Neil and Mary Cotter
John and Antoinette Coyle
2847 Arguello Drive
Burlingame, CA94010

RECEIVED
By Alameda County Environmental Health 11:29 am, Jul 19, 2016

24 May 2016

Karel Detterman, PG
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: First Quarter 2016 Semiannual Monitoring Report
Fuel leak Case RO0000027 and GeoTracker Global ID Number T0600102106
Grove Street Wash Rack, 3884 Martin Luther King Jr. Way, Oakland, California

Dear Ms. Detterman:

Please find attached for your review a copy of the First Quarter 2016 Monitoring Report for the Grove Street Wash Rack, 3884 Martin Luther King Jr. Way, Oakland, California. This report has been prepared by ERM West Inc. (ERM).

I certify under penalty of perjury that to the best of my knowledge this report is true, complete and correct.

Sincerely

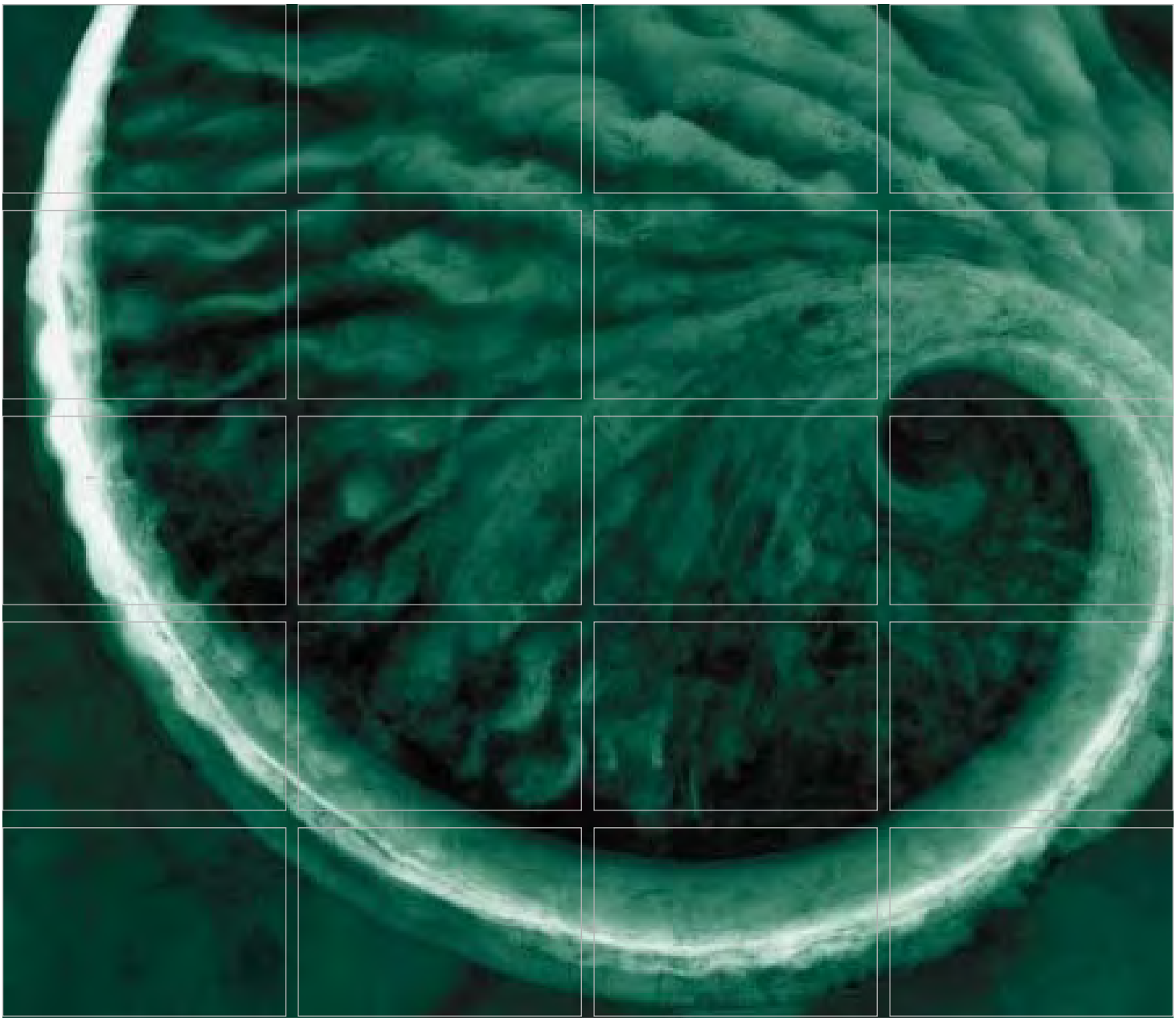
Mary Cotter: Mary Cotter date 6/13/16

Neil Cotter Neil Cotter date 6/13/16

Antoinette Coyle Antoinette Coyle date 6/12/2016

John Coyle John Coyle date 6/12/2016

cc: Alexandra Foote, Law Offices of Alexandra Foote
Giorgio Molinario, ERM



First Quarter 2016 Semiannual Monitoring Report

3884 Martin Luther King Jr. Way
Oakland, California

10 June 2016

Prepared for:
Cotter and Coyle

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ERM

The world's leading sustainability consultancy

Cotter and Coyle

First Quarter 2016 Monitoring Report

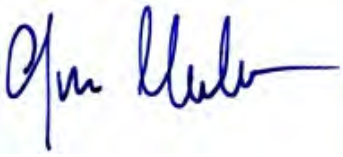
3884 Martin Luther King Jr. Way
Oakland, California

10 June 2016

Project No. 0307273

Mark Bradford
Partner in Charge

Isaac Pelz
Senior Geologist, P.G.



Giorgio Molinario
Project Manager

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1.0 INTRODUCTION

ERM-West, Inc. (ERM) has prepared this *First Quarter 2016 Monitoring Report* for Neil and Mary Cotter and John and Antoinette Coyle (Cotter and Coyle) for the former Grove Street Wash Rack (Global ID No. T0600102106) located at 3884 Martin Luther King Junior Way, in Oakland, Alameda County, California (Site). Groundwater monitoring activities were conducted by ERM on 3 May2016 consistent with procedures presented in the *2013 URS Work Plan for Additional Soil and Groundwater Investigation (*Work Plan) and in accordance with Leaking Underground Storage Tank (LUST) Fund program requirements (CUF Claim No. 13712). The results of the First Quarter 2016 groundwater monitoring event are presented herein.

1.1 PURPOSE

The purpose of the monitoring activities documented in this report is to monitor groundwater conditions and trends as requested by the Alameda County Department of Environmental Health (Case No. RO0000027) and San Francisco Bay Regional Water Quality Control Board (Case No. 01-2290).

1.2 SITE LOCATION

The Site is located at 3884 Martin Luther King Junior Way in Oakland, Alameda County, California, and is identified by the Alameda County Assessor's Office Assessor's Parcel Number (APN) 012-0968-31. The site is located in a mixed commercial and residential zoned area, and occupies approximately 10,250 square feet. The adjoining properties and nearby land use include the following:

- North: 39th Street, followed by a commercial property;
- East: the Highway 24 right-of-way, followed by the MacArthur BART station;
- South: a multi-story residential and commercial building; and
- West: Martin Luther King Junior Way (MLK Jr. Way), followed by residential and vacant properties.

The surface water body nearest to the site is the San Francisco Bay, located approximately 1.4 miles west of the site. Groundwater beneath the site is interpreted to flow to the west, towards the San Francisco Bay.

1.3 SITE BACKGROUND

The site is the location of the former Grove Street Wash Rack and Lucky's Auto. Historical site usage consisted of a gas station that operated in the 1950's and 1960's and an auto body shop operated on the eastern portion of the site until 2004. Three underground storage tanks (USTs) were removed from the gas station on 5 January 1995.

The neighboring property immediately south of the site was redeveloped into a multi-story residential and commercial building in 2006, as it remains today.

No operations currently take place at the site. The former site buildings have been removed, and only concrete pads, paved, and unpaved areas remain on the site. An advertising billboard is located on the southwest corner of the site. The site is surrounded by a chain-link fence.

Multiple environmental investigations and remedial activities have been performed at the site, including:

- In 1995, Scott Environmental performed an excavation of three USTs. One soil sample was taken at each UST removal location. Detectable concentrations of total petroleum hydrocarbons as gasoline (TPH-g) and volatile organic compounds (VOCs) were discovered in the soil samples collected.
- In 1996, H20 GEOL collected one soil sample from a soil stockpile on the site. No TPH-g or benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in the sample.
- In 2004, URS performed a soil and groundwater investigation at the site under the Department of Toxic Substances Control Brownfield's Program. Elevated concentrations of TPH-g were found in the location of two former USTs and elevated concentrations of benzene were found in the location of all three former USTs.
- In 2006, John Carver Consulting performed a soil and groundwater investigation. Elevated concentrations of TPH-g and benzene were discovered on the northwestern portion of the site adjacent to the former USTs.
- In 2013, URS performed a soil and groundwater investigation and developed a work plan. Initially, five groundwater monitoring wells were installed. Three additional wells were installed downgradient in order to address data gaps regarding the vertical and horizontal extent of contamination. Soil samples collected from the monitoring well borings were found to have elevated concentrations of TPH-g and

BTEX at selected locations. Groundwater samples collected had elevated concentrations of TPH-g and BTEX.

- In 2014, URS prepared a Remedial Design and Implementation Plan (RDIP). The RDIP presented the remedial design including excavation of contaminated soil and in-situ chemical oxidation followed by application of enhanced bioremediation augmentation materials, and was approved by the ACDEH.

2.0 MONITORING PROGRAM

Consistent with the Work Plan that was approved by the ACDEH, groundwater monitoring was conducted as described below.

2.1 GROUNDWATER MONITORING

As stated in the Work Plan groundwater monitoring is required on a semiannual (first and third quarter) schedule. Semiannual monitoring includes the following:

- Site water-level monitoring at all available monitoring wells;
- Collection of groundwater samples from site monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8); and
- Analysis of all groundwater samples for TPH-g, BTEX, naphthalene, 1,2-dichloroethane (1,2-DCA), and cis-1,2-dichloroethene (cis-1,2-DCE) by United States Environmental Protection Agency (USEPA) Method 8260B.

3.0 FIRST QUARTER 2016 MONITORING ACTIVITIES

ERM performed the First Quarter 2016 semiannual groundwater monitoring event on 3 May 2016. ERM subcontracted groundwater level measurement and sampling activities to BlaineTech, a specialized sampling subcontractor.

Consistent with the Work Plan, water level measurements and groundwater samples for the First Quarter 2016 semiannual monitoring event were collected from the eight site monitoring wells (MW–1, MW–2, MW-3, MW-4, MW-5, MW-6, MW-7 and MW–8). A duplicate groundwater sample was collected at monitoring well MW-2.

