State of Washington
POLLUTION LIABILITY INSURANCE AGENCY
300 Desmond Drive SE • PO Box 40930 • Olympia, Washington 98504-0930
(360) 407-0520 • (800) 822-3905 • FAX (360) 407-0509
www.plia.wa.gov

July 24, 2019

Mr. Paul Craig
GeoEngineers, Inc.
17425 NE Union Hill Road
Redmond, WA 98052

Re: No Further Action at the Following Site:

- **Facility/Site Name:** Snelson Companies
- **Facility/Site Address:** 601 West State Street, Sedro-Woolley, WA 98284
- **FSID No:** 66379684
- **PTAP Project No:** PNW001

Dear Mr. Craig:

The Washington State Pollution Liability Insurance Agency (PLIA) received your request for an opinion on your independent cleanup of the Snelson Companies (Site) meeting the administrative and technical requirements of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW. This letter provides our opinion. We are providing this opinion under the authority of Chapter 70.149 RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

No. PLIA has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site located at 601 West State Street, Sedro-Woolley, WA 98284 and comprises one Skagit County tax parcel described below (Fig. 1). This opinion does not apply to any other release(s) that may affect the Properties (parcels). Any such releases, if known, are identified separately below.

1. Description of the Properties and Tax Parcels within the Site:

The Property includes the following tax parcel(s) in Skagit County, affected by the Site and addressed by your cleanup (Fig. 1):

- Tax Parcel No. P76956

2. Description of the Site:

The parcel makes up the Site and is defined by the nature and extent of contamination associated with the following release (Figs. 2, 3, 4, and 5):

- Total petroleum hydrocarbons in the gasoline/diesel/oil range (TPH-g, TPH-d & TPH-o), BTEX, and arsenic impact into the soil/groundwater/air-vapor.

3. Identification of Other Sites that may affect the Property.

Please note, a parcel of real property can be affected by multiple sites. At this time, we have no information that this Property (single parcel) was affected by other sites.

Enclosure A includes a detailed description and diagram of the Site, as currently known to PLIA.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

- Results of Post-Treatment Groundwater Compliance Monitoring for SCI Properties LLC, 601 West State Street, Sedro-Woolley, Washington, VCP Number NW1719, GeoEngineers File No. 7408-002-08. (Includes Summary of Arsenic Data from WA State Department of Health as Table 3 on page 9).
- Independent Remedial Action Report, Snelson Site, 601 West State Street, Sedro-Woolley, Washington. Prepared for SCI Properties, LLC by GeoEngineers, Inc. Prepared April 24, 2019.

- Final Soil Cleanup Action Work Plan Snelson Site. 601 West State Street, Sedro-Woolley, Washington. Prepared for SCI Properties, LLC by GeoEngineers, Inc. July 10, 2018.
- Focused Feasibility Study and Cleanup Action Plan Addendum. Snelson Companies Property, 601 West State Street, Sedro-Woolley, Washington. Prepared for Snelson Companies, Inc., February 16, 2010.
- Supplemental Site Characterization, Focused Feasibility Study and Cleanup Action Plan. 601 West State Street, Sedro-Wooley, WA. Prepared for Snelson Companies, Inc. August 25, 2009.
- Report of Environmental Services Underground Storage Tank Removal and Subsurface Assessment Snelson's Industries Site Sedro-Woolley, Washington. July 23, 1999.
- Report of Environmental Services Soil Remedial Excavation and Supplemental Subsurface Assessment Snelson's Industries Site, Sedro-Woolley, Washington, December 3, 2001.

Documents submitted to PLIA are subject to the Public Records Act (Chapter 42.56 RCW). To request public records please contact us at 1-800-822-3905 or pliamail@plia.wa.gov.

This opinion is void if any information contained in those documents is materially false or misleading.

Analysis of the Cleanup

1. Cleanup of the Site

PLIA has concluded that **no further remedial action** is necessary to clean up contamination associated with the Site. Our conclusion is based on the following analysis:

a. Characterization of the Site.

PLIA has determined your characterization of the Site was sufficient to establish cleanup standards for the Site and select a cleanup action for the Property. The Site is described above and in Enclosure A.

Petroleum contaminated soil (PCS) detected at this Site is associated with three former USTs. Two 10,000-gallon USTs housed gasoline, while the third 3,000-gallon UST housed diesel. A subsurface investigation performed in 1996 determined that the USTs at the Site were compromised.

Conceptual Site Model (CSM)

i. Soil Direct Contact:

The depth and extent of the PCS as diesel, gasoline and motor oil (TPH-d/g/o) is located approximately between 6' below ground surface (bgs) (bottom of the USTs) and 15' bgs. PCS detected includes 8,800 mg/kg of TPH-g, 2,440 mg/kg TPH-d and 81.7 mg/kg benzene, above the MTCA Method A unrestricted land-use cleanup levels of 100 mg/kg TPH-g, 2,000 mg/kg TPH-d and 0.03 mg/kg benzene (Fig. 2). The location of the PCS is within the depths (0 to 15' bgs) that humans (utility workers and property developers) may come into contact.

Result: The direct contact exposure pathway was a concern at this Site.

ii. Vapor Exposure: The building footprint (Figs. 2 and 4) was within the lateral inclusion zone of 30' or 6' vertical separation from the edge of the contamination at the former USTs location. The lateral inclusion zone or vertical separation distance is defined as the area surrounding a contaminant source through which vapor phase contamination might travel and intrude into buildings (ITRC 2018, EPA 2018, Ecology Draft VI Guidance update 2018).

Result: The vapor exposure pathway was a concern at this Site.

iii. Groundwater: Groundwater was observed in the location of the former UST at approximately 2' bgs. (Fig. 4). Groundwater grab samples from the initial USTs excavation detected benzene at a concentration of 11,300 µg/L, ethylbenzene at 4,680 µg/L, toluene at 22,700 µg/L, xylenes at 193,000 µg/L, TPH-g at 1,170,000 µg/L, TPH-g at 3,270 mg/L, and TPH-o at 1,150 µg/L, above the MTCA Method A Cleanup Levels of 5 µg/L benzene, 700 µg/L ethylbenzene, 1000 µg/L toluene, 1000 µg/L xylenes, 800 µg/L TPH-g, and 500 µg/L TPH-d/o.

