

RWL Investments Inc.  
4919 Tidewater Ave., Unit B  
Oakland, CA 94601

Date: 3/27/2012  
From: Bob Lawlor  
To; Haz. Materials Specialist, Alameda Co. Environmental Health  
Subject: 4919 Tidewater Ave., Oakland, CA R00107

Perjury Statement

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Bob Lawlor



General Partner

**RECEIVED**

*9:41 am, Apr 02, 2012*

Alameda County  
Environmental Health

# Environmental Restoration Services

Site Investigations \* Fuel Tank Closures and Installations \* Site Remediation \* Regulatory Reporting

Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Second Floor  
Alameda, CA 94502

March 27, 2012

Attn: Mr. Mark Detterman; Haz Mat. Specialist for : DiSalvo Trucking  
4919 Tidewater Ave., Oakland

Re: Groundwater Monitoring Event

Dear Mr. Chan,

This report has been prepared by Environmental Restoration Services, (ERS) to address requirements by the Alameda County Department of Environmental Health (ACDEH) to analyze the groundwater from existing monitoring wells for contaminate level and to determine the groundwater gradient direction, at a Leaking Underground Fuel Tank (LUST) site, 4919 Tidewater Ave., Oakland, California.

## **MONITORING WELL SAMPLING**

On March 16, 2012 a single round of groundwater samples were obtained from monitoring wells MW1 through MW4.

Groundwater samples were collected from the wells by bailing each well until the volume of water withdrawn was equal to at least three casing volumes. To assure that a representative groundwater sample was collected, periodic measurements of the temperature, pH and specific conductance were made. The sample was collected only when the temperature, pH, and specific conductance reached relatively constant values.

A hand operated bailer was used for evacuating the well casing (purging) of each monitor well. Water samples were collected using a new disposable bailer. An effort was made to minimize exposure of the sample to air.

Subsequent to collection, the samples were immediately stored on ice in an appropriate ice chest. Samples were transported under Chain-of-Custody procedures to Accutest Labs (Accutest) of San Jose, CA.

Sampling equipment was cleaned after its use at each sampling location. Thermometers, pH electrodes, and conductivity probes were also cleaned after sampling of each well. Cleaning procedures were accomplished by scrubbing with a detergent-potable water solution and rinsing with potable water. Care was taken to collect all excess water resulting from the sampling and cleaning procedures. The excess water is contained in a 55-gallon drum on-site.

**PO Box 2006 \* Menlo Park California 94025 \* Phone 408/655-9434 \* Fax 650/325-3238**

## Laboratory Analyses

The following analyses were performed by Accutest on groundwater samples obtained from the monitor wells:

TPH-diesel (EPA Method 8015B); TPH-Gasoline BTEX, Fuel Oxygenates (Method 8260B)

The results of the analysis were as follows; **Results in ug/L.**

Sample#	TPH/g	Benzene	Toluene	EthylBenz.	Xylenes	MTBE	TBA	TPH/d
MW1	ND<50	ND<1	ND<1	ND<1	ND<2	8.9	6	1580
MW2	ND<500	ND<10	ND<10	ND<10	ND<20	ND<10	ND<100	8730
MW3	ND<250	ND<5	ND<5	ND<5	ND<10	ND<5	ND< 50	5940
MW4	48.9	ND<1	ND<1	ND<1	ND<2	ND<1	ND<10	4890

Chains-of-Custody and laboratory results are contained in the appendix.

