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March 28, 2012

Barbara Jakub
Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Oakland Vehicle Maintenance Facility, 1675 7th Street, Oakland, CA
Perjury Statement

Dear Ms. Jakub:

I declare, under the penalty of perjury, that to the best of my knowledge the information and recommendations as represented to me in the attached First Semi-Annual 2012 Groundwater Monitoring Report are true and correct.

Sincerely:

A handwritten signature in blue ink, appearing to read "Nihal Oztek".

Nihal Oztek
Facilities Environmental Specialist

Attachments

Cc: Charles Mettler, TRC



**First Semi-Annual 2012
Groundwater Monitoring Report**
USPS Oakland Vehicle Maintenance Facility
1675 7th Street
Oakland, California

This report has been prepared for:

United States Postal Service
395 Oyster Point Boulevard, Suite 225
South San Francisco, California 94080-1930

March 23, 2012

Project No. 180497.2

Handwritten signature of Jacob P. Zepeda in blue ink.

Jacob P. Zepeda
Senior Staff Geologist

Handwritten signature of Gary E. Gunderson in blue ink.

Gary E. Gunderson, P.E.
Senior Project Engineer

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March 28, 2012
180497.2

Ms. Emmy Andrews
UNITED STATES POSTAL SERVICE
Pacific Facilities Service Office
395 Oyster Point Boulevard, Suite 225
South San Francisco, California 94080-1930

**RE: FIRST SEMI-ANNUAL 2012
GROUNDWATER MONITORING
REPORT
USPS OAKLAND VMF
1675 7TH STREET
OAKLAND, CALIFORNIA**

Dear Ms. Andrews:

The attached report summarizes the results of the first semi-annual 2012 groundwater monitoring event performed at the United States Postal Service's Oakland Vehicle Maintenance Facility, located at 1675 7th Street in Oakland, California.

We refer you to the text of the report for details regarding this study. If you have any questions, please call and we will be glad to discuss them with you.

Very truly yours,

TRC COMPANIES, INC.

Gary E. Gunderson, P.E.
Senior Project Manager

GEG:JPZ:jcm

Copies: Addressee (email)
Alameda County Department of Environmental Health (1)
Attn: Ms. Barbara Jakub
USPS Oakland VMF/GMF (1)
Attn: Mr. Steven M. Quan

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FIRST SEMI-ANNUAL 2012
GROUNDWATER MONITORING REPORT
USPS OAKLAND VMF
1675 7TH STREET
OAKLAND, CALIFORNIA

1.0 INTRODUCTION

1.1 Purpose

In this report, we present the results of the 1st-quarter 2012 groundwater monitoring event performed at the United States Postal Service's (USPS's) Oakland Vehicle Maintenance Facility (VMF) located at 1675 7th Street in Oakland, California (Figure 1).

This work was performed under the direction of the USPS, in accordance with the *November 17, 2010 Agreement for Environmental Services Contract# 052571-09-J-0041, Modification #4, (Work Order #23.00)*, at the request of the Alameda County Department of Environmental Health (ACDEH) to monitor the presence of petroleum fuel hydrocarbons in the on-site groundwater.

1.2 Site Background

In November 1991, one 750-gallon waste-oil underground storage tank (UST), one 5,000-gallon gasoline UST, and two 10,000-gallon diesel USTs were removed from the Oakland VMF (site); an additional 10,000-gallon diesel UST was removed from the site in June 1992. Strong hydrocarbon odors and visible contamination were present within the UST pit excavations, and a small hole in the bottom of the gasoline UST was identified during removal. Sampling and analysis of the soil and groundwater from below the USTs and product piping was performed concurrently with excavation activities. Soil analytical results from these areas indicated the presence of elevated concentrations of total petroleum hydrocarbons as diesel (TPHd), gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (collectively known as BTEX compounds) (Professional Service Industries, Inc. [PSI] 2002). Metals (cadmium, chromium, lead, nickel, and zinc) were also detected in soil samples collected from the former 750-gallon UST excavation, but odors and discoloration of soil were not present. Groundwater was not encountered from the base of the 1991 UST excavations (at 16 feet below ground surface [bgs]), but was encountered at the base of the 1992 UST excavation (at 12 feet bgs). Groundwater collected from the 1992 UST excavation contained elevated concentrations of TPHd (72,000 micrograms per liter [$\mu\text{g/L}$]), benzene (3.8 $\mu\text{g/L}$), and xylenes (12 $\mu\text{g/L}$). Following the UST removals, GeoResource Consultants oversaw the installation of three new 12,000-gallon USTs (one gasoline and two diesel) near the southwest corner of the USPS parking garage, and one new 1,000-gallon waste-oil aboveground storage tank (AST).

Based on the elevated concentrations of TPHd, benzene, and xylenes detected in soil and groundwater sampled during the 1992 UST removal activities, the ACDEH requested a groundwater investigation and further evaluation of soil contamination. Later in 1992, following the June excavation activities, additional hydrocarbon-impacted soil was removed from the site near the location of two former diesel USTs (PSI, 2002).

In September 1993, Harding Lawson Associates performed a subsurface investigation in which nine borings were drilled, and 25 soil samples were collected and analyzed for TPHd, TPHg, and BTEX compounds. Five of the drilled borings were converted to monitoring wells (MW-1 through MW-5) which were completed to a depth of 20 feet bgs. Elevated concentrations of TPHd (2,400 milligrams per kilogram [mg/Kg]), TPHg (53 mg/Kg), and xylenes (0.087 mg/Kg) were detected in soil at 3 feet beneath the fuel dispenser island at MW-4 (boring B-4 location); elevated concentrations of TPHd

(84 mg/Kg), TPHg (180 mg/Kg), benzene (0.15 mg/Kg), toluene (0.35 mg/Kg), ethylbenzene (2.1 mg/Kg), and xylenes (13 mg/Kg) were detected in soil at 6 feet beneath the fuel dispenser island near well MW-3 (boring B-8); and benzene (0.04 mg/Kg) was detected in soil at 2.5 feet deep near well MW-2 (boring B-2). TPHd was detected in a groundwater sample collected from monitoring well MW-4 at a concentration of 580 µg/L. No other petroleum hydrocarbons were detected in any of the other groundwater samples collected during the investigation.

Quarterly groundwater monitoring was initiated at the site in January 1994. In December 1994, in response to the construction of Interstate 880 in the vicinity of the site (Cypress Freeway Reconstruction Project), the ACDEH approved the abandonment of well MW-5, which was located up-gradient of the UST removal areas and had been non-detect for petroleum hydrocarbons since being installed in 1993. By June 1995, free product was discovered in well MW-4 and removed with absorbent socks and bailers. TPHd concentrations increased from June 1994 to June 1995 in wells MW-1, MW-2, MW-3 and MW-4.

In accordance with a request from the ACDEH, by June 1997, Harding Lawson Associates (HLA) performed a well search, chemical data compilation of groundwater and soil contamination, and a screening Human Health Risk Assessment (HHRA) (Tier I) to evaluate and assess whether site closure was justifiable. Mr. Kayode Kadara (USPS) presented the HLA report to Ms. Jennifer Eberle (ACDEH) in June 1997 and to Mr. Larry Seto (ACDEH) by February 1998. In the report, HLA concluded that “no risk-based remediation is necessary and case closure is recommended”. The request for site closure was reviewed and denied by Mr. Seto and Madhulla Logan (ACDEH) in May 1998. ACDEH indicated that the maximum concentrations of benzene detected in shallow soils at the site exceeded Tier I cleanup levels, and that a Tier II ASTM Risk Based Corrective Action (RBCA) or HHRA should be done for the site using a construction worker scenario (due to the presence of impacted soil within 5 feet of the ground surface).

Additionally, in 1997, Herbst Engineering removed three hydraulic lifts within the VMF building. During the removal, Herbst Engineering contracted JB Environmental to characterize and dispose of the observed soil contamination in these hydraulic lift areas. For disposal, the stockpiled and drummed soil and sludge was analyzed for metals (CAM 17), TPHg, TPHd, BTEX compounds, TPH as motor oil (TPHmo), and chlorinated volatile organic compounds (VOCs). Analytical results indicated the impacted soil and sludge contained high concentrations of TPHmo (up to 12,000 mg/Kg), and traces of chlorinated hydrocarbons. An initial investigation of the soil and groundwater impacted by leaking hydraulic lifts was conducted by Lowney Associates (now known as TRC) in August 1999. The investigation identified high concentrations of total recoverable petroleum hydrocarbons (TRPH) in soil (up to 48,000 mg/Kg), and in groundwater (TRPH up to 61 mg/Kg); benzene in groundwater was detected at 0.0065 (mg/L). The follow up soil and groundwater investigation, conducted by Lowney Associates in March 2000, consisted of seven borings in the vicinity of the former-leaking hydraulic lifts where soil and groundwater was previously tested for TRPH and BTEX compounds. The investigation revealed that the impacts from the leaking hydraulic lifts were limited to the area immediately surrounding the lifts, with no significant migration of contaminants.

In February 2000, Mr. Thomas Peacock, manager of the ACDEH local oversight program (LOP), submitted a letter to Mr. Sean McFadden of the USPS entitled *Intent to Make a Determination That No Further Action Is Required*, indicating that the LOP intended to make a determination that no further action is required or to issue a closure letter. An additional letter sent to Mr. Sean McFadden (USPS) from Mr. Larry Seto (ACDEH) indicated that groundwater had not been tested for methyl-tert butyl ether (MTBE). The letter indicated that in addition to a Tier II RBCA, before site closure could be issued, another groundwater sample must be taken from well MW-4 and analyzed for TPHg, TPHd, BTEX, and MTBE. In another letter dated November 8, 2000, Mr. Larry Seto (ACDEH) indicated receipt of the Tier II HHRA dated October 11, 1999 by Lowney Associates. The letter also indicated that the ACDEH had not received the laboratory analysis for the groundwater sample from

MW-4, and that a groundwater sample must be taken from MW-4 before case closure could be issued; Mr. Tom Peacock would be the new case officer for the site at ACDEH. On November 1, 2000, Lowney Associates collected a groundwater sample from well MW-4, at which time the well contained 1 to 2 inches of free product. The subsequent Groundwater Quality Evaluation report (January 2001), recommended quarterly groundwater monitoring at the site.

Mr. Barney Chan (ACDEH) responded in a letter on April 9, 2001, directing Mr. Sean McFadden (USPS) to resume quarterly groundwater monitoring, with an addition of polyaromatic hydrocarbons (PAHs) to the list of contaminants to be analyzed (in addition to TPHg, TPHd, BTEX, MTBE). Mr. Chan (ACDEH) also requested clarification of the case by indicating that the USPS provide: 1) a map indicating the location of the soil samples from past tank removals, 2) a tabulation of the initial and confirmation soil sample results, 3) a map indicating the location of hydraulic lifts and samples relative to the former and existing USTs, 4) an analysis of residual concentrations of hydraulic fluid in soil and groundwater, and 5) an analysis of the need for further site characterization.

Quarterly groundwater monitoring was initiated by the USPS in March 2002 by Professional Service Industries (PSI), which included sampling of groundwater from wells MW-1 through MW-4. Wells MW-1 through MW-3 were analyzed for TPHg, TPHd, and VOCs (including BTEX and MTBE); because of the presence of free product, well MW-4 was analyzed for semi-volatile organic compounds (SVOCs) and PAHs. TPHd was detected in MW-3 (0.54 mg/L). MTBE was also detected in MW-3 (3.8 µg/L) and MW-4 (8.5 µg/L). Additional VOCs and SVOCs were detected in groundwater from MW-4 (sec-butylbenzene, naphthalene, n-propylbenzene, anthracene, di-n-octylphthalate, flourene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene), but only naphthalene was above the EPA Region IX Preliminary Remediation Goals (PRG) at 46 µg/L.

As a result of subsequent correspondence between Mr. Chan (ACDEH), Mr. Roland Queyquep (USPS) and Mr. Ross and Mr. Burfield of PSI (consultant for the USPS) during May through August 2002, the ACDEH made the following requests:

- Clarification of data presented in the Tier II HHRA and an assessment of the continued validity of the HHRA conclusions;
- Sampling and analysis of the free product in MW-4;
- Removal of free product from MW-4; and
- Delineation of the free product plume.

