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Alameda County
Environmental Health

**SECOND QUARTER – 2008 GROUNDWATER
MONITORING REPORT FOR
OLSON URBAN HOUSING, LLC.**

Former Impulse Motors
1210 Bockman Road
San Lorenzo, CA
Geotracker Global ID#: T06019771179
ACHCS Case #: RO0002737

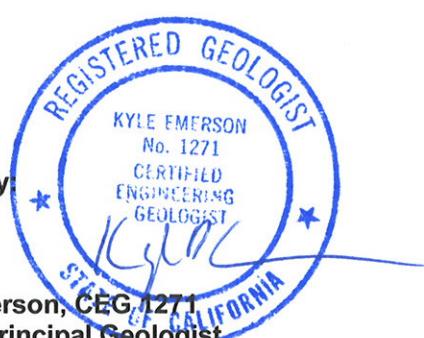
June 23, 2008
Project Number 04OT.29215.69

Prepared by:



Jason Adelaars
Staff Scientist

Reviewed by:



Kyle D. Emerson, CEG #1271
Managing Principal Geologist

Date: June 23, 2008

QUARTERLY GROUNDWATER MONITORING REPORT

Address:	<u>1210 Bockman Road (Figure 1)</u>
Consulting Co./Contact Person:	<u>SECOR/ Jason Adelaars and Kyle D. Emerson</u>
SECOR Project No.:	<u>04OT.29215.69</u>
Primary Agency/Regulatory ID No.:	<u>ACHCS / Case No. RO0002737</u>

WORK PERFORMED THIS QUARTER [Second - 2008]:

1. Performed Second Quarter 2008 groundwater monitoring and sampling.

WORK PROPOSED FOR NEXT QUARTER [Third - 2008]:

1. Submit Second Quarter 2008 Report.
2. Request UST Site closure.

Current Phase of Project:

	Monitoring	(Unit)
Frequency of Sampling:	Quarterly	(Quarterly, etc.)
Frequency of Monitoring:	Quarterly	(Monthly, etc.)
Are Liquid Phase Hydrocarbons Present	No	(Yes/No)
Bulk Soil Removed to Date:	500	(cubic yards)
Bulk Soil Removed This Quarter:	0	(cubic yards)
Approximate Depth to Groundwater	7.89 to 8.91	(Measured Feet)
Groundwater Gradient	Northwest	(Direction)
	0.003	(Magnitude)

DISCUSSION:

On June 10, 2008, SECOR personnel gauged groundwater monitoring wells at the site (Figure 2). The depth to water ranged between 7.89 feet in MW-02 to 8.91 feet in MW-03, as presented in Table 1. Groundwater elevations ranged between 11.67 feet to 11.8 feet above mean sea level (AMSL). Groundwater flows to the north by northwest at a hydraulic gradient of approximately 0.003 (Figure 3). Groundwater samples were collected from the wells in accordance with the attached purging and sampling procedures. Groundwater samples were collected and analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), Total Petroleum Hydrocarbons as diesel (TPHd), and Volatile Organic Compounds (VOCs) including the fuel oxygenates methyl tert-butyl ether (MTBE), tert-Butyl Alcohol (TBA), Ethyl tert-Butyl Ether (ETBE), Di-isopropyl Ether (DIPE), and tert-amyl methyl ether (TAME). Analytical results are reported in Tables 2 and 3.

CONCLUSIONS & RECOMMENDATIONS:

Groundwater collected from the three groundwater monitoring wells located down-gradient of the former fuel dispensers contained concentrations of total petroleum hydrocarbons in the gasoline range (TPHg) from non-detect to a peak of 400 µg/L. TPH in the diesel range was

measured from non detect to a peak of 230 µg/L. Benzene, toluene, ethylbenzene, xylenes, MTBE, and TBA were all below detection levels.

Based on this information, the detected groundwater impact remains localized to the area immediately down gradient of the former dispenser islands and currently beneath the parking and driveway areas of the Site development, as indicated on Figure 2. As a result, SECOR considers the limits of the impacted groundwater adequately assessed, stable, and naturally attenuating.

Therefore, based on the exceedingly small extent of impact and the completed source removal actions, which were performed along with the overlying land use (driveway and parking), SECOR recommends no further assessment or remedial action.

STANDARD PROCEDURES FOR GROUNDWATER SAMPLING

Groundwater sampling activities involve several activities including groundwater depth measurements, well purging, sample collection, waste water disposal, etc. The procedures for conducting these activities are described below.

DEPTH TO GROUNDWATER

Prior to purging each of the wells, the depth to groundwater within each well casing is measured to the nearest 0.01 foot using either an electronic water level indicator. The wells were measured from the top of each casing. The tops of the well casings were later surveyed to provide an accurate elevation.

GROUNDWATER MONITORING WELL PURGING

Purging is conducted prior to sampling wells, a dedicated 3.5 inch by 36 inch Polyethylene Bailor was used to purge the wells. Purge water was contained on-site in 55-gallon DOT-approved drums. To assure that the collected samples were representative of fresh formation water, the conductivity, temperature, and pH of the delivered effluent are monitored and recorded using a Hanna Hydac meter during purge operations. In addition, the turbidity of the removed water is visually monitored and recorded. Purge operations are determined to be sufficient once successive measurements of pH, conductivity, and temperature stabilize to within +/- 10 percent.

During purging a minimum of three (3) well volumes, measured as the annular space of the well casing below the groundwater surface, are removed from each well. Field data sheets are attached indicating the volume of water removed from each casing. Wells were allowed to recharge to within 90 percent of pre-purge groundwater elevation prior to conducting sampling.

GROUNDWATER SAMPLE ACQUISITION AND HANDLING

Following purging operations, groundwater samples were collected from each of the three wells at the air-water interface, using precleaned, single-sample polyethylene disposable bailers. The groundwater sample was discharged from the bailer to the sample container through a bottom emptying flow control valve to minimize volatilization.