### **Historical Monitoring Well Analytical Results Results in ug/L**

Date	Sample#	TPH/g	Benzene	Toluene	E-Benzene	Xylenes	MTBE	TPH/d	DTG	GE	
4/14/94	MW1	<50	<0.5	<0.5	<0.5	<0.5	-----	<50	5.68	9.65	
11/17/94	MW1	<50	<0.5	<0.5	<0.5	<0.5	1,100	<50	5.68	9.65	
8/13/95	MW1	<50	<0.5	<0.5	<0.5	<0.5	-----	<50	5.68	9.65	
5/26/99	MW1	60	0.6	<0.5	0.8	1.9	<0.5	<50	5.68	9.65	
8/23/99	MW1	-----	<0.5	<0.5	<0.5	<0.5	-----	<50	5.19	10.14	
10/16/00	MW1	<50	<0.5	<0.5	<0.5	<0.5	-----	150	5.68	9.65	
4/26/01	MW1	<50	<0.5	<0.5	<0.5	<0.5	-----	1300	5.68	9.65	
9/5/02	MW1	-----	<0.5	<0.5	<0.5	<1	9.8	<50	5.19	10.14	
8/18/05	MW1	<50	<1	<1	<1	<1	6.0	410	5.19	10.14	
1/25/06	MW1	<50	2.3	<0.5	<0.5	1.2	11.0	3600	5.68	9.65	
7/12/06	MW1	<50	<0.5	<0.5	<0.5	<1	6.2	100	5.68	9.65	
6/27/07	MW1	<50	<0.5	<0.5	<0.5	<0.5	4.4	<50	5.68	9.65	
11/26/07	MW1	<50	<0.5	<0.5	<0.5	<0.5	5.0	<50	5.68	9.65	
6/9/08	MW1	<50	<0.5	<0.5	<0.5	<0.5	5.0	<50	5.68	9.65	
12/11/08	MW1	<50	<0.5	<0.5	<0.5	<0.5	6.3	<50	5.68	9.65	
3/16/12	MW1	<50	<1	<1	<1	<1	8.9	1580	5.19	10.14	
4/14/94	MW2	Not Sampled Due to Free Product								5.68	9.65
11/17/94	MW2	<50	<0.5	<0.5	<0.5	<0.5	-----	28,000	5.68	9.65	
8/13/95	MW2	<50	<0.5	<0.5	<0.5	<0.5	-----	180	5.68	9.65	
5/26/99	MW2	<50	<0.5	<0.5	0.8	<0.5	<50	120	5.68	9.65	
8/23/99	MW2	-----	<0.5	<0.5	<0.5	<0.5	-----	61	5.19	10.14	
10/16/00	MW2	570	<0.5	<0.5	<0.5	<0.5	-----	3400	5.68	9.65	
4/26/01	MW2	2400	<0.5	<0.5	<0.5	<0.5	-----	57,000	5.68	9.65	
9/5/02	MW2	-----	<0.5	<0.5	<0.5	<1	5.1	27,100	5.19	10.14	
8/18/05	MW2	<50	<10	<10	<10	<10	<30	13,300	5.19	10.14	
1/25/06	MW2	1200	<10	<10	<10	<20	<10	110,000	5.68	9.65	
7/12/06	MW2	330	<0.5	<0.5	<0.5	<1	3.6	5900	5.68	9.65	
6/27/07	MW2	200	<0.5	<0.5	<0.5	<0.5	1.8	10,000	5.68	9.65	
11/26/07	MW2	330	<0.5	<0.5	<0.5	<0.5	2.4	25,000	5.68	9.65	
6/9/08	MW2	230	<0.5	<0.5	<0.5	<0.5	1.5	13,000	5.68	9.65	
12/11/08	MW2	200	<0.5	<0.5	<0.5	<0.5	2.7	3700	5.68	9.65	
3/16/12	MW2	<500	<10	<10	<10	<20	<10	8730	5.19	10.14	

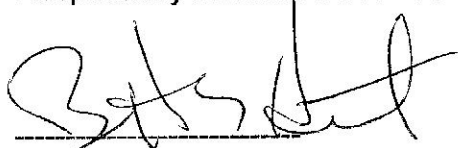
Date	Sample#	TPH/g	Benzene	Toluene	E-Benzene	Xylenes	MTBE	TPH/d	DTG	GE	
4/14/94	MW3	250	<0.5	<0.5	<0.5	1.2	-----	7700	5.68	9.65	
11/17/94	MW3	<50	<0.5	<0.5	<0.5	<0.5	-----	160,000	5.68	9.65	
8/13/95	MW3	<50	<0.5	<0.5	<0.5	<0.5	-----	1500	5.68	9.65	
5/26/99	MW3	160	<0.5	<0.5	0.8	<0.5	<0.5	1100	5.68	9.65	
8/23/99	MW3	-----	<0.5	<0.5	<0.5	<0.5	-----	84	5.19	10.14	
10/16/00	MW3	130	0.52	<0.5	<0.5	<0.5	-----	42,000	5.68	9.65	
4/26/01	MW3	310	<0.5	<0.5	<0.5	<0.5	-----	21,000	5.68	9.65	
9/5/02	MW3	-----	<0.5	<0.5	<0.5	<1	31.1	1990	5.19	10.14	
8/18/05	MW3	Not Sampled Due to Free Product								5.19	10.14
1/25/06	MW3	440	<2.5	<2.5	<2.5	<5	29	21,000	5.68	9.65	
7/12/06	MW3	280	<0.5	<0.5	<0.5	<1	47	16,000	5.68	9.65	
6/27/07	MW3	140	<0.5	<0.5	<0.5	<0.5	25	2600	5.68	9.65	
11/26/07	MW3	160	<0.5	<0.5	<0.5	<0.5	27	690	5.68	9.65	
6/9/08	MW3	Not Sampled Due to Free Product								5.68	9.65
12/11/08	MW3	250	<0.5	<0.5	<0.5	<0.5	25	14,000	5.68	9.65	
3/16/12	MW3	<250	<5	<5	<5	<10	<5	5940	5.19	10.14	
8/13/95	MW4	450	2.1	0.7	4.1	13	-----	<50	5.68	9.65	
5/26/99	MW4	600	0.7	<0.5	<0.5	5.8	<0.5	100	5.68	9.65	
8/23/99	MW4	-----	<0.5	<0.5	<0.5	<0.5	-----	180	5.19	10.14	
10/16/00	MW4	890	<0.5	<0.5	<0.5	11	-----	75,000	5.68	9.65	
4/26/01	MW4	2100	<0.5	<0.5	<0.5	<0.5	-----	24,000	5.68	9.65	
9/5/02	MW4	-----	<0.5	<0.5	<0.5	<1	1.2	17,000	5.19	10.14	
8/18/05	MW4	<50	<1	<1	<1	<1	<3	6200	5.19	10.14	
1/25/06	MW4	110	2.0	0.87	<0.5	2.3	4.5	8200	5.68	9.65	
7/12/06	MW4	250	<0.5	<0.5	<0.5	<1	0.93	5200	5.68	9.65	
6/27/07	MW4	<50	<0.5	<0.5	<0.5	<0.5	<0.5	320	5.68	9.65	
11/26/07	MW4	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1400	5.68	9.65	
6/9/08	MW4	120	<0.5	<0.5	<0.5	<0.5	<0.5	22,000	5.68	9.65	
12/11/08	MW4	200	<0.5	<0.5	<0.5	<0.5	<0.5	4000	5.68	9.65	
3/16/12	MW4	48.9	<1	<1	<1	<2	<1	4890	5.19	10.14	

