

April 25, 2013

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*By Alameda County Environmental Health at 9:07 am, Apr 26, 2013*

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 7<sup>th</sup> 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 2013 Groundwater Monitoring Report are true and correct.

Sincerely:



Emmy Andrews  
Facilities Environmental Specialist

Attachments

Cc: Gary Gunderson, TRC



**First Semi-Annual 2013**  
**Groundwater Monitoring Report**  
USPS Oakland Vehicle Maintenance Facility  
1675 7<sup>th</sup> Street  
Oakland, California

This report has been prepared for:

**United States Postal Service**  
Pacific Facilities Service Office  
1300 Evans St, Suite 200  
San Francisco CA 94188-8200

April 25, 2013

Project No. 180497.3

A handwritten signature in blue ink, appearing to read "Jacob P. Zepeda".

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Jacob P. Zepeda  
Senior Staff Geologist

A handwritten signature in blue ink, appearing to read "Charles Mettler".

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Charles Mettler, P.G.  
Principal Geologist





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April 25, 2013  
180497.3

Ms. Emmy Andrews  
**UNITED STATES POSTAL SERVICE**  
Pacific Facilities Service Office  
1300 Evans St, Suite 200  
San Francisco California 94188-8200

**RE: FIRST SEMI-ANNUAL 2013  
GROUNDWATER MONITORING REPORT  
USPS OAKLAND VMF  
1675 7<sup>TH</sup> STREET  
OAKLAND, CALIFORNIA**

Dear Ms. Andrews:

The attached report summarizes the results of the first semi-annual 2013 groundwater monitoring event performed at the United States Postal Service's Oakland Vehicle Maintenance Facility (VMF), located at 1675 7<sup>th</sup> Street in Oakland, California. This work was performed in accordance with the *February 12, 2013 Agreement for Environmental Services Contract# 052571-09-J-0041, 4th Renewal Option, (Work Order #28.02)*.

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**

A handwritten signature in blue ink, appearing to read 'Charles Mettler', is written over a light blue circular stamp.

Charles Mettler, P.G.  
Principal Geologist

CCM: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 2013  
GROUNDWATER MONITORING REPORT  
USPS OAKLAND VMF  
1675 7<sup>TH</sup> STREET  
OAKLAND, CALIFORNIA**

## **1.0 INTRODUCTION**

### **1.1 Purpose**

This report presents the results of the first semi-annual 2013 groundwater monitoring event that was performed at the United States Postal Service's (USPS's) Oakland Vehicle Maintenance Facility (VMF) located at 1675 7<sup>th</sup> Street in Oakland, California (Figure 1). This work was performed at the request of the Alameda County Department of Environmental Health (ACDEH) to monitor petroleum fuel hydrocarbons in 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 soil 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). Heavy 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 removal of the USTs, 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 (HLA) performed a subsurface investigation in which nine soil 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 groundwater 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 [ $\text{mg/Kg}$ ]), TPHg (53  $\text{mg/Kg}$ ), and xylenes (0.087  $\text{mg/Kg}$ ) were detected in soil collected at 3 feet beneath the former fuel dispenser island from soil boring B-4 (now monitoring well MW-4). Elevated concentrations of TPHd (84  $\text{mg/Kg}$ ), TPHg (180  $\text{mg/Kg}$ ), benzene (0.15  $\text{mg/Kg}$ ), toluene (0.35  $\text{mg/Kg}$ ), ethylbenzene (2.1  $\text{mg/Kg}$ ), and xylenes (13  $\text{mg/Kg}$ ) were detected in soil collected at 6 feet beneath the fuel dispenser island from soil boring B-8 (near monitoring well MW-3). Benzene (0.04  $\text{mg/Kg}$ ) was detected in soil at 2.5 feet bgs from

soil boring B-2 (now well MW-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 the other groundwater samples collected during the investigation.

Quarterly groundwater monitoring was initiated at the site in January 1994 at the five wells. However, by December 1994, construction of Interstate 880 in the vicinity of the site (Cypress Freeway Reconstruction Project) required the removal of monitoring well MW-5. 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. TPHd concentrations in wells MW-1, MW-2, MW-3 and MW-4 showed an increase during June 1994 to June 1995. In June 1995, free product was discovered in well MW-4 and removed with absorbent socks and bailers.

By June 1997, HLA completed a groundwater well search, chemical data compilation of groundwater and soil contamination, and a Human Health Risk Assessment (HHRA) (Tier I) to evaluate and assess whether site closure was justifiable. A summary of their work performed was provided in their report. In their report, HLA had concluded that “no risk-based remediation is necessary and case closure is recommended.” Mr. Kayode Kadara with USPS presented the report by HLA to Ms. Jennifer Eberle with ACDEH in June 1997 and to Mr. Larry Seto with ACDEH in February 1998. The request for site closure was reviewed and denied by Mr. Seto and Madhulla Logan with 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.

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. The stockpiled and drummed soil and sludge was analyzed for heavy metals (California Assessment Manual [CAM 17]), TPHg, TPHd, BTEX, TPH as motor oil (TPHmo), and chlorinated volatile organic compounds (VOCs) for disposal. Analytical results indicated that 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 (up to 61 mg/L); 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 ACDEH local oversight program (LOP), submitted a letter to Mr. Sean McFadden with 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 was required or to issue a closure letter for the site. An additional letter sent to Mr. McFadden (USPS) from Mr. Seto (ACDEH) indicated that groundwater had not been tested for methyl-tert butyl ether (MTBE). The letter indicated that before site closure could be issued, another groundwater sample must be collected from well MW-4 and analyzed for TPHg, TPHd, BTEX, and MTBE, in addition to completing a Tier II RBCA.

In a letter dated November 8, 2000, Mr. Larry Seto (ACDEH) indicated receipt of the Tier II HHRA dated October 11, 1999 by Lowney Associates, but that ACDEH had not received laboratory analysis for the groundwater sample collected from well MW-4, and that a groundwater sample must be collected from MW-4 before case closure could be issued. In addition, the letter notified USPS that

Mr. Tom Peacock with ACDEH would be the new case officer for the site. On November 1, 2000, Lowney Associates collected a groundwater sample from well MW-4, at which time the well was observed to contain approximately 1 to 2 inches of free product. The subsequent Groundwater Quality Evaluation Report (January 2001) by Lowney Associates recommended that quarterly groundwater monitoring at the site continue.

In a letter dated April 9, 2001, Mr. Barney Chan with ACDEH directed Mr. McFadden (USPS) to resume quarterly groundwater monitoring and to include analyses of polyaromatic hydrocarbons (PAHs) to the groundwater monitoring requirements (in addition to TPHg, TPHd, BTEX, and MTBE). Mr. Chan also requested that 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.

