Phase II Environmental Site Assessment

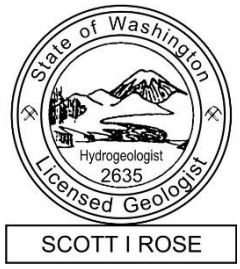
Conducted on:
Osborn Elementary
255 Central Avenue
Leavenworth, Washington 98826

Prepared for:
Ana Cortez
City of Leavenworth
700 Highway 2, PO Box 287
Leavenworth, Washington 98826

Prepared & Reviewed by:

John Schenk
Staff Scientist

Scott Rose, L.H.G.
Senior Hydrogeologist



AEG Project #: 20-217
Date of Report: December 22, 2020

TABLE OF CONTENTS

1.0 INTRODUCTION

Associated Environmental Group, LLC (AEG) has completed a Phase II Environmental Site Assessment (ESA) for Osborn Elementary located at 255 Central Avenue in Leavenworth, Washington (Site). This investigation was performed in general conformance with ASTM E1903-11, *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*. This investigation is in response to recommendations provided by WSP USA, Inc. (WSP) in a Phase I ESA performed for the Site in October 2020. WSP identified a Recognized Environmental Conditions (RECs), including the lack of clearance samples associated with the removal and/or closure-in-place of a former gasoline underground storage tank (UST). The report also referenced a former heating oil UST that was reportedly removed, but no other info was available.

AEG advanced four soil borings throughout the Site up to 15 feet below ground surface (bgs) in the areas of the former USTs. Soil samples were collected from each soil boring and laboratory analyzed for gasoline-, diesel-, and oil-range petroleum hydrocarbons (TPH) and related constituents. No groundwater was encountered in any of the borings.

1.1 Site and Vicinity Area Background

The Site is located in a residential area in Leavenworth, Washington (Chelan County Parcel # 241701680397), and is developed with a single-story, 25,328-square-foot building on 5.47 acres owned by the Cascade School District. The Site is bounded by Birch Street to the north, Evans Street to the south, and Orchard Street to the west. The City of Leavenworth is considering purchasing the northern approximate 2.69 acres of this parcel, which contains the former Osborn Elementary School building, garage, playgrounds, and ball playing fields. The southern portion of this parcel contains the school district's administration building (330 Evans Avenue), a parking lot, a tennis court, and a playing field.

1.2 Site History

The Site was originally sold by Chelan County to School District #109 at a public auction in December 1927 and recorded as a final sale in January 1928. The current property was developed in 1955, though additions/remodels were made in 1983 when the southern wing was constructed. In December 1964, a 550-gallon UST was installed immediately to the south of the subject property. It was removed in October 1989 and soil samples were collected. The associated sample results could not be located by the Cascade School District or Ecology's UST program.

1.3 Site Geology and Hydrogeology

Soils beneath the Site are classified as Colockum, which include silt loam from 0 to 25 inches; silty clay loam from 25 to 46 inches, and very gravelly, silty clay loam from 46 to 59 inches. This soil type has moderate infiltration rates, moderately well and well drained soils with moderately coarse textures.

During AEG's investigation, the subsurface conditions encountered at the Site consisted of about 7 feet of poorly graded sand with silt, followed by another 7 feet of poorly graded gravel with sand. Groundwater was not encountered. Based on a nearby water supply well, the depth to groundwater is estimated to be about 65 feet bgs.

2.0 FIELD METHODOLOGY

2.1 Soil Borings

On December 4, 2020, AEG supervised the advancement of four soil borings B-1 through B-4 at the Site via a track-mounted auger rig operated by subcontractor Cascade Drilling, Inc. Two borings (B-1 and B-2) were advanced in the area of the former gasoline UST, and the remaining two borings (B-3 and B-4) were advanced in the area of the former heating oil UST. Groundwater was not encountered in any of the borings. Soil samples were collected during drilling for field screening and laboratory analyses. No field-screening evidence of contamination was noted in any of the borings.

Boring locations are illustrated on Figure 2, *Site Map*. Boring logs and laboratory analytical results are provided in Appendix A, Supporting Documents, *Boring Logs, Laboratory Datasheets*.

2.2 Soil Sampling Procedures

Soil sampling methods for this work followed the protocols established by Ecology and the U.S. Environmental Protection Agency (EPA). Soil samples were collected from the soil borings via a split-spoon sampler advanced inside the hollow-stem augers. Soils were observed to document soil lithology, color, moisture content, and sensory evidence of contamination.

Soil samples were selected for laboratory analysis based on field observations and photoionization detector (PID) readings. Soil samples were collected and placed into laboratory provided 40-milliliter (mL) vials and 4-ounce jars for the analyses of constituents of concern. The soil samples were transported to Libby Environmental, Inc. analytical laboratory for analyses following industry standard chain-of-custody procedures.

2.3 Laboratory Analyses

Soil samples were analyzed for one of more of the following analyses:

- Gasoline-range TPH via Method NWTPH-Gx.
- Benzene, toluene, ethylbenzene, and xylene (BTEX) compounds via EPA Method 8260.
- Diesel- and oil-range TPH via Method NWTPH-Dx Extended.

2.4 Quality Controls

To ensure that quality information was obtained at the Site:

- All samples were collected in general accordance with industry protocols for the collection, documentation, and handling of environmental samples.

- Descriptions of soil sampling depths were carefully logged in the field. The driller and geologist confirmed sample depths as soil samples were collected.
- Nitrile gloves were worn when handling all sampling containers and sampling devices. Clean gloves were used at each soil boring to prevent cross contamination.
- The sampling equipment was scrubbed with Alconox detergent and rinsed with water prior to each sample extracted.
- Soil samples were tightly packed into laboratory-provided dedicated sampling containers to eliminate sample headspace.
- Upon sampling, all soil samples were immediately placed into chilled ice chests and transported for analysis under a chain-of-custody protocol to the Libby Environmental, Inc. analytical laboratory in Olympia, Washington.

The analytical laboratory provided project quality assurance/quality control (QA/QC), including:

- Surrogate recoveries for each sample.
- Method blank results.
- Duplicate analysis.
- Laboratory control samples.

All analytical laboratory QA/QC results were within required limits. Analytical Laboratory results are provided in Appendix A, Supporting Documents, *Laboratory Datasheets.*

3.0 ANALYTICAL RESULTS

Analytical results obtained from soil samples were compared to MTCA Method A Cleanup Levels for unrestricted land uses. Copies of the laboratory analytical results are provided in Appendix A, Supporting Documents, *Laboratory Datasheets*.

3.1 Soil Results

One soil sample from each boring was submitted for laboratory analysis based on field screening. All constituents analyzed were non-detect.

Table 1, *Summary of Soil Analytical Results*, presents the soil analytical results for all samples analyzed as compared to MTCA Method A Cleanup Levels. Full analytical results are provided in Appendix A, Supporting Documents, *Laboratory Datasheets*.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations derived during the subsurface assessment activities at the Site are as follows:

4.1 Conclusions

- Four soil borings were advanced at the Site up to 15 feet bgs. All constituents analyzed for in soil were non-detect. No field-screening evidence of contamination was noted in any of the borings.
- Groundwater was not encountered in any of the borings. Based on a nearby water supply well log, the depth to groundwater is estimated to be about 65 feet bgs.

4.2 Recommendations

Based on the results of the data collected, no further action is recommended.

5.0 LIMITATIONS

This report summarizes the findings of the services authorized under our agreement with Ms. Ana Cortez and the City of Leavenworth. It has been prepared using generally accepted professional practices, related to the nature of the work accomplished. This report was prepared for the exclusive use of Ms. Cortez and her designated representatives, for the specific application to the project purpose.

Recommendations, opinions, Site history, and proposed actions contained in this report apply to conditions and information available at the time this report was completed. Since conditions and regulations beyond our control can change at any time after completion of this report, or our proposed work, we are not responsible for any impacts of any changes in conditions, standards, practices, and/or regulations subsequent to our performance of services. We cannot warrant or validate the accuracy of information supplied by others, in whole or part.

6.0 REFERENCES

American Society for Testing and Materials (ASTM) Standard E 1903-97. *Standard Guide Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

Washington State Department of Ecology. 2007. *Model Toxic Control Act Statute and Regulation – Chapter 173-340 WAC*, Publication number 94-06 (Revised November 2007).

Washington State Department of Ecology. 2013. *Site Hazard Assessment, published October 15, 2013.*

Washington State Department of Natural Resources. https://www.dnr.wa.gov/geologyportal

WSP USA, Inc. 2020. *Osborn Elementary Phase I Environmental Site Assessment*. October.

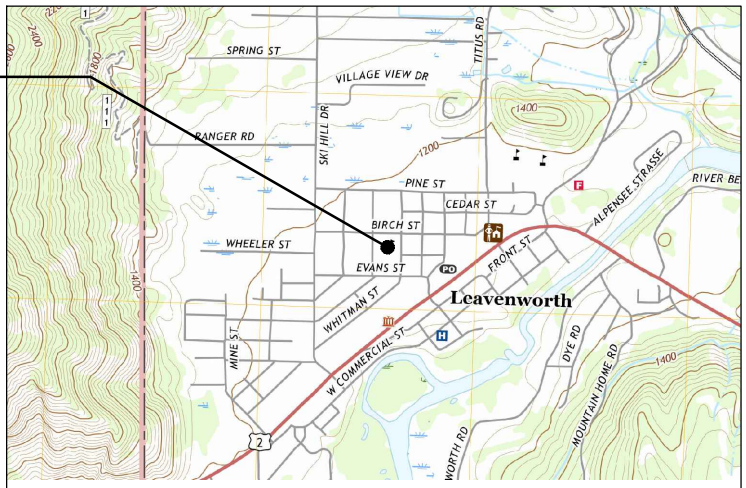
FIGURES

2633 Parkmont Lane SW, Suite A • Olympia, WA • 98502
Phone: 360-352-9835 • Fax: 360-352-8164 • Email: admin@aegwa.com

FILENAME	DRAWN BY		CHECKED BY		APPROVED BY		PROJECT NUMBER
20-217_2004.DWG	ICD	12/18/2020	JS	12/18/2020	JS	12/18/2020	20-217

N
W E
S

PROJECT LOCATION



VICINITY MAP

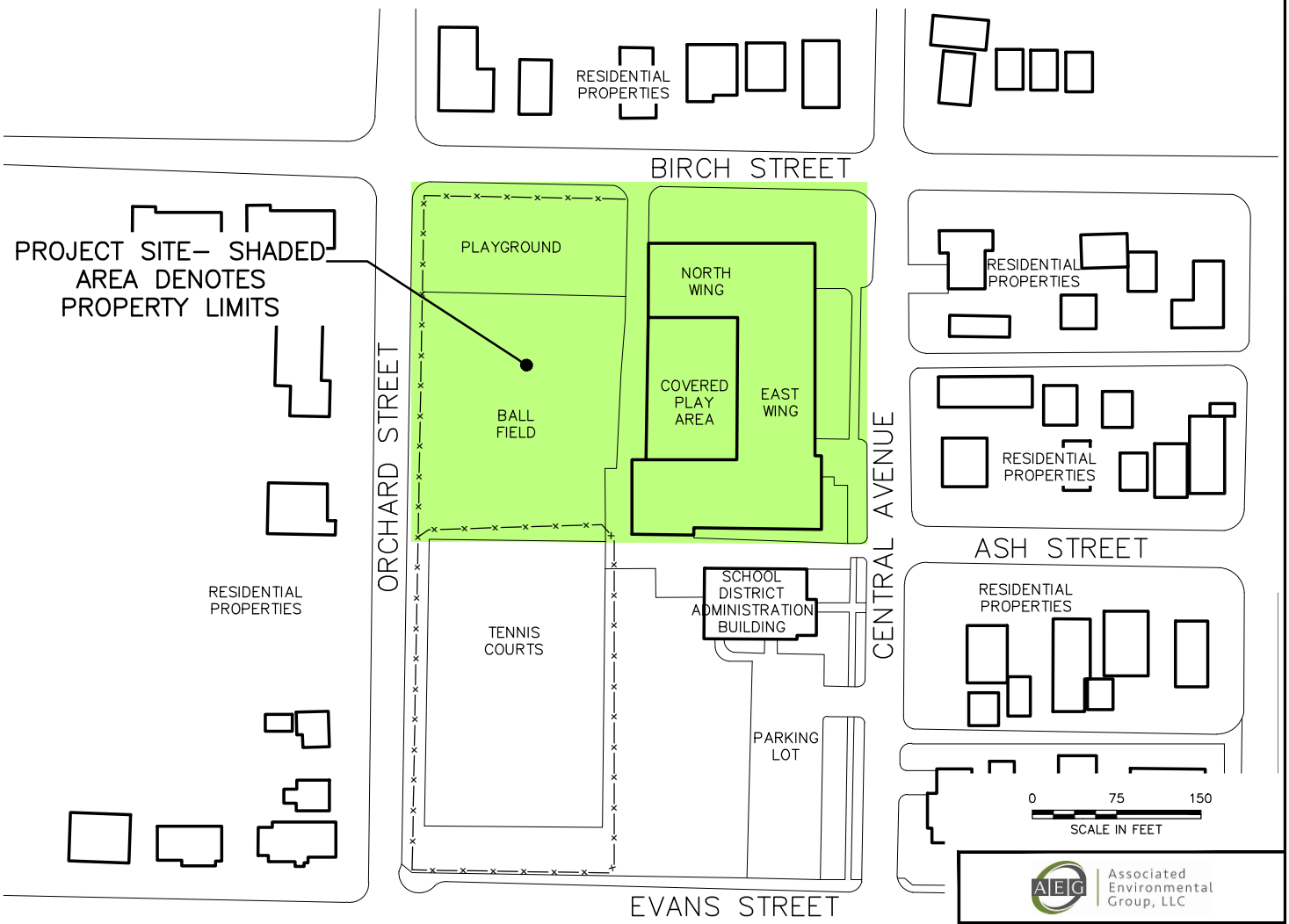
0 1,500 3,000
SCALE IN FEET

NOTES

1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.
VICINITY IMAGE SOURCE: U.S. GEOLOGICAL SURVEY– 2017, 7.5 MINUTE QUADRANGLE MAP LEAVENWORTH, WASHINGTON



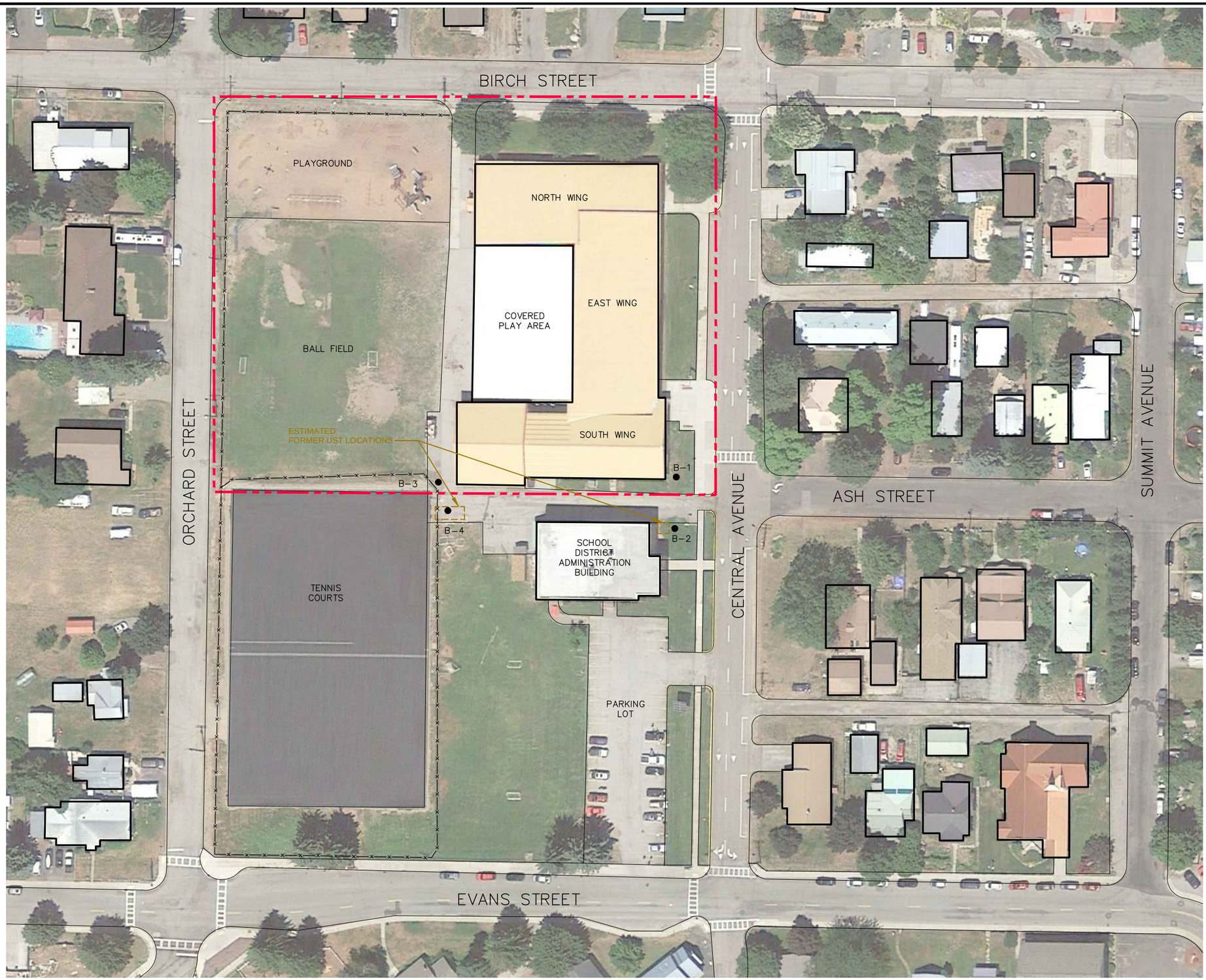
Associated Environmental Group, LLC

FIGURE 1

VICINITY MAP

OSBORN ELEMENTARY
225 CENTRAL AVENUE
LEAVENWORTH, WASHINGTON

PROJECT NUMBER	20-217
APPROVED BY	JS 12/18/2020
CHECKED BY	JS 12/18/2020
DRAWN BY	ICD 12/18/2020
FILENAME	20-217_2004.DWG



SOURCE: 2018 AERIAL PHOTOGRAPHY; © GOOGLE

N
W E
S

LEGEND

- PROPERTY LINE
- B-1 ● BORING LOCATION
- —x—x—x— FENCE

NOTES

1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.

0 40 80
SCALE IN FEET

Associated Environmental Group, LLC

FIGURE 2

SITE MAP

OSBORN ELEMENTARY
225 CENTRAL AVENUE
LEAVENWORTH, WASHINGTON

TABLES

2633 Parkmont Lane SW, Suite A • Olympia, WA • 98502
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Table 1 - Summary of Soil Analytical Results

Osborn Elementary (20-217)

Leavenworth, Washington

Sample Number	Depth Collected (feet)	Date Collected	Total Petroleum Hydrocarbons			Volatile Organic Compounds			
			Gasoline	Diesel	Heavy Oil	Benzene	Toluene	Ethyl-benzene	Xylenes
B1-15	15.0	12/7/2020	<10	<50	<250	<0.02	<0.10	<0.05	<0.15
B2-15	15.0	12/7/2020	<10	<50	<250	<0.02	<0.10	<0.05	<0.15
B3-15	15.0	12/7/2020	<10	<50	<250	<0.02	<0.10	<0.05	<0.15
B4-15	15.0	12/7/2020	<10	<50	<250	<0.02	<0.10	<0.05	<0.15
PQL			10	50	250	0.02	0.10	0.05	0.15
MTCA Method A Cleanup Levels			30	2,000	2,000	0.03	7	6	9

Notes:

All values are presented in milligrams per kilogram (mg/kg)

< = Not detected at the listed laboratory detection limits

PQL = Practical Quantification Limit (laboratory detection limit)

APPENDIX A

Boring Logs
Laboratory Datasheets

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Phone: 360-352-9835 • Fax: 360-352-8164 • Email: admin@aegwa.com

Associated Environmental Group, LLC

Client:	**AEG-CLIENTS**
Project:	**20-217**
Address:	**225 Central Avenue, Leavenworth, WA**

BORING LOG

Boring No. **B-1**

Page: **1 of 1**

Drilling Start Date:	**12/04/2020 10:20**	Boring Depth (ft):	**16.5**
Drilling End Date:	**12/04/2020 10:45**	Boring Diameter (in):	**10.00**
Drilling Company:	**Cascade**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Truck Mounted Auger Rig**	DTW After Drilling (ft):	**N/A**
Driller:	**James**	Ground Surface Elev. (ft):	
Logged By:	**B. Dilba**	Location (Lat, Long):	

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Fill: Grass			0
								(0.5') Poorly graded SAND with silt (SP-SM); mostly medium-coarse grained sand, few fine-coarse gravel, little silt, loose, moist, dark brown			
5				SS	10:28	4 6 6	1.00			B1-5	5
								(7') Poorly graded GRAVEL with sand (GP); mostly fine-coarse grained gravel, some fine-coarse sand, trace silt, dense, moist, dark reddish-brown			
10				SS	10:36	7 7 7	1.50			B1-10	10
15				SS	10:36	13 25 29	1.50			B1-15	15
								(16.5') Boring terminated			
20											20

NOTES:

Associated Environmental Group, LLC

Client:	**AEG-CLIENTS**
Project:	**20-217**
Address:	**225 Central Avenue, Leavenworth, WA**

BORING LOG

Boring No. **B-2**

Page: **1 of 1**

Drilling Start Date:	**12/04/2020 11:23**	Boring Depth (ft):	**16.5**
Drilling End Date:	**12/04/2020 12:08**	Boring Diameter (in):	**10.00**
Drilling Company:	**Cascade**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Truck Mounted Auger Rig**	DTW After Drilling (ft):	**N/A**
Driller:	**James**	Ground Surface Elev. (ft):	
Logged By:	**B. Dilba**	Location (Lat, Long):	

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Fill: Grass			0
								(0.5') Poorly graded SAND with silt (SP-SM); mostly medium-coarse grained sand, few fine-coarse gravel, little silt, loose, moist, dark brown			
5				SS	11:40	3 6 7	1.50			B2-5	5
								(7') Poorly graded GRAVEL with sand (GP); mostly fine-coarse grained gravel, some fine-coarse sand, trace silt, dense, moist, dark reddish-brown			
10				SS	11:44	5 9 9	1.50			B2-10	10
15				SS	11:51	24 50	0.00			B2-15	15
								(16.5') Boring terminated			
20											20

NOTES:

Associated Environmental Group, LLC

Client:	**AEG-CLIENTS**
Project:	**20-217**
Address:	**225 Central Avenue, Leavenworth, WA**

BORING LOG

Boring No. **B-3**

Page: **1 of 1**

Drilling Start Date:	**12/04/2020 12:57**	Boring Depth (ft):	**16.5**
Drilling End Date:		Boring Diameter (in):	**10.00**
Drilling Company:	**Cascade**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Truck Mounted Auger Rig**	DTW After Drilling (ft):	**N/A**
Driller:	**James**	Ground Surface Elev. (ft):	
Logged By:	**B. Dilba**	Location (Lat, Long):	

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Asphalt			0
								(0.5') Poorly graded SAND with silt (SP-SM); mostly medium-coarse grained sand, few fine-coarse gravel, little silt, loose, moist, dark brown			
5				SS	13:08	2 6 7	1.50			B3-5	5
								(7') Poorly graded GRAVEL with sand (GP); mostly fine-coarse grained gravel, some fine-coarse sand, trace silt, dense, moist, dark reddish-brown			
10				SS	13:12	10 10 12	1.50			B3-10	10
15				SS	13:17	24 21 35	0.00			B3-15	15
								(16.5') Boring terminated			
20											20

NOTES:

Associated Environmental Group, LLC	Client: AEG-CLIENTS	BORING LOG
	Project: 20-217	Boring No. B-4
	Address: 225 Central Avenue, Leavenworth, WA	Page: 1 of 1

Drilling Start Date:	**12/04/2020 13:43**	Boring Depth (ft):	**16.5**
Drilling End Date:	**12/04/2020 14:16**	Boring Diameter (in):	**10.00**
Drilling Company:	**Cascade**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Truck Mounted Auger Rig**	DTW After Drilling (ft):	**N/A**
Driller:	**James**	Ground Surface Elev. (ft):	
Logged By:	**B. Dilba**	Location (Lat, Long):	

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Asphalt			0
								(0.5') Poorly graded SAND with silt (SP-SM); mostly medium-coarse grained sand, few fine-coarse gravel, little silt, loose, moist, dark brown			
5				SS	14:03	4 5 5	1.50			B4-5	5
								(7') Poorly graded GRAVEL with sand (GP); mostly fine-coarse grained gravel, some fine-coarse sand, trace silt, dense, moist, dark reddish-brown			
10				SS	14:08	4 5 5	1.50			B4-10	10
15				SS	14:14	11 17 20	0.00			B4-15	15
								(16.5') Boring terminated			
20											20

NOTES:

Libby Environmental, Inc.
3322 South Bay Road NE • Olympia, WA 98506-2957

December 22, 2020

Becky Dilba
Associated Environmental Group, LLC
2633 Parkmont Lane SW, Suite A
Olympia, WA 98502

Dear Ms. Dilba:

Please find enclosed the analytical data report for the Osborn Elementary Project located in Leavenworth, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of in 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Chain of Custody Record

www.LibbyEnvironmental.com

Date: 12/7/2020 Page: 1 of 1

Client: MEA
Project Manager: B. Aiba
Address:
Project Name: Osborn Elementary
City: State: Zip:
Location: City, State: Leavenworth, WA
Phone: Fax:
Collector: B Aiba Date of Collection: 12/4/2020
Client Project # 20-217
Email: DAiba@aegwa.com

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270	Field Notes
1	B1-5		1028															
2	B1-10		1036					X			X							
3	B1-15		1041					X	⊗		X							
4	B2-5		1140															
5	B2-10		1145															
6	B2-15		1153					X	⊗		X							
7	B3-5		1309															
8	B3-10		1313															
9	B3-15		1322					X	⊗		X							
10	B4-5		1405															
11	B4-10		1410															
12	B4-15		1414					X	⊗		X							
13																		
14																		
15																		
16																		
17																		

Relinquished by:	Date / Time 12/7/2020 915	Received by:	Date / Time 12-7-20 1032
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: 12-22-2020 ADD-ON REQUESTED PER BECKY VIA EMAIL.

TAT: 24HR 48HR 5-DAY

LEGAL ACTION CLAUSE: *In the event of default of payment and/or failure to pay, Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a court of law.*

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

OSBORN ELEMENTARY PROJECT
AEG, LLC
Leavenworth, Washington
Libby Project # L201207-1
Client Project # 20-217

Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8021B) in Soil

Sample Number	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline (mg/kg)	Surrogate Recovery (%)
Method Blank	12/8/2020	nd	nd	nd	nd	nd	71%
LCS	12/8/2020	83%	89%				90%
B1-15	12/8/2020	nd	nd	nd	nd	nd	99%
B1-15 Dup	12/8/2020	nd	nd	nd	nd	nd	92%
B2-15	12/8/2020	nd	nd	nd	nd	nd	82%
B3-15	12/8/2020	nd	nd	nd	nd	nd	76%
B4-15	12/8/2020	nd	nd	nd	nd	nd	78%
L201208-50 MS	12/8/2020	81%	86%	91%	83%		90%
L201208-50 MSD	12/8/2020	75%	82%	83%	77%		79%
Practical Quantitation Limit		0.02	0.10	0.05	0.15	10	

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

OSBORN ELEMENTARY PROJECT
AEG, LLC
Leavenworth, Washington
Libby Project # L201207-1
Client Project # 20-217

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)
Method Blank	12/8/2020	101	nd	nd
B1-15	12/8/2020	85	nd	nd
B1-15 Dup	12/8/2020	79	nd	nd
B2-15	12/8/2020	115	nd	nd
B3-15	12/8/2020	111	nd	nd
B4-15	12/8/2020	108	nd	nd
Practical Quantitation Limit			50	250

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Kory Dixon

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

OSBORN ELEMENTARY PROJECT
AEG, LLC
Libby Project # L201207-1
Date Received 12/7/20 10:32

Received By SC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☑ Hand Delivered	☐ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	5.3 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	7.2 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. Vials Prepreserved