DTG Depth to Groundwater  
GE Groundwater Elevation

**Determination of Horizontal Groundwater Gradient**

On March 16, 2012 the water levels in monitor wells MW1 through MW4 were measured within a one hour period. The water surface elevations in the wells were calculated using the survey data. Then, the horizontal hydraulic gradient was calculated based on accurately determined well locations. The gradient calculated indicated a northwestern direction at a magnitude of approximately 0.0028. These groundwater elevation contours are depicted in Figure 2.

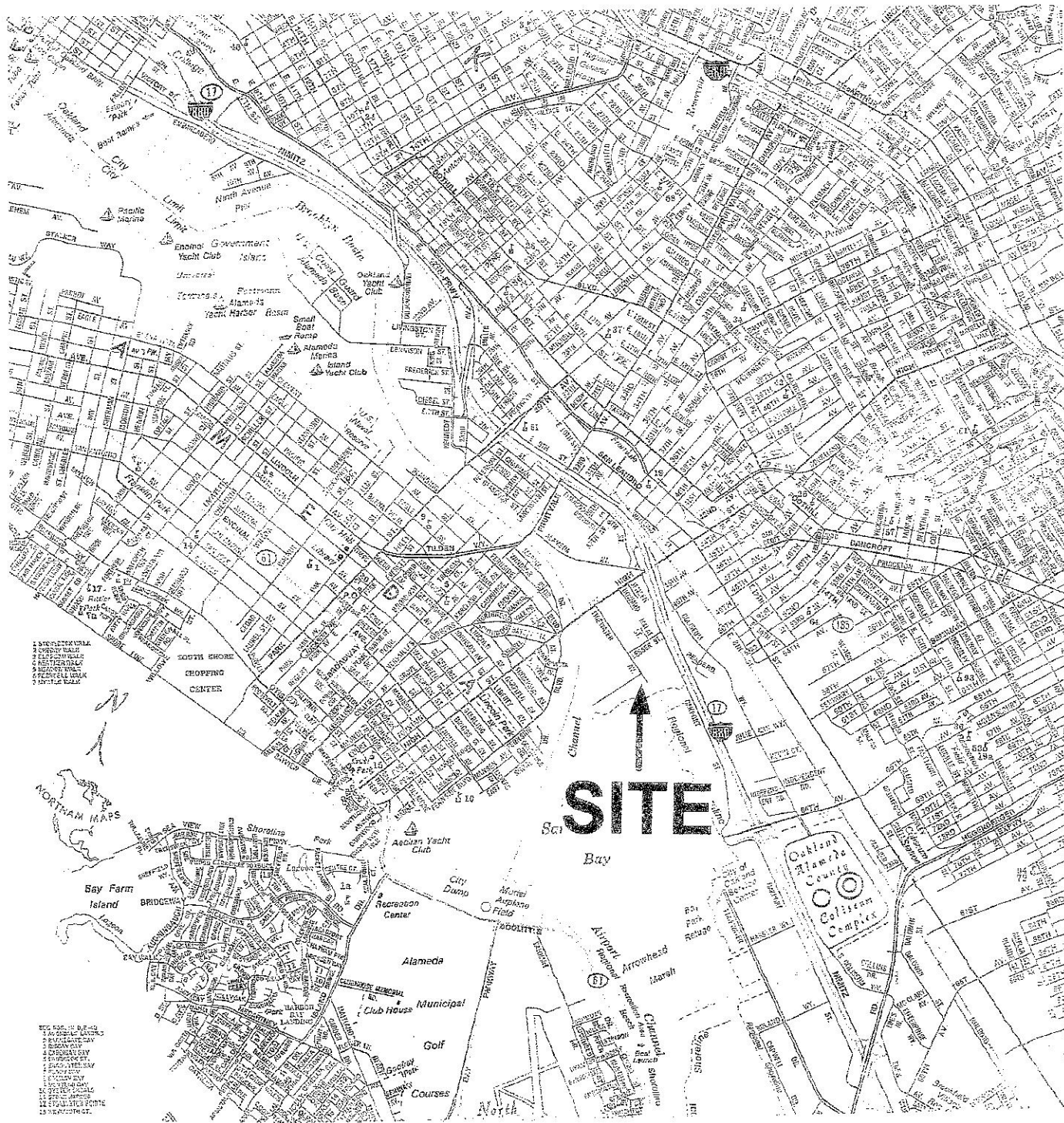
Respectfully submitted this 27th day of March, 2012,



