ARC™
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Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Re: ARC Document Solutions (Formerly City Blue Print)
RWQCB Case#01-0210
1700 Jefferson St
Oakland CA, 94612

ARC has directed Applied Water Resources Corporation (AWR) to provide, on our behalf, professional environmental consulting services to the best of their ability. To the best of my knowledge, the information in this report is accurate and all local Agency and/or Regional Water Quality Control Board regulations and guidelines have been followed.

This report was prepared by AWR and ARC has relied on their advice and assistance. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Matt Westbrock - Asst. Corp. Controller
Authorized Representative

Attachment: Report

APPLIED WATER RESOURCES
CORPORATION

2363 Mariner Square Drive, Suite 245, Alameda, California 94501
925 426 1112

May 31, 2016

Matthew Westbrock
ARC Document Solutions
1981 N Broadway #385
Walnut Creek, CA 94596

RE: Annual Ground Water Monitoring Report, 2016
1700 Jefferson Street, Oakland, California
Fuel Leak Case No. RO 151

Dear Mr. Westbrock:

Applied Water Resources (AWR) encloses herein one copy of the Annual Ground Water Monitoring Report for 1700 Jefferson Street, Oakland, California. AWR will also upload the Report along with monitor well sampling and analytical data to the Regional Water Quality Control Board's GeoTracker database.

If you have any questions regarding this report or the findings of the work, please contact me at (925) 426-1112 or email me at ybayram@awrcorp.net

Sincerely,

Staff Geologist

cc: Mr. Mark Detterman, Alameda County Department of Environmental Health

ANNUAL GROUND WATER MONITORING REPORT 2016

1700 Jefferson, Oakland, CA

May 2016

APPLIED WATER RESOURCES

ANNUAL GROUND WATER MONITORING REPORT

2016

May 2016

1700 Jefferson Street

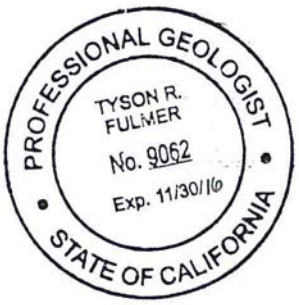
Oakland, California

Prepared for:

ARC Document Solutions
1981 N Broadway #385
Walnut Creek, CA 94596

Prepared by:
Applied Water Resources Corporation
Alameda, California

May 2016



Prepared By:

Yola Bayram
Staff Geologist

Reviewed By:

Tyson Fulmer, PG
Project Geologist

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1.0 INTRODUCTION

This Annual Ground Water Monitoring Report, 2016 was prepared by Applied Water Resources Corporation (AWR) on behalf of ARC Document Solutions. This Report describes ground water monitoring work performed at 1700 Jefferson Street, Oakland, California (Site). The project objectives were to sample and analyze ground water from five existing monitor wells, measure the depth to ground water in all existing wells to calculate ground water gradient magnitude and direction, evaluate analytical results, and report the findings.

2.0 BACKGROUND AND SITE HISTORY

The Site is located on the northeast corner of the intersection of Jefferson Street and 17th Street in Oakland, California. The Site is a former gas station that had two 1,000-gallon gasoline underground storage tanks (USTs) and one 550-gallon waste oil UST.

Beginning in 1987, the following activities were conducted at the Site:

- On February 20, 1987, three borings (Borings 1 through 3) were advanced for a geotechnical investigation. Two additional borings (Borings 4 and 5) were advanced near the former USTs. On June 16, 1987, three gasoline USTs, product lines and dispensers were removed, overexcavated, and backfilled without confirmation sampling (HLA, 1987). Soil was excavated to approximately 9.5 feet, which was the maximum reach of the excavation equipment. The soil was stockpiled and then spread out for aeration. The excavation was subsequently backfilled on August 5 and 6, 1987 with the aerated soil.

- Three ground water monitor wells were installed in June 1987 (MW-1 to MW-3). Well MW-1 initially contained 30 inches of free-phase floating product (free product). Well MW-2 was subsequently destroyed in 1987 when the current building was constructed. On August 12, 1987, Boring 6 was advanced to investigate soil permeability.

- In January 1988, ground water extraction wells MW-1A and MW-4 were installed to remove free product. In August 1988, off-site well MW-5 was installed.

- Free product was removed from well MW-1 on a daily basis yielding an estimated 2,300 gallons of free product from September 1987 to March 1991 (HLA, 1991). A ground water extraction and treatment system was installed in June 1992.

- The system was removed in July 1999, after extracting an additional 867 gallons of free product. Five Cone Penetrometer Test (CPT) borings both south of the Site and north of well MW-5 were advanced in March 1995.

- In April 1996, well MW-6 was installed (HLA 1999). In April 1998, analyses showed the free product consisted of leaded gasoline. Measurable thickness of free product has not been observed in the wells since 1999.

- In 1999, oxygen release compound (ORC®) socks were placed in wells MW-1A, MW-3, MW-4, and MW-5. The ORC® socks were removed at the request of Alameda County Department of Environmental Health in 2002.

- Quarterly ground water monitoring of wells MW-1, MW-3, MW-5, and MW-6 was conducted from January 1994 through March 2009, when semi-annual monitoring commenced. Ground water extraction wells MW-1A and MW-4 were periodically sampled from August 1991 to June 1999.

- On April 15, 2010, all monitor wells were surveyed by Muir Consulting of Oakdale, California to Geotracker specifications using NAVD88 datum. The prior monitor well elevations referenced the City of Oakland datum, which differs -5.7 feet from NAVD88, the standard national datum.

- In April of 2011, three wells were installed at the Merrill Sign Company (Merrill Site), a RWQCB site located on the corner of 18th and Jefferson St (PDE, 2011). AWR coordinated with PDE, the consulting company managing the site, to measure depth to water and collected ground water samples in the monitor wells at the Merrill Site. Results are provided in Table 3. The Merrill Site was given case closure on July 31, 2012 and the monitor wells associated with this site were destroyed shortly after.

- In 2013, AWR performed an investigation to identify utility corridors and remaining USTs, pipelines and other infrastructure associated within the former gas station and to determine whether a preferential contaminant migration pathway exists along the utility corridor to explain the elevated concentrations of petroleum observed in MW-5. Results are provided in a March 27, 2014 addendum (AWR, 2014).

- In September 2014, ground water samples were analyzed for ethanol, lead scavengers, and fuel oxygenates. Ethanol was not detected in any of the samples. 1,2-dicholoroethane (1,2-DCA) was detected in MW-1, MW-4, and MW-5. However, concentrations were below the ESL for ground water based threat to indoor air.

2.1 Subsurface Conditions

Boring logs show that silty sand and clayey sand are present from the surface to a depth of approximately 17.5 feet below ground surface (bgs). Sand was reported in site soil borings and well logs from approximately 17.5 to 31.0 feet bgs with the exception of MW-5 where sand was reported from the surface to 31.0 feet bgs with a layer of silty sand from 6 to 12 feet bgs. These soils are underlain by stiff to very stiff, saturated silty clays to the maximum explored depth of 41.5 feet bgs. Ground water was encountered at approximately 23 feet bgs in the boreholes. A geologic cross-section is provided in the Work Plan (AWR, January 2013). Additional data is being collected as part of the implementation of a Work Plan (AWR, 2015). A revised conceptual site model will be submitted under separate cover, with updated cross sections to reflect the new geologic data.

3.0 GROUND WATER MONITORING AND SAMPLING ACTIVITIES

Ground water monitoring and sampling of the Site was performed on March 30, 2016 by AWR personnel. Work at the Site included measuring depth to water, subjectively evaluating the possible presence of petroleum in ground water in the wells, purging and sampling the wells using ASTM low-flow sampling techniques (ASTM, 2006), and submitting the samples under chain of custody to a NELAP laboratory for analysis. All field work was conducted under the direct supervision of a Professional Geologist.

Ground water elevation data are summarized in Table 1, gradient data are summarized in Table 2, and analytical data are summarized in Table 3. Field sheets of recently recorded ground water monitoring data are included in Appendix A.

3.1 Depth to Water and Ground Water Gradient

Before purging and sampling ground water, depth to water was measured from the top of each well casing using an electronic water level meter. The water level measurements were recorded to the nearest 0.01 foot, consistent with the surveyed elevation data.

Ground water elevation contours are illustrated on Figure 3. The ground water gradient direction is to the west-northwest at an average of 0.002 ft/ft. The gradient is adjusted due to the knowledge of previous data collected from the Merrill Sign site. A rose diagram depicting cumulative ground water gradients is presented in Figure 6.

3.2 Ground Water Sampling

Before ground water sampling, each well was purged using low-flow techniques described in the "Low-Flow (Minimal Drawdown) Ground Water Sampling Procedures" (ASTM No 6771-02, 2002). Dedicated tubing, attached to a peristaltic pump, was lowered to the mid-point of the reported screen zone. The pump was set to a rate of less than 1 liter per minute and pH, dissolved oxygen (DO), specific conductance (SC), oxidation reduction potential (ORP), depth to water (DTW) and temperature were measured in three to five minute intervals within a flow-through cell. When depth to water remained constant and parameters stabilized, the pump rate was reduced, the tube was disconnected from the flow-through cell and samples were collected directly from the dedicated tubing.

From each monitor well, three laboratory-supplied 40-milliliter HCL-preserved sample VOA vials were filled with ground water and sealed with zero headspace. Once filled, sample vials were inverted and tapped to test for air bubbles. Sample containers were labeled and stored in a pre-chilled and transported to McCampbell Analytical, a NELAP certified analytical laboratory, following standard COC protocols for the requested analyses.

Water purged during the development and sampling of the monitor wells is being temporarily stored onsite in a 55-gallon drum pending laboratory analysis and off-site disposal.

4.0 RESULTS OF GROUND WATER SAMPLING

Ground water samples collected from wells MW-1, MW-3, MW-4, MW-5, and MW-6 were analyzed for Total Petroleum Hydrocarbon as Gasoline (TPHg), benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8260B. The TPHg number represents the total concentration of purgeable hydrocarbons in the C6 to C12 carbon chain range, using a laboratory response factor calibrated to a gasoline standard. Copies of the chain of custody record and laboratory analytical reports with individual and standard chromatograms are included as Appendix B. Analytical results are summarized in Table 3.

5.0 DISCUSSION

The available data collected at 1700 Jefferson Street indicates that ground water has been affected by fuel from the former USTs. In Table 3, ground water concentrations are compared to RWQCB Environmental Screening Levels (ESLs) (RWQCB 2016). Ground water use as a potential source of drinking water in this area is highly unlikely due to the site location and the high quality public drinking water supplied by EBMUD. Therefore, ground water ESLs for evaluation of potential vapor intrusion were selected for BTEX compounds. Because there is no ground water based threat to indoor air ESL listed for TPHg, the direct exposure limit is listed instead.

Charts 1 and 2 depict the trends of TPHg and benzene respectively in the monitor wells MW-1, MW-3, and MW-5 over time. Figures 4 and 5 show the distribution of TPHg and benzene in ground water at the Site.

6.0 SUMMARY

Based on the results of ground water monitoring performed at 1700 Jefferson Street:

- Ground water gradient direction is to the west-northwest at an average of 0.002 ft/ft.
- Compared to the concentrations measured in 2015, benzene increased in MW-1 and MW-4 in the 2016 monitoring event. TPHg concentrations decreased in MW-1 and MW-3, when compared to data from 2015.
- No detectable TPHg and BTEX concentrations were reported in the crossgradient well MW-6.
- From 1999 to 2016, concentrations of TPHg, benzene, toluene, ethylbenzene, and total xylenes all decreased by an order of magnitude in MW-4.
- Despite seasonal fluctuations, concentrations in ground water have remained relatively stable over the past 10 years as depicted in Charts 1 and 2.

7.0 REFERENCES

ASTM 2002. *Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations.* Designation: D 6771-02

AWR, *Work Plan Addendum, 1700 Jefferson Street,* Oakland CA, March 2014.

AWR, *Work Plan Addendum, 1700 Jefferson Street,* Oakland CA, December 2015.

AWR, *Conceptual Site Model and Work Plan, ARC 1700 Jefferson St, Oakland CA*, January 2013

HLA, Additional Investigations, October 1989.

HLA, Drilled Pier Soil Analysis, January 1988.

HLA, Final Report: Soil Aeration and Tank Excavation Backfilling, November 1987.

HLA, Final Report: Ground Water Investigation, November 1987.

HLA, Groundwater Investigation, July 27, 1999.

HLA, Memorandum to Alameda County Environmental Health Service, October 27, 1987.

HLA, Off-Site Hydrogeologic Investigation, November 1988.

HLA, Preliminary Hazardous Waste Assessment, June 1987.

HLA, Professional Services during Tank Removal, August 1987.

HLA, Soil Permeability Results, January 1988.