In March 2002, quarterly groundwater monitoring continued by Professional Service Industries (PSI) on the behalf of USPS. Quarterly groundwater monitoring 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). Well MW-4 was analyzed for semi-volatile organic compounds (SVOCs) and PAHs due to observed free product in the well at the time. During the March 2002 sampling event, TPHd was detected in MW-3 at 540 µg/L and MTBE was detected in MW-3 at 3.8 µg/L and in MW-4 at 8.5 µg/L. Additional VOCs and SVOCs (sec-butylbenzene, naphthalene, n-propylbenzene, anthracene, di-n-octylphthalate, flourene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene) were detected in the groundwater sample collected from MW-4, but only naphthalene was above the EPA Region IX Preliminary Remediation Goals (PRG) at 46 µg/L.

Through correspondence between Mr. Chan (ACDEH), Mr. Roland Queyquep with USPS, and Mr. Ross and Mr. Burfield with PSI (consultant for the USPS) during May through August 2002, ACDEH requested the following to be completed by USPS:

- 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 (Workplan). The ACDEH approved the Workplan in their letter dated July 19, 2002. Modifications to the Workplan (screening and analysis of soil samples from the proposed boring, clarification of the groundwater sampling method, and installation of a permanent well) were submitted to ACDEH by PSI on August 19, 2002. ACDEH approved the modifications in their letter dated August 23, 2002.

Quarterly groundwater monitoring in 2002 was done by PSI and results indicated that 4.32 inches of free product was observed in MW-4. The free product 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 free product was no longer apparent within the well. In September 2002, PSI installed monitoring well MW-6 approximately 60 feet down-gradient of wells MW-3 and MW-4 per ACDEH request to delineate the plume down-gradient of the fuel island. Analytical results from the 2002 quarterly groundwater monitoring events indicated no TPHg in the wells except for MW-4. TPHd was detected in wells MW-1, MW-3, and MW-4, but significantly decreased from the first to the fourth quarter; BTEX was not detected in the groundwater samples collected except for toluene,



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

On 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 as 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.

A correspondence gap between the ACDEH LOP and USPS occurred between 2003 and 2008, based on our review of the ACDEH LOP case files for the site. This was apparent when an ACDEH letter to the USPS, dated July 3, 2008, identified the site as having not been 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 identified potential vapor intrusion as one of the main impediments to obtaining case closure.

In December 2010, TRC redeveloped and resurveyed the five existing monitoring wells at the site prior to collection of groundwater samples. Laboratory analyses of groundwater from monitoring wells MW-1, MW-3, and MW-4 detected TPHd as dissolved phase hydrocarbons in concentrations ranging from 161 to 6,620 µg/L. TPHmo was detected in wells MW-2 and MW-4. TPHg and BTEX compounds were not detected above the laboratory reporting limits. MTBE was detected in groundwater samples collected from wells MW-3, MW-4, and MW-6, but were well below the Environmental Screening Level (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-dichloroethane (1,2-DCA), naphthalene, or other PAHs] were not detected above groundwater ESLs.

The results of the December 2010 monitoring event were submitted by TRC to the ACDEH in the *Fourth Quarter 2010 Groundwater Monitoring Report, USPS Oakland Vehicle Maintenance Facility, 1675 7<sup>th</sup> 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. RO0000016*. 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 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.

During the first semi-annual groundwater monitoring event of 2012, 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. The concentrations had increased since the fourth



quarter of 2010 from below reporting limits to 290 µg/L of TPHg, and from 6,620 to 14,000 µg/L of TPHd in well MW-4. TPHg and TPHd were not detected in groundwater in any other wells during the first semi-annual 2012 monitoring event.

During the second semi-annual 2012 monitoring event, separate-phase hydrocarbons (SPH) had not been detected in well MW-4 for six months, and the concentrations of TPHg (180 µg/L) and TPHd (4,500 µg/L) had decreased significantly. TPHmo was detected in well MW-4 at low levels; TPHg and TPHd were not detected from groundwater samples in the other wells. BTEX and other fuel oxygenates were also not detected above laboratory reporting limits. MTBE was detected, however, well below the groundwater ESL of 5 µg/L. TRC recommended that ACDEH re-evaluate the site for closure and that a Conceptual Site Model (CSM) be compiled with a closure package for review.

### 1.3 Scope of Work

The scope of work for this groundwater monitoring event was outlined in our agreement with the USPS dated *February 12, 2013 Agreement for Environmental Services Contract# 052571-09-J-0041, 4th Renewal Option, (Work Order #28.02)*, and included the following tasks:

- Measurement of the shallow groundwater flow direction beneath the site;
- Purging of groundwater and recording of field parameters (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, benzene, toluene, ethylbenzene, xylenes (BTEX) compounds, methyl tertiary butyl ether (MTBE), Di-isopropyl ether (DIPE), Ethyl tert-butyl ether (ETBE), Tert-amyl methyl ether (TAME), and 1,2-dichloroethane (1,2-EDC), and naphthalene by EPA Test Methods 8015M and 8260B;
- Preparation of this first semi-annual 2013 groundwater monitoring report.

## 2.0 GROUNDWATER QUALITY EVALUATION

### 2.1 Groundwater Flow Evaluation

On April 15, 2013, groundwater elevation data was measured. The general flow direction in the shallow water-bearing zone was towards the southwest (S50°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 are also presented in Appendix A - Table B.

**Table 1. Groundwater Elevations in Site Wells**

<b>Monitoring Well</b>	<b>Latitude<sup>+</sup></b>	<b>Longitude<sup>+</sup></b>	<b>Date</b>	<b>Top of Casing Elevation (feet msl)</b>	<b>Depth to Groundwater<sup>**</sup> (ft bgs)</b>	<b>Groundwater Elevation (feet msl)</b>	<b>Groundwater Flow Direction</b>
MW-1	37°48'19.16"N	122°18'6.01"W	4/15/2013	11.44	6.61	4.83	S50°W
MW-2	37°48'18.84"N	122°18'5.74"W	4/15/2013	12.06	7.18	4.88	S50°W
MW-3	37°48'18.64"N	122°18'6.54"W	4/15/2013	12.48	8.12	4.36	S50°W
MW-4	37°48'18.50"N	122°18'6.15"W	4/15/2013	12.83	8.31	4.52	S50°W
MW-6	37°48'18.08"N	122°18'6.73"W	4/15/2013	11.93	7.98	3.95	S50°W

<sup>\*\*</sup> Measured from the top of the casing.

<sup>+</sup> 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 April 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 TPHg, TPHd, TPHmo, BTEX compounds, MTBE, DIPE, ETBE, TAME, and 1,2 EDC, and naphthalene by EPA Test Methods 8015M and 8260B. 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	4/15/2013	<50	<b>110</b>	<100	<0.5	<0.5	<0.5	<1.0	<0.5
MW-2	4/15/2013	<50	<b>170</b>	<b>390</b>	<0.5	<0.5	<0.5	<1.0	<0.5
MW-3	4/15/2013	<50	<b>240</b>	<100	<0.5	<0.5	<0.5	<1.0	1.9
MW-4	4/15/2013	83	<b>2,500</b>	<b>210</b>	<0.5	<0.5	<0.5	<1.0	2.2
MW-6	4/15/2013	<50	73	<100	<0.5	<0.5	<0.5	<1.0	0.81
Groundwater ESL <sup>(1)</sup>		100	100	100	1	40	30	20	5
MCL <sup>(2)</sup>		NE	NE	NE	1	150	300	1,750	13

**Notes**

<sup>(1)</sup> Environmental Screening Level-Table A, CRWQCB, SF Bay Region, rev. 2013.