Bennett T Halsted  
Project Manager

Samuel H Halsted P.E.  
CE 14095





- 1. STATE PARKS
- 2. COUNTY TRAILS
- 3. REGIONAL PARKS
- 4. HISTORICAL SITES
- 5. RECREATION AREAS
- 6. OTHER LAND USES
- 7. UTILITY LINES

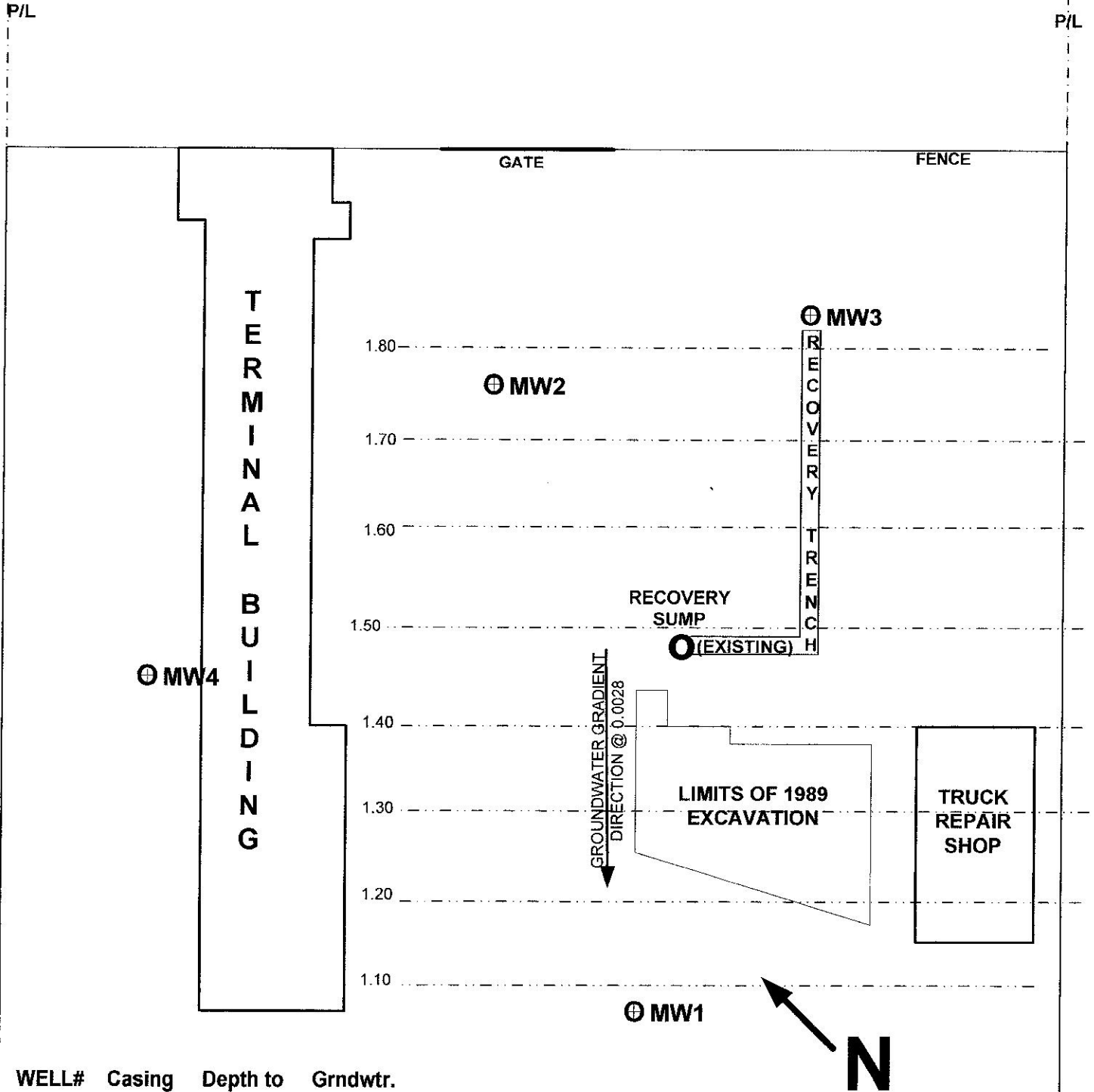
- 1. CITY OF OAKLAND
- 2. CITY OF ALAMEDA
- 3. COUNTY OF OAKLAND
- 4. COUNTY OF ALAMEDA
- 5. COUNTY OF CONTRA COSTA
- 6. COUNTY OF SAN FRANCISCO
- 7. COUNTY OF SACRAMENTO
- 8. COUNTY OF SUTTER
- 9. COUNTY OF YUBA
- 10. COUNTY OF COLUSA
- 11. COUNTY OF BUTTE
- 12. COUNTY OF YUBA
- 13. COUNTY OF SUTTER
- 14. COUNTY OF COLUSA
- 15. COUNTY OF BUTTE
- 16. COUNTY OF YUBA
- 17. COUNTY OF SUTTER
- 18. COUNTY OF COLUSA
- 19. COUNTY OF BUTTE
- 20. COUNTY OF YUBA



