

UST Decommissioning Report

Jackson County Curb Ramp (Ashland) UST Investigation at Waters St.
Project (Key #22208)
OR 99 M.P. 19.11
Jackson County

1/21/2024

Prepared by:
Brian McMullen

Oregon Department of Transportation

Region 3 Technical Center
Geo-HazMat-Environmental Unit

3500 NW Stewart Parkway
Roseburg, Oregon 97470

Executive Summary

The Oregon Department of Transportation (ODOT) Region 3 Hazardous Materials Group (HazMat) has conducted this underground storage tank (UST) Decommissioning Report for the discovered USTs on the Jackson County Curb Ramp (Ashland) project (Project), (Key# 22208). The Project is located on OR99 MP 19.11 in Ashland Oregon, at the entrance to the shopping plaza south of Waters Street (40 N Main Street). The purpose of this report is to document the discovery of two USTs under the sidewalk and parking lot located at 40 N Main Street in Ashland Oregon and summarize the decommissioning process of those USTs.

Based on the data presented herein, ODOT Region 3 HazMat has the following conclusions:

- At the direction of ODOT and DEQ, two steel USTs discovered on the Jackson County Curb Ramp (Ashland) Project were expeditiously removed from beneath the asphalt driveway and concrete sidewalk at 40 N Mains Street to maintain the project schedule without any delays.
- Both tanks were identical in size measuring 8'L/3.5'W/3'H with an estimated total capacity of 575 gallons each.
- The total pit dimension for tank removal was approximately 15'/12'/7' and no groundwater was encountered during excavation.
- Both tanks and approximately 14 cubic yards of suspected contaminated soil was removed from the excavation and disposed of by Western States Environmental as part of the decommissioning. Soils were transported to Dry Creek Landfill for disposal.
- After the two tanks and soil for the UST excavation had been removed no soil staining or odor was observed on the side walls and bottom of the excavation.
- Five soil samples were collected and analyzed by methods NWTPH-Dx, NWTPH-Gx, EPA methods 6010, 7471A, 1311, 8270, 8260B and 8082 from beneath the tank locations and sidewalls of the excavation.
- Laboratory analysis indicate that soils removed from the excavation and soils remaining in the ground are above DEQ CFSLs but below RBCs.

Table of Contents

1. Introduction.....	1
1.1. Project Description.....	1
1.2. Historical Data on Site Location.....	1
2. Site Assessment.....	2
3. Sample Collection.....	3
4. Laboratory Analyses, Results, and Discussion.....	3
4.1. Gasoline/ Diesel / Lube Oil.....	3
4.2. Total Metals	4
4.3. VOCs.....	4
4.4. PAHs	4
4.5. PCBs	4
5. Conclusions	4
6. Signatures	6

Attachments:

Figure 1	Vicinity Map
Figure 2	Tank Location Map from Sheet No C318
Figure 3	Sample Location Map from Sheet No C318
Tables	Soil Analytical Tables
Attachment 1	Site Photos
Attachment 2	August 28th, 2019, Memorandum from DEQ
Attachment 3	Laboratory Analytical Reports

1. Introduction

This Underground Storage Tank (UST) decommissioning report documents the discovery of two USTs on the OR99 Jackson County Curb Ramp (Ashland) project (Project) (Key No. 22208) and the decommissioning process that took place after discovery per OAR 340-177-0095.

1.1. Project Description

The Project was upgrading curb ramps to comply with the ADA standards at signalized and non-signalized intersections and at mid-block crossings within ODOT right-of-way (ROW) throughout Region 3, District 8. Prior to the Project, a HazMat Report was prepared by HDR Inc. documenting a review of the project area looking for any hazmat concerns. That report found no sites of environmental concern in the vicinity of the intersection of OR99 and Waters Street.

The Oregon Department of Transportation (ODOT) Region 3 Hazardous Materials Group (HazMat) was notified by the project manager on April 19, 2023, that during ADA ramp construction activities at the southeast corner of OR99 and Waters street in the downtown area of Ashland Oregon, a contractor identified a 2-inch threaded steel pipe and cap (Site Photos are provided in Attachment 1) under the concrete sidewalk in the driveway of the shopping center located at 40 N Main street as shown on the Vicinity Map, Figure 1. The cap was suspected to be associated with a UST.

Two USTs were eventually unearthed at the site location, removed, and disposed of along with all associated soils within the excavation pit. Department of Environmental Quality (DEQ) was notified prior to removal of the tanks and Western States Environmental (WSE) was hired to perform the tank removal and decommissioning on May 5th, 2023. This report details the decommissioning of the two tanks.

1.2. Historical Data on Site Location

Review of DEQ records revealed that the site has been developed since at least the 1880s and has had many commercial uses. The environmentally relevant uses are provided in the August 28th, 2019, Memorandum (provided in Attachment 2) from DEQ titled, "Claycomb Plaza, LUST # 15-17-0230 and are summarized below:

- A livery from roughly 1880 to early 1990s.
- A hardware store and hotel from late 1880s to 1920s.
- Portion of a railroad spur from approximately 1911-1949.
- Auto sales and repair from 1928 until the late 1960s. A battery service station being noted by the consultant.
- A large assortment of smaller retail/commercial uses from 1970s to current day.

In 2016, Coleman Creek Consulting inc (CCC) performed a Phase 1 environmental site assessment on behalf of a potential purchaser of the property located at 40 N Main Street. The assessment identified historical recognized environmental concerns HRECs associated with the auto sales and repair shop that operated at the property from 1928 until the late 1960s had likely contaminated the parking lot area on the property and that multiple USTs were likely still present.

A Phase two site investigation performed by CCC in December of 2016 confirmed soil contamination in the parking lot area that exceeded risk-based levels. It also identified two buried

tanks in the parking lot area: a heating oil tank (HOT) in the center of the parking lot and a 4'x10' UST in the north corner of the parking lot. Recommendation by CCC at the time was to decommission both tanks and any petroleum contaminated soils (PCS) associated with the tanks, develop a work plan in coordination with the DEQ LUST program for Site Closure and acquiring a No Further Action (NFA) letter, and develop a contaminated media management plan (CMMP) that would advise future development of the site.

Records show that in October of 2019 a conditional NFA was granted by DEQ and a CMMP was filed with county records.

The April 19, 2023, discovery of two USTs on this Project in the west corner of the parking lot are presumed to be associated with the auto sales and repair shop and were missed during the 2016 site investigation.

2. Site Assessment

Following the possible discovery of a UST on April 19th, 2023, Brian McMullen and Tim Doyle of R3 HazMat visited the site the following day to investigate the discovered pipe and cap. After removing the cap air was monitored down the pipe using a PID with a maximum reading of 376ppm. A stick was lowered down the pipe to a depth of 6.9' below top of cap and approximately 0.5 inches of sludge was measured at the bottom of the tank. A hand dug hole exposed the top of tank at 3.6 feet below ground surface (bgs) making the estimated height of the tank 3 feet. A metal detector was used to estimate the limits of the tank, but magnetic interference made it difficult. The hole was backfilled and R3 HazMat worked with HDR Inc. to secure the site. R3 Hazmat prepared a Special Provision 293 and 294 and provided it to HDR for obtaining a licensed tank decommissioner (WSE) for removing the tanks so that construction of the Project could continue with delay. DEQ was notified of the discovery and decommission activities were scheduled for May 5, 2023.

May 5th, 2023

07:40 - R3 HazMat arrived on site and WSE was defuming the tank with dry ice via the discovered riser pipe (VP1) as depicted in Figure 2 – Tank Location Map.

09:00 - Andrea Garcia of DEQ arrived on site to witness decommissioning of the tanks. Hand excavation of the tank area uncovered lateral lines and another vertical pipe (VP2) approximately four feet north of VP1. After removing vapors from VP1, the line was plugged and no air flow was observed coming from VP2, insinuating no connection between the two vertical pipes. Further excavation located four other unknown lateral pipes at the top of tank (Tank #1). Further excavation uncovered an additional tank (Tank #2) approximately one foot to the north of Tank #1. The bottom of Tank #2 was measured at 6.9 feet bgs and contained approximately 1 inch of a unknow clear product. The top of both tanks were measured at 3.9 feet bgs and based on the orientation of the exposed sidewalls, both tanks seemed to be oriented in the same direction at approximately 50 degrees NE as shown in Figure 2.

10:20 - DEQ left the site and WSE left site to stockpile approximately 7 cubic yards of soils for disposal and get more dry ice to displace the vapors in Tank #2. An additional saw cut was performed in the asphalt parking lot near the northern extent of the tanks to further delineate the northern extent of the tanks.

14:50 - Tank #2 was removed from the excavation and placed on plastic sheeting. The tanks dimensions were measured in the field at 8'Lx3.5'Wx3'H estimating the total capacity to be

approximately 575 gallons. No product was spilled during the removal and the tank showed no obvious signs of damage upon inspection. Soils adhered to the bottom of the tank and soil in the excavation had no obvious signs of staining or odor. Tank #2 was wrapped in plastic, placed in a dump truck and transported off-site to be properly disposed of by WSE.

15:28 - Excavation of Tank #1 resumed and was removed from the excavation and placed on plastic at 16:38. The tanks dimensions were measured in the field to be the same as Tank #2 8'Lx3.5'Wx3'H estimating the total capacity to be approximately 575 gallons. Once the tank was placed on the plastic, a small volume (approximately 1 gallon) leaked from one end of the tank and was contained on the plastic and cleaned up with paper towels. One small corrosion hole in the bottom of the Tank #1 was observed and the rest of the tank appeared in good condition. Tank #1 was wrapped in plastic, placed in a dump truck and transported off-site to be properly disposed of by WSE. An additional 7 yards of loose dirt was excavated from the pit and transported to an off-site stockpile location to be scheduled for disposal. The final UST excavation was approximate 15'x12'x7', groundwater was never encountered in the excavation, and all piping was cut and plugged. Once samples had been collected from the excavation, site photos were taken, and site sketches of the open pit had been completed the excavation was backfilled with a 1 sack slurry mix.

3. Sample Collection

WSE collected five discrete soil samples from below the tank locations and the sidewalls of the excavation (see Figure 3 – Sample Location Map) OAR 340-122-0340. No staining or odor was observed in the samples and pit excavation.

Samples were collected from the excavator bucket loads and new nitrile gloves were worn for each sample collection.

The samples were placed in individual sample jars and labeled immediately upon collection and placed in a chilled cooler. The sample locations were noted in the field. Standard chain-of-custody (COC) protocols were used to document and ensure a continuous record of sample possession from the time of sample collection until sample receipt by the laboratory.

4. Laboratory Analyses, Results, and Discussion

The soil samples were analyzed for diesel using method NWTPH-Dx, gasoline using method NWTPH-Gx total metals using United States Environmental Protection Agency (EPA) Methods 6010 and 7471A, TCLP Metals when necessary, using EPA Method 1311, polynuclear aromatic hydrocarbons (PAHs) using EPA Method 8270 SIM, volatile organics using EPA Method 8260B, and polychlorinated biphenyls (PCBs) by EPA Method 8082. A copy of the laboratory report is provided in Attachment 3 and results are compared to the CFSLs for Klamath Mountains Province and risk-based concentrations (RBCs) and are presented in the attached tables. Results are discussed below.

4.1. Gasoline/Diesel/Lube Oil

Gasoline Range Organics were not detected in the samples submitted. Diesel range Organics (DRO) petroleum hydrocarbons were not detected in the samples submitted. Residual Range Organics (RRO) did have detections in samples 23-104-1 E, 23-104-1 W, and 23-104-2 E. All detected petroleum hydrocarbon results do not exceed the CFSLs.

4.2. Total Metals

Sample 23-104-1 E, 23-104-1 W, 23-104-2 E, and 23-104-2 W exceeded CFSLs for Mercury, Cadmium, and Lead. Sample 23-104-1 E Wall exceeded CFSLs for just Cadmium. Due to higher concentration of Lead in 23-104-1 E, 23-104-1 W, 23-104-2 E, and 23-104-2 W a TCLP analysis was performed by that lab to determine if soils would qualify as hazardous. All TCLP analysis returned non-detect. All samples were below RBCs.

The CFSL values for total metals are based on natural background concentrations and vary by physiographic region. This project is in the Klamath Mountain Province.

4.3. VOCs

All samples were run for volatile organic compounds (VOCs) with no findings above the reporting limits.

4.4. PAHs

Sample 23-104-1 E had analytical results above the CFSLs for some polycyclic aromatic hydrocarbons. All analytical data was below RBCs.

4.5. PCBs

Samples 23-104-1 E, 23-104-1 W, and 23-104-2 E were analyzed for PCBs and all samples were not detected.

5. Conclusions

The Oregon Department of Transportation (ODOT) Region 3 Hazardous Materials Group (HazMat) has conducted this underground storage tank (UST) Decommissioning Report for the discovered USTs on the Jackson County Curb Ramp (Ashland) project (Project), (Key# 22208). The Project is located on OR99 MP 19.11 in Ashland Oregon, at the entrance to the shopping plaza south of Waters Street (40 N Main Street).