P&D Environmental (PDE), Ground Water Monitoring Well Installation Report, Merrill Sign Company, May 2011

Regional Water Quality Control Board-San Francisco Bay Region, Update to Environmental Screening Levels ESL Workbook, http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml, February 2016

TABLES

Table 1
GROUND WATER ELEVATIONS
1700 Jefferson Street, Oakland, California

1700 Jefferson St, ARC Document Solutions

Well ID	MW-1		MW-1A		MW-3		MW-4		MW-5		MW-6	
Top of Casing (ft above MSL)	36.81		35.25		36.23		36.77		35.21		35.91	
Date	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)
7/8/1987	25.75	5.69	--	--	25.50	6.27	--	--	--	--	--	--
7/12/1989	26.00	5.44	--	--	24.44	7.33	--	--	24.91	4.31	--	--
Data not available from 1990 to 1995												
3/6/1996	NS	--	--	--	24.79	6.98	--	--	23.53	7.03	NA	---
6/11/1996	FP	--	--	--	25.60	6.17	--	--	23.78	6.78	25.16	6.10
9/19/1996	FP	--	--	--	26.09	5.68	--	--	24.48	6.08	25.76	5.50
12/23/1996	FP	--	--	--	FP	---	--	--	24.83	5.73	25.88	5.38
3/27/1997	FP	--	--	--	FP	---	--	--	23.82	6.74	24.78	6.48
6/4/1997	26.41	5.95	--	--	25.11	6.66	--	--	23.92	6.64	24.60	6.66
9/26/1997	26.80	5.56	--	--	25.41	6.36	--	--	24.29	6.27	24.80	6.46
12/22/1997	26.00	6.36	--	--	24.91	6.86	--	--	24.02	6.54	24.71	6.55
3/31/1998	26.06	6.30	--	--	24.05	7.72	--	--	22.78	7.78	23.75	7.51
6/18/1998	25.60	6.76	--	--	23.71	8.06	--	--	22.51	8.05	23.22	8.04
8/28/1998	25.45	6.91	--	--	23.70	8.07	--	--	22.74	7.82	22.23	9.03
12/2/1998	24.92	7.44	--	--	23.60	8.17	--	--	23.16	7.40	23.72	7.54
3/10/1999	24.90	7.46	--	--	22.65	9.12	--	--	22.82	7.74	23.54	7.72
6/30/1999	25.53	6.83	--	--	23.07	8.70	--	--	22.41	8.15	23.04	8.22
9/29/1999	24.23	8.13	--	--	23.03	8.74	--	--	22.81	7.75	23.42	7.84
11/22/1999	24.33	8.03	--	--	23.68	8.09	--	--	22.88	7.68	23.64	7.62
2/11/2000	24.38	7.98	--	--	23.74	8.03	--	--	22.74	7.82	23.67	7.59
5/30/2000	23.57	8.79	--	--	22.97	8.80	--	--	21.73	8.83	22.82	8.44
9/15/2000	23.85	8.51	--	--	23.12	8.65	--	--	22.14	8.42	23.10	8.16
11/16/2000	24.14	8.22	--	--	23.40	8.37	--	--	22.39	8.17	23.41	7.85
4/2/2001	23.40	8.96	--	--	23.40	8.37	--	--	22.07	8.49	23.33	7.93
6/28/2001	23.58	8.78	--	--	23.17	8.60	--	--	22.15	8.41	23.15	8.11
8/30/2001	24.00	8.36	--	--	23.35	7.42	--	--	22.35	8.21	23.35	7.91
12/26/2001	24.18	8.18	--	--	23.54	8.23	--	--	22.49	8.07	23.27	7.99
4/23/2002	NA	--	--	--	22.89	8.88	--	--	21.07	9.49	22.89	8.37
6/14/2002	23.41	8.95	--	--	22.85	8.92	--	--	21.80	8.76	22.81	8.45
8/20/2002	23.85	8.51	--	--	23.11	8.66	--	--	22.14	8.42	23.15	8.11
12/27/2002	24.10	8.26	--	--	23.34	8.43	--	--	NA[1]	NA[1]	23.41	7.85
4/1/2003	23.75	8.61	--	--	22.90	8.87	--	--	NA[1]	NA[1]	23.16	8.10
7/1/2003	23.50	8.86	--	--	22.80	8.97	--	--	NA[1]	NA[1]	22.75	8.51
9/24/2003	23.82	8.54	--	--	23.15	8.62	--	--	22.21	8.35	23.16	8.10
12/29/2003	24.07	8.29	--	--	23.45	8.32	--	--	22.56	8.00	23.47	7.79
5/18/2004	23.64	8.72	--	--	22.98	8.79	--	--	21.85	8.71	22.87	8.39
6/30/2004	23.64	8.72	--	--	23.04	8.73	--	--	22.00	8.56	22.43	8.83
9/23/2004	23.98	8.38	--	--	23.32	8.45	--	--	22.36	8.20	23.30	7.96
12/28/2004	24.07	8.29	--	--	28.71	3.06	--	--	22.42	8.14	23.42	7.84
3/16/2005	23.80	8.56	--	--	23.70	8.07	--	--	22.11	8.45	23.60	7.66
6/23/2005	22.90	9.46	--	--	22.40	9.37	--	--	21.20	9.36	22.27	8.99
9/9/2005	23.27	9.09	--	--	22.63	9.14	--	--	21.68	8.88	22.55	8.71
12/2/2005	23.75	8.61	--	--	23.06	8.74	--	--	22.19	8.37	23.05	8.21
3/24/2006	23.05	9.31	--	--	22.57	9.20	--	--	21.01	9.55	22.50	8.76
6/29/2006	22.56	9.80	--	--	23.91	9.84	--	--	20.78	9.78	21.85	9.41
9/13/2006	23.00	9.36	--	--	22.35	9.42	--	--	21.35	9.21	22.31	8.95
12/27/2006	23.47	8.89	--	--	22.82	8.95	--	--	21.82	8.74	22.85	8.41
3/30/2007	23.51	8.85	--	--	22.91	8.86	--	--	21.70	8.86	22.88	8.38
7/2/2007	23.39	8.97	--	--	22.88	8.89	--	--	21.81	8.75	22.75	8.51
10/2/2007	23.87	8.49	--	--	23.20	8.57	--	--	22.22	8.34	23.17	8.09
12/13/2007	24.05	8.31	--	--	23.40	8.37	--	--	22.31	8.25	23.37	7.89
3/26/2008	23.56	8.80	--	--	23.00	8.77	--	--	21.77	8.79	22.97	8.29
6/2/2008	23.70	8.66	--	--	23.08	8.69	--	--	22.04	8.52	23.07	8.19
9/10/2008	24.07	8.29	--	--	23.55	8.22	--	--	22.52	8.04	23.49	7.77
11/19/2008	24.33	8.03	--	--	23.68	8.09	--	--	22.63	7.93	23.64	7.62
3/3/2009	24.31	8.05	--	--	23.78	7.99	--	--	22.51	8.05	22.51	7.51
9/3/2009	24.16	8.20	--	--	23.55	8.22	--	--	22.36	8.20	23.49	-15.44
3/3/2010	23.99	12.82	22.42	12.83	23.45	12.78	23.87	12.90	22.14	13.07	23.49	12.42
9/8/2010	23.75	13.06	22.31	12.94	23.09	13.14	23.63	13.14	22.05	13.16	23.11	12.80
3/16/2011	23.63	13.18	22.09	13.16	23.05	13.18	23.55	13.22	21.85	13.36	23.06	12.85
9/9/2011	23.16	13.65	21.64	13.61	22.50	13.73	23.06	13.71	21.57	13.64	22.50	13.41
4/12/2012	23.42	13.39	21.89	13.36	22.79	13.44	23.33	13.44	21.69	13.52	22.83	13.08
10/10/2012	23.61	13.20	--	--	22.90	13.33	23.47	13.30	22.02	13.19	22.95	12.96
3/25/2013	23.54	13.27	22.10	13.15	22.84	13.39	23.40	13.37	21.94	13.27	22.92	12.99
9/12/2013	24.07	12.74	22.53	12.72	23.35	12.88	23.95	12.82	22.52	12.69	23.43	12.48
4/23/2014	24.41	12.40	22.87	12.38	23.74	12.49	24.28	12.49	22.67	12.54	23.92	11.99
9/23/2014	24.64	12.17	23.08	12.17	23.91	12.32	24.51	12.26	23.09	12.12	24.01	11.90
2/18/2015	24.40	12.41	22.84	12.41	23.70	12.53	24.22	12.55	22.72	12.49	23.81	12.10
3/30/2016	24.40	12.41	--	--	23.75	12.48	24.25	12.52	22.67	12.54	23.89	12.02

612 18th St, Merrill Sign Company

	MW-1		MW-2		MW-3	
	34.62		34.57		34.72	
	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)
4/25/2011	21.18	13.44	21.21	13.36	21.61	13.11
7/25/2011	21.22	13.40	21.14	13.43	21.54	13.18
9/9/2011	21.51	13.11	21.39	13.18	21.79	12.93
4/12/2012	21.58	13.04	21.56	13.01	21.76	12.96

Notes:

NS: Not Sampled
FP: Free Product
NA: Not Available
MSL: Mean sea level
ft: feet
bgs: below ground surface
1: Data not available due to ORC socks in well
2: Data not available due to probable equipment malfunction or operator error
Well elevations prior to 2010 are in City of Oakland Datum; After 2010, all elevations are in NAVD 88 Datum.

Table 2
GROUND WATER GRADIENT AND FLOW DIRECTION
1700 Jefferson Street, Oakland, California

Date Monitored	Ground Water Gradient	Ground Water Direction
6/11/1996	0.003	SW
6/4/1997	0.009	NW
3/31/1998	0.002	W
8/28/1998	0.007	E
12/2/1998	0.006	NW
3/10/1999	0.011	NW
9/29/1999	0.004	NW
2/11/2000	0.001	NW
5/30/2000	0.003	W
11/16/2000	0.044	W
4/2/2001	0.001	SW
6/28/2001	0.005	SW
8/30/2001	0.004	SW
4/23/2002	0.006	W-SW
6/14/2002	0.004	W- SW
8/20/2002	0.005	W- SW
12/27/2002	0.005	W- SW
4/1/2003	0.007	W- SW
7/1/2003	0.006	W-NW
9/24/2003	0.005	W-NW
12/29/2003	0.003	W-NW
5/18/2004	0.006	W
6/30/2004	0.002	N
9/23/2004	0.005	W
12/28/2004	0.0451	SE[1]
3/16/2005	0.01	SW
6/23/2005	0.005	W
9/9/2005	0.005	W
12/2/2005	0.006	NW
3/24/2006	0.006	NW
9/13/2006	0.005	W-NW
12/13/2007	0.004	W-NW
3/26/2008	0.004	W
6/2/2008	0.004	W
9/10/2008	0.005	W
3/3/2009	0.004	W
9/3/2009	0.003	W-NW
3/3/2010	0.002	SW
9/8/2010	0.0015	W-SW
3/16/2011	0.0024	W-SW
9/9/2011	0.0031	NW
4/12/2012	0.004	NW
10/10/2012	0.0027	W-NW
3/25/2013	0.003	W-NW
9/12/2013	0.003	W-NW
4/23/2014	0.002	W-NW
9/23/2014	0.002	W-NW
2/18/2015	0.003	W-NW
3/30/2016	0.002	W-NW

Notes:

[1] MACTEC reported an error in groundwater measurement

Table 3
GROUND WATER ANALYTICAL RESULTS
1700 Jefferson Street, Oakland, California