**VICINITY MAP**  
 4919 Tidewater Ave., Oakland, CA

DATE 3/19/12	SCALE 1"=0.6 Miles	<b>FIGURE 1</b>
<i>Environmental Restoration Services</i>		
PO Box 2006, Menlo Park, CA 94026		

# TIDEWATER AVE.



WELL#	Casing Elev.	Depth to Grndwtr.	Grndwtr. Elev.
MW1	2.68	1.60	1.08
MW2	3.50	1.67	1.83
MW3	2.90	1.16	1.74
MW4	3.87	2.42	1.45

**SITE PLAN**  
4919 Tidewater Ave., Oakland, CA

DATE 3/19/12	SCALE 1"=50'	<b>FIGURE 2</b>
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*Environmental Restoration Services*  
PO Box 2006, Menlo Park, CA 94026

# Environmental Restoration Services

## WELL PURGE LOG

WELL ID: MW-1		Site Name: RWL Investments				
Site Address: 4919 Tidewater Ave. Oakland						
Project No.:			Date: 3/16/12			
Samplers Name: Ben Halsted						
Measuring method: Sounder						
Purge Equipment: Disposable bailer						
Water in Well Box? No		Inside diameter of well: 2"				
Conversion factors (CF): 2-inch well = 0.16 gallons/ft., 4-inch well = 0.65 gallons/ft., 6-inch well = 1.47 gallons/ft.,						
Depth to water from top of casing: 1.6						
Total Well Depth: 6.75						
Water Volume in Well: .825 gallons						
Well pumped/bailed dry? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
Lab Analysis: 8015M 8260B						
Sample Containers: (2) 40ml VOAs (1) 1 liter amber						
Sample Equipment: Disposable bailer						
FIELD MEASUREMENTS						
Time	Gallons	Temp. (C)	pH	Conductivity	Other:	Comments
10:16	1.5	23.5	6.71	1067		
11:45	2	23.8	6.92	996		
13:15	3	24.2	6.87	1053		
14:06						Sampled
COMMENTS: Hydrocarbon Odor						

# Environmental Restoration Services

## WELL PURGE LOG

WELL ID: MW-2		Site Name: RWL Investments				
Site Address: 4919 Tidewater Ave. Oakland						
Project No.:			Date: 3/16/12			
Samplers Name: Ben Halsted						
Measuring method: Sounder						
Purge Equipment: Disposable bailer						
Water in Well Box? <input type="checkbox"/> No		Inside diameter of well: 2"				
Conversion factors (CF): 2-inch well = 0.16 gallons/ft., 4-inch well = 0.65 gallons/ft., 6-inch well = 1.47 gallons/ft.,						
Depth to water from top of casing: 1.67						
Total Well Depth: 7.25						
Water Volume in Well: .89 gallons						
Well pumped/bailed dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Lab Analysis: 8015M 8260B						
Sample Containers: (2) 40ml VOAs (1) 1 liter amber						
Sample Equipment: Disposable bailer						
FIELD MEASUREMENTS						
Time	Gallons	Temp. (C)	pH	Conductivity	Other:	Comments
11:15	1	23.3	6.51	567		
11:27	2	23.4	6.62	576		
11:40	3	23.2	6.67	583		
11:45						Sampled
COMMENTS: Hydrocarbon Odor						