Collected water samples were discharged directly into laboratory provided, precleaned, 40 milliliter (ml) glass vials or one liter amber bottles and sealed with Teflon-lined septum, screw-on lids. Labels documenting sample number, well identification, collection date and time, type of sample and type of preservative (if applicable) were affixed to each sample. The samples were then placed into an ice-filled cooler for delivery under chain-of-custody to a laboratory certified to perform the specified tests by the State of California Department of Health Services Environmental Laboratory Accreditation Program.

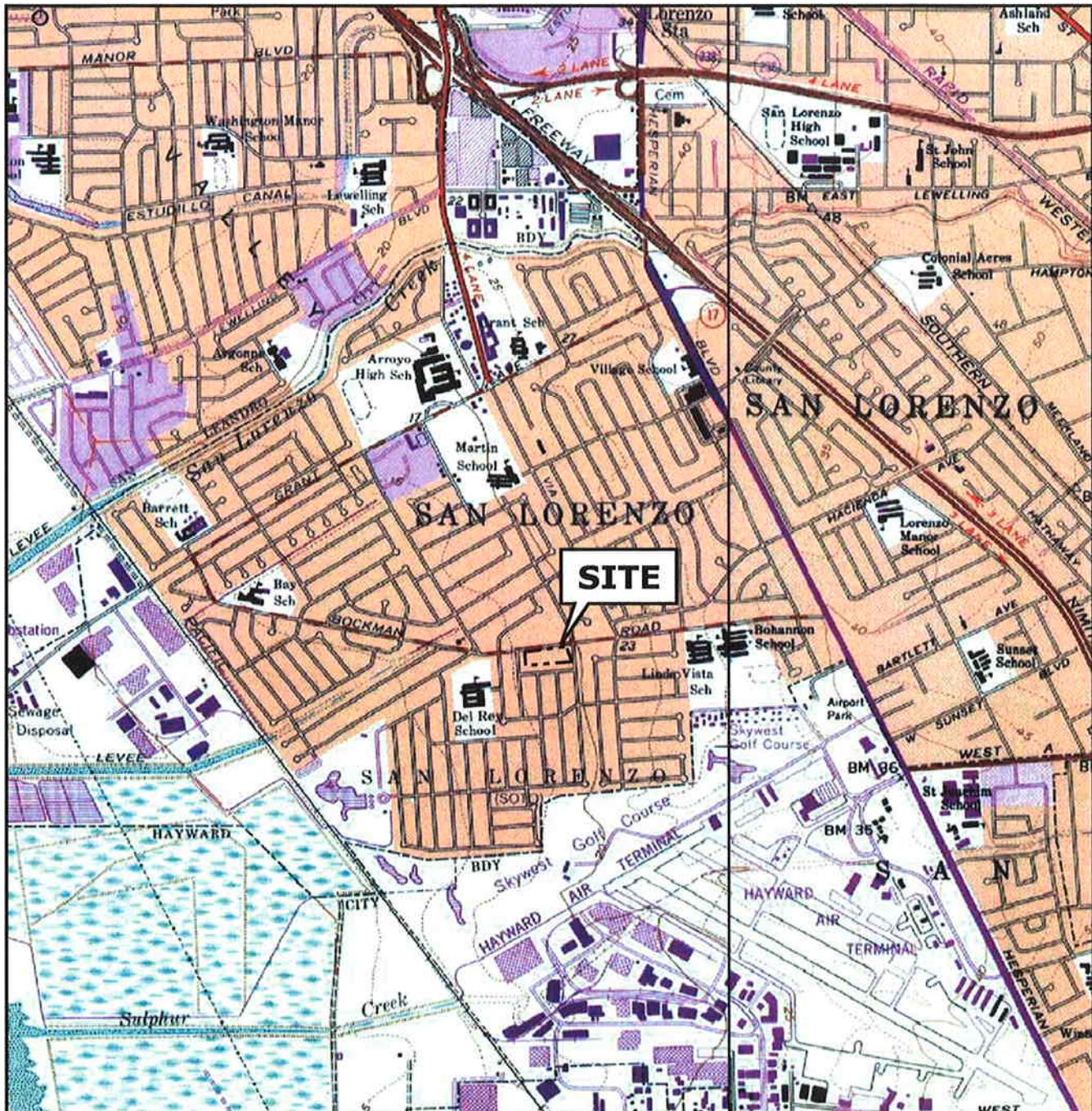
CONTAINMENT AND DISPOSAL OF GENERATED WATER

All wastewater and purge water generated during the field activities were retained on-site in appropriate containers (i.e. DOT approved drums) for future disposal. All wastewater will be delivered under appropriate manifest to a facility certified and licensed to receive such waste streams.

ATTACHMENTS:

- Site Location Map (Figure 1)
- Site Plan (Figure 2)
- Groundwater Gradient Map, June 10, 2008 (Figure 3)
- Summary of Groundwater Elevation Data (Table 1)
- Summary of Groundwater Analytical Results (Table 2 through Table 4)
- Water Sample Field Data Sheets
- Chain of Custody Records, Lab Data Sheets and QA/QC Results

FIGURES



Reference: U.S.G.S., 1959, San Leandro Quadrangle California - Alameda County,
7.5' Series (Topographic). Photorevised 1980.



0 2000 4000
APPROXIMATE SCALE (FEET)



QUADRANGLE LOCATION



SECOR

25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA 92374
PH: (909) 335-6116 / FAX: (909) 335-6120

PREPARED FOR:
THE OLSON COMPANY

1210-1366 BOCKMAN ROAD
SAN LORENZO, CALIFORNIA

SITE LOCATION MAP

FIGURE:

1

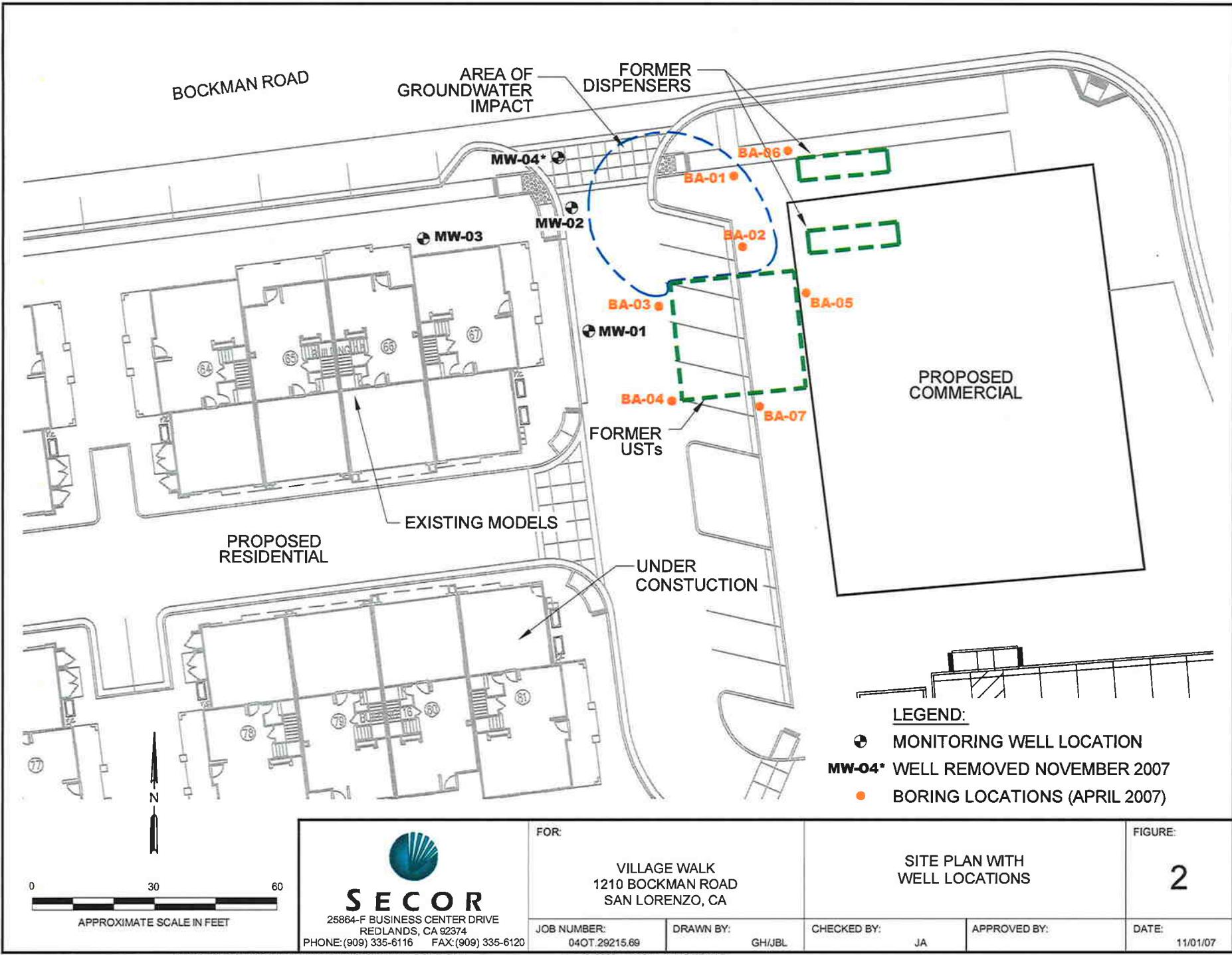
JOB NUMBER:
04OT.29215.62

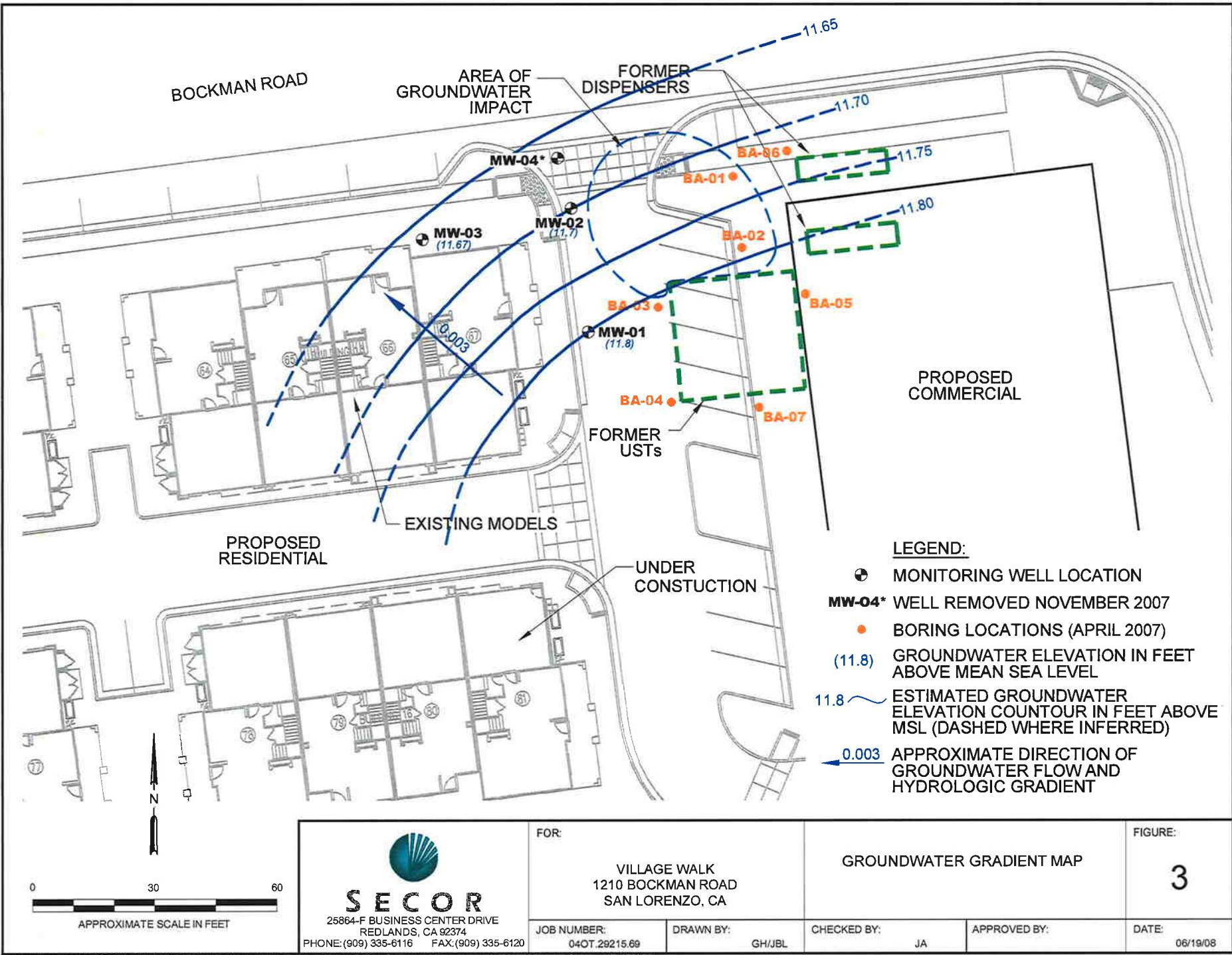
DRAWN BY:
JMH

CHECKED BY:
JH

APPROVED BY:
JH

DATE:
12/2004





TABLES

Table 1

*Summary of Groundwater Elevation Data
Olson - San Lorenzo
1210 Bockman Road
San Lorenzo, California
SECOR Job No.: 04OT.29215.69*

Well ID/Surveyed Elevation ⁽¹⁾	Date	Depth to Static Water (feet bgs)	Groundwater Elevation ⁽²⁾ (feet AMSL)
MW-01 20.3	3/17/2008	8.24	12.06
	6/10/2008	8.5	11.8
MW-02 19.59	3/17/2008	7.65	11.94
	6/10/2008	7.89	11.7
MW-03 20.58	3/17/2008	8.67	11.91
	6/10/2008	8.91	11.67

NOTES:

- (1) Elevations are measured in feet above mean sea level (AMSL), site surveyed on March 24, 2008
- (2) Groundwater Elevation in feet AMSL = Surveyed Well Elevation subtracted by Depth to Water

Table 2
Summary of Groundwater Analytical Results
TPH by modified EPA 8015B (µg/L)
Olson - San Lorenzo
1210 Bockman Road
San Lorenzo, California
SECOR Job No.: 04OT.29215.69

Sample ID	Sampling Date	TPH ⁽¹⁾	
		(8015) ⁽²⁾ C4-C12 ⁽³⁾	C12-C22 ⁽⁴⁾
RWQCB ESLs (µg/L)		100	100
MW-01-W	6/10/2008	<0.1	64
MW-02-W	6/10/2008	400	230
MW-03-W	6/10/2008	<0.1	<0.4
MW-04-W ⁽⁵⁾	11/7/2007	<0.5	<0.4

NOTES:

(1) Concentrations reported in micrograms per liter (µg/L)

(2) EPA Test Method

(3) Characteristic carbon chain of Gasoline

(4) Characteristic carbon chain of Diesel

(5) MW-04 was removed due to conflict with construction activities

< - Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

TPH - Total Petroleum Hydrocarbons

RWQCB ESLs - Environmental Screening Levels for Potential Source of Drinking Water established by the San Francisco Bay Regional Water Quality Control Board (February 2005)

Table 3

*Summary of Groundwater Analytical Results
 VOCs by EPA 8260B (µg/L)
 Olson - San Lorenzo
 1210 Bockman Road
 San Lorenzo, California
 SECOR Job No.: 04OT.29215.69*

Sample ID	Sampling Date	VOCs ⁽¹⁾ (8260) ⁽²⁾													
		Methyl-tert-butyl ether (MtBE)	tert-Amyl Methyl Ether (TAME)	Diisopropyl Ether (DIPE)	Ethyl tert-Butyl Ether (EtBE)	tert-Butanol (TBA)	Benzene	Ethylene Dibromide	1,2 Dichloroethane (DCA)	Ethylbenzene	Toluene	Total Xylenes	n-Butylbenzene	sec-Butylbenzene	Isopropyl benzene
CA MCLs (µg/L)		13	NR	NR	NR	NR	1	NR	0.5	300	150	1750	NR	NR	NR
Federal MCLs (µg/L)		NR	NR	NR	NR	NR	5	NR	5	700	1000	10000	NR	NR	NR