PSI addressed Mr. Chan's (ACDEH) requests in the submitted *Workplan: Site Investigation & Free-Product Removal* dated July 17, 2002. The ACDEH approved the Workplan in their letter dated July 19, 2002. Modifications to the Workplan, including screening and analysis of soil samples from the proposed boring and clarification of the groundwater sampling method and installation of a permanent well, was sent by PSI on August 19, 2002 and approved by the ACDEH in their letter dated August 23, 2002.

Groundwater results from the quarterly sampling program in 2002 by PSI indicated 4.32 inches of free product was observed in MW-4. The free product itself was fingerprinted as degraded diesel. PSI removed the free product (approximately 1 to 2 gallons) from well MW-4 from August through October 2002, until the free product was no longer apparent within the well. In September 2002, well MW-6 was installed approximately 60 feet down-gradient of wells MW-3 and MW-4 by PSI per the ACDEH request for delineation of the plume down-gradient of the fuel island. In general, the analytical results for the 2002 groundwater sampling program indicated no TPHg in any of the wells except MW-4; TPHd was detected in wells MW-1, MW-3, and MW-4, but decreased rapidly from the first to the fourth quarter; BTEX was not detected in any wells except for toluene at low

concentrations in MW-6; and MTBE was detected in wells MW-1 through MW-4, ranging from 4 to 7 µg/L.

By December 30, 2002, PSI submitted their *Historic Summary Report and Closure Request, USPS GMF/VMF* to Mr. Barney Chan (ACDEH). In their report, PSI reviewed the Tier II HHRA and indicated that the conclusions of the HHRA with respect to estimated health risk “are not only valid, but are conservative for current site conditions.” PSI also concluded that there had been no significant leak of gasoline fuel, supported by the general absence of TPHg and BTEX constituents and the low levels of MTBE in groundwater; they also concluded that additional remedial efforts to address residual concentrations of hydraulic fluid in soil and groundwater should not be required. PSI’s efforts to remove TPHd free product from MW-4 appeared successful, and that based on the volume of the free product, the amount of discharge of TPHd to the groundwater was on the order of 1 to 2 gallons, and occurred suddenly during a short duration or single event release of diesel fuel centered around or within MW-4. On February 24, 2003, PSI submitted the Fourth Quarter 2002 Groundwater Monitoring Report to Mr. Barney Chan (ACDEH) and requested closure for the site.

Based on our review of the ACDEH LOP case files for the site, no further correspondence occurred regarding site closure after early 2003, and no site characterization or monitoring activities have occurred since 2002.

However, ACDEH sent a letter to the USPS dated July 3, 2008, identifying the site as having not being claimed in GeoTracker. A subsequent Notice of Violation (NOV) sent by the ACDEH dated July 24, 2009, was received by Mr. Roland Queyquep (USPS); the NOV was issued for failing to claim the site in a timely fashion.

On March 11, 2010, Barbara Jakub of the ACDEH performed a site Closure Review that was posted to GeoTracker. In the Closure Review letter, she identifies potential vapor intrusion as one of the main impediments to obtaining case closure.

In December 2010, TRC conducted a groundwater monitoring event at the site. Since the wells at the site had not been sampled in eight years, TRC redeveloped the six wells at the site prior to sampling and surveyed wells afterwards. Laboratory analyses of groundwater from monitoring wells MW-1, MW-3, and MW-4 detected TPHd as dissolved phase hydrocarbons above the laboratory reporting limits and environmental screening levels (ESLs) ranging from 161 to 6,620 µg/L. TPHmo was detected in wells MW-2 and MW-4 above the laboratory reporting limits and ESLs. TPHg and BTEX compounds were not detected above the laboratory reporting limits or ESLs. MTBE was detected in groundwater from wells MW-3, MW-4, and MW-6, but was well below the groundwater ESL of 5 µg/L. Other fuel oxygenates, [including tertiary butyl alcohol (TBA), diisopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and semi-volatiles 1,2-DCA, naphthalene, or other PAHs] were not detected above groundwater ESLs.

The results of the December 2010 monitoring event were submitted to the ACDEH in the *Fourth Quarter 2010 Groundwater Monitoring Report, USPS Oakland Vehicle Maintenance Facility, 1675 7th Street, Oakland, California*, dated March 18, 2011. ACDEH responded to the report in a letter dated July 22, 2011 entitled *Request for Work Plan and Product Removal for Fuel Leak Case No. R00000016*. In their letter, ACDEH requested resumption of quarterly groundwater monitoring at the site, submittal of a soil vapor investigation workplan and upload of boring logs to GeoTracker. USPS responded in a letter dated September 12, 2011, requesting a reduction of groundwater monitoring frequency to semi-annually and an extension on the deadline for submittal of the soil vapor investigation workplan. During a telephone conference on February 10, 2012, TRC proposed a revised schedule for submittal of the soil vapor investigation work plan to the ACDEH of March 16, 2012. This verbal request was approved by the ACDEH in an e-mail on February 10, 2012. During this exchange, TRC confirmed that the due dates for the first and third quarter 2012 monitoring reports are March 30, 2012 and September 30, 2012, respectively.

1.3 Scope of Work

The scope of work for this investigation was outlined in our agreement with the USPS dated *November 17, 2010 Agreement for Environmental Services Contract# 052571-09-J-0041, Modification #4, (Work Order #23.00)*, and included the following tasks:

- Measurement of the shallow groundwater flow direction beneath the site;
- Purge groundwater and record field parameters of pH, dissolved oxygen, and redox potential;
- Collection of groundwater samples from site monitoring wells MW-1, MW-2, MW-3, MW-4, MW-6;
- Laboratory analysis of the groundwater samples for TPHg, TPHd, TPHmo, VOCs (including BTEX), PAHs, MTBE, DIPE, ETBE, TAME, and TBA by EPA Test Methods 8015M, 8260B and 8270C; and
- Preparation of this first semi-annual 2012 groundwater monitoring report.

2.0 GROUNDWATER QUALITY EVALUATION

2.1 Groundwater Flow Evaluation

On February 15, 2012, groundwater elevation data was collected during well sampling. The general flow direction in the shallow water-bearing zone is towards the southwest (S48°W) at an approximate gradient of 0.008 feet/feet. This is generally consistent with the flow direction measured during past sampling events. The groundwater elevation data and flow direction are presented in Table 1 and shown on Figure 2. For comparison, the results from previous monitoring events also are presented in Appendix A - Table B.

Table 1. Groundwater Elevations in Site Wells

Monitoring Well	Latitude ⁺	Longitude ⁺	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater ** (ft bgs)	Groundwater Elevation (feet msl)	Groundwater Flow Direction
MW-1	37°48'19.16"N	122°18'6.01"W	2/15/2012	11.44	7.67	3.77	S48°W
MW-2	37°48'18.84"N	122°18'5.74"W	2/15/2012	12.06	8.24	3.82	S48°W
MW-3	37°48'18.64"N	122°18'6.54"W	2/15/2012	12.48	9.20	3.28	S48°W
MW-4	37°48'18.50"N	122°18'6.15"W	2/15/2012	12.83	9.47	3.36	S48°W
MW-6	37°48'18.08"N	122°18'6.73"W	2/15/2012	11.93	9.04	2.89	S48°W

** Measured from the top of the casing.

+ Monitoring wells were resurveyed on January 10, 2011 in accordance to the State of California Geotracker requirements using the North American Datum 1983.

TOC = top of casing (from PSI 2002)

ft bgs = feet below ground surface

feet msl = feet mean sea level

2.2 Groundwater Quality

On February 15, 2012, groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-6. Copies of the well sampling logs and a discussion of sampling protocol are included in Appendix B.

The groundwater samples were analyzed for TPHd, TPHmo, VOCs (including BTEX), PAHs, MTBE, DIPE, ETBE, TAME, and TBA by EPA Test Methods 8015M, 8260B and 8270C. Analytical results are presented in Tables 2a, 2b, and 3 and shown on Figure 3. For comparison, the analytical results and depth to groundwater from historical sampling events are presented in Appendix A. Copies of the laboratory reports are attached in Appendix C.

Table 2a. Analytical Results of Selected Groundwater Samples
(concentrations in micrograms per liter [$\mu\text{g/L}$])

Well No.	Date	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
MW-1	2/15/2012	<50	<50	<100	<0.5	<0.5	<0.5	<1.0	<0.5
MW-2	2/15/2012	<50	<51	110	<0.5	<0.5	<0.5	<1.0	<0.5
MW-3	2/15/2012	<50	<58	< 120	<0.5	<0.5	<0.5	<1.0	2.4
MW-4	2/15/2012	290	14,000	< 310	<0.5	<0.5	<0.5	<1.0	3.0
MW-6	2/15/2012	<50	<52	<100	<0.5	<0.5	<0.5	<1.0	0.87
Groundwater ESL ⁽¹⁾		100	100	100	1	40	30	20	5
MCL ⁽²⁾		NE	NE	NE	1	150	300	1,750	13

Notes

⁽¹⁾ Environmental Screening Level-Table A, CRWQCB, SF Bay Region, rev. May 2008.

⁽²⁾ Drinking water Maximum Contaminant Levels—California DHS, June 26, 2009

Bold Compound was detected above one or more of the action levels

$\mu\text{g/L}$ = Micrograms per liter

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

TPHmo = Total petroleum hydrocarbons as motor oil

MTBE = Methyl tert-butyl ether

< = Indicates that the compound was not detected at or above the stated laboratory reporting limit

NE = Not established

Table 2b. Analytical Results of Selected Groundwater Samples
(concentrations in micrograms per liter [$\mu\text{g/L}$])

Well No.	Date	TBA	DIPE	ETBE	TAME	1,2-DCA	Naphthalene
MW-1	2/15/2012	<4.0	<0.5	<0.5	<0.5	<0.5	<1.0
MW-2	2/15/2012	<4.0	<0.5	<0.5	<0.5	<0.5	<1.0
MW-3	2/15/2012	<4.0	<0.5	<0.5	<0.5	0.66	<1.0
MW-4	2/15/2012	< 4.0	<0.5	<0.5	<0.5	<0.5	1.4
MW-6	2/15/2012	<4.0	<0.5	<0.5	<0.5	<0.5	<1.0
Groundwater ESL ⁽¹⁾		12	NE	NE	NE	200	24
MCL ⁽²⁾		NE	NE	NE	NE	0.5	NE

- Notes**
- ⁽¹⁾ Environmental Screening Level-Table A, CRWQCB, SF Bay Region, rev. May 2008.
- ⁽²⁾ Drinking water Maximum Contaminant Levels—California DHS, June 26, 2009
- $\mu\text{g/L}$ = Micrograms per liter
- NE = Not established
- = Indicates that the compound was not detected at or above the stated laboratory reporting limit
- < = limit
- TBA = Tert-butanol
- DIPE = Di-isopropyl ether
- ETBE = Ethyl tert-butyl ether
- TAME = Tert-amyl methyl ether
- 1,2-DCA = 1,2-dichloroethane

Table 3. Analytical Field Data of Selected Groundwater Samples

Well No.	Date	pH	Specific Conductivity	Temperature	Dissolved Oxygen	Oxidation Reduction Potential
			($\mu\text{S/cm}$)	($^{\circ}\text{C}$)	(mg/L)	(mV)
MW-1	2/15/2012	6.94	2533	17.44	6.58	98.7
MW-2	2/15/2012	6.95	1581	17.73	3.82	125.3
MW-3	2/15/2012	7.34	2138	18.43	4.09	88.1
MW-4	2/15/2012	7.02	1595	17.73	6.07	-163.8
MW-6	2/15/2012	7.23	1059	18.55	5.21	283.2

- Notes**
- mg/L = milligrams per liter
- mV = millivolts
- $\mu\text{S/cm}$ = microSiemens per centimeter
- $^{\circ}\text{C}$ = degree Celsius

2.3 Hydrocarbon Absorbent Socks and Field Observations

Based on our observation of free product in well MW-4 during our monitoring event and to continue with the petroleum hydrocarbon recovery effort, hydrocarbon absorbent socks were removed and replaced in well MW-4. Free product up to 0.96-inches thick was measured with a separate phase hydrocarbon (SPH)-groundwater interface probe during our first semi-annual 2012 monitoring event, and still appeared as immiscible brown droplets coalescing into a thin layer atop the clear groundwater. Approximately 25 gallons of groundwater and SPH were extracted from well MW-4

using bailers and absorbent socks prior to sampling groundwater from the well. Following removal and replacement of the absorbent sock on February 15, 2012, TRC removed the new absorbent sock on March 9, 2012 and replaced the cage and absorbent sock collection system with an SPH passive collection system with a skimmer in well MW-4. Field observations are presented in Table 4 below.

