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10:06 am, Aug 31, 2009

Alameda County  
Environmental Health

July 13, 2009

Mr. Steve Plunkett  
Alameda County Environmental Health  
1000 San Leandro Blvd., Suite 300  
San Leandro, CA 94577

**Subject: Second Quarter 2009 Groundwater Monitoring Report  
Palace Garage  
14336 Washington Avenue  
San Leandro, California  
ACEH Case No. RO0000208  
SFRWQCB LUFT Case No. 01-1133**

Dear Mr. Plunkett:

On behalf of Kerry & Associates, Closure Solutions, Incorporated (Closure Solutions) has prepared this *Second Quarter 2009 Groundwater Monitoring Report* (Report) for the Palace Garage facility (the Site), located at 14336 Washington Avenue, in San Leandro, California (Figure 1).

## 1.0 SITE BACKGROUND SUMMARY

A 550-gallon gasoline underground storage tank (UST) was removed from the site in 1991. Subsequent investigations included the installation of 3 monitoring wells and the drilling of 15 borings. Based on data obtained from the wells and borings, impacted unsaturated-zone soil is confined to the area of the former dispenser pad and UST. The primary groundwater flow direction is toward the southwest.

In December 2002, Professional Service Industries, Inc. (PSI) conducted a soil and groundwater investigation to evaluate the lateral extent of petroleum hydrocarbons in the soil and groundwater at the site. Borings B-16 and B-17 were advanced to between 20 and 24 feet below ground surface (bgs). Boring B-16 was converted into monitoring well MW-4. Concentration of total petroleum hydrocarbons as gasoline (TPHg) and gasoline related contaminants were detected only in soil from boring B-17 and groundwater from wells MW-1 and MW-2. The locations of the monitoring wells and soil borings are presented in Figure 2.

Closure Solutions conducted a Sensitive Receptor Survey to identify all water supply wells and sensitive receptors within a 2,000-foot radius of the Site. The closest water supply wells are two industrial wells approximately 450 feet northwest (up-gradient) of the Site. The closest domestic

well is approximately 1,500 feet southeast (cross-gradient) of the Site. The closest down-gradient well is an irrigation well approximately 1,400 feet southwest of the Site. No surface water bodies were identified within a 2,000 foot radius of the Site. Results of the Sensitive Receptor Survey are presented in the *Sensitive Receptor Survey* report dated August 27, 2008.

Closure Solutions prepared and submitted a *Site Conceptual Model* (SCM) dated September 30, 2008 for the Site. The preparation of the SCM was requested by Alameda County Environmental Health (ACEH) in their letter dated September 2, 2008.

In an email dated June 12, 2009 Mr. Steve Plunkett with the ACEH approved the reduction of groundwater monitoring to a Semi-annual basis conducted in second and fourth quarters. Mr. Plunkett also approved the recommendation to eliminate the fuel oxygenates from the suite of laboratory analytes.

## **2.0 WORK PERFORMED AND WORK PROPOSED**

Following is a summary of work performed this quarter and work proposed for next quarter:

### **WORK PERFORMED THIS QUARTER:**

1. Performed quarterly groundwater monitoring event on June 19, 2009
2. Prepared and submitted *Second Quarter 2009 Groundwater Monitoring Report*

### **WORK PROPOSED FOR NEXT QUARTER:**

1. No work proposed for the third quarter 2009.

## **3.0 DISCUSSION OF RECENT ACTIVITIES**

Closure Solutions performed this quarter's groundwater monitoring and sampling event at the Site on June 19, 2009. Gauging, purging and sampling were conducted in accordance with Closure Solution's Standard Operating Procedures (included in Attachment A). The collected groundwater samples and a trip blank sample were submitted to Accutest Laboratories for laboratory analysis under Chain-of-Custody protocols. The samples were analyzed for TPHg and benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8260B.

Following is a summary of the current status of the environmental program at the site:

Current Phase of Project:	Monitoring
Groundwater Monitoring & Sampling:	Semi-Annual: MW-1 through MW-4
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	Natural Attenuation

Following is a summary of this quarter's field and analytical data:

Average Depth to Groundwater (in feet bgs):	15.07
Groundwater Elevation (in feet above mean sea level)	21.94 (MW-4) to 22.44 (MW-1)
Groundwater Gradient (direction):	Southwest
Groundwater Gradient (magnitude):	0.003 ft/ft
TPHg detected concentrations:	931 µg/L (MW-2) to 1,490 µg/L (MW-1)
Benzene detected concentrations:	60.1 µg/L (MW-2) to 85.8 µg/L (MW-1)
Toluene detected concentration:	13.4 µg/L (MW-1)
Ethyl-benzene detected concentrations:	30 µg/L (MW-2) to 164 µg/L (MW-1)
Xylenes detected concentrations:	3.1 µg/L (MW-2) to 310 µg/L (MW-1)

Laboratory procedures, chain of custody records, and the certified analytical reports are included as Attachment B. Groundwater elevation and analytical data are summarized on Tables 1 and 2.

Purge water generated during the monitoring and sampling event was disposed of at the licensed Rio Vista, California hazardous waste treatment facility operated by Instrat, Inc.


#### **4.0 CONCLUSIONS AND RECOMMENDATIONS**

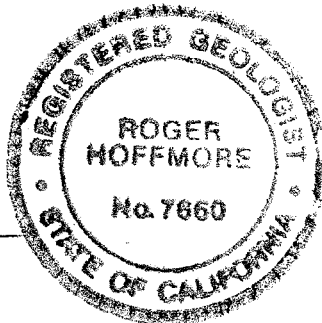
In accordance with directive received by the ACWD Closure Solutions will continue the Site groundwater monitoring and sampling on a semi-annual basis during the second and fourth quarters.

We appreciate the opportunity to present this document and trust that it meets with your approval. If you have any questions or concerns, please contact Roger Hoffmore at (916) 983-5604 or at rhoffmore@closureolutions.com.

