2017 23:43
Carbon Disulfide	ND	25	50	01/11/2017 23:43
Carbon Tetrachloride	ND	25	50	01/11/2017 23:43
Chlorobenzene	ND	25	50	01/11/2017 23:43
Chloroethane	ND	25	50	01/11/2017 23:43
Chloroform	ND	25	50	01/11/2017 23:43
Chloromethane	ND	25	50	01/11/2017 23:43
2-Chlorotoluene	ND	25	50	01/11/2017 23:43
4-Chlorotoluene	ND	25	50	01/11/2017 23:43
Dibromochloromethane	ND	25	50	01/11/2017 23:43
1,2-Dibromo-3-chloropropane	ND	10	50	01/11/2017 23:43
1,2-Dibromoethane (EDB)	ND	25	50	01/11/2017 23:43
Dibromomethane	ND	25	50	01/11/2017 23:43
1,2-Dichlorobenzene	ND	25	50	01/11/2017 23:43
1,3-Dichlorobenzene	ND	25	50	01/11/2017 23:43
1,4-Dichlorobenzene	ND	25	50	01/11/2017 23:43
Dichlorodifluoromethane	ND	25	50	01/11/2017 23:43
1,1-Dichloroethane	ND	25	50	01/11/2017 23:43
1,2-Dichloroethane (1,2-DCA)	ND	25	50	01/11/2017 23:43
1,1-Dichloroethene	ND	25	50	01/11/2017 23:43
cis-1,2-Dichloroethene	ND	25	50	01/11/2017 23:43
trans-1,2-Dichloroethene	ND	25	50	01/11/2017 23:43
1,2-Dichloropropane	ND	25	50	01/11/2017 23:43
1,3-Dichloropropane	ND	25	50	01/11/2017 23:43
2,2-Dichloropropane	ND	25	50	01/11/2017 23:43

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	1701287-001B	Water	01/06/2017 13:31	GC18	132428

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	25	50	01/11/2017 23:43
cis-1,3-Dichloropropene	ND	25	50	01/11/2017 23:43
trans-1,3-Dichloropropene	ND	25	50	01/11/2017 23:43
Diisopropyl ether (DIPE)	ND	25	50	01/11/2017 23:43
Ethylbenzene	**680**	25	50	01/11/2017 23:43
Ethyl tert-butyl ether (ETBE)	ND	25	50	01/11/2017 23:43
Freon 113	ND	25	50	01/11/2017 23:43
Hexachlorobutadiene	ND	25	50	01/11/2017 23:43
Hexachloroethane	ND	25	50	01/11/2017 23:43
2-Hexanone	ND	25	50	01/11/2017 23:43
Isopropylbenzene	**64**	25	50	01/11/2017 23:43
4-Isopropyl toluene	ND	25	50	01/11/2017 23:43
Methyl-t-butyl ether (MTBE)	ND	25	50	01/11/2017 23:43
Methylene chloride	ND	120	50	01/11/2017 23:43
4-Methyl-2-pentanone (MIBK)	ND	25	50	01/11/2017 23:43
Naphthalene	**190**	25	50	01/11/2017 23:43
n-Propyl benzene	**150**	25	50	01/11/2017 23:43
Styrene	ND	25	50	01/11/2017 23:43
1,1,1,2-Tetrachloroethane	ND	25	50	01/11/2017 23:43
1,1,2,2-Tetrachloroethane	ND	25	50	01/11/2017 23:43
Tetrachloroethene	ND	25	50	01/11/2017 23:43
Toluene	**35**	25	50	01/11/2017 23:43
1,2,3-Trichlorobenzene	ND	25	50	01/11/2017 23:43
1,2,4-Trichlorobenzene	ND	25	50	01/11/2017 23:43
1,1,1-Trichloroethane	ND	25	50	01/11/2017 23:43
1,1,2-Trichloroethane	ND	25	50	01/11/2017 23:43
Trichloroethene	ND	25	50	01/11/2017 23:43
Trichlorofluoromethane	ND	25	50	01/11/2017 23:43
1,2,3-Trichloropropane	ND	25	50	01/11/2017 23:43
1,2,4-Trimethylbenzene	**850**	25	50	01/11/2017 23:43
1,3,5-Trimethylbenzene	**160**	25	50	01/11/2017 23:43
Vinyl Chloride	ND	25	50	01/11/2017 23:43
Xylenes, Total	**1100**	25	50	01/11/2017 23:43

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	**1701287-001B**	**Water**	**01/06/2017 13:31**	**GC18**	**132428**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	106	70-130		01/11/2017 23:43
Toluene-d8	96	70-130		01/11/2017 23:43
4-BFB	99	70-130		01/11/2017 23:43

Analyst(s): HK Analytical Comments: b1

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	1701287-002B	Water	01/06/2017 14:21	GC18	132428