RWQCB ESLs (µg/L)		5	NR	NR	NR	12	1	0.05	0.5	30	40	20	NR	NR	NR
<i>Samples</i>															
MW-01-W	6/10/2008	<1.0	<1.0	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-02-W	6/10/2008	<1.0	<1.0	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	1.4	1.7	0.91
MW-03-W	6/10/2008	<1.0	<1.0	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5
MW-04-W ⁽³⁾	11/7/2007	<1.0	<1.0	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5

NOTES:

(1) Concentrations reported in micrograms per liter (µg/L)

(2) EPA Test Method

(3) MW-04 was removed due to conflict with construction activities

< - Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

VOCs - Volatile Organic Compounds

CA MCLs - Maximum Contaminant Levels established by the State of California

Federal MCLs - Maximum Contaminant Levels established by the Federal Environmental Protection Agency

RWQCB ESLs - Environmental Screening Levels for Potential Source of Drinking Water established by the San Francisco Bay Regional Water Quality Control Board (February 2005)

NR - Not Reported

Table 4

Summary of Groundwater Analytical Results

TPH and VOCs Detected in Groundwater

Olson - San Lorenzo

1210 Bockman Road

San Lorenzo, California

SECOR Job No.: 04OT.29215.69

Sample ID	Sampling Date	TPH ⁽¹⁾ 8015 ⁽²⁾		VOCs ⁽¹⁾ 8260 ⁽²⁾			
		C4-C12 ⁽³⁾	C12-C22 ⁽⁴⁾	n-Butylbenzene	sec-Butylbenzene	n-Propylbenzene	Isopropylbenzene
CA MCLs ($\mu\text{g/L}$)		NR	NR	NR	NR	NR	NR
Federal MCLs ($\mu\text{g/L}$)		NR	NR	NR	NR	NR	NR
RWQCB ESLs ($\mu\text{g/L}$)		100	100	NR	NR	NR	NR
<i>Samples</i>							
MW-01-W	3/17/2008	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5
	6/10/2008	<50	64	<1.0	<1.0	<1.0	<0.5
MW-02-W	3/17/2008	0.41	<1.0	3.4	<0.5	2.2	1.0
	6/10/2008	400	230	1.4	1.7	<1.0	0.91
MW-03-W	3/17/2008	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5
	6/10/2008	<50	<50	<1.0	<1.0	<1.0	<0.5
MW-04-W ⁽⁵⁾	11/7/2007	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5

NOTES:

(1) Concentrations reported in micrograms per liter ($\mu\text{g/L}$)

(2) EPA Test Method

(3) Characteristic carbon chain of Gasoline

(4) Characteristic carbon chain of Diesel

(5) MW-04 was removed due to conflict with construction activities

< - Indicates the concentration was not detected above the laboratory method detection limit.