Well ID	Date Sampled	TPH as Gasoline[2]	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	1,2-Dicholorethane	Free Product
		(µg/L)							(inches)
ESLs[1]		220	30	100,000	370	38,000	15,000	90	--
MW-1	7/8/1987	190,000	18,000	26,000	--	3,700	--	--	30
	9/12/1988	--	--	--	--	--	--	--	25
	7/12/1989	190,000	1,000	8,900	2,900	19,000	--	--	21.6
	8/1/1991	--	--	--	--	--	--	--	12
	6/18/1992	--	--	--	--	--	--	--	34
	7/2/1992	--	--	--	--	--	--	--	18
	7/23/1992	--	--	--	--	--	--	--	10
	8/18/1992	--	--	--	--	--	--	--	10
	11/11/1992	--	--	--	--	--	--	--	13
	1/29/1993	--	--	--	--	--	--	--	25.2
	2/12/1993	--	--	--	--	--	--	--	10.2
	1/6/1994	--	--	--	--	--	--	--	14.8
	3/17/1994	--	--	--	--	--	--	--	23.4
	4/13/1994	--	--	--	--	--	--	--	12
	6/29/1994	--	--	--	--	--	--	--	0
	12/8/1994	--	--	--	--	--	--	--	FP
	4/3/1995	--	--	--	--	--	--	--	FP
	6/27/1995	--	--	--	--	--	--	--	FP
	9/19/1995	--	--	--	--	--	--	--	FP
	12/13/1995	--	--	--	--	--	--	--	FP
	3/6/1996	--	--	--	--	--	--	--	FP
	6/11/1996	--	--	--	--	--	--	--	FP
	9/19/1996	--	--	--	--	--	--	--	FP
	12/23/1996	--	--	--	--	--	--	--	FP
	3/27/1997	--	--	--	--	--	--	--	FP
	6/4/1997	68,000	2,200	4,500	1,500	11,000	<500	--	--
	9/26/1997	59,000	6,000	3,000	1,600	8,600	<500	--	--
	12/23/1997	41,000	6,800	3,000	1,400	6,600	300	--	--
	3/31/1998	44,000	8,300	3,700	1,100	4,300	420	--	--
	6/18/1998	32,000	1,100	3,800	550	3,000	<50	--	--
	8/28/1998	26,000	8,600	2,300	730	2,100	<50	--	--
	12/2/1998	26,000	9,200	4,300	820	2,800	<50	--	--
	3/10/1999	26,000	8,200	5,900	870	3,500	<50	--	--
	6/30/1999	18,000	7,000	5,800	950	2,500	<25	--	--
	9/29/1999	21,000	9,200	10,000	1,200	5,500	<250	--	--
	9/29/1999	14,000	6,200	5,900	620	3,500	<250	--	--
	11/22/1999	24,000	4,900	5,000	730	3,500	<100	--	--
	2/11/2000	19,000	4,100	4,800	530	2,800	7	--	--
	5/30/2000	19,000	5,700	8,400	730	3,500	<5.0	--	--
	9/15/2000	20,000	4,100	5,700	540	2,700	<12	--	--
	11/16/2000	18,000	3,500	4,300	640	3,200	<40	--	--
	4/2/2001	19,000	4,700	5,200	570	2,600	50	--	--
	6/28/2001	39,000	5,200	4,200	660	3,900	9	--	--
	8/30/2001	31,000	5,600	5,100	560	2,500	<100	--	--
	12/26/2001	34,000	5,300	5,200	630	2,400	<120	--	--
	4/24/2002	35,000	4,900	6,000	740	3,100	<120	--	--
	6/14/2002	35,000	5,400	6,800	870	3,500	<250	--	--
	8/20/2002	26,000	4,100	4,700	620	2,700	<120	--	--
	12/27/2002	28,000	4,500	5,000	660	3,000	<120	--	--
	4/1/2003	16,000	4,500	6,000	680	3,100	<120	--	--
	7/1/2003	61,000	7,700	11,000	1,200	6,700	<250	--	--
	9/25/2003	59,000	7,600	9,400	1,000	4,800	<1,200	--	--
	12/29/2003	46,000	6,600	7,900	960	4,000	<250	--	--
	5/18/2004	23,000	4,100	4,700	450	1,500	<50	--	--
	6/30/2004	24,000	3,500	3,600	390	1,300	<50	--	--
	9/23/2004	24,000	3,800	3,900	470	1,400	<25	--	--
	12/28/2004	22,000	3,400	3,400	380	1,400	<250	--	--
	3/16/2005	21,000	4,100	4,200	470	1,300	<50	--	--
	6/23/2005	30,000	5,400	5,500	520	1,900	<1,200	--	--
	9/9/2005	7,100	840	950	120	410	<120	--	--
	12/2/2005	19,000	3,600	3,500	410	1,300	<2.5	--	--
	3/24/2006	29,000	6,200	6,000	620	2,000	<500	--	--
	6/29/2006	23,000	4,800	4,000	330	1,200	<500	--	--
	9/13/2006	20,000	4,500	3,900	400	1,400	<250	--	--
	12/27/2006	31,000	6,000	5,300	710	2,500	<500	--	--
	3/30/2007	30,000	5,000	4,600	520	1,700	<500	--	--
	7/2/2007	14,000	2,500	2,000	280	930	<500	--	--
	10/2/2007	19,000	3,400	2,700	400	1,200	<500	--	--
	12/13/2007	18,000	3,500	2,700	390	1,100	<500	--	--
	3/26/2008	28,000	4,900	4,900	530	2,100	<500	--	--
	6/2/2008	20,000	3,300	3,300	380	1,700	<500	--	--
	9/10/2008	24,000	4,200	4,200	470	2,200	<500	--	--
	11/19/2008	26,000	4,500	4,500	490	2,500	<500	--	--
	3/3/2009	33,100	5,380	5,380	603	2,800	<100	--	--
	9/3/2009	35,900	5,570	5,180	620	3,270	<100	--	--
	3/3/2010	51,700	10,100	8,050	952	4,560	<200	--	--
	9/8/2010	30,000	7,300	6,300	550	3,700	<50	--	--
	3/16/2011	38,000	8,600	6,900	670	4,300	<50	--	--
	9/9/2011	33,000	8,700	6,500	620	4,400	<50	--	--
	4/12/2012	34,000	7,300	4,700	570	4,300	<50	--	--
	10/10/2012	37,000	7,900	5,200	800	5,100	<50	--	--
	3/25/2013	30,000	6,500	4,700	560	4,500	<50	--	--
	9/12/2013	12,000	2,800	1,500	330	1,000	<50	--	--
	4/24/2014	15,000	3,100	1,700	360	780	<50	--	--
	9/23/2014	13,000	1,700	780	280	360	<50	99	--
	2/18/2015	15,000	2,100	900	310	400	<50	--	--
	3/30/2016	13,000	2,200	670	270	380	<50	53	--
MW-1A	9/12/1988	--	--	--	--	--	--	--	28.2
	7/12/1989	220,000	1,200	9,210	3,100	24,000	NA	--	18.6
	8/1/1991	350,000	17,000	31,000	3,000	FP	NA	--	FP
	7/2/1992	FP	FP	FP	FP	FP	NA	--	18
	9/30/1992	FP	FP	FP	FP	FP	NA	--	10 - 13
	2/12/1993	FP	FP	FP	FP	FP	NA	--	13
	3/30/1993	FP	FP	FP	FP	FP	NA	--	10.2-14.8
	1/6/1994	FP	FP	FP	FP	14,000	NA	--	16.2
	4/13/1994	170,000	17,000	31,000	2,100	22,000	NA	--	12
	6/29/1994	95,000	16,000	21,000	1,500	12,000	NA	--	4.5+/-
	12/8/1994	190,000	13,000	21,000	1,400	11,000	NA	--	--
	4/3/1995	67,000	11,000	13,000	910	9,800	NA	--	--

Well ID	Date Sampled	TPH as Gasoline[2]	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	1,2-Dicholorethane	Free Product
		(µg/L)							(inches)
ESLs[1]		220	30	100,000	370	38,000	15,000	90	--
MW-1A	6/27/1995	53,000	11,000	9,900	500	6,300	NA	--	--
	9/19/1995	52,000	8,900	11,000	790	5,300	NA	--	--
	12/13/1995	62,000	9,900	9,200	710	6,800	NA	--	--
	3/6/1996	200,000	14,000	22,000	2,700	22,000	NA	--	--
	6/11/1996	140,000	18,000	28,000	2,800	19,000	NA	--	--
	9/19/1996	100,000	16,000	22,000	2,100	14,000	NA	--	--
	12/23/1996	FP	FP	FP	FP	FP	NA	--	--
	3/27/1997	66,000	12,000	15,000	1,400	100	1,800	--	--
	6/4/1997	54,000	11,000	12,000	1,000	7,200	<500	--	--
	9/26/1997	73,000	10,000	16,000	1,400	8,500	<500	--	--
	12/23/1997	66,000	10,000	16,000	1,400	12,000	1,900	--	--
	3/31/1998	51,000	9,100	11,000	1,100	6,800	300	--	--
	6/18/1998	50,000	11,000	15,000	870	5,800	<50	--	--
	8/28/1998	15,000	1,100	830	31	3,000	<50	--	--
	12/2/1998	41,000	8,500	11,000	720	6,700	<50	--	--
	3/10/1999	10,000	2,300	1,900	1,600	2,300	<50	--	--
	6/30/1999	18,000	6,400	7,800	660	4,100	<25	--	--
MW-2	7/8/1987	8,200	1,500	340	--	87	--	--	--
	11/9/1987	WELL DESTROYED							
MW-3	7/8/1987	6,200	180	500	--	170	--	--	0
	7/12/1989	13,000	4	160	210	420	--	--	0
	8/1/1991	74,000	1,600	4,600	670	4,300	--	--	4
	9/30/1992	--	--	--	--	--	--	--	4.1
	11/11/1992	--	--	--	--	--	--	--	2
	1/29/1993	--	--	--	--	--	--	--	1.7
	2/12/1993	--	--	--	--	--	--	--	1.3
	1/6/1994	--	--	--	--	--	--	--	2.2
	3/17/1994	--	--	--	--	--	--	--	2.4
	4/13/1994	--	--	--	--	--	--	--	1.8
	6/29/1994	39,000	3,200	2,900	580	4,300	--	--	0.5
	12/8/1994	4,600,000	1,500	4,200	6,000	95,000	--	--	--
	4/3/1995	51,000	1,100	2,300	580	4,800	--	--	--
	6/27/1995	20,000	270	550	190	1,700	--	--	--
	9/19/1995	6,200	70	140	68	500	--	--	--
	12/13/1995	19,000	220	480	140	1,700	--	--	--
	3/6/1996	7,000	120	170	49	440	--	--	--
	6/11/1996	16,000	170	270	68	1,500	--	--	--
	9/19/1996	6,000	45	30	15	300	--	--	--
	6/4/1997	85,000	8,500	13,000	2,400	16,000	<500	--	--
	9/26/1997	47,000	610	6,000	930	5,900	<100	--	--
	12/23/1997	32,000	640	5,300	800	5,900	<300	--	--
	3/31/1998	32,000	690	3,800	870	5,200	350	--	--
	6/18/1998	16,000	180	1,500	490	3,700	<25	--	--
	8/28/1998	17,000	84	1,100	430	3,800	<50	--	--
	12/2/1998	3,200	39	85	25	360	<50	--	--
	3/10/1999	9,600	86	540	250	2,300	<25	--	--
	6/30/1999	7,900	31	330	200	1,800	<25	--	--
	9/29/1999	5,000	120	340	230	1,300	10	--	--
	9/29/1999	4,100	180	340	130	580	14	--	--
	11/22/1999	3,100	7	33	27	260	<1.0	--	--
	2/11/2000	540	8	20	2	28	31	--	--
	5/30/2000	490	11	6	0	17	<5.0	--	--
	9/15/2000	1,500	28	14	3	160	<5.0	--	--
	11/16/2000	1,300	20	34	25	28	<5.0	--	--
	4/2/2001	170	9	6	1	8	77	--	--
	6/28/2001	4,900	150	240	38	160	<2	--	--
	8/30/2001	3,100	42	48	26	210	<1.2	--	--
	12/26/2001	950	8	5	1	7	<0.5	--	--
	4/24/2002	300	11	5	1	1	<0.5	--	--
	6/14/2002	4,600	130	470	91	390	<0.5	--	--
	8/20/2002	4,900	330	170	40	150	<5.0	--	--
	12/27/2002	4,000	110	280	57	260	19	--	--
	4/1/2003	5,900	370	150	44	230	<1.0	--	--
	7/1/2003	12,000	200	460	130	390	<5.0	--	--
	9/25/2003	10,000	150	300	120	280	<2.5	--	--
	12/29/2003	7,300	160	250	79	210	<2.5	--	--
	5/18/2004	1,500	77	72	19	59	<12	--	--
	6/30/2004	2,000	81	37	34	40	<1.0	--	--
	9/23/2004	3,400	140	95	36	40	<10	--	--
	12/28/2004	3,900	340	37	11	60	<5.0	--	--
	3/16/2005	970	1	2	1	3	<2.5	--	--
	6/23/2005	850	56	7	<5	12	<25	--	--
	9/9/2005	3,900	470	100	33	96	<62	--	--
	12/2/2005	760	14	8	2	17	<0.5	--	--
	3/24/2006	590	83	41	7	33	<12	--	--
	6/29/2006	1,100	130	38	16	21	<25	--	--
	9/13/2006	1,300	260	71	44	28	<25	--	--
	12/27/2006	3,000	250	160	49	140	<25	--	--
	3/30/2007	3,100	250	260	46	110	<25	--	--
	7/2/2007	2,600	250	250	54	130	<25	--	--
	10/2/2007	1,900	170	140	24	48	<25	--	--
	12/13/2007	2,900	250	170	66	120	<25	--	--
	3/26/2008	2,300	340	95	26	64	<25	--	--
	6/2/2008	2,300	270	250	59	130	<25	--	--
	9/10/2008	2,900	300	180	88	220	<25	--	--
	11/19/2008	1,000	62	55	21	32	<25	--	--
	3/3/2009	3,020	37	10	3.8J	12.3J	<10	--	--
	9/3/2009	538	59	1	13	2	<1.0	--	--
	3/3/2010	1,570	98	12	20	14	<1.0	--	--
	9/8/2010	1,100	200	23	23	11	<0.5	--	--
	3/16/2011	930	75	19	8	6	<2.5	--	--
	9/9/2011	1,300	280	43	13	40	<2.5	--	--
	4/12/2012	1,800	91	21	10	26	<0.5	--	--
	10/10/2012	1,400	200	14	9	<10	<0.5	--	--
	3/25/2013	1,000	75	40	14	24	<0.5	--	--
	9/12/2013	1,200	280	7	20	11	<0.5	--	--
	4/24/2014	1,800	140	23	41	53	<0.5	--	--
	9/23/2014	780	120	4	13	4	<0.5	0.7	--
	2/18/2015	3,300	140	62	50	63	<0.5	--	--

Table 3
GROUND WATER ANALYTICAL RESULTS
1700 Jefferson Street, Oakland, California