<sup>(2)</sup> 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	4/15/2013	<4.0	<0.5	<0.5	<0.5	<0.5	<1.0
MW-2	4/15/2013	<4.0	<0.5	<0.5	<0.5	<0.5	<1.0
MW-3	4/15/2013	<4.0	<0.5	<0.5	<0.5	<0.5	<1.0
MW-4	4/15/2013	< 4.0	<0.5	<0.5	<0.5	<0.5	<1.0
MW-6	4/15/2013	<4.0	<0.5	<0.5	<0.5	<0.5	<1.0
Groundwater ESL <sup>(1)</sup>		12	NE	NE	NE	200	24
MCL <sup>(2)</sup>		NE	NE	NE	NE	0.5	NE

**Notes**

<sup>(1)</sup> Environmental Screening Level-Table A, CRWQCB, SF Bay Region, rev. 2013

<sup>(2)</sup> 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

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
			( $\mu\text{S}/\text{cm}$ )	( $^{\circ}\text{C}$ )	( $\text{mg}/\text{L}$ )	( $\text{mV}$ )
MW-1	4/15/2013	6.57	2079	15.98	1.34	275.5
MW-2	4/15/2013	6.37	1781	15.27	1.69	246.4
MW-3	4/15/2013	6.81	2028	15.88	1.78	248.4
MW-4	4/15/2013	6.47	1735	16.85	1.04	-15.0
MW-6	4/15/2013	6.38	1074	19.05	1.40	242.8

**Notes**

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

**2.3 Hydrocarbon Absorbent Socks and Field Observations**

To continue with the petroleum hydrocarbon recovery effort of Separate-phase hydrocarbons (SPH) from well MW-4, a passive collection system 'skimmer' has been deployed in the well since March 9, 2012. Continual monitoring of the SPH in well MW-4 has occurred monthly or bi-monthly thereafter.

Separate-phase hydrocarbons up to 0.96-inches thick were previously observed and measured on February 15, 2012, and approximately 25 gallons of groundwater and SPH were extracted from well MW-4. On March 9, 2012 TRC replaced the cage and absorbent sock collection system with an SPH passive collection system 'skimmer' in well MW-4. Since the February 2012 extraction of SPH and groundwater, SPH has not been observed in well MW-4 through April 15, 2013. An apparent petroleum sheen was observed on the groundwater from the well, but no actual SPH has been present for approximately one year of monitoring. 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-1	8/15/2012	11.44	7.40	N	--
MW-1	4/15/2013	11.44	6.61	N	--
MW-2	1/3/2011	12.06	6.75	Y	--
MW-2	2/15/2012	12.06	8.24	Y	--
MW-2	8/15/2012	12.06	7.98	N	--
MW-2	4/15/2013	12.06	7.18	N	--
MW-3	1/3/2011	12.48	7.68	Y	--
MW-3	2/15/2012	12.48	9.20	Y	--
MW-3	8/15/2012	12.48	8.89	Y	--
MW-3	4/15/2013	12.48	8.12	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-4	4/17/2012	12.83	8.51	Y	--
MW-4	5/31/2012	12.83	8.53	Y	--
MW-4	7/24/2012	12.83	9.17	Y	--
MW-4	8/15/2012	12.83	9.14	Y	--
MW-4	1/09/2013	12.83	8.01	Y	--
MW-4	3/26/2013	12.83	9.02	Y	--
MW-4	4/15/2013	12.83	8.31	Y	--
MW-6	1/3/2012	11.93	7.61	N	--
MW-6	2/15/2012	11.93	9.04	N	--
MW-6	8/15/2012	11.93	8.79	N	--
MW-6	4/15/2013	11.93	7.98	N	--

**Notes**

- .. 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 this first semi-annual 2013 monitoring event from wells MW-1 through MW-4, and MW-6. A total of 21 gallons of groundwater containing dissolved-phase total petroleum hydrocarbons (TPH) were purged from well MW-4 prior to sampling during this

event. Based on the groundwater elevation data collected, the general flow direction of the shallow water-bearing zone was towards the southwest and was consistent with prior measurements.

Concentrations of TPHd (2,500 µg/L), and TPHmo (210 µg/L) detected in groundwater from monitoring well MW-4 exceeded the environmental screening level (ESL) of 100 µg/L. However, concentrations of TPHd have decreased significantly since the last semi-annual groundwater monitoring event in August 2012. TPHg was observed to have decreased below the ESL, and TPHmo concentration remains relatively low at 210 µg/L, only slightly above the ESL of 100 µg/L. TPHd was detected in very low concentrations in wells MW-1, MW-2, and MW-3; and TPHd was detected above the laboratory reporting limits but below the ESL in MW-6. BTEX compounds and other fuel oxygenates, including TBA, DIPE, ETBE, TAME, and semi-volatiles 1,2-DCA, and naphthalene were not detected above laboratory reporting limits. MTBE was detected in groundwater samples collected from wells MW-3 (1.8 µg/L), MW-4 (2.2 µg/L), and MW-6 (0.8 µg/L), but were well below the groundwater ESL of 5 µg/L.

### 3.2 Recommendations

Based on the results obtained during this first semi-annual 2013 groundwater monitoring event, we recommend initiating communications with the ACDEH and presenting a case for closure of this site, due to the absence of SPH from well MW-4, the stability of the dissolved-phase contaminant plume and subsequent continuous decrease of TPHd concentrations during the last year. This site appears to meet the criteria of the Low-Threat Underground Storage Tank (UST) Case Closure Policy (Policy) enacted by the State Water Board on August 24, 2012 as Resolution No. 2012-0016, as indicated in our previous groundwater monitoring during September 2012. As indicated in our previous monitoring report in September 2012, the reasons for our request for closure are as follows:

- All eight "General Criteria" as described in the Policy have been met, with the exception of the completion of a CSM. TRC proposes to include the CSM in a site closure package that will be submitted to ACDEH for review.
- The dissolved TPH plume has been stable and SPH has not been observed in the site monitoring wells for more than one year (since February 2012).
- Although TPH was detected in soil samples collected from MW-3 (180 mg/Kg of TPHg) and MW-4 (2,400 mg/Kg of TPHd) that exceeded the screening criteria of 100 mg/Kg in the bioattenuation zone, the VMF is an active maintenance and fueling facility. As stated in the Policy "Exposures to petroleum vapors associated with historical fuel system releases are comparatively insignificant relative to exposures from small surface spills and fugitive vapor releases that typically occur at active fueling facilities. Therefore, satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk." TPH concentrations in the well that is closest to the VMF offices (MW-3) only slightly exceeds the screening criteria for TPH in soil, indicating that the risk associated with vapor intrusion from underlying soil is relatively insignificant compared to the ambient air within the VMF.
- A Tier II Human Health Risk Appraisal (Lowney 1999) indicated that the estimated maximum carcinogenic risk associated with vapor intrusion due to volatilization of benzene from shallow groundwater and soil was 2.1 E-06, which is lower than the acceptable target risk of 1E-05.
- Benzene and ethylbenzene detected in on-site soil is below the screening criteria set forth in Table 1 of the Policy.



