TERRA ASSOCIATES, Inc.
Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

July 17, 2008
Project No. T-6227-1

Mr. Dave Startzel
Trammell Crow Company
701 Pike Street, Suite 2100
Seattle, Washington 98101

DRAFT

Subject: Limited Phase II Environmental Site Assessment
SRO Site
SEC NE 8th Street and 106th Avenue NE
Bellevue, Washington

Dear Mr. Startzel:

In accordance with your request, Terra Associates, Inc. has completed a Limited Phase II Environmental Assessment of the subject site.

We have completed a Draft Phase I ESA of the site. One on-site historic recognized environmental condition (HREC) was identified. This HREC is the former presence of a retail gasoline station on-site. The former operator of the gasoline station has performed a site cleanup and has received concurrence from Ecology that the cleanup was adequate. Subsequent to the cleanup, cleanup levels for gasoline have been lowered for some gasoline constituents such as benzene. It is possible that local pockets of soils above the current cleanup level exist on-site.

The off-site REC consists of a documented release of perchloroethylene (PCE) on the site immediately north of the site across NE 8th Street. The actual extent of the PCE impacts to the groundwater in the area has not been documented by the owners of the adjacent parcel north of the site.

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The purpose of our work was to screen the site for impacts from the former operation of a gasoline station on-site and to evaluate the groundwater for the possible presence of tetrachloroethylene (perc, PCE) released from the former dry cleaner north of the site.

The results of the analytical testing indicate that there are impacts to the shallow perched groundwater on-site with dry cleaning fluid (tetrachloroethylene, PCE). Additional site sampling is needed to verify the distribution and concentration of the PCE in the site groundwater. There may also be low levels of PCE contamination in some site soils that will need to be addressed during site excavation.

SCOPE OF WORK

Our scope of work for the current work consisted of:

- Field screening and sampling of soils for the boring on the location of the former Unocal Site.
- Sampling each of the monitoring wells to obtain samples for analysis for volatile organic compounds and petroleum hydrocarbons.
- Prepare a written report summarizing the results of our site observations, results of analytical testing, and our analysis of the data.

SITE CONDITIONS

Surface

The site consists of 3 tax parcels totaling 1.6 acres located at the southeast quadrant of the intersection of NE 8th Street and 106th Avenue NE in Bellevue, Washington. The location of the site is shown on the Vicinity Map, Figure 1. Figure 2 is a site plan that shows the site layout and boring locations.

The site consists of three individual tax parcels that in total cover approximately 1.4 acres in Bellevue, Washington. There are commercial buildings on the two eastern parcels. The site use is primarily retail, service, and restaurants. The western parcel, at the corner of NE 8th Street and 106th Avenue NE is a vacant lot. This vacant lot was formerly occupied by a gasoline station.

The 3 parcels slope down towards the west with overall relief of approximately 15 feet.

Subsurface Soils

For our concurrent Geotechnical Study, 3 borings were advanced on the site to depths of about 100 feet below existing grades. We observed that the site is immediately underlain by fill or disturbed site soils. Beneath the disturbed soils, all of our borings encountered very dense glacially consolidated soils. The thickness of the upper fill layer ranged from three feet in Boring B-1 to six feet in Boring B-2. The fill consists of silty sand with gravel. Beneath the fill, we observed dense to very dense silty sand with gravel (till). The till extended to depths of approximately 35 to 38 feet below existing surface grades.

Below the till, we observed gravel with silt and sand to clean gravel and sand (Advance outwash) extending to depths of 76 to 90 feet below existing grades. Below the Advance outwash, the borings encountered and were terminated within very dense silty sand to hard silts. These lower soils may represent the transitional beds.

Groundwater

Each boring was provided with a 2-inch diameter monitoring well. Groundwater was found in each of the monitoring wells built on-site. The depths to the static water levels are shown below in Table 1. The groundwater in Borings B-1, B-2, and B-4 is a regional water table aquifer that is found in the advance sands. The groundwater that is present in the monitoring well built in B-3 is a local perched groundwater table. The perched groundwater is discontinuous.

Table 1
Groundwater Summary

Boring/Well Number	Total Drilled Depth/Total Casing Depth Below Existing Grade (feet)	Screen Interval (feet below existing grade)	Static Water Depth below top of PVC	
			6/26/08	7/7/08
B-1	101.5/101.5	70 to 90	97.05	88.87
B-2	101.5/101	70 to 90	74.30	74.62
B-3	30/30	20 to 30	23.89	23.93
B-4	101.5/90	70 to 90	74.75	74.77

FIELD SAMPLING

Soils

Our soil sampling was done in Boring B-2 drilled on the parcel that was formerly occupied by a Unocal gasoline station. The purpose of the soil sampling was to expand site characterization performed by two previous property owners.

Representative samples were placed into laboratory provided glassware. Field sampling for volatile organics was performed in accordance with EPA Method 5035A. All samples were refrigerated pending delivery to OnSite Environmental Inc. in Redmond, Washington. We followed chain of custody protocols for all samples.

A sub sample of each sample was retained for field screening using the head space and sheen techniques. The results of the field screening indicated that none of the samples had volatile organic vapors above background levels. The PID used for the headspace screening has a sensitivity that starts at approximately one part per million. No sheens were observed during the sheen screening.

Groundwater

Prior to sampling, each well was developed by surging the screen and removing at least three casing volumes using a dedicated disposable bailer. The wells were developed at least three days prior to sampling to allow the groundwater to stabilize. Sampling was done using low flow purging with a stainless steel submersible pump. At least three casing volumes were removed prior to taking the water sample.

Groundwater samples were placed into laboratory provided glassware. All samples were refrigerated pending delivery to OnSite Environmental Inc. in Redmond, Washington. We followed chain of custody protocols for all samples.

ANALYTICAL TESTING

Soils

At the laboratory, selected samples from Boring B-2 were tested for total petroleum hydrocarbons (TPH) in the gasoline, diesel, and oil range. The laboratory reports are attached to this letter. The following table summarizes the results of the analysis on soil samples. Field screening of soil samples did not encounter any elevated head space readings or sheens. Soil samples were chosen to represent both shallow soils where surface spills may have occurred as well as deeper soils where leaks from former USTs may be present. Table 2 summarizes the TPH analysis done on the selected soil samples.

Table 2
Petroleum Hydrocarbons
Soil

Exploration Number	Depth (feet)	TPH Gasoli9ne Range	TPH Diesel Range	TPH Oil Range
B-2	5	22U	56U	110U
	15	22U	55U	110U
	25	22U	54U	110U
MTCA		30	2,000	2,000

Notes: All units are parts per million (ppm).
U indicates that the analyte was not present at the stated numerical practical quantitation limit (PQL).
PQL varies with the soil moisture content.
MTCA cleanup values are based on the presence of benzene, a conservative assumption.
MTCA values shown are for residential properties.

Groundwater

Groundwater samples were taken from each of the wells built for this study. The exception to this was MW-1, which did not produce groundwater in sufficient quantities to provide representative samples. Groundwater samples were analyzed for petroleum hydrocarbons due to the former presence of a gasoline station on-site and for chlorinated solvents such as tetrachloroethylene (perc, PCE), a common dry cleaner solvent, due to the documented release of PCE north of the site. The results of the groundwater analysis are summarized in Tables 3 and 4 below.

Table 3
Petroleum Hydrocarbons
Groundwater

Boring / Well Number	Sample Date	TPH Gasoline Range	TPH Diesel Range	TPH Oil Range
MW-2	7/7/08	100U	250U	500U
MW-3	7/7/08	100U	250U	500U
MW-4	7/7/08	100U	250U	500U
MTCA		800	500	500

Notes: All units are parts per billion (ppb).
U indicates that the analyte was not present at the stated numerical practical quantitation limit (PQL).
MTCA cleanup values are based on the presence of benzene, a conservative assumption.
MTCA values shown are for residential properties.

For Table 4, only the constituents commonly associated with gasoline, common solvents, and volatile organic compounds present above their respective practical quantitation limits (PQLs) have been listed. The PQLs are protective of human health. The actual test includes a total of 68 compounds.