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/10/2017 14:29
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/10/2017 14:29
Benzene	ND	0.50	1	01/10/2017 14:29
Bromobenzene	ND	0.50	1	01/10/2017 14:29
Bromochloromethane	ND	0.50	1	01/10/2017 14:29
Bromodichloromethane	ND	0.50	1	01/10/2017 14:29
Bromoform	ND	0.50	1	01/10/2017 14:29
Bromomethane	ND	0.50	1	01/10/2017 14:29
2-Butanone (MEK)	ND	2.0	1	01/10/2017 14:29
t-Butyl alcohol (TBA)	ND	2.0	1	01/10/2017 14:29
n-Butyl benzene	ND	0.50	1	01/10/2017 14:29
sec-Butyl benzene	ND	0.50	1	01/10/2017 14:29
tert-Butyl benzene	ND	0.50	1	01/10/2017 14:29
Carbon Disulfide	ND	0.50	1	01/10/2017 14:29
Carbon Tetrachloride	ND	0.50	1	01/10/2017 14:29
Chlorobenzene	ND	0.50	1	01/10/2017 14:29
Chloroethane	ND	0.50	1	01/10/2017 14:29
Chloroform	ND	0.50	1	01/10/2017 14:29
Chloromethane	ND	0.50	1	01/10/2017 14:29
2-Chlorotoluene	ND	0.50	1	01/10/2017 14:29
4-Chlorotoluene	ND	0.50	1	01/10/2017 14:29
Dibromochloromethane	ND	0.50	1	01/10/2017 14:29
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/10/2017 14:29
1,2-Dibromoethane (EDB)	ND	0.50	1	01/10/2017 14:29
Dibromomethane	ND	0.50	1	01/10/2017 14:29
1,2-Dichlorobenzene	ND	0.50	1	01/10/2017 14:29
1,3-Dichlorobenzene	ND	0.50	1	01/10/2017 14:29
1,4-Dichlorobenzene	ND	0.50	1	01/10/2017 14:29
Dichlorodifluoromethane	ND	0.50	1	01/10/2017 14:29
1,1-Dichloroethane	ND	0.50	1	01/10/2017 14:29
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/10/2017 14:29
1,1-Dichloroethene	ND	0.50	1	01/10/2017 14:29
cis-1,2-Dichloroethene	ND	0.50	1	01/10/2017 14:29
trans-1,2-Dichloroethene	ND	0.50	1	01/10/2017 14:29
1,2-Dichloropropane	ND	0.50	1	01/10/2017 14:29
1,3-Dichloropropane	ND	0.50	1	01/10/2017 14:29
2,2-Dichloropropane	ND	0.50	1	01/10/2017 14:29

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	**1701287-002B**	**Water**	**01/06/2017 14:21**	**GC18**	**132428**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/10/2017 14:29
cis-1,3-Dichloropropene	ND	0.50	1	01/10/2017 14:29
trans-1,3-Dichloropropene	ND	0.50	1	01/10/2017 14:29
Diisopropyl ether (DIPE)	ND	0.50	1	01/10/2017 14:29
Ethylbenzene	ND	0.50	1	01/10/2017 14:29
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/10/2017 14:29
Freon 113	ND	0.50	1	01/10/2017 14:29
Hexachlorobutadiene	ND	0.50	1	01/10/2017 14:29
Hexachloroethane	ND	0.50	1	01/10/2017 14:29
2-Hexanone	ND	0.50	1	01/10/2017 14:29
Isopropylbenzene	ND	0.50	1	01/10/2017 14:29
4-Isopropyl toluene	ND	0.50	1	01/10/2017 14:29
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/10/2017 14:29
Methylene chloride	ND	0.50	1	01/10/2017 14:29
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/10/2017 14:29
Naphthalene	ND	0.50	1	01/10/2017 14:29
n-Propyl benzene	ND	0.50	1	01/10/2017 14:29
Styrene	ND	0.50	1	01/10/2017 14:29
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/10/2017 14:29
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/10/2017 14:29
Tetrachloroethene	ND	0.50	1	01/10/2017 14:29
Toluene	ND	0.50	1	01/10/2017 14:29
1,2,3-Trichlorobenzene	ND	0.50	1	01/10/2017 14:29
1,2,4-Trichlorobenzene	ND	0.50	1	01/10/2017 14:29
1,1,1-Trichloroethane	ND	0.50	1	01/10/2017 14:29
1,1,2-Trichloroethane	ND	0.50	1	01/10/2017 14:29
Trichloroethene	ND	0.50	1	01/10/2017 14:29
Trichlorofluoromethane	ND	0.50	1	01/10/2017 14:29
1,2,3-Trichloropropane	ND	0.50	1	01/10/2017 14:29
1,2,4-Trimethylbenzene	ND	0.50	1	01/10/2017 14:29
1,3,5-Trimethylbenzene	ND	0.50	1	01/10/2017 14:29
Vinyl Chloride	ND	0.50	1	01/10/2017 14:29
Xylenes, Total	ND	0.50	1	01/10/2017 14:29

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	**1701287-002B**	**Water**	**01/06/2017 14:21**	**GC18**	**132428**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	103	70-130		01/10/2017 14:29
Toluene-d8	97	70-130		01/10/2017 14:29
4-BFB	102	70-130		01/10/2017 14:29