Highlighted yellow boxes indicate most recent laboratory data.

ABBREVIATIONS:

VOCs - Volatile Organic Compounds

TPH - Total Petroleum Hydrocarbons

CA MCLs - Maximum Contaminant Levels established by the State of California

Federal MCLs - Maximum Contaminant Levels established by the Federal Environmental Protection Agency

RWQCB ESLs - Environmental Screening Levels for Potential Source of Drinking Water established by the San Francisco Bay Regional Water Quality Control Board (February 2005)

NR - Not Reported

SECOR

WATER SAMPLE FIELD DATA SHEETS

SECOR International Incorporated
GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. San Lorenzo Purged By: M. Barwell Well ID.: MW-1
 Client Name: Olson Sampled By: MB Sample I.D.: _____
 Location: 1210 Pachano Rd San Lorenzo What QA Samples?: _____

Date Purged: 6/10/08 Start (2400hr): 1140 End (2400hr): 1200
 Date Sampled: _____ Sample Time (2400hr): 1205

Casing Diameter:	2"	3"	4" <input checked="" type="checkbox"/>	5"	6"	8"	Other _____
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()

Total depth (feet) =	<u>12.58</u>	Casing Volume (gal) =	<u>2.73</u>
Depth to water (feet) =	<u>8.50</u>	Calculated Purge (gal) =	<u>8.20</u> (3 casing vols.)
Water column height (feet) =	<u>4.08</u>	Actual Purge (gal) =	_____

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees C)	Conductivity (umhos/cm)	pH (units)	Color (visual)	DTW (ft)
<u>6/10/08</u>	<u>1140</u>	<u>0</u>	<u>21.0</u>	<u>1040</u>	<u>8.60</u>	<u>Clear</u>	_____
	<u>1150</u>	<u>2.5</u>	<u>19.8</u>	<u>993.5</u>	<u>7.71</u>	<u>Cloudy</u>	_____
	<u>1155</u>	<u>5</u>	<u>19.0</u>	<u>988.6</u>	<u>7.49</u>	<u>"</u>	_____
	<u>1200</u>	<u>8.</u>	<u>19.0</u>	<u>998.2</u>	<u>7.44</u>	<u>"</u>	_____
	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____

D.O. mg/l %

PURGING EQUIPMENT

- Well Wizard Bladder Pump
- Active Extraction Well Pump
- Submersible Pump
- Peristaltic Pump
- Other: _____

Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

- Bailer (disposable)
- Bailer (PVC)
- Bailer (Stainless Steel)
- Dedicated _____
- WW Bladder Pump
- Sample Port
- Submersible Pump
- Peristaltic Pump
- Dedicated: _____

Other: _____

Analyses: TPH-gas, TPH_{total}, VOCs

Sample Vessel / Preservative: 3 VOCs / HCL Odor: None
1 Amber / None

Well Integrity: 60ft

Remarks: _____

Signature: 

Page 1 of _____

SECOR International Incorporated
GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. _____ Purged By: _____ Well ID.: MW-2
 Client Name: _____ Sampled By: _____ Sample I.D.: _____
 Location: _____ What QA Samples?: _____

Date Purged: 6/10/08 Start (2400hr): 1105 End (2400hr): 1123
 Date Sampled: _____ Sample Time (2400hr): 1130

Casing Diameter: 2" ____ 3" ____ 4" 5" ____ 6" ____ 8" ____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 12.85 Casing Volume (gal) = 2.79
 Depth to water (feet) = 7.84 Calculated Purge (gal) = 8.36 (3 casing vols.)
 Water column height (feet) = 4.16 Actual Purge (gal) = 8.20

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees C)	Conductivity (umhos/cm)	pH (units)	Color (visual)	DTW (ft)
<u>6/10/08</u>	<u>1105</u>	<u>0</u>	<u>18.9</u>	<u>950.1</u>	<u>8.10</u>	<u>Clear</u>	
	<u>1115</u>	<u>4</u>	<u>19.5</u>	<u>932.8</u>	<u>8.00</u>	<u>slightly</u>	
	<u>1120</u>	<u>6</u>	<u>18.8</u>	<u>944.3</u>	<u>7.81</u>	<u>cloudy</u>	
	<u>1123</u>	<u>8.5</u>	<u>18.4</u>	<u>1025</u>	<u>7.81</u>	<u>cloudy</u>	

D.O. mg/l %

PURGING EQUIPMENT

- Well Wizard Bladder Pump
- Active Extraction Well Pump
- Submersible Pump
- Peristaltic Pump
- Other: _____
- Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

- Bailer (disposable)
- WW Bladder Pump
- Sample Port
- Submersible Pump
- Peristaltic Pump
- Other: _____

Analyses:

Sample Vessel / Preservative: _____ Odor: None

Well Integrity: No cap - used glove

Remarks: _____

Signature:

Page 1 of _____

SECOR International Incorporated
GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. _____ Purged By: _____ Well ID.: MW-3
 Client Name: _____ Sampled By: _____ Sample ID.: _____
 Location: _____ What QA Samples?: _____

Date Purged: 6/10/08 Start (2400hr): 1030 End (2400hr): 1055
 Date Sampled: _____ Sample Time (2400hr): 1100