Table 4
Volatile Organic Compounds
Groundwater

Boring / Well Number	Sample Date	Benzene	Ethyl benzene	Toluene	M, p xylene	O xylene
MW-2	7/7/08	0.2U	0.2U	1.0U	0.4U	0.2U
MW-3	7/7/08	0.4U	0.4U	2.0U	0.8U	0.4U
MW-4	7/7/08	0.2U	0.2U	1.0U	0.4U	0.2U
MW-5	7/7/08	0.4U	0.4U	2.0U	0.8U	0.4U
MTCA		5.0	700	1,000	1,000	

Table 4
continued
Volatile Organic Compounds
Groundwater

Boring / Well Number	Sample Date	Acetone	2-Butanone (MEK)	Trichloroethylene	Tetrachloroethene	1,1,1 Trichloroethane
MW-2	7/7/08	5.0U	5.0U	0.2U	0.2U	0.2U
MW-3	7/7/08	10U	10U	0.42	80	0.4U
MW-4	7/7/08	5.0U	5.0U	0.2U	0.2U	0.2U
MW-5	7/7/08	10U	10U	0.42	79	0.4U
MTCA		800	4,800	5.0	5.0	200

Notes: All units are parts per m\billion (ppb).
U indicates that the analyte was not present at the stated numerical practical quantitation limit (PQL).
Cleanup values are Method A, cleanup values shown in italics are Method B levels.
This table is a summary of volatile compounds; please refer to the laboratory report for a full listing of volatile organic compounds.
Sample MW-5 is a field replicate of Sample MW-3.

As can be seen in the tabulated data, PCE is present well above current cleanup levels in the monitoring well built in B-3 (MW-3). No gasoline constituents, petroleum hydrocarbons, or solvents commonly associated with service stations were present in any of the groundwater samples from the site. The cleanup values used for this report are for unrestricted land use including residential land uses.

The assumed source of the PCE is the former drycleaner located immediately north, across NE 8th Street from the site.

PRELIMINARY MITIGATION DISCUSSION

Groundwater

The proposed excavation for the new building on-site will intercept the groundwater with the elevated PCE. The permeability of the near-surface soils is expected to be relatively low. If the perched groundwater with the elevated PCE is migrating through high permeability corridors such as utility trenches, it may be possible to cut off or significantly reduce the quantity of impacted groundwater that would enter the proposed excavation. Groundwater that enters the excavation and/or groundwater that is collected in permanent basement wall drains with elevated PCE will need to be treated prior to discharge. One concern that needs to be addressed is the possible routing of PCE contaminated groundwater from the upper perched groundwater into the lower apparently un-impacted aquifer within the advance sands.

There will be some logistical challenges to collecting groundwater seepage from along the top of the basement wall to reduce or minimize the potential for routing the PCE into the deeper aquifer. One approach we are considering at this time is to install a vacuum collections system along a portion of the upper 30 feet of the cut near the northwest corner of the site. The vacuum system could be installed as part of the temporary dewatering during soil nail and shotcrete placement. The vacuum system could then be left in place for long-term shallow seepage control. The collected water could then be routed through a small water sparging system for final treatment prior to discharge to surface water. This would require an NPDES permit and ongoing monitoring. The length of time the system would need to be operated may be on the order of 10 to 20 years. If construction proceeds on the site that is the presumed source of the PCE, the source will be remediated and the time that seepage would need special treatment could be shortened. The initial purchase cost of the water treatment system could be on the order of $20,000 to $35,000. The monitoring costs could be on the order of $3,000 to $5,000 per year for permit management. The cost of water disposal following treatment should be the same as if the water did not need treatment.

Additional monitoring wells will be needed to verify the extent of the groundwater impacts on-site and the length of the excavation wall that may require special dewatering considerations.

Soils

With a groundwater level of PCE at 80 parts per billion, soil that has been saturated with the groundwater will likely require special handling during excavation and disposal. We anticipate that the soils can be routed into the municipal waste stream at a bulk tipping cost of about $35 to $45 per ton; however, there will be additional on-site management and handling costs in addition to the tipping fee. These costs do not include trucking since the export of general soils from the excavation will require trucking costs in any case. The disposal site would likely be the railroad reload facility south of the sports stadiums in Seattle.

Additional borings would need to be performed to verify the presence and probable extent of the PCE on-site that may require special handling. This is in addition to soils that may have incidental odors of hydrocarbons that may require special handling due to the sensitivity of disposal sites.

Vapor Intrusion Issues

Provided the subsurface elements of the building that are proximate to the PCE impacts are all ventilated garage space, no special mitigation for vapor intrusion issues should be needed. The levels of PCE that could enter the building through basement walls could be managed with the exhaust system that manages automotive fumes and exhaust. In the event there is a slab-on-grade above soils with PCE issues that will be finished space, mitigation can be built in through the use of sub slab vapor collection systems and passive or active venting to the atmosphere.

Additional Exploration Costs

To advance three more monitoring wells and three additional shallow soil borings in the upper till soils will cost about $25,000 to $28,000. There may be a need for extra management of the exploration derived waste due to the possible presence of PCE in the soils and groundwater. The costs for disposal are incorporated into these costs.

CLOSURE

We conducted limited testing for this report to screen the site for wide spread contamination. There may be local areas of soil contamination that are above current cleanup levels. There may also be soils with hydrocarbon like odors that have hydrocarbons below current cleanup levels. The findings, conclusions, and recommendations presented in this report are based on our documented site observations, the results of field screening, and laboratory analysis of selected soil samples. Other information related to past site uses or current site conditions may exist. Additional monitoring wells will be needed to evaluate the extent of PCE in the shallow perched groundwater on-site.

If the existing site uses change, or if further information on the site becomes available, Terra Associates, Inc. should review the information, as it may affect our conclusions. Costs discussed in this letter are current costs.

We prepared our conclusions and recommendations in accordance with generally accepted professional engineering practices. We make no other warranty, either expressed, or implied. This report is the copyrighted property of Terra Associates, Inc. and is intended for specific application to the SRQ Site. This report is for the exclusive use of the Trammel Crow Company and its authorized representatives.

