

RECEIVED

2:00 pm, Sep 30, 2008

Alameda County
Environmental Health



Stantec

**GROUNDWATER MONITORING
REPORT**

THIRD QUARTER 2008

Former Impulse Motors
1210 Bockman Road
San Lorenzo, California

Geotracker Global ID:#T06019771179

ACHCS Case: #R00002737

Stantec Project: #04OT.29215.69

Submitted to:

Olson Urban Housing, LLC
3020 Old Ranch Parkway, Suite 400
Seal Beach, California

Submitted by:

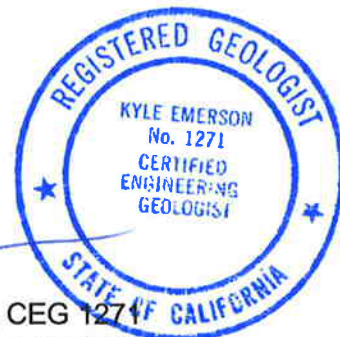
Stantec Consulting Corporation
25864-F Business Center Drive
Redlands, California

Prepared by:

Jason Adelaars
Staff Scientist

Reviewed by:

Kyle D. Emerson, CEG 1271
Managing Principal Geologist



September 26, 2008

Date: September 26, 2008

QUARTERLY GROUNDWATER MONITORING REPORT

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

WORK PERFORMED THIS QUARTER [Third - 2008]:

1. Performed Third Quarter 2008 groundwater monitoring and sampling.

WORK PROPOSED FOR NEXT QUARTER [Fourth - 2008]:

1. Submit Fourth 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	8.11 to 9.14	(Measured Feet)
Groundwater Gradient	Northwest	(Direction)
	0.004	(Magnitude)

DISCUSSION:

On September 8, 2008, Stantec personnel gauged groundwater monitoring wells at the site (Figure 2). The depth to water ranged between 8.11 feet in MW-02 to 9.14 feet in MW-03, as presented in Table 1. Groundwater elevations ranged between 11.44 feet to 11.57 feet above mean sea level (AMSL). Groundwater flows to the north by northwest at a hydraulic gradient of approximately 0.004 (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 300 µg/L. TPH in the diesel range was

measured from non detect to a peak of 170 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, Stantec 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), Stantec recommends no further assessment or remedial action.

ATTACHMENTS:

Figure 1 - Site Location Map

Figure 2 - Site Plan

Figure 3 - Groundwater Gradient Map, September 8, 2008

Table 1 - Summary of Groundwater Elevation Data

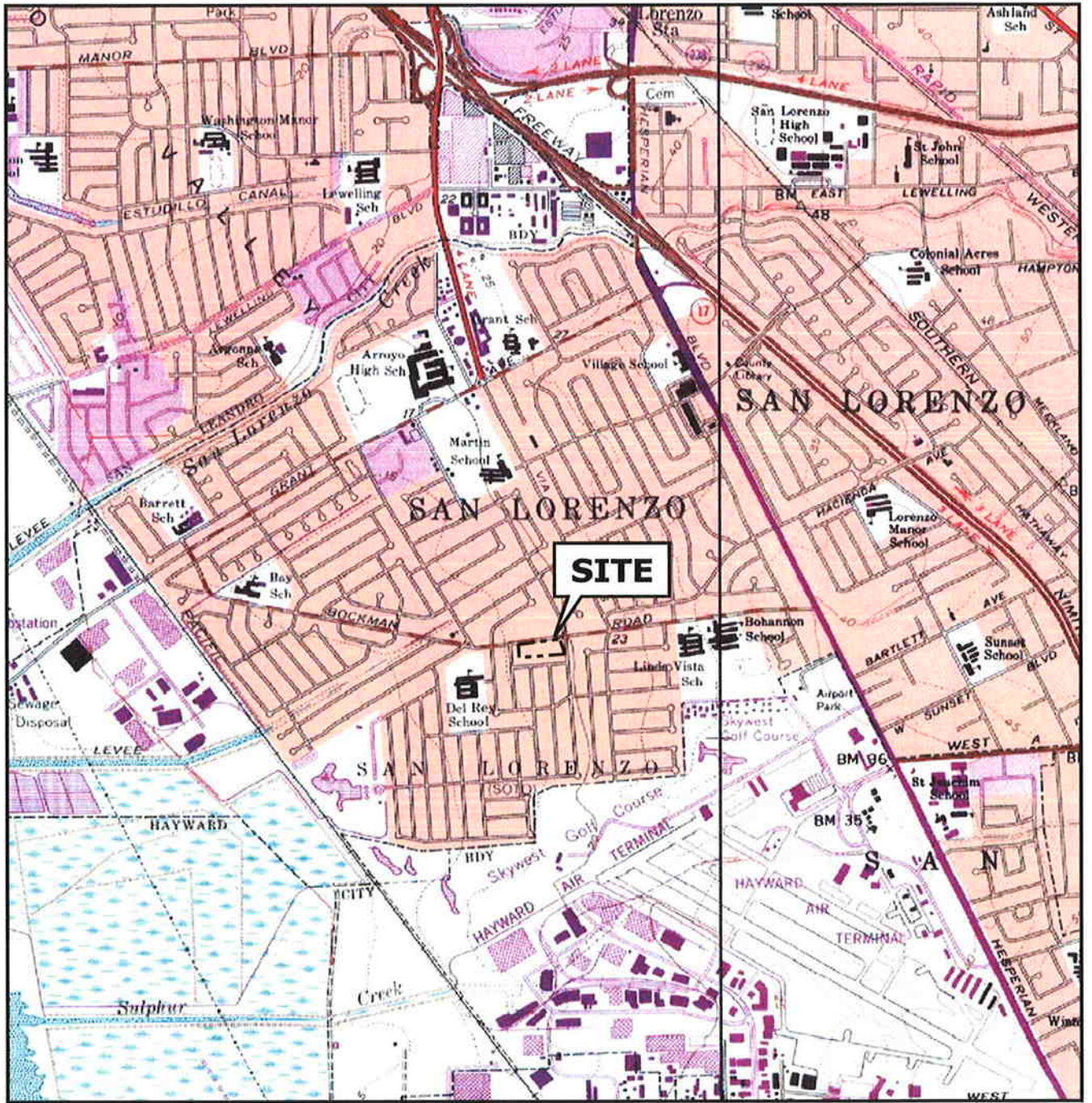
Table 2 through 4 - Summary of Groundwater Analytical Results