TRC respectfully requests ACDEH to re-evaluate the site for closure based on the reasons listed above. If acceptable, TRC proposes to forego the soil vapor investigation that was proposed in the *Workplan for Soil Vapor Investigation* dated March 19, 2012, due to the insignificant risk posed by the TPH in soil. To move the site toward closure and based on the General Criteria for low-threat closure, TRC recommends compiling a CSM and closure package for review by the ACDEH in lieu of the soil vapor investigation.

#### 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, September 12, 2012. *Second Semi-Annual 2012 Groundwater Monitoring Report, USPS Oakland Vehicle Maintenance Facility, 1675 7<sup>th</sup> Street, Oakland, California.*

TRC, March 23, 2012. *First Semi-Annual 2012 Groundwater Monitoring Report, USPS Oakland Vehicle Maintenance Facility, 1675 7<sup>th</sup> Street, Oakland, California.*

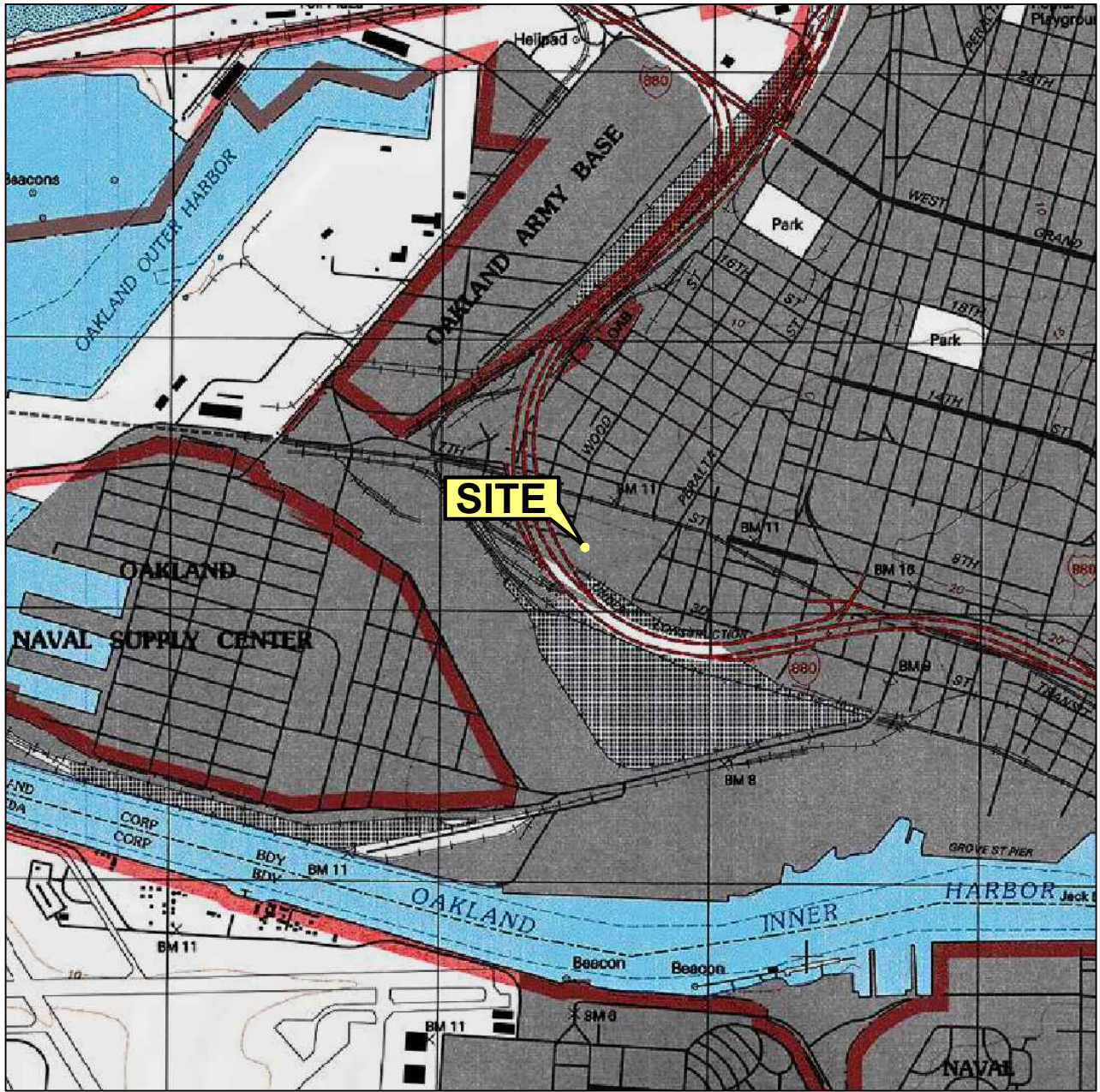
TRC, March 18, 2011. *Fourth Quarter 2010 Groundwater Monitoring Report, USPS Oakland Vehicle Maintenance Facility, 1675 7<sup>th</sup> Street, Oakland, California.*

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Lowney Associates, October 11, 2001, *Tier II Human Health Risk Assessment, USPS Oakland Vehicle Maintenance Facility, 1675 7<sup>th</sup> Street, Oakland, California.*

Geo/Resource Consultants, Inc, September 17, 1992. *Supplemental Observation Letter, Underground Storage Tank (UST) Program, U.S. Postal Service Vehicle Maintenance Facility, 1675 7<sup>th</sup> 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,  
California

**VICINITY MAP**

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





180497.3

**FIGURE 1**



**LEGEND**

Approximate locations of:

-  Monitoring well
-  Tank pit monitoring well
- 4.83** Groundwater elevation (ft-msl), April 15, 2013
- 5.00** Groundwater elevation contour line (ft-msl)



FILE NAME: Z:\Current\USPS Oakland\1st Half 2013 GW QMS Report\Fig2\_GW\_April13.dwg | Layout Tab: 8x11



180497.3

**FIGURE 2**

**LEGEND**

Approximate locations of:



Monitoring well



Tank pit monitoring well

MW-1	Dissolved-phase hydrocarbon concentrations (ug/L), April 15, 2013
TPHd	<b>110</b>

Dissolved-phase hydrocarbon concentrations (ug/L),  
April 15, 2013

**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	TPHd	<b>110</b>
------	------	------------

VMF OFFICES

FUEL DISPENSERS

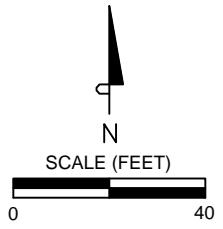
MW-3	TPHd	<b>240</b>	MTBE	1.9
------	------	------------	------	-----

MW-2	TPHd	<b>170</b>	TPHmo	<b>390</b>
------	------	------------	-------	------------

MW-4	TPHg	83	TPHd	<b>2,500</b>	TPHmo	<b>210</b>	MTBE	2.2
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FUEL ISLAND CANOPY

MW-6	TPHd	73	MTBE	0.81
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AERIAL PHOTO SOURCE: Google Earth, October 2009.

**DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS**

**April 15, 2013**

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



180497.3

**FIGURE 3**



# LEGEND

Approximate locations of:



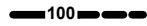
Monitoring well



Tank pit monitoring well

2,500

Dissolved-phase TPHd concentration (ug/L),  
April 15, 2013



Dissolved-phase TPHd isoconcentration contour line  
(ug/L), April 15, 2013, dashed where inferred



**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-1	8/15/2012	<50	<52	<0.5	<0.5	<0.5	<1.0	<0.5
<b>MW-1</b>	<b>4/15/2013</b>	<b>&lt;50</b>	<b>110</b>	<b>&lt;100</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.0</b>
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-2	8/15/2012	<50	<52	<0.5	<0.5	<0.5	<1.0	<0.5
<b>MW-2</b>	<b>4/15/2013</b>	<b>&lt;50</b>	<b>170</b>	<b>390</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.0</b>
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-3	8/15/2012	<50	57	<0.5	<0.5	<0.5	<1.0	2.8
<b>MW-3</b>	<b>4/15/2013</b>	<b>&lt;50</b>	<b>240</b>	<b>&lt;100</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.0</b>
MW-4	9/1/1993	<50	580	<0.5	<0.5	<0.5	<0.5	NA

Monitoring Well	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
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
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-4	8/15/2012	180	4,500	<0.5	<0.5	<0.5	<1.0	2.0
<b>MW-4</b>	<b>4/15/2013</b>	<b>83</b>	<b>2,500</b>	<b>210</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.0</b>
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
<b>MW-5</b>	<b>Well MW-5 abandoned in January 1995 (PSI 2003)</b>							
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
MW-6	8/15/2012	<50	<52	<0.5	<0.5	<0.5	<1.0	0.60
<b>MW-6</b>	<b>4/15/2013</b>	<b>&lt;50</b>	<b>73</b>	<b>&lt;100</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.0</b>

< 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
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
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
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.

**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

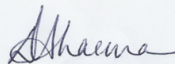
## ANALYTICAL REPORT

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

TestAmerica Job ID: 720-49133-1  
Client Project/Site: USPS Oakland VMF  
Revision: 1

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

Attn: Mr. Jacob Zepeda



Authorized for release by:  
4/18/2013 4:52:44 PM

Dimple Sharma  
Project Manager I  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through  
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Visit us at:  
[www.testamericainc.com](http://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: 720-49133-1

### Glossary

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

# Case Narrative

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

TestAmerica Job ID: 720-49133-1

---

**Job ID: 720-49133-1**

---

**Laboratory: TestAmerica Pleasanton**

---

**Narrative**

**Job Narrative**  
720-49133-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 4/15/2013 2:26 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

**GC/MS VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.



# Detection Summary

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

TestAmerica Job ID: 720-49133-1

## Client Sample ID: MW-1

Lab Sample ID: 720-49133-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	110		50		ug/L	1		8015B	Total/NA

## Client Sample ID: MW-2

Lab Sample ID: 720-49133-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	170		51		ug/L	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	390		100		ug/L	1		8015B	Total/NA

## Client Sample ID: MW-3

Lab Sample ID: 720-49133-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.9		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	240		50		ug/L	1		8015B	Total/NA

## Client Sample ID: MW-6

Lab Sample ID: 720-49133-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.81		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	73		51		ug/L	1		8015B	Total/NA

## Client Sample ID: MW-4

Lab Sample ID: 720-49133-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	83		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	2500		50		ug/L	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	210		99		ug/L	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-49133-1

**Client Sample ID: MW-1**  
**Date Collected: 04/15/13 09:45**  
**Date Received: 04/15/13 14:26**

**Lab Sample ID: 720-49133-1**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			04/15/13 22:20	1
Benzene	ND		0.50		ug/L			04/15/13 22:20	1
Ethylbenzene	ND		0.50		ug/L			04/15/13 22:20	1
Toluene	ND		0.50		ug/L			04/15/13 22:20	1
Xylenes, Total	ND		1.0		ug/L			04/15/13 22:20	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			04/15/13 22:20	1
TBA	ND		4.0		ug/L			04/15/13 22:20	1
Naphthalene	ND		1.0		ug/L			04/15/13 22:20	1
Ethyl t-butyl ether	ND		0.50		ug/L			04/15/13 22:20	1
DIPE	ND		0.50		ug/L			04/15/13 22:20	1
TAME	ND		0.50		ug/L			04/15/13 22:20	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	90		67 - 130					04/15/13 22:20	1
1,2-Dichloroethane-d4 (Surr)	113		75 - 138					04/15/13 22:20	1
Toluene-d8 (Surr)	99		70 - 130					04/15/13 22:20	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>110</b>		50		ug/L		04/15/13 19:03	04/16/13 10:02	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		04/15/13 19:03	04/16/13 10:02	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	78		23 - 156				04/15/13 19:03	04/16/13 10:02	1

# Client Sample Results

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

TestAmerica Job ID: 720-49133-1

**Client Sample ID: MW-2**  
**Date Collected: 04/15/13 10:40**  
**Date Received: 04/15/13 14:26**

**Lab Sample ID: 720-49133-2**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			04/15/13 23:43	1
Benzene	ND		0.50		ug/L			04/15/13 23:43	1
Ethylbenzene	ND		0.50		ug/L			04/15/13 23:43	1
Toluene	ND		0.50		ug/L			04/15/13 23:43	1
Xylenes, Total	ND		1.0		ug/L			04/15/13 23:43	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			04/15/13 23:43	1
TBA	ND		4.0		ug/L			04/15/13 23:43	1
Naphthalene	ND		1.0		ug/L			04/15/13 23:43	1
Ethyl t-butyl ether	ND		0.50		ug/L			04/15/13 23:43	1
DIPE	ND		0.50		ug/L			04/15/13 23:43	1
TAME	ND		0.50		ug/L			04/15/13 23:43	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	91		67 - 130					04/15/13 23:43	1
1,2-Dichloroethane-d4 (Surr)	111		75 - 138					04/15/13 23:43	1
Toluene-d8 (Surr)	99		70 - 130					04/15/13 23:43	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>170</b>		51		ug/L		04/15/13 19:03	04/16/13 10:26	1
<b>Motor Oil Range Organics [C24-C36]</b>	<b>390</b>		100		ug/L		04/15/13 19:03	04/16/13 10:26	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	67		23 - 156				04/15/13 19:03	04/16/13 10:26	1