Groundwater levels were collected by measuring the depth below top of surveyed well casings using an electronic sounding tape. Before measuring groundwater levels at each well, the well cap was removed and the water level in the well was allowed to equilibrate with atmospheric pressure.

Monitoring wells were purged and sampled using low-flow sampling techniques to ensure the sampling of representative formation water. Groundwater was purged from the wells using a peristaltic pump with new tubing placed at the mid-point of the well screens. During purging, groundwater physical parameters were measured using a multi-parameter meter equipped with a flow cell. The meter was calibrated in accordance with manufacturer guidelines before use. During purging, the following parameters were measured and/or assessed and recorded on the field sampling sheets:

- Purge volume removed;
- Elapsed purging time;
- Flow rate;
- pH;
- Electrical conductivity;
- Temperature;
- Liquid color;
- Oxidation-reduction potential;
- Dissolved oxygen;
- Turbidity; and
- Odor.

Groundwater field sampling sheets for all site wells sampled are included in Appendix A.

Following stabilization of groundwater parameters, samples were collected into laboratory provided, pre-preserved containers. Following groundwater sample collection, sample containers were labeled, placed in zip-top-style plastic bags, packed in an ice-filled cooler, and transported under standard chain-of-custody procedures to TestAmerica, Inc., a California-certified laboratory in Pleasanton, California.

For quality assurance/quality control purposes, duplicate groundwater samples were collected at a rate of one duplicate sample per 10 groundwater samples. Trip blanks were included in each cooler of samples sent to the laboratory. ERM reviewed the analytical results for quality assurance/quality control (QA/QC) purposes in accordance with the *USEPA National Functional Guidelines for Superfund Organic Methods Data Review* (August 2014). Copies of the laboratory data sheets are presented in Appendix B.

3.1 GROUNDWATER MONITORING RESULTS

The groundwater elevations and analytical results for the First Quarter 2016 semiannual monitoring event were compared to the results of previous monitoring events and to February 2016 RWQCB Environmental Screening Levels (ESLs) for commercial/industrial properties, and the results are discussed below.

3.1.1 Groundwater Elevations and Flow Direction

Depth-to-water measurements for the First Quarter 2016 semiannual monitoring event are presented in Table 1 and were used to generate the potentiometric surface map presented as Figure 2. As shown in Table 1, groundwater was encountered at depths ranging from 10.50 (MW-8) to 15.20 (MW-2) feet below top of casing.

In general, groundwater elevations measured in May 2016 were higher compared to the previous monitoring event in October 2015. Groundwater elevations in site monitoring wells ranged from 57.96 (MW–2) to 60.72 (MW-3) feet above mean sea level (Figure 2). Groundwater elevations were higher than Q1 2015 levels, but consistent with the historical ranges. Groundwater elevations measured at wells MW-5, MW-6, MW-7 and MW-8 appeared to be anomalous and therefore, these data points were excluded from the potentiometric surface evaluation.

Based on the groundwater elevations measured in May 2016, the estimated groundwater gradient was approximately 0.060 foot per foot toward the west-southwest, which represents an increase from the previous groundwater monitoring event. The above average groundwater elevations and gradient may be the result of greater than normal precipitation observed during the 2015/2016 winter that followed several years of drought conditions.

3.1.2 Groundwater Analytical Results

The groundwater analytical results from the First Quarter 2016 semiannual monitoring event are presented below.

3.1.2.1 TPH and VOCs in Groundwater

Analytical results for TPH and VOCs detected in groundwater collected from the eight Site monitoring wells are presented in Table 3. Monitoring results are compared with drinking water groundwater ESLs, and residential groundwater ESLs for vapor intrusion concerns. As shown in Table 3, TPH-g, BTEX, naphthalene and 1,2-DCA were detected in site groundwater.

TPH-g was detected in groundwater from three wells, MW-2, MW-4, and MW-6, at concentrations ranging from 77 micrograms per liter (µg/L) (MW-6) to 8,800 µg/L (MW-4) during the May 2016 monitoring event. The concentrations of TPH-g in groundwater were above the ESL of 100 µg/L at two wells (MW-2 and MW-4). The concentrations of TPH-g detected in groundwater at MW-2, MW-4 and MW-6 were generally consistent with historical results.

Benzene was detected in groundwater from three wells (MW-2, MW-4, and MW-6), at concentrations ranging from 2.6 µg/L (MW-6) to 2,700 µg/L (MW-2 duplicate) during the May 2016 monitoring event. The concentrations of benzene in groundwater were above the ESL of 1 µg/L at MW-2, MW-4 and MW-6. The concentrations of benzene in groundwater at MW-2, MW-4 and MW-6 were consistent with historical results.

Toluene was detected in groundwater from wells MW-2 and MW-4, at concentrations of 55 µg/L (58 µg/L duplicate result) and 65 µg/L, respectively during the groundwater monitoring event. The concentrations of toluene in groundwater were above the ESL of 40 µg/L. Concentrations of toluene generally decreased compared to prior monitoring events.

Ethylbenzene was detected in groundwater from wells MW-2 and MW-4, at concentrations of 76 µg/L (75 µg/L duplicate result) and 650 µg/L, respectively, during the October monitoring event. The concentrations of ethylbenzene in groundwater were above the ESL of 30 µg/L. Concentrations of ethylbenzene in groundwater generally decreased compared to prior monitoring events. Ethylbenzene was detected in MW-6 during the monitoring event, and is now below the reporting limit.

Xylene was detected in groundwater from wells MW-2 and MW-4 at concentrations of 44 µg/L and 1,400 µg/L, respectively during the groundwater monitoring event. The concentrations of xylene in both wells were above the ESL of 20 µg/L. Xylene was previously detected in groundwater monitoring well MW-6, but was not detected above the reporting limit during this groundwater monitoring event.

Naphthalene was detected in groundwater from well MW-4 at a concentration of 84 µg/L (MW-4) during the May 2016 monitoring event. The concentration of naphthalene in groundwater was above the ESL of 6.1 µg/L. As shown in Table 3, naphthalene concentrations in groundwater samples collected from MW-2 and MW-4 appear to be generally decreasing over time. However, the elevated reporting limit for the sample collected at MW-2 does not allow a quantitative comparison for that well during this period.

The concentration of 1,2-DCA in groundwater at well MW-1 was 2.1 µg/L during the May 2016 monitoring event. This groundwater concentration was above the ESL of 0.5 µg/L. Sample MW-2 had an elevated reporting limit for 1,2-DCA (10 µg/L) in groundwater and the trend for this location could not be discerned because of the limited number of historical data points and the concentrations close to the reporting limit.

3.1.2.1 Data Quality Review

ERM reviewed analytical data quality including: trip and laboratory blanks, field duplicate results, laboratory control samples (LCS) and duplicates (LCSD), surrogate recoveries, and holding times. All samples were received within temperature limits at the laboratory and were analyzed within method-specified holding times. No analytes were detected in the trip or method blanks analyzed. Surrogate recoveries were within acceptance criteria. LCS and LCSD sample recoveries were also within acceptance criteria. LCSD samples were within relative percent difference (RPD) criteria of their respective LCS samples. The RPDs of all analytes were within 20 percent RPD criteria. Overall, all data reviewed are considered usable for their intended purpose.

3.1.2.3 Groundwater Physical Parameters

Groundwater physical parameters (conductivity, temperature, pH, ORP, and DO) were measured at regular intervals during the purging process. The final field parameter measurements prior to sampling are summarized in Table 2. The following are ranges of the final parameter measurements from all eight monitoring wells at the site prior to sampling:

- Conductivity ranged from 0.757 to 1.249 mS/cm;
- Temperature ranged from 17.4 to 19.9°C;
- pH ranged between 6.32 and 7.12;
- ORP ranged from -151.3 to -51 millivolts (mV); and
- DO ranged from 0.28 to 4.04 mg/L.

The ORP measurements at several locations were not consistent with historical values. Although the meter calibration was checked prior to beginning groundwater sampling, the ORP results for this monitoring event may be considered suspect. Refer to Appendix A for the specific range of parameters in each monitoring well.

4.0 CONCLUSIONS

Based on a comparison of the May 2016 groundwater monitoring event to historical monitoring results, ERM has developed the following conclusions:

- Groundwater elevations and overall gradient were above historical averages, but generally within historical ranges. Groundwater physical parameters were generally consistent with historical observations. These observations may be the result of greater than normal precipitation observed during the 2015/2016 winter that followed several years of drought conditions.
- TPH-g and BTEX concentrations in all wells with historical detections (MW-2, MW-4 and MW-6) were lower than results from the previous groundwater monitoring even and overall historical trends appear to be generally stable or declining.
- In MW-2 and MW-4, the drinking water groundwater ESLs for TPH-g and BTEX compounds were each exceeded. In addition, in MW-4, the ESL for naphthalene was exceeded. Naphthalene was not detected in MW-2; however, consistent with previous events, the detection limit was greater than the ESL due to dilution required for this sample.
- In MW-6, the drinking water groundwater ESL for benzene was exceeded. The TPH-g concentration at this well declined below its ESL during this monitoring event.
- The 1,2-DCA concentrations in groundwater exceeded the ESL in MW-1. Although 1,2-DCA was not detected in groundwater in MW-2, the reporting limit was elevated (10 µg/L) due to the dilution required for this sample. No discernible trend was evident for 1,2-DCA concentrations that have been close to or below the reporting limit in groundwater from MW-1, MW-2, and MW-4.
- Cis-1,2-DCE was not detected in any groundwater samples collected.
- The residential groundwater ESLs for vapor intrusion were exceeded for benzene and ethylbenzene in MW-4, and for benzene only in MW-2. The benzene concentration in MW-6 declined below its groundwater ESL for vapor intrusion during this monitoring event.