Table 4. Field Observations of Sheen and SPH within Groundwater

Monitoring Well	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater ** (ft bgs)	Sheen Observed	Observed Product Thickness (inches)
MW-1	1/3/2011	11.44	5.98	Y	--
MW-1	2/15/2012	11.44	7.67	N	--
MW-2	1/3/2011	12.06	6.75	Y	--
MW-2	2/15/2012	12.06	8.24	Y	--
MW-3	1/3/2011	12.48	7.68	Y	--
MW-3	2/15/2012	12.48	9.20	Y	--
MW-4	1/3/2012	12.83	8.12	Y	0.13
MW-4	2/15/2012	12.83	9.47	Y	0.96
MW-6	1/3/2012	11.93	7.61	N	--
MW-6	2/15/2012	11.93	9.04	N	--

Notes

Bold	= Compound was detected above one or more of the action levels
**	Measured from the top of the casing.
+	Monitoring wells were resurveyed on January 10, 2011 in accordance to the State of California Geotracker requirements using North American Datum 1983.
TOC	= top of casing (from PSI 2002)
ft bgs	= feet below ground surface
feet msl	= feet mean sea level
--	= no product thickness could be measured

3.0 CONCLUSIONS

3.1 Discussion of General Groundwater Quality

Groundwater samples were collected during the first semi-annual 2012 monitoring event from wells MW-1 through MW-4, and MW-6. In addition, a total of approximately 25 gallons of groundwater containing dissolved-phase total petroleum hydrocarbons (TPH) were purged from well MW-4 prior to sampling. Based on the groundwater elevation data collected, the general flow direction of the shallow water-bearing zone is towards the southwest and appears generally consistent with prior measurements.

Concentrations of TPHg and TPHd detected in monitoring well MW-4 exceeded the environmental screening level (ESL) of 100 µg/L for TPHg and middle distillates. Concentrations increased since the fourth quarter of 2010 from below reporting limits to 290 µg/L of TPHg and 6,620 to 14,000 µg/L of TPHd. TPHg and TPHd were not detected in groundwater in any other wells during this monitoring event.

TPHmo slightly exceeded the ESL of 100 µg/L at monitoring well MW-2 during the first quarter of 2012. Between the fourth quarter of 2010 and the first quarter of 2012, groundwater concentrations of TPHmo decreased in monitoring well MW-2 from 380 to 110 µg/L. TPHmo was not detected in any other wells during this monitoring event

BTEX compounds were not detected above the laboratory reporting limits or ESLs. MTBE was detected in groundwater from wells MW-3, MW-4, and MW-6, but was well below the groundwater ESL of 5 µg/L. Other fuel oxygenates, including TBA, DIPE, ETBE, TAME, and semi-volatiles 1,2-DCA, and naphthalene were not detected above groundwater ESLs.

3.2 Recommendations

Based on the results obtained during this first semi-annual 2012 groundwater monitoring event, we recommend continued semi-annual monitoring due to the presence of SPH in monitoring well MW-4. We also recommend continued use of the installed skimmer for passive hydrocarbon collection to remove SPH from well MW-4.

4.0 LIMITATIONS

This report was prepared for the use of the United States Postal Service in evaluating groundwater quality at selected on-site locations at the time of this study. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. The chemical and other data presented in this report can change over time and are applicable only to the time this study was performed. We are not responsible for the data presented by others.

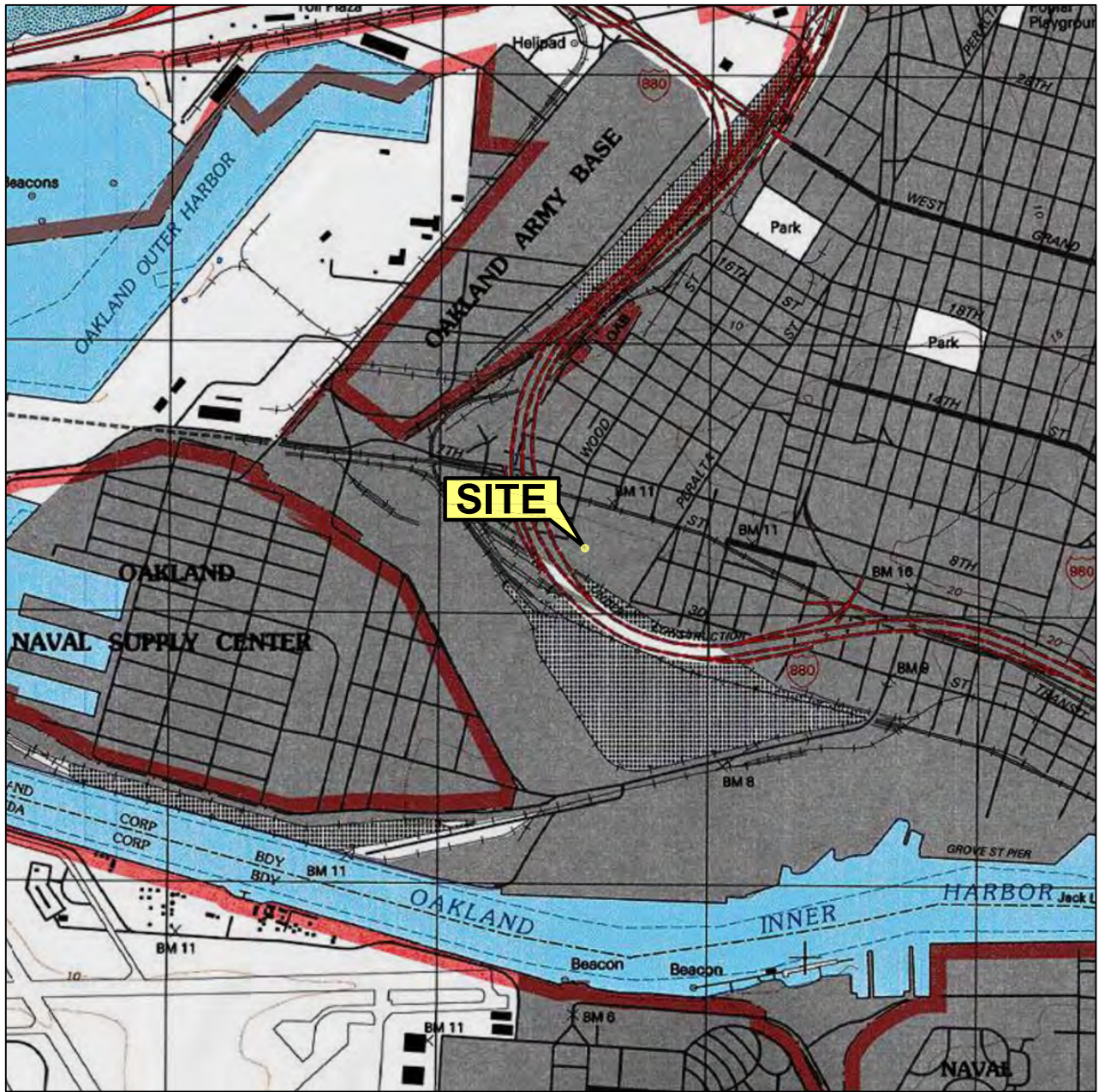
5.0 REFERENCES

TRC, March 18, 2011. *Fourth Quarter 2010 Groundwater Monitoring Report, USPS Oakland Vehicle Maintenance Facility, 1675 7th Street, Oakland, California.*

Professional Service Industries. February 17, 2003. *Fourth Quarter 2002 Groundwater Monitoring Report, USPS GMF/VMF 1675 7th Street, Oakland, California.*

Professional Service Industries, December 30, 2002. *Historic Summary Report and Closure Request, United States Postal Service Vehicle Maintenance Facility, 1675 7th Street, Oakland, California.*

Geo/Resource Consultants, Inc, September 17, 1992. *Supplemental Observation Letter, Underground Storage Tank (USTO Program, U.S. Postal Service Vehicle Maintenance Facility, 1675 7th Street, Oakland, California.*



1 MILE 3/4 1/2 1/4 0 1 MILE



SCALE 1 : 24,000



SOURCE:
 United States Geological Survey
 7.5 Minute Topographic Maps:
 Oakland West Quadrangle

VICINITY MAP

United States Postal Service
 Vehicle Maintenance Facility
 1675 7th Street
 Oakland, California






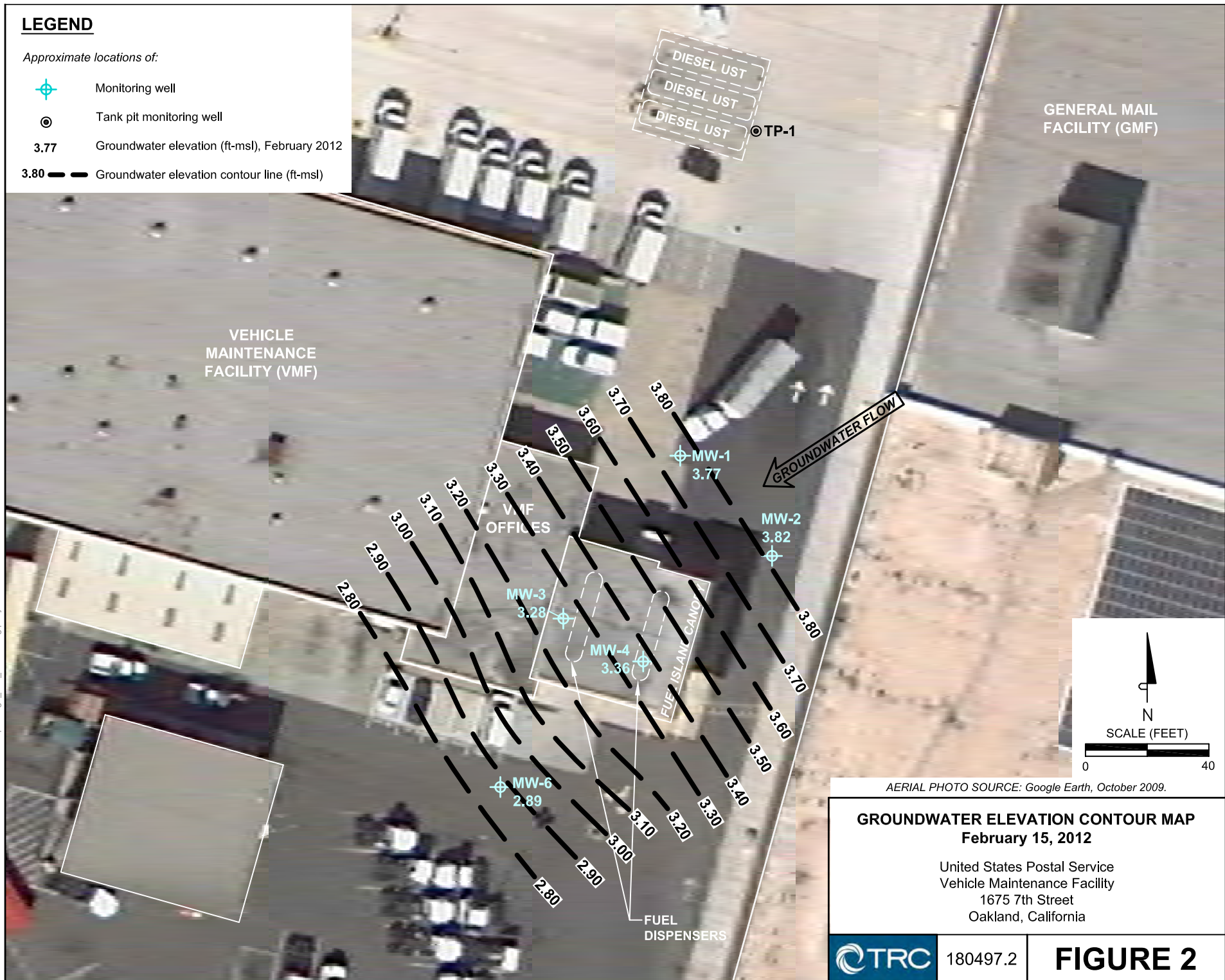
180497.2

FIGURE 1

LEGEND

Approximate locations of:

-  Monitoring well
-  Tank pit monitoring well
- 3.77 Groundwater elevation (ft-msl), February 2012
- 3.80  Groundwater elevation contour line (ft-msl)