Well ID	Date Sampled	TPH as Gasoline[2]	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	1,2-Dicholorethane	Free Product
		(µg/L)							(inches)
ESLs[1]		220	30	100,000	370	38,000	15,000	90	--
MW-3	3/30/2016	1,200	99	<5	14	<5	<5	<5	--
MW-4	9/12/1988	--	--	--	--	--	--	--	5.9
	7/12/1989	93,000	460	4,200	1,200	9,700	NA	--	25.2
	8/1/1991	86,000	1,500	6,200	1,000	FP	NA	--	18
	9/30/1992	FP	FP	FP	FP	FP	NA	--	FP
	2/12/1993	FP	FP	FP	FP	FP	NA	--	8.8
	1/6/1994	FP	FP	FP	FP	3,200	NA	--	6.2
	4/13/1994	58,000	1,500	2,500	520	7,300	NA	--	--
	6/29/1994	16,000	1,300	790	51	3,400	NA	--	--
	12/8/1994	92,000	1,700	4,100	310	5,400	NA	--	--
	4/3/1995	35,000	1,200	3,400	280	5,800	NA	--	--
	6/27/1995	13,000	1,300	1,600	77	1,800	NA	--	--
	9/19/1995	14,000	630	470	14	1,800	NA	--	--
	12/13/1995	11,000	2,200	2,100	110	2,100	NA	--	--
	3/6/1996	110,000	2,600	3,600	780	10,000	NA	--	--
	6/11/1996	260,000	6,600	19,000	3,700	28,000	NA	--	--
	9/19/1996	95,000	9,900	19,000	2,000	13,000	NA	--	--
	12/23/1996	FP	FP	FP	FP	FP	NA	--	FP
	3/27/1997	37,000	2,600	6,900	540	5,500	1,400	--	--
	6/4/1997	24,000	2,600	3,200	140	3,500	<300	--	--
	9/26/1997	41,000	2,900	5,000	350	4,800	<500	--	--
	12/23/1997	48,000	6,000	11,000	580	8,200	270	--	--
	6/18/1998	25,000	2,000	460	<15	6,400	<50	--	--
	8/28/1998	48,000	9,700	11,000	890	5,000	<50	--	--
	12/2/1998	10,000	1,700	610	<15	2,300	<50	--	--
	3/10/1999	11,000	2,300	2,100	88	1,600	<25	--	--
	6/30/1999	88,000	1,800	3,000	150	2,700	<25	--	--
	4/12/2012	2,700	380	160	100	100	<0.5	--	--
	10/10/2012	4,200	400	200	150	130	<0.5	--	--
	3/25/2013	2,900	360	16	120	29	<0.5	--	--
	9/12/2013	12,000	230	7	130	59	<0.5	--	--
	4/24/2014	4,900	200	10	97	49	<0.5	--	--
	9/23/2014	2,800	120	5	81	18	<0.5	2	--
	2/18/2015	1,700	190	24	77	32	<0.5	--	--
	3/30/2016	3,400	300	73	47	83	<10	<10	--
MW-5	9/12/1988	--	--	--	--	--	--	--	0.5
	7/12/1989	14,000	7	190	210	500	--	--	0.4
	8/1/1991	120,000	20,000	14,000	1,900	4,900	--	--	0
	9/30/1992	51,000	13,000	5,900	1,400	2,600	--	--	0
	3/30/1993	74,000	16,000	5,000	1,800	2,700	--	--	0.06
	1/6/1994	80,000	19,000	8,200	1,400	2,700	--	--	0
	4/13/1994	63,000	14,000	3,500	1,500	2,100	--	--	0
	6/29/1994	64,000	29,000	5,400	2,800	4,500	--	--	0
	12/8/1994	59,000	13,000	3,800	1,800	2,900	--	--	--
	4/3/1995	51,000	15,000	2,200	2,800	4,500	--	--	--
	6/27/1995	41,000	12,000	2,100	1,400	1,600	--	--	--
	9/19/1995	50,000	1,600	2,700	2,000	2,100	--	--	--
	12/13/1995	45,000	13,000	2,100	16,000	1,900	--	--	--
	3/6/1996	51,000	15,000	2,800	2,000	2,400	--	--	--
	6/11/1996	48,000	12,000	2,900	2,000	2,700	--	--	--
	9/19/1996	48,000	12,000	4,500	2,300	4,000	--	--	--
	12/23/1996	45,000	12,000	2,200	2,700	6,500	600	--	--
	3/27/1997	44,000	11,000	1,100	1,900	2,800	300	--	--
	6/4/1997	35,000	8,900	560	1,500	1,700	<100	--	--
	9/26/1997	36,000	7,900	270	1,500	1,300	<500	--	--
	12/23/1997	39,000	13,000	500	1,900	1,700	<1,000	--	--
	3/31/1998	48,000	10,000	400	2,000	2,200	350	--	--
	6/18/1998	17,000	9,500	310	420	850	<10	--	--
	8/28/1998	16,000	5,400	160	1,100	900	<50	--	--
	12/2/1998	15,000	8,400	120	1,500	840	<50	--	--
	3/10/1999	23,000	14,000	300	1,800	1,100	<50	--	--
	6/30/1999	7,700	5,200	270	1,100	690	<25	--	--
	9/29/1999	11,000	9,600	710	1,100	1,100	<100	--	--
	9/29/1999	10,000	14,000	470	1,100	600	<100	--	--
	11/22/1999	30,000	11,000	3,400	1,500	2,500	<100	--	--
	2/11/2000	23,000	12,000	4,500	1,200	1,300	6.6	--	--
	5/30/2000	19,000	9,900	6,900	1,200	2,600	<200	--	--
	9/15/2000	24,000	3,800	3,000	460	1,200	<10	--	--
	11/16/2000	1,800	470	220	39	100	<5	--	--
	4/2/2001	15,000	7,400	3,000	1,000	2,200	<50	--	--
	6/28/2001	3,600	300	11	16	15	4	--	--
	8/30/2001	34,000	8,300	3,000	1,400	2,600	<50	--	--
	12/26/2001	1,900	300	110	55	120	<10	--	--
	4/24/2002	9,400	2,300	130	300	270	<50	--	--
	6/14/2002	1,700	110	<2.5	7	<2.5	<0.50	--	--
	8/20/2002	3,200	320	9	22	19	<0.50	--	--
	12/27/2002	6,200	2,200	140	160	250	<25	--	--
	9/25/2003	43,000	12,000	2,800	1,500	3,000	<1,200	--	--
	12/29/2003	26,000	7,700	1,900	910	210	<2.5	--	--
	5/18/2004	15,000	5,000	1,300	380	770	<50	--	--
	6/30/2004	18,000	5,700	1,600	540	1,200	<50	--	--
	9/23/2004	42,000	12,000	3,900	1,200	2,400	<120	--	--
	12/28/2004	41,000	10,000	3,800	1,000	2,300	<250	--	--
	3/16/2005	37,000	11,000	3,800	1,100	2,400	<120	--	--
	6/23/2005	27,000	7,700	1,700	680	1,300	<1,200	--	--
	9/9/2005	46,000	10,000	2,700	1,100	2,100	<1,200	--	--
	12/2/2005	21,000	5,900	1,500	600	1,200	<500	--	--
	3/24/2006	<10,000	2,800	450	190	180	<500	--	--
	6/29/2006	1,200	240	11	13	18	<2.5	--	--
MW-1*	4/25/2011	< 50	< 0.5	--	< 0.5	< 0.5	< 0.5	--	--
	9/9/2011	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--
MW-2*	4/25/2011	< 50	< 0.5	--	< 0.5	< 0.5	< 0.5	--	--
	9/9/2011	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--
MW-3*	4/25/2011	< 50	< 0.5	--	< 0.5	< 0.5	< 0.5	--	--
	9/9/2011	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--

Well ID	Date Sampled	TPH as Gasoline[2]	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	1,2-Dicholorethane	Free Product
		(µg/L)							(inches)
ESLs[1]		220	30	100,000	370	38,000	15,000	90	--
MW-5	9/13/2006	5,800	1,600	210	180	270	<120	--	--
	12/27/2006	16,000	4,300	610	460	750	<500	--	--
	3/30/2007	31,000	10,000	1,400	1,100	1,600	<500	--	--
	7/2/2007	33,000	9,400	1,400	1,000	1,500	<500	--	--
	10/2/2007	36,000	11,000	2,100	1,100	1,700	<620	--	--
	12/13/2007	34,000	11,000	2,600	1,200	1,900	<1,200	--	--
	3/26/2008	28,000	7,700	1,900	860	1,300	<1,200	--	--
	6/2/2008	43,000	13,000	3,800	1,400	2,400	<1,200	--	--
	9/10/2008	45,000	13,000	3,700	1,200	2,200	<1,200	--	--
	11/19/2008	46,000	14,000	3,900	3,900	2,700	<1,200	--	--
	3/3/2009	43,400	11,700	3,560	1,290	2,200	<250	--	--
	9/3/2009	35,900	8,800	1,240	1,720	2,420	<100	--	--
	3/3/2010	27,200	6,820	279	1,870	2,050	<100	--	--
	9/8/2010	22,000	6,000	250	1,700	1,900	<50	--	--
	3/16/2011	31,000	6,400	500	1,900	2,600	<50	--	--
	9/9/2011	30,000	9,400	1,600	1,800	2,500	<50	--	--
	4/12/2012	44,000	13,000	5,000	1,700	2,900	<50	--	--
	10/10/2012	47,000	14,000	6,700	1,900	3,400	<50	--	--
	3/25/2013	45,000	14,000	8,200	1,800	3,600	<50	--	--
	9/12/2013	50,000	13,000	10,000	2,000	5,300	<50	--	--
	4/24/2014	58,000	11,000	12,000	2,000	6,300	<250	--	--
	9/23/2014	75,000	5,800	7,000	1,200	3,900	<250	95	--
	2/18/2015	57,000	8,700	12,000	1,800	6,500	<250	--	--
	3/30/2016	69,000	7,500	11,000	1,100	3,700	<250	<250	--
MW-6	6/11/1996	<50	<0.5	<0.5	<0.5	<2	--	--	--
	9/19/1996	<50	<0.5	<0.5	<0.5	<2	--	--	--
	12/23/1996	<50	<0.5	<0.5	<0.5	<2	<5	--	--
	3/27/1997	<50	<0.5	<0.5	<0.5	<2	<5	--	--
	6/4/1997	<50	<0.5	<0.5	<0.5	<2	<5	--	--
	9/26/1997	<50	<0.5	<0.5	<0.5	<2	<5	--	--
	12/23/1997	<50	<0.5	<0.5	<0.5	<2	<5	--	--
	3/31/1998	<50	<0.5	<0.5	<0.5	<2	<5	--	--
	6/18/1998	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	8/28/1998	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	12/2/1998	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	3/10/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	6/30/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	9/29/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	9/29/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	11/22/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	2/11/2000	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	5/30/2000	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	9/15/2000	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--	--
	11/16/2000	<50	<0.3	<0.3	<0.3	<0.3	<1.0	--	--
	4/2/2001	<50	<0.3	<0.3	<0.3	2.7	5	--	--
	6/28/2001	<50	<0.5	<0.5	<0.3	<0.5	17	--	--
	8/30/2001	<50	<0.5	<0.5	<0.3	8.7	<2.5	--	--
	12/26/2001	66	3.6	3.6	3.6	<0.5	<2.5	--	--
	4/24/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	6/14/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	8/20/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	12/27/2002	<50	<0.5	<0.05	<0.5	<0.5	<2.5	--	--
	4/1/2003	<50	<0.5	<0.05	<0.5	<0.5	<2.5	--	--
	7/1/2003	<50	<0.5	<0.05	<0.5	<2.5	<2.5	--	--
	9/25/2003	<50	<0.5	<0.05	<0.5	<2.5	<2.5	--	--
	12/29/2003	<50	<0.5	<0.05	<0.5	<0.5	<2.5	--	--
	5/18/2004	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	6/30/2004	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	9/23/2004	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	12/28/2004	59	<0.5	<0.5	<0.5	2	<2.5	--	--
	3/16/2005	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	6/23/2005	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	9/9/2005	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	12/2/2005	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/24/2006	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	6/29/2006	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	9/13/2006	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	12/27/2006	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/30/2007	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	7/2/2007	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	10/2/2007	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	12/13/2007	<50	<0.5	1	<0.5	<0.5	<2.5	--	--
	3/26/2008	<50	<0.5	<0.5	<0.5	1	<2.5	--	--
	6/2/2008	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	9/10/2008	<51	<0.5	<0.5	<0.5	<0.5	<2.6	--	--
	11/19/2008	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	3/3/2009	<50	<1.0	0.53J	<1.0	<2.0	<1.0	--	--
	9/3/2009	<50	<1.0	<1.0	<1.0	<2.0	<1.0	--	--
	3/3/2010	<50	<1.0	<1.0	<1.0	<2.0	<1.0	--	--
	9/8/2010	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	--
	3/16/2011	<50	0.67	<0.5	<0.5	<1.0	<0.5	--	--
	9/9/2011	69	1	<0.5	<0.5	<1.0	<0.5	--	--
	4/12/2012	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	--
	10/10/2012	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	--
	3/25/2013	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	--
	9/12/2013	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	--
	4/24/2014	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	--
	9/23/2014	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	--
	2/18/2015	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--	--
	3/30/2016	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--

Notes:

µg/L: micrograms per liter (approximately equivalent to ppb)

<: Concentration is below the reporting limit of the lab

*: Well Located on the Merrill Sign Company Site, data provided by P&D Environmental

J: Estimated value

--: not applicable or none

Concentration is above selected screening criteria

FP: Free product measured (amount unknown)

[1]: Environmental Screening Levels - San Francisco Bay Regional Water Quality Control Board (Feb 2016). Potential vapor intrusion under a residential land use in fine to coarse mix (Table GW-3)

[2]: Drinking water ESL is listed for TPH as gasoline

CHARTS

CHART 1
Concentrations of TPH as Gasoline vs. Time in MW-1, MW-3, and MW-5
1700 Jefferson, Oakland, California