Analyst(s): JEM

Analytical Comments: b1

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	**1701287-003B**	**Water**	**01/06/2017 15:06**	**GC18**	**132428**

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	100	10	01/10/2017 15:07
tert-Amyl methyl ether (TAME)	ND	5.0	10	01/10/2017 15:07
Benzene	**97**	5.0	10	01/10/2017 15:07
Bromobenzene	ND	5.0	10	01/10/2017 15:07
Bromochloromethane	ND	5.0	10	01/10/2017 15:07
Bromodichloromethane	ND	5.0	10	01/10/2017 15:07
Bromoform	ND	5.0	10	01/10/2017 15:07
Bromomethane	ND	5.0	10	01/10/2017 15:07
2-Butanone (MEK)	ND	20	10	01/10/2017 15:07
t-Butyl alcohol (TBA)	ND	20	10	01/10/2017 15:07
n-Butyl benzene	**22**	5.0	10	01/10/2017 15:07
sec-Butyl benzene	**7.7**	5.0	10	01/10/2017 15:07
tert-Butyl benzene	ND	5.0	10	01/10/2017 15:07
Carbon Disulfide	ND	5.0	10	01/10/2017 15:07
Carbon Tetrachloride	ND	5.0	10	01/10/2017 15:07
Chlorobenzene	ND	5.0	10	01/10/2017 15:07
Chloroethane	ND	5.0	10	01/10/2017 15:07
Chloroform	ND	5.0	10	01/10/2017 15:07
Chloromethane	ND	5.0	10	01/10/2017 15:07
2-Chlorotoluene	ND	5.0	10	01/10/2017 15:07
4-Chlorotoluene	ND	5.0	10	01/10/2017 15:07
Dibromochloromethane	ND	5.0	10	01/10/2017 15:07
1,2-Dibromo-3-chloropropane	ND	2.0	10	01/10/2017 15:07
1,2-Dibromoethane (EDB)	ND	5.0	10	01/10/2017 15:07
Dibromomethane	ND	5.0	10	01/10/2017 15:07
1,2-Dichlorobenzene	ND	5.0	10	01/10/2017 15:07
1,3-Dichlorobenzene	ND	5.0	10	01/10/2017 15:07
1,4-Dichlorobenzene	ND	5.0	10	01/10/2017 15:07
Dichlorodifluoromethane	ND	5.0	10	01/10/2017 15:07
1,1-Dichloroethane	ND	5.0	10	01/10/2017 15:07
1,2-Dichloroethane (1,2-DCA)	ND	5.0	10	01/10/2017 15:07
1,1-Dichloroethene	ND	5.0	10	01/10/2017 15:07
cis-1,2-Dichloroethene	ND	5.0	10	01/10/2017 15:07
trans-1,2-Dichloroethene	ND	5.0	10	01/10/2017 15:07
1,2-Dichloropropane	ND	5.0	10	01/10/2017 15:07
1,3-Dichloropropane	ND	5.0	10	01/10/2017 15:07
2,2-Dichloropropane	ND	5.0	10	01/10/2017 15:07

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	1701287-003B	Water	01/06/2017 15:06	GC18	132428

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	5.0	10	01/10/2017 15:07
cis-1,3-Dichloropropene	ND	5.0	10	01/10/2017 15:07
trans-1,3-Dichloropropene	ND	5.0	10	01/10/2017 15:07
Diisopropyl ether (DIPE)	ND	5.0	10	01/10/2017 15:07
Ethylbenzene	**220**	5.0	10	01/10/2017 15:07
Ethyl tert-butyl ether (ETBE)	ND	5.0	10	01/10/2017 15:07
Freon 113	ND	5.0	10	01/10/2017 15:07
Hexachlorobutadiene	ND	5.0	10	01/10/2017 15:07
Hexachloroethane	ND	5.0	10	01/10/2017 15:07
2-Hexanone	ND	5.0	10	01/10/2017 15:07
Isopropylbenzene	**25**	5.0	10	01/10/2017 15:07
4-Isopropyl toluene	ND	5.0	10	01/10/2017 15:07
Methyl-t-butyl ether (MTBE)	ND	5.0	10	01/10/2017 15:07
Methylene chloride	ND	5.0	10	01/10/2017 15:07
4-Methyl-2-pentanone (MIBK)	ND	5.0	10	01/10/2017 15:07
Naphthalene	**47**	5.0	10	01/10/2017 15:07
n-Propyl benzene	**64**	5.0	10	01/10/2017 15:07
Styrene	ND	5.0	10	01/10/2017 15:07
1,1,1,2-Tetrachloroethane	ND	5.0	10	01/10/2017 15:07
1,1,2,2-Tetrachloroethane	ND	5.0	10	01/10/2017 15:07
Tetrachloroethene	ND	5.0	10	01/10/2017 15:07
Toluene	**10**	5.0	10	01/10/2017 15:07
1,2,3-Trichlorobenzene	ND	5.0	10	01/10/2017 15:07
1,2,4-Trichlorobenzene	ND	5.0	10	01/10/2017 15:07
1,1,1-Trichloroethane	ND	5.0	10	01/10/2017 15:07
1,1,2-Trichloroethane	ND	5.0	10	01/10/2017 15:07
Trichloroethene	ND	5.0	10	01/10/2017 15:07
Trichlorofluoromethane	ND	5.0	10	01/10/2017 15:07
1,2,3-Trichloropropane	ND	5.0	10	01/10/2017 15:07
1,2,4-Trimethylbenzene	**260**	5.0	10	01/10/2017 15:07
1,3,5-Trimethylbenzene	**35**	5.0	10	01/10/2017 15:07
Vinyl Chloride	ND	5.0	10	01/10/2017 15:07
Xylenes, Total	**310**	5.0	10	01/10/2017 15:07