Figures

Project No. 0307273.00

Date: 11/12/15

Drawn By: J. Estrada

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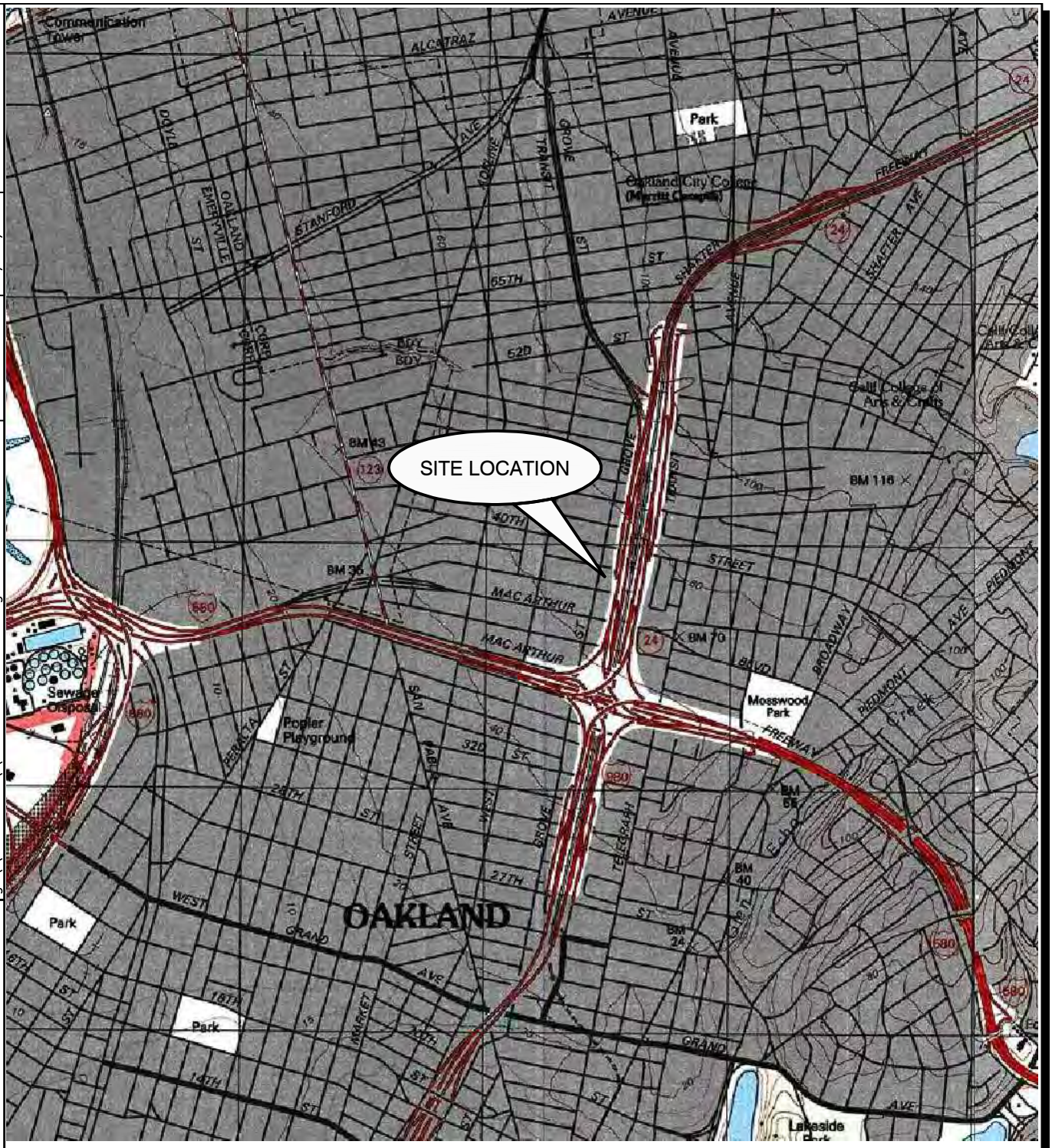


SCALE 1: 24,000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

N

References:
TOPO!® Software
U.S.G.S. 7.5 Minute Series (Topographic) Quadrangle,
Oakland West, California, 1993

Figure 1
Site Location Map
3884 Martin Luther King Jr. Way
Oakland, California

ERM 11/15

Project No. 0307273.00
Date: 06/07/16
Drawn By: R. olson
CAD File: G:\0307273\0307273-00727300-16.dwg

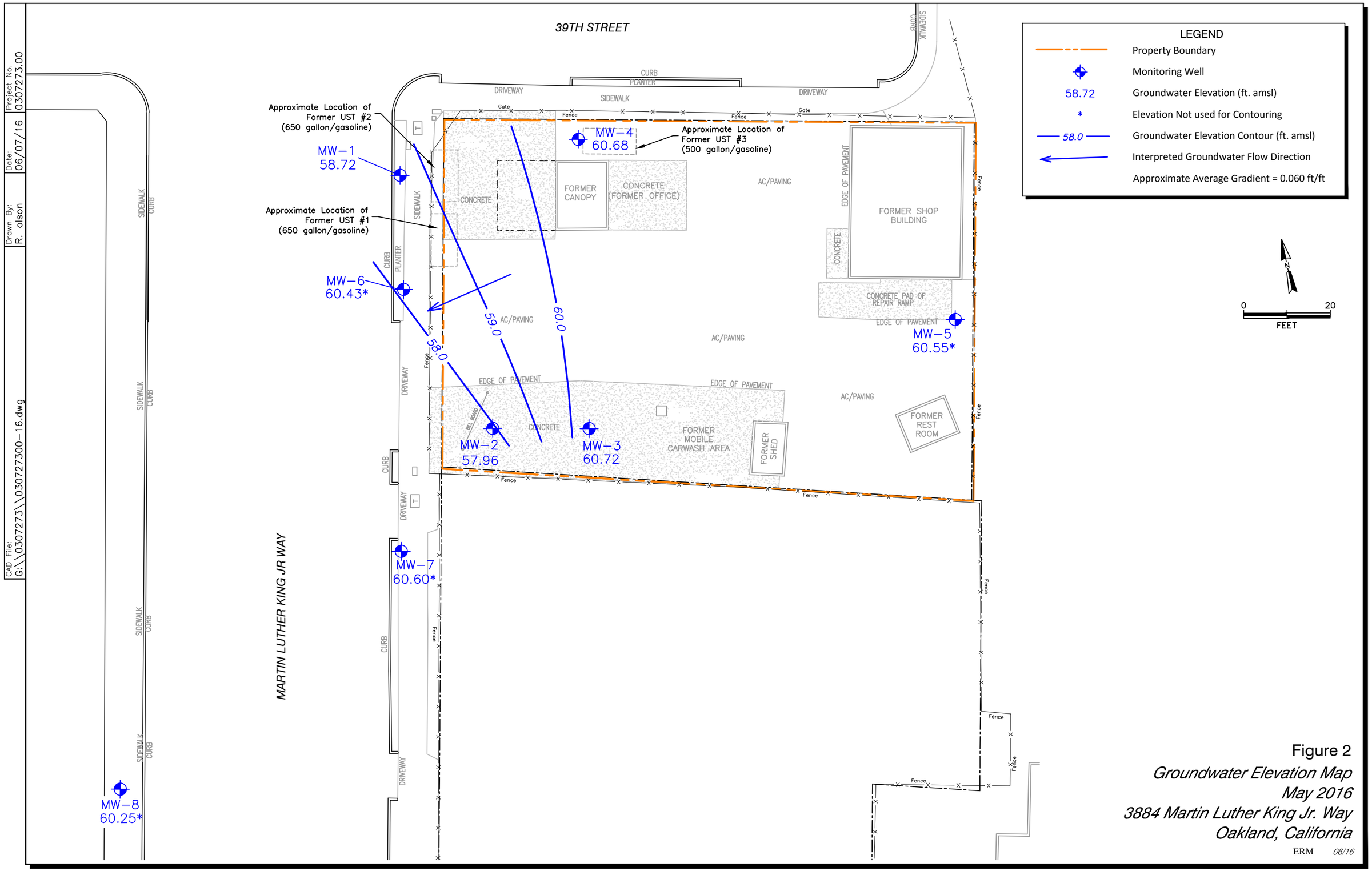
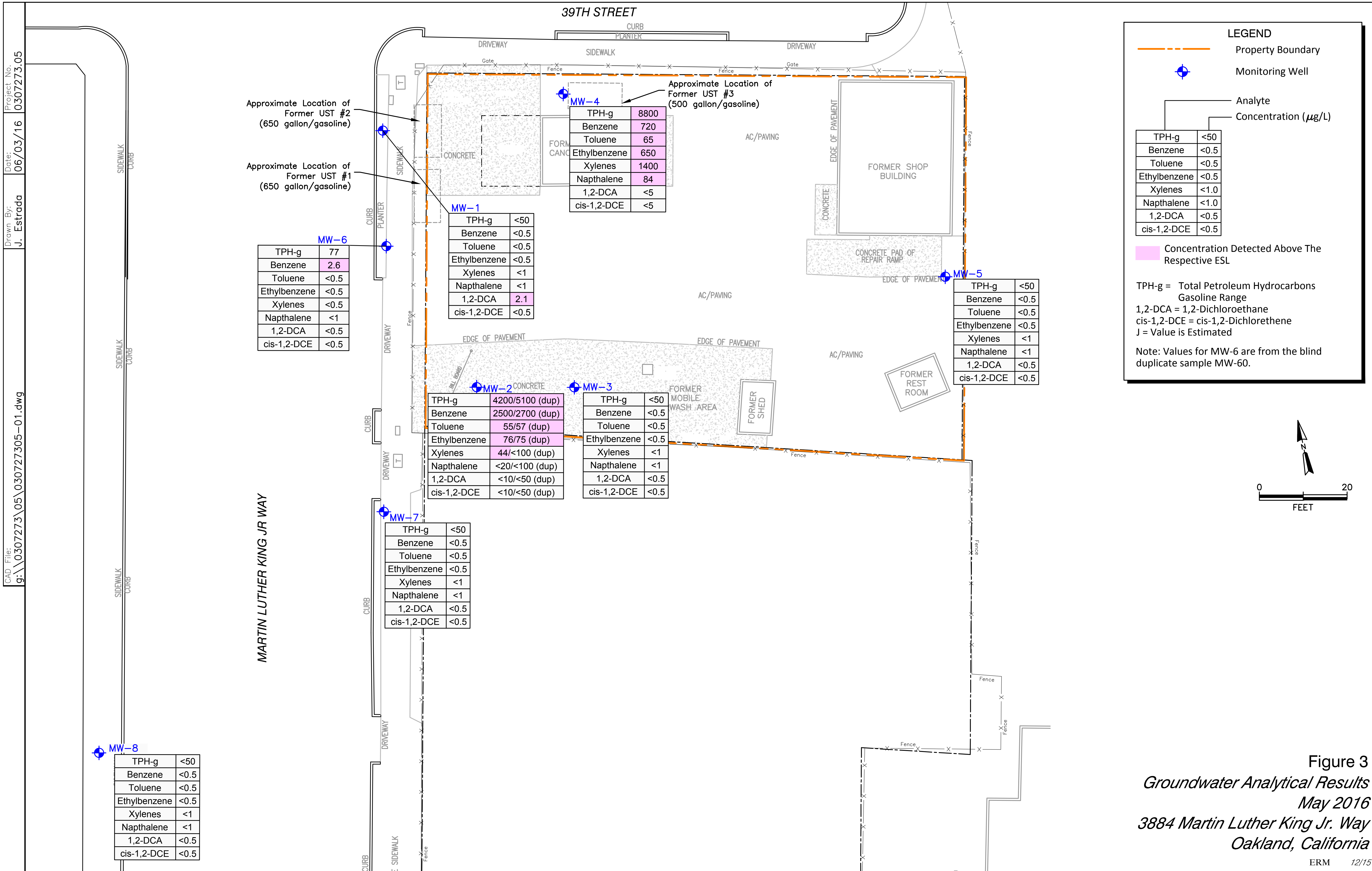


Figure 2
Groundwater Elevation Map
May 2016
3884 Martin Luther King Jr. Way
Oakland, California
ERM 06/16



MW-1

Analyte	Concentration (µg/L)
TPH-g	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<1
Napthalene	<1
1,2-DCA	2.1
cis-1,2-DCE	<0.5