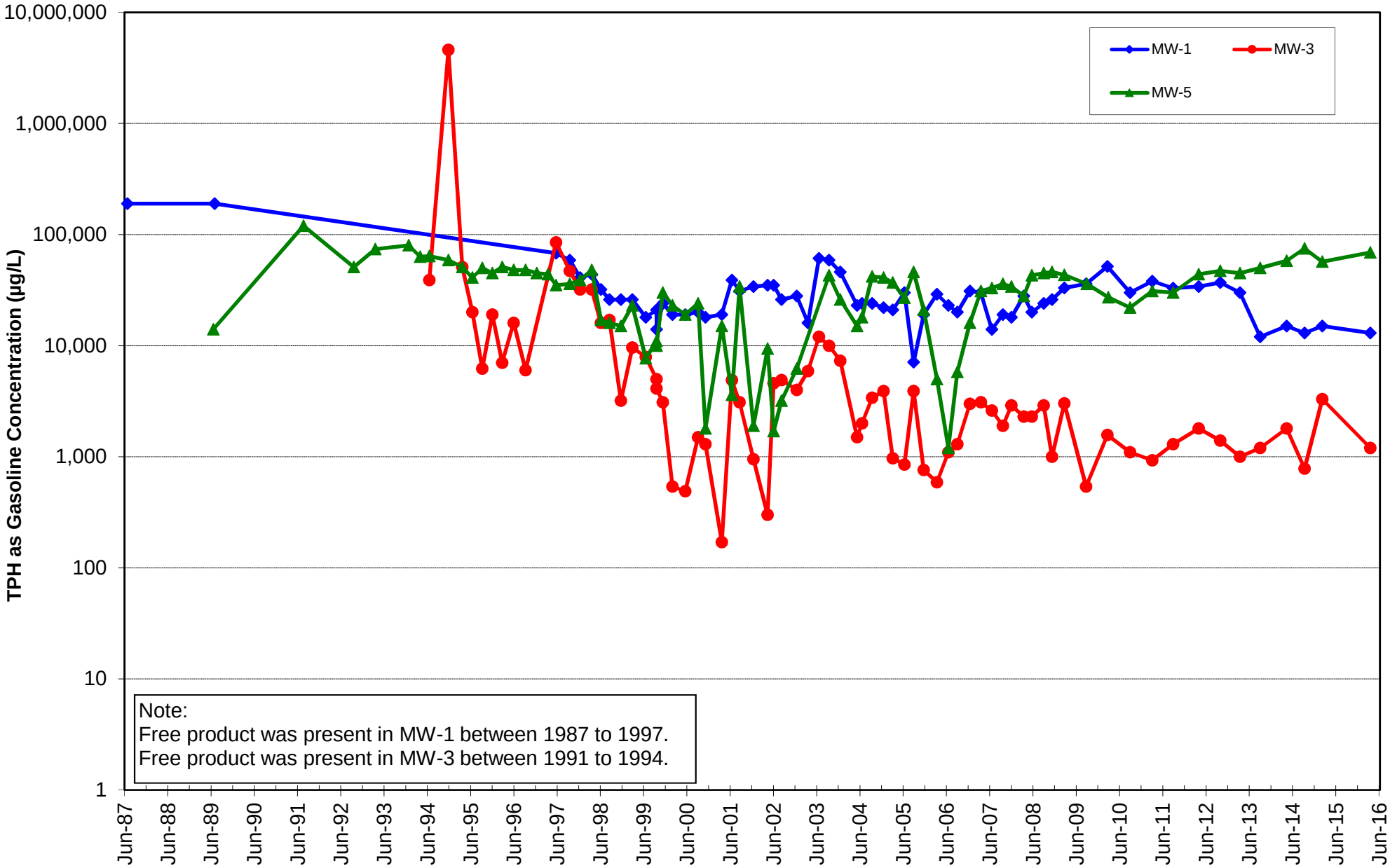
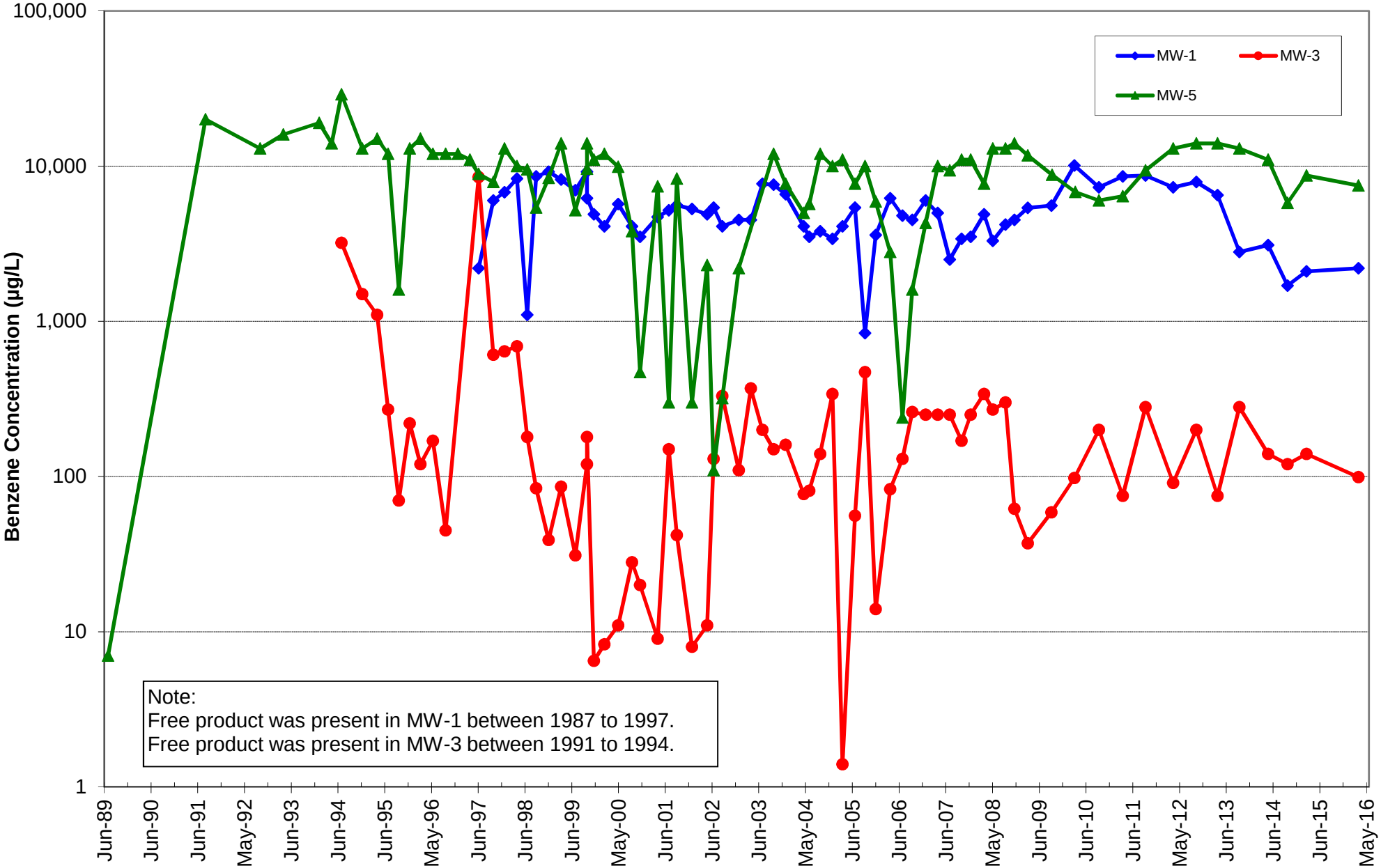
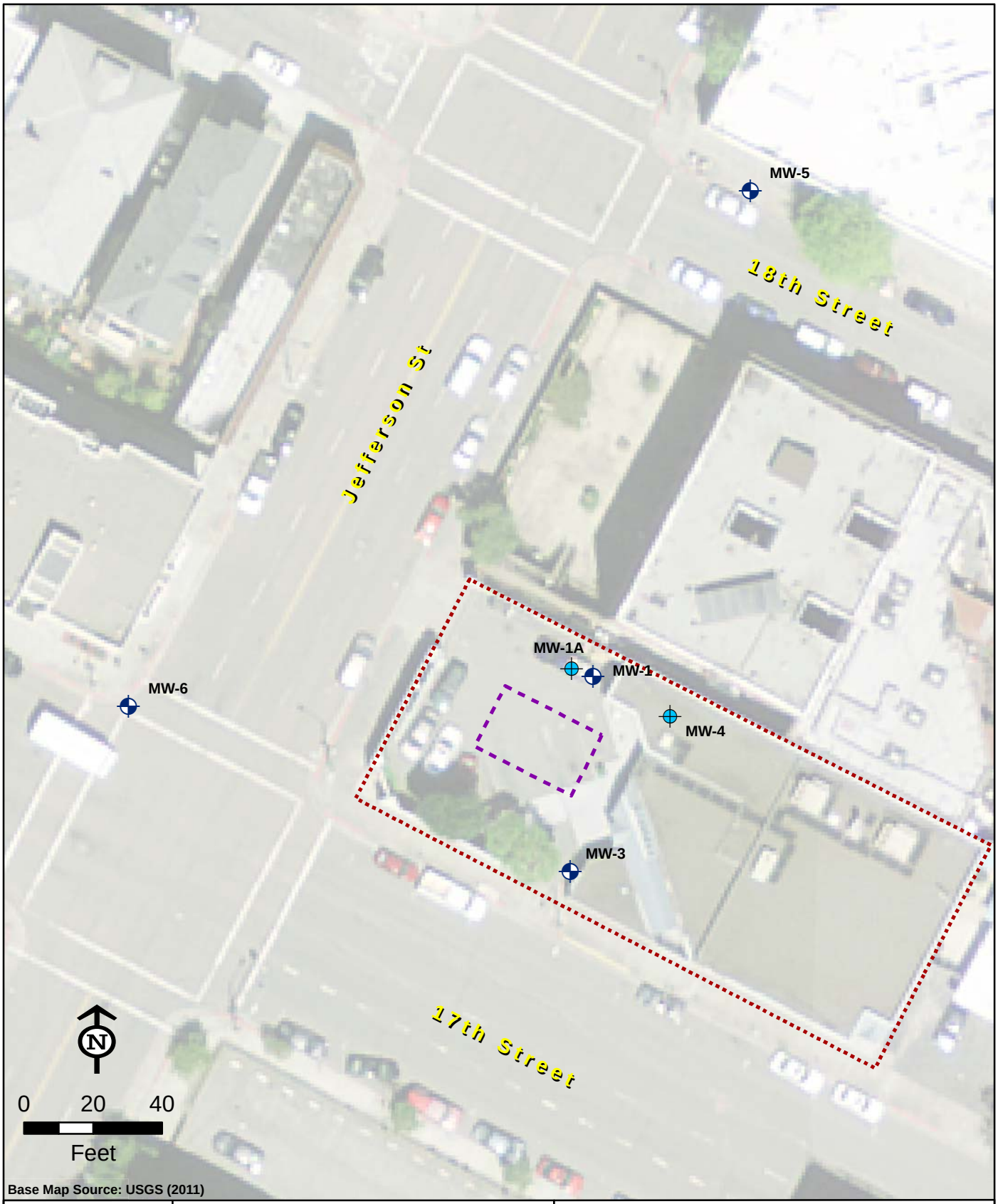


CHART 2
Concentrations of Benzene vs. Time in MW-1, MW-3, and MW-5
1700 Jefferson, Oakland, California



FIGURES


Adeline St
Market St
Northgate Ave
Broadway
Westlake Middle School
Grand Ave
Grand Ave
Adams Park
Lafayette Elementary School
Marston Campbell Park
Telegraph Ave
San Pablo Ave
Lowell Park
Lowell Middle School
Brush St
980
14Th St
Castro St
Broadway
Lakeside Park
Lakeside Dr
Snow Park
Martin Luther King Elem School
Clay St
Armstrong University
8Th St
14Th St
Webster St
Lafayette Square
7Th St
Lakeside Dr
Oakland Intl Forest Elem SCH
Harrison St
Way of Truth Elementary SCH
Jefferson Square Rec Center
Broadway
Lincoln Square Rec Center Park
12Th St
14Th St
5Th St
7Th St
8Th St
Lincoln Elementary School
Madison Park
Harrison Square
880
Peralta Park
Embarcadero
Oak St
Fallon St
7Th St
Laney College
N
0
500
1,000
Feet
Webster St
Posey Tube Loop
APPLIED WATER RESOURCES
Figure - 1
Site Location Map
300 Hegenberger Road
1700 Jefferson Street



APPLIED WATER RESOURCES

Figure - 2

Site Plan

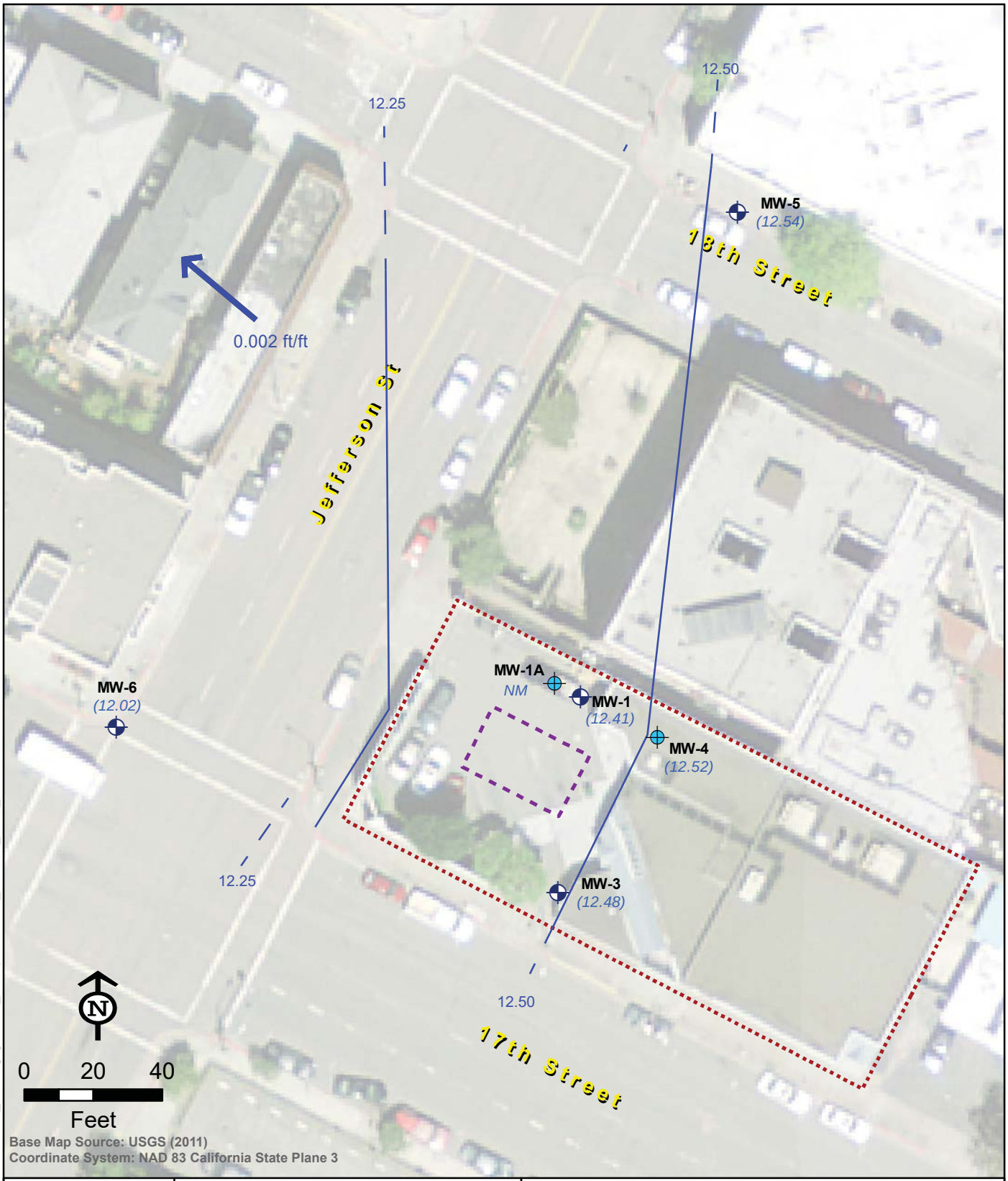
1700 Jefferson Street, Oakland, CA

Monitor Well

Extraction Well

Tank Removal Excavation Area (approx)