# Environmental Restoration Services

## WELL PURGE LOG

WELL ID: MW-3		Site Name: RWL Investments				
Site Address: 4919 Tidewater Ave. Oakland						
Project No.:			Date: 3/16/12			
Samplers Name: Ben Halsted						
Measuring method: Sounder						
Purge Equipment: Disposable bailer						
Water in Well Box? No		Inside diameter of well: 2"				
Conversion factors (CF): 2-inch well = 0.16 gallons/ft., 4-inch well = 0.65 gallons/ft., 6-inch well = 1.47 gallons/ft.,						
Depth to water from top of casing: 1.16						
Total Well Depth: 7.05						
Water Volume in Well: .94 gallons						
Well pumped/bailed dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Lab Analysis: 8015M 8260B						
Sample Containers: (2) 40ml VOAs (1) 1 liter amber						
Sample Equipment: Disposable bailer						
FIELD MEASUREMENTS						
Time	Gallons	Temp. (C)	pH	Conductivity	Other:	Comments
11:46	1	23.8	6.89	513		
11:52	2	23.9	6.91	496		
11:59	3	24.2	6.87	488		
12:01						Sampled
COMMENTS: Hydrocarbon Odor						



**Technical Report for**

**Environmental Restoration Services**

RWL Investments - 4919 Tidewater Ave, Oakland, CA

Accutest Job Number: C20909

Sampling Date: 03/16/12

**Report to:**

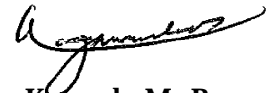
**Environmental Restoration Services**  
500 Santa Cruz Avenue  
Menlo Park, CA 94025  
envirest@aol.com

**ATTN: Ben Halsted**

**Total number of pages in report: 24**



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.

A handwritten signature in black ink, appearing to read "Kesavalu M. Bagawandoss".

**Kesavalu M. Bagawandoss,**  
**Ph.D., J.D., Lab Director**

**Client Service contact: Diane Theesen 408-588-0200**

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Test results relate only to samples analyzed.

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### Sample Summary

Environmental Restoration Services

Job No: C20909

RWL Investments - 4919 Tidewater Ave, Oakland, CA

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C20909-1	03/16/12	11:45 BH	03/16/12	AQ	Ground Water	MW-2
C20909-2	03/16/12	12:01 BH	03/16/12	AQ	Ground Water	MW-3
C20909-3	03/16/12	11:45 BH	03/16/12	AQ	Ground Water	MW-4
C20909-4	03/16/12	14:00 BH	03/16/12	AQ	Ground Water	MW-1

Sample Results

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Report of Analysis

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## Report of Analysis

<b>Client Sample ID:</b> MW-2		<b>Date Sampled:</b> 03/16/12
<b>Lab Sample ID:</b> C20909-1		<b>Date Received:</b> 03/16/12
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> RWL Investments - 4919 Tidewater Ave, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N29605.D	10	03/27/12	TF	n/a	n/a	VN964
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

## BTEX, Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	10	2.0	ug/l	
108-88-3	Toluene	ND	10	2.0	ug/l	
100-41-4	Ethylbenzene	ND	10	2.0	ug/l	
1330-20-7	Xylene (total)	ND	20	4.6	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	20	2.2	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	20	2.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	2.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	20	4.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	100	24	ug/l	
	TPH-GRO (C6-C10)	ND	500	250	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		60-130%
2037-26-5	Toluene-D8	100%		60-130%
460-00-4	4-Bromofluorobenzene	96%		60-130%

(a) Sample was not preserved to a pH < 2. Dilution required due to high concentration of non-target hydrocarbons.

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> 03/16/12
<b>Lab Sample ID:</b> C20909-1		<b>Date Received:</b> 03/16/12
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8015B M SW846 3510C		
<b>Project:</b> RWL Investments - 4919 Tidewater Ave, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH021076.D	10	03/20/12	JH	03/19/12	OP5599	GHH697
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

**TPH Extractable**

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	8.73	1.0	0.26	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
630-01-3	Hexacosane	74%		45-140%		

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> 03/16/12
<b>Lab Sample ID:</b> C20909-2		<b>Date Received:</b> 03/16/12
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> RWL Investments - 4919 Tidewater Ave, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N29604.D	5	03/27/12	TF	n/a	n/a	VN964
Run #2							

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

**BTEX, Oxygenates**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	5.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	10	2.3	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	10	1.1	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	10	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	35.7	5.0	1.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	10	2.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	50	12	ug/l	
	TPH-GRO (C6-C10)	ND	250	130	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		60-130%
2037-26-5	Toluene-D8	99%		60-130%
460-00-4	4-Bromofluorobenzene	95%		60-130%

(a) Dilution required due to high concentration of non-target hydrocarbons.