MW-2

Analyte	Concentration (µg/L)
TPH-g	4200/5100 (dup)
Benzene	2500/2700 (dup)
Toluene	55/57 (dup)
Ethylbenzene	76/75 (dup)
Xylenes	44/<100 (dup)
Napthalene	<20/<100 (dup)
1,2-DCA	<10/<50 (dup)
cis-1,2-DCE	<10/<50 (dup)

MW-3

Analyte	Concentration (µg/L)
TPH-g	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<1
Napthalene	<1
1,2-DCA	<0.5
cis-1,2-DCE	<0.5

MW-4

Analyte	Concentration (µg/L)
TPH-g	8800
Benzene	720
Toluene	65
Ethylbenzene	650
Xylenes	1400
Napthalene	84
1,2-DCA	<5
cis-1,2-DCE	<5

MW-5

Analyte	Concentration (µg/L)
TPH-g	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<1
Napthalene	<1
1,2-DCA	<0.5
cis-1,2-DCE	<0.5

MW-6

Analyte	Concentration (µg/L)
TPH-g	77
Benzene	2.6
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
Napthalene	<1
1,2-DCA	<0.5
cis-1,2-DCE	<0.5

MW-7

Analyte	Concentration (µg/L)
TPH-g	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<1
Napthalene	<1
1,2-DCA	<0.5
cis-1,2-DCE	<0.5

MW-8

Analyte	Concentration (µg/L)
TPH-g	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<1
Napthalene	<1
1,2-DCA	<0.5
cis-1,2-DCE	<0.5

LEGEND

Property Boundary

Monitoring Well

Analyte / Concentration ($\mu g/L$)

Analyte	Concentration
TPH-g	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<1.0
Napthalene	<1.0
1,2-DCA	<0.5
cis-1,2-DCE	<0.5

Concentration Detected Above The Respective ESL

TPH-g = Total Petroleum Hydrocarbons Gasoline Range
1,2-DCA = 1,2-Dichloroethane
cis-1,2-DCE = cis-1,2-Dichlorethene
J = Value is Estimated

Note: Values for MW-6 are from the blind duplicate sample MW-60.

Figure 3

Groundwater Analytical Results
May 2016
3884 Martin Luther King Jr. Way
Oakland, California

ERM 12/15

Tables

Table 1
Groundwater Elevation Data
3884 Martin Luther King Jr. Way
Oakland, California

Well	Date	Well Screen (ft-bmp)	Depth to Groundwater (ft-bmp)	Measuring Point Elevation (ft-msl)	Water Elevation (ft-amsl)
MW-1	7/18/2013	12-19	14.43	72.83	58.40
MW-1	10/23/2013	12-19	14.99	72.83	57.84
MW-1	7/10/2014	12-19	14.41	72.83	58.42
MW-1	9/15/2014	12-19	15.16	72.83	57.67
MW-1	1/9/2015	12-19	12.14	72.83	60.69
MW-1	3/31/2015	12-19	13.57	72.83	59.26
MW-1	10/14/15	12-19	15.43	72.83	57.40
MW-1	5/3/2016	12-19	14.11	72.83	58.72
MW-2	7/18/2013	13-20	14.90	73.16	58.26
MW-2	10/23/2013	13-20	15.07	73.16	58.09
MW-2	7/10/2014	13-20	14.69	73.16	58.47
MW-2	9/15/2014	13-20	15.45	73.16	57.71
MW-2	1/9/2015	13-20	13.82	73.16	59.34
MW-2	3/31/2015	13-20	14.08	73.16	59.08
MW-2	10/14/15	13-20	15.75	73.16	57.41
MW-2	5/3/2016	13-20	15.20	73.16	57.96
MW-3	7/18/2013	13-20	15.08	73.54	58.46
MW-3	10/23/2013	13-20	15.45	73.54	58.09
MW-3	7/10/2014	13-20	14.68	73.54	58.86
MW-3	9/15/2014	13-20	15.56	73.54	57.98
MW-3	1/9/2015	13-20	13.32	73.54	60.22
MW-3	3/31/2015	13-20	14.25	73.54	59.29
MW-3	10/14/2015	13-20	15.74	73.54	57.8
MW-3	5/3/2016	13-20	12.82	73.54	60.72
MW-4	7/18/2013	11-18	14.42	73.18	58.76
MW-4	10/23/2013	11-18	15.15	73.18	58.03
MW-4	7/10/2014	11-18	14.43	73.18	58.75
MW-4	9/15/2014	11-18	15.25	73.18	57.93
MW-4	1/9/2015	11-18	12.91	73.18	60.27
MW-4	3/31/2015	11-18	13.68	73.18	59.50
MW-4	10/14/2015	11-18	15.48	73.18	57.70
MW-4	5/3/2016	11-18	12.50	73.18	60.68
MW-5	7/18/2013	15-21	16.89	74.92	58.03
MW-5	10/23/2013	15-21	17.65	74.92	57.27
MW-5	7/10/2014	15-21	16.79	74.92	58.13
MW-5	9/15/2014	15-21	17.82	74.92	57.10
MW-5	1/9/2015	15-21	14.78	74.91	60.13
MW-5	3/31/2015	15-21	15.48	74.91	59.43
MW-5	10/14/2015	15-21	18.24	74.91	56.67
MW-5	5/3/2016	15-21	14.36	74.91	60.55
MW-6	9/15/2014	11-19	14.86	72.43	57.57
MW-6	1/9/2015	11-19	11.39	72.43	61.04
MW-6	3/31/2015	11-19	13.26	72.43	59.17
MW-6	10/14/2015	11-19	14.66	72.43	57.77
MW-6	5/3/2016	11-19	12.00	72.43	60.43
MW-7	9/15/2014	11-19	13.61	71.46	57.85
MW-7	1/9/2015	11-19	11.27	71.46	60.19
MW-7	3/31/2015	11-19	11.93	71.46	59.53
MW-7	10/14/2015	11-19	13.84	71.46	57.62
MW-7	5/3/2016	11-19	10.86	71.46	60.60
MW-8	9/15/2014	11-18	14.23	70.75	56.52
MW-8	1/9/2015	11-18	10.3	70.75	60.45
MW-8	3/31/2015	11-18	12.31	70.75	58.44
MW-8	10/14/2015	11-18	13.22	70.75	57.53
MW-8	5/3/2016	11-18	10.50	70.75	60.25

Abbreviations:

ft-msl - Feet relative to mean sea level
ft-amsl - Feet above mean sea level
ft-bmp - Feet below measuring point

Table 2
Groundwater Physical Parameters
3884 Martin Luther King Jr. Way
Oakland, California

Well	Date	Temperature (°Celsius)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-1	7/18/2013	20.0	1.129	5.74	6.35	63.4
MW-1	10/23/2013	19.2	1.189	1.45	6.42	-55.4
MW-1	7/10/2014	20.0	1.100	0.81	6.42	33.2
MW-1	9/15/2014	20.5	1.100	0.13	6.15	74.9
MW-1	1/9/2015	20.3	1.077	0.27	6.55	-24.9
MW-1	3/31/2015	19.5	1.021	0.91	6.12	61.9
MW-1	10/14/15	21.5	0.765	0.30	6.20	82.6
MW-1	5/3/2016	18.7	0.945	0.53	6.32	-106.0
MW-2	7/18/2013	18.7	0.901	3.63	6.62	51.2
MW-2	10/23/2013	18.3	0.852	0.57	6.59	-93.4
MW-2	7/10/2014	19.3	0.878	0.51	6.72	-160.3
MW-2	9/15/2014	19.0	0.936	0.07	6.35	-49.3
MW-2	1/9/2015	19.1	0.959	0.47	6.79	-59.5
MW-2	3/31/2015	18.2	0.934	0.13	6.38	-113.4
MW-2	10/14/15	19.85	0.673	0.40	6.64	-87.3
MW-2	5/3/2016	18.9	0.888	0.35	6.66	-151.0
MW-3	7/18/2013	18.7	0.799	5.36	6.52	71.9
MW-3	10/23/2013	18.3	1.133	1.84	6.94	213.6
MW-3	7/10/2014	19.6	1.121	1.99	7.10	54.3
MW-3	9/15/2014	18.9	1.162	0.28	6.73	97.4
MW-3	1/9/2015	18.9	1.147	5.30	7.11	334.8
MW-3	3/31/2015	18.2	1.113	3.48	6.71	435.5
MW-3	10/14/2015	19.76	0.773	0.79	6.80	136.0
MW-3	5/3/2016	17.9	1.033	2.39	6.95	-59.0
MW-4	7/18/2013	20.5	1.438	4.21	6.44	25.1
MW-4	10/23/2013	20.6	1.271	0.92	6.34	-85.3
MW-4	7/10/2014	21.5	1.379	0.65	6.50	-47.9
MW-4	9/15/2014	21.2	1.463	0.05	6.25	-20.0
MW-4	1/9/2015	20.1	1.424	0.17	6.74	-59.3
MW-4	3/31/2015	19.6	1.386	0.14	6.29	-48.5
MW-4	10/14/2015	23.48	1.137	0.31	6.44	-31.1
MW-4	5/3/2016	18.9	1.249	0.58	6.57	-146.0
MW-5	7/18/2013	17.1	0.845	6.17	6.63	78.2
MW-5	10/23/2013	17.0	0.841	0.81	6.56	205.2
MW-5	7/10/2014	17.5	0.795	0.53	6.48	73.8
MW-5	9/15/2014	17.4	0.861	0.08	6.20	103.5
MW-5	1/9/2015	17.6	0.864	0.30	6.49	256.4
MW-5	3/31/2015	17.3	0.842	0.12	6.12	460.5
MW-5	10/14/2015	18.38	0.611	0.30	6.20	123.1
MW-5	5/3/2016	18.8	0.757	0.37	6.40	-110.0
MW-6	9/15/2014	21.3	1.757	2.56	6.51	98.4
MW-6	1/9/2015	20.1	1.716	0.77	7.01	-7.9
MW-6	3/31/2015	19.8	1.569	0.07	6.47	-72.6
MW-6	10/14/2015	22.94	0.977	0.14	6.56	-18.1
MW-6	5/3/2016	19.9	1.24	0.28	6.79	-143.0
MW-7	9/15/2014	20.5	1.508	4.95	6.66	104.3
MW-7	1/9/2015	19.5	1.377	3.14	7.26	115.5
MW-7	3/31/2015	19.2	1.277	0.85	6.74	118.6
MW-7	10/14/2015	22.04	0.899	0.19	6.74	146.0
MW-7	5/3/2016	17.4	1.035	4.04	7.05	-51.0
MW-8	9/15/2014	20.4	1.055	5.87	6.81	106.1
MW-8	1/9/2015	19.9	0.813	2.39	9.20	92.9
MW-8	3/31/2015	19.4	0.723	1.03	6.89	155.7
MW-8	10/14/2015	21.75	0.568	0.18	6.87	136.3
MW-8	5/3/2016	18.4	0.826	2.37	7.12	-74.0