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/10/17-1/11/17	**Analytical Method:**	SW8260B
Project:	Automaster	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	**1701287-003B**	**Water**	**01/06/2017 15:06**	**GC18**	**132428**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	103	70-130		01/10/2017 15:07
Toluene-d8	98	70-130		01/10/2017 15:07
4-BFB	100	70-130		01/10/2017 15:07

Analyst(s): JEM

Analytical Comments: b1

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/12/17-1/13/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Automaster	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	**1701287-001A**	**Water**	**01/06/2017 13:31**	**GC12**	**132528**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**17,000**	1000	20	01/13/2017 10:38
MTBE	---	100	20	01/13/2017 10:38
Benzene	---	10	20	01/13/2017 10:38
Toluene	---	10	20	01/13/2017 10:38
Ethylbenzene	---	10	20	01/13/2017 10:38
Xylenes	---	30	20	01/13/2017 10:38

Surrogates	REC (%)	Limits	
aaa-TFT	113	89-115	01/13/2017 10:38

Analyst(s): IA Analytical Comments: d1,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	**1701287-002A**	**Water**	**01/06/2017 14:21**	**GC7**	**132528**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/12/2017 09:04
MTBE	---	5.0	1	01/12/2017 09:04
Benzene	---	0.50	1	01/12/2017 09:04
Toluene	---	0.50	1	01/12/2017 09:04
Ethylbenzene	---	0.50	1	01/12/2017 09:04
Xylenes	---	1.5	1	01/12/2017 09:04

Surrogates	REC (%)	Limits	
aaa-TFT	99	89-115	01/12/2017 09:04

Analyst(s): IA Analytical Comments: b1

(Cont.)

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW5030B
Date Prepared:	1/12/17-1/13/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Automaster	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	**1701287-003A**	**Water**	**01/06/2017 15:06**	**GC12**	**132528**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**5800**	500	10	01/13/2017 11:10
MTBE	**---**	50	10	01/13/2017 11:10
Benzene	**---**	5.0	10	01/13/2017 11:10
Toluene	**---**	5.0	10	01/13/2017 11:10
Ethylbenzene	**---**	5.0	10	01/13/2017 11:10
Xylenes	**---**	15	10	01/13/2017 11:10

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	125	S	89-115	01/13/2017 11:10

Analyst(s): IA Analytical Comments: d1,c4,b1

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Analytical Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Received:	1/9/17 14:42	**Extraction Method:**	SW3510C
Date Prepared:	1/9/17	**Analytical Method:**	SW8015B
Project:	Automaster	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-101	**1701287-001A**	**Water**	**01/06/2017 13:31**	**GC11A**	**132325**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**6200**	50	1	01/11/2017 18:13
TPH-Motor Oil (C18-C36)	ND	250	1	01/11/2017 18:13

Surrogates	REC (%)	Limits	
C26	102	72-119	01/11/2017 18:13

Analyst(s): TK Analytical Comments: e4,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-102	**1701287-002A**	**Water**	**01/06/2017 14:21**	**GC11B**	**132325**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	01/10/2017 21:24
TPH-Motor Oil (C18-C36)	ND	250	1	01/10/2017 21:24

Surrogates	REC (%)	Limits	
C9	102	72-117	01/10/2017 21:24

Analyst(s): TK Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-103	**1701287-003A**	**Water**	**01/06/2017 15:06**	**GC11B**	**132325**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**1100**	50	1	01/11/2017 00:01
TPH-Motor Oil (C18-C36)	ND	250	1	01/11/2017 00:01

Surrogates	REC (%)	Limits	
C9	107	72-117	01/11/2017 00:01

Analyst(s): TK Analytical Comments: e4,b1

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Quality Control Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Prepared:	1/10/17	**BatchID:**	132428
Date Analyzed:	1/10/17	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Automaster	**Sample ID:**	MB/LCS-132428 1701287-002BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	9.50	0.50	10	-	95	54-140
Benzene	ND	10.9	0.50	10	-	109	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	34.1	2.0	40	-	85	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	9.85	0.50	10	-	98	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	10.0	0.50	10	-	100	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	10.4	0.50	10	-	104	66-125
1,1-Dichloroethene	ND	10.2	0.50	10	-	102	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.)