Mr. Dave Stantzel
July 17, 2008

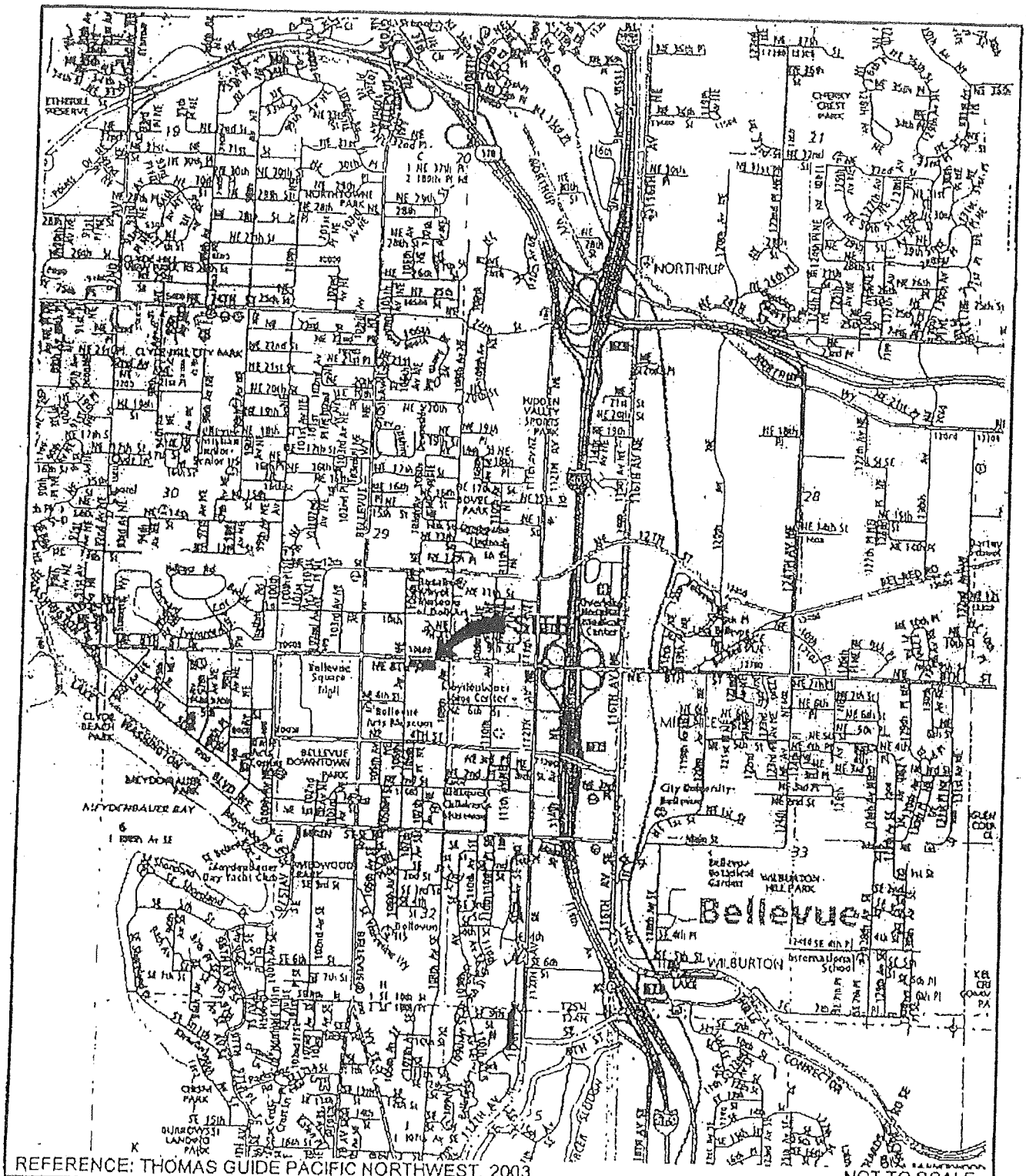
We appreciate the opportunity to work with you on this project. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.

DRAFT

Charles R. Lie, L.H.G.
Project Manager

Encl: Figure 1 – Vicinity Map
Figure 2 – Exploration Location Plan
Figures 3 through 8 – Boring Logs
Laboratory Analytical Reports
Field Data Sheets



REFERENCE: THOMAS GUIDE PACIFIC NORTHWEST, 2003

NOT TO SCALE

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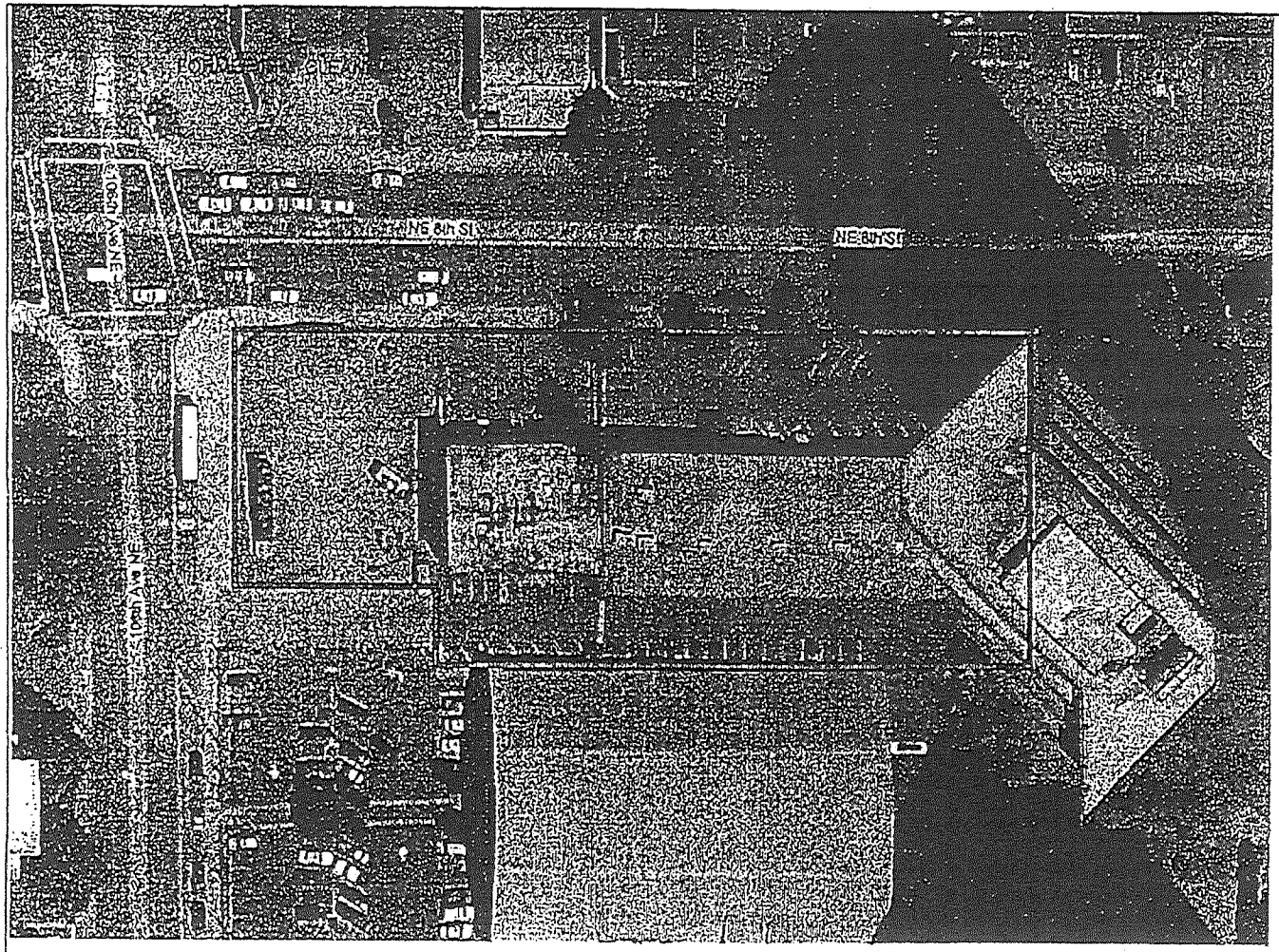
Consultants in Geotechnical Engineering
Geology and
Environmental Earth Sciences

VICINITY MAP
SRO PROPERTY
BELLEVUE, WASHINGTON

Proj. No. T-6227-1	Date JULY 2008	Figure 1



NOTES:
1. THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

REFERENCE:
SITE PLAN PROVIDED BY GOOGLE EARTH

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EXPLORATION LOCATION PLAN
SRO PROPERTY
BELLEVUE, WASHINGTON

Proj. No. T-0227-1	Date JULY 2008	Figure 2

LOG OF BORING NO. 1

Figure No. 3

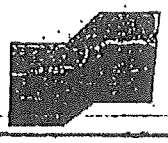
Project: SRO Property Project No: T-6227 Date Drilled: June 22, 2008

Client: Trammell Crow Company Driller: Gregory Drilling Logged By: DPL

Location: Bellevue, Washington Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	Moisture Content % Wp |-----x-----| Wl 10 30 50 70 90	Pocket Penetrometer TSF 1 2 3 4 / SPT (N) Blows/ft 10 20 30 40	Observ. Well
1–3		(4 inches ASPHALT) FILL: brown silty sand, fine grained, moist.	Medium Dense			
5				8.6	69	
9				9.6	50/5"	
15				7.5	50/5"	
17		Grayish-brown silty SAND with gravel, fine grained, moist. (SM) (Glacial Till)	Very Dense			
20				10.2	50/5"	
21		(Occasional silty sand to clean sand lenses)				
25				10.2	50/5"	
29					50/4"	
30				9.3		
34				9.3	50/4"	
39		Grayish-brown GRAVEL with silt and sand. (Advance outwash)	Very Dense		50/3"	

Note: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site.