Standard Procedures for Groundwater Sampling

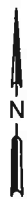
Water Sample Field Data Sheets

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

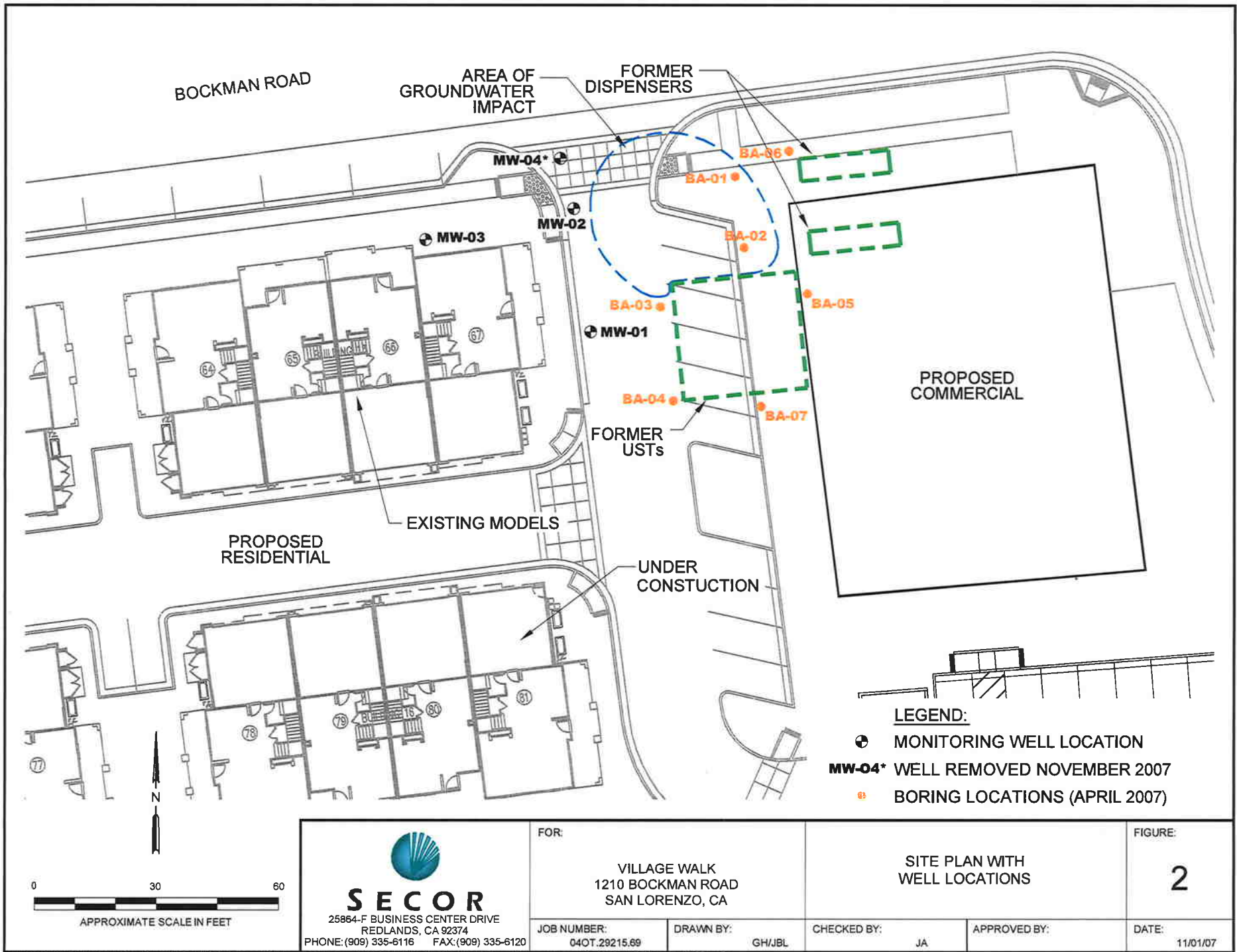


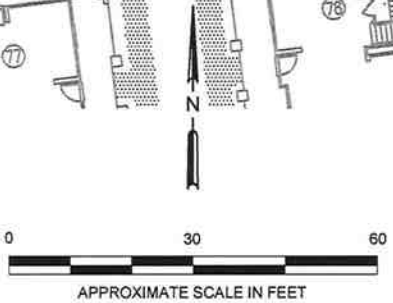
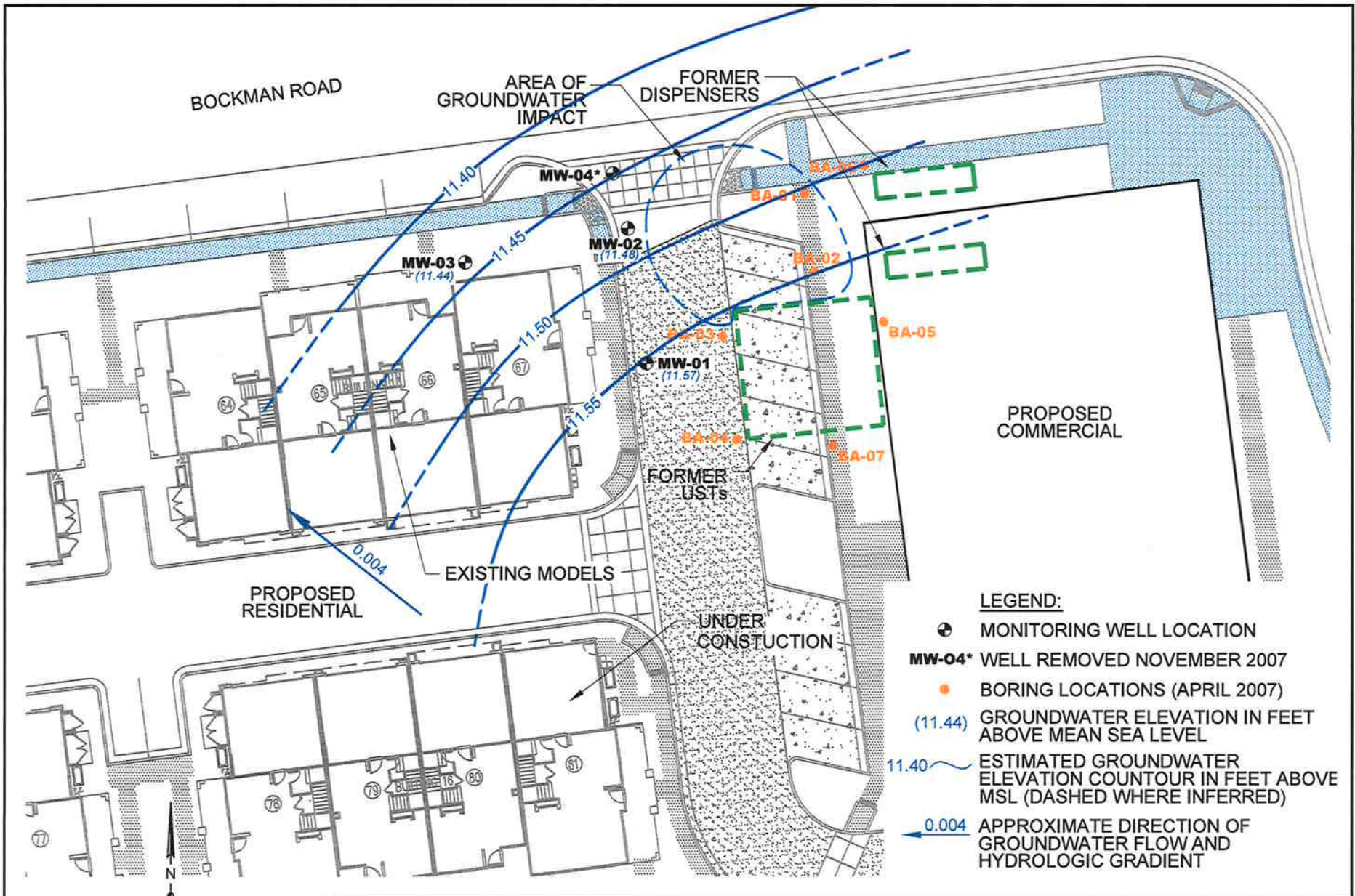
APPROXIMATE SCALE (FEET)




QUADRANGLE LOCATION

 SECOR 25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA 92374 PH: (909) 335-6116 / FAX: (909) 335-6120	PREPARED FOR: THE OLSON COMPANY		FIGURE: 1	
	1210-1366 BOCKMAN ROAD SAN LORENZO, CALIFORNIA		SITE LOCATION MAP	
JOB NUMBER: 04OT.29215.62	DRAWN BY: JMH	CHECKED BY: JH	APPROVED BY: JH	DATE: 12/2004





 SECOR 25864-F BUSINESS CENTER DRIVE REDLANDS, CA 92374 PHONE: (909) 335-6116 FAX: (909) 335-6120	FOR:		VILLAGE WALK 1210 BOCKMAN ROAD SAN LORENZO, CA		GROUNDWATER GRADIENT MAP	FIGURE: 3
	JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:		
	04OT.29215.69	GH/JBL	JA		09/22/08	

TABLES

Table 1

*Summary of Groundwater Elevation Data
Olson - San Lorenzo
1210 Bockman Road
San Lorenzo, California
Stantec 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
	9/8/2008	8.73	11.57
MW-02 19.59	3/17/2008	7.65	11.94
	6/10/2008	7.89	11.7
	9/8/2008	8.11	11.48
MW-03 20.58	3/17/2008	8.67	11.91
	6/10/2008	8.91	11.67
	9/8/2008	9.14	11.44

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 ($\mu\text{g/L}$)
Olson - San Lorenzo
1210 Bockman Road
San Lorenzo, California
Stantec Job No.: 04OT.29215.69

Sample ID	Sampling Date	TPH ⁽¹⁾ (8015) ⁽²⁾	
		C4-C12 ⁽³⁾	C12-C22 ⁽⁴⁾
RWQCB ESLs ($\mu\text{g/L}$)		100	100
MW-01-W	9/8/2008	<50	<50
MW-02-W	9/8/2008	300	170
MW-03-W	9/8/2008	<50	<50
MW-04-W ⁽⁵⁾	11/7/2007	<0.5	<0.4

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.