Abbreviations:

DO = Dissolved Oxygen
mg/L = milligrams per liter
mS/cm = milliSiemens per centimeter
mV = millivolt
ORP = Oxidation-Reduction Potential

Table 3
Petroleum Hydrocarbons and Volatile Organic Compounds
3884 Martin Luther King Jr. Way
Oakland, California

		Analyte							
Well	Date	TPH as Gas (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	cis-1,2-DCE (µg/L)
Commercial/Industrial Soil Vapor Groundwater ESL (µg/L)		*NE*	*30*	*100,000*	*370*	*38,000*	*180*	*90*	*950*
Drinking Water Groundwater ESL (µg/L)		*100*	*1*	*40*	*30*	*20*	*0.17*	*0.5*	*6*
MW-1	7/18/2013	<50	<0.5	<0.5	<0.5	<1.0	<1.0	**4.5**	<0.5
DUP	05/03/16	5100	2700	57	75	<100	<100	<50	<50
FD-1[3]	9/15/2014	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
FD-1[4]	1/9/2015	**6600**	**3600**	**99**	**110**	**90**	**15**	**2.3**	<0.5
MW-1	10/23/2013	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
MW-10[2]	10/23/2013	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
MW-1	7/10/2014	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
MW-1	9/15/2014	<50	<0.5	<0.5	<0.5	<1.0	<1.0	**4.0**	<0.5
MW-1	1/9/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	**3.1**	<0.5
MW-1	3/31/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	**1.8**	<0.5
MW-1	10/14/15	<50 UJ	<0.5 UJ	<0.5	<0.5	<1.0	<1.0	**2.1**	<0.5
MW-1	05/03/16	<50	<0.5	<0.5	<0.5	<1	<1	**2.1**	<0.5
MW-2	7/18/2013	**560**	**220**	**2.9**	**4.6**	**35**	<1.0	**4.3**	<0.5
MW-2	10/23/2013	**9400**	**8200**	**200**	**120**	**380**	NA	NA	NA
MW-2	7/10/2014	**8800 J**	**4800**	**130**	**140**	<200	NA	NA	NA
MW-2	9/15/2014	**11000**	**5600**	**180**	**190**	<200	<200	<100	<100
MW-2	1/9/2015	**7600**	**4200**	**110**	**130**	**98**	**17**	**2.2**	<0.5
MW-2	3/31/2015	**10000**	**5900**	**160**	**230**	**150**	<100	<50	<0.5
MW-2	10/14/15	**6900 J**	**3600 J**	**130**	**180**	**140**	**7.8**	**0.74**	<0.5
DUP-05032016	05/03/16	**5100**	**2700**	**57**	**75**	<100	<100	<50	<50
MW-2	05/03/16	**4200**	**2500**	**55**	**76**	**44**	<20	<10	<10
MW-3	7/18/2013	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-3	10/23/2013	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
MW-3	7/10/2014	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
MW-3	9/15/2014	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-3	1/9/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-3	3/31/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-3	10/14/15	<50 UJ	<0.5 UJ	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-3	05/03/16	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.5
MW-4	7/18/2013	**9500**	**980**	**510**	**270**	**2600**	**180**	**0.7**	<0.5
MW-40[1]	7/18/2013	**13000**	**1100**	**930**	**800**	**3500**	**180**	**0.6**	<0.5
MW-4	10/23/2013	**15000**	**1800**	**480**	**1500**	**3100**	NA	NA	NA
MW-4	7/10/2014	**25000 J**	**2500 J**	**950**	**1800 J**	**6400**	NA	NA	NA
MW-40[1]	7/10/2014	**32000 J**	**3100 J**	**1100**	**2400 J**	**6100**	NA	NA	NA
MW-4	9/15/2014	**22000**	**2800**	**470**	**2200**	**3000**	**370**	<25	<25
MW-4	1/9/2015	**21000**	**1900**	**180**	**1800**	**3600**	**290**	**0.67**	<0.5
MW-4	3/31/2015	**32000**	**3100**	**730**	**2900**	**8100**	**530**	<50	<50
MW-4	10/14/15	**14000 J**	**2200 J**	**170**	**1600**	**1600**	**150**	<50	<50
MW-4	05/03/16	**8800**	**720**	**65**	**650**	**1400**	**84**	<5	<5
MW-5	7/18/2013	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-5	10/23/2013	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
MW-5	7/10/2014	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
MW-5	9/15/2014	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-5	1/9/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-5	3/31/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-5	10/14/15	<50 UJ	<0.5 UJ	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-5	05/03/16	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.5

Table 3
Petroleum Hydrocarbons and Volatile Organic Compounds
3884 Martin Luther King Jr. Way
Oakland, California

		Analyte							
Well	Date	TPH as Gas (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	cis-1,2-DCE (µg/L)
Commercial/Industrial Soil Vapor Groundwater ESL (µg/L)		*NE*	*30*	*100,000*	*370*	*38,000*	*180*	*90*	*950*
Drinking Water Groundwater ESL (µg/L)		*100*	*1*	*40*	*30*	*20*	*0.17*	*0.5*	*6*
MW-6	9/15/2014	**300**	**5.6**	<0.5	**0.6**	**4.7**	<1.0	<0.5	<0.5
MW-6	1/9/2015	**160**	**10**	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-6	3/31/2015	**2000**	**150**	**1.4**	**48**	**2.9**	<1.0	<0.5	<0.5
MW-60[4]	3/31/2015	**2100**	**160**	**1.5**	**53**	**3.5**	<1.0	<0.5	<0.5
MW-6	10/14/15	**1300 J**	**40 J**	**0.55**	**1.1**	**2.6**	<1.0	<0.5	<0.5
MW-60[4]	10/14/15	**1700 J**	**72 J**	**0.75**	**2.7**	**3.6**	<1.0	<0.5	<0.5
MW-6	05/03/16	**77**	**2.6**	<0.5	<0.5	<1	<1	<0.5	<0.5
MW-7	9/15/2014	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-7	1/9/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-7	3/31/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-7	10/14/15	<50 UJ	<0.5 UJ	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-7	05/03/16	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.5
MW-8	9/15/2014	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-8	1/9/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-8	3/31/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-8	10/14/15	<50 UJ	<0.5 UJ	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-8	05/03/16	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.5
Trip Blank	7/18/2013	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
Trip Blank	10/23/2013	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
Trip Blank	7/10/2014	<50	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
Trip Blank	9/15/2014	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
Trip Blank	1/9/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
Trip Blank	3/31/2015	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
Trip Blank	10/14/15	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
Trip Blank	05/03/16	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5

Notes:

Sample concentrations reported in micrograms per liter (µg/L)

[1]Commercial/Industrial Soil Vapor Intrusion Groundwater ESL = Environmental Screening Level in groundwater for

[2]Drinking Water Groundwater ESL = Environmental Screening Level in groundwater for drinking water use (RWQCB ESL Workbook,

Bold values indicate concentrations detected above the laboratory reporting limit

#	Indicates a concentration detected above the Drinking Water ESL
#	Indicates a concentration detected above the Soil Vapor Intrusion Water ESL
< 0.5	Compound not detected at or above the laboratory reporting limit
NA	Not analyzed
J	Value is Estimated
UJ	Non-detected, Estimated

[1] Field duplicate of MW-4

[2] Field duplicate of MW-1

[3] Field duplicate of MW-3

[4] Field duplicate of MW-6

Abbreviations:

TPH = Total Petroleum Hydrocarbons
1,2-DCA = 1,2-Dichloroethane
cis-1,2-DCE = cis-1,2-Dichloroethene
VOCs = Volatile organic compounds

Appendix A
Field Data Sheets

WELL GAUGING DATA

Project # 160503-JC1 Date 05/3/16 Client ERM

Site 3884 MLK Jr. Way, Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0855	2					14.11	19.30		
MW-2	0859	2					15.20 ~~15.20~~	20.00 ~~20.00~~		
MW-3	0838	2					12.82 ~~15.20~~	19.91 ~~20.00~~		
MW-4	0840	2					12.50	18.09		
MW-5	0847	2					14.36	21.31		
MW-6	0857	2					12.00	18.71		
MW-7	0835	2					10.86	18.58		
MW-8	0832	2					10.50	18.00		

WELLHEAD INSPECTION CHECKLIST

Client ERM Date 05/03/16

Site Address 3884 MLK Jr. Way, Oakland

Job Number 160503-JC1 Technician JC

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
mw-1	X							
mw-2	X							
mw-3	X							
mw-4	X							
mw-5	X							
mw-6		X						
mw-7	X							
mw-8	X							

NOTES: MW-6 well box full of water

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 3884 MLK Jr. Way OAKLAND				PROJECT NUMBER 160503-JC1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI PRO PLUS	12H102239	05/03/16 0745	PH 4.00, 7.00, 10.00 ORP, CONDUCTIVITY D.O.	7.00, 7.00, 10.00 244mV 3900uS 100%	Y=S	57F	JC

WELL MONITORING DATA SHEET

Project #: 160503-JC1	Client: ERM @ 3884 MLK Jr. Way Oakland, CA
Sampler: JC	Start Date: 5/3/2016
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 19.30	Depth to Water Pre: 14.11 Post: 14.18
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / YSI Pro Plus

Purge Method: Electric Submersible (Peristaltic Pump)
Sampling Method: (New Tubing) Dedicated Tubing other ____

Flow Rate: 200 ml/m Bladder Pump Pump Depth: 19 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	DTW / Observations
1147	18.8	6.32	945	21	0.80	-100	600	14.13
1150	18.7	6.32	944	15	0.53	-102	1200	14.15
1153	18.6	6.32	946	12	0.52	-103	1800	14.15
1156	18.7	6.32	945	10	0.49	-105	2400	14.16
1159	18.6	6.32	947	10	0.50	-105	3000	14.17
1202	18.7	6.32	945	11	0.53	-106	3600	14.18

Did well dewater? Yes (No) Amount actually evacuated: 3600 mL

Sampling Date: 5 / 3 / 16 Sampling Time: 1205

Sample I.D.: MW-1 Laboratory: Test America

Analyzed for: TPH-G , VOCs, TPH-D, TPH-MO (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 160503-JC1	Client: ERM @ 3884 MLK Jr. Way Oakland, CA
Sampler: JC	Start Date: 5/3/2016
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 20.00	Depth to Water Pre: 15.20 Post: 15.31
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: ___YSI 556 / (YSI Pro Plus)___

Purge Method: Electric Submersible (Peristaltic Pump)
Sampling Method: (New Tubing) Dedicated Tubing other_____

Flow Rate: 200mL/m Bladder Pump Pump Depth: 19 ft.