# Client Sample Results

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

TestAmerica Job ID: 720-49133-1

**Client Sample ID: MW-3**  
**Date Collected: 04/15/13 11:30**  
**Date Received: 04/15/13 14:26**

**Lab Sample ID: 720-49133-3**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>1.9</b>		0.50		ug/L			04/16/13 00:11	1
Benzene	ND		0.50		ug/L			04/16/13 00:11	1
Ethylbenzene	ND		0.50		ug/L			04/16/13 00:11	1
Toluene	ND		0.50		ug/L			04/16/13 00:11	1
Xylenes, Total	ND		1.0		ug/L			04/16/13 00:11	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			04/16/13 00:11	1
TBA	ND		4.0		ug/L			04/16/13 00:11	1
Naphthalene	ND		1.0		ug/L			04/16/13 00:11	1
Ethyl t-butyl ether	ND		0.50		ug/L			04/16/13 00:11	1
DIPE	ND		0.50		ug/L			04/16/13 00:11	1
TAME	ND		0.50		ug/L			04/16/13 00:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	88		67 - 130					04/16/13 00:11	1
1,2-Dichloroethane-d4 (Surr)	113		75 - 138					04/16/13 00:11	1
Toluene-d8 (Surr)	99		70 - 130					04/16/13 00:11	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>240</b>		50		ug/L		04/15/13 19:03	04/16/13 11:06	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		04/15/13 19:03	04/16/13 11:06	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	67		23 - 156				04/15/13 19:03	04/16/13 11:06	1



# Client Sample Results

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

TestAmerica Job ID: 720-49133-1

**Client Sample ID: MW-6**  
**Date Collected: 04/15/13 12:20**  
**Date Received: 04/15/13 14:26**

**Lab Sample ID: 720-49133-4**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>0.81</b>		0.50		ug/L			04/16/13 00:38	1
Benzene	ND		0.50		ug/L			04/16/13 00:38	1
Ethylbenzene	ND		0.50		ug/L			04/16/13 00:38	1
Toluene	ND		0.50		ug/L			04/16/13 00:38	1
Xylenes, Total	ND		1.0		ug/L			04/16/13 00:38	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			04/16/13 00:38	1
TBA	ND		4.0		ug/L			04/16/13 00:38	1
Naphthalene	ND		1.0		ug/L			04/16/13 00:38	1
Ethyl t-butyl ether	ND		0.50		ug/L			04/16/13 00:38	1
DIPE	ND		0.50		ug/L			04/16/13 00:38	1
TAME	ND		0.50		ug/L			04/16/13 00:38	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	86		67 - 130					04/16/13 00:38	1
1,2-Dichloroethane-d4 (Surr)	110		75 - 138					04/16/13 00:38	1
Toluene-d8 (Surr)	98		70 - 130					04/16/13 00:38	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>73</b>		51		ug/L		04/15/13 19:03	04/16/13 11:30	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		04/15/13 19:03	04/16/13 11:30	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	64		23 - 156				04/15/13 19:03	04/16/13 11:30	1

# Client Sample Results

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

TestAmerica Job ID: 720-49133-1

**Client Sample ID: MW-4**  
**Date Collected: 04/15/13 13:25**  
**Date Received: 04/15/13 14:26**

**Lab Sample ID: 720-49133-5**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>2.2</b>		0.50		ug/L			04/16/13 01:06	1
Benzene	ND		0.50		ug/L			04/16/13 01:06	1
Ethylbenzene	ND		0.50		ug/L			04/16/13 01:06	1
Toluene	ND		0.50		ug/L			04/16/13 01:06	1
Xylenes, Total	ND		1.0		ug/L			04/16/13 01:06	1
<b>Gasoline Range Organics (GRO)</b>	<b>83</b>		50		ug/L			04/16/13 01:06	1
<b>-C5-C12</b>									
TBA	ND		4.0		ug/L			04/16/13 01:06	1
Naphthalene	ND		1.0		ug/L			04/16/13 01:06	1
Ethyl t-butyl ether	ND		0.50		ug/L			04/16/13 01:06	1
DIPE	ND		0.50		ug/L			04/16/13 01:06	1
TAME	ND		0.50		ug/L			04/16/13 01:06	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	99		67 - 130					04/16/13 01:06	1
1,2-Dichloroethane-d4 (Surr)	109		75 - 138					04/16/13 01:06	1
Toluene-d8 (Surr)	97		70 - 130					04/16/13 01:06	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>2500</b>		50		ug/L		04/15/13 20:00	04/16/13 11:30	1
<b>Motor Oil Range Organics [C24-C36]</b>	<b>210</b>		99		ug/L		04/15/13 20:00	04/16/13 11:30	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	74		23 - 156				04/15/13 20:00	04/16/13 11:30	1

# QC Sample Results

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

TestAmerica Job ID: 720-49133-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

**Lab Sample ID: MB 720-134402/5**

**Matrix: Water**

**Analysis Batch: 134402**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			04/15/13 19:30	1
Benzene	ND		0.50		ug/L			04/15/13 19:30	1
Ethylbenzene	ND		0.50		ug/L			04/15/13 19:30	1
Toluene	ND		0.50		ug/L			04/15/13 19:30	1
Xylenes, Total	ND		1.0		ug/L			04/15/13 19:30	1
Gasoline Range Organics (GRO)	ND		50		ug/L			04/15/13 19:30	1
-C5-C12									
TBA	ND		4.0		ug/L			04/15/13 19:30	1
Naphthalene	ND		1.0		ug/L			04/15/13 19:30	1
Ethyl t-butyl ether	ND		0.50		ug/L			04/15/13 19:30	1
DIPE	ND		0.50		ug/L			04/15/13 19:30	1
TAME	ND		0.50		ug/L			04/15/13 19:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 130		04/15/13 19:30	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 138		04/15/13 19:30	1
Toluene-d8 (Surr)	97		70 - 130		04/15/13 19:30	1

**Lab Sample ID: LCS 720-134402/6**

**Matrix: Water**

**Analysis Batch: 134402**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	26.4		ug/L		106	62 - 130
Benzene	25.0	24.3		ug/L		97	79 - 130
Ethylbenzene	25.0	24.8		ug/L		99	80 - 120
Toluene	25.0	24.6		ug/L		98	78 - 120
m-Xylene & p-Xylene	50.0	49.4		ug/L		99	70 - 142
o-Xylene	25.0	23.9		ug/L		96	70 - 130
TBA	500	471		ug/L		94	70 - 130
Naphthalene	25.0	24.5		ug/L		98	70 - 130
Ethyl t-butyl ether	25.0	21.7		ug/L		87	70 - 130
DIPE	25.0	25.1		ug/L		100	69 - 134
TAME	25.0	21.8		ug/L		87	79 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	108		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		75 - 138
Toluene-d8 (Surr)	103		70 - 130