Casing Diameter: 2" ____ 3" ____ 4" **X** 5" ____ 6" ____ 8" ____ Other ____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 12.58 Casing Volume (gal) = 2.46
 Depth to water (feet) = 8.91 Calculated Purge (gal) = 7.38 (3 casing vols.)
 Water column height (feet) = 3.67 Actual Purge (gal) = 7.0

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees C)	Conductivity (umhos/cm)	pH (units)	Color (visual)	DTW (ft)
<u>6/10/08</u>	<u>1030</u>	<u>0</u>	<u>18.5</u>	<u>1333</u>	<u>8.70</u>	<u>clear</u>	
	<u>1040</u>	<u>2</u>	<u>17.9</u>	<u>958.7</u>	<u>8.22</u>	<u>milky</u>	
	<u>1050</u>	<u>4</u>	<u>17.5</u>	<u>948.5</u>	<u>8.06</u>	<u>milky tan</u>	
	<u>1055</u>	<u>6.70</u>	<u>18.4</u>	<u>983.0</u>	<u>7.84</u>	<u>milky</u>	

D.O. mg/l %

PURGING EQUIPMENT

- Well Wizard Bladder Pump
- Active Extraction Well Pump
- Submersible Pump
- Peristaltic Pump
- Other: _____

Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

- WW Bladder Pump
- Bailer (disposable)
- Bailer (PVC)
- Bailer (Stainless Steel)
- Dedicated _____
- Other: _____

Bailer (disposable)

Bailer (PVC)

Bailer (Stainless Steel)

Dedicated: _____

Analyses: TPH - gas, TPH - liquid, VOCs

Sample Vessel / Preservative: HCl, VOCs Odor: None

Well Integrity: 6000

Remarks: _____

Signature: MCB

Page 1 of _____

**CHAIN OF CUSTODY RECORDS,
LAB DATA SHEETS, AND
QA/QC RESULTS**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-14686-1

Job Description: San Loranzo

For:

Stantec Consulting Corp.
25864 F Business Center
Redlands, CA 92374

Attention: Mr. Jason adelaars



Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
06/17/2008

TestAmerica Laboratories, Inc.

TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

**Job Narrative
720-J14686-1**

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 36702 were outside control limits. The associated laboratory control standard (LCS) met acceptance criteria.

No other 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.

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-14686-1	MW-1				
Diesel Range Organics [C10-C28]		64	50	ug/L	8015B
720-14686-2	MW-2				
Gasoline Range Organics (GRO)-C5-C12		400	50	ug/L	8260B
n-Butylbenzene		1.4	1.0	ug/L	8260B
sec-Butylbenzene		1.7	1.0	ug/L	8260B
Isopropylbenzene		0.91	0.50	ug/L	8260B
Diesel Range Organics [C10-C28]		230	50	ug/L	8015B

METHOD SUMMARY

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS (Low Level)	TAL SF	SW846 8260B	
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260B	
Purge-and-Trap	TAL SF		SW846 5030B
Purge-and-Trap	TAL SF		SW846 5030B
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL SF	SW846 8015B	
Separatory Funnel Liquid-Liquid Extraction	TAL SF		SW846 3510C

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

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

METHOD / ANALYST SUMMARY

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Method	Analyst	Analyst ID
SW846 8260B	Ali, Badri	BA
SW846 8260B	Le, Lien	LL
SW846 8015B	Hayashi, Derek	DH

SAMPLE SUMMARY

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-14686-1	MW-1	Water	06/10/2008 1205	06/10/2008 1355
720-14686-2	MW-2	Water	06/10/2008 1130	06/10/2008 1355
720-14686-3	MW-3	Water	06/10/2008 1100	06/10/2008 1355

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-1

Lab Sample ID: 720-14686-1

Date Sampled: 06/10/2008 1205

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-36784	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200806\061308\SA-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	06/13/2008 1750			Final Weight/Volume:	40 mL
Date Prepared:	06/13/2008 1750				

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-1

Lab Sample ID: 720-14686-1

Date Sampled: 06/10/2008 1205

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-36784	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200806\061308\SA-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	06/13/2008 1750			Final Weight/Volume:	40 mL
Date Prepared:	06/13/2008 1750				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate		%Rec	Acceptance Limits
4-Bromofluorobenzene		115	74 - 131
1,2-Dichloroethane-d4 (Surr)		99	88 - 119
Toluene-d8 (Surr)		109	82 - 120

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-1

Lab Sample ID: 720-14686-1

Date Sampled: 06/10/2008 1205

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-36702	Instrument ID:	Varian 3900E
Preparation:	5030B	Lab File ID:	c:\varianws\data\200806\06	Initial Weight/Volume:	10 mL
Dilution:	1.0	Final Weight/Volume:	10 mL		
Date Analyzed:	06/12/2008 1442				
Date Prepared:	06/12/2008 1442				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Surrogate	%Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		67 - 126
Toluene-d8 (Surr)	98		78 - 112

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-2

Lab Sample ID: 720-14686-2

Date Sampled: 06/10/2008 1130

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-36784	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200806\061308\sa-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	06/13/2008 1824			Final Weight/Volume:	40 mL
Date Prepared:	06/13/2008 1824				

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	1.4		1.0
sec-Butylbenzene	1.7		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	0.91		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-2

Lab Sample ID: 720-14686-2

Date Sampled: 06/10/2008 1130

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-36784	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200806\061308\sa-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	06/13/2008 1824			Final Weight/Volume:	40 mL
Date Prepared:	06/13/2008 1824				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	119		74 - 131
1,2-Dichloroethane-d4 (Surr)	101		88 - 119
Toluene-d8 (Surr)	104		82 - 120

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-2

Lab Sample ID: 720-14686-2

Date Sampled: 06/10/2008 1130

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-36702	Instrument ID:	Varian 3900E
Preparation:	5030B			Lab File ID:	c:\varianws\data\200806\06
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	06/12/2008 1506			Final Weight/Volume:	10 mL
Date Prepared:	06/12/2008 1506				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	400		50
Surrogate	%Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		67 - 126
Toluene-d8 (Surr)	96		78 - 112

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-3

Lab Sample ID: 720-14686-3

Date Sampled: 06/10/2008 1100

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-36784	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200806\061308\sa-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	06/13/2008 1857			Final Weight/Volume:	40 mL
Date Prepared:	06/13/2008 1857				