Sincerely,

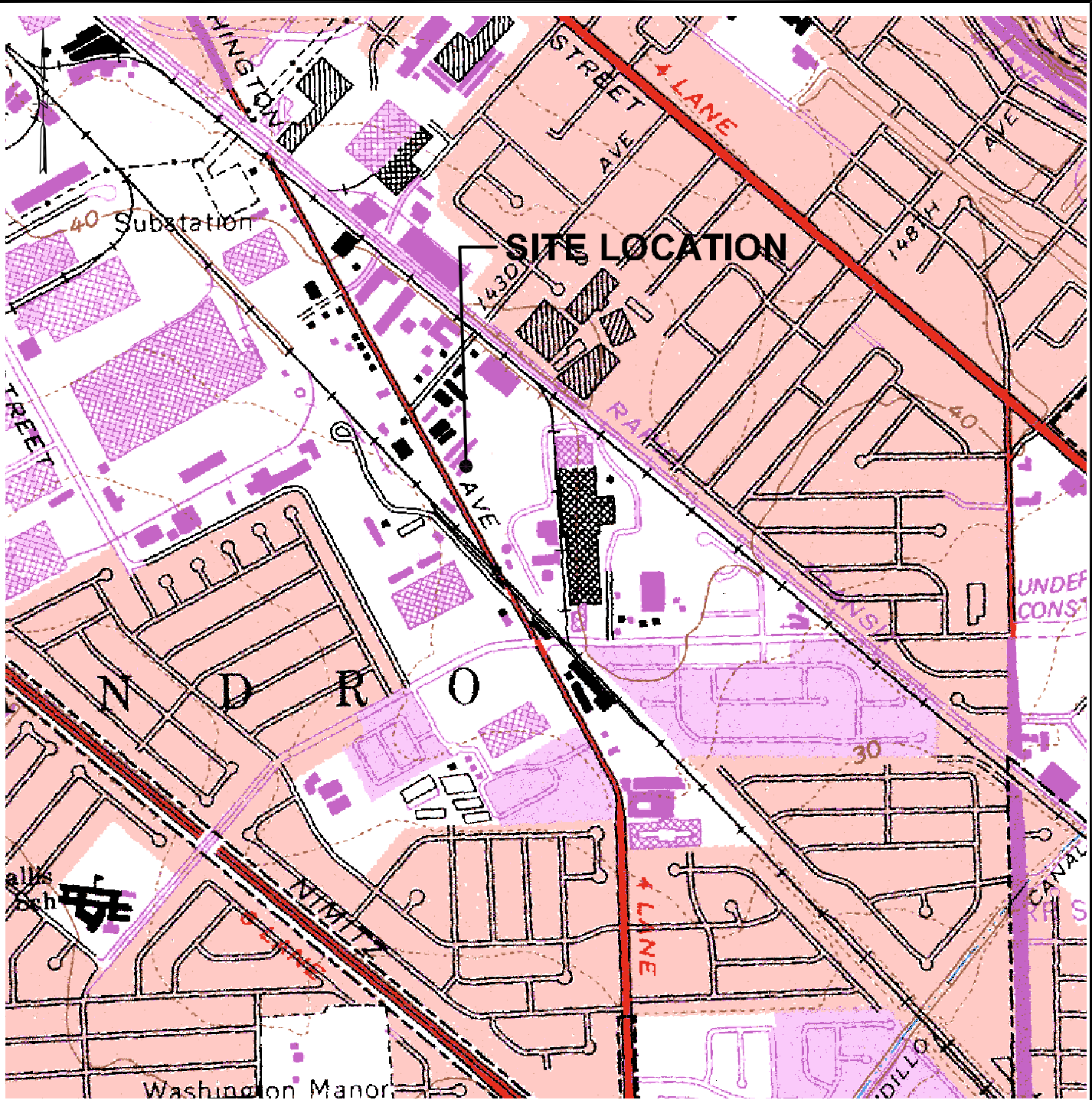
**Closure Solutions, Inc.**

  
Roger Hoffmore, P.G.  
Senior Geologist



**ATTACHMENTS:**

- |              |  |
|--------------|--|
| Figure 1     | Site Location Map  |
| Figure 2     | Groundwater Monitoring & Sampling Results – Groundwater<br>Contour Map – June 19, 2009 |
| Table 1      | Groundwater Elevation and Analytical Data  |
| Table 2      | Fuel Oxygenate & Lead Scavenger Analytical Data  |
| Attachment A | Field Procedures and Field Data Sheets   |
| Attachment B | Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody<br>Records    |
- cc: Mr. Jeff Kerry, Kerry & Associates



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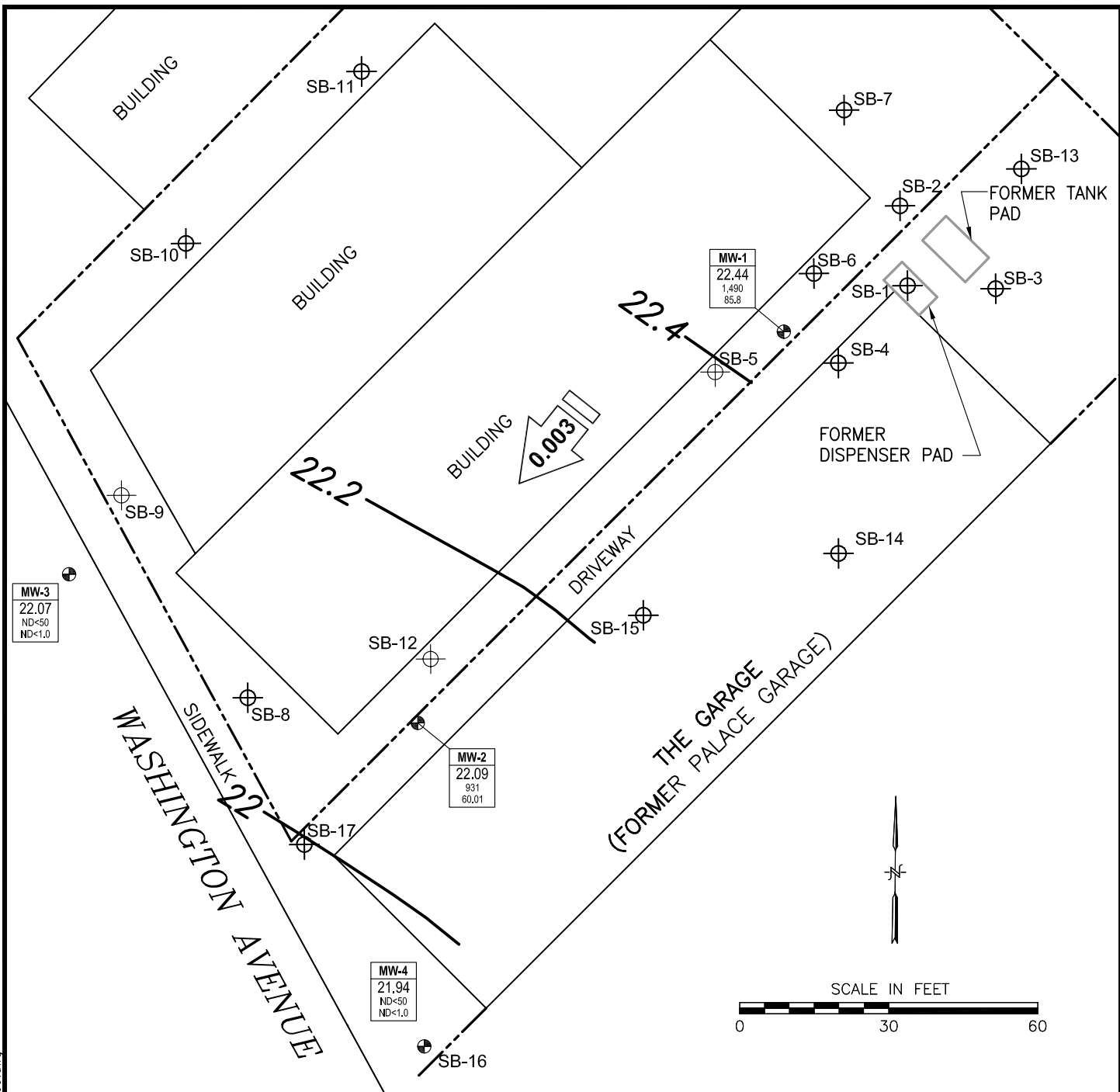
REFERENCE:  
 USGS 7.5 MIN QUAD MAP TITLED: SAN LEANDRO, CALIFORNIA DATED: 1959 REV: 1980