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QA/QC Officer

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Quality Control Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Prepared:	1/10/17	**BatchID:**	132428
Date Analyzed:	1/10/17	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Automaster	**Sample ID:**	MB/LCS-132428 1701287-002BMS/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	10.8	0.50	10	-	108	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	10.3	0.50	10	-	103	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	10.2	0.50	10	-	102	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	9.98	0.50	10	-	100	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	9.59	0.50	10	-	96	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.)

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Quality Control Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Prepared:	1/10/17	**BatchID:**	132428
Date Analyzed:	1/10/17	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Automaster	**Sample ID:**	MB/LCS-132428 1701287-002BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	26.0	26.0		25	104	104	70-130
Toluene-d8	24.2	24.7		25	97	99	70-130
4-BFB	2.44	2.38		2.5	98	95	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.42	8.77	10	ND	94	88	69-139	7.19	20
Benzene	9.72	9.59	10	ND	97	96	69-141	1.33	20
t-Butyl alcohol (TBA)	33.8	32.9	40	ND	84	82	41-152	2.43	20
Chlorobenzene	9.03	8.89	10	ND	90	89	77-120	1.54	20
1,2-Dibromoethane (EDB)	9.44	9.31	10	ND	94	93	76-135	1.37	20
1,2-Dichloroethane (1,2-DCA)	9.54	9.27	10	ND	95	93	73-139	2.91	20
1,1-Dichloroethene	9.13	9.13	10	ND	91	91	59-140	0	20
Diisopropyl ether (DIPE)	9.54	9.25	10	ND	95	93	72-140	3.04	20
Ethyl tert-butyl ether (ETBE)	9.43	9.16	10	ND	94	92	71-140	2.91	20
Methyl-t-butyl ether (MTBE)	9.59	9.42	10	ND	96	94	73-139	1.78	20
Toluene	8.79	8.70	10	ND	88	87	71-128	0.997	20
Trichloroethene	8.76	8.68	10	ND	88	87	64-132	0.915	20
Surrogate Recovery									
Dibromofluoromethane	25.8	25.8	25		103	103	73-131	0	20
Toluene-d8	23.9	24.1	25		96	96	72-117	0	20
4-BFB	2.68	2.62	2.5		107	105	74-116	2.44	20

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Quality Control Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Prepared:	1/12/17	**BatchID:**	132528
Date Analyzed:	1/12/17	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	Automaster	**Sample ID:**	MB/LCS-132528 1701287-001AMS/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	64.8	40	60	-	108	85-112
MTBE	ND	8.89	5.0	10	-	89	74-127
Benzene	ND	9.06	0.50	10	-	91	81-124
Toluene	ND	9.76	0.50	10	-	98	79-131
Ethylbenzene	ND	10.4	0.50	10	-	104	86-127
Xylenes	ND	33.4	1.5	30	-	111	87-133
Surrogate Recovery							
aaa-TFT	11.4	9.22		10	114	92	87-117

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		3100	NR	NR	-	NR	
MTBE	NR	NR		ND<100	NR	NR	-	NR	
Benzene	NR	NR		940	NR	NR	-	NR	
Toluene	NR	NR		60	NR	NR	-	NR	
Ethylbenzene	NR	NR		760	NR	NR	-	NR	
Xylenes	NR	NR		1200	NR	NR	-	NR	
Surrogate Recovery									
aaa-TFT	NR	NR			NR	NR	-	NR	

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Quality Control Report

Client:	West & Associates	**WorkOrder:**	1701287
Date Prepared:	1/9/17	**BatchID:**	132325
Date Analyzed:	1/9/17 - 1/10/17	**Extraction Method:**	SW3510C
Instrument:	GC9b	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	Automaster	**Sample ID:**	MB/LCS/LCSD-132325

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	627		625	100	74-107

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1240	1100	1000	124	110	95-136	11.9	30
Surrogate Recovery								
C9	629	621	625	101	99	74-107	1.26	30

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1701287 **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: Automaster

Bill to:
Accounts Payable
West & Associates
630 Eubanks Ct, Unit #G
Vacaville, CA 95688

Requested TAT: 5 days;

Date Received: **01/09/2017**
Date Logged: **01/09/2017**

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
1701287-001	MW-101	Water	1/6/2017 13:31	☐	B	A	A	A								
1701287-002	MW-102	Water	1/6/2017 14:21	☐	B	A		A								
1701287-003	MW-103	Water	1/6/2017 15:06	☐	B	A		A								

Test Legend:

1	8260B_W	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(DMO)_W
5		6		7		8	
9		10		11		12	

Prepared by: Alexandra Iniguez

The following SampIDs: 001A, 002A, 003A contain testgroup Multi Range_W.

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.