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LOG OF BORING NO. 1

Figure No. 3

Project: SRO Property Project No: T-6227 Date Drilled: June 22, 2008

Client: Trammell Crow Company Driller: Gregory Drilling Logged By: DPL

Location: Bellevue, Washington Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	Moisture Content % Wp |----x----| Wl 10 30 50 70 90	Pocket Penetrometer TSF 1 2 3 4 / SPT (N) Blows/ft 10 20 30 40	Monitor Well
41–64		Grayish-brown to gray GRAVEL with sand and silt, occasional cobbles, fine to coarse grained, moist. (GM-GP) (Less silt with depth) (Advance outwash)	Very Dense	5.8 @ 41; 6.4 @ 44; 5.3 @ 49; 8.3 @ 54; 4.3 @ 59	50/4" @ 44; 50/5" @ 49; 50/4" @ 54; 50/3" @ 59; 50/4" @ 64	
64–78		Grayish-brown silty SAND to brown SAND with gravel, fine grained, dry to moist. (SM to SP) (Advance outwash)	Very Dense	5.8 @ 64; 2.7 @ 69; 5.6 @ 74	50/2" @ 69; 50/5" @ 74	
79–80		*Continued on Next Page.				

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LOG OF BORING NO. 1

Figure No. 3

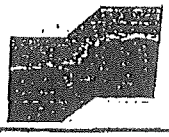
Project: SRO Property Project No: T-6227 Date Drilled: June 22, 2008

Client: Trammell Crow Company Driller: Gregory Drilling Logged By: DPL

Location: Bellevue, Washington Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	Moisture Content % Wp |----x----| Wl 10 30 50 70 90	Pocket Penetrometer TSF 1 2 3 4 / SPT (N) Blows/ft 10 20 30 40	Monitor Well
81–85		Gray silty SAND, fine grained. (SM) (Trace iron stains at 85.5 feet)	Very Dense to Dense	21.6; 24.0	74/11; 43	
89–100		Blue gray sandy SILT, wet to moist. (ML)	Very Stiff to Hard	24.3; 27.6; 25.1	31; 37; 39	
101–120		Boring terminated at 101.5 feet. No groundwater seepage observed during drilling. 2-inch PVC monitoring well constructed as shown using 0.020 factory slotted screen. Groundwater measured at 97.05 feet on June 26, 2008.				

Note: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpeted as being indicative of other areas of the site.



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LOG OF BORING NO. 2

Figure No. 4

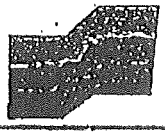
Project: SRO Property Project No: T-6227 Date Drilled: June 23, 2008

Client: Trammell Crow Company Driller: Gregory Drilling Logged By: DPL

Location: Bellevue, Washington Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	Moisture Content % Wp |----x----| Wl 10 30 50 70 90	Pocket Penetrometer Δ TSF Δ 1 2 3 4 / SPT (N) Blows/ft 10 20 30 40	Observ. Well
1-6		(3 inches ASPHALT) FILL: brown silty sand with gravel, fine grained, moist, (SM)	Medium Dense	11.6	22	
7-34		Grayish-brown silty SAND with gravel, fine grained, moist, (SM) (Glacial Till) (Occasional thin sand lenses)	Very Dense	8.2 10.3 6.1 8.3 9.2 9.9	80/11" 70 50/1" 50/5" 50/5" 50/5"	
35-40		Gray silty SAND with gravel to GRAVEL with sand. (SM-GP) (Advance outwash) *Continued on Next Page.	Very Dense		50/4"	

Note: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site.



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LOG OF BORING NO. 2

Figure No. 4

Project: SRO Property Project No: T-6227 Date Drilled: June 23, 2008

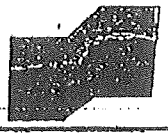
Client: Trammell Crow Company Driller: Gregory Drilling Logged By: DPL

Location: Bellevue, Washington Approx. Elev: N/A

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	Moisture Content % Wp |-----x-----| Wl 10 30 50 70 80	Pocket Penetrometer TSF 1 2 3 4 / SPT (N) Blows/ft 10 20 30 40	Monitor Well
41–60		Gray silty SAND with gravel, fine grained, moist. (SM)	Very Dense	9.6; 7.8; 22.9; 9.4; 9.1	50/5"; 50/4"; 50/2"; 50/5"	
61–80		Gray silty SAND, fine grained, moist to wet. (SM) (Advance outwash)	Very Dense	20.8; 24.3; 25.6	50/5"; 50/5"; 79; 50	

*Continued on Next Page.

Note: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site.



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APPENDIX B

BORING LOGS

Project: Sterling Realty Organization Project Location: Bellevue, Washington Project Number: 33761152	Log of Boring URS-MW-1 Sheet 1 of 1

Date(s) Drilled	8/25/08	Logged By	JW	Checked By	
Drilling Method	HSA	Drilling Contractor	Cascade Drilling	Total Depth of Borehole	30 feet bgs
Drill Rig Type		Drill Bit Size/Type	8"	Ground Surface Elevation	158.27 feet MSL
Groundwater Level	21 ft bgs	Sampling Method	Split Spoon - D&M	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Downhole Depth, feet	SAMPLES Type	SAMPLES Number	Blows/ 6in.	Recovery (%)	OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	Well Completion Schematic	REMARKS AND WELL DETAILS
	0							SM	Surface: Asphalt Brown silty SAND with gravel, pea gravel, some wood debris (slightly damp) (fill)		Time: 0732
				5 7 10	94	12.1			No odor, no stain		0733
	5			9 10 10	89	4.4			Grading some gray sand		0741
150				35 50/6"	50	9.2			Grading gray with rust brown coarse SAND (dry)		0744
	10			42 50/6"	67	5.0		SP	Gray SAND, angular gravel (dry) (no odor, no stain)		0753
				41 50/6"	100	5.8			Grading coarse gravel/cobble pieces		0757
	15		MW-1-15	36 50/6"	100	6.1		SM	Light gray brown silty SAND with some gravel, mixed pea gravel (damp) (no odor, no stain) (fill)		0800
140				42 50/6"	83	3.0					0808
	20			31 42 50	83	5.4			Grading wet 21 ft ▼		0811
				43 50/6"	83	2.6			Grading silty SAND with gravel, rounded gravel/cobble to 1" diameter (dense) (wet) (no odor)		0816
	25			50/6"	100	3.2					0820
130			MW-1-27.5	50/6"	100	8.4					0822
	30								Boring was completed to 30' bgs. Groundwater was encountered at 21' bgs. Monitoring well installed on 8/25/08 as follows: Screen: 20-slot 2" Sch 40 PVC 20'-30' bgs Riser: 0'-20' bgs Sand pack: 2/12 sand 18'-30' bgs Bentonite chips: 2'-18' bgs Surface completion: 6" flush mount set in concrete		0824
	35										

ENV2 WITH WELL T:\ONEWORLD\33761152.SRO.PROPERTY\33761152.GPJ URSSEA3B.GLB URSSEA3.GDT 9/17/08

URS

Project: Sterling Realty Organization Project Location: Bellevue, Washington Project Number: 33761152	Log of Boring URS-MW-3 Sheet 1 of 1