## FIGURE 1 SITE LOCATION MAP

PALACE GARAGE  
 14336 WASHINGTON AVENUE  
 SAN LEANDRO, CALIFORNIA



1243 Oak Knoll Drive • Concord  
 California • 94521  
 Phone: (925) 429-5555 • Fax: (925) 459-5602



**LEGEND:**

- GROUNDWATER MONITORING WELL
- SOIL BORING
- |      |
|------|
| WELL |
| ELEV |
| TPHG |
| BENZ |

 WELL DESIGNATION
- |      |
|------|
| ELEV |
| TPHG |
| BENZ |

 GROUNDWATER ELEVATION (FT ABOVE MSL)
- |      |
|------|
| ELEV |
| TPHG |
| BENZ |

 TPHg AND BENZENE CONCENTRATIONS ( $\mu\text{g/L}$ )
- < NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS
- GROUNDWATER ELEVATION CONTOURS (FEET ABOVE MEAN SEA LEVEL [MSL])
- GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)

**NOTES:**

1. BASEMAP SOURCE: MORROW SURVEYING, 2/05/03

**FIGURE 2**

SECOND QUARTER 2009  
GROUNDWATER MONITORING  
& SAMPLING RESULTS

**GROUNDWATER CONTOUR MAP  
JUNE 19, 2009**

PALACE GARAGE  
14336 WASHINGTON AVENUE  
SAN LEANDRO, CALIFORNIA



**CLOSURE SOLUTIONS, INC.**

1243 Oak Knoll Drive • Concord  
California • 94521

Phone: (925) 429-5555 • Fax: (925) 459-5602

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**Table 1**  
**Groundwater Elevation and Analytical Data**  
Palace Garage  
14336 Washington Avenue  
San Leandro, California

Well ID	Date Sampled	Casing Elevation (Feet MSL)	Depth To Water (Feet)	Groundwater Elevation (Feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	LAB
MW-1	12/31/2002	37.59	13.62	23.97	48,000	1,030	2,380	1,690	9,220	---
	9/22/2006		13.33	24.26	44,000	870	2,200	720	9,700	---
	12/21/2006		13.94	23.65	17,000	240	980	180	5,000	---
	3/29/2007		13.71	23.88	2,000	30	85	23	550	---
	9/27/2007		15.53	22.06	540	14	3.9	44	87	KIFF
	12/20/2007		15.69	21.90	280	4.3	1.3	15	37	KIFF
	2/21/2008		13.72	23.87	19,000	300	150	1,100	4,900	KIFF
	5/15/2008		14.60	22.99	7,200	140	50	370	2,040	KIFF
	8/7/2008		15.62	21.97	820	13	3.1	44	100	KIFF
	11/13/2008		16.14	21.45	670	10	2.1	31	110	KIFF
6/19/2009			15.15	22.44	<b>1,490</b>	<b>85.8</b>	<b>13.4</b>	<b>164</b>	<b>310</b>	Accutest
MW-2	12/31/2002	37.12	13.38	23.74	1,670	1,030	11.00	23	16.4	---
	9/22/2006		13.25	23.87	1,800	53	1.40	14	7.5	---
	12/21/2006		13.89	23.23	--	--	--	--	--	---
	3/29/2007		13.57	23.55	2,100	51	1.30	--	4.5	---
	9/27/2007		15-37	21.75	1,600	58	0.99	12	3.7	KIFF
	12/20/2007		15.40	21.72	1,500	63	1.1	16	4.9	KIFF
	2/21/2008		13.60	23.52	710	23	ND<0.50	6.2	1.1	KIFF
	5/15/2008		14.47	22.65	1,600	84	1.4	28	9.8	KIFF
	8/7/2008		15.48	21.64	2,100	86	1.6	22	9.0	KIFF
	11/13/2008		15.99	21.13	2,300	46	1.1	15	4.5	KIFF
6/19/2009			15.03	22.09	<b>931</b>	<b>60.1</b>	ND<2.0	<b>30</b>	<b>3.1</b>	Accutest

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San Leandro, California

Well ID	Date Sampled	Casing Elevation (Feet MSL)	Depth To Water (Feet)	Groundwater Elevation (Feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	LAB
MW-3	12/31/2002	37.01	13.29	23.72	<50	<0.5	<0.5	<0.5	<1.0	---
	9/22/2006		13.14	23.87	<50	<0.5	<0.5	<0.5	<1.5	---
	12/21/2006		--	--	--	--	--	--	--	---
	3/29/2007		13.47	23.54	<50	<0.5	<0.5	<0.5	<1.5	---
	9/27/2007		15.29	21.72	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	12/20/2007		15.30	21.71	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/21/2008		---	---	---	---	---	---	---	---
	5/15/2008		14.35	22.66	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	KIFF
	8/7/2008		15.39	21.62	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	11/13/2008		15.90	21.11	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
6/19/2009		14.94	22.07	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<2.0	Accutest	
MW-4	12/31/2002	37.09	13.45	23.64	<50	<0.5	<0.5	<0.5	<1.0	---
	9/22/2006		13.40	23.69	<50	<0.5	<0.5	<0.5	<1.5	---
	12/21/2006		13.86	23.23	<50	<0.5	<0.5	<0.5	<1.5	---
	3/29/2007		13.69	23.40	<50	<0.5	<0.5	<0.5	<1.5	---
	9/27/2007		15.48	21.61	ND<50	1.5	ND<0.50	0.71	0.74	KIFF
	12/20/2007		15.28	21.81	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/21/2008		13.56	23.53	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	KIFF
	5/15/2008		14.58	22.51	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	KIFF
	8/7/2008		15.57	21.52	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	11/13/2008		16.09	21.00	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
6/19/2009		15.15	21.94	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<2.0	Accutest	