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 ($\mu\text{g/L}$)
 Olson - San Lorenzo
 1210 Bockman Road
 San Lorenzo, California
 Stantec 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 Dichloro ethane (DCA)	Ethyl- benzene	Toluene	Total Xylenes	n- Butylben- zene	sec- Butylben- zene	Isopropyl benzene
CA MCLs ($\mu\text{g/L}$)		13	NR	NR	NR	NR	1	NR	0.5	300	150	1750	NR	NR	NR
Federal MCLs ($\mu\text{g/L}$)		NR	NR	NR	NR	NR	5	NR	5	700	1000	10000	NR	NR	NR
RWQCB ESLs ($\mu\text{g/L}$)		5	NR	NR	NR	12	1	0.05	0.5	30	40	20	NR	NR	NR
Samples															
MW-01-W	9/80/2008	<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	9/8/2008	<1.0	<1.0	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	1.1	1.2	<0.5
MW-03-W	9/8/2008	<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 ($\mu\text{g/L}$)

(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
Stantec 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 (µg/L)		NR	NR	NR	NR	NR	NR
Federal MCLs (µg/L)		NR	NR	NR	NR	NR	NR
RWQCB ESLs (µg/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
	9/8/2008	<50	<50	<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
	9/8/2008	300	170	1.1	1.2	<1.0	<0.5
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
	9/8/2008	<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 (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.

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

STANDARD PROCEDURES FOR GROUNDWATER SAMPLING

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 in 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.

WATER SAMPLE FIELD DATA SHEETS



Stantec

Well Sampling Data Sheet

Project No. 04OT.29215.69 Well ID MW-01
 Purged By J.Adelaars Sample ID MW-01-w
 Sampled By J.Adelaars Client Olson - San Lorenzo
 Location 1210 Bockman Road, San Lorenzo, CA

Type: Groundwater Other

Casing Diameter (inches) 2 3 4 4.5 6 Other
 Gallons per Linerar Foot 0.163 0.367 0.653 0.826 1.469

Casing Elevation _____ Volume in Casing 2.64
 Depth to Water 8.73 Calculated Purge 7.9
 Elevation of Water _____ Actual Purge 9.0
 Depth of Well 12.77 Depth of Mid Screen _____
 pump head is set at _____

Date Purged 9/8/08 Start 1320 End 1335
 Date Sampled 9/8/08 Start 1340 End _____

Field QC Sample(s) Collected at this Well (i.e. FB-1, X-DUP-1, MW-X etc.) _____

Time	Volume	pH	E.C.	Temp	D.O.	ORP	Color	NTU
<u>1320</u>	<u>0.0</u>	<u>7.27</u>	<u>0.91</u>	<u>73.3</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>
<u>1325</u>	<u>2.0</u>	<u>7.19</u>	<u>0.91</u>	<u>71.1</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>
<u>1327</u>	<u>4.0</u>	<u>6.92</u>	<u>0.91</u>	<u>70.5</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>
<u>1330</u>	<u>6.0</u>	<u>6.95</u>	<u>0.91</u>	<u>70.0</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>
<u>1332</u>	<u>9.0</u>	<u>6.93</u>	<u>0.91</u>	<u>69.7</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>

Purging Equipment
 Dedicated Pump
 Grundfos/Rediflow
 Vac-Truck
 Development Rig
 Bailer/Type: Poly
 Other: _____

Sampling Equipment
 Dedicated Pump
 Grundfos/Rediflow
 Vac-Truck
 Development Rig
 Bailer/Type: Poly
 Other: _____

Well Integrity: _____

Remarks: _____

Signature [Signature] Page 1 of 1



Stantec Well Sampling Data Sheet

Project No. 04OT.29215.69 Well ID MW-02
 Purged By J.Adelaars Sample ID _____
 Sampled By J.Adelaars Client Olson - San Lorenzo
 Location 1210 Bockman Road, San Lorenzo, CA

Type: Groundwater Other _____

Casing Diameter (inches) 2 _____ 3 _____ 4 _____ 4.5 _____ 6 _____ Other _____
 Gallons per Linerar Foot 0.163 0.367 0.653 0.826 1.469