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WORK ORDER SUMMARY

Client Name: WEST & ASSOCIATES **Project:** Automaster **Work Order:** 1701287
Client Contact: Bruce Jacobsen **QC Level:** LEVEL 2
Contact's Email: bjacobsen@astound.net; dganzer@westengineers.com **Comments:** **Date Logged:** 1/9/2017

☐ 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
1701287-001A	MW-101	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	1/6/2017 13:31	5 days	1%+	☐	
1701287-001B	MW-101	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	1/6/2017 13:31	5 days	1%+	☐	
1701287-002A	MW-102	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	1/6/2017 14:21	5 days	1%+	☐	
1701287-002B	MW-102	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	1/6/2017 14:21	5 days	1%+	☐	
1701287-003A	MW-103	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	1/6/2017 15:06	5 days	1%+	☐	
1701287-003B	MW-103	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	1/6/2017 15:06	5 days	1%+	☐	

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.

1701287 T0619748201

McCAMPBELL ANALYTICAL, INC.

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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

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

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	Analysis Request: TPH as Diesel (8015) + TPH-g + TPH-mo	Analysis Request: Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Analysis Request: Total Petroleum Hydrocarbons (418.1)	Analysis Request: EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	Analysis Request: MTBE / BTEX ONLY (EPA 602 / 8021)	Analysis Request: EPA 505/ 608 / 8081 (Cl Pesticides)	Analysis Request: EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	Analysis Request: EPA 507 / 8141 (NP Pesticides)	Analysis Request: EPA 515 / 8151 (Acidic Cl Herbicides)	Analysis Request: EPA 524.2 / 624 / 8260 (VOCs)	Analysis Request: EPA 525.2 / 625 / 8270 (SVOCs)	Analysis Request: EPA 8270 SIM / 8310 (PAHs / PNAs)	Analysis Request: CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	Analysis Request: LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Analysis Request: Lead (200.7 / 200.8 / 6010 / 6020)	Other	Comments
MW-101	MW-101	1-6	1:31 pm	6	VOA	✓					✓					✓									✓							
MW-102	MW-102	1-6	2:21 pm	6	"	✓					✓					✓									✓							
MW-103	MW-103	1-6	3:06 pm	6	"	✓					✓					✓									✓							
	(1) 4 2	clear VOAs w/ HCl amber VOAs unpreserved for TPH-d																														

Relinquished By:	Date:	Time:	Received By:
Bruce Jacobsen	1/9/17	14:42	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° _____ COMMENTS:

GOOD CONDITION_____

HEAD SPACE ABSENT_____

DECHLORINATED IN LAB_____

APPROPRIATE CONTAINERS_____

PRESERVED IN LAB_____

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **West & Associates**
Project Name: **Automaster**

WorkOrder №: **1701287** Matrix: Water
Carrier: Client Drop-In

Date and Time Received: **1/9/2017 14:42**
Date Logged: **1/9/2017**
Received by: Alexandra Iniguez
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

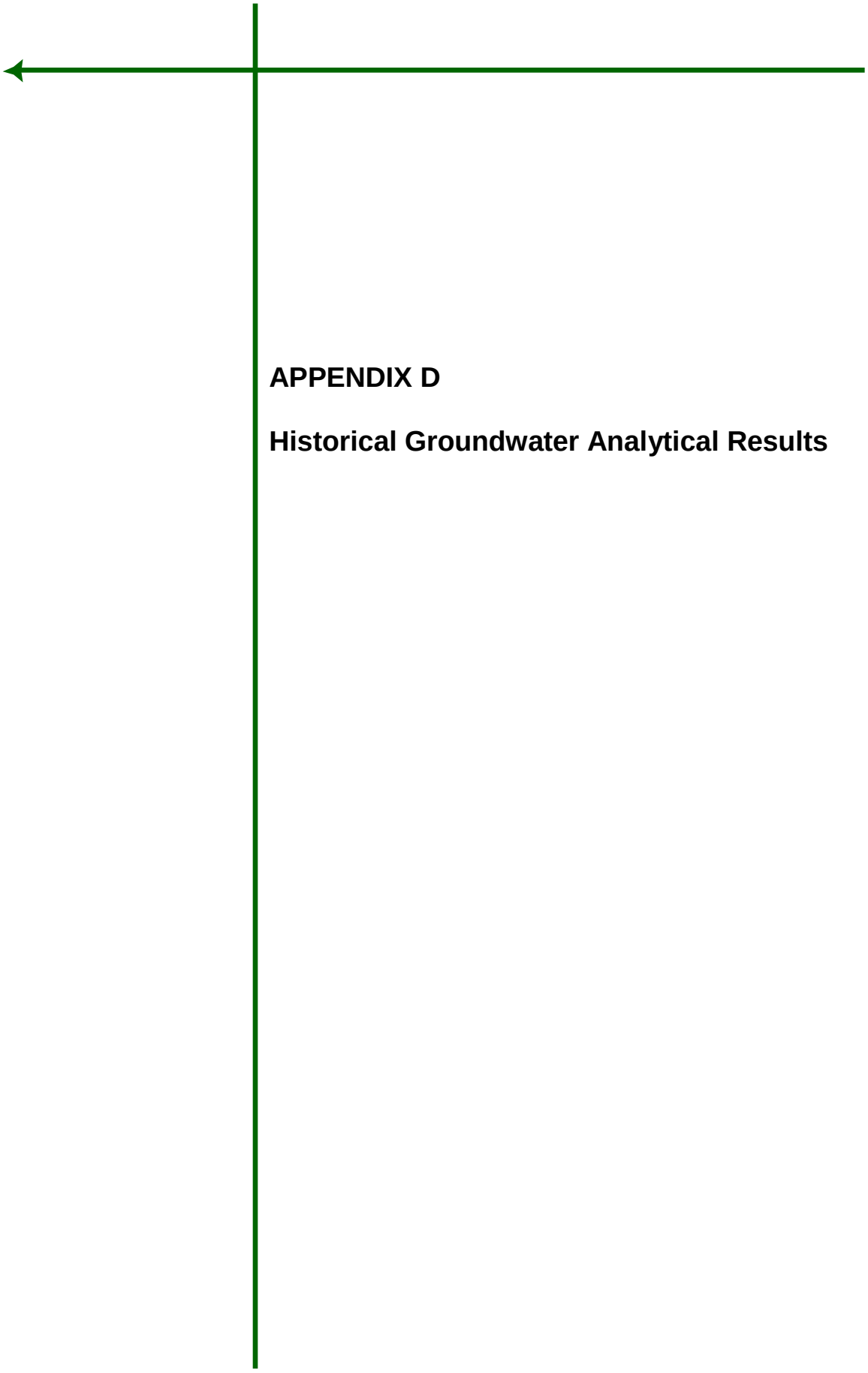
All samples received within holding time?	Yes	☑	No	☐	NA ☐
Sample/Temp Blank temperature	Temp: 4.8°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☑	No	☐	NA ☐
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
Samples Received on Ice?	Yes	☑	No	☐	