GROUNDWATER ELEVATION CONTOUR MAP
February 15, 2012

United States Postal Service
 Vehicle Maintenance Facility
 1675 7th Street
 Oakland, California



180497.2

FIGURE 2

LEGEND

Approximate locations of:



Monitoring well



Tank pit monitoring well

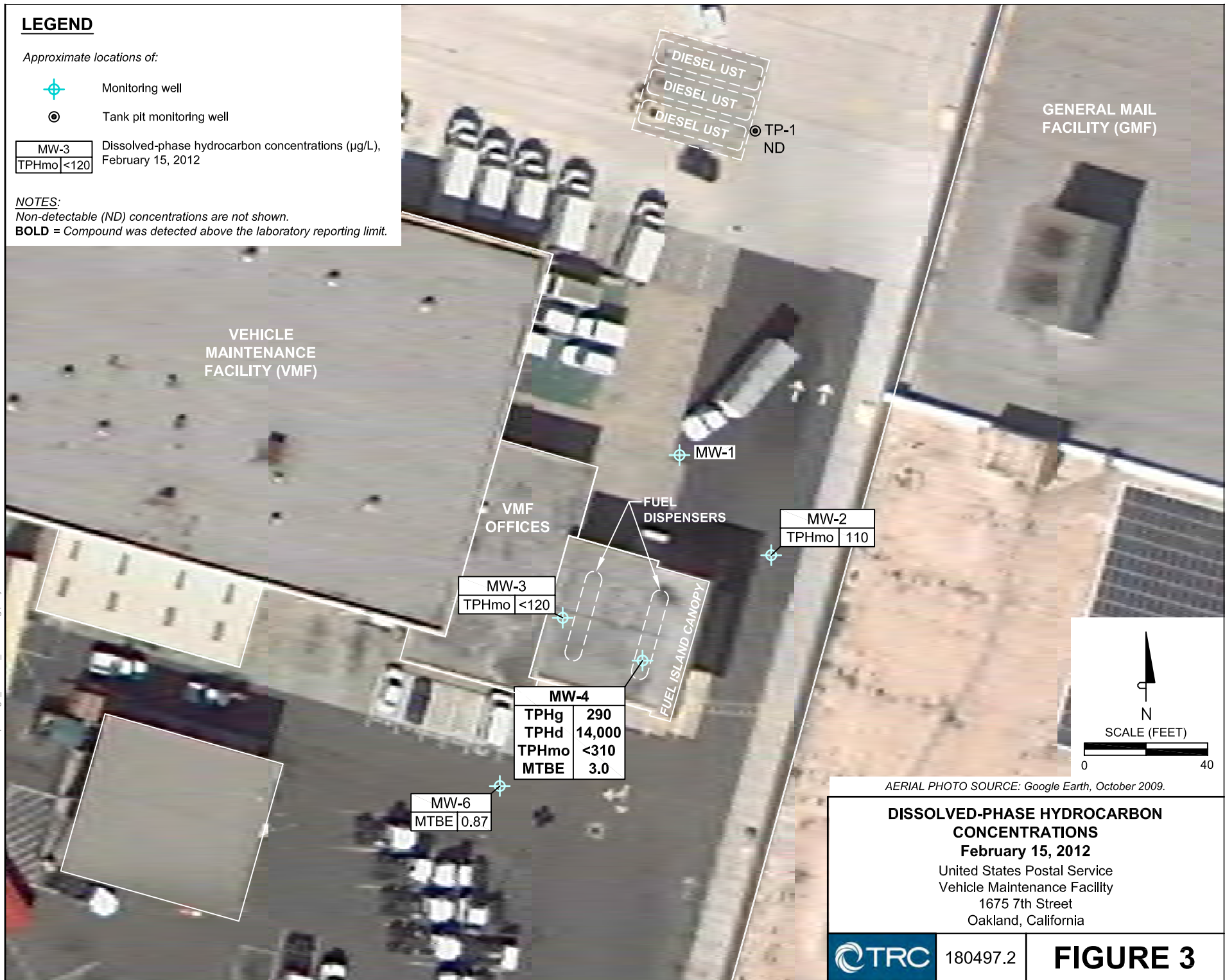
MW-3	Dissolved-phase hydrocarbon concentrations (µg/L), February 15, 2012
TPHmo	<120

Dissolved-phase hydrocarbon concentrations (µg/L),
February 15, 2012

NOTES:

Non-detectable (ND) concentrations are not shown.

BOLD = Compound was detected above the laboratory reporting limit.



GENERAL MAIL FACILITY (GMF)

VEHICLE MAINTENANCE FACILITY (VMF)

DIESEL UST
DIESEL UST
DIESEL UST

TP-1
ND

MW-1

VMF OFFICES

FUEL DISPENSERS

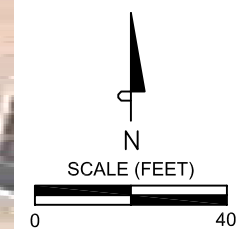
MW-2
TPHmo | 110

MW-3
TPHmo <120

FUEL ISLAND CANOPY

MW-4
TPHg | 290
TPHd | 14,000
TPHmo | <310
MTBE | 3.0

MW-6
MTBE | 0.87



AERIAL PHOTO SOURCE: Google Earth, October 2009.

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS February 15, 2012

United States Postal Service
Vehicle Maintenance Facility
1675 7th Street
Oakland, California



180497.2

FIGURE 3

LEGEND

Approximate locations of:



Monitoring well



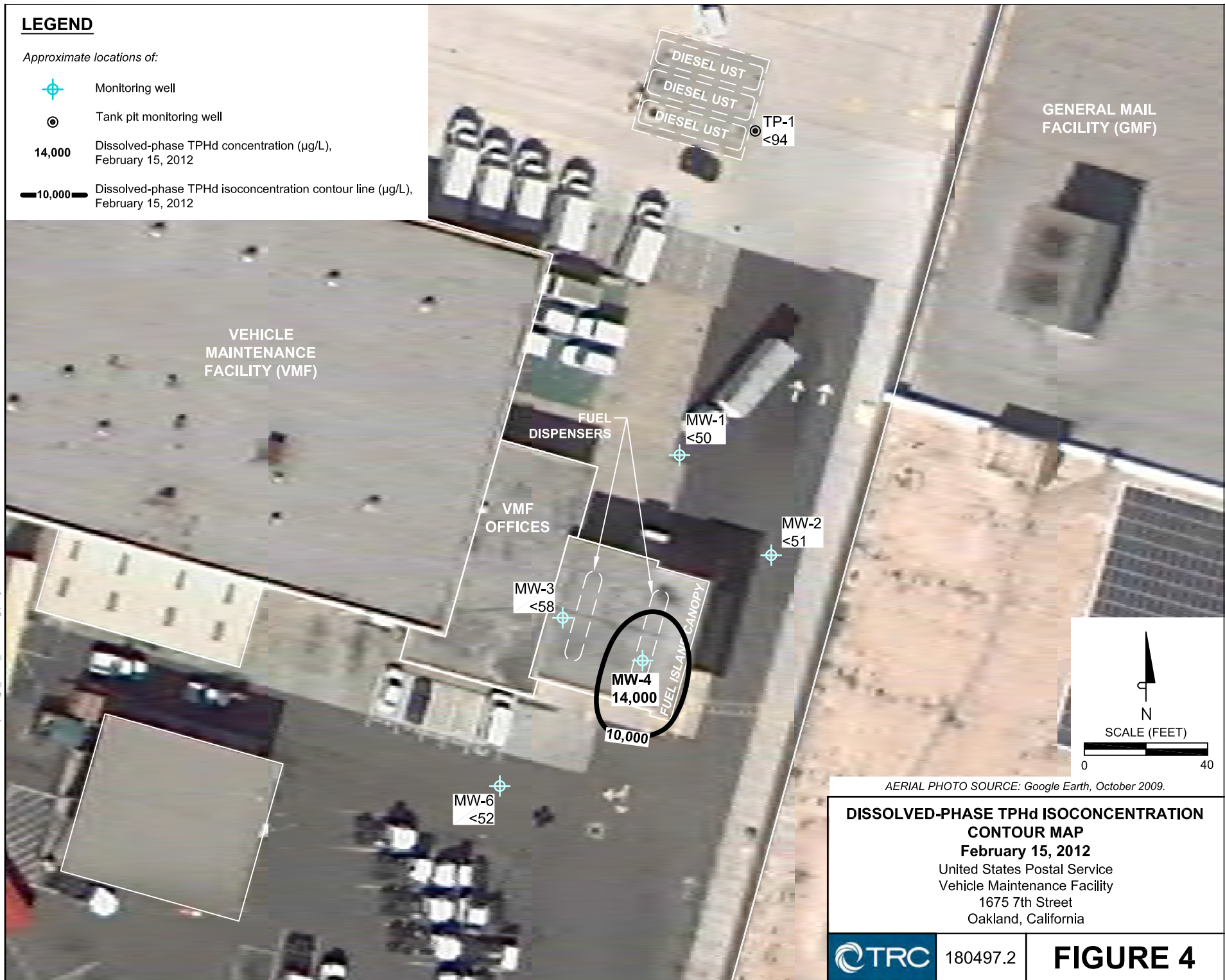
Tank pit monitoring well

14,000

Dissolved-phase TPHd concentration ($\mu\text{g/L}$),
February 15, 2012

10,000

Dissolved-phase TPHd isoconcentration contour line ($\mu\text{g/L}$),
February 15, 2012



AERIAL PHOTO SOURCE: Google Earth, October 2009.

**DISSOLVED-PHASE TPHd ISOCONCENTRATION
CONTOUR MAP**
February 15, 2012
United States Postal Service
Vehicle Maintenance Facility
1675 7th Street
Oakland, California



180497.2

FIGURE 4

APPENDIX A
HISTORICAL DATA

Table A. Historical Analytical Results of Monitoring Well Groundwater Samples
(concentrations in parts per billion)

Monitoring Well	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1	9/1/1993	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	1/26/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	3/1/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	6/1/1994	<50	73	<0.5	<0.5	<0.5	<0.5	NA
MW-1	2/22/1995	<50	600	<0.5	<0.5	<0.5	<0.5	NA
MW-1	6/6/1995	<50	900	<0.5	<0.5	<0.5	<0.5	NA
MW-1	8/16/1995	<50	810	<0.5	<0.5	<0.5	<0.5	NA
MW-1	11/14/1995	<50	590	<0.5	<0.5	<0.5	<0.5	NA
MW-1	5/16/1996	NA	900	NA	NA	NA	NA	NA
MW-1	11/15/1996	NA	330	NA	NA	NA	NA	NA
MW-1	3/11/2002	<500	<400	<0.5	<0.5	<0.5	<1.0	<1.0
MW-1	6/19/2002	<50	222	<0.5	<0.5	<0.5	<1.0	1.2
MW-1	9/26/2002	<50	519	<0.5	<0.5	<0.5	<1.0	<0.5
MW-1	12/5/2002	<50	261	<0.5	<0.5	<0.5	<1.0	1.2
MW-1	1/3/2011	<50	161	<1.0	<1.0	<1.0	<2.0	<1.0
MW-1	2/15/2012	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5
MW-2	9/1/1993	<50	<50	<0.5	<0.5	<0.5	<1.0	NA
MW-2	1/26/1994	<50	<50	<0.5	<0.5	<0.5	<1.0	NA
MW-2	3/1/1994	<50	<50	<0.5	<0.5	<0.5	<1.0	NA
MW-2	6/1/1994	<50	<50	<0.5	<0.5	<0.5	<1.0	NA
MW-2	2/22/1995	<50	280	<0.5	<0.5	<0.5	<1.0	NA
MW-2	6/6/1995	<50	570	<0.5	<0.5	<0.5	<1.0	NA
MW-2	8/16/1995	<50	150	<0.5	<0.5	<0.5	<1.0	NA
MW-2	11/14/1995	<50	<50	<0.5	<0.5	<0.5	<1.0	NA
MW-2	5/16/1996	NA	320	NA	NA	NA	NA	NA
MW-2	11/15/1996	NA	<50	NA	NA	NA	NA	NA
MW-2	3/11/2002	<50	<400	<0.5	<0.5	<0.5	<1.0	<1.0
MW-2	6/19/2002	<50	<50	<0.5	<0.5	<0.5	<1.0	0.9
MW-2	9/26/2002	<50	<50	<0.5	<0.5	<0.5	<1.0	4.2
MW-2	12/5/2002	<50	80.9	<0.5	<0.5	<0.5	<1.0	1.4
MW-2	1/3/2011	<50	<94	<1.0	<1.0	<1.0	<2.0	<1.0
MW-2	2/15/2012	<50	<51	<0.5	<0.5	<0.5	<1.0	<0.5
MW-3	9/1/1993	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	1/26/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	3/1/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	6/1/1994	NS	NS	NS	NS	NS	NS	NS
MW-3	2/22/1995	50	350	<0.5	<0.5	<0.5	<0.5	NA
MW-3	6/6/1995	<50	380	<0.5	<0.5	<0.5	<0.5	NA
MW-3	8/16/1995	<50	440	<0.5	<0.5	<0.5	<0.5	NA
MW-3	11/14/1995	<50	200	0.8	<0.5	<0.5	<0.5	NA
MW-3	5/16/1996	NA	1,100	NA	NA	NA	NA	NA
MW-3	11/15/1996	NA	470	NA	NA	NA	NA	NA
MW-3	3/11/2002	<500	540	<0.5	<0.5	<0.5	<1.0	3.8
MW-3	6/19/2002	<50	407	<0.5	<0.5	<0.5	<1.0	4.9
MW-3	9/26/2002	<50	741	<0.5	<0.5	<0.5	<1.0	4.4
MW-3	12/5/2002	<50	397	<0.5	<0.5	<0.5	<1.0	5.4
MW-3	1/3/2011	<50	209	<1.0	<1.0	<1.0	<2.0	2.4
MW-3	2/15/2012	<50	<58	<0.5	<0.5	<0.5	<1.0	2.4
MW-4	9/1/1993	<50	580	<0.5	<0.5	<0.5	<0.5	NA
MW-4	1/26/1994	<50	850	0.8	<0.5	<0.5	<0.5	NA
MW-4	3/1/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-4	6/1/1994	<50	260	1.7	<0.5	<0.5	<0.5	NA
MW-4	2/22/1995	140	1,100	1.4	<0.5	<0.5	<0.5	NA
MW-4	6/6/1995	24,000	23,000	<0.5	<0.5	0.5	<0.5	NA
MW-4	8/16/1995	2,000	3,400	1.2	<0.5	1.0	0.8	NA