Time	Temp. (°C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	DTW / Observations
1242	19.1	6.69	891	10	0.64	-142	600	15.22
1245	19.2	6.68	892	9	0.51	-144	1200	15.24
1248	19.1	6.67	890	8	0.39	-147	1800	15.25
1251	19.5	6.67	890	8	0.35	-149	2400	15.28
1254	18.9	6.66	888	7	0.33	-150	~~2~~3000	15.30
1257	18.9	6.66	888	9	0.35	-151	3600	15.31

Did well dewater? Yes (No)	Amount actually evacuated: 3600
Sampling Date: 5 / 3 / 16	Sampling Time: 1300
Sample I.D.: MW-2	Laboratory: Test America
Analyzed for: TPH-G , VOCs, TPH-D, TPH-MO	(Other:) See COC
Equipment Blank I.D.: @ Time	Duplicate I.D.: DUP-05032016 1315

WELL MONITORING DATA SHEET

Project #: 160503-JC1	Client: ERM @ 3884 MLK Jr. Way Oakland, CA
Sampler: JC	Start Date: 5/3/2016
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 19.91	Depth to Water Pre: 12.82 Post: 12.89
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / ~~YSI Pro Plus~~

Purge Method: Electric Submersible (Peristaltic Pump)
Sampling Method: (New Tubing) Dedicated Tubing other_____

Flow Rate: 200 ml/m Bladder Pump Pump Depth: 19 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	DTW / Observations
1014	17.8	6.98	1030	16	2.53	-61	600	12.84
1017	17.7	6.96	1032	9	2.44	-60	1200	12.86
1020	17.8	6.96	1034	10	2.41	-60	1800	12.87
1023	17.8	6.95	1032	7	2.38	-60	2400	12.87
1026	17.8	6.95	1033	8	2.41	-59	3000	12.88
1029	17.9	6.95	1033	9	2.39	-59	3600	12.89

Did well dewater? Yes (No)	Amount actually evacuated: 3600
Sampling Date: 5 / 3 / 16	Sampling Time: 1030
Sample I.D.: MW-3	Laboratory: Test America
Analyzed for: TPH-G , VOCs, TPH-D, TPH-MO	(Other:) See COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 160503-JC1	Client: ERM @ 3884 MLK Jr. Way Oakland, CA
Sampler: JC	Start Date: 5/3/2016
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 18.09	Depth to Water Pre: 12.50 Post: 12.57
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / YSI Pro Plus

Purge Method: Electric Submersible (Peristaltic Pump)
Sampling Method: (New Tubing) Dedicated Tubing other_____

Flow Rate: 200 ml/m Bladder Pump Pump Depth: 17 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	DTW / Observations
1058	19.1	6.62	1247	15	1.37	-140	600	12.52
1101	19.0	6.57	1258	12	0.71	-142	1200	12.53
1104	19.0	6.57	1256	14	0.73	-143	1800	12.55
1107	19.0	6.57	1253	13	0.63	-144	2400	12.56
1110	19.0	6.57	1251	14	0.58	-145	3000	12.57
1113	18.9	6.57	1249	12	0.58	-146	3600	12.57

Did well dewater? Yes (No) Amount actually evacuated: 3600 mL

Sampling Date: 5 / 3 / 16 Sampling Time: 1115

Sample I.D.: MW-4 Laboratory: Test America

Analyzed for: TPH-G , VOCs, TPH-D, TPH-MO (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 160503-JC1	Client: ERM @ 3884 MLK Jr. Way Oakland, CA
Sampler: JC	Start Date: 5/3/2016
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 21.31	Depth to Water Pre: 14.36 Post: 14.37
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / (YSI Pro Plus)

Purge Method: Electric Submersible (Peristaltic Pump)
Sampling Method: (New Tubing) Dedicated Tubing other_____

Flow Rate: 200 mL/m Bladder Pump Pump Depth: 20.5 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	DTW / Observations
1121	18.1	6.53	762	10	0.74	-102	600	14.36
1124	18.7	6.48	762	8	0.56	-104	1200	14.36
1127	18.7	6.46	761	7	0.46	-106	1800	14.36
1130	18.7	6.45	757	8	0.40	-108	2400	14.37
1133	18.8	6.44	746	8	0.36	-110	3000	14.37
1136	18.8	6.44	757	9	0.37	-110	3600	14.37

Did well dewater? Yes (No) Amount actually evacuated: 3600 mL

Sampling Date: 5/3/16 Sampling Time: 1140

Sample I.D.: MW-5 Laboratory: Test America

Analyzed for: TPH-G , VOCs, TPH-D, TPH-MO (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 160503-JC1	Client: ERM @ 3884 MLK Jr. Way Oakland, CA
Sampler: JC	Start Date: 5/3/2016
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 18.71	Depth to Water Pre: 12.00 Post: 12.09
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / (YSI Pro Plus)

Purge Method: Electric Submersible (Peristaltic Pump)
Sampling Method: (New Tubing) Dedicated Tubing other_____

Flow Rate: 200mL/m Bladder Pump Pump Depth: 18 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	DTW / Observations
1211	19.4	6.78	1246	188	0.43	-145	600	12.02
1214	19.5	6.78	1242	79	0.42	-143	1200	12.04
1217	19.5	6.79	1244	20	0.30	-142	1800	12.05
1220	19.8	6.79	1242	12	0.30	-142	2400	12.07
1223	20.0	6.79	1242	10	0.29	-143	3000	12.08
1226	19.9	6.79	1240	8	0.28	-143	3600	12.09

Did well dewater? Yes (No) Amount actually evacuated: 3600mL

Sampling Date: 5 / 3 / 16 Sampling Time: 1230

Sample I.D.: MW-6 Laboratory: Test America

Analyzed for: TPH-G , VOCs, TPH-D, TPH-MO (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 160503-JC1	Client: ERM @ 3884 MLK Jr. Way Oakland, CA
Sampler: JC	Start Date: 5/3/2016
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 18.58	Depth to Water Pre: 10.86 Post: 10.89
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / YSI Pro Plus

Purge Method: Electric Submersible (Peristaltic Pump)
Sampling Method (New Tubing) Dedicated Tubing other_____

Flow Rate: 200 mL/m Bladder Pump Pump Depth: 18 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	DTW / Observations
0947	17.6	7.11	1028	85	4.31	-58	600	10.86
0950	17.6	7.07	1037	39	4.13	-54	1200	10.86
0953	17.2	7.06	1036	27	4.23	-53	1800	10.87
0956	17.6	7.06	1036	27	4.13	-51	2400	10.88
0959	17.5	7.05	1037	29	4.07	-51	3000	10.88
1002	17.4	7.05	1035	27	4.04	-51	3600	10.89

Did well dewater? Yes (No) Amount actually evacuated: 3600 mL

Sampling Date: 5 / 3 / 16 Sampling Time: 1005

Sample I.D.: MW-7 Laboratory: Test America

Analyzed for: TPH-G , VOCs, TPH-D, TPH-MO (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 160503-JC1	Client: ERM @ 3884 MLK Jr. Way Oakland, CA
Sampler: JC	Start Date: 5/3/2016
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 18.00	Depth to Water Pre: 10.50 Post: 10.54
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / YSI Pro Plus

Purge Method: Electric Submersible (Peristaltic Pump)
Sampling Method: (New Tubing) Dedicated Tubing other_____

Flow Rate: 200 ml/m Bladder Pump Pump Depth: 17 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	DTW / Observations
0916	18.6	7.15	833	32	3.46	-63	600	10.50
0919	18.5	7.15	830	17	3.13	-67	1200	10.51
0922	18.5	7.15	830	14	2.72	-69	1800	10.51
0925	18.4	7.13	828	10	2.43	-73	2400	10.53
0928	18.4	7.12	821	10	2.39	-74	3000	10.53
0931	18.4	7.12	826	12	2.37	-74	3600	10.54

Did well dewater? Yes (No) Amount actually evacuated: 3600 mL

Sampling Date: 5 / 3 / 16 Sampling Time: 0935

Sample I.D.: MW-8 Laboratory: Test America

Analyzed for: TPH-G , VOCs, TPH-D, TPH-MO (Other:) See COC

~~Equipment~~ TRIP Blank I.D.: TB-050320160 @ Time 0700 Duplicate I.D.:

SPH or Purge Water Drum Log

Client: ERM

Site Address: 3884 MLK Jr. Way

STATUS OF DRUM(S) UPON ARRIVAL						
Date	05/03/16					
Number of drum(s) empty:						
Number of drum(s) 1/4 full:	1					
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:						
Number of drum(s) full:						
Total drum(s) on site:	1					
Are the drum(s) properly labeled?	N					
Drum ID & Contents:	Purge H2O					
If any drum(s) are partially or totally filled, what is the first use date:	unknown					

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

-If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE						
Date	05/03/16					
Number of drums empty:						
Number of drum(s) 1/4 full:	1					
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:						
Number of drum(s) full:						
Total drum(s) on site:	1					
Are the drum(s) properly labeled?	~~N~~ Y					
Drum ID & Contents:	H2O Purge					

LOCATION OF DRUM(S)
Describe location of drum(s): Grassy area near building, South side of lot.

FINAL STATUS						
Number of new drum(s) left on site this event	0					
Date of inspection:	05/03/16					
Drum(s) labelled properly:	~~N~~ Y					
Logged by BTS Field Tech:	JC					
Office reviewed by:						

Appendix B
Analytical Results

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-71992-1
Client Project/Site: 3884 MLK Jr. Way GW Sampling
Revision: 1

For:
ERM-West
1277 Treat Blvd., Suite 500
Walnut Creek, California 94597

Attn: Giorgio Molinario

Authorized for release by:
5/13/2016 1:59:36 PM

Afsaneh Salimpour, Senior Project Manager
(925)484-1919
afsaneh.salimpour@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Job ID: 720-71992-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-71992-1

Revised Report on 5/13/16 to report sample MW-2 at lower dilution.

Comments

No additional comments.

Receipt

The samples were received on 5/3/2016 4:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.7° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-1 — Lab Sample ID: 720-71992-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	2.1		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 720-71992-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2500		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	76		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Toluene	55		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	44		20		ug/L	20		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	4200		1000		ug/L	20		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 720-71992-3

No Detections.

Client Sample ID: MW-4 — Lab Sample ID: 720-71992-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	720		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	650		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Naphthalene	84		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
Toluene	65		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	1400		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	8800		500		ug/L	10		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 720-71992-5

No Detections.

Client Sample ID: MW-6 — Lab Sample ID: 720-71992-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.6		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	77		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 720-71992-7

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-8 — Lab Sample ID: 720-71992-8

No Detections.