Result: The groundwater leaching exposure pathway was a concern at this Site.

iv. Surface water: The closest body of surface water is an unnamed creek/pond that is 2,300' south of the Site. The Skagit River is approximately 6,000' south of the Site.

Result: The surface exposure pathway is not a concern at this Site.

b. Establishment of cleanup standards.

PLIA has determined the cleanup levels and points of compliance (POC) you established for the Site meet the substantive requirements of MTCA.

i. Cleanup Levels

Table 1. The Contaminants of Concern (COCs) and cleanup levels are:

Contaminants of Concern (COCs)	Soil Cleanup Level mg/kg (**Method A**) Un-restricted Land Use	Groundwater Cleanup Level ug/l (Method A)	Sub-slab/soil gas Screening Levels ug/m^3 (Method B SL)	Indoor/Air Cleanup Levels ug/m^3 (Method B CUL)
TPH-d	2,000	500	-	-
TPH-o	2,000	500	-	-
TPH-g	100/30	1000/800	-	-
Benzene (carcinogen)	0.03	5	-	0.321
Toluene	7	1000	-	2290
Ethylbenzene	6	700	-	457
Xylenes, -m, -o	9	1000	-	45.7
Naphthalene (**carcinogen**) (does not include 1-methyl and 2-methyl naphthalene)	-	-		0.0735
Total Petroleum Hydrocarbon	-	-	-	140
APH [EC5-8 Aliphatics]	-	-	-	2,700
APH [EC9-12 Aliphatics]	-	-	-	140
APH [EC9-10 Aromatics]	-	-	-	180

ii. Points of Compliance.

The proposed POC are:

Soil-Direct Contact: For cleanup levels based on human exposure via direct contact, the standard point of compliance is: "*…throughout the Site from ground surface to 15 feet below the ground surface.*" This is in compliance with WAC 173-340-740(6)(d) and represents a reasonable estimate of the depth of soil that could be excavated and

distributed at the soil surface as a result of Site development activities.

Groundwater: For groundwater, the standard POC as established under WAC 173-340-720(8) is: "*…throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the Site.*"

Vapor: Cleanup levels need to be attained in the ambient air throughout the Site, including indoor air (WAC 173-340-750[6]).

c. Selection of cleanup action.

PLIA has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

- **Decommissioning of former USTs (1999)**
  - Two 10,000 gallon USTs and one 3,000 gallon UST.
- **Excavation of approximately 194 tons and removal of PCS at the Site (1999-2001).**
- **Groundwater monitoring conducted from 1999-2002, 2006, and 2008.**
- **Installation of an air sparging treatment system that operated intermittently for over six years of combined treatment time (June 2010-June 2011, March 2013-August 2014, October 2015-May 2018). Soil confirmation samples were obtained to determine the effectiveness of the air sparging treatment as well as to resolve historic contamination.**
- **Conducted an additional remedial excavation (2018) to address residual contamination at the Site. Excavated and removed approximately 1,070 tons of contaminated soil.**
- **Conducted two additional quarters of groundwater monitoring post excavation (2018).**

d. Cleanup.

PLIA has determined the cleanup action you performed at the Site meets the substantive requirements of MTCA.

i. Direct Contact, Groundwater, Surface water and Vapor Exposure Pathways.

ii. Decommissioning of former USTs.

- The three former gasoline and diesel USTs were decommissioned by removal.

iii. Excavation and removal of 1,264 tons of PCS at the Site:

- The lateral and vertical extent of PCS detected at the Site was successfully excavated to levels below the MTCA Method A Cleanup level for unrestricted land use of 2,000 mg/kg for TPH-d-o and 30 mg/kg for TPH-g, 0.03 mg/kg benzene, 6 mg/kg ethylbenzene, 7 mg/kg toluene, and 9 mg/kg xylenes (Fig. 3).

iv. Conducted performance sampling of the soil and groundwater to confirm effectiveness of the remedial action.

- **Soil Direct Contact and Vapor - Points of Compliance (POC):** The limit of the excavation is bounded by the extent of PCS confirmation sampling results below cleanup levels: laterally, to the north it is bounded by borings EX-1-8.0, EX-1-10.0, EX-2-7.0, EX-2-12.0, EX-3-2.0, and EX-3-8.0. To the east, it is bound by borings EX-4-2.0, EX-4-7.0, EX-5-6.5, EX-29-7.0, and EX-26-6.5. To the south, it is bound by borings EX-21-4.5, EX-7-5.0, EX-8-7.5. To the west, it is bound by borings EX-25-8.0, EX-9-7.5, EX-10-8.0 and EX-10-10.0. The base of the excavation is bound by borings EX-11-15.0, EX-13-15.0, EX-15-11.0, EX-18-12.0, EX-12-15.0, EX-14-15.0, EX-16-12.0, EX-18-11.0, EX-22-11.0, EX-23-11.0, EX-19-10.5, EX-27-10.0, EX-28-6.5, and EX-20-6.5 (Fig. 3 and Table 1). The performance sampling results for the PCS is below the MTCA Method A Cleanup level for unrestricted land use of 2,000 mg/kg for TPH-d-o & 100/30 mg/kg for TPH-g.

  Soil POC obtained from the air sparging treatment include soil samples GEI-19, GEI-18, GEI-10, GEI-6,GEI-22, GEI-17, GEI-29, GEI-16, GEI-8, GEI-9, GEI-27, GEI-23, AS-8, AS-11, GEI-28, GEI-24, GEI-30, GEI-49, and GEI-50, which all resolved historic contamination at the Site (Fig. 2).

  Result: The soil direct contact and vapor exposure pathways are no longer a concern at this Site.

- **Groundwater - POC:** The effectiveness of the remedial action for groundwater is depicted by groundwater monitoring wells below cleanup levels for four consecutive quarters or two

consecutive quarters of non-detect at the POC wells.

- The POC wells for this Site, MW-1, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11 and MW-12, were below MTCA Method A Cleanup Levels for TPH-d, TPH-o, TPH-g, BTEX, and Arsenic for four consecutive quarters (Figs. 3 and 4, Table 2 GW Data). High background levels of Arsenic were detected in the groundwater monitoring wells at the Site. The Washington State Department of Health (WADOH) (Table 3) attributes the arsenic background concentration to 22 ug/l. The arsenic background effect was adjusted by subtracting the WADOH background concentration of 22 ug/l from the analytical results from the Site wells and comparing the results to the MTCA Method A cleanup levels for arsenic. The adjusted background concentrations were in compliance with MTCA Method A Cleanup levels for arsenic in groundwater of 5 ug/l.

Result: The groundwater exposure pathway is no longer a concern at this Site.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Under the MTCA, liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release(s) of hazardous substances at the Site. This opinion **does not:**

- Change the boundaries of the Site.
- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with the Office of the Attorney General and the Department of Ecology under RCW 70.105D.040 (4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is equivalent. Courts make that determination (RCW 70.105D.080 and WAC 173-340-545).

3. State is immune from liability.

The state, PLIA, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion.

Termination of Agreement

Thank you for choosing to cleanup your Property under the PTAP. This opinion terminates the PTAP Agreement governing project #PNW001.

Contact Information

If you have any questions about this opinion, please contact me by phone at 1-800-822-3905, or by email at caleb.kaiser@plia.wa.gov.

Sincerely,

Caleb Kaiser
Environmental Specialist

Enclosure A: Site Description
Figure 1: Site Vicinity Map
Figure 2: Proposed Excavation Area and Air Sparging POCs
Figure 3: Remedial Excavation and Soil POCs
Figure 4: Remedial Excavation Cross Section
Figure 5: Groundwater Flow Direction and Monitoring Well Locations
Table 1: Soil Analytical Data
Table 2: Groundwater Analytical Data
Table 3: Washington State Department of Health Background Arsenic Concentrations

cc: Mr. John Norton, SCIE Properties LLC
Ms. Kristin Evered, PLIA (email only)
Ms. Shanyese Trujillo, PLIA (email only)
Mr. Nnamdi Madakor, PLIA (email only)

Enclosure A
Snelson's Industries
PTAP No. PNW001

Site Description:

Background: The Snelson Site is located at 601 West State Street in Sedro-Woolley, WA and is currently owned by SCI Properties, LLC (SCI). The Property spans 6-acres, with three acres having been historically operated as industrial use. SCI has owned the Property since 1946, and industrial activities have been performed at the Site since SCI's ownership.

1998 Site Characterization: In 1998, GeoEngineers performed an initial reconnaissance of the Site. During this investigation, two gasoline USTs and a diesel UST were discovered. A hydraulic hoist, a heating oil UST, and a waste oil aboveground storage tank (AST) were also discovered at the Site.

1999 UST Removal: In January 1999, GeoEngineers removed the two gasoline USTs and the diesel UST. The heating oil UST reported in 1998 was not encountered during this removal. The waste oil AST was determined to be fully functional, with no analytical data indicating there was a release in the vicinity of the AST and was left in place.

2001 Soil Excavation and Supplemental Subsurface Assessment: In 2001, GeoEngineers mobilized to the Site to remove soil in the vicinity of the waste oil AST and the storm drain system. The soil samples were screened for metals in order for the correct disposal pathway to be determined. The soil removed was also screened for TPH-g/d/o. Three groundwater monitoring wells were installed during this assessment. Groundwater was monitored from 2001 until 2019, when the independent remedial action was proposed/performed.

2019 Independent Remedial Action: GeoEngineers mobilized to the Site in April 2019 to remove residual contamination in the vicinity of the three former USTs (two gasoline and one diesel). The excavation spanned 40' by 50' and 15' deep. Approximately 1,070 tons of soil was removed from the Site and disposed of at an approved facility off Site. Groundwater was encountered, and 18,000 gallons of contaminated groundwater was recovered, treated, and discharged in the City of Sedro-Woolley's storm water system. Thirty-two soil compliance samples were obtained, all below the MTCA Method A Cleanup Levels for their respective COCs. Groundwater was monitored under MTCA Method A Cleanup levels for four consecutive quarters at the Site.

Figure 1: Site Vicinity Map

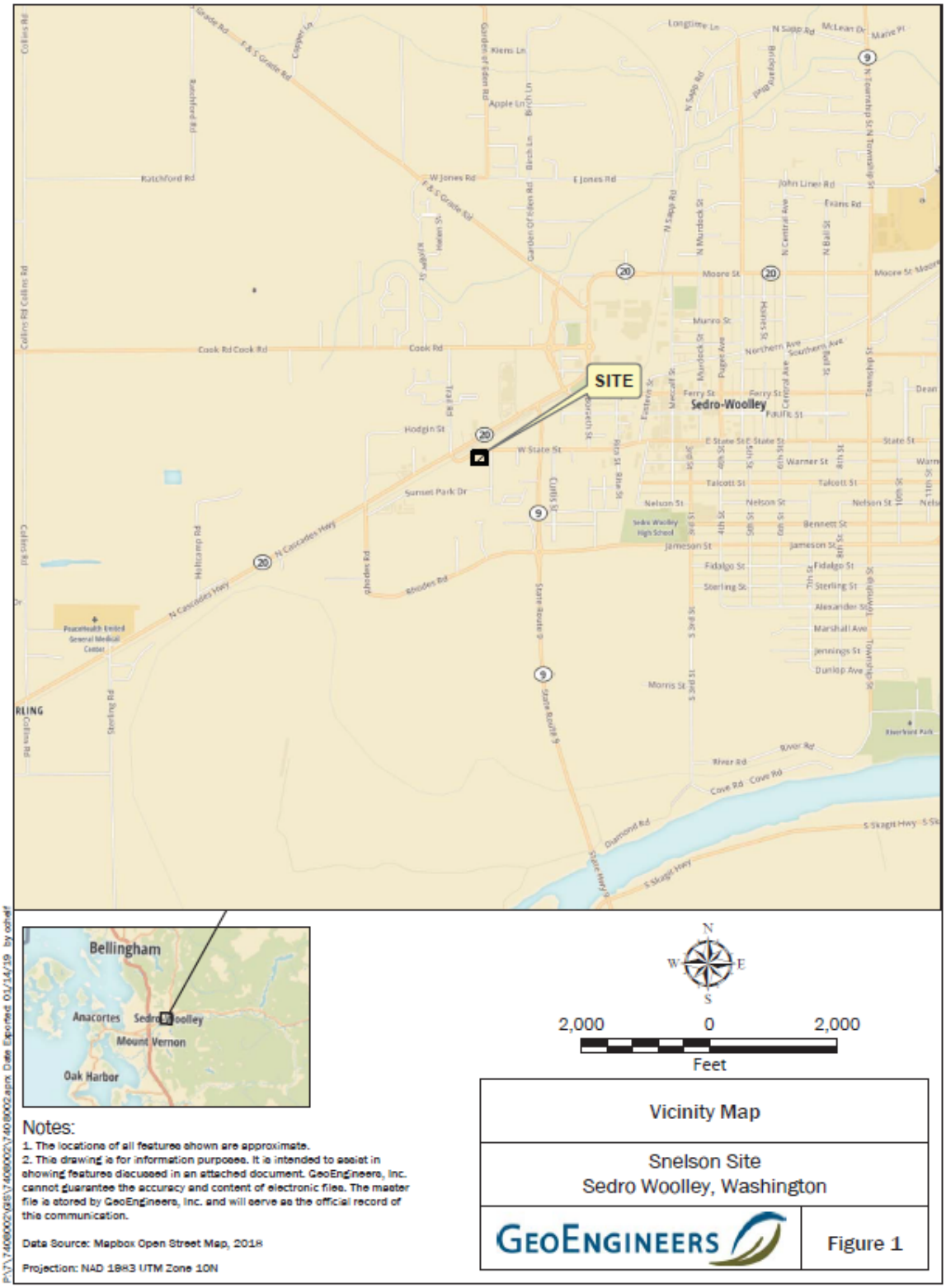

Figure 2: Proposed Excavation Area and Air Sparging POCs

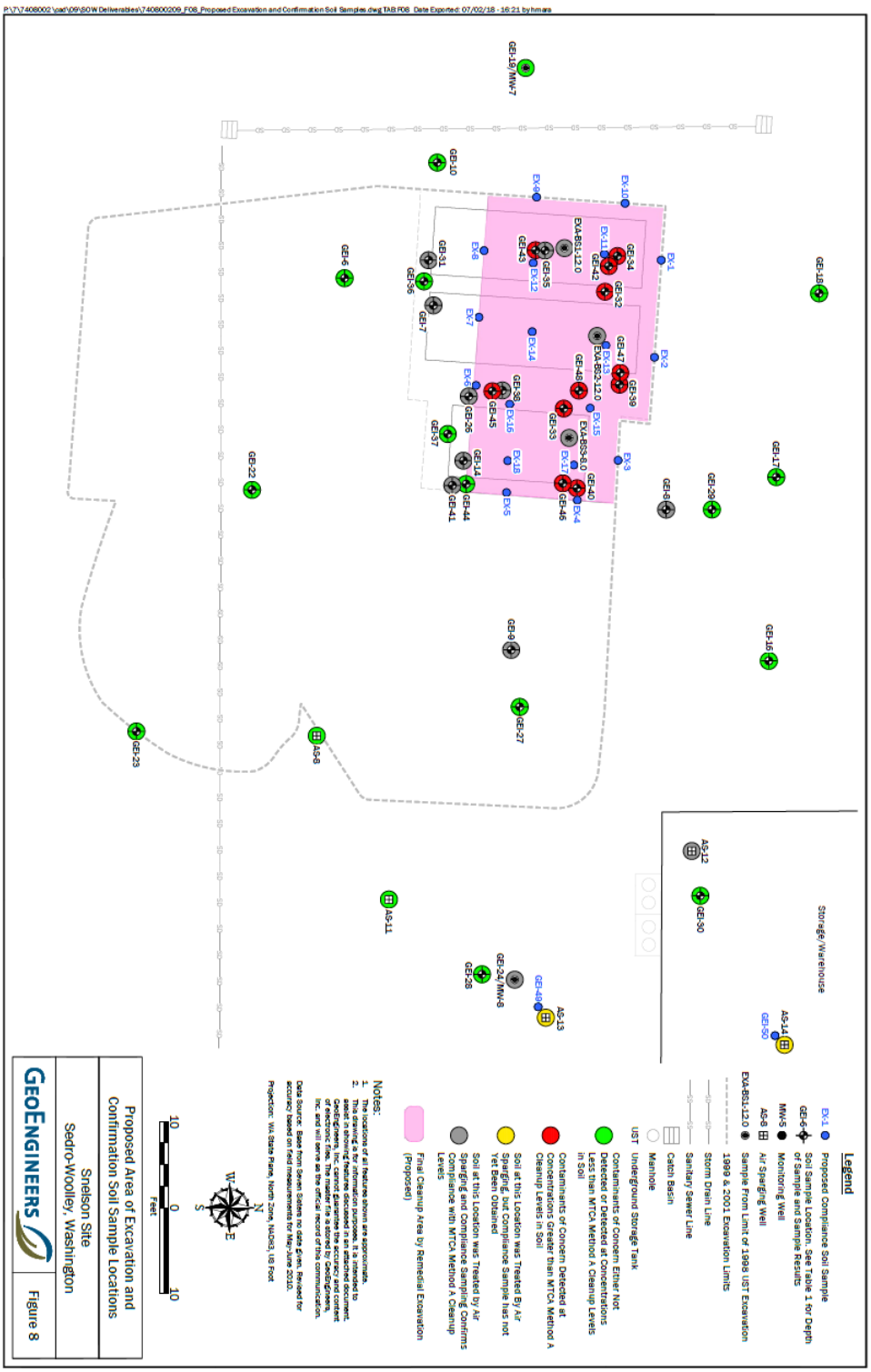

Figure 3: Remedial Excavation and Soil POCs

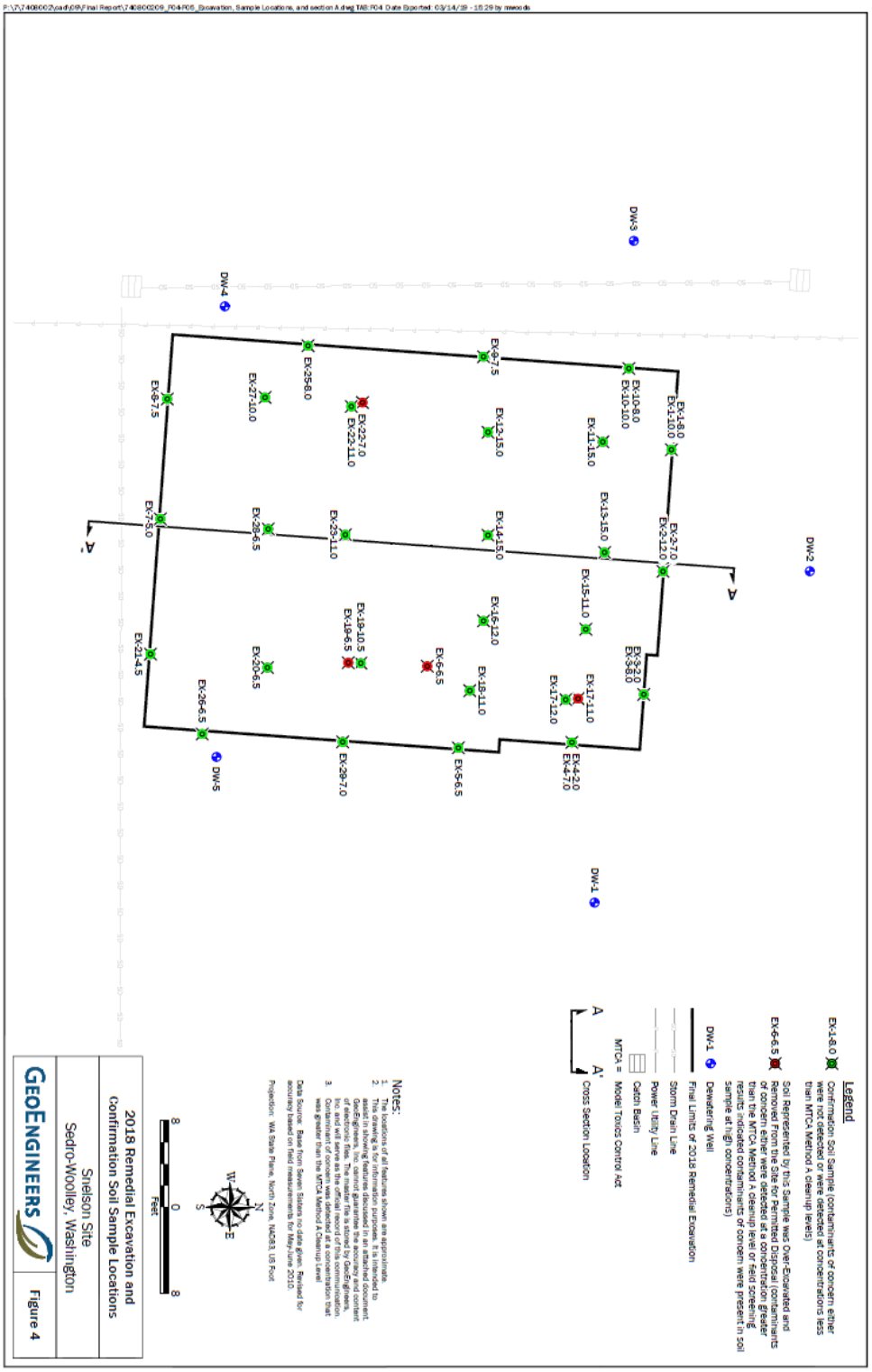

Figure 4: Remedial Excavation Cross Section

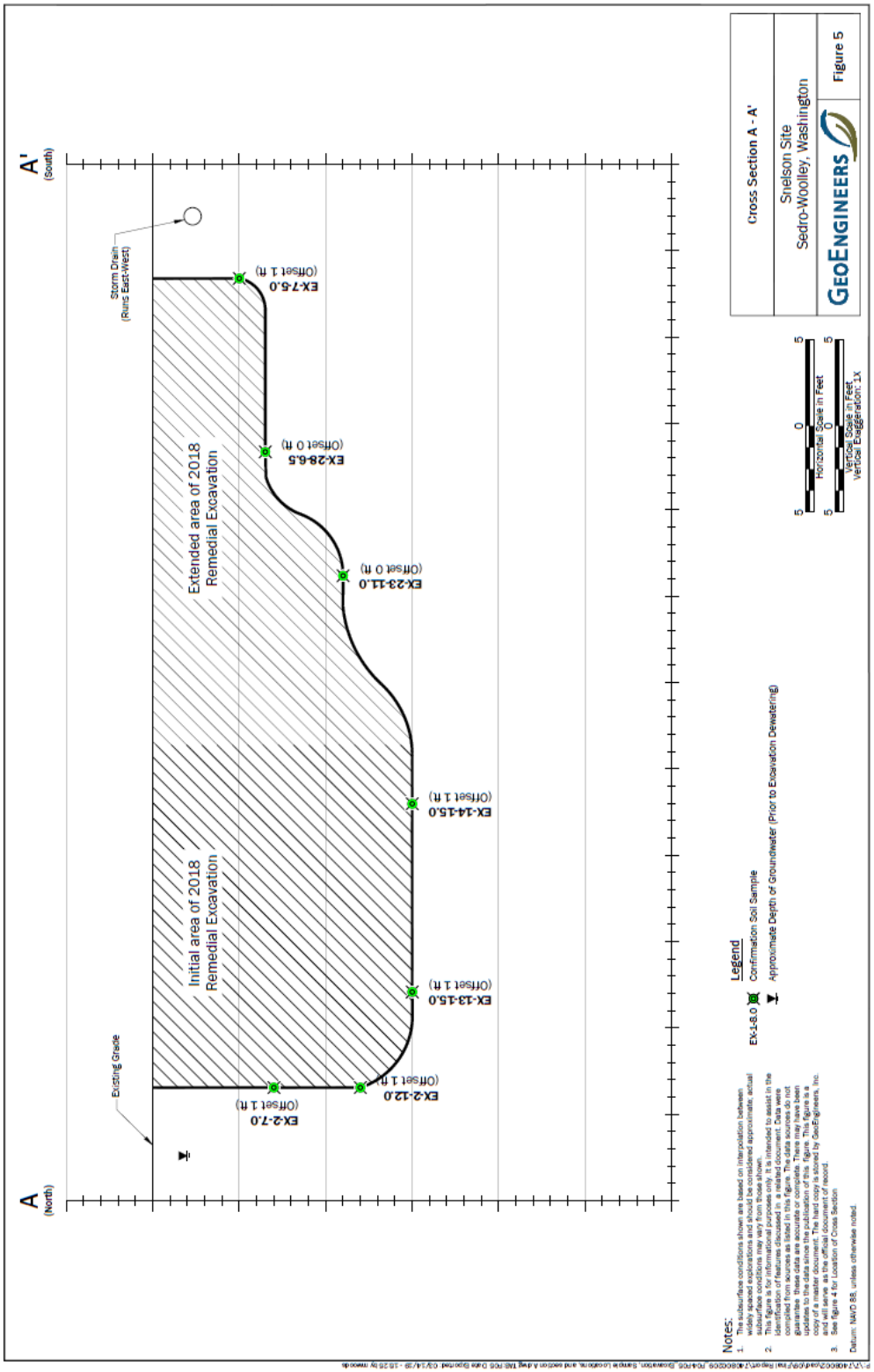

Figure 5: Groundwater Flow Direction and Monitoring Well Locations

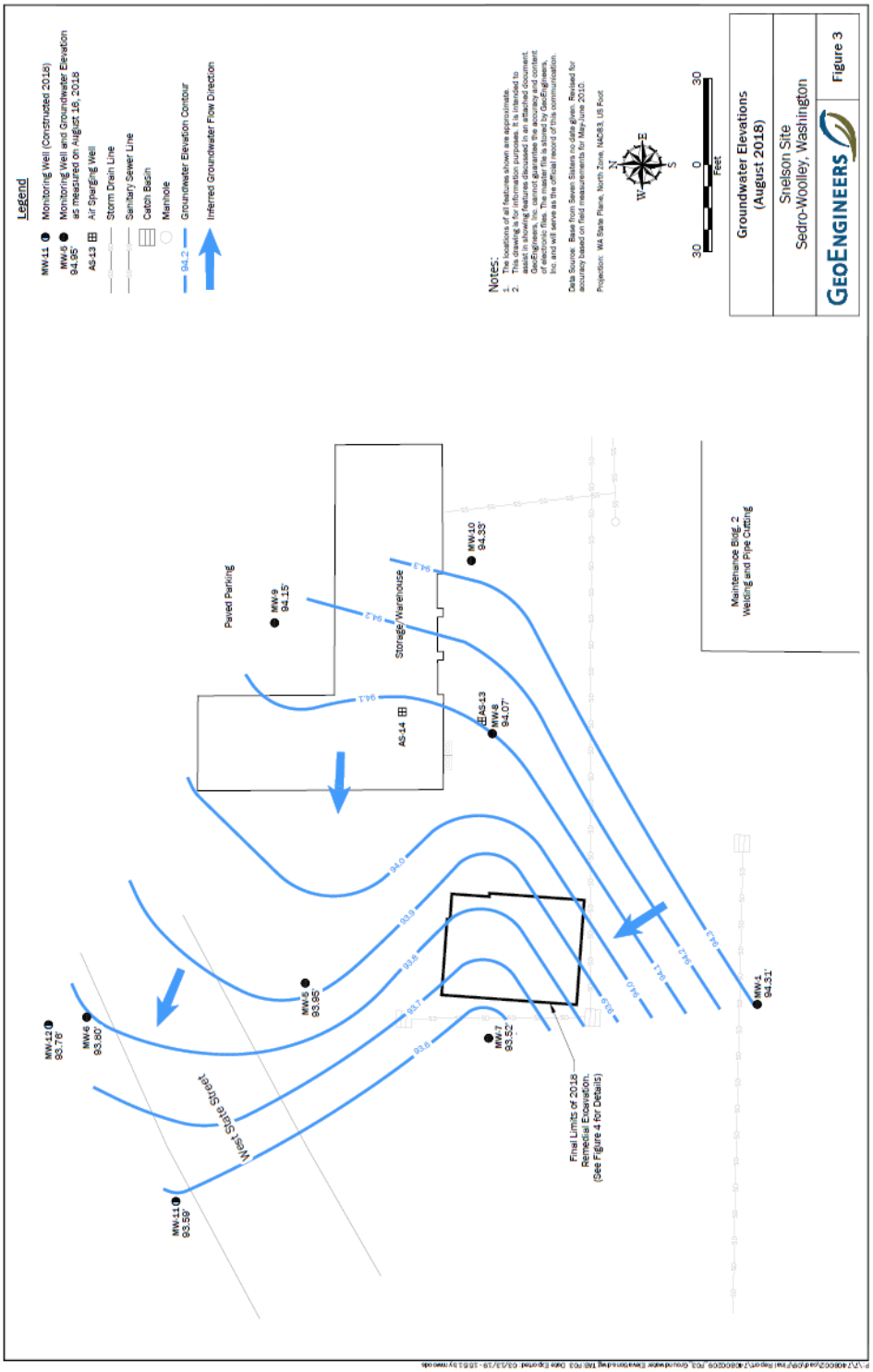

Table 1: Soil Analytical Data

Sample Identification[2]	Date Sampled	Sample Depth (feet bgs)	Sample Location	Field Screening[3]		Gasoline-Range Hydrocarbons[4] (mg/kg)	BETX[5] (mg/kg)			
				Sheen Screening	PID (ppm)		B	E	T	X
Remedial Excavation Confirmation Soil Samples										
EX-1-8.0	12/03/18	8.0	North Sidewall	NS	0.2	<10	<0.02	<0.05	<0.10	<0.15
EX-1-10.0	12/03/18	10.0	North Sidewall	NS	0.2	<10	<0.02	<0.05	<0.10	<0.15
EX-2-7.0	12/03/18	7.0	North Sidewall	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-2-12.0	12/03/18	12.0	North Sidewall	NS	0.2	<10	<0.02	<0.05	<0.10	<0.15
EX-3-2.0	12/03/18	2.0	North Sidewall	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-3-8.0	12/03/18	8.0	North Sidewall	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-4-2.0	12/03/18	2.0	East Sidewall	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-4-7.0	12/03/18	7.0	East Sidewall	NS	0.3	<10	<0.02	<0.05	<0.10	<0.15
EX-5-6.5	12/03/18	6.5	East Sidewall	NS	0.5	<10	<0.02	<0.05	<0.10	<0.15
EX-6-6.5 [7]	12/03/18	6.5	Base	NS	0.2	<10	0.048	<0.05	<0.10	<0.15
EX-7-5.0	12/04/18	7.0	South Sidewall	NS	0.3	<10	<0.02	<0.05	<0.10	<0.15
EX-8-7.5	12/04/18	7.5	South Sidewall	NS	0.3	<10	<0.02	<0.05	<0.10	<0.15
EX-9-7.5	12/04/18	7.5	West Sidewall	NS	0.3	<10	<0.02	<0.05	<0.10	<0.15
EX-10-8.0	12/03/18	8.0	West Sidewall	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-10-10.0	12/03/18	10.0	West Sidewall	NS	0.2	<10	<0.02	<0.05	<0.10	<0.15
EX-11-15.0	12/03/18	15.0	Base	NS	0.3	<10	<0.02	<0.05	<0.10	<0.15
EX-12-15.0	12/04/18	15.0	Base	NS	0.2	<10	<0.02	<0.05	<0.10	<0.15
EX-13-15.0	12/03/18	15.0	Base	NS	0.2	<10	<0.02	<0.05	<0.10	<0.15
EX-14-15.0	12/03/18	15.0	Base	NS	0.2	<10	<0.02	<0.05	<0.10	<0.15
EX-15-11.0	12/04/18	11.0	Base	NS	0.2	<10	<0.02	<0.05	<0.10	<0.15
EX-16-12.0	12/04/18	12.0	Base	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-17-11.0 [7]	12/04/18	11.0	Base	NS	0.3	<10	0.025	<0.05	<0.10	<0.15
EX-17-12.0	12/04/18	12.0	Base	NS	0.0	<10	<0.02	<0.05	<0.10	<0.15
EX-18-11.0	12/04/18	11.0	Base	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-19-6.5 [7]	12/04/18	6.5	Base	MS	94.5	15	0.24	0.18	<0.10	<0.15
EX-19-10.5	12/04/18	10.5	Base	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-20-6.5	12/04/18	6.5	Base	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-21-4.5	12/04/18	4.5	South Sidewall	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-22-7.0 [7]	12/04/18	7.0	Base	HS	570.7	16	<0.02	0.13	<0.10	<0.15
EX-22-11.0	12/04/18	11.0	Base	NS	0.4	<10	<0.02	<0.05	<0.10	<0.15
EX-23-11.0	12/04/18	11.0	Base	NS	0.1	<10	<0.02	<0.05	<0.10	<0.15
EX-25-8.0	12/04/18	8.0	West Sidewall	NS	0.4	<10	<0.02	<0.05	<0.10	<0.15
EX-26-6.5	12/04/18	6.5	East Sidewall	NS	0.0	<10	<0.02	<0.05	<0.10	<0.15
EX-27-10.0	12/05/18	10.0	Base	NS	0.1	<5.9	<0.020	<0.059	<0.059	<0.059
EX-28-6.5	12/05/18	6.5	Base	NS	0.2	<7.5	<0.020	<0.075	<0.075	<0.075
EX-29-7.0	12/05/18	7.0	East Sidewall	NS	0.2	<4.0	<0.020	<0.040	<0.040	<0.040
Compliance Soil Samples [8]										
GEI-49-15.5	08/06/18	15.5	Boring GEI-49	NS	0.2	–	0.0011	–	–	–
GEI-50-15.5	08/06/18	15.5	Boring GEI-50	NS	0.2	–	<0.0011	–	–	–
MTCA Method A Cleanup Level						30 [6]	0.03	6	7	9

Table 2: Groundwater Analytical Data

Monitoring Well[1]	Date Sampled	Depth To Groundwater (ft)	Groundwater Elevation (ft)	BETX[2] (µg/L)				Gasoline-Range[3] (µg/L)	Diesel-Range[4] (µg/L)	Lube Oil-Range[4] (µg/L)	Dissolved Arsenic[5] (µg/L)
				B	E	T	X				
MW-1	08/25/11	4.22	95.13	<1.0	<1.0	<1.0	<3.0	<50	–	–	13
	11/22/11	3.37	95.98	<1.0	<1.0	<1.0	<3.0	<50	–	–	8.2
	02/29/12	2.32	97.03	<1.0	<1.0	<1.0	<3.0	<50	–	–	4.7
	05/22/12	2.19	97.16	<1.0	<1.0	<1.0	<3.0	<50	–	–	4
	07/30/18	4.64	94.71	–	–	–	–	–	–	–	21
	08/16/18	5.04	94.31	–	–	–	–	–	–	–	–
MW-5	08/25/11	3.98	94.69	<1.0	<1.0	<1.0	<3.0	<50	–	–	6.6
	11/22/11	2.23	96.44	<1.0	<1.0	<1.0	<3.0	<50	–	–	13
	02/29/12	1.23	97.44	<1.0	<1.0	<1.0	<3.0	<50	–	–	21
	05/22/12	1.36	97.31	<1.0	<1.0	<1.0	<3.0	<50	–	–	20
	07/30/18	4.58	94.09	–	–	–	–	–	–	–	14
	08/16/18	4.72	93.95	–	–	–	–	–	–	–	–
MW-6	08/25/11	5.06	94.50	<1.0	<1.0	<1.0	<3.0	84	–	–	8.5
	11/22/11	2.36	97.20	<1.0	<1.0	<1.0	<3.0	<50	–	–	14
	02/29/12	1.71	97.85	<1.0	<1.0	<1.0	<3.0	<50	–	–	11
	05/22/12	1.80	97.76	<1.0	<1.0	<1.0	<3.0	96	–	–	7.5
	07/30/18	5.87	93.69	–	–	–	–	–	–	–	10
	08/16/18	5.76	93.80	–	–	–	–	–	–	–	–
MW-7	08/25/11	3.71	94.75	<1.0	<1.0	<1.0	<3.0	<50	–	–	3.2
	11/22/11	2.32	96.14	<1.0	<1.0	<1.0	<3.0	<50	–	–	3.7
	02/29/12	1.26	97.20	<1.0	<1.0	<1.0	<3.0	<50	–	–	4.1
	05/22/12	1.77	96.69	<1.0	<1.0	<1.0	<3.0	<50	–	–	4
	07/30/18	4.68	93.78	–	–	–	–	–	–	–	8.9
	08/16/18	4.94	93.52	–	–	–	–	–	–	–	–
MW-8	08/25/11	4.75	94.93	<1.0	<1.0	<1.0	<3.0	<50	–	–	<1.8
	11/22/11	3.49	96.19	<1.0	<1.0	<1.0	<3.0	<50	–	–	<1.8
	02/29/12	2.56	97.12	<1.0	<1.0	<1.0	<3.0	<50	–	–	<1.8
	05/22/12	2.71	96.97	<1.0	<1.0	<1.0	<3.0	<50	–	–	<1.0
	07/30/18	5.28	94.40	–	–	–	–	–	–	–	5.3
	08/16/18	5.61	94.07	–	–	–	–	–	–	–	–
MW-9	08/25/11	4.35	94.93	<1.0	<1.0	<1.0	<3.0	<50	–	–	6
	11/22/11	2.43	96.85	<1.0	<1.0	<1.0	<3.0	<50	–	–	2.9
	02/29/12	1.50	97.78	<1.0	<1.0	<1.0	<3.0	<50	–	–	<1.8
	05/22/12	1.21	98.07	<1.0	<1.0	<1.0	<3.0	<50	–	–	1.9
	07/30/18	5.27	94.01	–	–	–	–	–	–	–	1.7
	08/16/18	5.13	94.15	–	–	–	–	–	–	–	–
MW-10	08/25/11	4.96	95.28	<1.0	<1.0	<1.0	<3.0	<50	–	–	7.2
	11/22/11	3.89	96.35	<1.0	<1.0	<1.0	<3.0	<50	–	–	15
	02/29/12	2.71	97.53	<1.0	<1.0	<1.0	<3.0	<50	–	–	14
	05/22/12	2.69	97.55	<1.0	<1.0	<1.0	<3.0	<50	–	–	13
	07/30/18	5.98	94.26	–	–	–	–	–	–	–	8.7
	08/16/18	5.91	94.33	–	–	–	–	–	–	–	–
MW-11	08/16/18	6.37	93.59	<1.0	<1.0	<1.0	<3.0	<50	150	<250	–
MW-12	08/16/18	5.86	93.76	<1.0	<1.0	<1.0	<3.0	<50	<130	<250	–
MTCA Method A Cleanup Levels				5	700	1,000	1,000	1,000	500	500	5
Natural Background Arsenic Concentration[6]				N/A							8

Table 3: Washington State Department of Health Background Arsenic Concentrations

Table 3

Summary of Arsenic Data from WA State Department of Health

SCI Properties LLC

Sedro-Woolley, Washington

Site Name	Distance to Snelson Site (miles)	Direction from Site	Arsenic Concentration (mg/L)	Sample #	Sample Type	Date Sampled	Well Depth (ft)	DOE Well Tag No
Camp Brotherhood	13.2	S	0.002	10039	Pre-Treatment/Raw	9/27/2002	15	AET049
Samish Grade School	6.0	N	0.002	58610	Pre-Treatment/Raw	10/8/2007	118	AET041
Prairie Estates	5.3	N	0.012	10047	Pre-Treatment/Raw	3/21/2012	128	AET038
Double Creek	5.6	NW	0.037	10052	Treated	4/10/2007	140	AEI044
Delvan Hill	2.2	NW	0.040	12248	Pre-Treatment/Raw	11/22/2002	80	AEH765
Eagle Valley	4.8	NE	0.009	88273	Pre-Treatment/Raw	6/16/2003	172	AET031
Skagit Co PUD	6.5	SW	0.006	8302	Treated	7/31/2003	51	AER350
Humphrey Hill	6.0	NW	0.002	6039	Pre-Treatment/Raw	6/26/2002	325	Not Listed
Cedar Creek	2.5	N	0.002	2471	Pre-Treatment/Raw	3/10/2003	400	Not Listed
Hamilton	12.0	E	0.002	30443	Treated	10/2/2007	200	AEN137

Department of Ecology MTCA Stats Background Calculations for Department of Health Arsenic Data

MTCAStat 3.0

Data (mg/L)	ID
0.002	Camp Brotherhood
0.002	Samish Grade School
0.002	Humphrey Hill
0.002	Cedar Creek
0.002	Hamilton
0.006	Skagit Co PUD
0.009	Eagle Valley
0.012	Prairie Estates
0.037	Double Creek
0.04	Delvan Hill

Number of samples

		Uncensored values	
Uncensored	10	Mean	0.01
Censored	0	Lognormal mean	0.01
TOTAL	10	Std. devn.	0.01
		Median	0.004
		Min.	0.002
		Max.	0.04

Lognormal distribution? Normal distribution?

r-squared is: 0.82 r-squared is: 0.69

Distribution selection

	Enter percentile	Value corresponding to that percentile is:
1	90	0.035
1 = Lognormal	50th	0.006
2 = Normal	4 X 50th	0.022
3 = Nonparametric method	Coefficient of Variation = 2.62	