(Ice Type: WET ICE)

UCMR3 Samples:

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

Comments:



APPENDIX D

Historical Groundwater Analytical Results

HISTORICAL GROUNDWATER RESULTS
Automasters

(All values in micrograms per liter, i.e. ug/l or ppb)

Sample ID	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g	Benzene	Toluene	Ethyl Benzene	Xylenes	MtBE	Naphthalene	TPH-d	TPH-mo
MW-101 TOC = 128.84 ft	12/31/15	3.70	125.14	18,000	1,000	64	320	1,800	<200	210	5,100	<250
	06/30/16	5.35	123.49	14,000	980	<50	780	1,000	<50	210	3,000	<250
	10/04/16	6.17	122.67	15,000	990	<50	890	1,400	<5	190	3,900	<250
	1/6/17	3.53	125.31	17,000	900	35	680	1,100	<5	190	6,200	<250
MW-102 TOC = 130.35 ft	12/31/15	5.20	125.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<250
	06/30/16	6.90	123.45	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<250
	10/04/16	7.51	122.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<250
	1/6/17	4.68	125.67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<250
MW-103 TOC = 130.03 ft	12/31/15	5.10	124.93	4,700	110	11	140	430	<5	78	1,400	<250
	06/30/16	6.56	123.47	3,200	70	6.7	160	150	<5	47	750	<250
	10/04/16	7.37	122.76	6,400	160	16	340	320	<5	69	1,300	<250
	1/6/17	4.51	125.52	5,800	97	10	220	310	<5	47	1,100	<250