Property Boundary



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APPLIED WATER RESOURCES

Figure - 3

Ground Water Gradient March 2016

1700 Jefferson Street, Oakland, CA

Ground Water Elevation Contours (Dashed Where Inferred)

(12.55) Ground Water Elevation

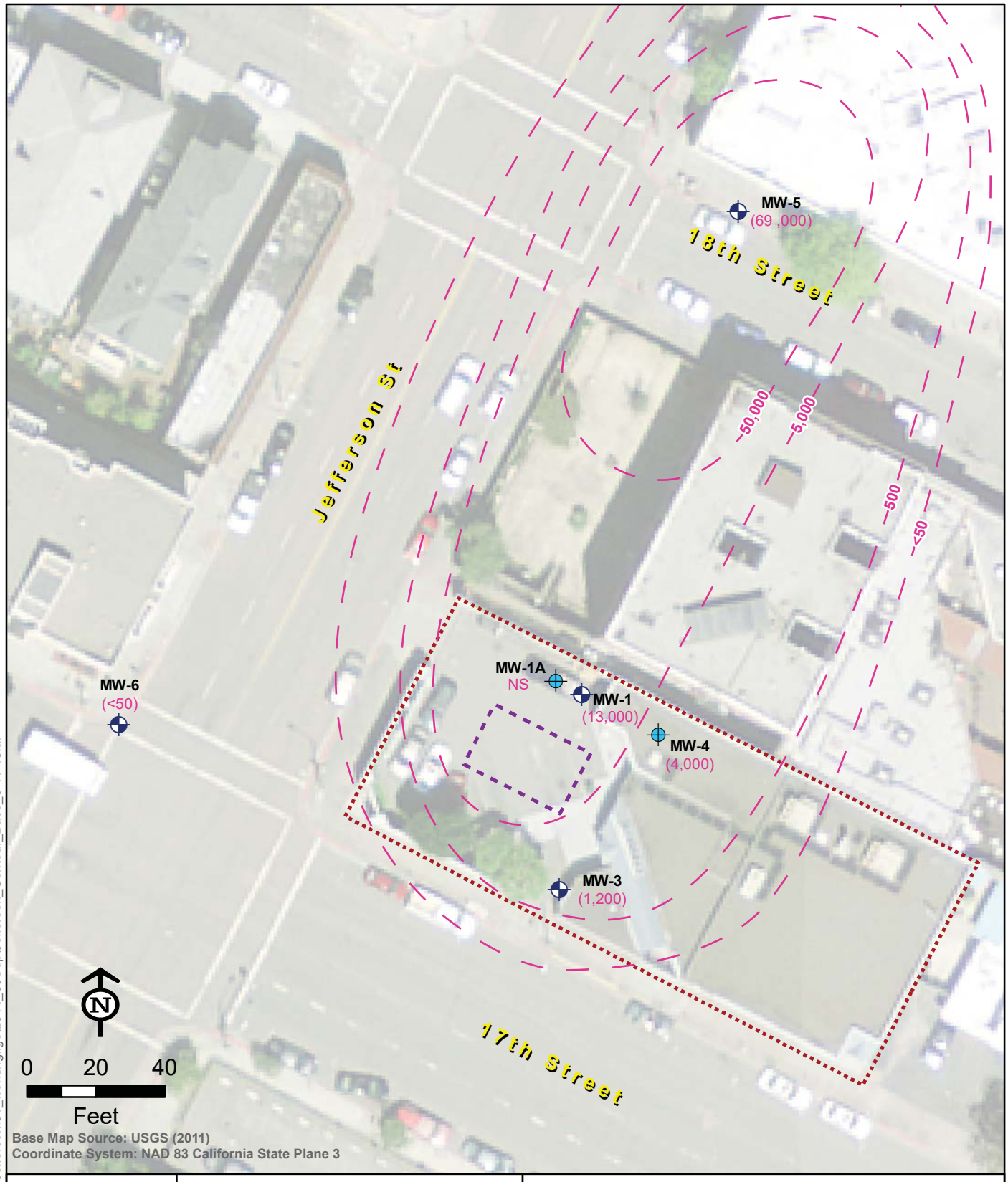
Gradient Direction

Monitor Well

Extraction Well

Tank Removal Excavation Area (approx)

Property Boundary



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APPLIED WATER RESOURCES

Figure - 4

TPH as Gasoline Iso Concentration Contours March 2016

1700 Jefferson Street, Oakland, CA

TPH as Gasoline Iso-Concentration Contours in Ground Water (Dashed Where Inferred)

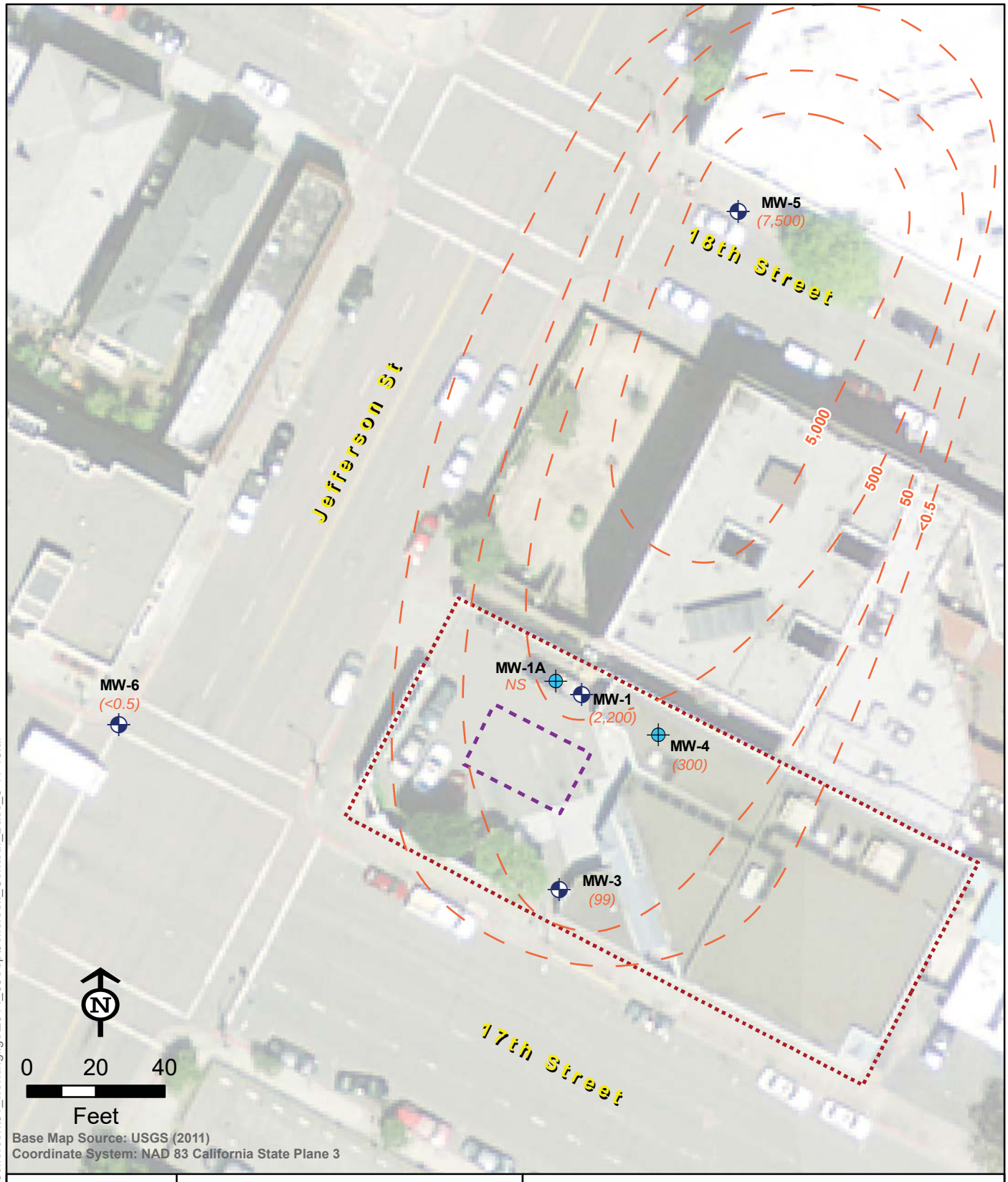
(57,000) TPH as Gasoline Concentration (ug/L)

Monitor Well

Extraction Well

Tank Removal Excavation Area (approx)

Property Boundary



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APPLIED WATER RESOURCES

Figure - 5

Benzene Iso Concentration Contours March 2016

1700 Jefferson Street, Oakland, CA

Benzene Iso-Concentration Contours in Ground Water (Dashed Where Inferred)

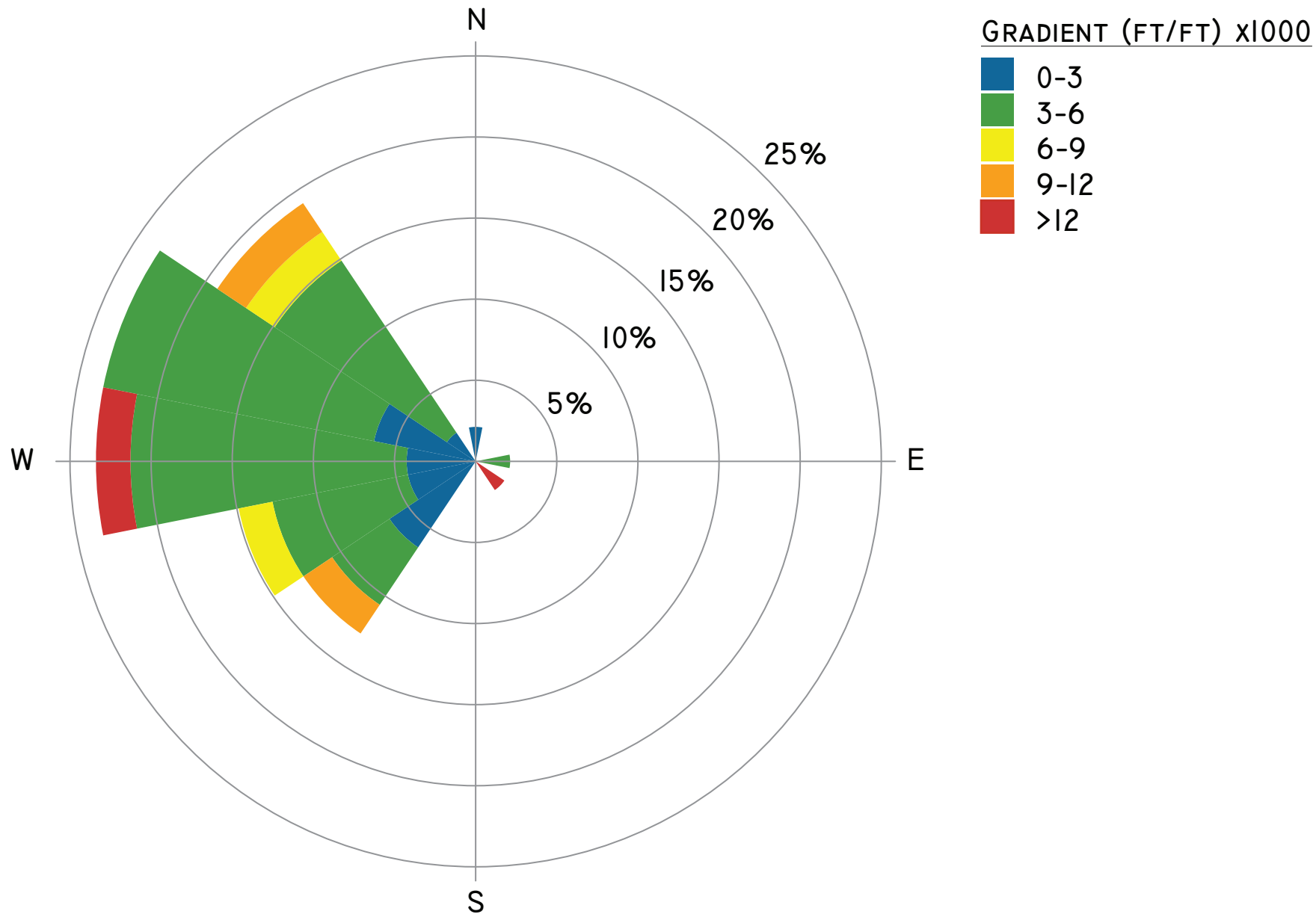
(8,700) Benzene Concentration (ug/L)

Monitor Well

Extraction Well

Tank Removal Excavation Area (approx)

Property Boundary



APPLIED WATER RESOURCES

Figure - 6

Ground Water Gradient Rose Diagram

1700 Jefferson St, Oakland, CA

APPENDIX A:

MONITOR WELL WORKSHEETS

Depth to Water Data Sheet

Site Name: 1700 Jefferson St	Date: 03/30/2016
Location: 1700 Jefferson St, Oakland, CA	Field Tech: CTC
Client: ARC Document Solutions	

Well ID	Well Diameter	Time	DTW	Total Depth	Comments
MW-6	2"	926	23.89	32.71	
MW-3	4"	1011	23.75	32.81	
MW-1	4"	1150	24.40	33.10	
MW-4	4"	1045	24.25	34.15	
MW-5	2"	1230	22.67	33.35	

Notes:

Monitor Well Data Sheet

Site Name: 1700 Jefferson St	Well/Sample ID: MW-1
Location: 1700 Jefferson St, Oakland, CA	Initial Depth to Water (DTW): 24.40
Client: ARC Document Solutions	Total Well Depth (TD): 33.10
Sampler: CTC	Well Diameter: 4"
Date: 03/30/2016	Purge Rate: 0.25L/min
Purge Method: Low-Flow	Sampling Rate: 0.25L/min
Sample Method: Low-Flow	

Time	pH SU	SC µmhoms/cm	DO mg/l	Temp °C	ORP mV	DTW feet bgs	Volume liters	Observations
1157	7.12	1.32	0.11	18.40	-319.1	24.62	0.75	
1200	6.86	1.32	0.07	18.59	-326.9	24.70	1.50	
1203	6.82	1.32	0.06	18.61	-326.5	24.71	2.25	
1206	6.78	1.32	0.05	18.64	-325.4	24.74	3	
1209	6.78	1.32	0.05	18.73	-325.7	24.73	3.75	

Did Well Dewater?	NO	Start Purge Time:	1154	DTW prior to sample:	24.73
Total Liters Purged:	~3.75L	Stop Purge Time:	1209	Start Sample Time:	1210
Total Sample Volume:	1.5mL	Odor:	Yes	Sheen:	NO
Instrument ID(s):	FA01137			Last Calibrated:	900

Notes:

AWR Corp
2363 Mariner Square Drive Suite 245
(510) 671 2094 Fax (510) 373 2166

Monitor Well Data Sheet

Site Name: 1700 Jefferson St	Well/Sample ID: MW-3
Location: 1700 Jefferson St, Oakland, CA	Initial Depth to Water (DTW): 23.75
Client: ARC Document Solutions	Total Well Depth (TD): 32.81
Sampler: CTC	Well Diameter: 4"
Date: 03/30/2016	Purge Rate: 0.3 L/min
Purge Method: Low-Flow	Sampling Rate: 0.25 L/min
Sample Method: Low-Flow	

Time	pH SU	SC µmhoms/cm	DO mg/l	Temp °C	ORP mV	DTW feet bgs	Volume liters	Observations
1017	6.63	0.81	0.18	18.92	-233.7	23.93	1.2	
1020	6.58	0.81	0.15	19.17	-240.2	23.95	2.1	
1023	6.55	0.80	0.13	19.25	-241.7	24.01	3	
1026	6.55	0.80	0.11	19.31	-243.4	24.03	3.9	
1029	6.56	0.80	0.10	19.40	-244.3	24.05	4.8	
1032	6.55	0.80	0.10	19.39	-244.7	24.07	5.7	

Did Well Dewater?	NO	Start Purge Time:	1013	DTW prior to sample:	24.07
Total Liters Purged:	~5.7L	Stop Purge Time:	1032	Start Sample Time:	1035
Total Sample Volume:	1.5mL	Odor:	slight gasoline	Sheen:	NONE
Instrument ID(s):	FA 01137			Last Calibrated:	900

Notes:

AWR Corp
2363 Mariner Square Drive Suite 245
(510) 671 2094 Fax (510) 373 2166

Monitor Well Data Sheet

Site Name: 1700 Jefferson St	Well/Sample ID: MW-4
Location: 1700 Jefferson St, Oakland, CA	Initial Depth to Water (DTW): 24.25
Client: ARC Document Solutions	Total Well Depth (TD): 34.15
Sampler: CTC	Well Diameter: 4"
Date: 03/30/2016	Purge Rate: 0.25 L/min
Purge Method: Low-Flow	Sampling Rate: 0.25 L/min
Sample Method: Low-Flow	

Time	pH SU	SC µmhoms/cm	DO mg/l	Temp °C	ORP mV	DTW feet bgs	Volume liters	Observations
1108	6.75	1.63	0.69	18.15	-277.6	24.36	0.75	very dark when purge began
1111	6.90	1.57	0.09	18.42	-283.6	24.39	1.50	
1114	6.90	1.54	0.08	18.44	-287.5	24.40	2.25	
1117	6.90	1.51	0.09	18.46	-293.3	24.41	3	
1120	6.90	1.49	0.08	18.52	-297.2	24.41	3.75	

Did Well Dewater?	NO	Start Purge Time:	1105	DTW prior to sample:	24.41
Total Liters Purged:	~3.75L	Stop Purge Time:	1120	Start Sample Time:	1125
Total Sample Volume:	1.5 mL	Odor:	YES, strong gasoline	Sheen:	slight
Instrument ID(s):	PA#1137			Last Calibrated:	900

Notes:

AWR Corp
2363 Mariner Square Drive Suite 245
(510) 671 2094 Fax (510) 373 2166

Monitor Well Data Sheet

Site Name: 1700 Jefferson St	Well/Sample ID: MW-5
Location: 1700 Jefferson St, Oakland, CA	Initial Depth to Water (DTW): 22.67
Client: ARC Document Solutions	Total Well Depth (TD): 33.35
Sampler: CTC	Well Diameter: 2"
Date: 03/30/2016	Purge Rate: 0.25 L/min
Purge Method: Low-Flow	Sampling Rate: 0.25 L/min
Sample Method: Low-Flow	

Time	pH SU	SC µmhoms/cm	DO mg/l	Temp °C	ORP mV	DTW feet bgs	Volume liters	Observations
1242	7.04	0.58	0.10	20.76	-207.5	22.90	0.75	
1245	7.02	0.58	0.09	20.11	-212.9	22.90	1.5	
1248	7.02	0.59	0.14	19.87	-214.7	22.90	2.25	
1251	7.01	0.60	0.06	19.70	-216.5	22.90	3	
1254	7.01	0.61	0.04	19.78	-218.7	22.91	3.75	
1257	7.00	0.61	0.03	19.77	-219.3	22.91	4.50	
1300	7.00	0.61	0.03	19.84	-220.2	22.92	5.25	

Did Well Dewater?	no	Start Purge Time:	1239	DTW prior to sample:	22.92
Total Liters Purged:	~5.25L	Stop Purge Time:	1300	Start Sample Time:	1305
Total Sample Volume:	1.5 m2	Odor:	NOTE	Sheen:	NONE
Instrument ID(s):	FA01137			Last Calibrated:	900

Notes: smells like sewer & gas

AWR Corp
2363 Mariner Square Drive Suite 245
(510) 671 2094 Fax (510) 373 2166

Monitor Well Data Sheet

Site Name: 1700 Jefferson St	Well/Sample ID: MW6
Location: 1700 Jefferson St, Oakland, CA	Initial Depth to Water (DTW): 23.89
Client: ARC Document Solutions	Total Well Depth (TD): 32.71
Sampler: CTC	Well Diameter: 2"
Date: 03/30/2016	Purge Rate: 0.25 L/min
Purge Method: Low-Flow	Sampling Rate: 0.25 L/min
Sample Method: Low-Flow	

Time	pH SU	SC µmhoms/cm	DO mg/l	Temp °C	ORP mV	DTW feet bgs	Volume liters	Observations
935	6.67	1.09	0.10	18.50	104.7	24.05	0.75	
938	6.72	1.00	0.07	19.58	83.9	24.10	1.50	
941	6.60	0.91	0.05	20.08	83.5	24.11	2.25	
944	6.57	0.90	0.05	20.33	78.8	24.11	3	
947	6.57	0.90	0.04	20.39	76.4	24.12	3.75	

Did Well Dewater?	NO	Start Purge Time:	938	DTW prior to sample:	24.12
Total Liters Purged:	~3.75 L	Stop Purge Time:	947	Start Sample Time:	950
Total Sample Volume:	1.5 mL	Odor:	NONE	Sheen:	NONE
Instrument ID(s):	FA01137			Last Calibrated:	900

Notes:

AWR Corp
2363 Mariner Square Drive Suite 245
(510) 671 2094 Fax (510) 373 2166

APPENDIX B:

LABORATORY ANALYTICAL RESULTS

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1603F73

Report Created for: Applied Water Resources

2363 Mariner Square Drive, Ste. 245
Alameda, CA 94501

Project Contact: Yola Bayram
Project P.O.:
Project Name: 3; 1700 Jefferson St.

Project Received: 03/31/2016

Analytical Report reviewed & approved for release on 04/13/2016 by:

Angela Rydelius,
Laboratory Manager

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CDPH ELAP 1644 ♦ NELAP 4033ORELAP

McCampbell Analytical, Inc.
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Glossary of Terms & Qualifier Definitions

Client: Applied Water Resources
Project: 3; 1700 Jefferson St.
WorkOrder: 1603F73

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)

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Glossary of Terms & Qualifier Definitions

Client: Applied Water Resources
Project: 3; 1700 Jefferson St.
WorkOrder: 1603F73

Analytical Qualifiers

S	Surrogate spike recovery outside accepted recovery limits
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant
d17	Reporting limit for MTBE raised due to co-elution with non-target peaks.

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Analytical Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Received:	3/31/16 17:05	**Extraction Method:**	SW5030B
Date Prepared:	4/2/16-4/3/16	**Analytical Method:**	SW8260B
Project:	3; 1700 Jefferson St.	**Unit:**	µg/L

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1603F73-001B	Water	03/30/2016 09:50	GC10	118964

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	04/02/2016 21:58
Benzene	ND	0.50	1	04/02/2016 21:58
t-Butyl alcohol (TBA)	ND	2.0	1	04/02/2016 21:58
1,2-Dibromoethane (EDB)	ND	0.50	1	04/02/2016 21:58
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	04/02/2016 21:58
Diisopropyl ether (DIPE)	ND	0.50	1	04/02/2016 21:58
Ethylbenzene	ND	0.50	1	04/02/2016 21:58
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	04/02/2016 21:58
Methyl-t-butyl ether (MTBE)	ND	0.50	1	04/02/2016 21:58
Toluene	ND	0.50	1	04/02/2016 21:58
Xylenes, Total	ND	0.50	1	04/02/2016 21:58

Surrogates	REC (%)	Limits	
Dibromofluoromethane	99	70-130	04/02/2016 21:58
Toluene-d8	91	70-130	04/02/2016 21:58

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1603F73-002B	Water	03/30/2016 10:35	GC10	118964

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	5.0	10	04/02/2016 22:39
Benzene	**99**	5.0	10	04/02/2016 22:39
t-Butyl alcohol (TBA)	ND	20	10	04/02/2016 22:39
1,2-Dibromoethane (EDB)	ND	5.0	10	04/02/2016 22:39
1,2-Dichloroethane (1,2-DCA)	ND	5.0	10	04/02/2016 22:39
Diisopropyl ether (DIPE)	ND	5.0	10	04/02/2016 22:39
Ethylbenzene	**14**	5.0	10	04/02/2016 22:39
Ethyl tert-butyl ether (ETBE)	ND	5.0	10	04/02/2016 22:39
Methyl-t-butyl ether (MTBE)	ND	5.0	10	04/02/2016 22:39
Toluene	ND	5.0	10	04/02/2016 22:39
Xylenes, Total	ND	5.0	10	04/02/2016 22:39

Surrogates	REC (%)	Limits	
Dibromofluoromethane	99	70-130	04/02/2016 22:39
Toluene-d8	90	70-130	04/02/2016 22:39

Analyst(s): AK

(Cont.)

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Analytical Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Received:	3/31/16 17:05	**Extraction Method:**	SW5030B
Date Prepared:	4/2/16-4/3/16	**Analytical Method:**	SW8260B
Project:	3; 1700 Jefferson St.	**Unit:**	µg/L

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4	**1603F73-003B**	**Water**	**03/30/2016 11:25**	**GC10**	**118964**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	10	20	04/02/2016 23:19
Benzene	**300**	10	20	04/02/2016 23:19
t-Butyl alcohol (TBA)	ND	40	20	04/02/2016 23:19
1,2-Dibromoethane (EDB)	ND	10	20	04/02/2016 23:19
1,2-Dichloroethane (1,2-DCA)	ND	10	20	04/02/2016 23:19
Diisopropyl ether (DIPE)	ND	10	20	04/02/2016 23:19
Ethylbenzene	**47**	10	20	04/02/2016 23:19
Ethyl tert-butyl ether (ETBE)	ND	10	20	04/02/2016 23:19
Methyl-t-butyl ether (MTBE)	ND	10	20	04/02/2016 23:19
Toluene	**73**	10	20	04/02/2016 23:19
Xylenes, Total	**83**	10	20	04/02/2016 23:19

Surrogates	REC (%)	Limits	
Dibromofluoromethane	98	70-130	04/02/2016 23:19
Toluene-d8	90	70-130	04/02/2016 23:19

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	**1603F73-004B**	**Water**	**03/30/2016 12:09**	**GC10**	**118964**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	50	100	04/03/2016 00:00
Benzene	**2200**	50	100	04/03/2016 00:00
t-Butyl alcohol (TBA)	ND	200	100	04/03/2016 00:00
1,2-Dibromoethane (EDB)	ND	50	100	04/03/2016 00:00
1,2-Dichloroethane (1,2-DCA)	**53**	50	100	04/03/2016 00:00
Diisopropyl ether (DIPE)	ND	50	100	04/03/2016 00:00
Ethylbenzene	**270**	50	100	04/03/2016 00:00
Ethyl tert-butyl ether (ETBE)	ND	50	100	04/03/2016 00:00
Methyl-t-butyl ether (MTBE)	ND	50	100	04/03/2016 00:00
Toluene	**670**	50	100	04/03/2016 00:00
Xylenes, Total	**380**	50	100	04/03/2016 00:00

Surrogates	REC (%)	Limits	
Dibromofluoromethane	98	70-130	04/03/2016 00:00
Toluene-d8	90	70-130	04/03/2016 00:00

Analyst(s): AK

(Cont.)