Monitoring Well	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-4	11/14/1995	950	7,400	<0.5	<0.5	<0.5	<0.5	NA
MW-4	5/16/1996	<50	2,000	<0.5	<0.5	<0.5	<1.0	NA
MW-4	11/15/1996	600	13,000	0.78	<0.5	0.94	<1.0	NA
MW-4	3/11/2002	NS	NS	<0.5	<0.5	<0.5	<1.0	8.5
MW-4	6/19/2002	228	235,000	<2.5	<2.5	<2.5	<5.0	14.1
MW-4	9/26/2002	<50	16,400	<0.5	<0.5	<0.5	<1.0	6.5
MW-4	12/5/2002	<50	513	<0.5	<0.5	<0.5	<1.0	9.3
MW-4	1/3/2011	<50	6,620	<1.0	<1.0	<1.0	<2.0	3.3
MW-4	2/15/2012	290	14,000	<0.5	<0.5	<0.5	<1.0	3.0
MW-5	9/1/1993	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	1/26/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	3/1/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	6/1/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	Well MW-5 abandoned in January 1995 (PSI 2003)							
MW-6	9/26/2002	<50	<50	<0.5	3.8	<0.5	<1.0	<0.5
MW-6	12/5/2002	<50	<50	<0.5	<0.5	<0.5	<1.0	0.6
MW-6	1/3/2011	<50	<94	<1.0	<1.0	<1.0	<2.0	0.54
MW-6	2/15/2012	<50	<52	<0.5	<0.5	<0.5	<1.0	0.87

< Indicates that the compound was not detected at or above the stated laboratory reporting limit

NA Not analyzed

NS Not sampled

Table B. Historical Groundwater Elevations in Site Monitoring Wells

Monitoring Well	Date Measured	Historical Top of Casing Elevation (feet msl)	Depth to Product (Feet Below TOC)	Depth to Groundwater ** (Feet Below TOC)	Groundwater Elevation (feet msl)
MW-1	9/93	8.30	No product	3.90	4.40
MW-1	1/26/94		No product	3.64	4.66
MW-1	2/94		No product	3.37	4.93
MW-1	3/94		No product	7.51	0.79
MW-1	4/94		No product	10.74	-2.44
MW-1	5/94		No product	12.98	-4.68
MW-1	6/94		No product	15.55	-7.25
MW-1	2/22/95		No product	6.98	1.32
MW-1	6/6/95		No product	7.51	0.79
MW-1	8/16/95		No product	8.11	0.19
MW-1	11/14/95		No product	9.04	-0.74
MW-1	5/16/96		No product	7.00	1.30
MW-1	3/11/02		No product	6.82	1.48
MW-1	6/18/02		No product	7.16	1.14
MW-1	9/26/02	11.44**	No product	8.07	3.37
MW-1	12/5/02	11.44**	No product	8.32	3.12
MW-2	9/93	8.86	No product	4.55	4.31
MW-2	1/26/94		No product	4.69	4.17
MW-2	2/94		No product	3.98	4.88
MW-2	3/94		No product	8.14	0.72
MW-2	4/94		No product	10.60	-1.74
MW-2	5/94		No product	13.47	-4.61
MW-2	6/94		No product	15.50	-6.64
MW-2	2/22/95		No product	7.66	1.20
MW-2	6/6/95		No product	8.06	0.80
MW-2	8/16/95		No product	8.77	0.09
MW-2	11/14/95		No product	9.66	-0.80
MW-2	5/16/96		No product	7.58	1.28
MW-2	3/11/02		No product	7.45	1.41
MW-2	6/18/02		No product	7.73	1.13
MW-2	9/26/02	12.06**	No product	8.64	3.42
MW-2	12/5/02	12.06**	No product	9.04	3.02
MW-3	9/93	9.28	No product	5.00	4.28
MW-3	1/26/94		No product	5.04	4.24
MW-3	2/94		No product	4.62	4.66
MW-3	3/94		No product	9.54	-0.26
MW-3	4/94		No product	11.69	-2.41
MW-3	5/94		No product	14.85	-5.57
MW-3	6/94		No product	17.30	-8.02
MW-3	2/22/95		No product	8.64	0.64
MW-3	6/6/95		No product	9.07	0.21
MW-3	8/16/95		No product	9.66	-0.38
MW-3	11/14/95		No product	10.46	-1.18
MW-3	5/16/96		No product	8.61	0.67
MW-3	3/11/02		No product	8.43	0.85
MW-3	6/18/02		No product	8.64	0.64
MW-3	9/26/02	12.48**	No product	9.51	2.97
MW-3	12/5/02	12.48**	No product	9.91	2.57
MW-4	9/93	8.73	No product	4.55	4.18
MW-4	1/26/94		No product	4.60	4.13
MW-4	2/94		No product	3.95	4.78
MW-4	3/94		No product	8.96	-0.23
MW-4	4/94		No product	8.96	-0.23
MW-4	5/94		No product	14.24	-5.51
MW-4	6/94		No product	17.28	-8.55
MW-4	2/22/95		No product	7.93	0.80
MW-4	6/6/95		No product	8.48	0.25
MW-4	8/16/95		8.92	9.08	-0.20*

Monitoring Well	Date Measured	Historical Top of Casing Elevation (feet msl)	Depth to Product (Feet Below TOC)	Depth to Groundwater ** (Feet Below TOC)	Groundwater Elevation (feet msl)
MW-4	11/14/95		9.82	9.92	-1.0*
MW-4	5/16/96		No product	7.88	0.85
MW-4	3/11/02		Product	--	--
MW-4	6/18/02		Product	--	--
MW-4	9/26/02	12.83**	No product	9.74	3.09
MW-4	12/5/02	12.83**	No product	10.23	2.60
MW-5	9/93	8.23	No product	3.63	4.60
MW-5	1/26/94		No product	3.70	4.53
MW-5	2/94		No product	3.23	5.00
MW-5	3/94		No product	7.76	0.47
MW-5	4/94		No product	10.19	-1.96
MW-5	5/94		No product	11.46	-3.23
MW-5	6/94		No product	14.25	-6.02
Well MW-5 Abandoned January 1995					
MW-6	9/26/02	11.93**	No product	9.33	2.60
MW-6	12/5/02	11.93**	No product	9.73	2.20

- * Groundwater elevation corrected for free product.
- ** Top of Casing appears to have been re-surveyed by PSI, 2002
- No historical data

APPENDIX B**GROUNDWATER SAMPLING PROTOCOL AND RECORDS**

Groundwater Sampling: The static water levels in all of the site wells were initially measured to the nearest 0.01 foot using an electronic depth sounder. A Teflon™ bailer or submersible pump was then placed in the middle of the water column and used to purge a minimum of three well-casing volumes of water from each well. After purging each well volume, pH, temperature, and conductivity measurements were recorded. In general, these measurements stabilize (consecutive readings within 10 percent) after three to four well volumes. If, after the third well volume, the pH and conductivity did not stabilize, additional well volumes were removed until these measurements did stabilize. If the yield was low and the well was pumped dry, the well was allowed to recharge to the 80 percent level before sampling. Samples were collected in appropriate sample bottles, labeled, and immediately placed in an ice-chilled chest for delivery to a state-certified analytical laboratory for analysis.

All well development and sampling equipment was cleaned in a solution of laboratory grade detergent and distilled water, or steam cleaned, before use at each sampling point. Well sampling records are attached as part of this Appendix.

GROUNDWATER SAMPLING RECORD

Project No.: 180497.2
 Project Name: USPS Oakland
 Weather: Cold Clear
 ~40°F

Date: 2/15/12
 Measured By: JPL/NB
 Page 1 of 1

Well Name: <u>MW-1</u>	(a) Initial Water Level (ft)	7.67
Sample Number: <u>MW-1; 09:40</u>	(b) Measured Total Depth (ft)	20.22
Chain-of-Custody No.: _____	(c) Height of Water Column (ft) = b - a	12.55
Measuring Point: _____	(d) Casing Diameter (in)	4
Screened Interval (ft): _____	(e) Casing Volume (gal) = 0.041 × c × d ²	8.2

WELLHEAD CONDITIONS	
Casing: <u>4" PVC</u>	<u>@ 11.8 ft - interface</u>
Lock: <u>none</u>	<u>- meter slid back</u>
Standing Water: <u>1"</u>	
Comments/Required Maintenance: <u>new lock required</u>	

INSTRUMENTS	CALIBRATION NOTES
Water Level: <u>YSI 556 UPS</u>	
Temperature: _____	
pH: _____	
Specific Conductance: _____	
Dissolved Oxygen: _____	
Redox Potential: _____	
Turbidity: _____	
Salinity: _____	

Time	Intake Depth (ft bmp)	Depth to Water (ft bmp)	Cum. Vol. Purged (gal)	Temp. °C °F	pH	Specific Cond. (µmhos/cm)	DO (mg/L)	Redox (mV)	Color	Turbidity	Salinity	Comments
<u>0900</u>	<u>18.07</u>		<u>8</u>	<u>60.4</u>	<u>7.02</u>	<u>2533</u>	<u>7.29</u>	<u>115.4</u>	<u>Clear</u>			
<u>0915</u>			<u>16</u>	<u>61.6</u>	<u>6.98</u>	<u>2390</u>	<u>7.07</u>	<u>110.5</u>	<u>Clear</u>			
<u>0929</u>			<u>24</u>	<u>62.1</u>	<u>6.97</u>	<u>2315</u>	<u>7.24</u>	<u>105.7</u>	<u>Clear</u>			
<u>0935</u>			<u>30</u>	<u>63.4</u>	<u>6.94</u>	<u>2167</u>	<u>6.58</u>	<u>98.7</u>	<u>Clear</u>			



GROUNDWATER SAMPLING RECORD

Project No.: 180497.2 Date: 2/15/12
 Project Name: VS PS Oakland VMF Measured By: JR 2/1/13
 Weather: Cold, Clear Page 1 of 1

Well Name: <u>MW-2</u>	(a) Initial Water Level (ft)	<u>8.24</u>
Sample Number: <u>MW-2 1125</u>	(b) Measured Total Depth (ft)	<u>18.75</u>
Chain-of-Custody No.: _____	(c) Height of Water Column (ft) = b - a	<u>10.51</u>
Measuring Point: _____	(d) Casing Diameter (in)	<u>4</u>
Screened Interval (ft): _____	(e) Casing Volume (gal) = 0.041 × c × d ²	<u>6.89</u>