Casing Elevation _____ Volume in Casing 2.7 gallons
 Depth to Water 8.11 Calculated Purge 8.14 gallons
 Elevation of Water _____ Actual Purge 9.09
 Depth of Well 12.27 Depth of Mid Screen pump head is set at _____

Date Purged 9/8/08 Start 1350 End 1410
 Date Sampled 9/8/08 Start 1415 End _____

Field QC Sample(s) Collected at this Well (i.e. FB-1, X-DUP-1, MW-X etc.) _____

Time	Volume	pH	E.C.	Temp	D.O.	ORP	Color	NTU
<u>1350</u>	<u>0.0</u>	<u>7.70</u>	<u>0.65</u>	<u>71.2</u>	—	—	<u>LIGHT GRAY</u>	—
<u>1355</u>	<u>2.0</u>	<u>7.07</u>	<u>0.82</u>	<u>69.5</u>	—	—	<u>1111</u>	—
<u>1400</u>	<u>4.0</u>	<u>7.13</u>	<u>0.88</u>	<u>69.3</u>	—	—	<u>1111</u>	—
<u>1403</u>	<u>6.0</u>	<u>7.00</u>	<u>0.91</u>	<u>69.2</u>	—	—	<u>1111</u>	—
<u>1406</u>	<u>9.0</u>	<u>7.01</u>	<u>0.92</u>	<u>68.7</u>	—	—	<u>1111</u>	—

Purging Equipment


_____ Dedicated Pump
 _____ Grundfos/Rediflow
 _____ Vac-Truck
 _____ Development Rig
 Bailer/Type: Poly
 _____ Other: _____

Sampling Equipment

_____ Dedicated Pump
 _____ Grundfos/Rediflow
 _____ Vac-Truck
 _____ Development Rig
 Bailer/Type: Poly
 _____ Other: _____

Well Integrity: GOOD, NO CAP. LEFT GLOVE IN PLACE.

Remarks: SLIGHT HC ODOR

Signature  Page 1 of 1



Stantec Well Sampling Data Sheet

Project No. 04OT.29215.69 Well ID MW-03
 Purged By J.Adelaars Sample ID MW-03-W
 Sampled By J.Adelaars Client Olson - San Lorenzo
 Location 1210 Bockman Road, San Lorenzo, CA

Type: Groundwater Other

Casing Diameter (inches) 2 3 4 4.5 6 Other
 Gallons per Liner Foot 0.163 0.367 0.653 0.826 1.469

Casing Elevation _____ Volume in Casing 2.36
 Depth to Water 9.14 Calculated Purge 7.09
 Elevation of Water _____ Actual Purge 8.0
 Depth of Well 12.76 Depth of Mid Screen _____
 pump head is set at _____

Date Purged 9/8/08 Start 1240 End 1300
 Date Sampled 9/8/08 Start 1310 End _____

Field QC Sample(s) Collected at this Well (i.e. FB-1, X-DUP-1, MW-X etc.) _____

Time	Volume	pH	E.C.	Temp	D.O.	ORP	Color	NTU
<u>1240</u>	<u>0.0</u>	<u>7.38</u>	<u>0.89</u>	<u>65.6</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>
<u>1245</u>	<u>2.0</u>	<u>6.95</u>	<u>0.89</u>	<u>65.1</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>
<u>1250</u>	<u>4.0</u>	<u>6.89</u>	<u>0.90</u>	<u>64.7</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>
<u>1255</u>	<u>6.0</u>	<u>6.98</u>	<u>0.91</u>	<u>63.8</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>
<u>1300</u>	<u>8.0</u>	<u>6.85</u>	<u>0.92</u>	<u>64.2</u>	<u>—</u>	<u>—</u>	<u>CLEAR</u>	<u>—</u>

Purging Equipment
 Dedicated Pump
 Grundfos/Rediflow
 Vac-Truck
 Development Rig
 Bailer/Type: Poly
 Other: _____

Sampling Equipment
 Dedicated Pump
 Grundfos/Rediflow
 Vac-Truck
 Development Rig
 Bailer/Type: Poly
 Other: _____

Well Integrity: GOOD

Remarks: NO DODR

Signature [Signature] Page 1 of 1

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

ANALYTICAL REPORT

Job Number: 720-15866-1

Job Description: San Loranzo

For:

Stantec Consulting Corp.
7450 Arroyo Crossing Parkway
Suite 100

Las Vegas, NV 89113

Attention: Mr. Jason adelaars



Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
09/15/2008

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Corp.