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-3

Lab Sample ID: 720-14686-3

Date Sampled: 06/10/2008 1100

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-36784	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200806\061308\sa-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	06/13/2008 1857			Final Weight/Volume:	40 mL
Date Prepared:	06/13/2008 1857				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	118		74 - 131
1,2-Dichloroethane-d4 (Surr)	98		88 - 119
Toluene-d8 (Surr)	103		82 - 120

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-3

Lab Sample ID: 720-14686-3

Date Sampled: 06/10/2008 1100

Client Matrix: Water

Date Received: 06/10/2008 1355

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-36702	Instrument ID:	Varian 3900E
Preparation:	5030B	Lab File ID:	c:\varianws\data\200806\06		
Dilution:	1.0	Initial Weight/Volume:	10 mL		
Date Analyzed:	06/12/2008 1529	Final Weight/Volume:	10 mL		
Date Prepared:	06/12/2008 1529				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Surrogate	%Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		67 - 126
Toluene-d8 (Surr)	95		78 - 112

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-1

Lab Sample ID: 720-14686-1

Date Sampled: 06/10/2008 1205

Client Matrix: Water

Date Received: 06/10/2008 1355

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method:	8015B	Analysis Batch: 720-36766	Instrument ID: HP DRO5
Preparation:	3510C	Prep Batch: 720-36698	Lab File ID: N/A
Dilution:	1.0	Initial Weight/Volume:	250 mL
Date Analyzed:	06/13/2008 1754	Final Weight/Volume:	1 mL
Date Prepared:	06/12/2008 1229	Injection Volume:	
		Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	64		50
Surrogate p-Terphenyl	%Rec 86		Acceptance Limits 50 - 150

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-2

Lab Sample ID: 720-14686-2

Date Sampled: 06/10/2008 1130

Client Matrix: Water

Date Received: 06/10/2008 1355

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method:	8015B	Analysis Batch:	720-36766	Instrument ID:	HP DRO5
Preparation:	3510C	Prep Batch:	720-36698	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	06/13/2008 1824			Final Weight/Volume:	1 mL
Date Prepared:	06/12/2008 1229			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	230		50
Surrogate	%Rec		Acceptance Limits
p-Terphenyl	78		50 - 150

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Client Sample ID: MW-3

Lab Sample ID: 720-14686-3

Date Sampled: 06/10/2008 1100

Client Matrix: Water

Date Received: 06/10/2008 1355

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method:	8015B	Analysis Batch: 720-36766	Instrument ID: HP DRO5
Preparation:	3510C	Prep Batch: 720-36698	Lab File ID: N/A
Dilution:	1.0	Initial Weight/Volume: 250 mL	Final Weight/Volume: 1 mL
Date Analyzed:	06/13/2008 1853	Injection Volume:	
Date Prepared:	06/12/2008 1229	Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		50
Surrogate	%Rec		Acceptance Limits
p-Terphenyl	80		50 - 150

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
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Quality Control Results

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-36702					
LCS 720-36702/2	Lab Control Spike	T	Water	8260B	
LCSD 720-36702/1	Lab Control Spike Duplicate	T	Water	8260B	
MB 720-36702/3	Method Blank	T	Water	8260B	
720-14686-1	MW-1	T	Water	8260B	
720-14686-2	MW-2	T	Water	8260B	
720-14686-3	MW-3	T	Water	8260B	
Analysis Batch:720-36784					
LCS 720-36784/1	Lab Control Spike	T	Water	8260B	
LCSD 720-36784/8	Lab Control Spike Duplicate	T	Water	8260B	
MB 720-36784/2	Method Blank	T	Water	8260B	
720-14686-1	MW-1	T	Water	8260B	
720-14686-2	MW-2	T	Water	8260B	
720-14686-3	MW-3	T	Water	8260B	

Report Basis

T = Total

GC Semi VOA

Prep Batch: 720-36698					
LCS 720-36698/2-A	Lab Control Spike	T	Water	3510C	
LCSD 720-36698/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 720-36698/1-A	Method Blank	T	Water	3510C	
720-14686-1	MW-1	T	Water	3510C	
720-14686-2	MW-2	T	Water	3510C	
720-14686-3	MW-3	T	Water	3510C	
Analysis Batch:720-36766					
LCS 720-36698/2-A	Lab Control Spike	T	Water	8015B	720-36698
LCSD 720-36698/3-A	Lab Control Spike Duplicate	T	Water	8015B	720-36698
MB 720-36698/1-A	Method Blank	T	Water	8015B	720-36698
720-14686-1	MW-1	T	Water	8015B	720-36698
720-14686-2	MW-2	T	Water	8015B	720-36698
720-14686-3	MW-3	T	Water	8015B	720-36698

Report Basis

T = Total

TestAmerica San Francisco

Quality Control Results

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Method Blank - Batch: 720-36702

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-36702/3

Analysis Batch: 720-36702

Instrument ID: Varian 3900E

Client Matrix: Water

Prep Batch: N/A

Lab File ID: c:\varianws\data\200806\06

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 10 mL

Date Analyzed: 06/12/2008 0854

Final Weight/Volume: 10 mL

Date Prepared: 06/12/2008 0854

Analyte	Result	Qual	RL
Benzene	ND		0.50
Toluene	ND		0.50
Gasoline Range Organics (GRO)-C5-C12	ND		50
Surrogate	% Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		67 - 126
Toluene-d8 (Surr)	83		78 - 112

Lab Control Spike/

Lab Control Spike Duplicate Recovery Report - Batch: 720-36702

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 720-36702/2

Analysis Batch: 720-36702

Instrument ID: Varian 3900E

Client Matrix: Water

Prep Batch: N/A

Lab File ID: c:\varianws\data\200806\06

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 10 mL

Date Analyzed: 06/12/2008 0925

Final Weight/Volume: 10 mL

Date Prepared: 06/12/2008 0925

LCSD Lab Sample ID: LCSD 720-36702/1

Analysis Batch: 720-36702

Instrument ID: Varian 3900E

Client Matrix: Water

Prep Batch: N/A

Lab File ID: c:\varianws\data\200806\061

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 10 mL

Date Analyzed: 06/12/2008 0949

Final Weight/Volume: 10 mL

Date Prepared: 06/12/2008 0949

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	76	73	72 - 117	3	20		
Toluene	79	81	78 - 123	3	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	105		110		67 - 126		
Toluene-d8 (Surr)	96		95		78 - 112		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Method Blank - Batch: 720-36784