**Lab Sample ID: LCS 720-134402/8**

**Matrix: Water**

**Analysis Batch: 134402**

**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)	500	436		ug/L		87	62 - 120
-C5-C12							

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-49133-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-134402/8

Matrix: Water

Analysis Batch: 134402

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	101		75 - 138
Toluene-d8 (Surr)	108		70 - 130

Lab Sample ID: LCSD 720-134402/7

Matrix: Water

Analysis Batch: 134402

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
Methyl tert-butyl ether	25.0	26.9		ug/L		108	62 - 130	2	20
Benzene	25.0	24.0		ug/L		96	79 - 130	1	20
Ethylbenzene	25.0	24.9		ug/L		99	80 - 120	0	20
Toluene	25.0	24.9		ug/L		100	78 - 120	1	20
m-Xylene & p-Xylene	50.0	49.6		ug/L		99	70 - 142	0	20
o-Xylene	25.0	24.0		ug/L		96	70 - 130	0	20
TBA	500	480		ug/L		96	70 - 130	2	20
Naphthalene	25.0	24.4		ug/L		97	70 - 130	1	20
Ethyl t-butyl ether	25.0	22.4		ug/L		89	70 - 130	3	20
DIPE	25.0	25.8		ug/L		103	69 - 134	3	20
TAME	25.0	22.1		ug/L		89	79 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	108		67 - 130
1,2-Dichloroethane-d4 (Surr)	97		75 - 138
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 720-134402/9

Matrix: Water

Analysis Batch: 134402

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	427		ug/L		85	62 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	101		75 - 138
Toluene-d8 (Surr)	109		70 - 130

Lab Sample ID: 720-49133-1 MS

Matrix: Water

Analysis Batch: 134402

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	ND		25.0	30.5		ug/L		122	60 - 138
Benzene	ND		25.0	24.2		ug/L		97	60 - 140
Ethylbenzene	ND		25.0	23.4		ug/L		94	60 - 140
Toluene	ND		25.0	23.3		ug/L		93	60 - 140

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-49133-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: 720-49133-1 MS**

**Matrix: Water**

**Analysis Batch: 134402**

**Client Sample ID: MW-1**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	ND		50.0	47.0		ug/L		94	60 - 140
o-Xylene	ND		25.0	22.9		ug/L		92	60 - 140
TBA	ND		500	453		ug/L		91	60 - 140
Naphthalene	ND		25.0	24.4		ug/L		97	56 - 140
Ethyl t-butyl ether	ND		25.0	24.9		ug/L		100	60 - 140
DIPE	ND		25.0	28.1		ug/L		113	60 - 140
TAME	ND		25.0	25.2		ug/L		101	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	108		67 - 130
1,2-Dichloroethane-d4 (Surr)	106		75 - 138
Toluene-d8 (Surr)	106		70 - 130

**Lab Sample ID: 720-49133-1 MSD**

**Matrix: Water**

**Analysis Batch: 134402**

**Client Sample ID: MW-1**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	ND		25.0	28.8		ug/L		115	60 - 138	6	20
Benzene	ND		25.0	24.7		ug/L		99	60 - 140	2	20
Ethylbenzene	ND		25.0	23.9		ug/L		96	60 - 140	2	20
Toluene	ND		25.0	23.7		ug/L		95	60 - 140	2	20
m-Xylene & p-Xylene	ND		50.0	47.6		ug/L		95	60 - 140	1	20
o-Xylene	ND		25.0	23.3		ug/L		93	60 - 140	2	20
TBA	ND		500	462		ug/L		92	60 - 140	2	20
Naphthalene	ND		25.0	23.1		ug/L		93	56 - 140	5	20
Ethyl t-butyl ether	ND		25.0	24.8		ug/L		99	60 - 140	1	20
DIPE	ND		25.0	28.2		ug/L		113	60 - 140	0	20
TAME	ND		25.0	24.6		ug/L		98	60 - 140	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	110		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		75 - 138
Toluene-d8 (Surr)	106		70 - 130

## Method: 8015B - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 720-134366/1-A**

**Matrix: Water**

**Analysis Batch: 134352**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 134366**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		04/15/13 11:50	04/16/13 00:29	1
Motor Oil Range Organics [C24-C36]	ND		99		ug/L		04/15/13 11:50	04/16/13 00:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	104		23 - 156	04/15/13 11:50	04/16/13 00:29	1

TestAmerica Pleasanton



# QC Sample Results

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

TestAmerica Job ID: 720-49133-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: LCS 720-134366/2-A**

**Matrix: Water**

**Analysis Batch: 134352**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 134366**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1800		ug/L		72	40 - 150
<b>Surrogate</b>		<b>LCS %Recovery</b>	<b>LCS Qualifier</b>				<b>Limits</b>
<i>p-Terphenyl</i>		109					23 - 156

**Lab Sample ID: LCSD 720-134366/3-A**

**Matrix: Water**

**Analysis Batch: 134352**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 134366**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	2500	1840		ug/L		74	40 - 150	2	35
<b>Surrogate</b>		<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>				<b>Limits</b>		
<i>p-Terphenyl</i>		109					23 - 156		

# QC Association Summary

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

TestAmerica Job ID: 720-49133-1

## GC/MS VOA

### Analysis Batch: 134402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-49133-1	MW-1	Total/NA	Water	8260B/CA_LUFT	
720-49133-1 MS	MW-1	Total/NA	Water	MS	
720-49133-1 MSD	MW-1	Total/NA	Water	8260B/CA_LUFT	
720-49133-2	MW-2	Total/NA	Water	MS	
720-49133-3	MW-3	Total/NA	Water	8260B/CA_LUFT	
720-49133-4	MW-6	Total/NA	Water	MS	
720-49133-5	MW-4	Total/NA	Water	8260B/CA_LUFT	
LCS 720-134402/6	Lab Control Sample	Total/NA	Water	MS	
LCS 720-134402/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
LCSD 720-134402/7	Lab Control Sample Dup	Total/NA	Water	MS	
LCSD 720-134402/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
MB 720-134402/5	Method Blank	Total/NA	Water	MS	

## GC Semi VOA

### Analysis Batch: 134352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-134366/2-A	Lab Control Sample	Total/NA	Water	8015B	134366
LCSD 720-134366/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	134366
MB 720-134366/1-A	Method Blank	Total/NA	Water	8015B	134366

### Prep Batch: 134366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-49133-1	MW-1	Total/NA	Water	3510C	
720-49133-2	MW-2	Total/NA	Water	3510C	
720-49133-3	MW-3	Total/NA	Water	3510C	
720-49133-4	MW-6	Total/NA	Water	3510C	
720-49133-5	MW-4	Total/NA	Water	3510C	
LCS 720-134366/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-134366/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 720-134366/1-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 134435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-49133-1	MW-1	Total/NA	Water	8015B	134366
720-49133-3	MW-3	Total/NA	Water	8015B	134366
720-49133-4	MW-6	Total/NA	Water	8015B	134366