Finding of this report are summarized below:

- At the direction of ODOT and DEQ, two steel USTs discovered on the Jackson County Curb Ramp (Ashland) Project were expeditiously removed from beneath the asphalt driveway and concrete sidewalk at 40 N Mains Street to maintain the project schedule without any delays.
- Both tanks were identical in size measuring 8'L/3.5'W/3'H with an estimated total capacity of 575 gallons each.
- The total pit dimension for tank removal was approximately 15'/12'/7' and no groundwater was encountered during excavation.
- Both tanks and approximately 14 cubic yards of suspected contaminated soil was removed from the excavation and disposed of by Western States Environmental as part of the decommissioning. Soils were transported to Dry Creek Landfill for disposal.
- After the two tanks and soil for the UST excavation had been removed no soil staining or odor was observed on the side walls and bottom of the excavation.
- Five soil samples were collected and analyzed by methods NWTPH-Dx, NWTPH-Gx, EPA methods 6010, 7471A, 1311, 8270, 8260B and 8082 from beneath the tank locations and sidewalls of the excavation.

- Laboratory analysis indicate that soils removed from the excavation and soils remaining in the ground are above DEQ CFSLs but below RBCs.

6. Signatures

Report preparation conducted by:

Brian McMullen

Brian McMullen (HazMat Geologist)

Technical review conducted by:

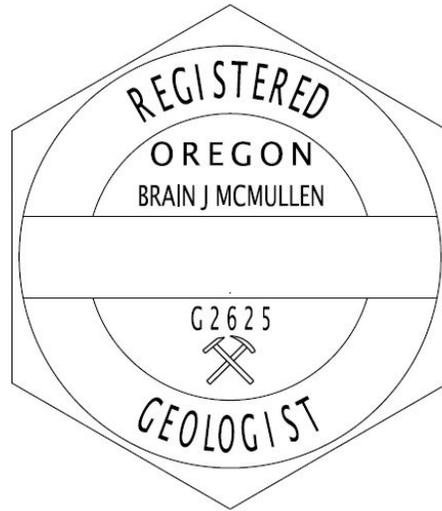
Tim Doyle

Tim Doyle (HazMat Geologist)

Professional of Record:

Brian McMullen

Brian McMullen (HazMat Geologist)



EXPIRES: 01-01-2026

Figures

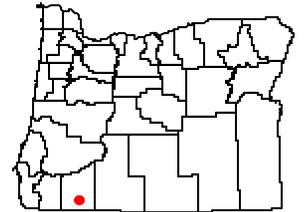


Oregon Department of Transportation

Figure - 1



Disclaimer:
"This product is for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Users of this product should review and consult the primary data sources to determine the usability of the information. Conclusions drawn from this information are the responsibility of the user."



Federal Aid-Number:
ODOT Key Number:
County:
City:
Mile Point(s):
Other Location Info:

Points

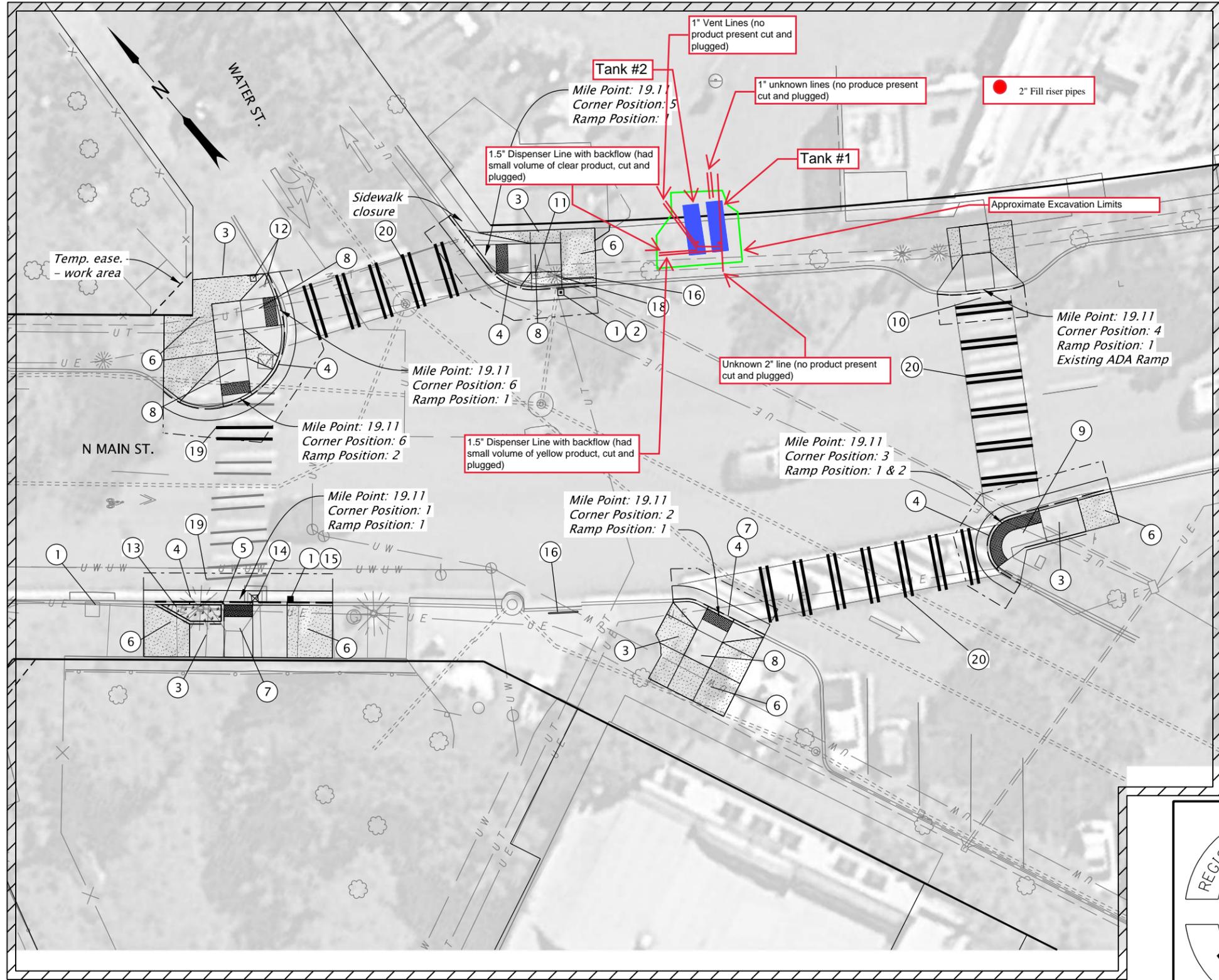


USTs Location

OR99: CHURCH ST. TO N FIRST ST.
 ROGUE VALLEY HWY. # 063, MP: 19.11
 ASHLAND, JACKSON COUNTY
 ASHLAND SITE 13

??V-???

Figure 2 - Tank Location Map
 Lines and dimensions are approximate

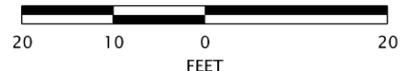


- 1 Const. inlet protection (Type 3) (See dwg. nos. RD1000 & RD1010)
- 2 Adjust inlet - 1 (See dwg. no. RD376)
- 3 Archaeology monitoring required - 5
- 4 Const. curb and gutter (See dwg. no. RD700)
- 5 Const. std. curb (See dwg. no. RD700)
- 6 Const. P.C. conc. sidewalk (See dwg. nos. RD700 & RD720)
- 7 Const. curb ramp, Parallel Inst. Colonial red truncated domes on New surface - 10 sq.ft PCC surfacing (For details, see sht. BC318) (See dwg. nos. RD900 & RD920)
- 8 Const. curb ramp, Perpendicular Inst. Colonial red truncated domes on New surface - 40 sq.ft PCC surfacing (For details, see sht. BC318A, BC318C, BC318D) (See dwg. nos. RD900 & RD912)
- 9 Const. curb ramp, Parallel option "PL-4" Inst. Colonial red truncated domes on New surface - 28 sq.ft PCC surfacing (For details, see sht. BC318B) (See dwg. nos. RD900 & RD920)
- 10 Sawcut with ACP replacement
- 11 Relocate water meter (by others)
- 12 Relocate extg. sign
- 13 Const. grouted durable round rock surfacing (For details, see sht. BB06)
- 14 Remove inlet - 1
- 15 Const. type "CG-2" inlet (See dwg. nos. RD365 & 366)
- 16 Inst. crosswalk closed barricade (See dwg. no. TM240)
- 17 Removal of curb ramp, walk, curb, and surfacing - 150 sq. yd
- 18 Relocate extg. luminaire
- 19 Replace crosswalk striping
- 20 Inst. staggered continental crosswalk modified (For details, see sht. BB03) (See dwg. nos. RD530)

General Notes:

- Extg. signs, striping and other features not called out are extg. and shall remain in place.
- For legend, see sht. BB10.
- Refurbish and reinstall extg. illumination system. Abandon extg. conduit and remove wiring. Intercept extg. conduit and install Type 1A junction box (See dwg. no. TM472). Install conduit to luminaire pole, matching extg. conduit diameter, and reinstall wiring.
- Archeology Monitoring Required

CONTRACTOR MAY NOT WORK IN THIS AREA UNTIL GIVEN NOTICE.
 SEE SPECIAL PROVISION SECTION 00180.65 FOR
 TABLE OF LOCATIONS AND DATES.



EXPIRES: mm/dd/202y

ADA CURB RAMP PILOT PROGRAM PROJECT



OR99/I-5 CURB RAMPS PROJECT
 VARIOUS HIGHWAYS
 JACKSON AND JOSEPHINE COUNTY

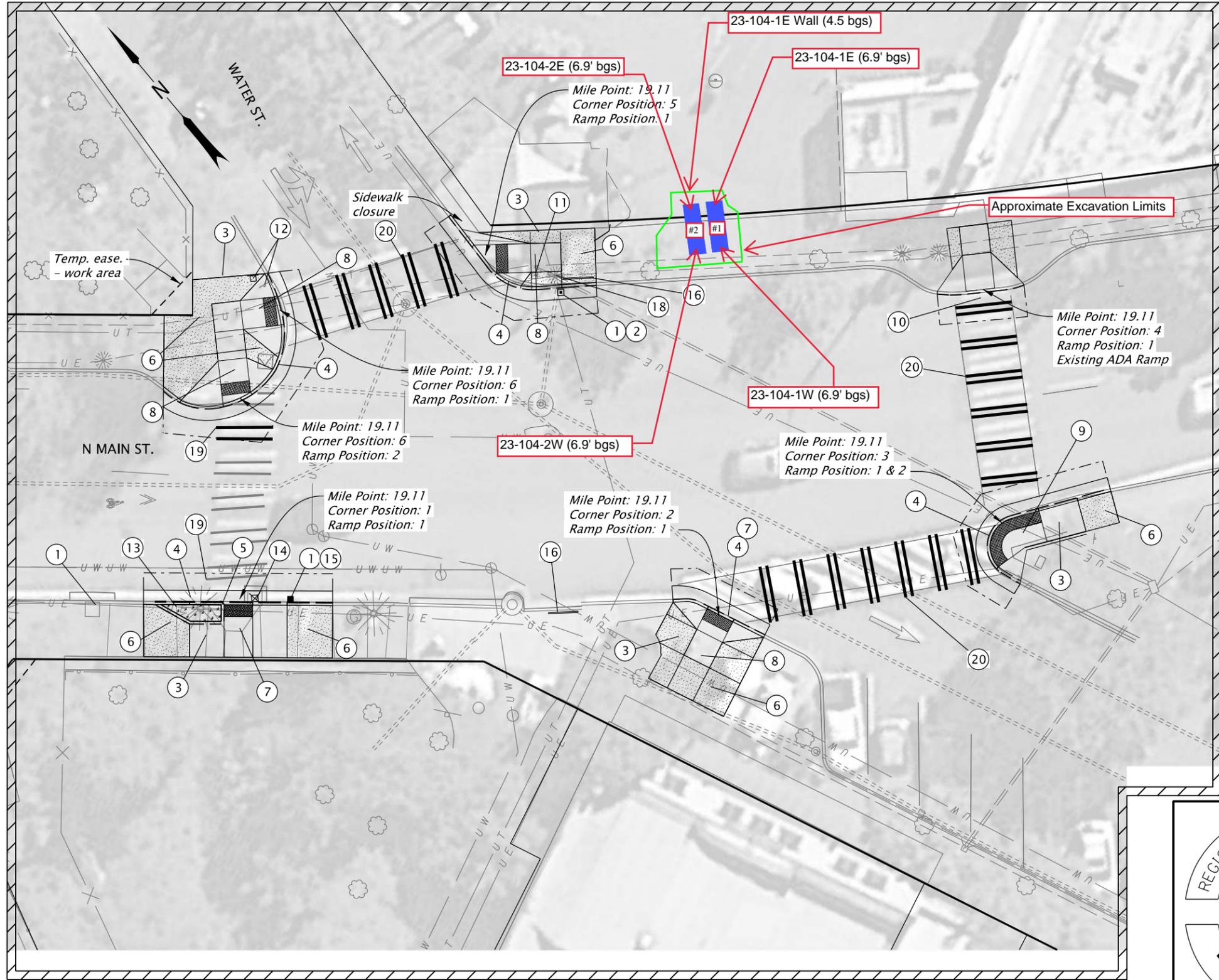
Designer: Jake Snyder Reviewer: Riad Alharithi
 Drafter: Kyle McDermott Checker: Anthony Quinn

GENERAL CONSTRUCTION SHEET NO. C318

OR99: CHURCH ST. TO N FIRST ST.
 ROGUE VALLEY HWY. # 063, MP: 19.11
 ASHLAND, JACKSON COUNTY
 ASHLAND SITE 13

??V-???