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Palace Garage  
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Well ID	Date Sampled	Casing Elevation (Feet MSL)	Depth To Water (Feet)	Groundwater Elevation (Feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	LAB
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**ABBREVIATIONS:**

- TPHg Total Petroleum Hydrocarbons as Gasoline
- B Benzene
- T Toluene
- E Ethylbenzene
- X Total xylenes
- µg/L Micrograms per liter (parts per billion [ppb])
- Not analyzed/measured/applicable
- ND< Not detected at or above specified laboratory reporting limit
- MSL Mean Sea Level
- Accutest Accutest Laboratories, Santa Clara, Ca
- KIFF Kiff Analytical LLC, Davis, Ca
- Bold** Detection during latest sampling event

**LIMITATIONS** Background information, including but not limited to previous field measurements, analytical results, Site plans, and other data have been obtained from previous consultants, and/or third parties, in the preparation of this report. Closure Solutions has relied on this information as furnished. Closure Solutions is not responsible for, nor has it confirmed the accuracy of data collected or generated by others.

**Table 2**  
**Fuel Oxygenate & Lead Scavenger Analytical Data**  
Palace Garage  
14336 Washington Avenue  
San Leandro, California

Well ID	Date Sampled	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-1	12/31/2002	<0.5	--	--	--	--	--	--
	9/22/2006	<1.0	--	--	--	--	--	--
	12/21/2006	3.9	--	--	--	--	--	--
	3/29/2007	<1.0	--	--	--	--	--	--
	9/27/2007	1.6	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	12/21/2007	1.5	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	2/21/2008	ND<7.0	ND<40	ND<7.0	ND<7.0	ND<7.0	ND<7.0	ND<7.0
	5/15/2008	ND<2.5	ND<15	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
	8/7/2008	1.0	ND<5.0	ND<0.50	ND<0.50	ND<0.50	--	--
	11/13/2008	<b>1.1</b>	ND<5.0	ND<0.50	ND<0.50	ND<0.50	--	--
MW-2	12/31/2002	<0.5	--	--	--	--	--	--
	9/22/2006	<1.0	--	--	--	--	--	--
	12/21/2006	--	--	--	--	--	--	--
	3/29/2007	1.10	--	--	--	--	--	--
	9/27/2007	0.89	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	12/20/2007	0.95	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	2/21/2008	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	5/15/2008	ND<0.90	ND<5.0	ND<0.90	ND<0.90	ND<0.90	ND<0.90	ND<0.90
	8/7/2008	0.59	ND<5.0	ND<0.90	ND<0.90	ND<0.90	--	--
	11/13/2008	<b>0.53</b>	ND<5.0	ND<0.50	ND<0.50	ND<0.50	--	--

**Table 2**  
**Fuel Oxygenate & Lead Scavenger Analytical Data**  
Palace Garage  
14336 Washington Avenue  
San Leandro, California

Well ID	Date Sampled	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-3	12/31/2002	<0.5	--	--	--	--	--	--
	9/22/2006	<1.0	--	--	--	--	--	--
	12/21/2006	--	--	--	--	--	--	--
	3/29/2007	<1.0	--	--	--	--	--	--
	9/27/2007	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	12/20/2007	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	2/21/2008	--	--	--	--	--	--	--
	5/15/2008	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	8/7/2008	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	--	--
	11/13/2008	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	--	--
MW-4	12/31/2002	<0.5	--	--	--	--	--	--
	9/22/2006	<1.0	--	--	--	--	--	--
	12/21/2006	<1.0	--	--	--	--	--	--
	3/29/2007	<1.0	--	--	--	--	--	--
	9/27/2007	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	12/20/2007	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	2/21/2008	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	5/15/2008	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	8/7/2008	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	--	--
	11/13/2008	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	--	--

**Table 2**  
**Fuel Oxygenate & Lead Scavenger Analytical Data**  
Palace Garage  
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San Leandro, California

Well ID	Date Sampled	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
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**ABBREVIATIONS:**

MTBE	Methyl Tertiary Butyl Ether
TBA	Tertiary Butyl Alcohol
DIPE	Diisopropyl Ether
ETBE	Ethyl Tertiary Butyl ether
TAME	Tertiary Amyl Methyl Ether
1,2-DCA	1,2-Dichloroethane
EDB	1,2-Dibromoethane
KIFF	Kiff Analytical LLC, Davis, Ca
Accutest	Accutest Laboratories, Santa Clara, Ca
µg/L	Micrograms per liter (parts per billion [ppb])
---	Not analyzed/measured/applicable
ND<	Not detected at or above specified laboratory reporting limit
<b>Bold</b>	Detection during latest sampling event

**LIMITATIONS** Background information, including but not limited to previous field measurements, analytical results, Site plans, and other data have been obtained from previous consultants, and/or third parties, in the preparation of this report. Closure Solutions has relied on this information as furnished. Closure Solutions is not responsible for, nor has it confirmed the accuracy of data collected or generated by others.