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> 03/16/12
<b>Lab Sample ID:</b> C20909-2		<b>Date Received:</b> 03/16/12
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8015B M SW846 3510C		
<b>Project:</b> RWL Investments - 4919 Tidewater Ave, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH021074.D	5	03/20/12	JH	03/19/12	OP5599	GHH697
Run #2							

Run #	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

**TPH Extractable**

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	5.94	0.59	0.15	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
630-01-3	Hexacosane	73%		45-140%		

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> 03/16/12
<b>Lab Sample ID:</b> C20909-3		<b>Date Received:</b> 03/16/12
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> RWL Investments - 4919 Tidewater Ave, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N29603.D	1	03/27/12	TF	n/a	n/a	VN964
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

**BTEX, Oxygenates**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
	TPH-GRO (C6-C10)	48.9	50	25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		60-130%
2037-26-5	Toluene-D8	100%		60-130%
460-00-4	4-Bromofluorobenzene	99%		60-130%

(a) Sample was not preserved to a pH < 2.

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>Lab Sample ID:</b> C20909-3		<b>Date Sampled:</b> 03/16/12
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/16/12
<b>Method:</b> SW846 8015B M SW846 3510C		<b>Percent Solids:</b> n/a
<b>Project:</b> RWL Investments - 4919 Tidewater Ave, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH021075.D	5	03/20/12	JH	03/19/12	OP5599	GHH697
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	4.89	0.47	0.12	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
630-01-3	Hexacosane	53%		45-140%		

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

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-1		<b>Date Sampled:</b> 03/16/12
<b>Lab Sample ID:</b> C20909-4		<b>Date Received:</b> 03/16/12
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> RWL Investments - 4919 Tidewater Ave, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N29602.D	1	03/27/12	TF	n/a	n/a	VN964
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

**BTEX, Oxygenates**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8.9	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	6.0	10	2.4	ug/l	J
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		60-130%
2037-26-5	Toluene-D8	98%		60-130%
460-00-4	4-Bromofluorobenzene	99%		60-130%

(a) Sample was not preserved to a pH < 2.

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-1		
<b>Lab Sample ID:</b> C20909-4		<b>Date Sampled:</b> 03/16/12
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/16/12
<b>Method:</b> SW846 8015B M SW846 3510C		<b>Percent Solids:</b> n/a
<b>Project:</b> RWL Investments - 4919 Tidewater Ave, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH021100.D	1	03/21/12	JH	03/19/12	OP5599	GHH697
Run #2							

	Initial Volume	Final Volume
Run #1	995 ml	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	1.58	0.10	0.025	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
630-01-3	Hexacosane	78%		45-140%		

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

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







## 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:** C20909  
**Account:** ERSCAMP Environmental Restoration Services  
**Project:** RWL Investments - 4919 Tidewater Ave, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN964-MB	N29588.D	1	03/27/12	TF	n/a	n/a	VN964

The QC reported here applies to the following samples:

Method: SW846 8260B

C20909-1, C20909-2, C20909-3, C20909-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	94% 60-130%
2037-26-5	Toluene-D8	99% 60-130%
460-00-4	4-Bromofluorobenzene	97% 60-130%

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** C20909  
**Account:** ERSCAMP Environmental Restoration Services  
**Project:** RWL Investments - 4919 Tidewater Ave, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN964-BS	N29589.D	1	03/27/12	TF	n/a	n/a	VN964
VN964-BSD	N29590.D	1	03/27/12	TF	n/a	n/a	VN964

The QC reported here applies to the following samples:

Method: SW846 8260B

C20909-1, C20909-2, C20909-3, C20909-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	23.0	115	23.3	117	1	60-130/30
106-93-4	1,2-Dibromoethane	20	23.9	120	23.9	120	0	60-130/30
107-06-2	1,2-Dichloroethane	20	26.7	134*	27.1	136*	1	60-130/30
108-20-3	Di-Isopropyl ether	20	23.1	116	23.6	118	2	60-130/30
100-41-4	Ethylbenzene	20	23.1	116	23.4	117	1	60-130/30
637-92-3	Ethyl Tert Butyl Ether	20	24.8	124	25.4	127	2	60-130/30
1634-04-4	Methyl Tert Butyl Ether	20	23.1	116	23.6	118	2	60-130/30
994-05-8	Tert-Amyl Methyl Ether	20	24.3	122	24.8	124	2	60-130/30
75-65-0	Tert-Butyl Alcohol	100	108	108	120	120	11	60-130/30
108-88-3	Toluene	20	22.4	112	22.8	114	2	60-130/30
1330-20-7	Xylene (total)	60	69.3	116	70.5	118	2	60-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	100%	60-130%
2037-26-5	Toluene-D8	96%	97%	60-130%
460-00-4	4-Bromofluorobenzene	101%	100%	60-130%