Date(s) Drilled	8/26/08	Logged By	JW	Checked By	
Drilling Method	HSA	Drilling Contractor	Cascade Drilling	Total Depth of Borehole	30 feet bgs
Drill Rig Type		Drill Bit Size/Type	8"	Ground Surface Elevation	154.30 feet MSL
Groundwater Level	~27 ft bgs	Sampling Method	Split Spoon - D&M	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Downhole Depth, feet	SAMPLES Type	SAMPLES Number	Blows/ 6in.	Recovery (%)	OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	Well Completion Schematic	REMARKS AND WELL DETAILS
	0							SM	Surface: Asphalt and gravel Brown silty SAND with organics (dry) (no odor) (fill)		Time: 0906
150				3 3 4	67	3.6					0908
	5			4 16 23	67	7.7			Grading decreasing organics		0913
				16 21 25	83	17.9		SP	Light gray-brown medium to coarse SAND with some gravel (dense) (dry) (no odor) (till)		0915
	10			41 50/6"	100	10.9					0919
				25 41 50/6"	75	1.6		SM	Light gray-brown silty SAND (dense) (dry) (no odor)		0926
140											
	15			26 30 32	83	3.6		SP	Light gray-brown gravelly SAND interbedded with some silt (dense) (dry) (no odor)		0930
			MW-3-17.5	34 41 50/6"	100	6.6		SM	Light gray-brown silty SAND with some gravel (dense) (dry) (no odor)		0932
	20			32 41 50/6"	100	2.6		SP	Medium gray-brown gravelly SAND with pea gravel (damp) (no odor)		0937
				37 41 50/6"	100	1.1			Grading coarser sand		1008
130											
	25			41 41 50/6"	100	0.5		SM	Medium gray-brown silty SAND with interbedded silt (damp) (no odor)		1012
									27 ft ▽		
			MW-3-27.5	28 37 40	100	0.3			Grading wet, dense		1016
	30			30 43 40	100	1.4			Boring was completed to 30' bgs. Groundwater was encountered at 27' bgs. Monitoring well installed on 8/26/08 as follows: Screen: 20-slot 2" Sch 40 PVC 20'-30' bgs Riser: 0'-20' bgs Sand pack: 2/12 sand 18'-30' bgs Bentonite chips: 2'-18' bgs Surface completion: 6" flush mount set in concrete		1021
120											
	35										

ENV2 WITH WELL T IONEWORLD\33761152 SRO PROPERTY\33761152.GPJ URSSEA3B.GLB URSSEA3.GDT 9/17/08

URS

Project: Sterling Realty Organization Project Location: Bellevue, Washington Project Number: 33761152	Log of Boring URS-MW-4 Sheet 1 of 1

Date(s) Drilled	8/26/08	Logged By	JW	Checked By	
Drilling Method	HSA	Drilling Contractor	Cascade Drilling	Total Depth of Borehole	30 feet bgs
Drill Rig Type		Drill Bit Size/Type	8"	Ground Surface Elevation	153.41 feet MSL
Groundwater Level	~27 ft bgs	Sampling Method	Split Spoon - D&M	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Downhole Depth, feet	SAMPLES Type	SAMPLES Number	Blows/ 6in.	Recovery (%)	OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	Well Completion Schematic	REMARKS AND WELL DETAILS
	0								Surface: Asphalt Potholed to 6'		Time: 0715
150	5							SP/ SM	Light grayish-brown silty SAND/gravelly SAND with pea gravel (dense) (dry) (no odor) (fill)		0720
	10			36 50/6"	100	1.5		SM	Light grayish brown silty SAND with fine gravel (dense) (dry) (no odor)		0723
140			MW-4-12.5	41 50/6"	67	3.7			Grading decreasing fines		0726
	15			34 50/6"	83	2.8					0731
				32 50/6"	100	3.4			Grading mostly fine SAND, less gravel (dense) (damp)		0734
	20			37 50/6"	100	4.6		SP	Light gray-brown fine SAND (dense) (damp) (no odor)		0737
130				38 50/6"	100	5.5			Grading medium to fine SAND (damp)		0740
	25			39 50/6"	100	4.7					0742
				36 50/6"	100	2.2			27 ft ▽ Grading wet		0744
	30			41 50/6"	100	4.1			Boring was completed to 30' bgs. Groundwater was encountered at 27' bgs. Monitoring well installed on 8/26/08 as follows: Screen: 20-slot 2" Sch 40 PVC 20'-30' bgs Riser: 0'-20' bgs Sand pack: 2/12 sand 18'-30' bgs Bentonite chips: 2'-18' bgs Surface completion: 6" flush mount set in concrete		0747
120	35										

ENV2 WITH WELL T:\ONEWORLD\33761152 SRO PROPERTY\33761152.GPJ URSSEA3B.GLB URSSEA3.GDT 9/17/08

URS

Project: Sterling Realty Organization Project Location: Bellevue, Washington Project Number: 33761152	Log of Boring URS-MW-4 Sheet 1 of 1

Date(s) Drilled	8/26/08	Logged By	JW	Checked By	
Drilling Method	HSA	Drilling Contractor	Cascade Drilling	Total Depth of Borehole	30 feet bgs
Drill Rig Type		Drill Bit Size/Type	8"	Ground Surface Elevation	153.41 feet MSL
Groundwater Level	~27 ft bgs	Sampling Method	Split Spoon - D&M	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Downhole Depth, feet	SAMPLES Type	SAMPLES Number	Blows/ 6in.	Recovery (%)	OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	Well Completion Schematic	REMARKS AND WELL DETAILS
	0								Surface: Asphalt Potholed to 6'		Time: 0715
150	5							SP/ SM	Light grayish-brown silty SAND/gravelly SAND with pea gravel (dense) (dry) (no odor) (fill)		
				36 50/6"	100	1.5					0720
	10			37 50/6"	100	1.9		SM	Light grayish brown silty SAND with fine gravel (dense) (dry) (no odor)		0723
140			MW-4-12.5	41 50/6"	67	3.7			Grading decreasing fines		0726
	15			34 50/6"	83	2.8					0731
				32 50/6"	100	3.4			Grading mostly fine SAND, less gravel (dense) (damp)		0734
	20			37 50/6"	100	4.6		SP	Light gray-brown fine SAND (dense) (damp) (no odor)		0737
130				38 50/6"	100	5.5			Grading medium to fine SAND (damp)		0740
	25			39 50/6"	100	4.7					0742
									27 ft ▽		
				36 50/6"	100	2.2			Grading wet		0744
	30			41 50/6"	100	4.1			Boring was completed to 30' bgs. Groundwater was encountered at 27' bgs. Monitoring well installed on 8/26/08 as follows: Screen: 20-slot 2" Sch 40 PVC 20'-30' bgs Riser: 0'-20' bgs Sand pack: 2/12 sand 18'-30' bgs Bentonite chips: 2'-18' bgs Surface completion: 6" flush mount set in concrete		0747
120	35										

ENV2 WITH WELL T:\ONEWORLD\33761152 SRO PROPERTY\33761152.GPJ URSSEA3B GLB URSSEA3.GDT 9/17/08

URS

Project: Sterling Realty Organization Project Location: Bellevue, Washington Project Number: 33761152	Log of Boring URS-SB-1 Sheet 1 of 2

Date(s) Drilled	8/25/08	Logged By	JW	Checked By	
Drilling Method	HSA	Drilling Contractor	Cascade Drilling	Total Depth of Borehole	75 feet bgs
Drill Rig Type		Drill Bit Size/Type	8"	Ground Surface Elevation	ft MSL
Groundwater Level (feet bgs)	35 ft and 75 ft bgs	Sampling Method	Split Spoon - D&M	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Downhole Depth, feet	SAMPLES Type	SAMPLES Number	SAMPLES Blows/ 6in.	SAMPLES Recovery (%)	SAMPLES OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0							SM	Surface: Asphalt Gray-brown silty SAND with some organics (loose) (dry) (fill)	Time: 0935
				5 4 4	89	5.2				0940
	5			8 20 28	89	2.2			Grading 6" of woody debris (denser)	0944
				23 24 25	67	2.8			Grading light gray-brown	0946
	10		SB-1-10	31 50/6"	83	4.7		SP	Light gray-brown SAND (dense) (dry)	0948
				50/6"	100	2.5		SM	Light gray brown silty SAND, cobble fragments (no odor)	0952
	15			31 50/6"	83	2.0		SP	Light gray brown medium to fine SAND (dry) (no odor)	0955
				21 28 33	100	2.1				0958
	20			32 50/6"	75	1.0				1000
				38 50/6"	100	1.5			Grading light gray brown interbedded sands, some silt (dry)	1003
	25			44 50/6"	75	1.7				1007
				44 50/6"	100	1.6			Grading damp	1009
	30		SB-1-30	42 50/6"	100	1.7			Grading increasing moisture	1011
				50/6"	100	3.0				1014
	35			50/6"	100	1.2		SP	35 ft ▼ Light brown-gray gravelly SAND with large cobble fragments (dense) (wet)	1017