WELLHEAD CONDITIONS	
Casing: <u>ok</u>	<u>*Interface probe</u>
Lock: <u>yes</u>	
Standing Water: <u>1.5"</u>	
Comments/Required Maintenance: <u>none</u>	

INSTRUMENTS		CALIBRATION NOTES
Water Level:	<u>YSI 556 MPS</u>	
Temperature:		
pH:		
Specific Conductance:		
Dissolved Oxygen:		
Redox Potential:		
Turbidity:		
Salinity:		

Time	Intake Depth (ft bmp)	Depth to Water (ft bmp)	Cum. Vol. Purged (gal)	Temp. (°F)	pH	Specific Cond. (µmhos/cm)	DO (mg/L)	Redox (mV)	Color	Turbidity	Salinity	Comments
<u>11:00</u>	<u>17</u>	<u>8.25</u>	<u>6</u>	<u>62.90</u>	<u>6.78</u>	<u>1447</u>	<u>8.20</u>	<u>136.0</u>	<u>clean</u>			
			<u>12</u>	<u>64.02</u>	<u>6.77</u>	<u>1654</u>	<u>9.17</u>	<u>131.4</u>	<u>clean</u>			
			<u>20</u>	<u>63.93</u>	<u>6.95</u>	<u>1581</u>	<u>3.82</u>	<u>125.3</u>	<u>clean</u>			



GROUNDWATER SAMPLING RECORD

Project No.: 180497.2 Date: 2/15/12
 Project Name: VSPS Oakland VMF Measured By: JSP/MB
 Weather: Cold Clear Page 1 of 1
 Well Name: MW-3 (a) Initial Water Level (ft) 9.20
 Sample Number: MW-3; 10-48 (b) Measured Total Depth (ft) 20.11
 Chain-of-Custody No.: _____ (c) Height of Water Column (ft) = b - a 10.91
 Measuring Point: _____ (d) Casing Diameter (in) 4
 Screened Interval (ft): _____ (e) Casing Volume (gal) = 0.041 × c × d² 7.15

WELLHEAD CONDITIONS	
Casing: <u>4" PVC</u>	* @4.5 - interface probe steady tone
Lock: <u>none</u>	
Standing Water: <u>none</u>	
Comments/Required Maintenance: <u>none</u>	

INSTRUMENTS	CALIBRATION NOTES
Water Level: <u>YSI 556 MPS</u>	
Temperature:	
pH:	
Specific Conductance:	
Dissolved Oxygen:	
Redox Potential:	
Turbidity:	
Salinity:	

Time	Intake Depth (ft bmp)	Depth to Water (ft bmp)	Cum. Vol. Purged (gal)	Temp. (°F)	pH	(µS/cm)	DO (mg/L)	Redox (mV)	Color	Turbidity	Salinity	Comments
						Specific Cond. (µmhos/cm)						
10:16	17	9.20	5	64.47	7.13	2069	7.41	140.9	Clean			
			9	64.45	7.39	2048	7.84	106.3	Clean			
			14	65.03	7.36	2063	7.31	81.4	Clean			
			19	65.18	7.34	2138	4.09	88.1	Clean			
Sample	10:48											



GROUNDWATER SAMPLING RECORD

Project No.: 180497.2 Date: 2/15/12
 Project Name: USPS Oakland VMF Measured By: JPZ / N13
 Weather: Cold, Clear Page 1 of 1

Well Name: <u>MW-4</u>	(a) Initial Water Level (ft)	9.47
Sample Number: <u>MW-4</u>	(b) Measured Total Depth (ft)	21.80
Chain-of-Custody No.: <u>1255</u>	(c) Height of Water Column (ft) = b - a	12.33
Measuring Point: _____	(d) Casing Diameter (in)	4
Screened Interval (ft): _____	(e) Casing Volume (gal) = 0.041 × c × d ²	8.08

WELLHEAD CONDITIONS	
Casing: <u>4"</u>	<u>9.39 product</u>
Lock: <u>none</u>	<u>9.47 water</u>
Standing Water: <u>none</u>	<u>product</u>
Comments/Required Maintenance: <u>none</u>	<u>thickness = 0.08 ft</u>

INSTRUMENTS	CALIBRATION NOTES
Water Level: <u>YSI 556 MPS</u>	
Temperature: _____	
pH: _____	
Specific Conductance: _____	
Dissolved Oxygen: _____	
Redox Potential: _____	
Turbidity: _____	
Salinity: _____	

Time	Intake Depth (ft bmp)	Depth to Water (ft bmp)	Cum. Vol. Purged (gal)	Temp. (°F)	pH	Specific Cond. (µmhos/cm)	DO (mg/L)	Redox (mV)	Color	Turbidity	Salinity	Comments
12:33	-	9.5	8	63.71	7.85	1597	6.78	-239.7	11 brown			
		9.5 15	15	63.71	7.11	1598	5.86	-191.3	11 grey			
		18	18	63.92	7.02	1595	6.07	-163.8	11 grey			
<u>~25 gal purged from MW-4 today</u>												

TRIP BLANKS x 2
12:59



GROUNDWATER SAMPLING RECORD

Project No.: 180497.2 Date: 2/15/12
 Project Name: USPS Oakland VMF Measured By: JPZ
 Weather: Cold, Clear Page 1 of 1

Well Name: <u>MW-6</u>	(a) Initial Water Level (ft)	<u>9.04</u>
Sample Number: <u>MW-6 12:07</u>	(b) Measured Total Depth (ft)	<u>19.58</u>
Chain-of-Custody No.: _____	(c) Height of Water Column (ft) = b - a	<u>10.54</u>
Measuring Point: _____	(d) Casing Diameter (in)	<u>2</u>
Screened Interval (ft): _____	(e) Casing Volume (gal) = 0.041 × c × d ²	<u>1.71</u>

WELLHEAD CONDITIONS
Casing: <u>2"</u>
Lock: <u>none</u>
Standing Water: <u>1"</u>
Comments/Required Maintenance: <u>lock</u>

INSTRUMENTS	CALIBRATION NOTES
Water Level:	
Temperature:	
pH:	
Specific Conductance:	
Dissolved Oxygen:	
Redox Potential:	
Turbidity:	
Salinity:	

Time	Intake Depth (ft bmp)	Depth to Water (ft bmp)	Cum. Vol. Purged (gal)	Temp. (°C)	pH	Specific Cond. (µmhos/cm)	DO (mg/L)	Redox (mV)	Color	Turbidity	Salinity	Comments
<u>1153</u>				<u>66.69</u>	<u>6.94</u>	<u>1029</u>	<u>5.55</u>	<u>254.7</u>	<u>cloudy</u>			
<u>1158</u>				<u>66.60</u>	<u>7.44</u>	<u>1060</u>	<u>5.63</u>	<u>244.2</u>	<u>light orange</u>			
<u>1200</u>				<u>65.39</u>	<u>7.23</u>	<u>1059</u>	<u>5.21</u>	<u>283.2</u>	<u>light orange</u>			
<u>Sample Time</u>			<u>12:07</u>									
			<u>5 gal</u>									



DRUM INVENTORY FIELD SHEET

PROJECT NUMBER: 180497.2 DATE: 2/15/12

SITE NAME: USPS Oakland VMF

ADDRESS: 1675 7th Street, Oakland, CA

CROSS STREET: Wood Street

ACTIVE STATION Y N

DRUMS EMPTY: 0 # DRUMS FULL: 3

DRUMS LABELED: Y N

TOTAL GALLONS GENERATED: 100

COMMENTS: 1 Absorbent sock removed from well 2/15/12, replaced.

SAMPLER: JPZ

APPENDIX C

ANALYTICAL RESULTS

The chilled samples were delivered to a state-certified analytical laboratory. Chain of custody documentation was maintained for all samples. Attached are copies of the analytical results and the chain of custody forms.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

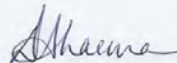
ANALYTICAL REPORT

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

TestAmerica Job ID: 720-40423-1
Client Project/Site: USPS Oakland VMF

For:
TRC Solutions, Inc.
167 Filbert St.
Oakland, California 94607

Attn: Mr. Jacob Zepeda



Authorized for release by:
2/22/2012 4:21:42 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

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
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
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: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Job ID: 720-40423-1

Laboratory: TestAmerica San Francisco

Narrative

Job Narrative
720-40423-1

Comments

No additional comments.

Receipt

Received Sample ID "Trip Blank" 2/15/12 @ 1259, no analysis requested on COC, logged for analysis per client.

All other samples were received in good condition within temperature requirements.

GC/MS VOA

Method 8260B: Internal standard responses were outside of acceptance limits for the following sample: (720-40423-1 MS). The sample shows evidence of matrix interference.

No other analytical or quality issues were noted.

GC Semi VOA

Method 8015B: Surrogate capric acid recovery for the following sample was outside control limits: MW-4 (720-40423-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

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Detection Summary

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: MW-1

Lab Sample ID: 720-40423-1

No Detections

Client Sample ID: MW-2

Lab Sample ID: 720-40423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Motor Oil Range Organics [C24-C36]	110		100		ug/L	1		8015B	Silica Gel Clear

Client Sample ID: MW-3

Lab Sample ID: 720-40423-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	2.4		0.50		ug/L	1		8260B	Total/NA
1,2-DCA	0.66		0.50		ug/L	1		8260B	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 720-40423-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO) -C5-C12	290		50		ug/L	1		8260B	Total/NA
MTBE	3.0		0.50		ug/L	1		8260B	Total/NA
Naphthalene	1.4		1.0		ug/L	1		8260B	Total/NA
Diesel Range Organics [C10-C28]	14000		150		ug/L	3		8015B	Silica Gel Clear

Client Sample ID: MW-6

Lab Sample ID: 720-40423-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	0.87		0.50		ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 720-40423-6

No Detections

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: MW-1

Lab Sample ID: 720-40423-1

Date Collected: 02/15/12 09:40

Matrix: Water

Date Received: 02/15/12 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			02/16/12 23:40	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/16/12 23:40	1
Ethylbenzene	ND		0.50		ug/L			02/16/12 23:40	1
Ethanol	ND		250		ug/L			02/16/12 23:40	1
MTBE	ND		0.50		ug/L			02/16/12 23:40	1
TAME	ND		0.50		ug/L			02/16/12 23:40	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/16/12 23:40	1
Toluene	ND		0.50		ug/L			02/16/12 23:40	1
EDB	ND		0.50		ug/L			02/16/12 23:40	1
Xylenes, Total	ND		1.0		ug/L			02/16/12 23:40	1
1,2-DCA	ND		0.50		ug/L			02/16/12 23:40	1
TBA	ND		4.0		ug/L			02/16/12 23:40	1
DIPE	ND		0.50		ug/L			02/16/12 23:40	1
Naphthalene	ND		1.0		ug/L			02/16/12 23:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					02/16/12 23:40	1
1,2-Dichloroethane-d4 (Surr)	104		75 - 138					02/16/12 23:40	1
Toluene-d8 (Surr)	98		70 - 130					02/16/12 23:40	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		02/16/12 18:07	02/20/12 23:27	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		02/16/12 18:07	02/20/12 23:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03		0 - 5				02/16/12 18:07	02/20/12 23:27	1
p-Terphenyl	65		31 - 150				02/16/12 18:07	02/20/12 23:27	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: MW-2

Lab Sample ID: 720-40423-2

Date Collected: 02/15/12 11:25

Matrix: Water

Date Received: 02/15/12 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			02/17/12 01:06	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/17/12 01:06	1
Ethylbenzene	ND		0.50		ug/L			02/17/12 01:06	1
Ethanol	ND		250		ug/L			02/17/12 01:06	1
MTBE	ND		0.50		ug/L			02/17/12 01:06	1
TAME	ND		0.50		ug/L			02/17/12 01:06	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/17/12 01:06	1
Toluene	ND		0.50		ug/L			02/17/12 01:06	1
EDB	ND		0.50		ug/L			02/17/12 01:06	1
Xylenes, Total	ND		1.0		ug/L			02/17/12 01:06	1
1,2-DCA	ND		0.50		ug/L			02/17/12 01:06	1
TBA	ND		4.0		ug/L			02/17/12 01:06	1
DIPE	ND		0.50		ug/L			02/17/12 01:06	1
Naphthalene	ND		1.0		ug/L			02/17/12 01:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 130		02/17/12 01:06	1
1,2-Dichloroethane-d4 (Surr)	109		75 - 138		02/17/12 01:06	1
Toluene-d8 (Surr)	99		70 - 130		02/17/12 01:06	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		51		ug/L		02/16/12 18:07	02/20/12 23:52	1
Motor Oil Range Organics [C24-C36]	110		100		ug/L		02/16/12 18:07	02/20/12 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 5	02/16/12 18:07	02/20/12 23:52	1
p-Terphenyl	70		31 - 150	02/16/12 18:07	02/20/12 23:52	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: MW-3
Date Collected: 02/15/12 10:48
Date Received: 02/15/12 16:30