## **Attachment A**

### **Field Procedures and Field Data Sheets**



## **Standard Operating Procedures: Basic Gauge, Purge, and Sample.**

### **Routine Water Level Measurements**

1. Confirm that water or debris will not enter the well box upon removal of the well box lid.
2. Remove the cover using the appropriate tools.
3. Inspect the wellhead for deficiencies and document accordingly.
4. Confirm that water or debris will not enter the well upon removal of the well cap.
5. Unlock and remove the well cap lock (if applicable). If lock is not functional cut it off.
6. Loosen and remove the well cap. CAUTION: DO NOT PLACE YOUR FACE OR HEAD DIRECTLY OVER WELLHEAD WHEN REMOVING THE WELL CAP. WELL CAP MAY BE UNDER PRESSURE AND/OR MAY RELEASE ACCUMULATED AND POTENTIALLY HARMFUL VAPORS.
7. Verify and identify survey point as written on S.O.W.  
TOC: If survey point is listed as Top of Casing (TOC), look for the exact survey point in the form of a notch or mark on the top of the casing. If no mark is present, use the north side of the casing as the measuring point.  
TOB: If survey point is listed as Top of Box (TOB), the measuring point will be established manually. Place the inverted well box lid halfway across the well box opening and directly over the casing. The lower edge of the inverted cover directly over the casing will be the measuring point.
8. Put new Nitrile gloves on your hands.
9. Slowly lower the decontaminated water level meter probe into the well until it signals contact with water with a tone and/or flashing a light.
10. Gently raise the probe tip slightly above the water and hold it there. Wait momentarily to see if the meter emits a tone, signaling rising water in the casing. Gently lower the probe tip slightly below the water. Wait momentarily to see if the meter stops emitting a tone, signaling dropping water in the casing. Continue process until water level stabilizes indicating that the well has equilibrated.
11. While holding the probe at first contact with water and the tape against the measuring point, note depth. Repeat twice to verify accuracy. Write down measurement on well gauging sheet under depth to water column.
12. Recover probe, replace and tighten well cap, replace lock (if applicable), replace well box cover and tighten hardware (if applicable).

### **Purging With a Bailer (Teflon or Disposable)**

1. Attach bailer cord or string to bailer. Leave other end attached to spool.
2. Gently lower empty bailer into well until well bottom is reached.
3. Cut cord from spool. Tie a loop at end cord.
4. Gently raise full bailer out of well and clear of wellhead. Do not let the bailer or cord touch the ground.
5. Pour contents into graduated 5-gallon bucket or other graduated receptacle.
6. Repeat purging process.
7. Upon removal of first casing volume, fill clean parameter cup with purge water, empty the remainder of the purge water into the bucket, lower the bailer back into the

well and secure the cord on the Sampling Vehicle.

8. Use the water in the cup to collect and record parameter measurements.

9. Continue purging until second casing volume is removed.

10. Collect parameter measurements.

11. Continue purging until third casing volume is removed.

### **Purging With a Fixed Speed Electric Submersible Pump**

1. Position thoroughly decontaminated pump over the top of the well.

2. Gently unreel and lower the pump to the well bottom.

3. Raise the pump to client specified location within screened interval. If no direction is given the pump inlet will be placed 5 feet above the bottom of the well.

4. Secure the hose reel.

5. Begin purging.

6. Verify pump rate with flow meter or graduated 5-gallon bucket.

7. Upon removal of first casing volume, fill clean parameter cup with water.

8. Use the water in the cup to collect and record parameter measurements.

9. Continue purging until second casing volume is removed.

10. Collect parameter measurements.

11. Continue purging until third casing volume is removed.

12. Upon completion of purging, gently recover the pump and secure the reel.

### **Sampling with a Bailer (Teflon or Disposable)**

1. Put new Latex or Nitrile gloves on your hands.

2. Determine required bottle set.

3. Fill out sample labels completely and attach to bottles.

4. Arrange bottles in filling order and loosen caps (see Determine Collection Order below).

5. Attach bailer cord or string to bailer. Leave other end attached to spool.

6. Gently lower empty bailer into well until water is reached.

7. As bailer fills, cut cord from spool and tie end of cord to hand.

8. Gently raise full bailer out of well and clear of wellhead. Do not let the bailer or cord touch the ground. If a set of parameter measurements is required, go to step 9. If no additional measurements are required, go to step 11.

9. Fill a clean parameter cup, empty the remainder contained in the bailer into the sink, lower the bailer back into the well and secure the cord on the sampling vehicle. Use the water in the cup to collect and record parameter measurements.

10. Fill bailer again and carefully remove it from the well.

11. Slowly fill and cap sample bottles. Fill and cap volatile compounds first, then semivolatile, then inorganic (see following steps). Return to the well as needed for additional sample material.

12. Fill 40-milliliter vials for volatile compounds as follows: Slowly pour water down the inside on the vial. Carefully pour the last drops creating a convex or positive meniscus on the surface. Gently screw the cap on eliminating any air space in the vial. Turn the vial over, tap several times and check for trapped bubbles. If bubbles are present, repeat the process.

13. Fill 1 liter amber bottles for semi-volatile compounds as follows: Slowly pour water into the bottle. Leave approximately 1 inch of headspace in the bottle. Cap bottle.

14. Field filtering of inorganic samples using a disposable bailer is performed as follows:

Attach 0.45 micron filter to connector plug. Attach connector plug to bottom of full disposable bailer. Gravity feed water through the filter and into the sample bottle. If high turbidity level of water clogs filter, repeat process with new filter until bottle is filled. Leave headspace in the bottle. Cap bottle.

**15.** Bag samples and place in ice chest.

**16.** Note sample collection details on well data sheet and Chain of Custody.



# FIELD DATA SHEET-DEPTH TO WATER DATA

## SITE INFORMATION

### Site Information

Palace Garage 6/19/09  
Project Name Date Project Number  
14336 Washington Ave. San Leandro CA  
Address City State

### Water Level Equipment

Kevin Dolan

- Electronic Indicator  
 Oil Water Interface Probe  
 Other (specify) \_\_\_\_\_

2Q09 - QMS Event

## DEPTH TO WATER DATA

DTW Order	Well ID	Time (24:00)	DTW (toc)	Depth to SPH - TOTAL DEPTH (toc)	SPH Thickness / DEPTH TO SPH (toc)	Notes (describe SPH):
3	MW-1	1345	15.15	23.40	—	
4	MW-2	1343	15.03	23.64	—	
2	MW-3	1340	14.94	23.09	—	
1	MW-4	1338	15.15	21.95	—	

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: Palace Garage - San Leandro, CA Date: June 19, 2009

Sample No.: MW-1

Samplers Name: Kevin Dolan

**Purge Equipment:**

- Bailer: Disposable or Acrylic
- 12 v. Pump -
- Bladder Pump
- SS Monsoon #

**Sample Equipment:**

- Disposable Bailer
- Whaler # \_\_\_\_\_
- Bladder Pump
- Submersible Pump

**Analyses Requested (circle all that apply):**

TPH-G    BTEX

**Number and Types of Bottle Used:**

3 Voa's w/ hcl

Well Number: MW-1 Well Diameter: \_\_\_\_\_ with Casing Volume of:

Depth to Water: 15.15 TOC 2" = (0.16 Gallon/Feet)

Well Depth: 23.40 BGS or TOC 4" = (0.65 Gallon/Feet)

Height W-Column: 8.25 feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)

Volume in Well: 1.32 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)

Gallons to purge: 3.96 gallons (volume X 3) 8" = (2.61 Gallon/Feet)

Lab: \_\_\_\_\_ Transportation: \_\_\_\_\_

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	TDS (ppm)	Turbidity: Color - Fines	Micropurge Parameters Stabilized
1455	START							
1457	1.5	18.5	0.970	2.20	6.96	NA	454; clear, min	
1459	3	18.4	0.971	1.93	6.85		10; ↓ ↓	
1501	4	18.4	0.963	2.11			10; ↓ ↓	
STOP!	Purge complete							

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column =  $8.25 \times 0.8 = 6.6$  - (Well Depth) 23.40 = Depth to water 16.18

Time: 1507 1st measured depth to water, 15.23 feet below TOC.  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC.  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC.

Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_  
 Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_  
 Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_

**Sample Well**

Time: 1510 Sample ID: MW-1 Depth: 15.23

Comments: Slight Hc color - NO Sheen

Well Condition: good -

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: Palace Garage - San Leandro, CA Date: June 19, 2009

Sample No.: MW-2

Samplers Name: Kevin Dolan

Purge Equipment:  
 Bailer: Disposable or Acrylic  
 12 v. Pump -  
 Bladder Pump  
 SS Monsoon #

Sample Equipment:  
 Disposable Bailer  
 Whaler # \_\_\_\_\_  
 Bladder Pump  
 Submersible Pump

Analyses Requested (circle all that apply): Number and Types of Bottle Used:

TPH-G    BTEX	3 Voa's w/ hcl
---------------	----------------

Well Number: MW-2 Well Diameter: \_\_\_\_\_ with Casing Volume of:  
 Depth to Water: 15.03 TOC 2" = (0.16 Gallon/Feet)  
 Well Depth: 23.64 BGS or TOC 4" = (0.65 Gallon/Feet)  
 Height W-Column: 8.61 feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
 Volume in Well: 1.38 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
 Gallons to purge: 4.14 gallons (volume X 3) 8" = (2.61 Gallon/Feet)

Lab: \_\_\_\_\_ Transportation: \_\_\_\_\_

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	TDS (ppm)	Turbidity: Color - Fines	Micropurge Parameters Stabilized
1515	START							
1517	1.5	20.6	1.03	1.04	7.13	ND	816' Hazy, many	
1519	3	19.0	1.03	1.56	7.18		47' clear, min	
1521	4.5	18.7	1.03	1.63	7.04		10' ↓ ↓	
STOP: Purge Complete								
2								
		10						

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column =  $8.61 \times 0.8 = 6.88$  - (Well Depth)  $23.64 =$  Depth to water  $16.75$

Time: 1528 1st measured depth to water, 15.08 feet below TOC. Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_

**Sample Well**

Time: 1530 Sample ID: MW-2 Depth: 15.08

Comments: Moderate HC above - NO sheen

Well Condition: good -

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: Palace Garage - San Leandro, CA Date: June 19, 2009

Sample No.: MW-3

Samplers Name: Kevin Dolan

Purge Equipment:  
 \_\_\_\_\_ Bailer: Disposable or Acrylic  
 \_\_\_\_\_ 12 v. Pump -  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ SS Monsoon #

Sample Equipment:  
 \_\_\_\_\_ Disposable Bailer  
 \_\_\_\_\_ Whaler # \_\_\_\_\_  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

Analyses Requested (circle all that apply):  
 TPH-G    BTEX

Number and Types of Bottle Used:  
3 Voa's w/ hcl

Well Number: MW-3 Well Diameter: \_\_\_\_\_ with Casing Volume of:  
 Depth to Water: 14.94 TOC 2" = (0.16 Gallon/Feet)  
 Well Depth: 23.09 BGS or TOC 4" = (0.65 Gallon/Feet)  
 Height W-Column: 8.15 feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
 Volume in Well: 1.36 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
 Gallons to purge: 3.92 gallons (volume X 3) 8" = (2.61 Gallon/Feet)

Lab: \_\_\_\_\_ Transportation: \_\_\_\_\_

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	TDS (ppm)	Turbidity: Color - Fines	Micropurge Parameters Stabilized
<u>1429</u>	<u>START</u>							
<u>1430</u>	<u>1.5</u>	<u>20.7</u>	<u>.750</u>	<u>3.10</u>	<u>6.84</u>		<u>994; Brown, many</u>	
<u>1423</u>	<u>3</u>	<u>19.7</u>	<u>.662</u>	<u>2.50</u>	<u>6.73</u>		<u>358; clear, min.</u>	
<u>1425</u>	<u>4</u>	<u>19.1</u>	<u>.658</u>	<u>3.11</u>	<u>6.74</u>		<u>68; ↓ ↓</u>	
<u>STOP: Purge Complete</u>								
	<u>2</u>							
	<u>10</u>							

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column =  $8.15 \times 0.8 = 6.52$  - (Well Depth) 23.09 = Depth to water 16.57

Time: 1433 1st measured depth to water, 23.11 feet below TOC. Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_

**Sample Well**

Time: 1435 Sample ID: MW-3 Depth: 23.11

Comments: NO odor - NO Sheen

Well Condition: good

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: Palace Garage - San Leandro, CA Date: June 19, 2009

Sample No.: MW-4

Samplers Name: Kevin Dolan

Purge Equipment:  
 Bailer: Disposable or Acrylic 1/2"  
 12 v. Pump -  
 Bladder Pump  
 SS Monsoon #

Sample Equipment:  
 Disposable Bailer  
 Whaler # \_\_\_\_\_  
 Bladder Pump  
 Submersible Pump

Analyses Requested (circle all that apply):

Number and Types of Bottle Used:

TPH-G BTEX	3 Voa's w/ hcl
------------	----------------

Well Number: MW-4  
 Depth to Water: 15.15 TOC  
 Well Depth: 21.95 BGS or TOC  
 Height W-Column: 6.8 feet (well depth - depth to water)  
 Volume in Well: 0.272 gallons (casing volume X height)  
 Gallons to purge: 0.816 gallons (volume X 3)

Well Diameter: 3/4 with Casing Volume of:  
3/4" = 0.041  
 2" = (0.16 Gallon/Feet)  
 4" = (0.65 Gallon/Feet)  
 5" = (1.02 Gallon/Feet)  
 6" = (1.47 Gallon/Feet)  
 8" = (2.61 Gallon/Feet)

Lab: \_\_\_\_\_ Transportation: \_\_\_\_\_

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	TDS (ppm)	Turbidity: Color - Fines	Micropurge Parameters Stabilized
1401	0.25	19.4	0.878	1.93	7.03	NA	9991 Hazy, many	
1403	0.50	19.1	0.911	1.89	7.01	/	436; Clear, mod	
1405	0.85	18.6	0.916	1.73	7.00	/	311; ✓ ✓	
STOP	Purge	Complete						

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column =  $6.8 \times 0.8 = 5.44$  - (Well Depth)  $21.95 =$  Depth to water  $16.51$

Time: \_\_\_\_\_ 1st measured depth to water, 15.38 feet below TOC.  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC.  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC.

Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_  
 Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_  
 Is well within 80% of original well casing volume: Yes \_\_\_\_\_ No \_\_\_\_\_

### Sample Well

Time: \_\_\_\_\_ Sample ID: MW-4 Depth: \_\_\_\_\_

Comments: NO chp - NO screen

Well Condition: good

**Attachment B**

**Laboratory Procedures, Certified Analytical Reports  
and Chain-of-Custody Records**



## Technical Report for

**Closure Solutions, Inc.**

T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Accutest Job Number: C6246

Sampling Date: 06/19/09

### Report to:

Closure Solutions, Inc.  
1243 Oak Knoll Drive  
Concord, CA 94521  
rchinn@closureolutions.com; rhoffmore@closureolutions.com;  
kdolan@closureolutions.com; kwaldo@closureolutions.com  
ATTN: Roger Hoffmore

Total number of pages in report: **21**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

**Laurie Glantz-Murphy**  
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

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Test results relate only to samples analyzed.



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## Sample Summary

Closure Solutions, Inc.

**Job No:** C6246

T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C6246-1	06/19/09	15:10 KD	06/23/09	AQ	Ground Water	MW-1
C6246-2	06/19/09	15:30 KD	06/23/09	AQ	Ground Water	MW-2
C6246-3	06/19/09	14:35 KD	06/23/09	AQ	Ground Water	MW-3
C6246-4	06/19/09	14:10 KD	06/23/09	AQ	Ground Water	MW-4
C6246-5	06/19/09	00:00 KD	06/23/09	AQ	Trip Blank Water	QA/QC TB



## Sample Results

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## Report of Analysis

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## Report of Analysis

<b>Client Sample ID:</b> MW-1		
<b>Lab Sample ID:</b> C6246-1		<b>Date Sampled:</b> 06/19/09
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 06/23/09
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M7360.D	5	06/25/09	XB	n/a	n/a	VM240
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	85.8	5.0	1.5	ug/l	
108-88-3	Toluene	13.4	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	164	5.0	1.5	ug/l	
1330-20-7	Xylene (total)	310	10	3.5	ug/l	
	TPH-GRO (C6-C10)	1490	250	130	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		60-130%
2037-26-5	Toluene-D8	104%		60-130%
460-00-4	4-Bromofluorobenzene	101%		60-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-2		<b>Date Sampled:</b> 06/19/09
<b>Lab Sample ID:</b> C6246-2		<b>Date Received:</b> 06/23/09
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M7359.D	2	06/25/09	XB	n/a	n/a	VM240
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

**Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	60.1	2.0	0.60	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	30.0	2.0	0.60	ug/l	
1330-20-7	Xylene (total)	3.1	4.0	1.4	ug/l	J
	TPH-GRO (C6-C10)	931	100	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		60-130%
2037-26-5	Toluene-D8	106%		60-130%
460-00-4	4-Bromofluorobenzene	101%		60-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-3		<b>Date Sampled:</b> 06/19/09
<b>Lab Sample ID:</b> C6246-3		<b>Date Received:</b> 06/23/09
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M7352.D	1	06/25/09	XB	n/a	n/a	VM240
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

**Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		60-130%
2037-26-5	Toluene-D8	108%		60-130%
460-00-4	4-Bromofluorobenzene	98%		60-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-4		<b>Date Sampled:</b> 06/19/09
<b>Lab Sample ID:</b> C6246-4		<b>Date Received:</b> 06/23/09
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M7353.D	1	06/25/09	XB	n/a	n/a	VM240
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

**Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		60-130%
2037-26-5	Toluene-D8	110%		60-130%
460-00-4	4-Bromofluorobenzene	98%		60-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	QA/QC TB	<b>Date Sampled:</b>	06/19/09
<b>Lab Sample ID:</b>	C6246-5	<b>Date Received:</b>	06/23/09
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B	<b>Project:</b> T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M7319.D	1	06/24/09	XB	n/a	n/a	VM239
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
	TPH-GRO (C6-C10) <sup>a</sup>	34.7	50	25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		60-130%
2037-26-5	Toluene-D8	91%		60-130%
460-00-4	4-Bromofluorobenzene	101%		60-130%

(a) Atypical pattern. Gasoline value due to chlorinated compound(s).

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



**CHAIN OF CUSTODY**

3334 Victor Court, Santa Clara, CA 95054  
(408) 588-0200 FAX: (408) 588-0201

'CLOSCAC 2085'

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest NC Job #: C <b>C6246</b>	
Client / Reporting Information		Project Information	
Company Name: <b>CLOSURE SOLUTIONS</b>		Project Name: <b>PALACE GARAGE</b>	
Address: <b>1243 OAK KOLL DR.</b>		Street: <b>14336 WASHINGTON AVE.</b>	
City: <b>CONCORD CA 94521</b>		City: <b>SAN LEONARDO CA</b>	
Project Contact: <b>REGINA HOPE PAMORE / KATE WALDO</b>		Project #	
Phone #: <b>916-973-5604</b>		EMAIL: <b>HPAMORE@CLOSURESOLUTIONS.COM</b>	
Sampler's Name: <b>KEVIN DOLAN</b>		Client Purchase Order #	
Accutest Sample ID	Collection		Number of preserved Bottles
	Sample ID / Field Point / Point of Collection	Date Time	
	MW-1	6/24/05 1510	LN 3 3
	MW-2	1530	LN 3 3
	MW-3	1435	LN 3 3
	MW-4	1410	LN 3 3
	QA/QC TB		NW 2 2
<p>Rec'd (14) VOA's &amp; EC's w/ 11.1° Temp.</p>			
Turnaround Time ( Business days)		Data Deliverable information	
<input type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> 10 Day (Workload dependent) <input checked="" type="checkbox"/> 5 Day (Workload dependent) <input type="checkbox"/> 3 Day (125% markup) <input type="checkbox"/> 2 Day (150% markup) <input type="checkbox"/> 1 Day (200% markup) <input type="checkbox"/> Same Day (300% markup)		<input type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> EDF for Geotracker Provide EDF Global ID: <b>T0600101043</b> Provide EDF Logcode:	
Emergency T/A data available VIA Lablink		Comments / Remarks	
		<p>Run TPH-g/BTEX by 8260 only CC results to: <b>KWALDO@CLOSURESOLUTIONS.COM</b></p>	
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler:	Date Time:	Received By:	Date Time:
1 <i>[Signature]</i>	6/24/05	<i>[Signature]</i>	
Relinquished by:	Date Time:	Received By:	Date Time:
3			
Relinquished by:	Date Time:	Received By:	Date Time:
5			
Custody Seal #	Appropriate Bottle / Pres. Y/N	Headspace Y/N	On Ice Y/N
	Labels match Coc? Y / N	Separate Receipt Log Y / N	Cooler Temp. _____ °C