Project: Sterling Realty Organization
Project Location: Bellevue, Washington
Project Number: 33761152

Log of Boring URS-SB-1

Sheet 2 of 2

Elevation, feet	Downhole Depth, feet	SAMPLES Type	SAMPLES Number	Blows/ 6in.	Recovery (%)	OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
				50/6"	100	1.8			Grading interbedded sand and gravel	1019
	40			50/6"	67	0.0		SP/ SM	Gray-brown silty SAND with fine gravel (damp) (no odor)	1023
				50/6"	100	0.4			Grading interbedded sand and cobbles (no odor)	1026
	45		SB-1-45	50/6"	100	2.6		SM	Medium gray silty SAND (dense) (dry) (no odor)	1039
				50/6"	100	3.1				1042
	50			43 50/6"	75	1.5				1045
				38 50/6"	75	2.2				1048
	55			50/6"	100	2.2			Grading silty medium to fine SAND (dense) (dry) (no odor)	1051
				50/6"	100	1.3				1054
	60			50/6"	67	0.9				1058
				50/6"	100	1.7		SP	Gray medium to fine SAND (homogenous) (dense) (damp) (no odor)	1100
	65			50/6"	100	1.3				1103
				42 50/6"	100	1.6				1106
	70			31 50/6"	100	2.5				1110
				27 35 40	100	2.9				1112
	75		SB-1-75	35 50/6"	50	2.3			Grading wet at very bottom of interval ▼	
									Boring was completed to 75' bgs. Groundwater was encountered at 35' and 75' bgs. Boring was backfilled with bentonite	1115
	80									

ENV2 W/O WELL T:\ONEWORLD\33761152 SRO PROPERTY\33761152.GPJ URSSEA3B.GLB URSSEA3.GDT 9/17/08

URS

Project: Sterling Realty Organization Project Location: Bellevue, Washington Project Number: 33761152	Log of Boring URS-SB-2 Sheet 1 of 1

Date(s) Drilled	8/25/08	Logged By	JW	Checked By	
Drilling Method	HSA	Drilling Contractor	Cascade Drilling	Total Depth of Borehole	30 feet bgs
Drill Rig Type		Drill Bit Size/Type	8"	Ground Surface Elevation	ft MSL
Groundwater Level (feet bgs)	~23 ft bgs	Sampling Method	Split Spoon - D&M	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Downhole Depth, feet	SAMPLES Type	Number	Blows/ 6in.	Recovery (%)	OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0							SP	Surface: Asphalt with gravel cover Gray and brown SAND (no odor) (fill)	Time: 1308
				5 5 4	100	48.7				1310
	5			3 3 4	100	2.9			Grading some wood debris	1314
				5 9 23	100	9.2		SM	Gray-brown silty SAND, rust colored in part (slightly damp) (no odor) (till)	1316
	10		SB-2-10	16 26 30	67	10.5			Grading homogenous, denser (dry)	1318
				18 23 27	100	4.3		SP	Light gray-brown SAND, interbedded sand with gravel (no odor)	1323
	15			23 38 23	67	1.9				1327
				43 50/6"	83	3.6			Grading interbedded gravel (damp) (no odor)	1329
	20			28 50/6"	50	2.4		SM	Brown silty SAND (damp) (no odor)	1332
				34 50/6"	100	1.3		SP	Brown SAND (wet) 23 ft ▼	1335
	25			38 50/6"	100	2.9			Grading increasing gravel	1338
			SB-2-27.5	42 50/6"	100	15.8		SM	Brown silty SAND (dense) (no odor) Grading increasing gravel	1348
	30			43 50/6"	100	2.4			Boring was completed to 30' bgs. Groundwater was encountered at 23' bgs. Boring was backfilled with bentonite.	1350
	35									

ENV2 W/O WELL T:\ONEWORLD\33761152 SRO PROPERTY\33761152.GPJ URSSEA3B.GLB URSSEA3.GDT 9/17/08

URS

Project: Sterling Realty Organization Project Location: Bellevue, Washington Project Number: 33761152	Log of Boring URS-SB-3 Sheet 1 of 1

Date(s) Drilled	8/26/08	Logged By	JW	Checked By	
Drilling Method	HSA	Drilling Contractor	Cascade Drilling	Total Depth of Borehole	30 feet bgs
Drill Rig Type		Drill Bit Size/Type	8"	Ground Surface Elevation	ft MSL
Groundwater Level (feet bgs)	~20 ft bgs	Sampling Method	Split Spoon - D&M	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Downhole Depth, feet	SAMPLES Type	SAMPLES Number	Blows/ 6in.	Recovery (%)	OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0							SP	Surface: Asphalt with gravel	Time: 1149
				6 7 9	100	0.0			Brown medium to coarse SAND with pea gravel (loose) (dry) (no odor) (fill)	1153
	5			5 7 10	83	0.0				1155
				6 9 11	100	0.0			Grading increasing gravel	1157
	10			11 12 14	100	0.2				1159
				10 12 17	100	0.1		SP	Brown fine to coarse SAND with cobble pieces to 1.5" (dry) (no odor) (till)	1201
	15			8 15 17	33	0.0		GP	Brown GRAVEL and SAND	1204
			SB-3-17.5	8 13 19	56	0.0			Grading with black staining (dry) (no odor)	1208
	20			32 50/6"	100	2.8		SM	20 ft ▼ Light gray-brown silty SAND with lenses of fines (dense) (wet) (no odor)	1211
			SB-3-22.5	29 50/6"	100	0.9		SP	Light gray brown SAND (dense) (wet) (no odor)	1214
	25			45 50/6"	100	0.0		SM	Light gray to brown silty SAND (attempt to sample groundwater)	1215
				44 50/6"	100	0.7			Grading increasing fines and cobbles (dense) (dry)	1350
	30			41 50/6"	100	0.0			Grading decreasing gravel (dense) (dry) Boring was completed to 30' bgs. Groundwater was encountered at 20' bgs. Set temporary well, groundwater sample SB-3-082708 at 7.04 am on 8/27/08. Boring was backfilled with bentonite.	1353
	35									

ENV2 WO WELL T:\ONEWORLD\33761152 SRO PROPERTY\33761152.GPJ URSSEA3B.GLB URSSEA3.GDT 9/17/08

URS

Project: Sterling Realty Organization Project Location: Bellevue, Washington Project Number: 33761152	Log of Boring URS-SB-4 Sheet 1 of 1

Date(s) Drilled	8/27/08	Logged By	JW	Checked By	
Drilling Method	HSA	Drilling Contractor	Cascade Drilling	Total Depth of Borehole	30 feet bgs
Drill Rig Type		Drill Bit Size/Type	8"	Ground Surface Elevation	ft MSL
Groundwater Level (feet bgs)	~29 ft bgs	Sampling Method	Split Spoon - D&M	Hammer Data	
Borehole Backfill		Location			

Elevation, feet / Downhole Depth, feet	SAMPLES: Type / Number	Blows/ 6in.	Recovery (%)	OVM (ppm)	Graphic Log	USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
0						SP/ SM	Surface: Asphalt	Time: 0921
		27 23 25	100	4.0			Light gray-brown medium to fine SAND with large cobble fragments (dense) (dry) (no odor)	0925
5		29 35 37	100	4.4				0929
		50/6"	100	3.0		SP	Light brown medium to fine SAND with fine gravel (very dense) (dry)	0932
10		38 50/6"	100	9.3*			Grading fine to coarse gravel	0935
		34 50/6"	100	16.1*				0937
15		38 50/6"	100	10.7*				0940
	SB-4-17.5	37 50/6"	75			SM	Light gray-brown silty SAND, stratified (dense) (dry)	0943
20		41 50/6"	100					0946
		41 50/6"	100			SP	Gray-brown SAND (dense) (slightly damp) (no odor)	0949
25		43 50/6"	33					0951
		50/6"	100				Grading increasing moisture	0954
							29 ft ▽	
30	SB-4 30	50/6"	100			SM	Silty SAND (dense) (dry at bottom of interval, wet just above)	0957
							Boring was completed to 30' bgs. Groundwater was encountered at 29' bgs. Boring was backfilled with bentonite.	* PID not zeroing out
35								

ENV2 WO WELL LOGS\33761152 SKG PROPERTY\33761152.GPJ URSSEA3B.GLB URSSEA3.GDT 9/17/08

URS

APPENDIX C

SOIL AND GROUNDWATER SAMPLING LOGS

SURFACE SAMPLING RECORD

CLIENT: SRO
JOB NO. 337611152
LOCATION: Bellevue
SAMPLED BY: J Wellmeyer
SITE NO. AND NAME: Bellevue Corner Property
DATE: 8/25/08
TIME: 800

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐
Surface Water ☐ Ground Water Seep ☐ Boring ☒
Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other _____

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐
Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐
Core Sampler ☐ Standard Split Spoon ☒ D&M Sampler ☒
Hand Auger ☐ Stainless Spoon/Trowel ☐ Other _____

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: MW-1-15
SAMPLE DEPTH: 15'
SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐
SAMPLE APPEARANCE, ODOR, ETC: lt gray brown, damp, silty sand, no odor PID=6.1

FIELD TESTS:

SAMPLE TEMP. (°C): _____ pH: _____
CONDUCTIVITY (mhos/cm): _____ PID (ppm): 6.1
OTHER: _____

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3
FIELD BLANK I.D. NO.: _____
TRIP BLANK I.D. NO.: _____
DUPLICATE SAMPLE I.D.: _____

COMMENTS: _____

SURFACE SAMPLING RECORD

CLIENT: SRO JOB NO.

LOCATION: SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/25/08 TIME: 822

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other _____

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other _____

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: MW-1-27.5 SAMPLE DEPTH: 27.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: silty sand, wet, light gray/brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): _____ pH: _____

CONDUCTIVITY (mhos/cm): _____ PID (ppm): 2.6

OTHER: _____

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND LD.: 3

FIELD BLANK LD. NO.: _____

TRIP BLANK LD. NO.: _____

DUPLICATE SAMPLE LD.: _____

COMMENTS: _____

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/25/08

TIME: 918

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-1-10 SAMPLE DEPTH: 10'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: sand, ltgray brown, dry, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): pH:

CONDUCTIVITY (mhos/cm): PID (ppm): 47

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-GX

NO. OF CONTAINERS AND LD.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: J Wellmeyer

SITE NO. AND NAME:

DATE: 8/25/08

TIME: 1011

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-1-30

SAMPLE DEPTH: 30'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: Damp silty sand, light gray brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C):

pH:

CONDUCTIVITY (mhos/cm):

PID (ppm): 1.7

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SRO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/25/08

TIME: 1039

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-1-45 SAMPLE DEPTH: 45'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: silty sand, gray, dry, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): pH:

CONDUCTIVITY (mhos/cm): PID (ppm): 2.6

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/25/08

TIME: 1115

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-1-175 SAMPLE DEPTH: 75'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: Sand, gray, wet, no odor

FIELD TESTS:

SAMPLE TEMP. (°C):

pH:

CONDUCTIVITY (mhos/cm):

PID (ppm): 2.3

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SRO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/25/08

TIME: 1318

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-2-10

SAMPLE DEPTH: 10'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: silty sand, dry, gray brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C):

pH:

CONDUCTIVITY (mhos/cm):

PID (ppm): 10.5

OTHER:

LABORATORY ANALYSIS: 8260, NWTPH-GX

NO. OF CONTAINERS AND LD.:

FIELD BLANK LD. NO.:

TRIP BLANK LD. NO.:

DUPLICATE SAMPLE LD.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SRD

JOB NO.

LOCATION:

SAMPLED BY: J Wellmeyer

SITE NO. AND NAME:

DATE: 8/25/08

TIME: 1348

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-2-27.5 SAMPLE DEPTH: 27.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: Silty sand, damp, pale brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C):

pH:

CONDUCTIVITY (mhos/cm):

PID (ppm): ~~N/A~~ 15.8

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: JWKellmeyer

SITE NO. AND NAME:

DATE: 8/26/08

TIME: 720

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other _____

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other _____

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: MW-4-12.5 SAMPLE DEPTH: 12.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: silty sand, dry, light gray brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): _____ pH: _____

CONDUCTIVITY (mhos/cm): _____ PID (ppm): 1.9

OTHER: _____

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.: _____

TRIP BLANK I.D. NO.: _____

DUPLICATE SAMPLE I.D.: _____

COMMENTS: _____

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO.
AND NAME:

DATE: 8/26/08

TIME: 747

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other _____

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other _____

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: MW-4-30

SAMPLE DEPTH: 30'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: Wet sand, light gray brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): _____ pH: _____

CONDUCTIVITY (mhos/cm): _____ PID (ppm): 4.1

OTHER: _____

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.: _____

TRIP BLANK I.D. NO.: _____

DUPLICATE SAMPLE I.D.: _____

COMMENTS: _____

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/26/08

TIME: 932

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: MW-3-17.5 SAMPLE DEPTH: 17.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: Silty sand, dry, light gray brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): pH:

CONDUCTIVITY (mhos/cm): PID (ppm): 16.16

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: JWeltmeyer

SITE NO. AND NAME:

DATE: 8/26/08

TIME: 1016

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: MW-3-27.5 SAMPLE DEPTH: 27.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: wet, silty sand, gray brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): pH:

CONDUCTIVITY (mhos/cm): PID (ppm): 0.3

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO.
AND NAME:

DATE: 8/26/08

TIME: 1208

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other _____

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other _____

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-3-17.5 SAMPLE DEPTH: 17.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: Gravel & sand, dry, black staining, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): _____ pH: _____

CONDUCTIVITY (mhos/cm): _____ PID (ppm): 0.0

OTHER: _____

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.: _____

TRIP BLANK I.D. NO.: _____

DUPLICATE SAMPLE I.D.: _____

COMMENTS: _____

SURFACE SAMPLING RECORD

CLIENT: SRO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/26/08

TIME: 1214

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-3-22.5 SAMPLE DEPTH: 22.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: Sand, light gray brown, wet, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): pH:

CONDUCTIVITY (mhos/cm): PID (ppm): 0.9

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-GX

NO. OF CONTAINERS AND I.D.:

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SRO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO.
AND NAME:

DATE: 8/27/08

TIME: 704

SAMPLE CLASSIFICATION:

Soil ☐ Water ☒

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☒

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☐

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☐ Grab ☒ Composite ☐

SAMPLE NO: SB-3-082708 SAMPLE DEPTH: ~ 30'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: no sheen, translucent, some suspended fines

FIELD TESTS:

SAMPLE TEMP. (°C): NA pH: NA

CONDUCTIVITY (mhos/cm): NA PID (ppm): 0.0

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SRC

JOB NO.

LOCATION: C

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/29/08

TIME: 750

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☐ Grab ☐ Composite ☐

SAMPLE NO: MW-2-15 SAMPLE DEPTH: 15'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: silty sand, dry, gray/brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): pH:

CONDUCTIVITY (mhos/cm): PID (ppm): 4.6

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SRD

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/27/08

TIME: 813

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: MW-2-27.5 SAMPLE DEPTH: 27.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: silty sand, wet, gray brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): pH:

CONDUCTIVITY (mhos/cm): PID (ppm): 2.3

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SRO

JOB NO.

LOCATION:

SAMPLED BY: JWellmeyer

SITE NO. AND NAME:

DATE: 8/27/08

TIME: 943

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-4-17.5 SAMPLE DEPTH: 17.5'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: silty sand, dry, light brown/gray, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): pH:

CONDUCTIVITY (mhos/cm): PID (ppm): NA

OTHER:

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.:

TRIP BLANK I.D. NO.:

DUPLICATE SAMPLE I.D.:

COMMENTS:

SURFACE SAMPLING RECORD

CLIENT: SPO

JOB NO.