Lab Sample ID: 720-40423-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			02/17/12 01:34	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/17/12 01:34	1
Ethylbenzene	ND		0.50		ug/L			02/17/12 01:34	1
Ethanol	ND		250		ug/L			02/17/12 01:34	1
MTBE	2.4		0.50		ug/L			02/17/12 01:34	1
TAME	ND		0.50		ug/L			02/17/12 01:34	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/17/12 01:34	1
Toluene	ND		0.50		ug/L			02/17/12 01:34	1
EDB	ND		0.50		ug/L			02/17/12 01:34	1
Xylenes, Total	ND		1.0		ug/L			02/17/12 01:34	1
1,2-DCA	0.66		0.50		ug/L			02/17/12 01:34	1
TBA	ND		4.0		ug/L			02/17/12 01:34	1
DIPE	ND		0.50		ug/L			02/17/12 01:34	1
Naphthalene	ND		1.0		ug/L			02/17/12 01:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					02/17/12 01:34	1
1,2-Dichloroethane-d4 (Surr)	111		75 - 138					02/17/12 01:34	1
Toluene-d8 (Surr)	98		70 - 130					02/17/12 01:34	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		58		ug/L		02/16/12 18:07	02/21/12 00:16	1
Motor Oil Range Organics [C24-C36]	ND		120		ug/L		02/16/12 18:07	02/21/12 00:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 5				02/16/12 18:07	02/21/12 00:16	1
p-Terphenyl	70		31 - 150				02/16/12 18:07	02/21/12 00:16	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: MW-4
Date Collected: 02/15/12 12:55
Date Received: 02/15/12 16:30

Lab Sample ID: 720-40423-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			02/17/12 16:06	1
Gasoline Range Organics (GRO)	290		50		ug/L			02/17/12 16:06	1
-C5-C12									
Ethylbenzene	ND		0.50		ug/L			02/17/12 16:06	1
Ethanol	ND		250		ug/L			02/17/12 16:06	1
MTBE	3.0		0.50		ug/L			02/17/12 16:06	1
TAME	ND		0.50		ug/L			02/17/12 16:06	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/17/12 16:06	1
Toluene	ND		0.50		ug/L			02/17/12 16:06	1
EDB	ND		0.50		ug/L			02/17/12 16:06	1
Xylenes, Total	ND		1.0		ug/L			02/17/12 16:06	1
1,2-DCA	ND		0.50		ug/L			02/17/12 16:06	1
TBA	ND		4.0		ug/L			02/17/12 16:06	1
DIPE	ND		0.50		ug/L			02/17/12 16:06	1
Naphthalene	1.4		1.0		ug/L			02/17/12 16:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 130					02/17/12 16:06	1
1,2-Dichloroethane-d4 (Surr)	115		75 - 138					02/17/12 16:06	1
Toluene-d8 (Surr)	99		70 - 130					02/17/12 16:06	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	14000		150		ug/L		02/16/12 18:07	02/21/12 00:40	3
Motor Oil Range Organics [C24-C36]	ND		310		ug/L		02/16/12 18:07	02/21/12 00:40	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	31	X	0 - 5				02/16/12 18:07	02/21/12 00:40	3
p-Terphenyl	43		31 - 150				02/16/12 18:07	02/21/12 00:40	3

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: MW-6
Date Collected: 02/15/12 12:07
Date Received: 02/15/12 16:30

Lab Sample ID: 720-40423-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			02/17/12 02:31	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/17/12 02:31	1
Ethylbenzene	ND		0.50		ug/L			02/17/12 02:31	1
Ethanol	ND		250		ug/L			02/17/12 02:31	1
MTBE	0.87		0.50		ug/L			02/17/12 02:31	1
TAME	ND		0.50		ug/L			02/17/12 02:31	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/17/12 02:31	1
Toluene	ND		0.50		ug/L			02/17/12 02:31	1
EDB	ND		0.50		ug/L			02/17/12 02:31	1
Xylenes, Total	ND		1.0		ug/L			02/17/12 02:31	1
1,2-DCA	ND		0.50		ug/L			02/17/12 02:31	1
TBA	ND		4.0		ug/L			02/17/12 02:31	1
DIPE	ND		0.50		ug/L			02/17/12 02:31	1
Naphthalene	ND		1.0		ug/L			02/17/12 02:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		02/17/12 02:31	1
1,2-Dichloroethane-d4 (Surr)	99		75 - 138		02/17/12 02:31	1
Toluene-d8 (Surr)	100		70 - 130		02/17/12 02:31	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		52		ug/L		02/16/12 18:07	02/21/12 01:04	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		02/16/12 18:07	02/21/12 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5	02/16/12 18:07	02/21/12 01:04	1
p-Terphenyl	69		31 - 150	02/16/12 18:07	02/21/12 01:04	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 720-40423-6

Date Collected: 02/15/12 12:59

Matrix: Water

Date Received: 02/15/12 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			02/16/12 22:15	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/16/12 22:15	1
Ethylbenzene	ND		0.50		ug/L			02/16/12 22:15	1
Ethanol	ND		250		ug/L			02/16/12 22:15	1
MTBE	ND		0.50		ug/L			02/16/12 22:15	1
TAME	ND		0.50		ug/L			02/16/12 22:15	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/16/12 22:15	1
Toluene	ND		0.50		ug/L			02/16/12 22:15	1
EDB	ND		0.50		ug/L			02/16/12 22:15	1
Xylenes, Total	ND		1.0		ug/L			02/16/12 22:15	1
1,2-DCA	ND		0.50		ug/L			02/16/12 22:15	1
TBA	ND		4.0		ug/L			02/16/12 22:15	1
DIPE	ND		0.50		ug/L			02/16/12 22:15	1
Naphthalene	ND		1.0		ug/L			02/16/12 22:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					02/16/12 22:15	1
1,2-Dichloroethane-d4 (Surr)	98		75 - 138					02/16/12 22:15	1
Toluene-d8 (Surr)	98		70 - 130					02/16/12 22:15	1

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-108075/4

Matrix: Water

Analysis Batch: 108075

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			02/16/12 19:24	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/16/12 19:24	1
Ethylbenzene	ND		0.50		ug/L			02/16/12 19:24	1
Ethanol	ND		250		ug/L			02/16/12 19:24	1
MTBE	ND		0.50		ug/L			02/16/12 19:24	1
TAME	ND		0.50		ug/L			02/16/12 19:24	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/16/12 19:24	1
Toluene	ND		0.50		ug/L			02/16/12 19:24	1
EDB	ND		0.50		ug/L			02/16/12 19:24	1
Xylenes, Total	ND		1.0		ug/L			02/16/12 19:24	1
1,2-DCA	ND		0.50		ug/L			02/16/12 19:24	1
TBA	ND		4.0		ug/L			02/16/12 19:24	1
DIPE	ND		0.50		ug/L			02/16/12 19:24	1
Naphthalene	ND		1.0		ug/L			02/16/12 19:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130		02/16/12 19:24	1
1,2-Dichloroethane-d4 (Surr)	94		75 - 138		02/16/12 19:24	1
Toluene-d8 (Surr)	98		70 - 130		02/16/12 19:24	1

Lab Sample ID: LCS 720-108075/5

Matrix: Water

Analysis Batch: 108075

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	24.2		ug/L		97	79 - 130
Ethylbenzene	25.0	23.6		ug/L		94	80 - 120
Ethanol	500	461		ug/L		92	31 - 216
m-Xylene & p-Xylene	50.0	48.5		ug/L		97	70 - 142
MTBE	25.0	26.7		ug/L		107	62 - 130
TAME	25.0	25.3		ug/L		101	79 - 130
Ethyl t-butyl ether	25.0	23.4		ug/L		94	70 - 130
Toluene	25.0	24.2		ug/L		97	78 - 120
EDB	25.0	25.9		ug/L		104	70 - 130
1,2-DCA	25.0	23.4		ug/L		94	61 - 132
TBA	500	509		ug/L		102	70 - 130
DIPE	25.0	22.3		ug/L		89	69 - 134
Naphthalene	25.0	19.7		ug/L		79	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	95		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		75 - 138
Toluene-d8 (Surr)	99		70 - 130

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-108075/7

Matrix: Water

Analysis Batch: 108075

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	448		ug/L		90	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		75 - 138
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 720-108075/6

Matrix: Water

Analysis Batch: 108075

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	24.0		ug/L		96	79 - 130	1	20
Ethylbenzene	25.0	23.4		ug/L		94	80 - 120	1	20
Ethanol	500	462		ug/L		92	31 - 216	0	30
m-Xylene & p-Xylene	50.0	48.1		ug/L		96	70 - 142	1	20
MTBE	25.0	25.8		ug/L		103	62 - 130	3	20
TAME	25.0	24.5		ug/L		98	79 - 130	3	20
Ethyl t-butyl ether	25.0	22.8		ug/L		91	70 - 130	3	20
Toluene	25.0	23.8		ug/L		95	78 - 120	2	20
EDB	25.0	25.1		ug/L		100	70 - 130	3	20
1,2-DCA	25.0	23.0		ug/L		92	61 - 132	2	20
TBA	500	480		ug/L		96	70 - 130	6	20
DIPE	25.0	21.8		ug/L		87	69 - 134	2	20
Naphthalene	25.0	19.4		ug/L		78	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	95		67 - 130
1,2-Dichloroethane-d4 (Surr)	94		75 - 138
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 720-108075/8

Matrix: Water

Analysis Batch: 108075

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	442		ug/L		88	62 - 120	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	97		75 - 138
Toluene-d8 (Surr)	99		70 - 130

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-40423-1 MS

Matrix: Water

Analysis Batch: 108075

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Benzene	ND		25.0	24.9		ug/L		100	60 - 140	
Ethylbenzene	ND		25.0	24.4		ug/L		98	60 - 140	
Ethanol	ND		500	499		ug/L		100	60 - 140	
m-Xylene & p-Xylene	ND		50.0	50.9		ug/L		102	60 - 140	
MTBE	ND		25.0	27.2		ug/L		109	60 - 138	
TAME	ND		25.0	25.7		ug/L		103	60 - 140	
Ethyl t-butyl ether	ND		25.0	24.6		ug/L		98	60 - 140	
Toluene	ND		25.0	23.8		ug/L		95	60 - 140	
EDB	ND		25.0	26.8		ug/L		107	60 - 140	
1,2-DCA	ND		25.0	26.7		ug/L		107	60 - 140	
TBA	ND		500	528		ug/L		106	60 - 140	
DIPE	ND		25.0	22.9		ug/L		92	60 - 140	
Naphthalene	ND		25.0	18.2		ug/L		73	56 - 140	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		75 - 138
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: 720-40423-1 MSD

Matrix: Water

Analysis Batch: 108075

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Benzene	ND		25.0	25.2		ug/L		101	60 - 140	1	20	
Ethylbenzene	ND		25.0	25.1		ug/L		100	60 - 140	3	20	
Ethanol	ND		500	508		ug/L		102	60 - 140	2	20	
m-Xylene & p-Xylene	ND		50.0	52.0		ug/L		104	60 - 140	2	20	
MTBE	ND		25.0	27.6		ug/L		110	60 - 138	1	20	
TAME	ND		25.0	26.0		ug/L		104	60 - 140	1	20	
Ethyl t-butyl ether	ND		25.0	24.5		ug/L		98	60 - 140	0	20	
Toluene	ND		25.0	24.5		ug/L		98	60 - 140	3	20	
EDB	ND		25.0	27.1		ug/L		108	60 - 140	1	20	
1,2-DCA	ND		25.0	27.0		ug/L		108	60 - 140	1	20	
TBA	ND		500	527		ug/L		105	60 - 140	0	20	
DIPE	ND		25.0	23.0		ug/L		92	60 - 140	0	20	
Naphthalene	ND		25.0	19.1		ug/L		76	56 - 140	5	20	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		75 - 138
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: MB 720-108110/4