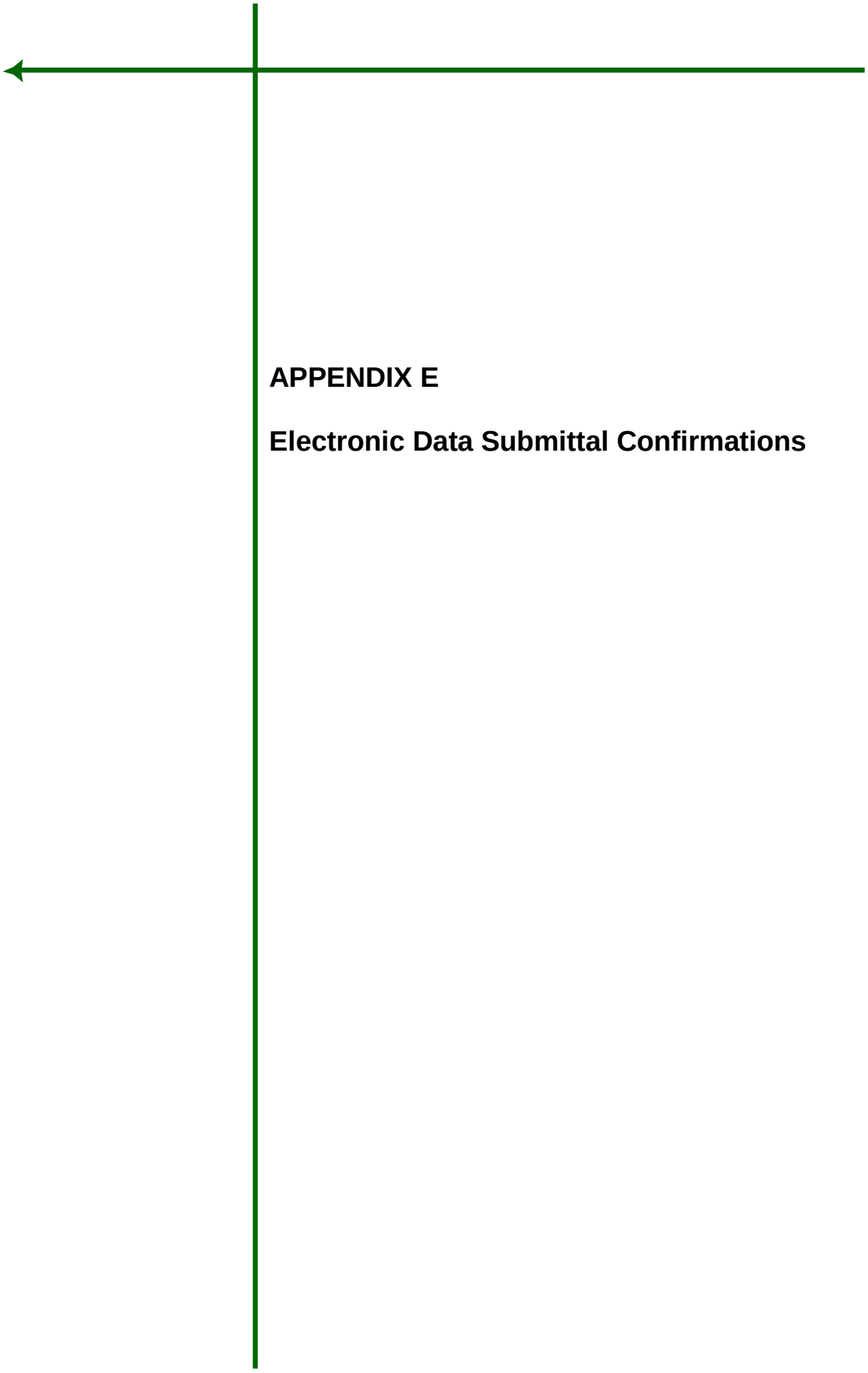
No free product has been encountered in any of the wells during these four monitoring events.

HISTORICAL VOC GROUNDWATER RESULTS
Automasters

(All values in micrograms per liter, i.e. ug/l or ppb)

Sample ID	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	N-Butyl Benzene	Isopropyl Benzene	4-Isopropyl Toluene	N-Propyl Benzene	1,2,4-Trimethyl Benzene	1,3,5-Trimethyl Benzene
MW-101 TOC = 128.84 ft	12/31/15	3.70	125.14	<50	<50	<50	<50	770	160
	06/30/16	5.35	123.49	<50	58	<50	160	620	150
	10/04/16	6.17	122.67	<50	71	<50	150	780	150
	1/6/17	3.53	125.31	55	64	<25	150	850	160
MW-102 TOC = 130.35 ft	12/31/15	5.20	125.15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	06/30/16	6.90	123.45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	10/04/16	7.51	122.84	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1/6/17	4.68	125.67	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-103 TOC = 130.03 ft	12/31/15	5.10	124.93	<10	10	15	12	150	58
	06/30/16	6.56	123.47	9	19	<5	47	130	10
	10/04/16	7.37	122.76	18	35	<12	81	310	28
	1/6/17	4.51	125.52	22	25	<5.0	64	260	35

No free product has been encountered in any of the wells during these four monitoring events.



APPENDIX E

Electronic Data Submittal Confirmations

Your GEO_REPORT file has been successfully submitted!

Submittal Type:	**GEO_REPORT**
Report Title:	**GWMR - 4Q16**
Report Type:	**Monitoring Report - Quarterly**
Report Date:	**2/9/2017**
Facility Global ID:	**T0619748201**
Facility Name:	**AUTOMASTERS**
File Name:	**Automasters - GWMR 4Q16.pdf**
Organization Name:	**West & Associates Environmental Engineers, Inc.**
Username:	**WESTENGINEERS**
IP Address:	**38.102.44.215**
Submittal Date/Time:	**2/24/2017 9:35:29 AM**
Confirmation Number:	**3441420137**

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Type:	**GEO_WELL**
Report Title:	**GWMR - 4Q16**
Facility Global ID:	**T0619748201**
Facility Name:	**AUTOMASTERS**
File Name:	**geo_well.zip**
Organization Name:	**West & Associates Environmental Engineers, Inc.**
Username:	**WESTENGINEERS**
IP Address:	**38.102.44.215**
Submittal Date/Time:	**2/24/2017 9:43:59 AM**
Confirmation Number:	**8649637579**

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Type:	**EDF**
Report Title:	**GWMR - 4Q16**
Report Type:	**Monitoring Report - Quarterly**
Facility Global ID:	**T0619748201**
Facility Name:	**AUTOMASTERS**
File Name:	**1701287.zip**
Organization Name:	**West & Associates Environmental Engineers, Inc.**
Username:	**WESTENGINEERS**
IP Address:	**38.102.44.215**
Submittal Date/Time:	**2/24/2017 9:44:56 AM**
Confirmation Number:	**3483679413**