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3





## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

**Job Number:** C6246

**Account:** CLOSCAC Closure Solutions, Inc.

**Project:** T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM239-MB	M7317.D	1	06/24/09	XB	n/a	n/a	VM239

The QC reported here applies to the following samples:

Method: SW846 8260B

C6246-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	115% 60-130%
2037-26-5	Toluene-D8	93% 60-130%
460-00-4	4-Bromofluorobenzene	100% 60-130%

4.1.1  
4

## Method Blank Summary

**Job Number:** C6246

**Account:** CLOSCAC Closure Solutions, Inc.

**Project:** T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM240-MB	M7345.D	1	06/25/09	XB	n/a	n/a	VM240

The QC reported here applies to the following samples:

Method: SW846 8260B

C6246-1, C6246-2, C6246-3, C6246-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	102% 60-130%
2037-26-5	Toluene-D8	108% 60-130%
460-00-4	4-Bromofluorobenzene	95% 60-130%

# Blank Spike Summary

**Job Number:** C6246

**Account:** CLOSCAC Closure Solutions, Inc.

**Project:** T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM239-BS	M7311.D	1	06/24/09	XB	n/a	n/a	VM239

The QC reported here applies to the following samples:

Method: SW846 8260B

C6246-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	21.7	109	60-130
100-41-4	Ethylbenzene	20	18.7	94	60-130
108-88-3	Toluene	20	18.3	92	60-130
1330-20-7	Xylene (total)	60	56.5	94	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	60-130%
2037-26-5	Toluene-D8	91%	60-130%
460-00-4	4-Bromofluorobenzene	105%	60-130%

# Blank Spike Summary

**Job Number:** C6246

**Account:** CLOSCAC Closure Solutions, Inc.

**Project:** T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM239-BS	M7314.D	33.3	06/24/09	XB	n/a	n/a	VM239

The QC reported here applies to the following samples:

Method: SW846 8260B

C6246-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	4160	4010	96	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	112%	60-130%
2037-26-5	Toluene-D8	91%	60-130%
460-00-4	4-Bromofluorobenzene	103%	60-130%

4.2.2  
4

# Blank Spike Summary

**Job Number:** C6246

**Account:** CLOSCAC Closure Solutions, Inc.

**Project:** T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM240-BS	M7341.D	1	06/25/09	XB	n/a	n/a	VM240

The QC reported here applies to the following samples:

Method: SW846 8260B

C6246-1, C6246-2, C6246-3, C6246-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.2	96	60-130
100-41-4	Ethylbenzene	20	20.0	100	60-130
108-88-3	Toluene	20	18.3	92	60-130
1330-20-7	Xylene (total)	60	59.3	99	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	60-130%
2037-26-5	Toluene-D8	103%	60-130%
460-00-4	4-Bromofluorobenzene	99%	60-130%



# Blank Spike Summary

**Job Number:** C6246

**Account:** CLOSCAC Closure Solutions, Inc.

**Project:** T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM240-BS	M7344.D	1	06/25/09	XB	n/a	n/a	VM240

The QC reported here applies to the following samples:

Method: SW846 8260B

C6246-1, C6246-2, C6246-3, C6246-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	134	107	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	60-130%
2037-26-5	Toluene-D8	107%	60-130%
460-00-4	4-Bromofluorobenzene	99%	60-130%

4.2.4  
4

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** C6246

**Account:** CLOSCAC Closure Solutions, Inc.

**Project:** T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C6247-1MS	M7361.D	1	06/25/09	XB	n/a	n/a	VM240
C6247-1MSD	M7362.D	1	06/25/09	XB	n/a	n/a	VM240
C6247-1	M7354.D	1	06/25/09	XB	n/a	n/a	VM240

The QC reported here applies to the following samples:

Method: EPA 624

C6246-1, C6246-2, C6246-3, C6246-4

CAS No.	Compound	C6247-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	20.0	100	19.4	97	3	60-130/25
100-41-4	Ethylbenzene	ND	20	20.1	101	18.7	94	7	60-130/25
108-88-3	Toluene	ND	20	18.6	93	17.8	89	4	60-130/25
1330-20-7	Xylene (total)	ND	60	58.5	98	54.4	91	7	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C6247-1	Limits
1868-53-7	Dibromofluoromethane	105%	103%	110%	60-130%
2037-26-5	Toluene-D8	104%	102%	108%	60-130%
460-00-4	4-Bromofluorobenzene	103%	99%	97%	60-130%

4.3.1  
4

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** C6246

**Account:** CLOSCAC Closure Solutions, Inc.

**Project:** T0600101043-Palace Garage, 14336 Washington Ave, San Leandro, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C6264-1MS	M7331.D	1	06/24/09	XB	n/a	n/a	VM239
C6264-1MSD	M7332.D	1	06/24/09	XB	n/a	n/a	VM239
C6264-1	M7323.D	1	06/24/09	XB	n/a	n/a	VM239

The QC reported here applies to the following samples:

Method: SW846 8260B

C6246-5

CAS No.	Compound	C6264-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	22.9	115	22.2	111	3	60-130/25
100-41-4	Ethylbenzene	ND	20	19.0	95	18.6	93	2	60-130/25
108-88-3	Toluene	ND	20	17.3	87	17.1	86	1	60-130/25
1330-20-7	Xylene (total)	ND	60	56.1	94	54.7	91	3	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C6264-1	Limits
1868-53-7	Dibromofluoromethane	119%	114%	119%	60-130%
2037-26-5	Toluene-D8	88%	89%	93%	60-130%
460-00-4	4-Bromofluorobenzene	109%	104%	102%	60-130%

4.3.2  
4