LOCATION:

SAMPLED BY: JWestmeyer

SITE NO. AND NAME:

DATE: 8/27/08

TIME: 957

SAMPLE CLASSIFICATION:

Soil ☒ Water ☐

Surface Water ☐ Ground Water Seep ☐ Boring ☒

Pipe Outfall ☐ Sediment ☐ Excavation ☐ Other _____

SAMPLING METHOD:

Direct Fill Container ☐ Remote Fill ☐ Dipper Jar/Can ☐

Peristaltic Pump ☐ Positive Displacement Pump ☐ Bailer ☐

Core Sampler ☐ Standard Split Spoon ☐ D&M Sampler ☒

Hand Auger ☐ Stainless Spoon/Trowel ☐ Other _____

SAMPLE TYPE: Point ☒ Grab ☐ Composite ☐

SAMPLE NO: SB-430 SAMPLE DEPTH: 30'

SAMPLE TREATMENT: Field Filtered ☐ Preservative Added ☐

SAMPLE APPEARANCE, ODOR, ETC: silty sand, dry, gray brown, no odor

FIELD TESTS:

SAMPLE TEMP. (°C): _____ pH: _____

CONDUCTIVITY (mhos/cm): _____ PID (ppm): N/A

OTHER: _____

LABORATORY ANALYSIS: 8260B, NWTPH-Gx

NO. OF CONTAINERS AND I.D.: 3

FIELD BLANK I.D. NO.: _____

TRIP BLANK I.D. NO.: _____

DUPLICATE SAMPLE I.D.: _____

COMMENTS: _____

URS

GROUNDWATER SAMPLING DATA SHEET

Page ____ of ____

Project Information

Project Name:	SPU	Location:	Bellevue
Project/Task No.:	27661152.00002	Weather:	Sunny, 65°F
Date:	9/10/08	Samplers:	JWellmeyer

Gauging and Purging Data

Station Number:	URS-MW-3	Screen Interval:	20-30'
Station Type:		Well Diameter:	2" Annulus Dia.:
Well Condition:		Gallons per Casing Foot:	0.16gal/ft
Reference Point:	Elevation:	Gallons per Annulus Foot:	
Depth to Water:	27.36 Elevation:	One Purge Volume:	2.58 x 0.16 = 0.41 gal
Depth to Bottom:	29.94 Feet of Water: 2.58	Final Purge Volume:	3V = 1.23 gal
Depth to LNAPL:	Thickness:	Purge Method:	Peristaltic
LNAPL Description:		Water Disposal/Qty:	

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOCs 8260		3 VOAs	
TPH NWTPH-Gx			

Meter Information

	Model & Calibration Date
pH:	HORIBA 11:22
ORP:	
Conductivity:	
DO Meter:	
Turbidity:	
Temperature:	
Other:	

Sampling Data

Sample Name:	URS-MW3-091008
Sample Method:	Low flow purge
Sampling Device:	
Pump Intake Depth:	@ bottom

Field Test Kit Results:

PID:	
DO:	
Alkalinity:	
Ferrous Iron:	
Other:	

QA/QC Samples:

Duplicate:	
Replicate:	
MS/MSD:	
Blank:	
Other:	

Field Parameters

Time 24 hour	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temperature (°C)	Salinity %	ORP mV	Volume Liter-gal	Water Level (Ft BTOC)	Flow Rate (L/min)
927	6.58	64.3	1.9	9.59	16.71			0.5	27.36'	
933	6.50	55.7	1.1	9.40	15.91			0.5		
939	6.39	53.3	0.8	9.06	15.82			1.0	28.45'	
945	6.26	51.0	3.0	8.86	15.85			1.3	28.85'	

Comments

Transparent, no color, no odor, no sheen

Sample at 945 - flow rate slowing

URS

GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project Information

Project Name:	SRO	Location:	Bellevue
Project/Task No.:	23378011.52	Weather:	Sunny 65°F
Date:		Samplers:	JWellmeyer

Gauging and Purging Data

Station Number:	URS-MW-1	Screen Interval:	20-30'
Station Type:		Well Diameter:	2" Annulus Dia.:
Well Condition:		Gallons per Casing Foot:	3.58 x 0.16 = 0.57 gal
Reference Point:	TOC	Elevation:	Gallons per Annulus Foot:
Depth to Water:	26.41	Elevation:	One Purge Volume: 3.58 x 0.16 = 0.57 gal
Depth to Bottom:	29.99	Feet of Water: 3.58	Final Purge Volume: 3V = 1.72 gal
Depth to LNAPL:		Thickness:	Purge Method: Peristaltic
LNAPL Description:			Water Disposal/Qty: Drum

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOCs		3 VOA	
TPH-GX			

Meter Information

Model & Calibration Date

pH:	HORIBA U-22
ORP:	
Conductivity:	
DO Meter:	
Turbidity:	
Temperature:	
Other:	

Sampling Data

Sample Name:	URS-MW1-091008
Sample Method:	
Sampling Device:	
Pump Intake Depth:	

Field Test Kit Results:

PID:	
DO:	
Alkalinity:	
Ferrous Iron:	
Other:	

QA/QC Samples:

Duplicate:	
Replicate:	
MS/MSD:	
Blank:	
Other:	

Field Parameters

Time 24 hour	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temperature (°C)	Salinity %	ORP mV	Volume liter/gal	Water Level (Ft BTOC)	Flow Rate (L/min)
1011	6.48	0.115	silty	6.02	18.25			0		
1018	6.04	102.8	>999	3.25	15.56			0.3gal	27.02	
1025	6.06	101.2	27.2	9.22	15.34			0.89l		
1032	5.65	100.2	154	8.36	15.39			1.2gal	27.57	
1038	5.42	59.8	197	6.27	15.43			2.0gal	28.00	
1043	5.51	59.5	42.9	8.24	15.44			2.2gal	28.30	

Comments

1011 v. silty - brown & opaque
1017 much clearer, still brown
Overpurged to remove fines. No odor, no sheen

URS

GROUNDWATER SAMPLING DATA SHEET

Page ____ of ____

Project Information

Project Name:	SPO	Location:	Bellevue
Project/Task No.:	38401132-00002	Weather:	Sunny, 70°F
Date:	9/10/08	Samplers:	JWellmeyer

Gauging and Purging Data

Station Number:	Terra-MW-3	Screen Interval:	
Station Type:		Well Diameter:	2" Annulus Dia.:
Well Condition:		Gallons per Casing Foot: (1" well: 0.04 gal/ft; 4" well: 0.65 gal/ft)	0.16 gal/ft
Reference Point:	Elevation:	Gallons per Annulus Foot: (1" annulus with 2" casing = 1.35 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Depth to Water:	24.68 Elevation:	One Purge Volume:	0.16 x 4.9 = 0.78 gal
Depth to Bottom:	29.58 Feet of Water: 4.9	Final Purge Volume:	3V = 2.35 gal
Depth to LNAPL:	Thickness:	Purge Method:	
LNAPL Description:		Water Disposal/Qty:	

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOCs		3 VOA	
TPH-GX			

Meter Information

Model & Calibration Date

pH: HORIBA 11-22

ORP:

Conductivity:

DO Meter:

Turbidity:

Temperature:

Other:

Sampling Data

Sample Name: TERRA-MW3-091008

Sample Method:

Sampling Device:

Pump Intake Depth:

Field Test Kit Results:

PID:

DO:

Alkalinity:

Ferrous Iron:

Other:

QA/QC Samples:

Duplicate:

Replicate:

MS/MSD:

Blank:

Other:

Field Parameters

Time 24 hour	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	Temperature (°C)	Salinity %	ORP mV	Volume ~~liters~~ gal	Water Level (Ft BTOC)	Flow Rate (L/min)
1113	6.08	53.3	silty	8.04	17.35			0	24.68	
1121	5.90	52.5	131	7.87	16.11			1 gal	25.69	
[illegible]										
1129	5.68	53.6	93.3	7.06	16.46			1.75 gal	26.27	
1135	5.73	54.3	337	7.95	15.99			2.25 gal	27.01	

Comments

brown silt initially purged