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Analytical Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Received:	3/31/16 17:05	**Extraction Method:**	SW5030B
Date Prepared:	4/2/16-4/3/16	**Analytical Method:**	SW8260B
Project:	3; 1700 Jefferson St.	**Unit:**	µg/L

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1603F73-005B**	**Water**	**03/30/2016 12:49**	**GC10**	**118964**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	250	500	04/03/2016 00:41
Benzene	**7500**	250	500	04/03/2016 00:41
t-Butyl alcohol (TBA)	ND	1000	500	04/03/2016 00:41
1,2-Dibromoethane (EDB)	ND	250	500	04/03/2016 00:41
1,2-Dichloroethane (1,2-DCA)	ND	250	500	04/03/2016 00:41
Diisopropyl ether (DIPE)	ND	250	500	04/03/2016 00:41
Ethylbenzene	**1100**	250	500	04/03/2016 00:41
Ethyl tert-butyl ether (ETBE)	ND	250	500	04/03/2016 00:41
Methyl-t-butyl ether (MTBE)	ND	250	500	04/03/2016 00:41
Toluene	**11,000**	250	500	04/03/2016 00:41
Xylenes, Total	**3700**	250	500	04/03/2016 00:41

Surrogates	REC (%)	Limits	
Dibromofluoromethane	99	70-130	04/03/2016 00:41
Toluene-d8	91	70-130	04/03/2016 00:41

Analyst(s): AK

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Analytical Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Received:	3/31/16 17:05	**Extraction Method:**	SW5030B
Date Prepared:	4/1/16-4/2/16	**Analytical Method:**	SW8021B/8015Bm
Project:	3; 1700 Jefferson St.	**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-6	**1603F73-001A**	**Water**	**03/30/2016 09:50**	**GC3**	**118971**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	04/02/2016 00:44
MTBE	---	5.0	1	04/02/2016 00:44
Benzene	---	0.50	1	04/02/2016 00:44
Toluene	---	0.50	1	04/02/2016 00:44
Ethylbenzene	---	0.50	1	04/02/2016 00:44
Xylenes	---	1.5	1	04/02/2016 00:44

Surrogates	REC (%)	Limits	
aaa-TFT	119	70-130	04/02/2016 00:44

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	**1603F73-002A**	**Water**	**03/30/2016 10:35**	**GC3**	**118971**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**1200**	100	2	04/02/2016 16:14
MTBE	---	10	2	04/02/2016 16:14
Benzene	---	1.0	2	04/02/2016 16:14
Toluene	---	1.0	2	04/02/2016 16:14
Ethylbenzene	---	1.0	2	04/02/2016 16:14
Xylenes	---	3.0	2	04/02/2016 16:14

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	164	S	70-130	04/02/2016 16:14

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

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager

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Analytical Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Received:	3/31/16 17:05	**Extraction Method:**	SW5030B
Date Prepared:	4/1/16-4/2/16	**Analytical Method:**	SW8021B/8015Bm
Project:	3; 1700 Jefferson St.	**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-4	**1603F73-003A**	**Water**	**03/30/2016 11:25**	**GC3**	**118971**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**3400**	500	10	04/01/2016 23:44
MTBE	---	200	10	04/01/2016 23:44
Benzene	---	5.0	10	04/01/2016 23:44
Toluene	---	5.0	10	04/01/2016 23:44
Ethylbenzene	---	5.0	10	04/01/2016 23:44
Xylenes	---	15	10	04/01/2016 23:44

Surrogates	REC (%)	Limits	
aaa-TFT	105	70-130	04/01/2016 23:44

Analyst(s): IA Analytical Comments: d1,d17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	**1603F73-004A**	**Water**	**03/30/2016 12:09**	**GC3**	**118971**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**13,000**	500	10	04/01/2016 23:14
MTBE	---	300	10	04/01/2016 23:14
Benzene	---	5.0	10	04/01/2016 23:14
Toluene	---	5.0	10	04/01/2016 23:14
Ethylbenzene	---	5.0	10	04/01/2016 23:14
Xylenes	---	15	10	04/01/2016 23:14

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	138	S	70-130	04/01/2016 23:14

Analyst(s): IA Analytical Comments: d1,d17,c4

(Cont.)

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Analytical Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Received:	3/31/16 17:05	**Extraction Method:**	SW5030B
Date Prepared:	4/1/16-4/2/16	**Analytical Method:**	SW8021B/8015Bm
Project:	3; 1700 Jefferson St.	**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-5	**1603F73-005A**	**Water**	**03/30/2016 12:49**	**GC3**	**118971**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**69,000**	5000	100	04/02/2016 16:45
MTBE	**---**	1000	100	04/02/2016 16:45
Benzene	**---**	50	100	04/02/2016 16:45
Toluene	**---**	50	100	04/02/2016 16:45
Ethylbenzene	**---**	50	100	04/02/2016 16:45
Xylenes	**---**	150	100	04/02/2016 16:45

Surrogates	REC (%)	Limits	
aaa-TFT	100	70-130	04/02/2016 16:45

Analyst(s): IA Analytical Comments: d1,d17

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Quality Control Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Prepared:	4/2/16	**BatchID:**	118964
Date Analyzed:	4/2/16	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	3; 1700 Jefferson St.	**Sample ID:**	MB/LCS-118964 1603E83-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methanol	ND	-	500	-	-	-	-
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	10.7	0.50	10	-	107	54-140
Benzene	ND	9.57	0.50	10	-	96	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	39.4	2.0	40	-	99	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	-	0.50	-	-	-	-
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	10.9	0.50	10	-	109	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	8.72	0.50	10	-	87	66-125
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
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	-	-	-	-

(Cont.)

NELAP 4033ORELAP

QA/QC Officer

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

Quality Control Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Prepared:	4/2/16	**BatchID:**	118964
Date Analyzed:	4/2/16	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	3; 1700 Jefferson St.	**Sample ID:**	MB/LCS-118964 1603E83-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	8.82	0.50	10	-	88	57-136
Ethanol	ND	-	50	-	-	-	-
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.23	0.50	10	-	92	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	10.4	0.50	10	-	103	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	-	0.50	-	-	-	-
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:	Applied Water Resources	**WorkOrder:**	1603F73
Date Prepared:	4/2/16	**BatchID:**	118964
Date Analyzed:	4/2/16	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	3; 1700 Jefferson St.	**Sample ID:**	MB/LCS-118964 1603E83-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	23.8	24.1		25	95	97	70-130
Toluene-d8	22.6	22.5		25	90	90	70-130
4-BFB	1.82	-		2.5	73	-	-

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	10.0	10.5	10	ND	100	105	69-139	4.87	20
Benzene	9.18	9.52	10	ND	92	95	69-141	3.53	20
t-Butyl alcohol (TBA)	37.1	38.6	40	ND	93	97	41-152	3.97	20
1,2-Dibromoethane (EDB)	10.4	10.8	10	ND	104	108	76-135	3.41	20
1,2-Dichloroethane (1,2-DCA)	8.23	8.53	10	ND	82	85	73-139	3.59	20
Diisopropyl ether (DIPE)	8.49	8.78	10	ND	85	88	72-140	3.34	20
Ethyl tert-butyl ether (ETBE)	8.78	9.12	10	ND	88	91	71-140	3.77	20
Methyl-t-butyl ether (MTBE)	9.58	10.0	10	ND	96	101	73-139	4.81	20
Toluene	9.81	10.2	10	ND	98	102	71-128	3.39	20
Surrogate Recovery									
Dibromofluoromethane	24.1	24.2	25		96	97	73-131	0.506	20
Toluene-d8	22.4	22.4	25		90	90	72-117	0	20

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Quality Control Report

Client:	Applied Water Resources	**WorkOrder:**	1603F73
Date Prepared:	4/1/16	**BatchID:**	118971
Date Analyzed:	4/1/16	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	3; 1700 Jefferson St.	**Sample ID:**	MB/LCS-118971 1603F54-007AMS/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	56.4	40	60	-	94	70-130
MTBE	ND	10.0	5.0	10	-	100	70-130
Benzene	ND	10.5	0.50	10	-	105	70-130
Toluene	ND	10.5	0.50	10	-	105	70-130
Ethylbenzene	ND	10.6	0.50	10	-	106	70-130
Xylenes	ND	32.2	1.5	30	-	107	70-130
Surrogate Recovery							
aaa-TFT	9.73	9.73		10	97	97	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	58.6	57.6	60	ND	98	96	70-130	1.64	20
MTBE	9.14	9.20	10	ND	91	92	70-130	0.710	20
Benzene	10.3	10.1	10	ND	103	101	70-130	1.85	20
Toluene	10.5	10.2	10	ND	105	102	70-130	3.22	20
Ethylbenzene	10.6	10.4	10	ND	106	104	70-130	1.36	20
Xylenes	32.0	31.5	30	ND	107	105	70-130	1.67	20
Surrogate Recovery									
aaa-TFT	9.94	9.95	10		99	100	70-130	0.0581	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1603F73 **ClientCode: AWR**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☐ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Yola Bayram
Applied Water Resources
2363 Mariner Square Drive, Ste. 245
Alameda, CA 94501
FAX:
Email: ybayram@awrcorp.net
cc/3rd Party:
PO:
ProjectNo: 3

Bill to:
Candace Curtis
Applied Water Resources
2363 Mariner Square Drive, Ste. 245
Alameda, CA 24501
ccurtis@awrcorp.net

Requested TAT: 5 days;
Date Received: **03/31/2016**
Date Logged: **03/31/2016**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1603F73-001	MW-6	Water	3/30/2016 9:50	☐	B	A	A									
1603F73-002	MW-3	Water	3/30/2016 10:35	☐	B	A										
1603F73-003	MW-4	Water	3/30/2016 11:25	☐	B	A										
1603F73-004	MW-1	Water	3/30/2016 12:09	☐	B	A										
1603F73-005	MW-5	Water	3/30/2016 12:49	☐	B	A										

Test Legend:

1	8260B_MBTEXOXYPBSCV_W	2	G-MBTEX_W	3	PREDF REPORT	4	
5		6		7		8	
9		10		11		12	

Prepared by: Alexandra Iniguez

Comments:

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

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WORK ORDER SUMMARY

Client Name: APPLIED WATER RESOURCES
Project: 3
Comments:

QC Level: LEVEL 2
Client Contact: Yola Bayram
Contact's Email: ybayram@awrcorp.net

Work Order: 1603F73
Date Logged: 3/31/2016

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1603F73-001A	MW-6	Water	SW8021B/8015Bm (G/MBTEX)	1	aVOA w/ HCl	☐	3/30/2016 9:50	5 days	Present	☐	
1603F73-001B	MW-6	Water	SW8260B (Oxygenates, MBTEX & Lead Scav.)	2	aVOA w/ HCl	☐	3/30/2016 9:50	5 days	Present	☐	
1603F73-002A	MW-3	Water	SW8021B/8015Bm (G/MBTEX)	1	aVOA w/ HCl	☐	3/30/2016 10:35	5 days	Trace	☐	
1603F73-002B	MW-3	Water	SW8260B (Oxygenates, MBTEX & Lead Scav.)	2	aVOA w/ HCl	☐	3/30/2016 10:35	5 days	Trace	☐	
1603F73-003A	MW-4	Water	SW8021B/8015Bm (G/MBTEX)	1	aVOA w/ HCl	☐	3/30/2016 11:25	5 days	Present	☐	
1603F73-003B	MW-4	Water	SW8260B (Oxygenates, MBTEX & Lead Scav.)	2	aVOA w/ HCl	☐	3/30/2016 11:25	5 days	Present	☐	
1603F73-004A	MW-1	Water	SW8021B/8015Bm (G/MBTEX)	1	aVOA w/ HCl	☐	3/30/2016 12:09	5 days	Present	☐	
1603F73-004B	MW-1	Water	SW8260B (Oxygenates, MBTEX & Lead Scav.)	2	aVOA w/ HCl	☐	3/30/2016 12:09	5 days	Present	☐	
1603F73-005A	MW-5	Water	SW8021B/8015Bm (G/MBTEX)	1	aVOA w/ HCl	☐	3/30/2016 12:49	5 days	Trace	☐	
1603F73-005B	MW-5	Water	SW8260B (Oxygenates, MBTEX & Lead Scav.)	2	aVOA w/ HCl	☐	3/30/2016 12:49	5 days	Trace	☐	

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.

160373

AWR Corp.

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM
CHAIN-OF-CUSTODY

Invoice to: AWR Corp		Date: 3/30/2016	Page: 1 of 1
Project Name:1700 Jefferson St		Location: 1700 Jefferson St, Oakland, CA	
Project #: 3		EDF report: (y) / n	Email: ybayram@awrcorp.net
Project Manager: Yola Bayram		Tel: 510-671-2088	Fax: 510-227-5495
Laboratory: McCampbell		Turnaround Time (days)	1 2 3 4 5 6 7 14 Std
Sampler Signature:			X

Analyses Required

Sample ID	Date	Time	Sample Matrix	# Containers	TPHg y EPA 8015, C6-C12	BTEX by 8260	MTBE by 8260	Lead Scavengers by 8260	Fuel Oxygenates by 8260		
MW-6	3/30/16	950	Water	3	X	X	X	X	X		
MW-3	"	1035	Water	3	X	X	X	X	X		
MW-9	"	1125	Water	3	X	X	X	X	X		
MW-1	"	1209	Water	3	X	X	X	X	X		
MW-5	"	1245	Water	3	X	X	X	X	X		

Notes:
All preserved in HCL
Please Geotracker EDF # T0600100196

Relinquished by:	Date	Time	Received by:	Date	Time
	3-31-16	1030		3-31-16	1030
Relinquished by:	Date	Time	Received by:	Date	Time
	3-31-16	1445		3/31/16	14:45

AWR Corp
2363 Mariner Square Drive Suite 245
(510) 671 2094 Fax (510) 373 2166

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Sample Receipt Checklist

Client Name:	**Applied Water Resources**	Date and Time Received:	**3/31/2016 14:45**
Project Name:	**3**	Date Logged:	**3/31/2016**
WorkOrder №:	**1603F73** Matrix: Water	Received by:	Alexandra Iniguez
Carrier:	Bernie Cummins (MAI Courier)	Logged by:	Alexandra Iniguez

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Sample/Temp Blank temperature	Temp: 1.8°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 ☑

** NOTE: If the "No" box is checked, see comments below.*

Comments: