

UST DECOMMISSIONING REPORT

**44097 ANTHONY LAKES HIGHWAY
HAINES, OREGON 97883**

UNREGULATED UST

**PREPARED FOR:
EASTERN OREGON ENVIRONMENTAL
RECOVERY, LLC
1410 SE BYERS AVENUE
PENDLETON, OREGON 97801**

JANUARY 5, 2024

SPRECHER GROUP PROJECT #4471B

**SPRECHER GROUP
2445 NE DIVISION STREET
SUITE 300
BEND, OREGON 97703**

**541/306-3709
[HTTPS://WWW.SPRECHERGROUP.COM](https://www.sprechergroup.com)
WBE #5687**



**Sprecher
group**

TABLE OF CONTENTS

1. INTRODUCTION.....	1
2. UST DECOMMISSIONING AND SAMPLING	2
2.1 UST Decommissioning.....	2
2.2 Soil Sampling.....	3
2.3 Preliminary Discussions with DEQ	3
3. ANALYTICAL RESULTS	3
4. DISCUSSION	4
5. CONCLUSIONS	5
6. LIMITATIONS.....	5
7. SIGNATURE PAGE.....	6

SUPPORTING DOCUMENTATION

FIGURES.....	TAB 1
---------------------	--------------

Figure 1a General Location Map
Figure 1b Regional Location Map – 100 K Series
Figure 2 Topographic Map
Figure 3 Site Setting Aerial Photograph
Figure 4 Sample Location Map

TABLES.....	TAB 2
--------------------	--------------

Table 1 Soil Sample Analytical Results: TPH and Selected VOCs
Table 2 Soil Sample Analytical Results: Total Lead

APPENDIX A.....	TAB 3
------------------------	--------------

Site Photographs

APPENDIX B	TAB 4
-------------------------	--------------

EOER's Tank Cleaning Description, UST Recycling Receipt, Soil Disposal Receipt

APPENDIX C	TAB 5
-------------------------	--------------

Analytical Results and Chain-of-Custody Documentation

1. INTRODUCTION

The site, 44097 Anthony Lakes Highway, is located approximately one mile west of Haines, Oregon (see Figures 1a, 1b, 2, and 3). Figure 3 is an aerial photograph (Google Earth) showing the property and surrounding vicinity. Anthony Lakes Highway borders the south side of the property; agricultural land with some rural residences borders the property on all sides. The former property owner reportedly installed the unregulated underground storage tank (UST) to hold fuel for his airplane. The age of UST installation is unknown. A heating oil tank (HOT), also of unknown age, was located near the farmhouse at the site.

The property is currently owned by the estate of the former owner, and is in the process of being sold. In November, 2023, the estate representative contacted Eastern Oregon Environmental Recovery, LLC (EOER), an Oregon Department of Environmental Quality (DEQ)-licensed HOT Service Provider, to discuss decommissioning both the HOT and the unregulated UST. The estate retained EOER to decommission both tanks. Because the UST is unregulated, neither a DEQ-licensed UST Decommissioning Service Provider nor a DEQ-licensed UST Supervisor was required to be onsite during tank decommissioning and sampling. EOER retained Sprecher Group (SG) to provide a DEQ-licensed HOT Supervisor to be onsite during HOT and UST decommissioning, to document site conditions during decommissioning, to assist with soil sampling, and to prepare subsequent reports. The HOT decommissioning is being addressed in a separate report.

On December 5, 2023, EOER pumped approximately 125 gallons of water from the UST. On December 5, 2023, the UST was decommissioned by removal (see Section 2.1, following, and site photos in Appendix A), and was observed to be sitting in shallow groundwater. The UST was steel, appeared to be in poor condition, and had numerous holes in the bottom. Soils beneath the UST were heavily stained and exhibited a strong, degraded, petroleum odor.

Two soil samples were collected from vertically beneath each end of the UST on December 5, 2023. Both soil samples were analyzed via method NWTPH-Gx for Gasoline Range petroleum hydrocarbons; several followup analyses were conducted on soil sample 202. On December 5, 2023, EOER and SG called Tracy England, an eastside DEQ Project Manager with the Voluntary Cleanup Program (VCP), and verbally reported the leaking UST and shallow groundwater. DEQ recommended not reporting the release via DEQ's online reporting system (see Section 2.3, following).

EOER transported the UST to their Pendleton yard, cleaned the tank, and recycled it. The recycling receipt for both the UST and the HOT are attached in Appendix B.

After receipt of analytical results, EOER discussed further cleanup options/potential site work with the estate representative, their real estate agent, and the potential purchasers. As of January 2, 2024, the estate representative has not authorized additional work at this site, and the potential purchaser has not requested additional site work.

The purpose of this UST Decommissioning Report (Report) is to document UST decommissioning activities at the site, and to provide analytical results to date.

2. UST DECOMMISSIONING AND SAMPLING

2.1 UST Decommissioning

On December 5, 2023, EOER mobilized to the site, and pumped approximately 125 gallons of water from the UST. The water was pumped into a 250-gallon polyethylene tote (along with fuel from the HOT), labeled, and subsequently taken to EOER's Pendleton yard and stored, pending recycling by a used oil re-refining company such as ORCCO. It is not economical to have the re-refining company pick up small volumes of used oil and water pumped from tanks, therefore, EOER waits until several hundred gallons are ready for recycling before arranging a recycling pickup.

SG arrived onsite after the tank was pumped and before it was exposed and removed. EOER used a Kobelco SK 85 excavator to uncover the UST by digging along one side and one end of the tank. Clean soil from the excavation was stockpiled nearby for reuse as pit backfill. The top of the tank was about 1.6 feet below ground surface (bgs). The UST was removed with the excavator bucket, and inspected by EOER and SG. The tank measured approximately 3.5 feet in diameter and 4 feet long, and was estimated to hold 300 gallons. It was in poor condition and rusty; the bottom was riddled with holes and the seam at the bottom of one end had separated.

Soil at the surface and near the upper part of the tank was a moist to wet, brown, silty loam. At about 4 ½ feet bgs, silty loam was underlain by a wet, dark gray, sand/gravel/cobble unit with a very strong, degraded petroleum odor. Shallow groundwater was visible in the pit, beginning at about 4 ½ feet bgs, and appeared to have been impacted by petroleum. A small amount of impacted soil, about 3 excavator buckets, was placed in EOER's dump truck, taken to a nearby part of the site, and stockpiled on visqueen and covered (along with presumed impacted soil from the HOT excavation), pending subsequent disposal. Soil samples are described in the following section; pit water was not sampled on December 5th.

The final excavation measured approximately 8 feet east-west by about 6 ½ feet wide and extended to about 5.2 feet bgs. EOER backfilled the excavation with the clean soil that had been removed from the pit.

On December 5, 2023, EOER transported the UST to their Pendleton yard. On January 3, 2024, EOER cleaned the UST (see description in Appendix B); of the resulting solids were disposed of with the impacted soil stockpile on January 5, 2024. On January 3, 2024, EOER recycled the UST and the HOT at Doherty Recycling in Pilot Rock, Oregon (receipt is attached in Appendix B).

EOER disposed of 11.73 tons of soil, most of which was from the HOT excavation, at Finley Buttes Regional Landfill on January 5, 2024 (disposal receipt is in Appendix B).

2.2 Soil Sampling

On December 5, 2023, EOER/SG collected one soil sample from beneath each end of the UST, using clean hand tools and a fresh pair of disposable gloves. In accordance with DEQ and EPA Method 5035 sample collection/preservation requirements for volatile organic compound (VOC) soil samples, including Gasoline Range TPH, a fresh, disposable, T-Handle Soil Sampler was used to add soil to methanol-preserved VOA vials. Each soil sample was placed in two methanol-preserved VOA vials, and three clean, four-ounce jars, provided by the analytical laboratory, labeled, and iced.

Sample 201 was collected from beneath the west end of the UST at about 5.2 feet bgs; sample 202 was collected from beneath the east end of the UST at about 5.2 feet bgs. Sampled soil was a wet, dark gray, sand/gravel/cobble unit with a very strong, degraded petroleum odor; care was taken to sample sands rather than gravels.

2.3 Preliminary Discussions with DEQ

On December 5, 2023, EOER and SG called Tracy England, an eastside DEQ Project Manager with the Voluntary Cleanup Program (VCP), from the site, and verbally reported the leaking UST and shallow groundwater. Mr. England recommended not reporting the release via DEQ's online reporting system, and said that he would get back to us regarding how to formally report the leaking, unregistered tank to DEQ.

On December 11, 2023, Mr. England emailed EOER and SG: "Unregulated UST releases should go to Cleanup, so no need to report online. Please send me some details about the property and any sample results so that I can add the site to ECSI". On December 11, SG replied by email, suggesting that we wait until the preliminary analyticals had arrived.

On December 19, 2023, after the preliminary analyticals arrived, EOER and SG called Mr. England and discussed the ECSI (Environmental Cleanup Site Inventory) system briefly. Mr. England decided it would be more efficient to have all the information at once before adding the site to ECSI, requested that a copy of the report be sent to him, and commented that he would add the site to ECSI after receiving the report.

3. ANALYTICAL RESULTS

Samples were shipped under Chain-of-Custody protocol to Neilson Research Corporation (Neilson), Medford, Oregon, for analysis. Both soil samples were analyzed for TPH as Gasoline/Gasoline Range TPH (TPH stands for total petroleum hydrocarbons) via method NWTPH-Gx. Sample 202 was further analyzed for several volatile organic compounds (VOCs) via EPA Method 8260B and for total lead (EPA Method 6010B). The analyzed

VOCs included 1,2,4-trimethylbenzene (TMB), 1,3,5-TMB, EDB, EDC, benzene, ethylbenzene, isopropylbenzene, MTBE, n-propylbenzene, naphthalene, toluene, and total xylenes; these are the VOCs typically requested by DEQ during a risk-based assessment for a gasoline release. The Neilson analytical report and Chain-of-Custody documentation is presented in Appendix C of this Report.

The Gasoline-range surrogate result for both samples was flagged “MI”, defined by Neilson as “Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased”. No other QA/QC comments were provided by the laboratory.

Analytical results for the NWTPH-Gx analyses are summarized in the following data table (ND stands for not detected), and also in Table 1, which includes the analytical reporting limit (RL), in milligrams per kilogram (mg/kg).

Sample ID	TPH as Gasoline (mg/kg)	Gasoline-Range TPH (mg/kg)
201	--	725
202	--	975

Sample 202 was further analyzed for several VOCs: EDB, EDC, benzene, MTBE, and toluene were below detectable concentrations (analytical RLs are provided in Table 1). Detectable concentrations of 1,2,4-TMB (52.4 mg/kg), 1,3,5-TMB (15.8 mg/kg), ethylbenzene (7.24 mg/kg), isopropylbenzene (1.22 mg/kg), n-propylbenzene (4.99 mg/kg), naphthalene (3.56 mg/kg), and total xylenes (64.4 mg/kg) were reported.

Total lead was not detected in soil sample 202; the analytical RL was 6.29 mg/kg.

4. DISCUSSION

DEQ has adopted a Risk-Based Decision Making (RBDM) approach for evaluating the remediation of petroleum-contaminated sites. Under the RBDM guidance, source removal must be conducted, the extent of impacted soil must be defined both horizontally and vertically, and the horizontal extent of impacted groundwater must be defined. Table 1 of this Report includes Generic Risk-Based Concentrations (RBCs) for various exposure pathways related to petroleum-impacted soil. Note that as of June 2023, DEQ requires that the vapor intrusion into buildings exposure pathway be evaluated using soil gas sampling data, rather than soil sample analytical results, therefore that exposure pathway is not included in Table 1.

Because the horizontal and vertical extent of impacted soil, and the horizontal extent of impacted groundwater, have not been identified at this site, a Risk-Based Assessment has

not been yet conducted. Therefore, this Report is not intending to be a Risk-Based Assessment report.

EOER has preliminarily discussed further cleanup options with the estate representative and the potential purchasers. As of January 2, 2024, the estate representative has not authorized additional work at this site, and the potential purchaser has not requested additional site work.

5. CONCLUSIONS

The UST located at 44097 Anthony Lakes Highway was decommissioned by removal on December 5, 2023. A release appears to have occurred from the UST. The release was verbally reported to DEQ by phone on December 5, 2023; DEQ plans to add this site to the ECSI database upon receipt of this Report. Approximately 11.73 tons of impacted soil disposed of at Finley Buttes Regional Landfill; approximately 125 gallons of water from the tank is being stored at EOER's Pendleton yard awaiting pickup by ORRCO.

Analytical results from two soil samples collected from beneath the UST indicated Gasoline Range TPH concentrations of 725 mg/kg and 975 mg/kg. Several VOCs were detected; total lead was not detected above 6.29 mg/kg.

Cleanup is not complete (see discussion in preceding Report section). This site cannot be closed without conducting additional soil and groundwater sampling.

DEQ's VCP should be provided with a copy of this Report.

6. LIMITATIONS

This Report has been prepared by Sprecher Group for Eastern Oregon Environmental Recovery, LLC, and their clients. This Report is not intended for other use by others without the written consent of Sprecher Group and EOER. Regulated substances other than those discussed in this Report may exist in portions of the subject property that were not explored or analyzed. This Report should not be used for purposes other than those for which it was intended.

7. SIGNATURE PAGE



Expires 6/1/2024

Date:
January 5, 2024

Terry Sprecher, RG
Senior Geologist/Owner
Sprecher Group

FIGURES

Figure 1a: General Location Map

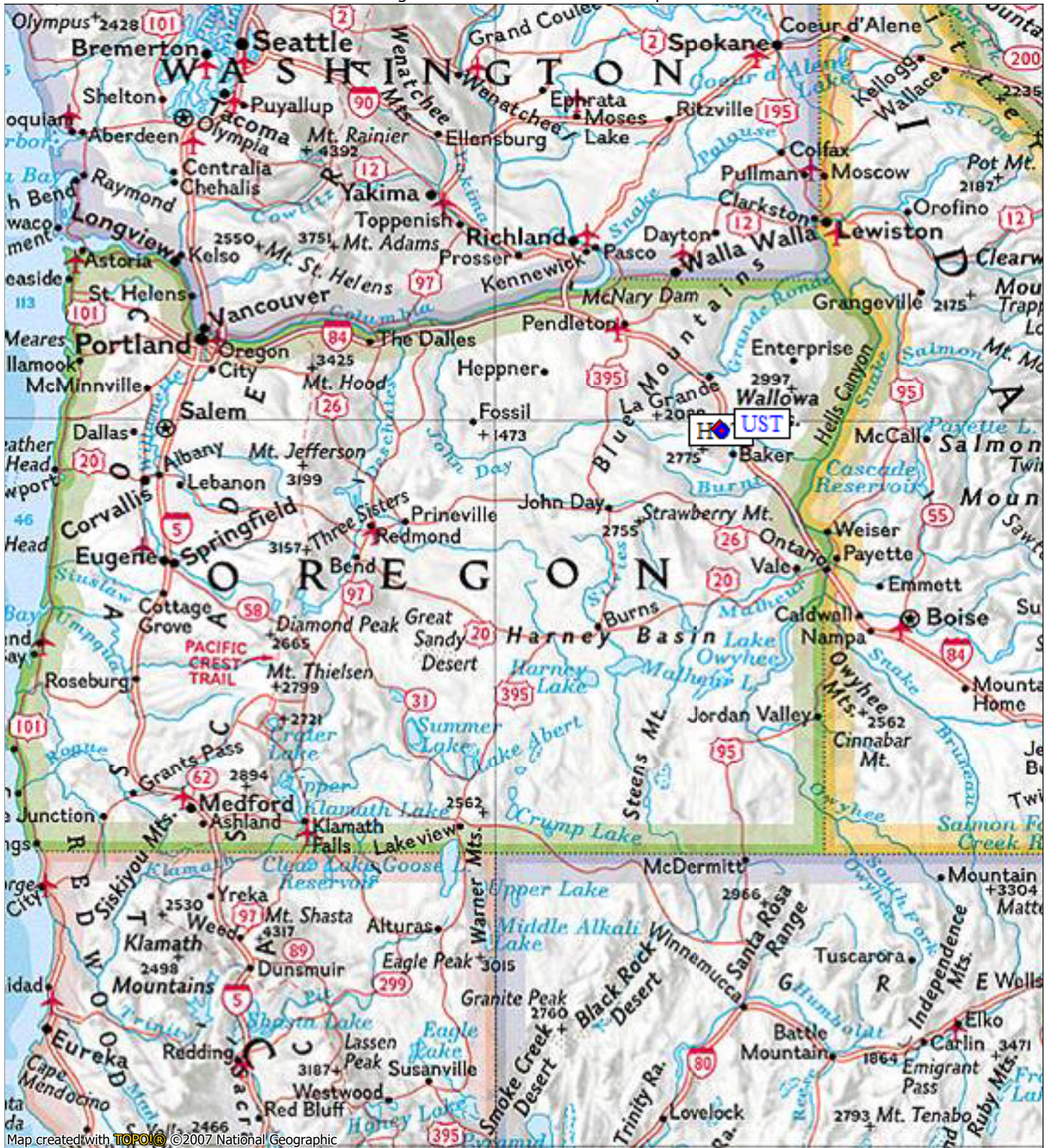
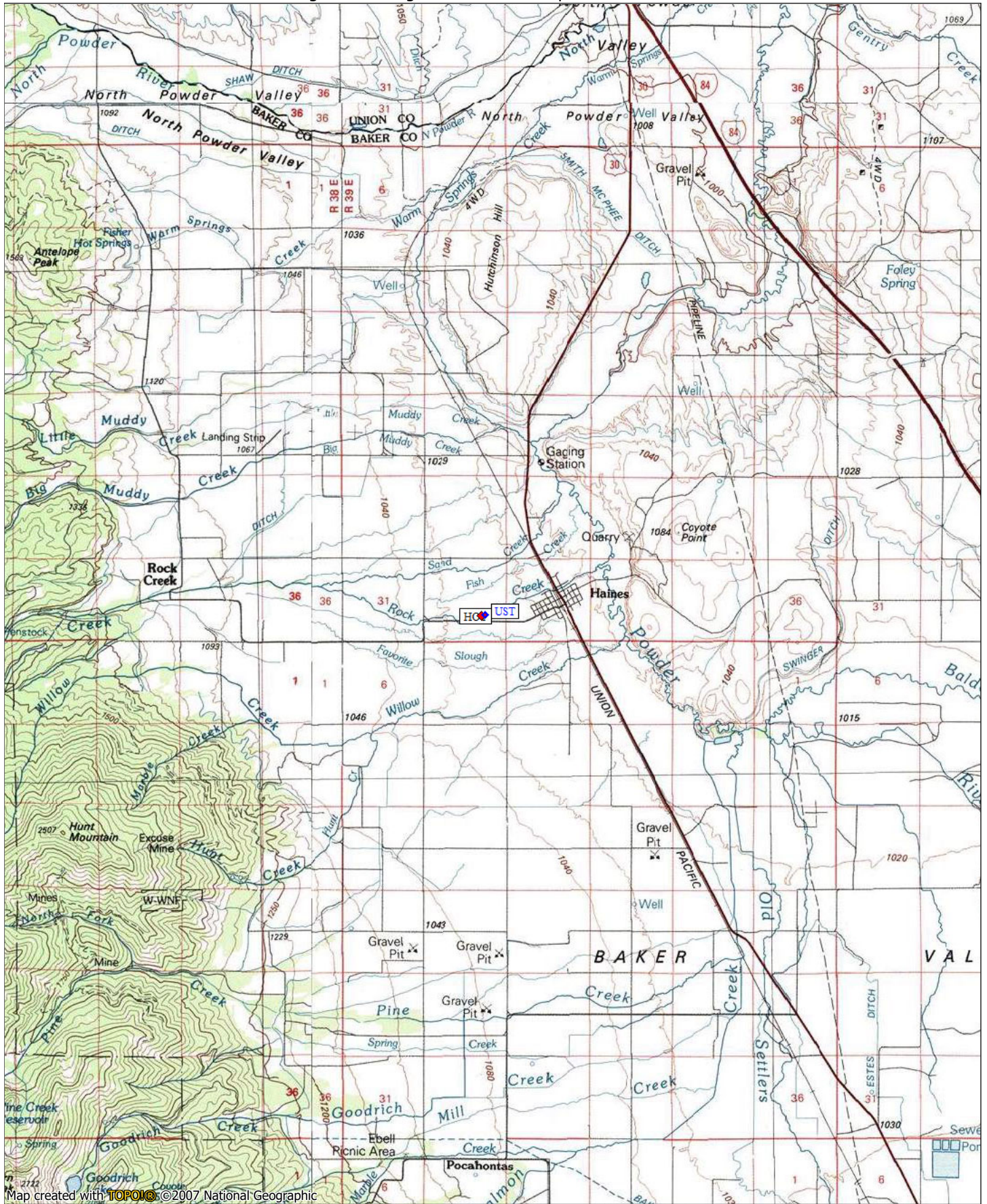


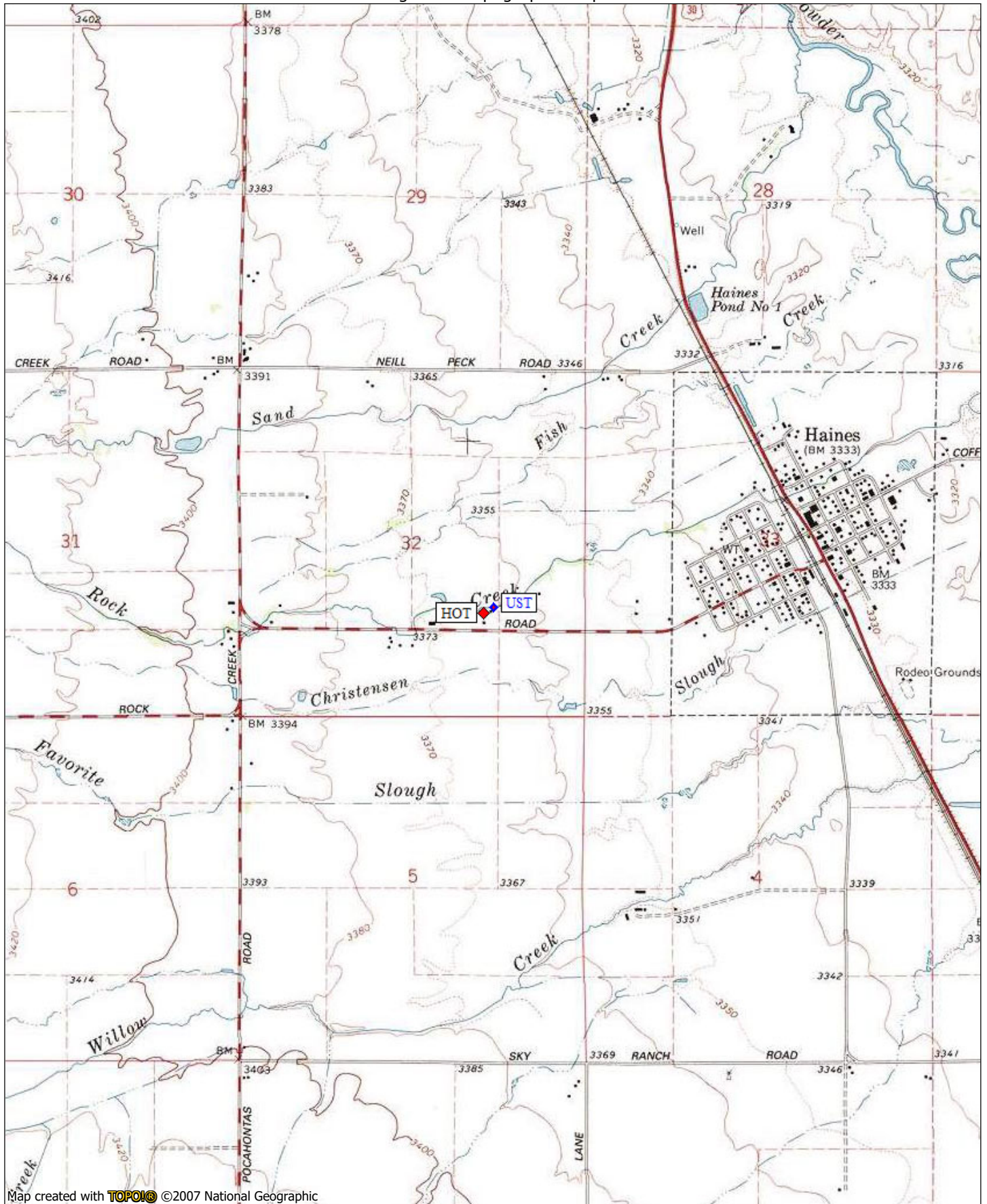
Figure 1b: Regional Location Map - 100 K Series



0.0 0.5 1.0 1.5 2.0 2.5 3.0 miles
0 1 2 3 4 5 km

TN MN
13°
01/05/24

Figure 2: Topographic Map



Map created with **TOPO!** ©2007 National Geographic



0.0 0.5 miles
0.0 0.5 1.0 km

TN * MN
13°
12/27/23



Figure 3: Site Setting Aerial Photograph. Aerial Photograph Courtesy of Google Earth.
Notes were added by SG.

Sample ID	Sample Depth (ft)	Gasoline Range TPH (mg/kg)
201	5.2	725
202	5.2	975

UST is approximately 4 feet long by 3.5 feet in diameter
Estimated volume is 300 gallons

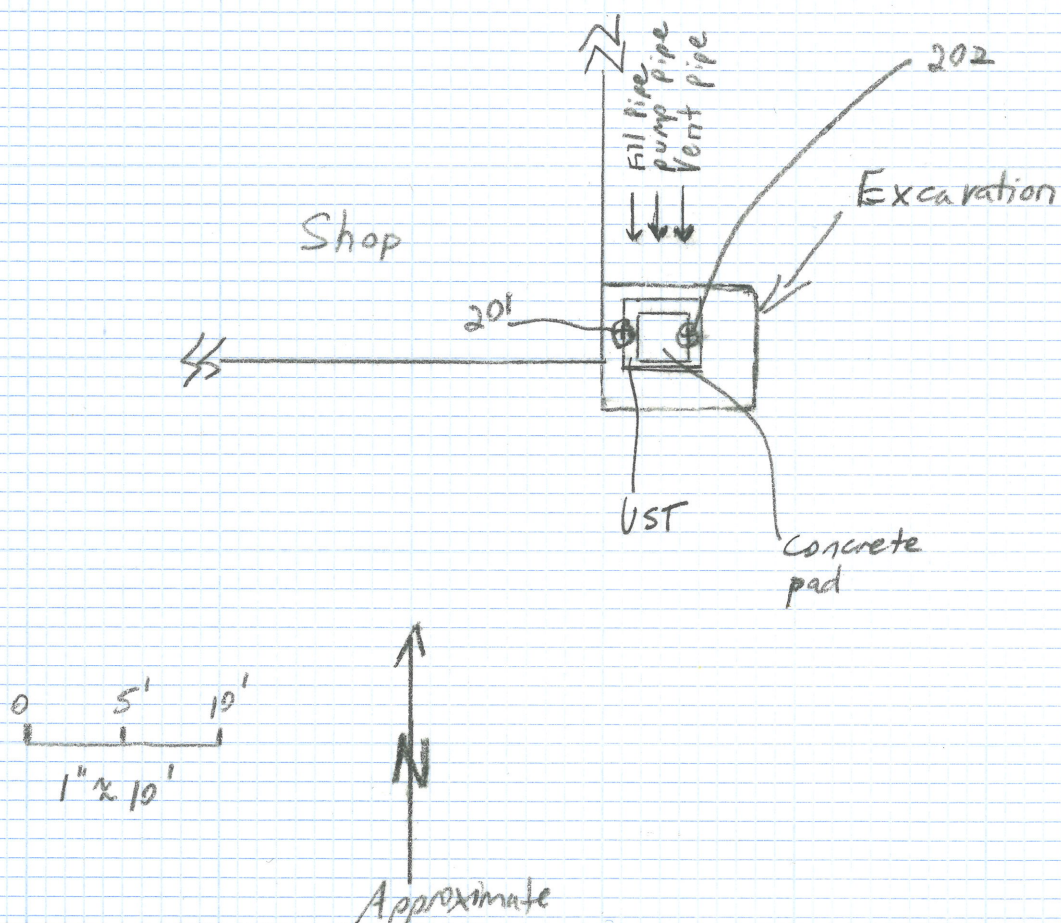


Figure 4 Sample Location Plan - UST
44097 Anthony Lakes Highway
Haines, Oregon 97833

Drawn by: TAS
January 2024
Sprecher Group Project # 4471b

TABLES

Table 1: Soil Sample Analytical Results: TPH and Selected VOCs
44097 Anthony Lakes Highway, Haines, Oregon 97833
Page 1 of 1

Sprecher Group Project # 4471b

Sample Number	Date Sampled	Sample Depth (feet bgs)	Petroleum Hydrocarbons (mg/kg)			Volatile Organic Compounds (VOCs) Method 8260B (mg/kg)											
			TPH as Gasoline/Gasoline Range TPH (NWTPH-Gx)	TPH as Diesel/Diesel Range TPH (NWTPH-Dx)	¹ TPH as Lube Oil/Lube Oil RangeTPH (NWTPH-Dx)	1,2,4-Trimethylbenzene	EDB	EDC	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	Isopropylbenzene	MTBE	n-Propylbenzene	Naphthalene	Toluene	Total Xylenes
201	12/5/2023	5.2	725	na	na	na	na	na	na	na	na	na	na	na	na	na	na
202	12/5/2023	5.2	975	na	na	52.4	<0.256	<0.256	15.8	<0.256	7.24	1.22	<0.256	4.99	3.56	<0.511	64.4
Exposure Pathway - Receptor Scenario			Generic Risk-Based Concentrations:														
Soil Ingstn, Dermal Cntct, & Inhltm-Residential			1,200	1,100	2,800	430	0.16	3.6	430	8.2	34	3,500	250	ne	5.3	5,800	1,400
Soil Ingstn, Dermal Cntct, & Inhltm-Occupational			20,000	14,000	36,000	6,900	0.73	16	6,900	37	150	57,000	1,100	ne	23	88,000	25,000
Soil Ingstn, Dermal Cntct, & Inhltm-Cnstretn Wrkr			9,700	4,600	11,000	2,900	9.0	200	2,900	380	1,700	27,000	12,000	ne	580	28,000	20,000
Soil Ingstn, Dermal Cntct, & Inhltm-Excvtn Wrkr			>Max	>Max	>Max	81,000	250	5,600	81,000	11,000	49,000	750,000	320,000	ne	16,000	770,000	560,000
Volatilization to Outdoor Air - Residential			5,900	>Max	>Max	>Csat	0.15	3.4	>Csat	11	36	>Csat	340	ne	6.4	>Csat	>Csat
Volatilization to Outdoor Air - Occupational			69,000	>Max	>Max	>Csat	0.65	15	>Csat	50	160	>Csat	1,500	ne	83	>Csat	>Csat
Leaching to Groundwater - Residential			31	9,500	>Max	10	0.00012	0.0028	11	0.023	0.22	96	0.11	ne	0.077	84	23
Leaching to Groundwater -Occupational			130	>Max	>Max	48	0.00056	0.013	53	0.10	0.90	>Csat	0.50	ne	0.34	490	100

NOTES:

Generic Risk-Based Concentrations are from the DEQ's Risk-Based Concentrations for Individual Chemicals Table, revision May 2018, amended June 2023.

¹ Generic Mineral/Insulating Oil RBCs are shown in lieu of Heavy Oil-Range TPH RBCs; Heavy Oil Range TPH RBCs have not been calculated by DEQ

A Risk-Based Assessment has not been done for this site.

> Max The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.

>Csat This soil RBC exceeds the limit of three-phase equilibrium partitioning.

na - Constituent was not analyzed.

ne - Generic RBCs have not been established for this constituent.

RBCs highlighted in green may not be applicable to this site and are included here for informational purposes only.

Table 2: Soil Sample Analytical Results: Total Lead and Leachable Lead
44097 Anthony Lakes Highway, Haines, Oregon 97833
Page 1 of 1

Sprecher Group Project # 4471b

Sample Number	Date Sampled	Sample Depth (feet bgs)	Metals Method 6010B ICP (mg/kg)	TCLP Metals Method EPA 1311/EPA 6010B (mg/l)
			Total Lead	TCLP Lead
201	12/5/2023	5.2	na	na
202	12/5/2023	5.2	<6.29	na
Exposure Pathway - Receptor Scenario			Generic Risk-Based Concentrations:	
Soil Ingstn, Dermal Cntct, & Inhltn-Residential			400	ne
Soil Ingstn, Dermal Cntct, & Inhltn-Occupational			800	ne
Soil Ingstn, Dermal Cntct, & Inhltn-Cnstretn Wrkr			800	ne
Soil Ingstn, Dermal Cntct, & Inhltn-Excvtn Wrkr			800	ne
Volatilization to Outdoor Air - Residential			nv	ne
Volatilization to Outdoor Air - Occupational			nv	ne
Leaching to Groundwater - Residential			30	ne
Leaching to Groundwater -Occupational			30	ne

NOTES:

Generic Risk-Based Concentrations are from the DEQ's Risk-Based Concentrations for Individual Chemicals Table, revision May 2018, amended June 2023.

A Risk-Based Assessment has not been done for this site.

na - Constituent was not analyzed.

nv - This chemical is considered "nonvolatile" for purposes of the exposure calculations.

ne - Generic RBCs have not been established for this constituent.

RBCs highlighted in green may not be applicable to this site and are included here for informational purposes only.

APPENDIX A
Site Photographs



Photo 1: Looking north at concrete pad for former pump. Shop to left; arrow points to bridge over Rock Creek.



Photo 2: Looking southwesterly; excavator starting to uncover unregulated UST.



Photo 3: Looking westerly while excavating along the side of UST.



Photo 4: Looking down into excavation; sheeny shallow groundwater is visible. Arrow points to UST.



Photo 5: Concrete pad has been removed and UST is exposed.



Photo 6: EOER is removing UST from excavation with excavator bucket.



Photo 7: Looking down into excavation after UST was removed.



Photo 8: Looking across excavation after UST was removed.



Photo 9: Looking at bottom of UST. Arrow points to corroded seam.



Photo 10: View of bottom of UST.
Note numerous holes to right of arrow.



Photo 11: Closeup of larger holes in bottom of UST;
marker pen for scale.



Photo 12: Stockpile on visqueen is from HOT. EOER
is adding 3 buckets of impacted soil from UST pit.



Photo 13: Looking northerly at covered stockpile, shop in background by excavator.



Photo 14: Looking westerly at covered stockpile, arrow points to farmhouse, in background.



Photo 15: EOER is placing UST in dump truck for transport to EOER's Pendleton yard.



Photo 16: View of excavation before backfilling. Arrows point to soil sample locations.



Photo 17: Looking at exterior of UST after being cleaned by EOER. Photo provided by EOER.



Photo 18: Looking at interior of UST after being cleaned by EOER. Photo provided by EOER.

APPENDIX B
EOER's Tank Cleaning Description,
UST Recycling Receipt
Soil Disposal Receipt

EASTERN OREGON

ENVIRONMENTAL RECOVERY

1410 SE Byers Ave.

541-571-3530 OFFICE

PENDLETON, OREGON 97801

541-276-1007 FAX

CCB#161093

REF: Heating oil tank and UST tank removed from 44097 Anthony Lakes Hwy. on Dec. 5th, 2023

Both tanks were taken to Eastern Oregon Environmental Recovery yard at 1410 SE Byers Ave., Pendleton, OR 97801. On January 3, 2024 the tanks were neutralized with dry ice and the ends of the tanks were cut open to allow cleaning.

HOT: This tank was fairly clean on the inside. Approximately 2 gallons of fuel sediment was removed and the tank was cleaned with absorbent materials. All the cleaning debris was placed in a small amount of soil. On January 5th 2024 those soils along with the petroleum soils from the site were hauled to Finley Butte Landfill under permit FB 24-02.

UST: This tank was in very poor condition and it allowed soils to infiltrate the tank. It had approximately 4 gallons of soils and fuel debris in the bottom of the tank. All these materials were placed on soils and on Jan. 5th, 2024, were hauled to Finley Butte Landfill under permit # FB 24-02.

Both tanks were taken to Doherty Recycling on January 3, 2024.

Dave Ammons

Eastern Oregon Environmental Recovery

1410 SE Byer Ave. Pendleton, OR 97801

HOT License # 26951

UST License # 26952

DOHERTY RECYCLING



611 NW Cedar St., Pilot Rock, OR 97868
541-443-3234

007916

Scale Ticket

CUSTOMER EOER

DRIVER'S LICENSE # _____

LICENSE PLATE # _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

COMMODITY Bulk

PRICE _____

REMARKS pd 53⁰⁰

DRIVER ☒ ON ☐ OFF

WEIGHER Krohn

Doherty Recycling
541-443-3234

ID 916

GROSS 28300 lb INBOUND

01/03/2024 02:14PM

ID 916

GROSS 28300 lb RECALLED

TARE 25960 lb

NET 2340 lb

01/03/2024 02:27PM



WASTE CONNECTIONS
Connect with the Future

Waste Profile: Jensen

Status: APPROVED

Approval Number: FB-24-2

generated at 01/03/2024

Approval

Date Approved: 01/03/2024

Date Expiring: 01/03/2025

Approved By: Darren Hansen

Additional Approval Information: Approved for cover

Approved Volume: 26

Disposal Conditions:

Generator

Company: Leif Jensen

Site: Leif Jensen

Address: 44097 Anthony Lakes Hwy. Haines OR 97833

Address 2: 1410 SE Byers Ave

Phone: 541-571-3530

EPA ID:

State ID: 97

Waste Origin

Address: 44097 Anthony Lakes Hwy. Haines OR 97833

County: Bakjer

Landfill

Landfill: Finley Buttes Regional Landfill

Address: 73221 Bombing Range Road Boardman OR 97818

Billing

Company: Eastern Oregon Environmental Recovery

Site: Eastern Oregon Environmental Recovery

Address: 1410SEByersAve. Pendleton OR 97801

Phone:

Shipping details

Event frequency: One Time

Anticipated number of loads: 1

Estimated annual quantity: 26

Unit of measure: Tons

Shipping frequency: One time

Quantity per shipment: 26

Container type: Dump Truck

Container type description:

Container size: 26

Signature

I hereby certify that all information contained herein is true and correct, and the material described is properly identified, classified, packaged, labeled, and prepared as indicated. I certify that this waste is either (i) not hazardous or dangerous as defined by the U.S. EPA, or the state or province of origin; or (ii) (and applicable to TX only) hazardous, special or industrial waste (including friable asbestos) that meets the classification of Class II waste. I certify that this waste does not contain any regulated radioactive materials and does not contain PCB's regulated by TSCA or any other regulatory authority. I certify that all known and suspected hazards have been disclosed. I certify that all samples used for this analysis are representative of the materials described herein. I understand that all wastes may undergo inspection upon arrival at the designated facility and may be refused if the delivered material does not conform to the description herein. Notification will be provided immediately if there is a change in the composition of, or process generating this waste stream, prior to offering the waste for shipment or management.

Print Name: Dave Ammons

Finley Buttes Regional Landfill
FINLEY BUTTES REGIONAL LANDFIL
P.O. Box 350
BOARDMAN, OR 97818

010246
EASTERN OREGON ENVIRONMENTAL
RECOVERY

PENDLETON OR 97801

Site 01
Ticket 00568344
Date In 01/05/24
Time In 08:45:55
Date Out 01/05/24
Time Out 09:15:59

LISHA L
Origin BAKER

Ref. EO 95
Grid

DESCRIPTION

Scale 1 Gross Wt.	62880LB	Vehicle FB-24-2	
Scale 2 Tare Wt.	39420LB	Roll-Off	
Net Wt.	23460LB	TON	11.73

Soils per TON

SW#
PO #
CONTAINER# TRUCK N PUP EO 95

Operating hours 7AM to 3:30PM Monday thru Friday.
Have a nice day!

Signature _____

APPENDIX C
Analytical Results and Chain-of-Custody Documentation



Neilson Research Corporation
245 S Grape St
Medford, OR 97501
TEL: (541) 770-5678 FAX: (541) 770-2901
Website: www.nrclabs.com

December 22, 2023

Dave Ammons
Eastern Oregon Env. Recovery
1410 SE Byers Ave
Pendelton, OR 97801
TEL: (541) 571-3530
FAX (541) 276-1007

RE: 44097 Anthony Lakes Hwy

Order No.: 23120353

Dear Dave Ammons:

Neilson Research Corporation received 2 sample(s) on 12/7/2023 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,
Neilson Research Corporation

Tamra Schmedemann
Senior Project Manager
245 S Grape St
Medford, OR 97501



Original



Neilson Research Corporation
245 S Grape St
Medford, OR 97501
TEL: (541) 770-5678 FAX: (541) 770-2901
Website: www.nrclabs.com

Case Narrative

WO#: 23120353
Date: 12/22/2023

CLIENT: Eastern Oregon Env. Recovery
Project: 44097 Anthony Lakes Hwy

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

Original



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Website: www.nrclabs.com

Analytical Report

WO#: 23120353

Date Reported: 12/22/2023

CLIENT: Eastern Oregon Env. Recovery
Lab ID: 23120353-01
Client Sample ID 201
Project: 44097 Anthony Lakes Hwy
Sample Address:

Collection Date: 12/5/2023 2:00:00 PM
Received Date: 12/7/2023 10:30:00 AM
Matrix: SOLID

Sample Location: Grab

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	MCL	Date Analyzed/Analyst
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PERCENT MOISTURE

Percent Moisture	NWTPH		22		1	1.0	% Wt		12/11/23 7:05 EA
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NWTPHGX_5035_S

NORTHWEST TPH GASOLINE IN SOIL

Gasoline Range (C6 - C12)	NWTPH-GX	A	725		10	55.4	mg/Kg-dry		12/12/23 12:44 TJW
Surr: 4-Bromofluorobenzene	NWTPH-GX		0	MI	10	50 - 150	%Rec		12/12/23 12:44 TJW

QUALIFIERS	C1	Sample container temperature is out of limit as specified at testcode	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit

Original

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



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Analytical Report

WO#: 23120353

Date Reported: 12/22/2023

CLIENT: Eastern Oregon Env. Recovery
Lab ID: 23120353-02
Client Sample ID 202
Project: 44097 Anthony Lakes Hwy
Sample Address:

Collection Date: 12/5/2023 2:05:00 PM
Received Date: 12/7/2023 10:30:00 AM
Matrix: SOLID

Sample Location: Grab

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	MCL	Date Analyzed/Analyst
----------	--------	--------------	--------	------	----	----	-------	-----	-----------------------

VOLATILE ORGANICS BY EPA 8260B

1,2,4-Trimethylbenzene	EPA 8260 B	A	52.4		20	0.511	mg/Kg-dry		12/19/23 11:17 TJW
1,2-Dibromoethane (EDB)	EPA 8260 B	A	ND		10	0.256	mg/Kg-dry		12/18/23 22:17 TJW
1,2-Dichloroethane (EDC)	EPA 8260 B	A	ND		10	0.256	mg/Kg-dry		12/18/23 22:17 TJW
1,3,5-Trimethylbenzene	EPA 8260 B	A	15.8		10	0.511	mg/Kg-dry		12/18/23 22:17 TJW
Benzene	EPA 8260 B	A	ND		10	0.256	mg/Kg-dry		12/18/23 22:17 TJW
Ethylbenzene	EPA 8260 B	A	7.24		10	0.256	mg/Kg-dry		12/18/23 22:17 TJW
Isopropylbenzene	EPA 8260 B	A	1.22		10	0.256	mg/Kg-dry		12/18/23 22:17 TJW
Methyl tert-butyl ether	EPA 8260 B	A	ND		10	0.256	mg/Kg-dry		12/18/23 22:17 TJW
n-Propylbenzene	EPA 8260 B	A	4.99		10	0.256	mg/Kg-dry		12/18/23 22:17 TJW
Naphthalene	EPA 8260 B	A	3.56		10	1.28	mg/Kg-dry		12/18/23 22:17 TJW
Toluene	EPA 8260 B	A	ND		10	0.511	mg/Kg-dry		12/18/23 22:17 TJW
Xylenes, Total	EPA 8260 B	A	64.4		10	0.511	mg/Kg-dry		12/18/23 22:17 TJW
Surr: 1,2-Dichlorobenzene-d4	EPA 8260 B		82.0		10	10 - 152	%Rec		12/18/23 22:17 TJW
Surr: 4-Bromofluorobenzene	EPA 8260 B		105		10	35 - 122	%Rec		12/18/23 22:17 TJW
Surr: Dibromofluoromethane	EPA 8260 B		125		10	28 - 148	%Rec		12/18/23 22:17 TJW
Surr: Toluene-d8	EPA 8260 B		127		10	41 - 144	%Rec		12/18/23 22:17 TJW

PERCENT MOISTURE

Percent Moisture	NWTPH		21		1	1.0	% Wt		12/11/23 7:05 EA
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NWTPHGX_5035_S

NORTHWEST TPH GASOLINE IN SOIL

Gasoline Range (C6 - C12)	NWTPH-GX	A	975		10	48.1	mg/Kg-dry		12/12/23 14:06 TJW
Surr: 4-Bromofluorobenzene	NWTPH-GX		0	MI	10	50 - 150	%Rec		12/12/23 14:06 TJW

QUALIFIERS	C1	Sample container temperature is out of limit as specified at testcode	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit

Original

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Analytical Report

WO#: 23120353

Date Reported: 12/22/2023

CLIENT: Eastern Oregon Env. Recovery
Lab ID: 23120353-02
Client Sample ID 202
Project: 44097 Anthony Lakes Hwy
Sample Address:

Collection Date: 12/5/2023 2:05:00 PM
Received Date: 12/7/2023 10:30:00 AM
Matrix: SOLID

Sample Location: Grab

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	MCL	Date Analyzed/Analyst
----------	--------	-----------------	--------	------	----	----	-------	-----	-----------------------

METALS BY EPA 6010 B ICP

Lead	EPA 6010 B	A	ND		1	6.29	mg/Kg-dry		12/19/23 19:55 CJS
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QUALIFIERS	C1	Sample container temperature is out of limit as specified at testcode	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit

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QC SUMMARY REPORT

WO#: 23120353

22-Dec-23

Client: Eastern Oregon Env. Recovery

Project: 44097 Anthony Lakes Hwy

TestCode: EPA8260_5035_S

Sample ID: MB-23727	SampType: MBLK	TestCode: EPA8260_503		Units: mg/Kg	Prep Date: 12/18/2023				RunNo: 44972		
Client ID: PBS	Batch ID: 23727	TestNo: SW8260B		E5035	Analysis Date: 12/18/2023				SeqNo: 751603		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0250									
1,3,5-Trimethylbenzene	ND	0.0500									
Benzene	ND	0.0250									
Ethylbenzene	ND	0.0250									
Isopropylbenzene	ND	0.0250									
Methyl tert-butyl ether	ND	0.0250									
n-Propylbenzene	ND	0.0250									
Naphthalene	ND	0.125									
Toluene	ND	0.0500									
Xylenes, Total	ND	0.0500									
Surr: 1,2-Dichlorobenzene-d4	1.40		2.000		69.9	52	92				
Surr: 4-Bromofluorobenzene	1.80		2.000		89.8	58	106				
Surr: Dibromofluoromethane	2.14		2.000		107	63	127				
Surr: Toluene-d8	2.15		2.000		108	67	130				

Sample ID: LCS-23727	SampType: LCS	TestCode: EPA8260_503 Units: mg/Kg				Prep Date: 12/18/2023			RunNo: 44972		
Client ID: LCSS	Batch ID: 23727	TestNo: SW8260B		E5035		Analysis Date: 12/18/2023			SeqNo: 751604		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	0.846	0.0250	1.000	0	84.6	80	109				
1,2-Dibromoethane (EDB)	0.809	0.0250	1.000	0	80.9	74	107				
1,2-Dichloroethane (EDC)	0.856	0.0250	1.000	0	85.6	74	115				

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode E Value above quantitation range H Holding times for preparation or analysis exceeds
MI Recovery outside control limits due to Matrix Interference ND Not Detected at the Reporting Limit PL Permit Limit
RL Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 23120353

22-Dec-23

Client: Eastern Oregon Env. Recovery

Project: 44097 Anthony Lakes Hwy

TestCode: EPA8260_5035_S

Sample ID: LCS-23727	SampType: LCS	TestCode: EPA8260_503 Units: mg/Kg				Prep Date: 12/18/2023			RunNo: 44972		
Client ID: LCSS	Batch ID: 23727	TestNo: SW8260B		E5035		Analysis Date: 12/18/2023			SeqNo: 751604		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	0.866	0.0500	1.000	0	86.6	76	111				
Benzene	0.875	0.0250	1.000	0	87.5	65	118				
Ethylbenzene	0.871	0.0250	1.000	0	87.1	81	107				
Isopropylbenzene	0.868	0.0250	1.000	0	86.8	76	111				
Methyl tert-butyl ether	0.806	0.0250	1.000	0	80.6	74	107				
n-Propylbenzene	0.868	0.0250	1.000	0	86.8	82	110				
Naphthalene	0.828	0.125	1.000	0	82.8	67	118				
Toluene	0.824	0.0500	1.000	0	82.4	80	111				
Xylenes, Total	2.52	0.0500	3.000	0	84.0	80	108				
Surr: 1,2-Dichlorobenzene-d4	1.35		2.000		67.7	52	92				
Surr: 4-Bromofluorobenzene	1.60		2.000		80.1	58	106				
Surr: Dibromofluoromethane	2.01		2.000		100	63	127				
Surr: Toluene-d8	2.00		2.000		100	67	130				

Sample ID: 23120353-02AMS	SampType: MS	TestCode: EPA8260_503 Units: mg/Kg-dry				Prep Date: 12/18/2023			RunNo: 44972		
Client ID: 202	Batch ID: 23727	TestNo: SW8260B		E5035		Analysis Date: 12/18/2023			SeqNo: 751606		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	9.19	0.256	10.22	0	89.8	65	126				
1,2-Dichloroethane (EDC)	9.58	0.256	10.22	0	93.7	56	140				
1,3,5-Trimethylbenzene	23.4	0.511	10.22	15.77	74.2	49	147				
Benzene	9.53	0.256	10.22	0	93.2	53	138				
Ethylbenzene	15.8	0.256	10.22	7.244	83.7	64	127				
Isopropylbenzene	10.1	0.256	10.22	1.222	87.1	60	139				

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode E Value above quantitation range H Holding times for preparation or analysis exceeds
MI Recovery outside control limits due to Matrix Interference ND Not Detected at the Reporting Limit PL Permit Limit
RL Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 23120353

22-Dec-23

Client: Eastern Oregon Env. Recovery

Project: 44097 Anthony Lakes Hwy

TestCode: EPA8260_5035_S

Sample ID: 23120353-02AMS	SampType: MS	TestCode: EPA8260_503 Units: mg/Kg-dry				Prep Date: 12/18/2023			RunNo: 44972		
Client ID: 202	Batch ID: 23727	TestNo: SW8260B		E5035		Analysis Date: 12/18/2023			SeqNo: 751606		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether	9.40	0.256	10.22	0	91.9	62	129				
n-Propylbenzene	13.5	0.256	10.22	4.994	83.3	48	146				
Naphthalene	12.9	1.28	10.22	3.558	91.4	60	152				
Toluene	9.29	0.511	10.22	0.3783	87.1	59	139				
Xylenes, Total	86.6	0.511	30.67	64.44	72.1	65	129				
Surr: 1,2-Dichlorobenzene-d4	2.29		2.045		112	10	152				
Surr: 4-Bromofluorobenzene	1.88		2.045		92.0	35	122				
Surr: Dibromofluoromethane	2.46		2.045		120	28	148				
Surr: Toluene-d8	2.39		2.045		117	41	144				

Sample ID: 23120353-02AMSD	SampType: MSD	TestCode: EPA8260_503 Units: mg/Kg-dry				Prep Date: 12/18/2023			RunNo: 44972		
Client ID: 202	Batch ID: 23727	TestNo: SW8260B		E5035		Analysis Date: 12/18/2023			SeqNo: 751607		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	9.45	0.256	10.22	0	92.4	65	126	9.186	2.80	38	
1,2-Dichloroethane (EDC)	9.93	0.256	10.22	0	97.1	56	140	9.585	3.56	35	
1,3,5-Trimethylbenzene	24.3	0.511	10.22	15.77	83.7	49	147	23.36	4.07	39	
Benzene	9.95	0.256	10.22	0	97.3	53	138	9.529	4.36	46	
Ethylbenzene	16.7	0.256	10.22	7.244	92.6	64	127	15.80	5.63	46	
Isopropylbenzene	10.6	0.256	10.22	1.222	92.1	60	139	10.13	4.92	38	
Methyl tert-butyl ether	9.40	0.256	10.22	0	91.9	62	129	9.396	0	37	
n-Propylbenzene	14.1	0.256	10.22	4.994	88.7	48	146	13.52	4.00	41	
Naphthalene	13.4	1.28	10.22	3.558	96.3	60	152	12.91	3.81	39	
Toluene	9.70	0.511	10.22	0.3783	91.1	59	139	9.288	4.31	46	

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode
MI Recovery outside control limits due to Matrix Interference
RL Reporting Detection Limit

E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
PL Permit Limit

Original



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QC SUMMARY REPORT

WO#: 23120353

22-Dec-23

Client: Eastern Oregon Env. Recovery

Project: 44097 Anthony Lakes Hwy

TestCode: EPA8260_5035_S

Sample ID: 23120353-02AMSD	SampType: MSD	TestCode: EPA8260_503	Units: mg/Kg-dry	Prep Date: 12/18/2023	RunNo: 44972						
Client ID: 202	Batch ID: 23727	TestNo: SW8260B	E5035	Analysis Date: 12/18/2023	SeqNo: 751607						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes, Total	91.2	0.511	30.67	64.44	87.1	65	129	86.55	5.18	46	
Surr: 1,2-Dichlorobenzene-d4	2.36		2.045		115	10	152		0	0	
Surr: 4-Bromofluorobenzene	1.97		2.045		96.5	35	122		0	0	
Surr: Dibromofluoromethane	2.56		2.045		125	28	148		0	0	
Surr: Toluene-d8	2.54		2.045		124	41	144		0	0	

Sample ID: 23120353-02AMS	SampType: MS	TestCode: EPA8260_503 Units: mg/Kg-dry				Prep Date: 12/18/2023			RunNo: 44990		
Client ID: 202	Batch ID: 23727	TestNo: SW8260B		E5035		Analysis Date: 12/19/2023			SeqNo: 751919		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	70.6	0.511	20.45	52.42	88.8	65	131				

Sample ID: 23120353-02AMSD	SampType: MSD	TestCode: EPA8260_503 Units: mg/Kg-dry				Prep Date: 12/18/2023			RunNo: 44990		
Client ID: 202	Batch ID: 23727	TestNo: SW8260B		E5035		Analysis Date: 12/19/2023			SeqNo: 751920		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	69.6	0.511	20.45	52.42	83.8	65	131	70.58	1.44	40	

Qualifiers:

C1	Sample container temperature is out of limit as specified at testcode	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
MI	Recovery outside control limits due to Matrix Interference	ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit				

Original



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QC SUMMARY REPORT

WO#: 23120353

22-Dec-23

Client: Eastern Oregon Env. Recovery

Project: 44097 Anthony Lakes Hwy

TestCode: ICP_6010_S

Sample ID: MB-23733		SampType: MBLK	TestCode: ICP_6010_S		Units: mg/Kg		Prep Date: 12/19/2023			RunNo: 45027		
Client ID: PBS		Batch ID: 23733	TestNo: SW6010B		SW3050B		Analysis Date: 12/19/2023			SeqNo: 752547		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.00									
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Sample ID: LCS-23733	SampType: LCS	TestCode: ICP_6010_S	Units: mg/Kg	Prep Date: 12/19/2023	RunNo: 45027						
Client ID: LCSS	Batch ID: 23733	TestNo: SW6010B	SW3050B	Analysis Date: 12/19/2023	SeqNo: 752548						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	66.0	9.92	74.80	0	88.2	81	114				
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Sample ID: 23120418-03AMS	SampType: MS	TestCode: ICP_6010_S	Units: mg/Kg	Prep Date: 12/19/2023	RunNo: 45027						
Client ID: BatchQC	Batch ID: 23733	TestNo: SW6010B	SW3050B	Analysis Date: 12/19/2023	SeqNo: 752551						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	105	4.96	99.21	4.307	102	75	125				
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Sample ID: 23120418-03AMSD	SampType: MSD	TestCode: ICP_6010_S	Units: mg/Kg	Prep Date: 12/19/2023	RunNo: 45027						
Client ID: BatchQC	Batch ID: 23733	TestNo: SW6010B	SW3050B	Analysis Date: 12/19/2023	SeqNo: 752552						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	102	4.88	97.66	4.307	100	75	125	105.2	2.74	25	
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Qualifiers:	C1	Sample container temperature is out of limit as specified at testcode	E	Value above quantitation range	H	Holding times for preparation or analysis exceeds
	MI	Recovery outside control limits due to Matrix Interference	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit				

Original



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QC SUMMARY REPORT

WO#: 23120353

22-Dec-23

Client: Eastern Oregon Env. Recovery

Project: 44097 Anthony Lakes Hwy

TestCode: NWTPHGX_5035_S

Sample ID: MB-23638	SampType: MBLK	TestCode: NWTPHGX_5	Units: mg/Kg	Prep Date: 12/12/2023	RunNo: 44869						
Client ID: PBS	Batch ID: 23638	TestNo: NWTPHGX	EPA 5035	Analysis Date: 12/12/2023	SeqNo: 749805						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH as Gasoline	ND	5.00									
Surr: 4-Bromofluorobenzene	2.12		2.000		106	50	150				

Sample ID: LCS-23638	SampType: LCS	TestCode: NWTPHGX_5 Units: mg/Kg				Prep Date: 12/12/2023			RunNo: 44869		
Client ID: LCSS	Batch ID: 23638	TestNo: NWTPHGX		EPA 5035		Analysis Date: 12/12/2023			SeqNo: 749806		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH as Gasoline	24.8	5.00	25.00	0	99.3	70	130				
Surr: 4-Bromofluorobenzene	2.11		2.000		105	50	150				

Sample ID: 23120353-01AMS	SampType: MS	TestCode: NWTPHGX_5	Units: mg/Kg-dry	Prep Date: 12/12/2023	RunNo: 44869						
Client ID: 201	Batch ID: 23638	TestNo: NWTPHGX	EPA 5035	Analysis Date: 12/12/2023	SeqNo: 749812						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH as Gasoline	960	55.4	276.0	725.4	85.0	70	130				
Surr: 4-Bromofluorobenzene	0		22.08		0	50	150				MI

Sample ID: 23120353-01AMSD	SampType: MSD	TestCode: NWTPHGX_5				Units: mg/Kg-dry	Prep Date: 12/12/2023			RunNo: 44869		
Client ID: 201	Batch ID: 23638	TestNo: NWTPHGX		EPA 5035		Analysis Date: 12/12/2023			SeqNo: 749813			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
TPH as Gasoline	921	55.4	276.0	725.4	70.8	70	130	959.9	4.17	25		

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode
MI Recovery outside control limits due to Matrix Interference
RL Reporting Detection Limit
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
PL Permit Limit

Original



Neilson Research Corporation
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Website: www.nrclabs.com

QC SUMMARY REPORT

WO#: 23120353
22-Dec-23

Client: Eastern Oregon Env. Recovery
Project: 44097 Anthony Lakes Hwy

TestCode: NWTPHGX_5035_S

Sample ID: 23120353-01AMSD	SampType: MSD	TestCode: NWTPHGX_5	Units: mg/Kg-dry	Prep Date: 12/12/2023	RunNo: 44869						
Client ID: 201	Batch ID: 23638	TestNo: NWTPHGX	EPA 5035	Analysis Date: 12/12/2023	SeqNo: 749813						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0		22.08		0	50	150		0	0	MI

Qualifiers:	C1	Sample container temperature is out of limit as specified at testcode	E	Value above quantitation range	H	Holding times for preparation or analysis exceeds
	MI	Recovery outside control limits due to Matrix Interference	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit				

Original

Sample Log-In Check List

Client Name: **EasternOregonEnviron**

Work Order Number: **23120353**

RcptNo: **1**

Logged by: **Kathryn Johnson** **12/7/2023 10:30:00 AM**

Kathryn Johnson

Completed By: **Tamra Schmedemann** **12/15/2023 10:22:51 AM**

Tamra Schmedemann

Reviewed By: **Tamra Schmedemann** **12/15/2023 10:22:55 AM**

Tamra Schmedemann

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? UPS

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒
No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good				DE

Chain of Custody Record

Page 1 of 1

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Section A Required Client Information	Section B Required Project Information	Section C Invoice Information	Section D Rush Status (Subject to Scheduling)
Company: Eastern Oregon Environmental Recovery, LLC	Project Name: <u>44097 Anthony Westbury</u>	Attention: Dave Ammons	☒ Standard 10-14 Days
Address: 1410 SE Byers Ave	Project Number:	Company Name: See Section A	☐ 5 Business Days (50% surcharge)
Pendleton, OR 97801	Report To: Dave Ammons	Address:	☐ 3 Business Days (75% surcharge)
Email: <u>eoerdave@gmail.com</u>	Copy To:		☐ 24 - 48 hours (100% surcharge)
Phone: (541) 571-3530 Fax:	<u>terry.sprecher@sprechergroup.com</u>	P.O. #	☐ Other
Collected By (Print): <u>Terry Sprecher & Dave Ammons</u>			Authorized ☐ Yes ☐ No
Collected By (Sign): <u>[Signature]</u>			
Email Report ☒ Yes ☐ No			
Fax Report ☐ Yes ☒ No			

Section E Sample Information					Analysis Requested										NRC Workorder #		
Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	NWTPH-DX	NWTPH-GX	BTEX	PAHS	RBDM Vol	Total Pb					(Lab Use Only)	NRC Sample #
<u>201</u>	<u>Grab</u>	<u>Soil</u>	<u>12/5/23</u>	<u>2:00pm</u>	<u>5</u>		<u>X</u>									<u>23120353</u>	<u>01</u>
<u>202</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>2:05pm</u>	<u>5</u>		<u>X</u>			<u>X</u>	<u>X</u>	<u>1</u>	<u>12/5/23</u>			<u>↑ may need follow ups - call Dave or Terry</u>	<u>02</u>

*Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipe OT - Other

Section F Relinquish/Receive		Sign	Print	Date	Time
Relinquished By:	<u>[Signature]</u>	<u>Terry Sprecher</u>	<u>12/5/23</u>	<u>2:55pm</u>	
Received By:	<u>[Signature]</u>	<u>Dave Ammons</u>	<u>12/6/23</u>	<u>1300</u>	
Relinquished By:					
Received By:					
Relinquished By:					
Received By Laboratory:	<u>K. Johnson</u>	<u>K. Johnson</u>	<u>12/7/23</u>	<u>10:30</u>	

Section G Lab Use Only	
Temp:	<u>3.0 IPS</u>
4°C +/- 2°C:	<u>0</u> Yes ☐ No ☐
Received on Ice:	<u>0</u> Yes ☐ No ☐
Number of Bottles Received:	
pH Checked:	<u>✓</u>
COC Seals Intact:	<u>✓</u> Yes ☐ No ☐ NA ☐
Field Blank Included:	<u>✓</u> Yes ☐ No ☐
Received Via:	<u>UPS</u> FedEX ☐ Other ☐ Hand ☐
Payment:	<u>Invoice</u> Cash ☐ VISA, M/C ☐ Check # ☐ Amount ☐

-
- A Total Alkalinity and Bicarbonate Alkalinity results are to a pH endpoint of 4.5. Carbonate Alkalinity result is to a pH endpoint of 8.3.
- A-LL The total low level alkalinity results are to a pH endpoint of 4.3-4.7 pH units per SM 2320B-2011.
- B Analyte detected in the associated method blank.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS), and/or matrix spikes exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 The Relative percent difference (RPD) is not within control limits because the concentration of the sample result is too low to represent proper statistical error.
- R5 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30% because the results are too low to represent proper statistical error. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series. The sample results are not affected.
- R6 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30%. This may indicate a possible matrix interference. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- * Value exceeds Maximum Contaminant Level or is outside the acceptable range.