Figure 3 - Sample Location Map
 Sample locations are approximate

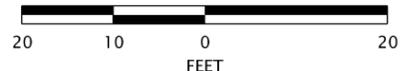


- ① Const. inlet protection (Type 3)
(See dwg. nos. RD1000 & RD1010)
- ② Adjust inlet - 1
(See dwg. no. RD376)
- ③ Archaeology monitoring
required - 5
- ④ Const. curb and gutter
(See dwg. no. RD700)
- ⑤ Const. std. curb
(See dwg. no. RD700)
- ⑥ Const. P.C. conc. sidewalk
(See dwg. nos. RD700 & RD720)
- ⑦ Const. curb ramp, Parallel
Inst. Colonial red truncated
domes on New surface - 10 sq.ft
PCC surfacing
(For details, see sht. BC318)
(See dwg. nos. RD900 & RD920)
- ⑧ Const. curb ramp, Perpendicular
Inst. Colonial red truncated
domes on New surface - 40 sq.ft
PCC surfacing
(For details, see sht. BC318A,
BC318C, BC318D)
(See dwg. nos. RD900 & RD912)
- ⑨ Const. curb ramp, Parallel
option "PL-4"
Inst. Colonial red truncated
domes on New surface - 28 sq.ft
PCC surfacing
(For details, see sht. BC318B)
(See dwg. nos. RD900 & RD920)
- ⑩ Sawcut with ACP replacement
- ⑪ Relocate water meter
(by others)
- ⑫ Relocate extg. sign
- ⑬ Const. grouted durable
round rock surfacing
(For details, see sht. BB06)
- ⑭ Remove inlet - 1
- ⑮ Const. type "CG-2" inlet
(See dwg. nos. RD365 & 366)
- ⑯ Inst. crosswalk closed barricade
(See dwg. no. TM240)
- ⑰ Removal of curb ramp, walk,
curb, and surfacing -
150 sq. yd
- ⑱ Relocate extg. luminaire
- ⑲ Replace crosswalk striping
- ⑳ Inst. staggered continental
crosswalk modified
(For details, see sht. BB03)
(See dwg. nos. RD530)

General Notes:

1. Extg. signs, striping and other features not called out are extg. and shall remain in place.
2. For legend, see sht. BB10.
3. Refurbish and reinstall extg. illumination system. Abandon extg. conduit and remove wiring. Intercept extg. conduit and install Type 1A junction box (See dwg. no. TM472). Install conduit to luminaire pole, matching extg. conduit diameter, and reinstall wiring.
4. Archeology Monitoring Required

CONTRACTOR MAY NOT WORK IN THIS AREA UNTIL GIVEN NOTICE.
 SEE SPECIAL PROVISION SECTION 00180.65 FOR
 TABLE OF LOCATIONS AND DATES.



EXPIRES: mm/dd/202y

ADA CURB RAMP PILOT PROGRAM PROJECT



OR99/I-5 CURB RAMPS PROJECT
 VARIOUS HIGHWAYS
 JACKSON AND JOSEPHINE COUNTY

Designer: Jake Snyder Reviewer: Riad Alharithi
 Drafter: Kyle McDermott Checker: Anthony Quinn

GENERAL CONSTRUCTION SHEET NO. C318

Tables

Metals Soil Analytical Summary

				Metals by EPA Method 6010(B) and 7471A (mercury)								TCLP Metals by Method 1311									
Boring ID	Sample ID	Sample Depth (ft bgs)	Date Sampled	Mercury (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (Mg/L)	Arsenic (Mg/L)	Barium (Mg/L)	Selenium (Mg/L)	Silver (Mg/L)	Cadmium (Mg/L)	Chromium (Mg/L)	Lead (Mg/L)		
---	23-104-1 E	6.9	5/4/2023	0.4	ND	130	ND	ND	1.15	36.3	247	NA	NA	NA	NA	NA	NA	NA	NA	ND	
---	23-104-1 W	6.9	5/4/2023	0.521	ND	89.5	ND	ND	2.7	21.8	93.1	NA	NA	NA	NA	NA	NA	NA	NA	ND	
---	23-104-2 E	6.9	5/4/2023	0.244	ND	101	ND	ND	1.12	32.4	50	NA	NA	NA	NA	NA	NA	NA	NA	ND	
---	23-104-2 W	6.9	5/4/2023	0.538	ND	139	ND	ND	1.5	35	318	NA	NA	NA	NA	NA	NA	NA	NA	ND	
---	23-104-1 E Wall	4.5	5/4/2023	0.037	ND	76.7	ND	ND	0.664	24.6	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	
DEQ CFSL for Klamath Mountains Province ^a				0.17	12	630	0.8	N/L	0.52	890	36										
Rule of 20 number that triggers TCLP Testing				4.0	100	2,000	20	100	20	100	100										
Soil Ingestion, Dermal Contact, and Inhalation - Construction Workers ^b				110	15	69,000	N/L	1,800	350	49	800										
Soil Ingestion, Dermal Contact, and Inhalation - Occupational ^b				350	1.9	220,000	N/L	5,800	1,100	6.3	800										
Soil Ingestion, Dermal Contact, and Inhalation - Excavation Workers ^b				2,900	420	>Max	N/L	49,000	9,700	1,400	800										
Leaching to Groundwater - Occupational ^b				*	*	*	N/L	*	*	*	30										
EPA Hazardous Waste Action Level ^c (Mg/L)												0.20	5.0	100	1.0	5.0	1.0	5.0	5.0		
NOTES:																					
DEQ - Oregon Department of Environmental Quality				mg/L - milligrams per liter																	
EPA - Environmental Protection Agency				Where Redacted - not applicable																	
CFSL - Clean Fill Screening Level				Where Bolded - concentration or detection limit exceeds the applicable regulatory limit																	
ft bgs - Feet below ground surface				>Max - the constituent RBCs 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.																	
ND - Not detected at the Reporting Limit (or MDL where applicable)				>Csat - This soil RBC exceeds the limit of three-phase equilibrium partitioning																	
NA - Not Analyzed				>Csat - This soil RBC exceeds the limit of three-phase equilibrium partitioning																	
N/L - Analyte not listed				* - Leaching -to-Groundwater RBCs are not provided for inorganic chemicals. Site-specific leaching tests required if considered a concern.																	
<x - Concentration less than x, where x is the laboratory detection limit				a - Clean-fill values are referenced from the DEQ Clean Fill Determinations Internal Management Directive (IMD), July 2014 revised April 2019																	
mg/kg - milligrams per kilogram				b - Risk-based concentrations (RBCs) are referenced from the <i>Risk-Based Concentrations for Individual Chemicals</i> , May 2018 revised August 2023																	
				c - Hazardous waste action levels are referenced from the EPA																	

Soil Analytical Summary

Boaring ID	Sample ID	Sample Depth (ft bgs)	Sample Date	NWTPH-GX	NWTPH-DX			VOCs by Method 8260										PAHs by Method 8270-SIM												
				Gasoline Range Organics (mg/kg)	Diesel (DRO) (mg/kg)	Lube Oil (RRO) (mg/kg)	1,2 Dibromoethane (EDB) (mg/kg)	1,2 Dichloroethane (EDC) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Methyl tert-butyl ether (mg/kg)	Total Xylenes (mg/kg)	Anthracene (mg/kg)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(g,h,i)pyrene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	
---	23-104-1 E	6.9	5/4/2023	ND	ND	231	ND	ND	ND	ND	ND	ND	ND	0.385	ND	ND	2.26	1.55	2.6	1.77	1.0	1.97	0.419	3.38	ND	ND	2.01	2.75		
---	23-104-1 W	6.9	5/4/2023	ND	ND	33.3	ND	ND	ND	ND	ND	ND	ND	0.0146	ND	ND	0.0236	0.0214	ND	0.0163	ND	0.0231	ND	0.0163	ND	ND	0.0186			
---	23-104-2 E	6.9	5/4/2023	ND	ND	119	ND	ND	ND	ND	ND	ND	ND	0.0116	ND	ND	0.101	0.0721	0.114	0.0821	0.0488	0.0904	0.02	0.110	ND	0.066	ND	0.047	0.097	
---	23-104-2 W	6.9	5/4/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.014	0.020	ND	ND	ND	0.0117	ND	0.013	ND	ND		
---	23-104-1 E Wall	4.5	5/4/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
DEQ CFSL for Organics and other selected constituents^a				31	1,100	1,100	0.00012	0.0028	0.023	23	0.22	NL	1.4	6.8	0.25	120	0.73	0.11	1.1	25	11	3.1	0.11	10	3.7	1.1	0.077	5.5	10	
Soil Ingestion, Dermal Contact, and Inhalation - Occupational^b				20,000	14,000	14,000	0.73	16	37	88,000 >Csat	150	NL	25,000 >Csat	350,000 >Csat	70,000 >Csat	N/L	21 >Csat	2.1	21 >Csat	N/L	210 >Csat	2,100 >Csat	2.1	30,000 >Csat	47,000 >Csat	21 >Csat	23	N/L	23,000 >Csat	
Soil Ingestion, Dermal Contact, and Inhalation - Construction Workers^b				9,700	4,600	4,600	9.0	200	380	28,000 >Csat	1,700	NL	20,000 >Csat	110,000	21,000 >Csat	N/L	170 >Csat	17	170 >Csat	N/L	1,700 >Csat	17,000 >Csat	17	10,000 >Csat	14,000 >Csat	24 >Csat	580	N/L	7,500 >Csat	
Soil Ingestion, Dermal Contact, and Inhalation - Excavation Workers^b				>Max	>Max	>Max	250	5,600 >Csat	11,000	770,000 >Csat	0	49,000	NL	560,000 >Csat	>Max	590,000 >Csat	N/L	4,800 >Csat	490 >Csat	4,900 >Csat	N/L	49,000 >Csat	490,000 >Csat	490 >Csat	280,000 >Csat	390,000 >Csat	670 >Csat	16,000 >Csat	N/L	210,000 >Csat
EPA Hazardous Waste Action Level^c (Mg/L)												0.5																		
NOTES:				<p>DEQ - Oregon Department of Environmental Quality CFSL - Clean Fill Screening Level ft bgs - Feet below ground surface U - Not detected at the Reporting Limit (or MDL where applicable) NA - Not Analyzed N/L - Analyte not listed <x - Concentration less than x, where x is the laboratory detection limit mg/kg - milligrams per kilogram Where Redacted - not applicable</p> <p>Where Bolded - concentration or detection limit exceeds the applicable regulatory limit >Max - the constituent RBCs 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 a - Clean-fill values are referenced from the DEQ Clean Fill Determinations Internal Management Directive (IMD), July 2014 revised April 2019 b - Risk-based concentrations (RBCs) are referenced from the <i>Risk-Based Concentrations for Individual Chemicals</i>, May 2018 revised August 2023</p>																										

PCB Soil Analytical Summary

				Polychlorinated Biphenyls (PCBs)						
Boring ID	Sample ID	Sample Depth (ft bgs)	Date Sampled	PCB 1016 (mg/kg)	PCB 1221 (mg/kg)	PCB 1232 (mg/kg)	PCB 1242 (mg/kg)	PCB 1248 (mg/kg)	PCB 1254 (mg/kg)	PCB 1260 (mg/kg)
---	23-104-1 E	6.9	5/4/2023	ND	ND	ND	ND	ND	ND	ND
---	23-104-1 W	6.9	5/4/2023	ND	ND	ND	ND	ND	ND	ND
---	23-104-2 E	6.9	5/4/2023	ND	ND	ND	ND	ND	ND	ND
---	23-104-2 W	6.9	5/4/2023	NA	NA	NA	NA	NA	NA	NA
---	23-104-1 E Wall	4.5	5/4/2023	NA	NA	NA	NA	NA	NA	NA
NOTES: ft bgs - Feet below ground surface ND - Not detected at the Reporting Limit (or MDL where applicable) NA - Not Analyzed mg/kg - milligrams per kilogram										

Attachment 1
Site Photographs

All Photos taken by Brian McMullen on 5/4/2023



Discovered fill cap in sidewalk belonging to Tank #1 (looking North)



Second fill cap uncovered to the north belonging to Tank #2



Exposed tank piping (looking North)



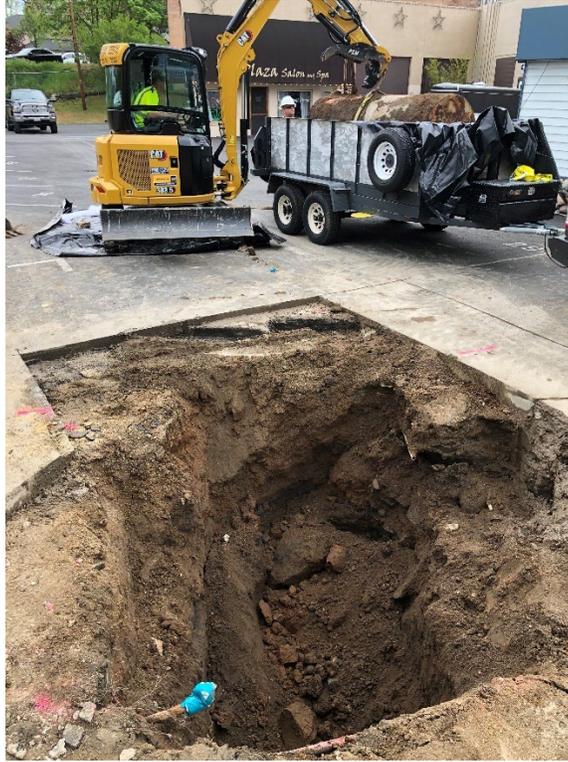
Exposed Tank #2 (looking North)



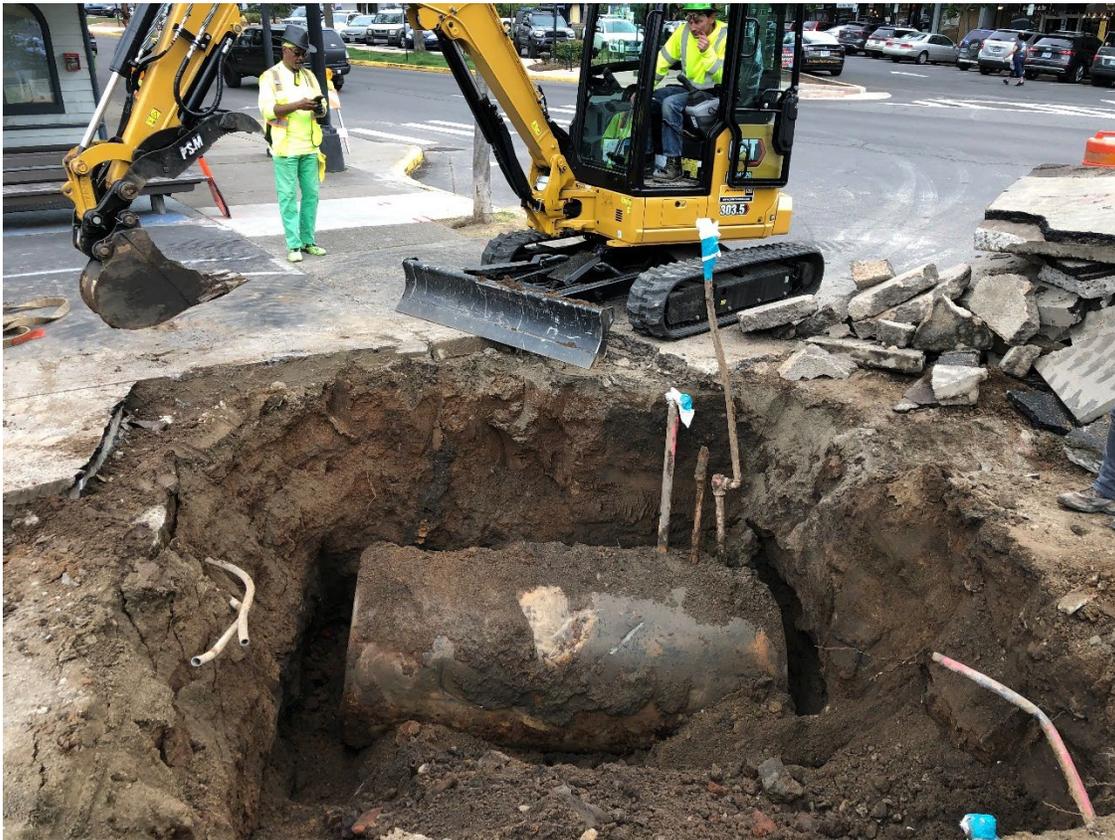
Exposed Tank #2 (looking East)



Tank #2 pulled and placed on plastic



Tank #2 being hauled off site



Tank #1 being exposed (looking South)



Tank #1 pulled and set on plastic (looking East)



Pit after both tanks were removed

Attachment 2

August 28th, 2019, Memorandum from DEQ

Date: August 28, 2019

To: FILE

Through: Michael E. Kucinski and Don Hanson

From: Ann Farris
Western Region

Subject: Claycomb Plaza, LUST # 15-17-0230; Staff Memorandum in support of a No Further Action determination

This document presents the basis for the Oregon Department of Environmental Quality's (DEQ's) recommended No Further Action (NFA) determination for the Claycomb Plaza, in Ashland. As discussed in this report, contaminant concentrations in soil and groundwater are below acceptable risk levels, with certain restrictions.

The proposed NFA determination meets the requirements of Oregon Administrative Rules Chapter 340, Division 122, Sections 0205 to 360 and ORS 465.200 through 465.455.

The proposal is based on information documented in the administrative record for this site. A copy of the administrative record index is presented at the end of this report.

1. BACKGROUND

Site location.

The site's location is as follows:

- Address: 40 North Main Street, Ashland, Jackson County Oregon.
- Latitude 42.1975° North, longitude -122.715° West
- Tax lot(s) 10100, 10600, and 10801, Township 37S, Range 1E, Section 09BB

Site setting.

- Site size is approximately 0.9 acres in downtown Ashland, southeast of Ashland Creek and west of the downtown plaza (Figure 1).
- The property has been developed as a commercial property for over 100 years. Currently, there is a 16,446 square foot building located on the southern half of the property and a paved parking lot on the North end of property.
- To the east of the property is a mixed commercial/residential area. Bluebird Park and Ashland Creek are to the northwest and the commercial downtown area of Ashland is to the west.
- Land use zoning is mixed commercial and residential use.

Physical setting.

- The site is located in the Rogue River Valley at an elevation of approximately 1850-1900 feet above sea level, with a gently decreasing slope to the north.
- Surface waters drain north towards Ashland Creek, which subsequently drains into Bear Creek.
- Depth to groundwater is variable, ranging from two to 15 feet below ground surface (bgs),
- The valley is underlain by a variety of flat lying, unconsolidated stream deposits that overlie bedrock. In general, soils are well-drained gravelly, sandy loam. The drilling onsite indicated the nonfill soils were silty clays and gravels in the area of contamination.
- Groundwater flow direction beneath the site is estimated to be primarily to the north-northwest, towards Ashland Creek.
- Ashland Creek is the nearest surface water body, less than 0.25 miles to the north.

Site history.

- The Site has been developed since at least the 1880s and has had a large number of commercial uses. The environmentally relevant uses are summarized below:
 - o A livery from roughly 1880 to early 1990s
 - o A hardware store and hotel from late 1880s to 1920s.
 - o Portion of a railroad spur from approximately 1911-1949
 - o Auto sales and repair from 1928 until the late 1960s. A battery service station being noted by the consultant.
 - o A large assortment of smaller retail/commercial uses from 1970s to current day.
- See the Phase I Environmental Site Assessment Report in the administrative record for further detail on the historical use.

2. BENEFICIAL LAND AND WATER USE DETERMINATIONS

Land use.

- The site is currently a commercial operation and expected to remain in this use for the foreseeable future, but the risk evaluation also included the possibility of an urban residential use to be more conservative.
- The areas around the site are mixed residential and commercial and are expected to remain developed in this same manner.
- The site is zoned for commercial use. The areas surrounding the site are mixed use.

Groundwater use.

- There are domestic wells in the area, with the closest being 0.2 miles to the east, however they are completed to depths of 100 to 200 feet bgs. The water bearing zones were encountered at or below 80 feet bgs.
- City water is available through this area of Ashland and is the current water source at the site. No changes to that usage are planned or expected since the property is not changing owners or uses for the foreseeable future.

Surface water use.

- The nearest surface water body is Ashland Creek, less than 0.25 miles to the northwest of the Site, which is a fish bearing stream and runs throughout a variety of municipal parks.
- Ashland Creek flows into Bear Creek, approximately 1.2 miles north of the Site.

3. INVESTIGATION AND CLEANUP WORK

The areas of concern identified in the Phase I are listed below:

1. Heating oil tank and presumed supply lines in the North parking lot.
2. Potential underground gasoline tanks (location not known) described by Sid DeBoer, the CEO of Lithia Motors, former owner.
3. Auto service operations from 1920's to early 1970's, including hydraulic lifts, potential spills adjacent to the building, and potential waste oil and motor oil tanks.
4. Painting and Oils shop noted on Sanborn Fire Insurance Map 1911, located at north end property.

Subsequent to the Phase I, a Phase II investigation was completed that included twelve direct-push soil borings drilled across the site to depths ranging from 4.0 to 16.0 feet bgs. A utility-locate survey completed before the borings were drilled indicated potential locations of underground storage tanks (USTs), including a 37-foot UST (hereafter referred to as Tank 1) in the central parking area, the base of a fuel dispenser adjacent to the building, and a suspected 6-foot UST along the northern boundary of the parking area. Based on the results of the soil sampling and the suspected tanks, the consultant recommended decommissioning the underground storage tanks along with associated infrastructure and removing contaminated soil.

The suspected 6-foot long UST in the northeast corner of the property turned out to be discarded concrete with extensive rebar; not a source of contamination. The 37-foot, two-compartment UST was, however, present, and a second gasoline UST was encountered to the north of Tank 1 (see Figure 2). Tank 1 contained diesel and waste oil. Both USTs were decommissioned by removal in March 2019 along with the fuel dispenser pad, encountered piping, and approximately 320 tons of contaminated soil. Confirmation samples collected at the limits of the excavation indicated residual soil and groundwater impacts from gasoline and diesel fuel.

In April 2019, six more borings were drilled to delineate the extent of the soil and groundwater contamination remaining at the site (Figures 3 and 4). The samples were analyzed for total petroleum hydrocarbons (TPH-Gas, -Diesel, and -Oil). Additionally, soil samples from S-16, S-17, and S-18 and the most contaminated groundwater samples were analyzed for volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and relevant metals.

Nature and extent of contamination.

The contamination in both soil and groundwater is the highest around boring S-17, roughly in the center of the northern part of the property (Figures 3 and 4), and at depths between 10 and 15 feet bgs. No notable soil contamination extended off site, but groundwater impacts extend to the northwest of the property and beneath Bluebird Park. Concentrations diminish away from the former tank locations and are below human health risk-based concentrations off the property,

which is discussed further in the risk evaluation in Section 4. TPH-gas, - diesel, and –oil along with benzene, ethylbenzene, naphthalene, trimethylbenzenes, and benzo(a)pyrene were the contaminants of concern, along with the metals lead, cadmium, and total chromium.

4. RISK EVALUATION

Conceptual site model.

To evaluate human exposure to residual chemical contamination requires an assessment of the type and extent of that exposure. This is based on current and reasonably likely future site use. DEQ publishes risk-based concentrations (RBCs) for contaminants commonly encountered, for different types of exposure scenarios. These RBCs are conservative estimates of protective levels of contaminants in soil, groundwater and air.

The residual soil contamination that remains after the USTs were removed could act as an ongoing source for groundwater contamination. The groundwater is not a drinking water source, but all other pathways of potential human and ecological exposure exist either now or in the future. See Table 1 below for a summary of all relevant pathways and if the applicable RBC has been exceeded.

Table 1
Identification of applicable RBCs

RISK BASED CONCLUSIONS
 Claycomb Plaza - Site Investigation
 Ashland, Oregon

	Pathway	Receptor	Is Pathway Complete?	Is RBC Exceeded?	Comments
Soil	Ingestion, Dermal Contact and Inhalation	Residential	No	No	CMMP has been developed for on site. There is no soil contamination offsite.
		Urban Residential	No	No	
		Occupational	Yes	No	
		Construction Work	Yes	Yes	
		Excavation Worker	Yes	No	
	Volatilization to Outdoor Air	Residential	No	Yes	Property zoned Commercial
		Urban Residential	No	Yes	
		Occupational	Yes	No	
	Vapor Intrusion Into Buildings	Residential	No	Yes	Property zoned Commercial
		Urban Residential	No	Yes	
		Occupational	Yes	No	
	Leaching to Groundwater	Residential	No	Yes	See comments below for tap water exposure pathway and ecological risk pathway in Ashland Creek.
Urban Residential		No	Yes		
Occupational		No	Yes		
Groundwater	Ingestion & Inhalation From Tap Water	Residential	No	Yes	Shallow groundwater is very unlikely drinking water source due to amount of water in the clays. BWUS indicated wells in area, but 80 feet bgs or deeper, which is consistent with other sites in area DEQ has reviewed.
		Urban Residential	No	Yes	
		Occupational	No	Yes	
	Volatilization to Outdoor Air	Residential	Yes	No	Offsite is residential. Onsite is commercial/occupational setting.
		Urban Residential	Yes	No	
		Occupational	Yes	No	
	Vapor Intrusion Into Buildings	Residential	Yes	No	
		Urban Residential	Yes	No	
		Occupational	Yes	No	
	Groundwater in Excavation	Occupational	Yes	No	
Soil Gas to VI	Residential	Yes	No		
	Urban Residential	Yes	No		
	Occupational	Yes	No		
Air	Residential	Yes	No		
	Urban Residential	Yes	No		
	Occupational	Yes	No		
Ecological		Terrestrial & Surface Water	Yes	No	Ecological Risk Screening Levels for PAHs were exceeded in the groundwater monitoring wells, but an evaluation of the distance to surface water indicates the levels are not likely to be exceeded in the surface water.
Notes: CMMP - Contaminated Media Management Plan PAHs - polycyclic aromatic hydrocarbons RBC - Generic Risk Based Concentration					

Contaminant concentrations and risk summary.

A summary of the contaminant concentrations in soil and groundwater in comparison to the RBCs is shown in the tables below, taken from the UST Decommissioning Report (CCC, 2019). TPH-diesel and TPH-oil in the soil onsite at concentrations of 8,370 and 12,100 respectively represent an unacceptable risk to excavation workers if they should come into contact with it. Groundwater did not have exceedances because the shallow aquifer is not a potential drinking water source and concentrations are not high enough to pose a risk to the creek.

Table 9: Comparison of Soil Values with Applicable Risk-based Concentrations (mg/kg)						
Receptor	Residential	Occupational Worker		Construction Worker	Excavation Worker	Highest Value
Pathway	RBCso	RBCso	RBCsi	RBCss	RBCss	
Gasoline	5,900	69,000	>MAX	9,700	>MAX	3,060
Diesel	>MAX	>MAX	>MAX	4,600	>MAX	8,370
Lube Oil	>MAX	>MAX	>MAX	11,000	>MAX	12,100
Benzene	11	50	2.1	380	11,000	0.35
Ethylbenzene	36	160	17	>Csat	>Csat	0.462
sec-Butylbenzene	NL	NL	NL	NL	NL	1.51
n-Butylbenzene	NL	NL	NL	NL	NL	3.25
n-Propylbenzene	NL	NL	NL	NL	NL	11.3
Isopropylbenzene	>Csat	>Csat	>Csat	>Csat	>Csat	3.39
4-Isopropyltoluene	NL	NL	NL	>Csat	>Csat	1.82
Naphthalene	6.4	83	83	580	>Csat	17.0
Toluene	>Csat	>Csat	>Csat	>Csat	>Csat	0.0591
1,2,4-Trimethylbenzene	>Csat	>Csat	>Csat	>Csat	>Csat	78
1,3,5-Trimethylbenzene	>Csat	>Csat	>Csat	>Csat	>Csat	19.1
Xylenes, Total	>Csat	>Csat	>Csat	>Csat	>Csat	13.2 ⁽¹⁾
Acenaphthene	>MAX	>MAX	>MAX	>Csat	>Csat	0.00667
Acenaphthylene	NL	NL	NL	NL	NL	0.0267
Anthracene	>MAX	>MAX	>MAX	>Csat	>MAX	0.0800
Benz(a)anthracene	>Csat	>Csat	>Csat	>Csat	>Csat	0.305
Benzo(a)pyrene	NV	NV	NV	>Csat	>Csat	0.305
Benzo(b)fluoranthene	NV	NV	NV	>Csat	>Csat	0.0947
Benzo(g,h,i)perylene	NL	NL	NL	>Csat	>Csat	0.169
Dibenz(a,h)anthracene	NV	NV	NV	>Csat	>Csat	0.0853
Fluoranthene	NV	NV	NV	>Csat	>Csat	0.958
Fluorene	>MAX	>MAX	>MAX	>Csat	>Csat	3.1
Indeno(1,2,3-cd)pyrene	NV	NV	NV	>Csat	>Csat	0.164
Phenanthrene	NL	NL	NL	NL	NL	3.82
Pyrene	>Csat	>Csat	>Csat	>Csat	>Csat	1.37
Cadmium	NV	NV	NV	>Csat	>Csat	10.7
Chromium	NV	NV	NV	>Csat	>Csat	33.8
Lead	NV	NV	NV	800	800	305

RBCso Risk-based concentrations for *Soil Volatilization to Outdoor Air* pathway.
 RBCsi Risk-based concentrations for *Soil Vapor Intrusion into Buildings* pathway.
 RBCss Risk-based concentrations for *Soil Ingestion, Inhalation and Dermal Contact* pathway.
 >Csat The risk-based concentrations for this pathway is greater than the saturation limit.
 >MAX The risk-based concentration for this pathway is greater than the highest concentration likely to be encountered at the site.
 NV This contaminant is considered "Non-volatile" for this pathway
 NL Not listed as a Contaminant of Concern in DEQ's table of Risk-based Concentrations.
 Bold values indicate a contaminant that exceeds the risk-based concentration for this pathway

Table 10: Comparison of Groundwater Values with Applicable Risk-based Concentrations (ug/L)					
Receptor	Residential	Occupational Worker		Construction and Excavation Worker	Highest Value
Pathway	RBCwo	RBCwo	RBCwi	RBCwe	
Gasoline	>S	>S	>S	14,000	5,090
Diesel	>S	>S	>S	>S	39,100
Lube Oil	>S	>S	>S	>S	16,700
Benzene	3,100	14,000	2,800	1,800	2.83
Ethylbenzene	9,900	>S	8,200	4,500	2.77
Toluene	>S	>S	>S	220,000	1.49
Naphthalene	3,600	>S	11,000	500	87.6
Xylenes, Total	>S	>S	>S	23,000	18.5
sec-Butylbenzene	NL	NL	NL	NL	4.42
tert-Butylbenzene	NL	NL	NL	NL	0.67
n-Propylbenzene	NL	NL	NL	NL	23.4
Isopropylbenzene	>S	>S	>S	51,000	18.6
4-Isopropyltoluene	NL	NL	NL	NL	1.55
1,2,4-Trimethylbenzene	>S	>S	>S	6,300	44
1,3,5-Trimethylbenzene	>S	>S	>S	7,500	7.45
Acetone	NL	NL	NL	NL	5.02
1,2,4-Trichlorobenzene	NL	NL	NL	NL	1.94
Acenaphthene	>S	>S	>S	>S	16.1
Anthracene	>S	>S	>S	>S	3.8
Benzo(a)anthracene	>S	>S	>S	>S	1.3
Benzo(a)pyrene	NV	NV	NV	>S	0.75
Benzo(b)fluoranthene	NV	NV	NV	>S	0.80
Chrysene	NV	NV	NV	>S	1.35
Fluoranthene	NV	NV	NV	>S	6.2
Fluorene	>S	>S	>S	>S	16.4
Phenanthrene	NL	NL	NL	NL	23.3
Pyrene	>S	>S	>S	>S	6.2
Cadmium (total)	NV	NV	NV	>S	58.6
Chromium (total)	NV	NV	NV	>S	173
Lead (total)	NV	NV	NV	>S	1160

RBCwo Risk-based concentration for *Groundwater Volatilization to Outdoor Air* pathway.
 RBCwi Risk-based concentration for *Groundwater Vapor Intrusion into Buildings* pathway.
 RBCwe Risk-based concentration for *Groundwater in Excavation* pathway.
 >S the risk-based concentration for this contaminant is greater than its solubility limit in water
 NV This contaminant is considered "Non-volatile" for this pathway
 NL Not listed as a Contaminant of Concern in DEQ's table of Risk-based Concentrations.

5. RECOMMENDATION

Following decommissioning of the USTs and removal of 320 tons of impacted soil, and based on sample results for soil and groundwater, a small area of residual soil contamination on site could pose an unacceptable risk if excavation workers were directly exposed. This contamination is generally at depths below 10 feet so is not a risk for the general worker or site occupant. A contaminated media management plan (CMMP) has been written describing how to safely handle the soils in this area. As long as the CMMP is followed, a No Further Action determination is recommended for this site. The No Further Action determination and the CMMP should be recorded in DEQ's Leaking Underground Storage Tank (LUST) database (LUST No. 15-17-0230).

6. ADMINISTRATIVE RECORD

1. Coleman Creek Consulting (CCC), Phase One Environmental Site Assessment of T37S R1E S09BB TAX LOTS 10100, 10600, AND 10801 (Claycomb Plaza) JACKSON COUNTY, OREGON, October 31, 2016.
2. CCC, Phase II Soil Site Investigation, Claycomb Plaza, December 21, 2016.
3. CCC, UST Decommission and Risk-Based Cleanup of the Claycomb Plaza, August 13, 2019.
4. CCC, Contaminated Media Management Plan, Claycomb Plaza Site, LUST#15-17-0230, August 14, 2019

7. ATTACHMENTS

1. Figure 1: Vicinity map
2. Figure 2: Site Map with Soil Confirmation Sample Results
3. Figure 3: Soil Sample Results from Temporary Borings
4. Figure 4: Groundwater Sample Results from Temporary Borings

Figure 1: Vicinity Map



40 North Main Street Ashland, Oregon
Figure 1: Location of the Site

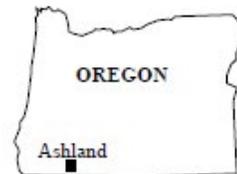
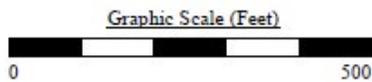


Figure 2: Site Map with Soil Confirmation Sample Results

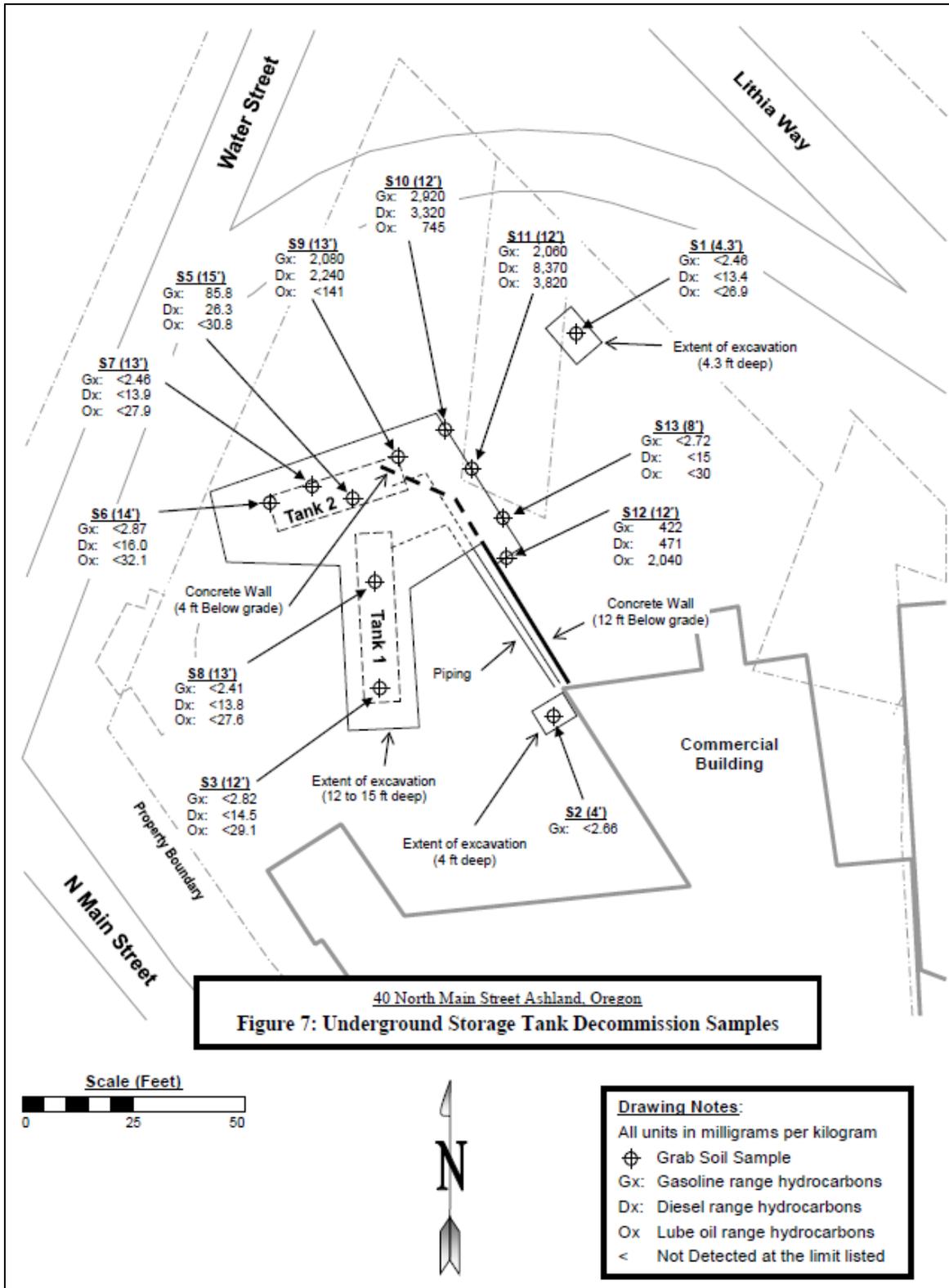


Figure 3: Soil Sample Results from Temporary Borings

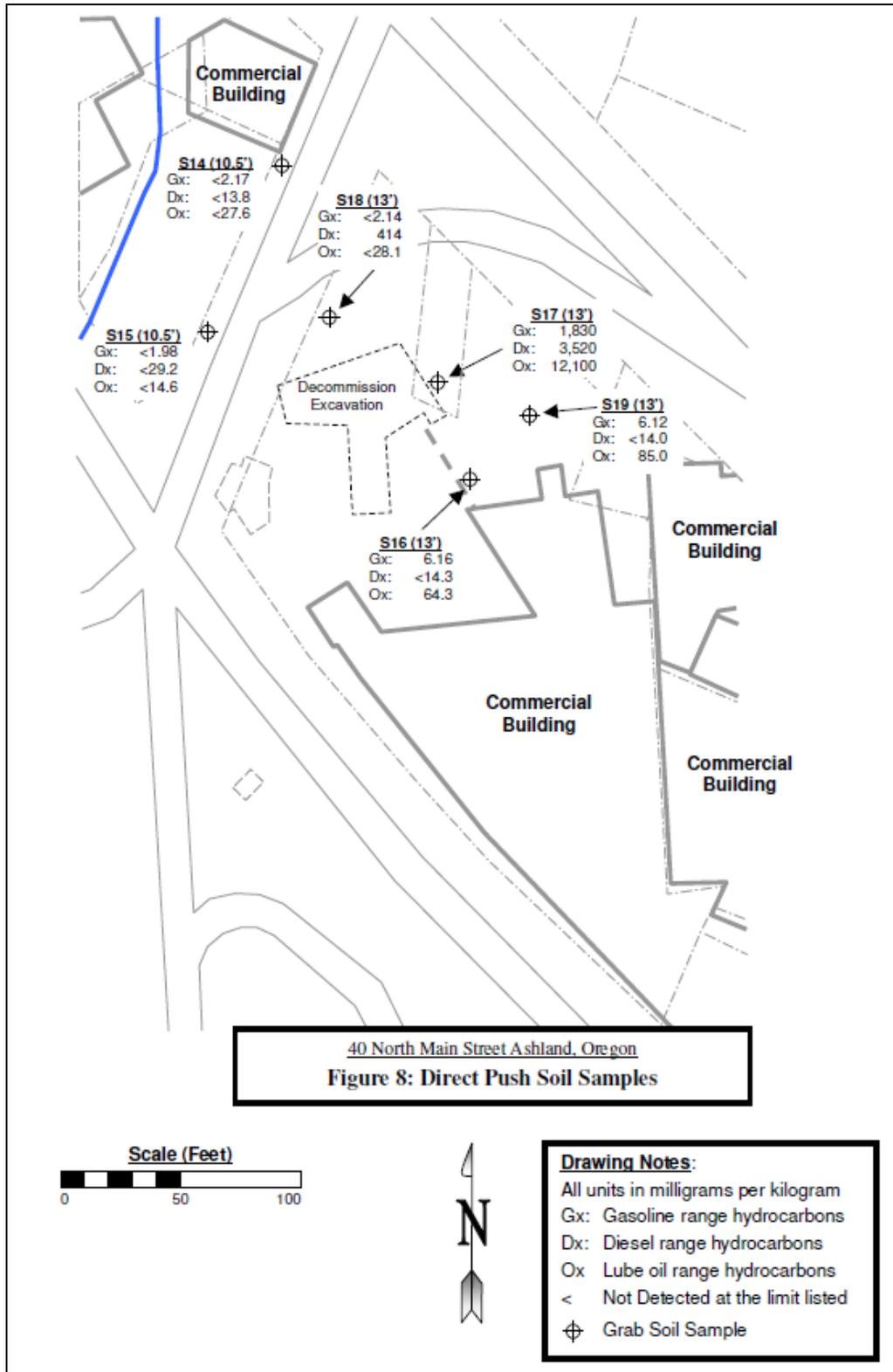
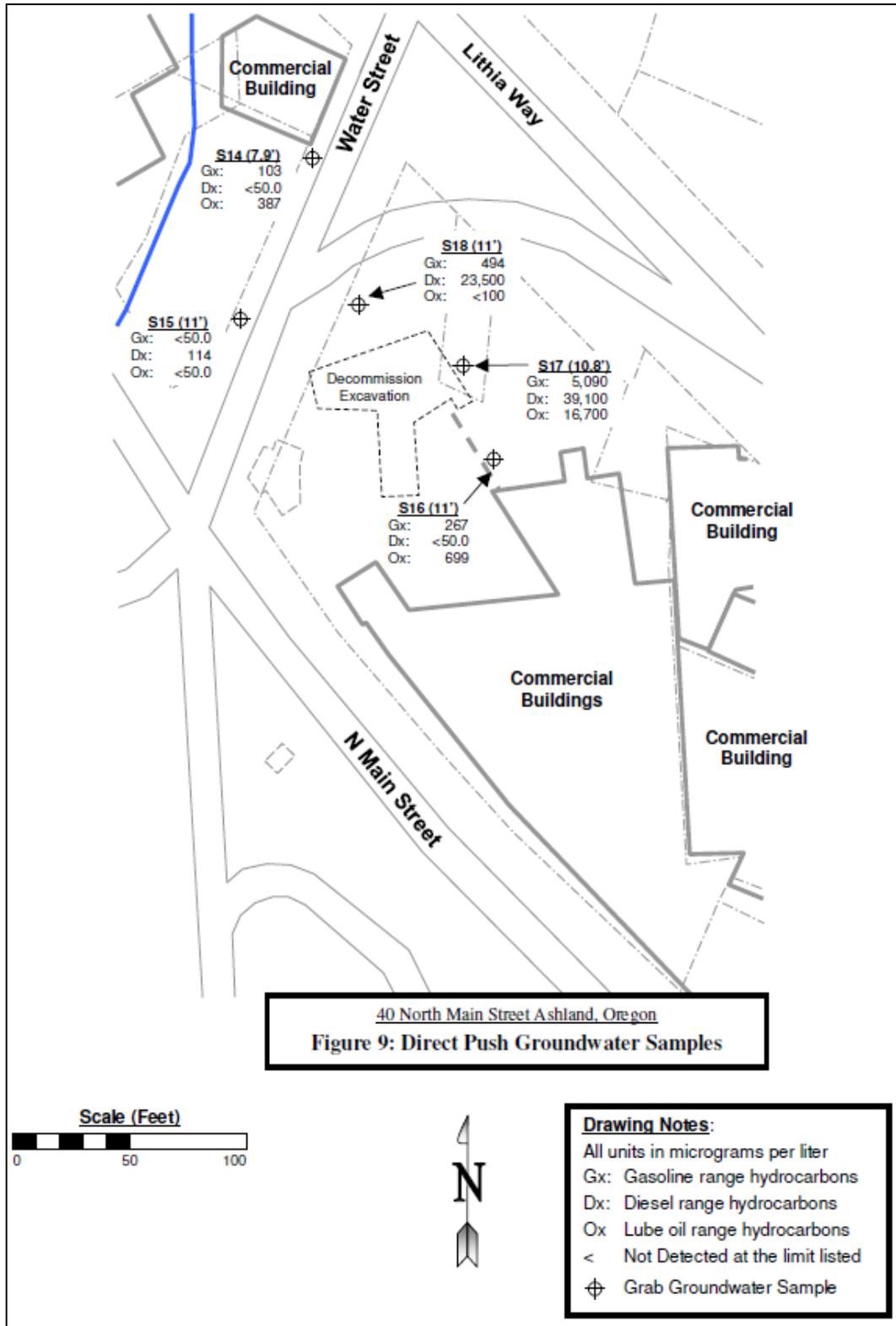


Figure 4: Groundwater Sample Results from Temporary Borings



Attachment 3

Laboratory Analytical Reports



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

June 05, 2023

Kerry Chesnut
Western States Environmental
P.O. Box 1745
Jacksonville, OR 97530
TEL: (541) 770-2482
FAX (541) 772-0293

RE: 23-104 Ashland Tank

Order No.: 23050315

Dear Kerry Chesnut:

Neilson Research Corporation received 5 sample(s) on 5/5/2023 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**

*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#: **23050315**
Date: **6/5/2023**

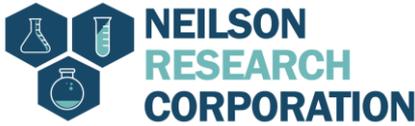
CLIENT: Western States Environmental

Project: 23-104 Ashland Tank

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental
Lab ID: 23050315-01
Client Sample ID: 23-104-1 E
Project: 23-104 Ashland Tank
Sample Address:

Collection Date: 5/4/2023 4:50:00 PM
Received Date: 5/5/2023 2:30:00 PM
Matrix: SOLID

Sample Location: Grab

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

PAH BY EPA 8270D SIM

Acenaphthene	EPA 8270 D	A	ND	ER	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Acenaphthylene	EPA 8270 D	A	ND	ER	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Anthracene	EPA 8270 D	A	0.385		10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Benzo(a)anthracene	EPA 8270 D	A	2.26	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Benzo(a)pyrene	EPA 8270 D	A	1.55		10	0.283	mg/Kg-dry		05/11/23 12:04 TJW
Benzo(b)fluoranthene	EPA 8270 D	A	2.60	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Benzo(k)fluoranthene	EPA 8270 D	A	1.00	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Benzo(g,h,i)perylene	EPA 8270 D	A	1.77	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Chrysene	EPA 8270 D	A	1.97	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Dibenz(a,h)anthracene	EPA 8270 D	A	0.419	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Fluoranthene	EPA 8270 D	A	3.38	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Fluorene	EPA 8270 D	A	ND	ER	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Indeno(1,2,3-cd)pyrene	EPA 8270 D	A	1.38	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Naphthalene	EPA 8270 D	A	ND	ER	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Phenanthrene	EPA 8270 D	A	2.01	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Pyrene	EPA 8270 D	A	2.75	MI	10	0.113	mg/Kg-dry		05/11/23 12:04 TJW
Surr: 2-Fluorobiphenyl	EPA 8270 D	A	56.0		10	39 - 106	%Rec		05/11/23 12:04 TJW
Surr: 4-Terphenyl-d14	EPA 8270 D	A	67.5		10	34 - 141	%Rec		05/11/23 12:04 TJW

VOLATILE ORGANICS BY EPA 8260B

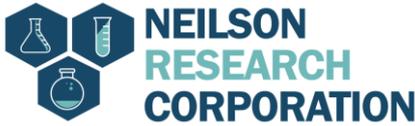
1,2-Dibromoethane (EDB)	EPA 8260 B	A	ND		1	0.0236	mg/Kg-dry		05/10/23 10:27 TJW
1,2-Dichloroethane (EDC)	EPA 8260 B	A	ND		1	0.0236	mg/Kg-dry		05/10/23 10:27 TJW
Benzene	EPA 8260 B	A	ND		1	0.0236	mg/Kg-dry		05/10/23 10:27 TJW
Ethylbenzene	EPA 8260 B	A	ND		1	0.0236	mg/Kg-dry		05/10/23 10:27 TJW
Methyl tert-butyl ether	EPA 8260 B	A	ND		1	0.0236	mg/Kg-dry		05/10/23 10:27 TJW
Toluene	EPA 8260 B	A	ND		1	0.0472	mg/Kg-dry		05/10/23 10:27 TJW
Xylenes, Total	EPA 8260 B	A	ND		1	0.0472	mg/Kg-dry		05/10/23 10:27 TJW
Surr: 1,2-Dichlorobenzene-d4	EPA 8260 B		58.5		1	36 - 121	%Rec		05/10/23 10:27 TJW

QUALIFIERS

CI	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
R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental
Lab ID: 23050315-01
Client Sample ID: 23-104-1 E
Project: 23-104 Ashland Tank
Sample Address:

Collection Date: 5/4/2023 4:50:00 PM
Received Date: 5/5/2023 2:30:00 PM
Matrix: SOLID

Sample Location: Grab

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

VOLATILE ORGANICS BY EPA 8260B

Surr: 4-Bromofluorobenzene	EPA 8260 B		70.8		1	49 - 127	%Rec		05/10/23 10:27 TJW
Surr: Dibromofluoromethane	EPA 8260 B		92.0		1	40 - 173	%Rec		05/10/23 10:27 TJW
Surr: Toluene-d8	EPA 8260 B		90.1		1	36 - 177	%Rec		05/10/23 10:27 TJW

**NWTPHDX_S
 PERCENT MOISTURE**

Percent Moisture	NWTPH		14		1	1.0			05/08/23 15:14 NKF
------------------	-------	--	----	--	---	-----	--	--	--------------------

**NWTPHDX_S
 NORTHWEST TPH DX IN SOIL**

TPH as Diesel	NWTPH-DX	A	ND		1	14.0	mg/Kg-dry		05/08/23 17:27 TJW
Lube Oil Range (C24 - C40)	NWTPH-DX	A	231		1	27.9	mg/Kg-dry		05/08/23 17:27 TJW
Surr: o-Terphenyl	NWTPH-DX		99.8		1	50 - 150	%Rec		05/08/23 17:27 TJW

PCBS IN SOIL

Aroclor 1016	EPA 8082	A	ND		1	28.0	µg/Kg-dry		05/17/23 21:42 TJW
Aroclor 1221	EPA 8082	A	ND		1	28.0	µg/Kg-dry		05/17/23 21:42 TJW
Aroclor 1232	EPA 8082	A	ND		1	28.0	µg/Kg-dry		05/17/23 21:42 TJW
Aroclor 1242	EPA 8082	A	ND		1	28.0	µg/Kg-dry		05/17/23 21:42 TJW
Aroclor 1248	EPA 8082	A	ND		1	28.0	µg/Kg-dry		05/17/23 21:42 TJW
Aroclor 1254	EPA 8082	A	ND		1	28.0	µg/Kg-dry		05/17/23 21:42 TJW
Aroclor 1260	EPA 8082	A	ND		1	28.0	µg/Kg-dry		05/17/23 21:42 TJW
Surr: Decachlorobiphenyl	EPA 8082		106		1	70 - 130	%Rec		05/17/23 21:42 TJW

**NWTPHGX_5035_S
 NORTHWEST TPH GASOLINE IN SOIL**

TPH as Gasoline	NWTPH-GX	A	ND		1	4.12	mg/Kg-dry		05/09/23 10:44 TJW
-----------------	----------	---	----	--	---	------	-----------	--	--------------------

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental **Collection Date:** 5/4/2023 4:50:00 PM
Lab ID: 23050315-01 **Received Date:** 5/5/2023 2:30:00 PM
Client Sample ID: 23-104-1 E **Matrix:** SOLID
Project: 23-104 Ashland Tank
Sample Address:

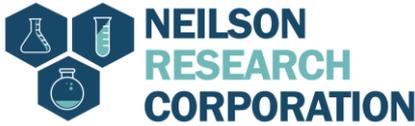
Sample Location: Grab

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	MCL	Date Analyzed/Analyst
NWTPHGX_5035_S									
NORTHWEST TPH GASOLINE IN SOIL									
Surr: 4-Bromofluorobenzene	NWTPH-GX		88.8		1	50 - 150	%Rec		05/09/23 10:44 TJW
RCRA 8 METALS FOR SOLIDS									
MERCURY BY EPA 7471 A									
Mercury	EPA 7471 A	A	0.400		1	0.0108	mg/Kg-dry		05/11/23 14:42 CJS
RCRA 8 METALS FOR SOLIDS									
METALS BY EPA 6010 B ICP									
Arsenic	EPA 6010 B	A	ND		1	5.72	mg/Kg-dry		05/17/23 23:19 CSB
Barium	EPA 6010 B	A	130		1	11.4	mg/Kg-dry		05/17/23 23:19 CSB
Cadmium	EPA 6010 B	A	1.15		1	0.572	mg/Kg-dry		05/17/23 23:19 CSB
Chromium	EPA 6010 B	A	36.3		1	0.572	mg/Kg-dry		05/22/23 19:56 CSB
Lead	EPA 6010 B	A	247		1	5.72	mg/Kg-dry		05/17/23 23:19 CSB
Selenium	EPA 6010 B	A	ND		1	5.72	mg/Kg-dry		05/17/23 23:19 CSB
Silver	EPA 6010 B	A	ND		1	0.572	mg/Kg-dry		05/17/23 23:19 CSB
TCLP METALS									
TCLP TRACE METALS BY EPA 1311/EPA 6010 B									
Lead	EPA 6010 B	A	ND		1	0.500	mg/L	5.00	06/01/23 17:31 CSB

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental **Collection Date:** 5/4/2023 5:00:00 PM
Lab ID: 23050315-02 **Received Date:** 5/5/2023 2:30:00 PM
Client Sample ID: 23-104-1 W **Matrix:** SOLID
Project: 23-104 Ashland Tank
Sample Address:

Sample Location: Grab

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

PAH BY EPA 8270D SIM

Acenaphthene	EPA 8270 D	A	ND		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Acenaphthylene	EPA 8270 D	A	ND		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Anthracene	EPA 8270 D	A	ND		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Benzo(a)anthracene	EPA 8270 D	A	0.0146		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Benzo(a)pyrene	EPA 8270 D	A	ND		1	0.0281	mg/Kg-dry		05/11/23 13:30 TJW
Benzo(b)fluoranthene	EPA 8270 D	A	0.0236		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Benzo(k)fluoranthene	EPA 8270 D	A	ND		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Benzo(g,h,i)perylene	EPA 8270 D	A	0.0214		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Chrysene	EPA 8270 D	A	0.0163		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Dibenz(a,h)anthracene	EPA 8270 D	A	ND		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Fluoranthene	EPA 8270 D	A	0.0231		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Fluorene	EPA 8270 D	A	ND		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Indeno(1,2,3-cd)pyrene	EPA 8270 D	A	0.0163		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Naphthalene	EPA 8270 D	A	ND		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Phenanthrene	EPA 8270 D	A	ND		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Pyrene	EPA 8270 D	A	0.0186		1	0.0113	mg/Kg-dry		05/11/23 13:30 TJW
Surr: 2-Fluorobiphenyl	EPA 8270 D	A	74.9		1	39 - 106	%Rec		05/11/23 13:30 TJW
Surr: 4-Terphenyl-d14	EPA 8270 D	A	94.3		1	34 - 141	%Rec		05/11/23 13:30 TJW

VOLATILE ORGANICS BY EPA 8260B

1,2-Dibromoethane (EDB)	EPA 8260 B	A	ND		1	0.0210	mg/Kg-dry		05/10/23 11:46 TJW
1,2-Dichloroethane (EDC)	EPA 8260 B	A	ND		1	0.0210	mg/Kg-dry		05/10/23 11:46 TJW
Benzene	EPA 8260 B	A	ND		1	0.0210	mg/Kg-dry		05/10/23 11:46 TJW
Ethylbenzene	EPA 8260 B	A	ND		1	0.0210	mg/Kg-dry		05/10/23 11:46 TJW
Methyl tert-butyl ether	EPA 8260 B	A	ND		1	0.0210	mg/Kg-dry		05/10/23 11:46 TJW
Toluene	EPA 8260 B	A	ND		1	0.0421	mg/Kg-dry		05/10/23 11:46 TJW
Xylenes, Total	EPA 8260 B	A	ND		1	0.0421	mg/Kg-dry		05/10/23 11:46 TJW
Surr: 1,2-Dichlorobenzene-d4	EPA 8260 B		59.1		1	36 - 121	%Rec		05/10/23 11:46 TJW

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

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental
Lab ID: 23050315-02
Client Sample ID: 23-104-1 W
Project: 23-104 Ashland Tank
Sample Address:

Collection Date: 5/4/2023 5:00:00 PM
Received Date: 5/5/2023 2:30:00 PM
Matrix: SOLID

Sample Location: Grab

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

VOLATILE ORGANICS BY EPA 8260B

Surr: 4-Bromofluorobenzene	EPA 8260 B		70.4		1	49 - 127	%Rec		05/10/23 11:46 TJW
Surr: Dibromofluoromethane	EPA 8260 B		95.6		1	40 - 173	%Rec		05/10/23 11:46 TJW
Surr: Toluene-d8	EPA 8260 B		94.5		1	36 - 177	%Rec		05/10/23 11:46 TJW

**NWTPHDX_S
 PERCENT MOISTURE**

Percent Moisture	NWTPH		14		1	1.0			05/08/23 15:14 NKF
------------------	-------	--	----	--	---	-----	--	--	--------------------

**NWTPHDX_S
 NORTHWEST TPH DX IN SOIL**

TPH as Diesel	NWTPH-DX	A	ND		1	14.3	mg/Kg-dry		05/08/23 18:43 TJW
Lube Oil Range (C24 - C40)	NWTPH-DX	A	33.3		1	28.6	mg/Kg-dry		05/08/23 18:43 TJW
Surr: o-Terphenyl	NWTPH-DX		94.1		1	50 - 150	%Rec		05/08/23 18:43 TJW

PCBS IN SOIL

Aroclor 1016	EPA 8082	A	ND		1	28.8	µg/Kg-dry		05/17/23 23:20 TJW
Aroclor 1221	EPA 8082	A	ND		1	28.8	µg/Kg-dry		05/17/23 23:20 TJW
Aroclor 1232	EPA 8082	A	ND		1	28.8	µg/Kg-dry		05/17/23 23:20 TJW
Aroclor 1242	EPA 8082	A	ND		1	28.8	µg/Kg-dry		05/17/23 23:20 TJW
Aroclor 1248	EPA 8082	A	ND		1	28.8	µg/Kg-dry		05/17/23 23:20 TJW
Aroclor 1254	EPA 8082	A	ND		1	28.8	µg/Kg-dry		05/17/23 23:20 TJW
Aroclor 1260	EPA 8082	A	ND		1	28.8	µg/Kg-dry		05/17/23 23:20 TJW
Surr: Decachlorobiphenyl	EPA 8082		114		1	70 - 130	%Rec		05/17/23 23:20 TJW

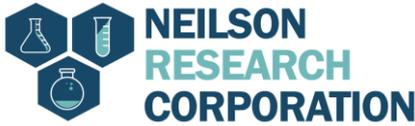
**NWTPHGX_5035_S
 NORTHWEST TPH GASOLINE IN SOIL**

TPH as Gasoline	NWTPH-GX	A	ND		1	4.56	mg/Kg-dry		05/09/23 12:07 TJW
-----------------	----------	---	----	--	---	------	-----------	--	--------------------

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental **Collection Date:** 5/4/2023 5:00:00 PM
Lab ID: 23050315-02 **Received Date:** 5/5/2023 2:30:00 PM
Client Sample ID: 23-104-1 W **Matrix:** SOLID
Project: 23-104 Ashland Tank
Sample Address:

Sample Location: Grab

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	MCL	Date Analyzed/Analyst
NWTPHGX_5035_S									
NORTHWEST TPH GASOLINE IN SOIL									
Surr: 4-Bromofluorobenzene	NWTPH-GX		96.2		1	50 - 150	%Rec		05/09/23 12:07 TJW
RCRA 8 METALS FOR SOLIDS									
MERCURY BY EPA 7471 A									
Mercury	EPA 7471 A	A	0.521		1	0.0110	mg/Kg-dry		05/11/23 14:46 CJS
RCRA 8 METALS FOR SOLIDS									
METALS BY EPA 6010 B ICP									
Arsenic	EPA 6010 B	A	ND		1	5.76	mg/Kg-dry		05/17/23 23:22 CSB
Barium	EPA 6010 B	A	89.5		1	11.5	mg/Kg-dry		05/17/23 23:22 CSB
Cadmium	EPA 6010 B	A	2.70		1	0.576	mg/Kg-dry		05/17/23 23:22 CSB
Chromium	EPA 6010 B	A	21.8		1	0.576	mg/Kg-dry		05/22/23 20:00 CSB
Lead	EPA 6010 B	A	93.1		1	5.76	mg/Kg-dry		05/17/23 23:22 CSB
Selenium	EPA 6010 B	A	ND		1	5.76	mg/Kg-dry		05/17/23 23:22 CSB
Silver	EPA 6010 B	A	ND		1	0.576	mg/Kg-dry		05/17/23 23:22 CSB
TCLP METALS									
TCLP TRACE METALS BY EPA 1311/EPA 6010 B									
Lead	EPA 6010 B	A	ND		1	0.500	mg/L	5.00	06/01/23 17:34 CSB

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental **Collection Date:** 5/4/2023 3:23:00 PM
Lab ID: 23050315-03 **Received Date:** 5/5/2023 2:30:00 PM
Client Sample ID: 23-104-2 E **Matrix:** SOLID
Project: 23-104 Ashland Tank
Sample Address:

Sample Location: Grab

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

PAH BY EPA 8270D SIM

Acenaphthene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Acenaphthylene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Anthracene	EPA 8270 D	A	0.0116		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Benzo(a)anthracene	EPA 8270 D	A	0.101		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Benzo(a)pyrene	EPA 8270 D	A	0.0721		1	0.0277	mg/Kg-dry		05/11/23 13:58 TJW
Benzo(b)fluoranthene	EPA 8270 D	A	0.114		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Benzo(k)fluoranthene	EPA 8270 D	A	0.0488		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Benzo(g,h,i)perylene	EPA 8270 D	A	0.0821		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Chrysene	EPA 8270 D	A	0.0904		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Dibenz(a,h)anthracene	EPA 8270 D	A	0.0200		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Fluoranthene	EPA 8270 D	A	0.110		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Fluorene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Indeno(1,2,3-cd)pyrene	EPA 8270 D	A	0.0655		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Naphthalene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Phenanthrene	EPA 8270 D	A	0.0466		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Pyrene	EPA 8270 D	A	0.0965		1	0.0111	mg/Kg-dry		05/11/23 13:58 TJW
Surr: 2-Fluorobiphenyl	EPA 8270 D	A	75.3		1	39 - 106	%Rec		05/11/23 13:58 TJW
Surr: 4-Terphenyl-d14	EPA 8270 D	A	95.7		1	34 - 141	%Rec		05/11/23 13:58 TJW

VOLATILE ORGANICS BY EPA 8260B

1,2-Dibromoethane (EDB)	EPA 8260 B	A	ND		1	0.0195	mg/Kg-dry		05/10/23 12:13 TJW
1,2-Dichloroethane (EDC)	EPA 8260 B	A	ND		1	0.0195	mg/Kg-dry		05/10/23 12:13 TJW
Benzene	EPA 8260 B	A	ND		1	0.0195	mg/Kg-dry		05/10/23 12:13 TJW
Ethylbenzene	EPA 8260 B	A	ND		1	0.0195	mg/Kg-dry		05/10/23 12:13 TJW
Methyl tert-butyl ether	EPA 8260 B	A	ND		1	0.0195	mg/Kg-dry		05/10/23 12:13 TJW
Toluene	EPA 8260 B	A	ND		1	0.0390	mg/Kg-dry		05/10/23 12:13 TJW
Xylenes, Total	EPA 8260 B	A	ND		1	0.0390	mg/Kg-dry		05/10/23 12:13 TJW
Surr: 1,2-Dichlorobenzene-d4	EPA 8260 B		62.7		1	36 - 121	%Rec		05/10/23 12:13 TJW

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

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental **Collection Date:** 5/4/2023 3:23:00 PM
Lab ID: 23050315-03 **Received Date:** 5/5/2023 2:30:00 PM
Client Sample ID: 23-104-2 E **Matrix:** SOLID
Project: 23-104 Ashland Tank
Sample Address:

Sample Location: Grab

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

VOLATILE ORGANICS BY EPA 8260B

Surr: 4-Bromofluorobenzene	EPA 8260 B		73.2		1	49 - 127	%Rec		05/10/23 12:13 TJW
Surr: Dibromofluoromethane	EPA 8260 B		97.5		1	40 - 173	%Rec		05/10/23 12:13 TJW
Surr: Toluene-d8	EPA 8260 B		96.0		1	36 - 177	%Rec		05/10/23 12:13 TJW

**NWTPHDX_S
 PERCENT MOISTURE**

Percent Moisture	NWTPH		12		1	1.0			05/08/23 15:14 NKF
------------------	-------	--	----	--	---	-----	--	--	--------------------

**NWTPHDX_S
 NORTHWEST TPH DX IN SOIL**

TPH as Diesel	NWTPH-DX	A	ND		1	13.5	mg/Kg-dry		05/08/23 19:09 TJW
Lube Oil Range (C24 - C40)	NWTPH-DX	A	119		1	27.1	mg/Kg-dry		05/08/23 19:09 TJW
Surr: o-Terphenyl	NWTPH-DX		105		1	50 - 150	%Rec		05/08/23 19:09 TJW