Job Number: 720-15866-1

Lab Sample ID	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-15866-2	MW-02-W				
n-Butylbenzene		1.1	1.0	ug/L	8260B
sec-Butylbenzene		1.2	1.0	ug/L	8260B
Gasoline Range Organics (GRO)-C5-C12		300	50	ug/L	8260B/CA_LUFTMS
Diesel Range Organics [C10-C28]		170	50	ug/L	8015B

METHOD SUMMARY

Client: Stantec Consulting Corp.

Job Number: 720-15866-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS (Low Level)	TAL SF	SW846 8260B	
Purge-and-Trap	TAL SF		SW846 5030B
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260B/CA_LUFTMS	
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: 720-15866-1

Method	Analyst	Analyst ID
SW846 8260B	Chen, Amy	AC
SW846 8260B/CA_LUFTMS	Ali, Badri	BA
SW846 8260B/CA_LUFTMS	Allen, Coretta	CA
SW846 8015B	Hayashi, Derek	DH

SAMPLE SUMMARY

Client: Stantec Consulting Corp.

Job Number: 720-15866-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-15866-1	MW-01-W	Water	09/08/2008 1340	09/08/2008 1520
720-15866-2	MW-02-W	Water	09/08/2008 1415	09/08/2008 1520
720-15866-3	MW-03-W	Water	09/08/2008 1310	09/08/2008 1520

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-15866-1

Client Sample ID: MW-01-W

Lab Sample ID: 720-15866-1

Date Sampled: 09/08/2008 1340

Client Matrix: Water

Date Received: 09/08/2008 1520

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

Method:	8260B	Analysis Batch: 720-41068	Instrument ID: Varian 3900F
Preparation:	5030B		Lab File ID: c:\saturnws\data\200809\09
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	09/10/2008 1149		Final Weight/Volume: 40 mL
Date Prepared:	09/10/2008 1149		

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-Dichloropropane	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: 720-15866-1

Client Sample ID: MW-01-W

Lab Sample ID: 720-15866-1

Date Sampled: 09/08/2008 1340

Client Matrix: Water

Date Received: 09/08/2008 1520

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

Method:	8260B	Analysis Batch: 720-41068	Instrument ID: Varian 3900F
Preparation:	5030B		Lab File ID: c:\saturnws\data\200809\09
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	09/10/2008 1149		Final Weight/Volume: 40 mL
Date Prepared:	09/10/2008 1149		

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	101		74 - 131
1,2-Dichloroethane-d4 (Surr)	104		88 - 119
Toluene-d8 (Surr)	105		82 - 120

Analytical Data

Client: Stantec Consulting Corp.

Job Number: 720-15866-1

Client Sample ID: MW-02-W

Lab Sample ID: 720-15866-2

Date Sampled: 09/08/2008 1415

Client Matrix: Water

Date Received: 09/08/2008 1520

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

Method: 8260B	Analysis Batch: 720-41068	Instrument ID: Varian 3900F	
Preparation: 5030B		Lab File ID: c:\saturnws\data\200809\09	
Dilution: 1.0		Initial Weight/Volume: 40 mL	
Date Analyzed: 09/10/2008 1544		Final Weight/Volume: 40 mL	
Date Prepared: 09/10/2008 1544			

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	1.1		1.0
sec-Butylbenzene	1.2		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: 720-15866-1

Client Sample ID: MW-02-W

Lab Sample ID: 720-15866-2

Date Sampled: 09/08/2008 1415

Client Matrix: Water

Date Received: 09/08/2008 1520

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

Method:	8260B	Analysis Batch: 720-41068	Instrument ID: Varian 3900F
Preparation:	5030B		Lab File ID: c:\saturnws\data\200809\09
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	09/10/2008 1544		Final Weight/Volume: 40 mL
Date Prepared:	09/10/2008 1544		

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	101	74 - 131
1,2-Dichloroethane-d4 (Surr)	101	88 - 119
Toluene-d8 (Surr)	101	82 - 120