Client Sample ID: DUP-05032016 — Lab Sample ID: 720-71992-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2700		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	75		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Toluene	57		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	5100		5000		ug/L	100		8260B/CA_LUFT MS	Total/NA

Client Sample ID: TB-05032016 — Lab Sample ID: 720-71992-10

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-1
Date Collected: 05/03/16 12:05
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-1
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/10/16 01:27	1
1,2-Dichloroethane	**2.1**		0.50		ug/L			05/10/16 01:27	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/10/16 01:27	1
Ethylbenzene	ND		0.50		ug/L			05/10/16 01:27	1
Naphthalene	ND		1.0		ug/L			05/10/16 01:27	1
Toluene	ND		0.50		ug/L			05/10/16 01:27	1
Xylenes, Total	ND		1.0		ug/L			05/10/16 01:27	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/10/16 01:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*67 - 130*		*05/10/16 01:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*72 - 130*		*05/10/16 01:27*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*05/10/16 01:27*	*1*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-2
Date Collected: 05/03/16 13:00
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-2
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2500**		10		ug/L			05/13/16 01:01	20
1,2-Dichloroethane	ND		10		ug/L			05/13/16 01:01	20
cis-1,2-Dichloroethene	ND		10		ug/L			05/13/16 01:01	20
Ethylbenzene	**76**		10		ug/L			05/13/16 01:01	20
Naphthalene	ND		20		ug/L			05/13/16 01:01	20
Toluene	**55**		10		ug/L			05/13/16 01:01	20
Xylenes, Total	**44**		20		ug/L			05/13/16 01:01	20
Gasoline Range Organics (GRO) -C5-C12	**4200**		1000		ug/L			05/13/16 01:01	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*67 - 130*		*05/13/16 01:01*	*20*
1,2-Dichloroethane-d4 (Surr)	*104*		*72 - 130*		*05/13/16 01:01*	*20*
Toluene-d8 (Surr)	*100*		*70 - 130*		*05/13/16 01:01*	*20*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-3
Date Collected: 05/03/16 10:30
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-3
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/10/16 02:25	1
1,2-Dichloroethane	ND		0.50		ug/L			05/10/16 02:25	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/10/16 02:25	1
Ethylbenzene	ND		0.50		ug/L			05/10/16 02:25	1
Naphthalene	ND		1.0		ug/L			05/10/16 02:25	1
Toluene	ND		0.50		ug/L			05/10/16 02:25	1
Xylenes, Total	ND		1.0		ug/L			05/10/16 02:25	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/10/16 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*67 - 130*		*05/10/16 02:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*72 - 130*		*05/10/16 02:25*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*05/10/16 02:25*	*1*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-4
Date Collected: 05/03/16 11:15
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-4
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**720**		5.0		ug/L			05/10/16 16:07	10
1,2-Dichloroethane	ND		5.0		ug/L			05/10/16 16:07	10
cis-1,2-Dichloroethene	ND		5.0		ug/L			05/10/16 16:07	10
Ethylbenzene	**650**		5.0		ug/L			05/10/16 16:07	10
Naphthalene	**84**		10		ug/L			05/10/16 16:07	10
Toluene	**65**		5.0		ug/L			05/10/16 16:07	10
Xylenes, Total	**1400**		10		ug/L			05/10/16 16:07	10
Gasoline Range Organics (GRO) -C5-C12	**8800**		500		ug/L			05/10/16 16:07	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*67 - 130*		*05/10/16 16:07*	*10*
1,2-Dichloroethane-d4 (Surr)	*107*		*72 - 130*		*05/10/16 16:07*	*10*
Toluene-d8 (Surr)	*102*		*70 - 130*		*05/10/16 16:07*	*10*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-5
Date Collected: 05/03/16 11:40
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-5
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/10/16 03:24	1
1,2-Dichloroethane	ND		0.50		ug/L			05/10/16 03:24	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/10/16 03:24	1
Ethylbenzene	ND		0.50		ug/L			05/10/16 03:24	1
Naphthalene	ND		1.0		ug/L			05/10/16 03:24	1
Toluene	ND		0.50		ug/L			05/10/16 03:24	1
Xylenes, Total	ND		1.0		ug/L			05/10/16 03:24	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/10/16 03:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*67 - 130*		*05/10/16 03:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*72 - 130*		*05/10/16 03:24*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/10/16 03:24*	*1*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-6
Date Collected: 05/03/16 12:30
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-6
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.6**		0.50		ug/L			05/10/16 03:53	1
1,2-Dichloroethane	ND		0.50		ug/L			05/10/16 03:53	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/10/16 03:53	1
Ethylbenzene	ND		0.50		ug/L			05/10/16 03:53	1
Naphthalene	ND		1.0		ug/L			05/10/16 03:53	1
Toluene	ND		0.50		ug/L			05/10/16 03:53	1
Xylenes, Total	ND		1.0		ug/L			05/10/16 03:53	1
Gasoline Range Organics (GRO) -C5-C12	**77**		50		ug/L			05/10/16 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*67 - 130*		*05/10/16 03:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*72 - 130*		*05/10/16 03:53*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*05/10/16 03:53*	*1*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-7
Date Collected: 05/03/16 10:05
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-7
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/10/16 04:23	1
1,2-Dichloroethane	ND		0.50		ug/L			05/10/16 04:23	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/10/16 04:23	1
Ethylbenzene	ND		0.50		ug/L			05/10/16 04:23	1
Naphthalene	ND		1.0		ug/L			05/10/16 04:23	1
Toluene	ND		0.50		ug/L			05/10/16 04:23	1
Xylenes, Total	ND		1.0		ug/L			05/10/16 04:23	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/10/16 04:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*67 - 130*		*05/10/16 04:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*72 - 130*		*05/10/16 04:23*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*05/10/16 04:23*	*1*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-8
Date Collected: 05/03/16 09:35
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-8
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/10/16 04:52	1
1,2-Dichloroethane	ND		0.50		ug/L			05/10/16 04:52	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/10/16 04:52	1
Ethylbenzene	ND		0.50		ug/L			05/10/16 04:52	1
Naphthalene	ND		1.0		ug/L			05/10/16 04:52	1
Toluene	ND		0.50		ug/L			05/10/16 04:52	1
Xylenes, Total	ND		1.0		ug/L			05/10/16 04:52	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/10/16 04:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*67 - 130*		*05/10/16 04:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*72 - 130*		*05/10/16 04:52*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*05/10/16 04:52*	*1*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: DUP-05032016
Date Collected: 05/03/16 13:15
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-9
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2700**		50		ug/L			05/10/16 05:22	100
1,2-Dichloroethane	ND		50		ug/L			05/10/16 05:22	100
cis-1,2-Dichloroethene	ND		50		ug/L			05/10/16 05:22	100
Ethylbenzene	**75**		50		ug/L			05/10/16 05:22	100
Naphthalene	ND		100		ug/L			05/10/16 05:22	100
Toluene	**57**		50		ug/L			05/10/16 05:22	100
Xylenes, Total	ND		100		ug/L			05/10/16 05:22	100
Gasoline Range Organics (GRO) -C5-C12	**5100**		5000		ug/L			05/10/16 05:22	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*67 - 130*		*05/10/16 05:22*	*100*
1,2-Dichloroethane-d4 (Surr)	*106*		*72 - 130*		*05/10/16 05:22*	*100*
Toluene-d8 (Surr)	*101*		*70 - 130*		*05/10/16 05:22*	*100*

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: TB-05032016
Date Collected: 05/03/16 07:00
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-10
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/09/16 22:01	1
1,2-Dichloroethane	ND		0.50		ug/L			05/09/16 22:01	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/09/16 22:01	1
Ethylbenzene	ND		0.50		ug/L			05/09/16 22:01	1
Naphthalene	ND		1.0		ug/L			05/09/16 22:01	1
Toluene	ND		0.50		ug/L			05/09/16 22:01	1
Xylenes, Total	ND		1.0		ug/L			05/09/16 22:01	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/09/16 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*67 - 130*		*05/09/16 22:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*72 - 130*		*05/09/16 22:01*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*05/09/16 22:01*	*1*

Surrogate Summary

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	12DCE	TOL
Lab Sample ID	Client Sample ID	(67-130)	(72-130)	(70-130)
720-71992-1	MW-1	101	111	101
720-71992-2	MW-2	102	104	100
720-71992-3	MW-3	99	105	100
720-71992-4	MW-4	103	107	102
720-71992-5	MW-5	100	107	99
720-71992-6	MW-6	101	110	101
720-71992-7	MW-7	100	107	100
720-71992-8	MW-8	98	108	101
720-71992-9	DUP-05032016	98	106	101
720-71992-10	TB-05032016	98	104	101
LCS 720-201911/5	Lab Control Sample	100	100	101
LCS 720-201911/7	Lab Control Sample	99	103	101
LCS 720-201931/5	Lab Control Sample	101	104	102
LCS 720-201931/7	Lab Control Sample	102	105	102
LCS 720-202188/5	Lab Control Sample	100	100	101
LCS 720-202188/7	Lab Control Sample	101	107	102
LCSD 720-201911/6	Lab Control Sample Dup	99	101	103
LCSD 720-201911/8	Lab Control Sample Dup	100	104	102
LCSD 720-201931/6	Lab Control Sample Dup	103	107	102
LCSD 720-201931/8	Lab Control Sample Dup	100	105	101
LCSD 720-202188/6	Lab Control Sample Dup	98	99	102
LCSD 720-202188/8	Lab Control Sample Dup	99	104	100
MB 720-201911/4	Method Blank	102	104	102
MB 720-201931/4	Method Blank	100	105	101
MB 720-202188/4	Method Blank	98	104	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-201911/4
Matrix: Water
Analysis Batch: 201911

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/09/16 19:05	1
1,2-Dichloroethane	ND		0.50		ug/L			05/09/16 19:05	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/09/16 19:05	1
Ethylbenzene	ND		0.50		ug/L			05/09/16 19:05	1
Naphthalene	ND		1.0		ug/L			05/09/16 19:05	1
Toluene	ND		0.50		ug/L			05/09/16 19:05	1
Xylenes, Total	ND		1.0		ug/L			05/09/16 19:05	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/09/16 19:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*67 - 130*		*05/09/16 19:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*72 - 130*		*05/09/16 19:05*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*05/09/16 19:05*	*1*

Lab Sample ID: LCS 720-201911/5
Matrix: Water
Analysis Batch: 201911

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	27.1		ug/L		109	79 - 130
1,2-Dichloroethane	25.0	27.0		ug/L		108	61 - 132
cis-1,2-Dichloroethene	25.0	27.9		ug/L		111	70 - 130
Ethylbenzene	25.0	27.1		ug/L		108	80 - 120
Naphthalene	25.0	26.9		ug/L		108	50 - 130
Toluene	25.0	26.8		ug/L		107	78 - 120
m-Xylene & p-Xylene	25.0	26.8		ug/L		107	70 - 142
o-Xylene	25.0	26.8		ug/L		107	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*100*		*72 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCS 720-201911/7
Matrix: Water
Analysis Batch: 201911

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	566		ug/L		113	71 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*103*		*72 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-201911/6
Matrix: Water
Analysis Batch: 201911

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			25.0	27.1		ug/L		109	79 - 130	0	20
1,2-Dichloroethane			25.0	26.7		ug/L		107	61 - 132	1	20
cis-1,2-Dichloroethene			25.0	27.7		ug/L		111	70 - 130	1	20
Ethylbenzene			25.0	27.2		ug/L		109	80 - 120	1	20
Naphthalene			25.0	28.6		ug/L		115	50 - 130	6	20
Toluene			25.0	26.8		ug/L		107	78 - 120	0	20
m-Xylene & p-Xylene			25.0	27.0		ug/L		108	70 - 142	1	20
o-Xylene			25.0	26.9		ug/L		107	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*101*		*72 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 720-201911/8
Matrix: Water
Analysis Batch: 201911