Lab Sample ID: MB 720-36784/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/13/2008 1109
Date Prepared: 06/13/2008 1109

Analysis Batch: 720-36784
Prep Batch: N/A
Units: ug/L

Method: 8260B
Preparation: 5030B

Instrument ID: Saturn 2K3
Lab File ID: d:\data\200806\061308\MB
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Method Blank - Batch: 720-36784

Lab Sample ID: MB 720-36784/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/13/2008 1109
Date Prepared: 06/13/2008 1109

Analysis Batch: 720-36784
Prep Batch: N/A
Units: ug/L

Method: 8260B Preparation: 5030B

Instrument ID: Saturn 2K3
Lab File ID: d:\data\200806\061308\MB
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	113	74 - 131	
1,2-Dichloroethane-d4 (Surr)	100	88 - 119	
Toluene-d8 (Surr)	102	82 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-36784

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID: LCS 720-36784/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/13/2008 1002
Date Prepared: 06/13/2008 1002

Analysis Batch: 720-36784
Prep Batch: N/A
Units: ug/L

Instrument ID: Saturn 2K3
Lab File ID: d:\data\200806\061308\LS-
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-36784/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/13/2008 1035
Date Prepared: 06/13/2008 1035

Analysis Batch: 720-36784
Prep Batch: N/A
Units: ug/L

Instrument ID: Saturn 2K3
Lab File ID: d:\data\200806\061308\LD-V
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Benzene	94	99	80 - 104	5	20	
Chlorobenzene	116	113	89 - 118	2	20	
1,1-Dichloroethene	95	89	75 - 116	7	20	
Toluene	97	94	80 - 112	3	20	
Trichloroethene	83	85	70 - 106	2	20	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	121		115		74 - 131	
1,2-Dichloroethane-d4 (Surr)	100		109		88 - 119	
Toluene-d8 (Surr)	100		99		82 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Method Blank - Batch: 720-36698

Method: 8015B
Preparation: 3510C

Lab Sample ID: MB 720-36698/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/13/2008 1353
Date Prepared: 06/12/2008 1229

Analysis Batch: 720-36766
Prep Batch: 720-36698
Units: ug/L

Instrument ID: HP DRO5
Lab File ID: N/A
Initial Weight/Volume: 250 mL
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		50
Surrogate	% Rec		Acceptance Limits
p-Terphenyl	71		50 - 150

Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-36698

Method: 8015B
Preparation: 3510C

LCS Lab Sample ID: LCS 720-36698/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/13/2008 1223
Date Prepared: 06/12/2008 1229

Analysis Batch: 720-36766
Prep Batch: 720-36698
Units: ug/L

Instrument ID: HP DRO5
Lab File ID: N/A
Initial Weight/Volume: 250 mL
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-36698/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/13/2008 1253
Date Prepared: 06/12/2008 1229

Analysis Batch: 720-36766
Prep Batch: 720-36698
Units: ug/L

Instrument ID: HP DRO5
Lab File ID: N/A
Initial Weight/Volume: 250 mL
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Diesel Range Organics [C10-C28]	56	52	50 - 130	7	30		
Surrogate		LCS % Rec	LCSD % Rec			Acceptance Limits	
p-Terphenyl		68	66			50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica SF

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 Anchorage, AK 99502
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TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING
 111096
 TestAmerica Laboratories, Inc.

Chain of Custody Record

720-14686

Client Contact	Project Manager: Jason Alderson	Site Contact: Mike Berndt	Date:	COC No:		
Your Company Name here <i>Shantec</i>	Tel/Fax: 451 567908	Lab Contact:	Carrier:	<input type="checkbox"/> of <input type="checkbox"/> COCs		
Address 25864-F Business Center Rd.	Analysis Turnaround Time					
City/State/Zip Redlands, CA 92374	Calendar <input checked="" type="checkbox"/> or Work Days (W)					
(xxx) xxx-xxxx 909 335 6116 Phone <input checked="" type="checkbox"/> 2240	TAT if different from Below <i>Same Day</i>					
(xxx) xxx-xxxx 904 335 xx FAX 6120	<input type="checkbox"/>	2 weeks	TPH	VOC		
Project Name: Sun Lorenzo	<input type="checkbox"/>	1 week	Hg	PCP		
Site: 1210 Behman Rd, Sun Lorenzo	<input type="checkbox"/>	2 days	Pb	PCP		
PO# 040T 29215 69	<input type="checkbox"/>	1 day	As	PCP		
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
MW-1	6/10/08	1205	GW	L	4	X X X
MW-2	↓	1130	↓	↓	↓	↓
MW-3	↓	1130	↓	↓	↓	↓
Preservation Used: 1=Acet., 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6= Other						
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Special Instructions/QC Requirements & Comments: Temp 24°C						
Relinquished by: <i>M. Berndt - Shantec</i>	Company: <i>Shantec</i>	Date/Time: <i>6/10/08 12:05</i>	Received by: <i>[Signature]</i>	Company: <i>TestAmerica</i>	Date/Time: <i>6/10/08 12:10</i>	
Relinquished by: <i>B. York</i>	Company: <i>TestAmerica</i>	Date/Time: <i>6/10/08 13:55</i>	Received by: <i>[Signature]</i>	Company: <i>TestAmerica</i>	Date/Time: <i>6/10/08 13:55</i>	
Relinquished by: <i>[Signature]</i>	Company: <i></i>	Date/Time: <i></i>	Received by: <i></i>	Company: <i></i>	Date/Time: <i></i>	

Login Sample Receipt Check List

Client: Stantec Consulting Corp.

Job Number: 720-14686-1

Login Number: 14686

List Source: TestAmerica San Francisco

Creator: Bullock, Tracy

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	