Matrix: Water

Analysis Batch: 108110

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.50		ug/L			02/17/12 08:18	1

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-108110/4

Matrix: Water

Analysis Batch: 108110

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)	ND		50		ug/L			02/17/12 08:18	1
-C5-C12									
Ethylbenzene	ND		0.50		ug/L			02/17/12 08:18	1
Ethanol	ND		250		ug/L			02/17/12 08:18	1
MTBE	ND		0.50		ug/L			02/17/12 08:18	1
TAME	ND		0.50		ug/L			02/17/12 08:18	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/17/12 08:18	1
Toluene	ND		0.50		ug/L			02/17/12 08:18	1
EDB	ND		0.50		ug/L			02/17/12 08:18	1
Xylenes, Total	ND		1.0		ug/L			02/17/12 08:18	1
1,2-DCA	ND		0.50		ug/L			02/17/12 08:18	1
TBA	ND		4.0		ug/L			02/17/12 08:18	1
DIPE	ND		0.50		ug/L			02/17/12 08:18	1
Naphthalene	ND		1.0		ug/L			02/17/12 08:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 130		02/17/12 08:18	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 138		02/17/12 08:18	1
Toluene-d8 (Surr)	98		70 - 130		02/17/12 08:18	1

Lab Sample ID: LCS 720-108110/5

Matrix: Water

Analysis Batch: 108110

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	25.8		ug/L		103	79 - 130
Ethylbenzene	25.0	24.9		ug/L		100	80 - 120
Ethanol	500	502		ug/L		100	31 - 216
m-Xylene & p-Xylene	50.0	50.9		ug/L		102	70 - 142
MTBE	25.0	27.7		ug/L		111	62 - 130
TAME	25.0	28.0		ug/L		112	79 - 130
Ethyl t-butyl ether	25.0	26.8		ug/L		107	70 - 130
Toluene	25.0	24.7		ug/L		99	78 - 120
EDB	25.0	28.1		ug/L		112	70 - 130
1,2-DCA	25.0	27.9		ug/L		112	61 - 132
TBA	500	508		ug/L		102	70 - 130
DIPE	25.0	25.6		ug/L		102	69 - 134
Naphthalene	25.0	23.7		ug/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	110		75 - 138
Toluene-d8 (Surr)	104		70 - 130

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-108110/7

Matrix: Water

Analysis Batch: 108110

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	475		ug/L		95	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	108		75 - 138
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCSD 720-108110/6

Matrix: Water

Analysis Batch: 108110

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	25.7		ug/L		103	79 - 130	0	20
Ethylbenzene	25.0	24.9		ug/L		100	80 - 120	0	20
Ethanol	500	531		ug/L		106	31 - 216	6	30
m-Xylene & p-Xylene	50.0	51.0		ug/L		102	70 - 142	0	20
MTBE	25.0	27.9		ug/L		112	62 - 130	1	20
TAME	25.0	28.1		ug/L		112	79 - 130	0	20
Ethyl t-butyl ether	25.0	26.9		ug/L		108	70 - 130	0	20
Toluene	25.0	24.6		ug/L		98	78 - 120	0	20
EDB	25.0	28.0		ug/L		112	70 - 130	0	20
1,2-DCA	25.0	27.3		ug/L		109	61 - 132	2	20
TBA	500	516		ug/L		103	70 - 130	1	20
DIPE	25.0	25.7		ug/L		103	69 - 134	0	20
Naphthalene	25.0	25.0		ug/L		100	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	108		75 - 138
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: LCSD 720-108110/8

Matrix: Water

Analysis Batch: 108110

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	465		ug/L		93	62 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	106		75 - 138
Toluene-d8 (Surr)	101		70 - 130

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

GC/MS VOA

Analysis Batch: 108075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40423-1	MW-1	Total/NA	Water	8260B	
720-40423-1 MS	MW-1	Total/NA	Water	8260B	
720-40423-1 MSD	MW-1	Total/NA	Water	8260B	
720-40423-2	MW-2	Total/NA	Water	8260B	
720-40423-3	MW-3	Total/NA	Water	8260B	
720-40423-5	MW-6	Total/NA	Water	8260B	
720-40423-6	TRIP BLANK	Total/NA	Water	8260B	
LCS 720-108075/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 720-108075/7	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-108075/6	Lab Control Sample Dup	Total/NA	Water	8260B	
LCSD 720-108075/8	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 720-108075/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 108110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40423-4	MW-4	Total/NA	Water	8260B	
LCS 720-108110/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 720-108110/7	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-108110/6	Lab Control Sample Dup	Total/NA	Water	8260B	
LCSD 720-108110/8	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 720-108110/4	Method Blank	Total/NA	Water	8260B	

GC Semi VOA

Prep Batch: 108091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40423-1	MW-1	Silica Gel Cleanup	Water	3510C SGC	
720-40423-2	MW-2	Silica Gel Cleanup	Water	3510C SGC	
720-40423-3	MW-3	Silica Gel Cleanup	Water	3510C SGC	
720-40423-4	MW-4	Silica Gel Cleanup	Water	3510C SGC	
720-40423-5	MW-6	Silica Gel Cleanup	Water	3510C SGC	

Analysis Batch: 108224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40423-1	MW-1	Silica Gel Cleanup	Water	8015B	108091
720-40423-2	MW-2	Silica Gel Cleanup	Water	8015B	108091
720-40423-3	MW-3	Silica Gel Cleanup	Water	8015B	108091
720-40423-4	MW-4	Silica Gel Cleanup	Water	8015B	108091
720-40423-5	MW-6	Silica Gel Cleanup	Water	8015B	108091

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: MW-1

Lab Sample ID: 720-40423-1

Date Collected: 02/15/12 09:40

Matrix: Water

Date Received: 02/15/12 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	108075	02/16/12 23:40	AC	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			108091	02/16/12 18:07	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	108224	02/20/12 23:27	JZ	TAL SF

Client Sample ID: MW-2

Lab Sample ID: 720-40423-2

Date Collected: 02/15/12 11:25

Matrix: Water

Date Received: 02/15/12 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	108075	02/17/12 01:06	AC	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			108091	02/16/12 18:07	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	108224	02/20/12 23:52	JZ	TAL SF

Client Sample ID: MW-3

Lab Sample ID: 720-40423-3

Date Collected: 02/15/12 10:48

Matrix: Water

Date Received: 02/15/12 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	108075	02/17/12 01:34	AC	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			108091	02/16/12 18:07	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	108224	02/21/12 00:16	JZ	TAL SF

Client Sample ID: MW-4

Lab Sample ID: 720-40423-4

Date Collected: 02/15/12 12:55

Matrix: Water

Date Received: 02/15/12 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	108110	02/17/12 16:06	AC	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			108091	02/16/12 18:07	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		3	108224	02/21/12 00:40	JZ	TAL SF

Client Sample ID: MW-6

Lab Sample ID: 720-40423-5

Date Collected: 02/15/12 12:07

Matrix: Water

Date Received: 02/15/12 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	108075	02/17/12 02:31	AC	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			108091	02/16/12 18:07	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	108224	02/21/12 01:04	JZ	TAL SF

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 720-40423-6

Date Collected: 02/15/12 12:59

Matrix: Water

Date Received: 02/15/12 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	108075	02/16/12 22:15	AC	TAL SF

Laboratory References:

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

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Certification Summary

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica San Francisco	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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Method Summary

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: TRC Solutions, Inc.
Project/Site: USPS Oakland VMF

TestAmerica Job ID: 720-40423-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-40423-1	MW-1	Water	02/15/12 09:40	02/15/12 16:30
720-40423-2	MW-2	Water	02/15/12 11:25	02/15/12 16:30
720-40423-3	MW-3	Water	02/15/12 10:48	02/15/12 16:30
720-40423-4	MW-4	Water	02/15/12 12:55	02/15/12 16:30
720-40423-5	MW-6	Water	02/15/12 12:07	02/15/12 16:30
720-40423-6	TRIP BLANK	Water	02/15/12 12:59	02/15/12 16:30

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Report To **Analysis Request**

 Attn: Jacobs Zapeda
 Company: TRC
 Address: 101 2nd Street, San Francisco, CA
 Phone: 925-260-0427 Email: zapeda@trcsolutions.com
 Bill To: TRC Sampled By: Jacobs Zapeda / Nate Bamber
 Attn: Phone: 925-260-0427

Sample ID	Date	Time	Mat rix	Preserv	TPH EPA <input checked="" type="checkbox"/> Gas w/ MITBE <input checked="" type="checkbox"/> BTEX	TEPH EPA 8015M* <input checked="" type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel Motor Oil <input type="checkbox"/> Other	EPA 8260B: <input checked="" type="checkbox"/> Gas <input type="checkbox"/> BTEX <input checked="" type="checkbox"/> 5 Oxygenates (DCA, EDB) <input checked="" type="checkbox"/> Ethanol (HVOCS) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624	Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625	Oil and Grease (EPA 1664) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 <input type="checkbox"/> PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608	PNAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS): <input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> TCLP	Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H ₂ O)	Spec. Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO ₄ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO ₂ <input type="checkbox"/> PO ₄	Number of Containers	
MW-1	2-15-12	09:46	W	F	X	X	X													
MW-2		11:25																		
MW-3		10:48																		
MW-4		12:55																		
MW-6		12:07																		
TRIP BLANK	2-15-12	12:59																		

Project Info		Sample Receipt		1) Relinquished by:		2) Relinquished by:		3) Relinquished by:		
Project Name: <u>USPS Oakland VMT</u>	# of Containers:	Head Space:	Temp: <u>1.6 °C</u>	Conforms to record:	Signature <u>Jacobs Zapeda</u>	Time <u>1:47</u>	Signature <u>T. Stitt</u>	Time <u>1630</u>	Signature	Time
Project#: <u>180497.2000</u>	Temp: <u>1.6 °C</u>	Conforms to record:	Signature <u>T. Stitt</u>	Date <u>2-15-12</u>	Printed Name <u>TASF</u>	Date <u>2/15/12</u>	Signature	Time	Printed Name	Date
PO#: <u>41652</u> <small>(Please see email)</small>	Conforms to record:	Company <u>TRC</u>	Signature <u>T. Stitt</u>	Date <u>2/15/12</u>	Printed Name <u>TASF</u>	Date	Signature	Time	Printed Name	Date
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input checked="" type="checkbox"/> EDD <input checked="" type="checkbox"/> State Tank Fund EDF	Other:	Signature <u>T. Stitt</u>	Signature <u>T. Stitt</u>	Time <u>1540</u>	Time <u>1630</u>	Signature <u>Autoprot</u>	Signature	Time	Printed Name	Date
Special Instructions / Comments: <input checked="" type="checkbox"/> Global ID <u>T0600100443</u>	Signature <u>T. Stitt</u>	Date <u>2/15/12</u>	Printed Name <u>TASF</u>	Date	Printed Name <u>TASF</u>	Date	Signature	Time	Printed Name	Date
Signature <u>TASF</u>	Signature	Time	Printed Name	Date	Printed Name	Date	Signature	Time	Printed Name	Date

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Sharma, Dimple

From: Zepeda, Jacob (SanFrancisco,CA-US) [jzepeda@trcsolutions.com]
Sent: Thursday, February 16, 2012 12:51 PM
To: Sharma, Dimple
Subject: RE: Files from 720-40423-1 USPS Oakland VMF

Dimple,

Sorry about the COC, please run the Trip Blanks as well for the following parameters:

TPHdiesel + motor oil
TPHgasoline, BTEX compounds, MTBE
The 5 fuel oxygenates, including ETBE, TAME, DIPE, DCA, EDB and naphthalene and ethanol.

Thanks,

Jake

Jacob Zepeda
Senior Staff Geologist



101 2nd Street, Suite 300, San Francisco, CA 94105
T: 415.644.3050 | F: 415.541.9378 | C: 925.260.0427

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 Please consider the environment before printing this email.

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Thursday, February 16, 2012 10:46 AM
To: Zepeda, Jacob (SanFrancisco,CA-US)
Subject: Files from 720-40423-1 USPS Oakland VMF

Received Sample ID "Trip Blank" 2/15/12 @ 1259, no analysis requested on COC, logged on HOLD.

DIMPLE SHARMA

TestAmerica San Francisco
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com

Reference: [098829]

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Attachments: 1

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-40423-1

Login Number: 40423

List Source: TestAmerica San Francisco

List Number: 1

Creator: Apostol, Anita

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is 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 sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