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			500	563		ug/L		113	71 - 125	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*72 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 720-201931/4
Matrix: Water
Analysis Batch: 201931

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/10/16 08:46	1
1,2-Dichloroethane	ND		0.50		ug/L			05/10/16 08:46	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/10/16 08:46	1
Ethylbenzene	ND		0.50		ug/L			05/10/16 08:46	1
Naphthalene	ND		1.0		ug/L			05/10/16 08:46	1
Toluene	ND		0.50		ug/L			05/10/16 08:46	1
Xylenes, Total	ND		1.0		ug/L			05/10/16 08:46	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/10/16 08:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*67 - 130*		*05/10/16 08:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*72 - 130*		*05/10/16 08:46*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*05/10/16 08:46*	*1*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-201931/5
Matrix: Water
Analysis Batch: 201931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	26.5		ug/L		106	79 - 130
1,2-Dichloroethane	25.0	26.9		ug/L		108	61 - 132
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	70 - 130
Ethylbenzene	25.0	26.5		ug/L		106	80 - 120
Naphthalene	25.0	28.6		ug/L		114	50 - 130
Toluene	25.0	26.1		ug/L		104	78 - 120
m-Xylene & p-Xylene	25.0	26.4		ug/L		106	70 - 142
o-Xylene	25.0	26.4		ug/L		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*72 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCS 720-201931/7
Matrix: Water
Analysis Batch: 201931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	574		ug/L		115	71 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*72 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 720-201931/6
Matrix: Water
Analysis Batch: 201931

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	27.1		ug/L		108	79 - 130	2	20
1,2-Dichloroethane	25.0	28.1		ug/L		112	61 - 132	4	20
cis-1,2-Dichloroethene	25.0	28.0		ug/L		112	70 - 130	3	20
Ethylbenzene	25.0	26.7		ug/L		107	80 - 120	1	20
Naphthalene	25.0	30.2		ug/L		121	50 - 130	5	20
Toluene	25.0	26.3		ug/L		105	78 - 120	1	20
m-Xylene & p-Xylene	25.0	26.6		ug/L		107	70 - 142	1	20
o-Xylene	25.0	26.7		ug/L		107	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*107*		*72 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-201931/8
Matrix: Water
Analysis Batch: 201931

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			500	566		ug/L		113	71 - 125	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*72 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 720-202188/4
Matrix: Water
Analysis Batch: 202188

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/12/16 19:38	1
1,2-Dichloroethane	ND		0.50		ug/L			05/12/16 19:38	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/12/16 19:38	1
Ethylbenzene	ND		0.50		ug/L			05/12/16 19:38	1
Naphthalene	ND		1.0		ug/L			05/12/16 19:38	1
Toluene	ND		0.50		ug/L			05/12/16 19:38	1
Xylenes, Total	ND		1.0		ug/L			05/12/16 19:38	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/12/16 19:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*67 - 130*		*05/12/16 19:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*72 - 130*		*05/12/16 19:38*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*05/12/16 19:38*	*1*

Lab Sample ID: LCS 720-202188/5
Matrix: Water
Analysis Batch: 202188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			25.0	26.7		ug/L		107	79 - 130
1,2-Dichloroethane			25.0	26.4		ug/L		106	61 - 132
cis-1,2-Dichloroethene			25.0	27.4		ug/L		110	70 - 130
Ethylbenzene			25.0	27.1		ug/L		108	80 - 120
Naphthalene			25.0	27.5		ug/L		110	50 - 130
Toluene			25.0	26.9		ug/L		107	78 - 120
m-Xylene & p-Xylene			25.0	26.9		ug/L		108	70 - 142
o-Xylene			25.0	26.9		ug/L		108	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*100*		*72 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-202188/7
Matrix: Water
Analysis Batch: 202188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C5-C12			500	582		ug/L		116	71 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*107*		*72 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 720-202188/6
Matrix: Water
Analysis Batch: 202188

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			25.0	26.8		ug/L		107	79 - 130	0	20
1,2-Dichloroethane			25.0	26.5		ug/L		106	61 - 132	0	20
cis-1,2-Dichloroethene			25.0	27.3		ug/L		109	70 - 130	0	20
Ethylbenzene			25.0	26.7		ug/L		107	80 - 120	1	20
Naphthalene			25.0	27.6		ug/L		111	50 - 130	0	20
Toluene			25.0	26.3		ug/L		105	78 - 120	2	20
m-Xylene & p-Xylene			25.0	26.7		ug/L		107	70 - 142	1	20
o-Xylene			25.0	26.6		ug/L		107	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*72 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 720-202188/8
Matrix: Water
Analysis Batch: 202188

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			500	573		ug/L		115	71 - 125	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*72 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

GC/MS VOA

Analysis Batch: 201911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71992-1	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
720-71992-3	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
720-71992-5	MW-5	Total/NA	Water	8260B/CA_LUFT MS	
720-71992-6	MW-6	Total/NA	Water	8260B/CA_LUFT MS	
720-71992-7	MW-7	Total/NA	Water	8260B/CA_LUFT MS	
720-71992-8	MW-8	Total/NA	Water	8260B/CA_LUFT MS	
720-71992-9	DUP-05032016	Total/NA	Water	8260B/CA_LUFT MS	
720-71992-10	TB-05032016	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-201911/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-201911/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-201911/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-201911/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-201911/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 201931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71992-4	MW-4	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-201931/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-201931/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-201931/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-201931/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-201931/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 202188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71992-2	MW-2	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-202188/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-202188/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-202188/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-202188/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-202188/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Lab Chronicle

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-1
Date Collected: 05/03/16 12:05
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	201911	05/10/16 01:27	LPL	TAL PLS

Client Sample ID: MW-2
Date Collected: 05/03/16 13:00
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		20	202188	05/13/16 01:01	LPL	TAL PLS

Client Sample ID: MW-3
Date Collected: 05/03/16 10:30
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	201911	05/10/16 02:25	LPL	TAL PLS

Client Sample ID: MW-4
Date Collected: 05/03/16 11:15
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	201931	05/10/16 16:07	LPL	TAL PLS

Client Sample ID: MW-5
Date Collected: 05/03/16 11:40
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	201911	05/10/16 03:24	LPL	TAL PLS

Client Sample ID: MW-6
Date Collected: 05/03/16 12:30
Date Received: 05/03/16 16:50

Lab Sample ID: 720-71992-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	201911	05/10/16 03:53	LPL	TAL PLS

Lab Chronicle

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Client Sample ID: MW-7

Lab Sample ID: 720-71992-7

Date Collected: 05/03/16 10:05
Matrix: Water
Date Received: 05/03/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	201911	05/10/16 04:23	LPL	TAL PLS

Client Sample ID: MW-8

Lab Sample ID: 720-71992-8

Date Collected: 05/03/16 09:35
Matrix: Water
Date Received: 05/03/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	201911	05/10/16 04:52	LPL	TAL PLS

Client Sample ID: DUP-05032016

Lab Sample ID: 720-71992-9

Date Collected: 05/03/16 13:15
Matrix: Water
Date Received: 05/03/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		100	201911	05/10/16 05:22	LPL	TAL PLS

Client Sample ID: TB-05032016

Lab Sample ID: 720-71992-10

Date Collected: 05/03/16 07:00
Matrix: Water
Date Received: 05/03/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	201911	05/09/16 22:01	LPL	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-17

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: ERM-West
Project/Site: 3884 MLK Jr. Way GW Sampling

TestAmerica Job ID: 720-71992-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-71992-1	MW-1	Water	05/03/16 12:05	05/03/16 16:50
720-71992-2	MW-2	Water	05/03/16 13:00	05/03/16 16:50
720-71992-3	MW-3	Water	05/03/16 10:30	05/03/16 16:50
720-71992-4	MW-4	Water	05/03/16 11:15	05/03/16 16:50
720-71992-5	MW-5	Water	05/03/16 11:40	05/03/16 16:50
720-71992-6	MW-6	Water	05/03/16 12:30	05/03/16 16:50
720-71992-7	MW-7	Water	05/03/16 10:05	05/03/16 16:50
720-71992-8	MW-8	Water	05/03/16 09:35	05/03/16 16:50
720-71992-9	DUP-05032016	Water	05/03/16 13:15	05/03/16 16:50
720-71992-10	TB-05032016	Water	05/03/16 07:00	05/03/16 16:50

BLAINE
TECH SERVICES, INC

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS #

CLIENT ERM

SITE 3884 MLK Jr. Way

Oakland, CA

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB TA DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ LIA ☐ RWQCB REGION

720-71992

5/13/2016

SPECIAL INSTRUCTIONS

Invoice and Report to : ERM

Attn: Giorgio Molinario 168428

Project # 0307273.05

Geotracker EDD files are required

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL	VOCs	CONDITION	LAB SAMPLE
MW-1	05/03/16	1205	W	3	X		
MW-2	"	1300	"	3	"		
MW-3		1030		3			
MW-4		1115		3			
MW-5		1140		3			
MW-6		1230		3			
MW-7		1005		3			
MW-8		0935		3			
DUP-05032016		1315		3			
TB-05032016		0700		3			

720-71992 Chain of Custody

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SAMPLING COMPLETED DATE 05/03/16 TIME 1330

SAMPLING PERFORMED BY JACOB Cummings

RESULTS NEEDED NO LATER THAN Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	05/03/16	1430		5/3/16	1430
	5/3/16	1650		5/3/16	1650

SHIPPED VIA | DATE SENT | TIME SENT | COOLER # | 5.7°C

BLAINE
TECH SERVICES, INC

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SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS #

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☐ EPA ☐ LIA ☐ RWQCB REGION _____

SPECIAL INSTRUCTIONS

720-71992

5/13/2016

Invoice and Report to : ERM

Attn: Giorgio Molinario 168428

Project # 0307273.05

Geotracker EDD files are required

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL	VOCs	CONDITION	LAB SAMPLE
MW-1	05/03/16	1205	W	3	X		
MW-2	"	1300	"	3	"		
MW-3		1030		3			
MW-4		1115		3			
MW-5		1140		3			
MW-6		1230		3			
MW-7		1005		3			
MW-8		0935		3			
DUP-05032016		1315		3			
TB-05032016		0700		3			

720-71992 Chain of Custody

Page 30 of 31

SAMPLING COMPLETED	DATE	TIME
	05/03/16	1330

SAMPLING PERFORMED BY JACOB Cummings

RESULTS NEEDED NO LATER THAN Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	05/03/16	1430		5/3/16	1430
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	5/3/16	1650		5/3/16	1650
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #
			5.7°C

per client clo the short list. AS. 5/4/16

Login Sample Receipt Checklist

Client: ERM-West

Job Number: 720-71992-1

Login Number: 71992
List Number: 1
Creator: Bullock, Tracy

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	