4.2.1  
4

# Laboratory Control Sample Summary

**Job Number:** C20909  
**Account:** ERSCAMP Environmental Restoration Services  
**Project:** RWL Investments - 4919 Tidewater Ave, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN964-LCS	N29591.D	1	03/27/12	TF	n/a	n/a	VN964

The QC reported here applies to the following samples:

Method: SW846 8260B

C20909-1, C20909-2, C20909-3, C20909-4

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
	TPH-GRO (C6-C10)	125	147	118	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	60-130%
2037-26-5	Toluene-D8	99%	60-130%
460-00-4	4-Bromofluorobenzene	98%	60-130%

4.3.1  
4

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** C20909  
**Account:** ERSCAMP Environmental Restoration Services  
**Project:** RWL Investments - 4919 Tidewater Ave, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C20905-4MS	N29606.D	1	03/27/12	TF	n/a	n/a	VN964
C20905-4MSD	N29607.D	1	03/27/12	TF	n/a	n/a	VN964
C20905-4	N29601.D	1	03/27/12	TF	n/a	n/a	VN964

The QC reported here applies to the following samples:

Method: SW846 8260B

C20909-1, C20909-2, C20909-3, C20909-4

CAS No.	Compound	C20905-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.8	20	21.9	101	25.3	118	14	60-130/25
106-93-4	1,2-Dibromoethane	ND	20	20.3	102	23.2	116	13	60-130/25
107-06-2	1,2-Dichloroethane	ND	20	23.3	117	26.8	134*	14	60-130/25
108-20-3	Di-Isopropyl ether	ND	20	20.4	102	23.5	118	14	60-130/25
100-41-4	Ethylbenzene	ND	20	19.6	98	22.9	115	16	60-130/25
637-92-3	Ethyl Tert Butyl Ether	ND	20	22.1	111	25.3	127	14	60-130/25
1634-04-4	Methyl Tert Butyl Ether	7.2	20	26.9	99	30.6	117	13	60-130/25
994-05-8	Tert-Amyl Methyl Ether	ND	20	21.5	108	24.6	123	13	60-130/25
75-65-0	Tert-Butyl Alcohol	6.7	J 100	107	100	128	121	18	60-130/25
108-88-3	Toluene	0.25	J 20	19.3	95	22.3	110	14	60-130/25
1330-20-7	Xylene (total)	ND	60	58.6	98	68.3	114	15	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C20905-4	Limits
1868-53-7	Dibromofluoromethane	102%	101%	95%	60-130%
2037-26-5	Toluene-D8	96%	95%	98%	60-130%
460-00-4	4-Bromofluorobenzene	99%	98%	97%	60-130%

4.4.1  
4

## GC Semi-volatiles

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5

### 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:** C20909  
**Account:** ERSCAMP Environmental Restoration Services  
**Project:** RWL Investments - 4919 Tidewater Ave, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5599-MB	HH021009.D1		03/19/12	JH	03/19/12	OP5599	GHH696

The QC reported here applies to the following samples:

Method: SW846 8015B M

C20909-1, C20909-2, C20909-3, C20909-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.10	0.025	mg/l	

CAS No.	Surrogate Recoveries	Limits
630-01-3	Hexacosane	86% 45-140%



# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** C20909  
**Account:** ERSCAMP Environmental Restoration Services  
**Project:** RWL Investments - 4919 Tidewater Ave, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5599-BS	HH021010.D1		03/19/12	JH	03/19/12	OP5599	GHH696
OP5599-BSD	HH021011.D1		03/19/12	JH	03/19/12	OP5599	GHH696

The QC reported here applies to the following samples:

Method: SW846 8015B M

C20909-1, C20909-2, C20909-3, C20909-4

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.738	74	0.769	77	4	45-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	83%	83%	45-140%

5.2.1  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** C20909  
**Account:** ERSCAMP Environmental Restoration Services  
**Project:** RWL Investments - 4919 Tidewater Ave, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5599-MS	HH021102.D1		03/21/12	JH	03/19/12	OP5599	GHH697
OP5599-MSD	HH021103.D1		03/21/12	JH	03/19/12	OP5599	GHH697
C20893-3	HH021033.D1		03/19/12	JH	03/19/12	OP5599	GHH696

The QC reported here applies to the following samples:

Method: SW846 8015B M

C20909-1, C20909-2, C20909-3, C20909-4

CAS No.	Compound	C20893-3 mg/l	Spike Q	mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	0.0692	J	1.89	1.28	64	1.58	80	21	45-140/25

CAS No.	Surrogate Recoveries	MS	MSD	C20893-3	Limits
630-01-3	Hexacosane	67%	82%	85%	45-140%

5.3.1  
5