### Analysis Batch: 134436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-49133-2	MW-2	Total/NA	Water	8015B	134366

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-49133-1

## GC Semi VOA (Continued)

### Analysis Batch: 134436 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-49133-5	MW-4	Total/NA	Water	8015B	134366

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Lab Chronicle

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

TestAmerica Job ID: 720-49133-1

## Client Sample ID: MW-1

Lab Sample ID: 720-49133-1

Date Collected: 04/15/13 09:45

Matrix: Water

Date Received: 04/15/13 14:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	134402	04/15/13 22:20	PD	TAL PLS
Total/NA	Prep	3510C			134366	04/15/13 19:03	AM	TAL PLS
Total/NA	Analysis	8015B		1	134435	04/16/13 10:02	DH	TAL PLS

## Client Sample ID: MW-2

Lab Sample ID: 720-49133-2

Date Collected: 04/15/13 10:40

Matrix: Water

Date Received: 04/15/13 14:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	134402	04/15/13 23:43	PD	TAL PLS
Total/NA	Prep	3510C			134366	04/15/13 19:03	AM	TAL PLS
Total/NA	Analysis	8015B		1	134436	04/16/13 10:26	DH	TAL PLS

## Client Sample ID: MW-3

Lab Sample ID: 720-49133-3

Date Collected: 04/15/13 11:30

Matrix: Water

Date Received: 04/15/13 14:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	134402	04/16/13 00:11	PD	TAL PLS
Total/NA	Prep	3510C			134366	04/15/13 19:03	AM	TAL PLS
Total/NA	Analysis	8015B		1	134435	04/16/13 11:06	DH	TAL PLS

## Client Sample ID: MW-6

Lab Sample ID: 720-49133-4

Date Collected: 04/15/13 12:20

Matrix: Water

Date Received: 04/15/13 14:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	134402	04/16/13 00:38	PD	TAL PLS
Total/NA	Prep	3510C			134366	04/15/13 19:03	AM	TAL PLS
Total/NA	Analysis	8015B		1	134435	04/16/13 11:30	DH	TAL PLS

## Client Sample ID: MW-4

Lab Sample ID: 720-49133-5

Date Collected: 04/15/13 13:25

Matrix: Water

Date Received: 04/15/13 14:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	134402	04/16/13 01:06	PD	TAL PLS
Total/NA	Prep	3510C			134366	04/15/13 20:00	AM	TAL PLS
Total/NA	Analysis	8015B		1	134436	04/16/13 11:30	DH	TAL PLS

**Laboratory References:**

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

TestAmerica Pleasanton

# Certification Summary

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

TestAmerica Job ID: 720-49133-1

## Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

- 1
- 2
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- 12
- 13
- 14



# Method Summary

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

TestAmerica Job ID: 720-49133-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS

**Protocol References:**

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

**Laboratory References:**

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



# Sample Summary

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

TestAmerica Job ID: 720-49133-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-49133-1	MW-1	Water	04/15/13 09:45	04/15/13 14:26
720-49133-2	MW-2	Water	04/15/13 10:40	04/15/13 14:26
720-49133-3	MW-3	Water	04/15/13 11:30	04/15/13 14:26
720-49133-4	MW-6	Water	04/15/13 12:20	04/15/13 14:26
720-49133-5	MW-4	Water	04/15/13 13:25	04/15/13 14:26

- 1
- 2
- 3
- 4
- 5
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- 11
- 12
- 13
- 14

**720-49133**

**Report To** **Analysis Request**

Attn: <u>Jacobo Zapeda</u>		EPA 8260B <input type="checkbox"/> EPA 8021 <input type="checkbox"/> EPA 8260B Gas w/ <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE Purgeable Aromatics BTEX EPA - <input type="checkbox"/> 4021 <input type="checkbox"/> 8260B TEPH EPA 8015M* <input type="checkbox"/> Silica Gel Diesel Motor Oil <input type="checkbox"/> Other Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxynates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol Purgeable Halocarbons (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 <input type="checkbox"/> Petroleum (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 pH (24h hold time for H <sub>2</sub> O) <input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>
Company: <u>JRC - San Francisco</u>		
Address: <u>101 2nd St Suite 300</u>		
Phone: <u>925-760-0477</u> Email: <u>jzapeda@trcscd.com</u>		
Bill To: <u>JRC</u>	Sampled By: <u>Jacobo Zapeda</u>	
Attn: Phone: <u>925-760-0477</u>		

Sample ID	Date	Time	Mat rix	Pres erv.	TPH EPA - <input type="checkbox"/> 8021 <input type="checkbox"/> 8260B <input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE	Purgeable Aromatics BTEX EPA - <input type="checkbox"/> 4021 <input type="checkbox"/> 8260B	TEPH EPA 8015M* <input type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel Motor Oil <input type="checkbox"/> Other	Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxynates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	Purgeable Halocarbons (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 <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 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 pH (24h hold time for H <sub>2</sub> O) <input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/>	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>	Number of Containers	
MW-1	4/15/13	9:45	W	14cc Vials	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>														5
MW-2		10:40																			5
MW-3		11:30																			5
MW-6		12:20																			5
MW-4		12:5																			5

<b>Project Info.</b>		<b>Sample Receipt</b>		1) Relinquished by:		2) Relinquished by:		3) Relinquished by:	
Project Name: <u>USPS Oakland VMI</u>		# of Containers:		Signature: <u>Jacobo Zapeda</u>		Signature: _____		Signature: _____	
Project#: <u>1804973000</u>		Head Space:		Time: <u>1:26</u>		Time: _____		Time: _____	
PO#: _____		Temp: <u>3.8°C</u>		Date: <u>4-15-13</u>		Date: _____		Date: _____	
Credit Card#: _____		Conforms to record:		Printed Name: <u>JRC</u>		Printed Name: _____		Printed Name: _____	
T 5 Day		72h <input checked="" type="checkbox"/> 48h <input checked="" type="checkbox"/> 24h <input checked="" type="checkbox"/> Other: _____		Company: _____		Company: _____		Company: _____	
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 1 <input type="checkbox"/> Level 4 <input checked="" type="checkbox"/> EDD <input checked="" type="checkbox"/> State Tank Fund EDF		Special Instructions / Comments: <u>will email Global ID to you</u>		1) Received by: <u>T. Bullock</u>		2) Received by: _____		3) Received by: _____	
				Signature: _____		Signature: _____		Signature: _____	
				Time: <u>4:15:13</u>		Time: _____		Time: _____	
				Date: _____		Date: _____		Date: _____	
				Printed Name: <u>TEST AMERICA</u>		Printed Name: _____		Printed Name: _____	
				Date: _____		Date: _____		Date: _____	
				Company: _____		Company: _____		Company: _____	



RUSH

See Terms and Conditions on reverse  
 \*TestAmerica SF reports 8015M from C<sub>9</sub>-C<sub>24</sub> (industry norm). Default for 8015B is C<sub>10</sub>-C<sub>28</sub>

## Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-49133-1

**Login Number: 49133**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Gonzales, Justinn**

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