PCBS IN SOIL

Aroclor 1016	EPA 8082	A	ND		1	27.4	µg/Kg-dry		05/17/23 23:52 TJW
Aroclor 1221	EPA 8082	A	ND		1	27.4	µg/Kg-dry		05/17/23 23:52 TJW
Aroclor 1232	EPA 8082	A	ND		1	27.4	µg/Kg-dry		05/17/23 23:52 TJW
Aroclor 1242	EPA 8082	A	ND		1	27.4	µg/Kg-dry		05/17/23 23:52 TJW
Aroclor 1248	EPA 8082	A	ND		1	27.4	µg/Kg-dry		05/17/23 23:52 TJW
Aroclor 1254	EPA 8082	A	ND		1	27.4	µg/Kg-dry		05/17/23 23:52 TJW
Aroclor 1260	EPA 8082	A	ND		1	27.4	µg/Kg-dry		05/17/23 23:52 TJW
Surr: Decachlorobiphenyl	EPA 8082		73.5		1	70 - 130	%Rec		05/17/23 23:52 TJW

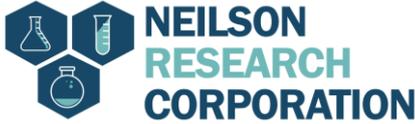
**NWTPHGX_5035_S
 NORTHWEST TPH GASOLINE IN SOIL**

TPH as Gasoline	NWTPH-GX	A	ND		1	3.92	mg/Kg-dry		05/09/23 12:34 TJW
-----------------	----------	---	----	--	---	------	-----------	--	--------------------

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental **Collection Date:** 5/4/2023 3:23:00 PM
Lab ID: 23050315-03 **Received Date:** 5/5/2023 2:30:00 PM
Client Sample ID: 23-104-2 E **Matrix:** SOLID
Project: 23-104 Ashland Tank
Sample Address:

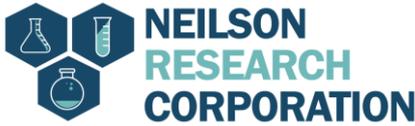
Sample Location: Grab

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	MCL	Date Analyzed/Analyst
NWTPHGX_5035_S									
NORTHWEST TPH GASOLINE IN SOIL									
Surr: 4-Bromofluorobenzene	NWTPH-GX		93.1		1	50 - 150	%Rec		05/09/23 12:34 TJW
RCRA 8 METALS FOR SOLIDS									
MERCURY BY EPA 7471 A									
Mercury	EPA 7471 A	A	0.244		1	0.0109	mg/Kg-dry		05/11/23 14:50 CJS
RCRA 8 METALS FOR SOLIDS									
METALS BY EPA 6010 B ICP									
Arsenic	EPA 6010 B	A	ND		1	5.64	mg/Kg-dry		05/17/23 23:26 CSB
Barium	EPA 6010 B	A	101		1	11.3	mg/Kg-dry		05/17/23 23:26 CSB
Cadmium	EPA 6010 B	A	1.12		1	0.564	mg/Kg-dry		05/17/23 23:26 CSB
Chromium	EPA 6010 B	A	32.4		1	0.564	mg/Kg-dry		05/22/23 20:03 CSB
Lead	EPA 6010 B	A	50.0		1	5.64	mg/Kg-dry		05/17/23 23:26 CSB
Selenium	EPA 6010 B	A	ND		1	5.64	mg/Kg-dry		05/17/23 23:26 CSB
Silver	EPA 6010 B	A	ND		1	0.564	mg/Kg-dry		05/17/23 23:26 CSB
TCLP METALS									
TCLP TRACE METALS BY EPA 1311/EPA 6010 B									
Lead	EPA 6010 B	A	ND		1	0.500	mg/L	5.00	06/01/23 17:37 CSB

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental **Collection Date:** 5/4/2023 3:18:00 PM
Lab ID: 23050315-04 **Received Date:** 5/5/2023 2:30:00 PM
Client Sample ID: 23-104-2 W **Matrix:** SOLID
Project: 23-104 Ashland Tank
Sample Address:

Sample Location: Grab

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

PAH BY EPA 8270D SIM

Acenaphthene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Acenaphthylene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Anthracene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Benzo(a)anthracene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Benzo(a)pyrene	EPA 8270 D	A	ND		1	0.0278	mg/Kg-dry		05/11/23 14:28 TJW
Benzo(b)fluoranthene	EPA 8270 D	A	0.0144		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Benzo(k)fluoranthene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Benzo(g,h,i)perylene	EPA 8270 D	A	0.0200		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Chrysene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Dibenz(a,h)anthracene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Fluoranthene	EPA 8270 D	A	0.0117		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Fluorene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Indeno(1,2,3-cd)pyrene	EPA 8270 D	A	0.0133		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Naphthalene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Phenanthrene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Pyrene	EPA 8270 D	A	ND		1	0.0111	mg/Kg-dry		05/11/23 14:28 TJW
Surr: 2-Fluorobiphenyl	EPA 8270 D	A	81.6		1	39 - 106	%Rec		05/11/23 14:28 TJW
Surr: 4-Terphenyl-d14	EPA 8270 D	A	105		1	34 - 141	%Rec		05/11/23 14:28 TJW

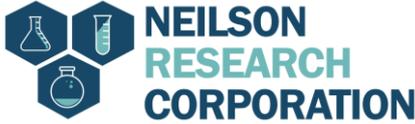
VOLATILE ORGANICS BY EPA 8260B

1,2-Dibromoethane (EDB)	EPA 8260 B	A	ND		1	0.0204	mg/Kg-dry		05/10/23 12:39 TJW
1,2-Dichloroethane (EDC)	EPA 8260 B	A	ND		1	0.0204	mg/Kg-dry		05/10/23 12:39 TJW
Benzene	EPA 8260 B	A	ND		1	0.0204	mg/Kg-dry		05/10/23 12:39 TJW
Ethylbenzene	EPA 8260 B	A	ND		1	0.0204	mg/Kg-dry		05/10/23 12:39 TJW
Methyl tert-butyl ether	EPA 8260 B	A	ND		1	0.0204	mg/Kg-dry		05/10/23 12:39 TJW
Toluene	EPA 8260 B	A	ND		1	0.0409	mg/Kg-dry		05/10/23 12:39 TJW
Xylenes, Total	EPA 8260 B	A	ND		1	0.0409	mg/Kg-dry		05/10/23 12:39 TJW
Surr: 1,2-Dichlorobenzene-d4	EPA 8260 B		63.3		1	36 - 121	%Rec		05/10/23 12:39 TJW

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

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental
Lab ID: 23050315-04
Client Sample ID: 23-104-2 W
Project: 23-104 Ashland Tank
Sample Address:

Collection Date: 5/4/2023 3:18:00 PM
Received Date: 5/5/2023 2:30:00 PM
Matrix: SOLID

Sample Location: Grab

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

VOLATILE ORGANICS BY EPA 8260B

Surr: 4-Bromofluorobenzene	EPA 8260 B		74.2		1	49 - 127	%Rec		05/10/23 12:39 TJW
Surr: Dibromofluoromethane	EPA 8260 B		96.6		1	40 - 173	%Rec		05/10/23 12:39 TJW
Surr: Toluene-d8	EPA 8260 B		95.5		1	36 - 177	%Rec		05/10/23 12:39 TJW

**NWTPHDX_S
 PERCENT MOISTURE**

Percent Moisture	NWTPH		13		1	1.0			05/08/23 15:14 NKF
------------------	-------	--	----	--	---	-----	--	--	--------------------

**NWTPHDX_S
 NORTHWEST TPH DX IN SOIL**

TPH as Diesel	NWTPH-DX	A	ND		1	14.1	mg/Kg-dry		05/08/23 19:34 TJW
Lube Oil Range (C24 - C40)	NWTPH-DX	A	ND		1	28.2	mg/Kg-dry		05/08/23 19:34 TJW
Surr: o-Terphenyl	NWTPH-DX		101		1	50 - 150	%Rec		05/08/23 19:34 TJW

**NWTPHGX_5035_S
 NORTHWEST TPH GASOLINE IN SOIL**

TPH as Gasoline	NWTPH-GX	A	ND		1	3.98	mg/Kg-dry		05/09/23 13:38 TJW
Surr: 4-Bromofluorobenzene	NWTPH-GX		97.8		1	50 - 150	%Rec		05/09/23 13:38 TJW

**RCRA 8 METALS FOR SOLIDS
 MERCURY BY EPA 7471 A**

Mercury	EPA 7471 A	A	0.538		1	0.0110	mg/Kg-dry		05/11/23 14:54 CJS
---------	------------	---	-------	--	---	--------	-----------	--	--------------------

**RCRA 8 METALS FOR SOLIDS
 METALS BY EPA 6010 B ICP**

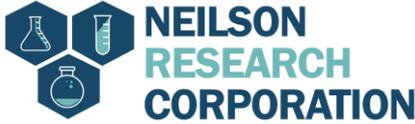
Arsenic	EPA 6010 B	A	ND		1	5.69	mg/Kg-dry		05/17/23 23:29 CSB
Barium	EPA 6010 B	A	139		1	11.4	mg/Kg-dry		05/17/23 23:29 CSB
Cadmium	EPA 6010 B	A	1.50		1	0.569	mg/Kg-dry		05/17/23 23:29 CSB

QUALIFIERS

CI	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
R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental
Lab ID: 23050315-04
Client Sample ID: 23-104-2 W
Project: 23-104 Ashland Tank
Sample Address:

Collection Date: 5/4/2023 3:18:00 PM
Received Date: 5/5/2023 2:30:00 PM
Matrix: SOLID

Sample Location: Grab

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	MCL	Date Analyzed/Analyst
RCRA 8 METALS FOR SOLIDS									
METALS BY EPA 6010 B ICP									
Chromium	EPA 6010 B	A	35.0		1	0.569	mg/Kg-dry		05/22/23 20:07 CSB
Lead	EPA 6010 B	A	318		1	5.69	mg/Kg-dry		05/17/23 23:29 CSB
Selenium	EPA 6010 B	A	ND		1	5.69	mg/Kg-dry		05/17/23 23:29 CSB
Silver	EPA 6010 B	A	ND		1	0.569	mg/Kg-dry		05/17/23 23:29 CSB
TCLP METALS									
TCLP TRACE METALS BY EPA 1311/EPA 6010 B									
Lead	EPA 6010 B	A	ND		1	0.500	mg/L	5.00	06/01/23 17:41 CSB

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental
Lab ID: 23050315-05
Client Sample ID: 23-104-1 E Wall
Project: 23-104 Ashland Tank
Sample Address:

Collection Date: 5/5/2023 7:15:00 AM
Received Date: 5/5/2023 2:30:00 PM
Matrix: SOLID

Sample Location: Grab

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

PAH BY EPA 8270D SIM

Acenaphthene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Acenaphthylene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Anthracene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Benzo(a)anthracene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Benzo(a)pyrene	EPA 8270 D	A	ND		1	0.0271	mg/Kg-dry		05/11/23 14:57 TJW
Benzo(b)fluoranthene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Benzo(k)fluoranthene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Benzo(g,h,i)perylene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Chrysene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Dibenz(a,h)anthracene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Fluoranthene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Fluorene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Indeno(1,2,3-cd)pyrene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Naphthalene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Phenanthrene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Pyrene	EPA 8270 D	A	ND		1	0.0109	mg/Kg-dry		05/11/23 14:57 TJW
Surr: 2-Fluorobiphenyl	EPA 8270 D	A	76.2		1	39 - 106	%Rec		05/11/23 14:57 TJW
Surr: 4-Terphenyl-d14	EPA 8270 D	A	93.5		1	34 - 141	%Rec		05/11/23 14:57 TJW

VOLATILE ORGANICS BY EPA 8260B

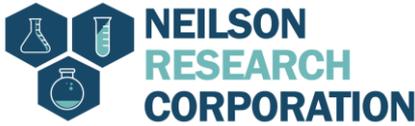
1,2-Dibromoethane (EDB)	EPA 8260 B	A	ND		1	0.0222	mg/Kg-dry		05/10/23 14:13 TJW
1,2-Dichloroethane (EDC)	EPA 8260 B	A	ND		1	0.0222	mg/Kg-dry		05/10/23 14:13 TJW
Benzene	EPA 8260 B	A	ND		1	0.0222	mg/Kg-dry		05/10/23 14:13 TJW
Ethylbenzene	EPA 8260 B	A	ND		1	0.0222	mg/Kg-dry		05/10/23 14:13 TJW
Methyl tert-butyl ether	EPA 8260 B	A	ND		1	0.0222	mg/Kg-dry		05/10/23 14:13 TJW
Toluene	EPA 8260 B	A	ND		1	0.0445	mg/Kg-dry		05/10/23 14:13 TJW
Xylenes, Total	EPA 8260 B	A	ND		1	0.0445	mg/Kg-dry		05/10/23 14:13 TJW
Surr: 1,2-Dichlorobenzene-d4	EPA 8260 B		68.5		1	36 - 121	%Rec		05/10/23 14:13 TJW

QUALIFIERS

CI	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
R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental **Collection Date:** 5/5/2023 7:15:00 AM
Lab ID: 23050315-05 **Received Date:** 5/5/2023 2:30:00 PM
Client Sample ID: 23-104-1 E Wall **Matrix:** SOLID
Project: 23-104 Ashland Tank
Sample Address:

Sample Location: Grab

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

VOLATILE ORGANICS BY EPA 8260B

Surr: 4-Bromofluorobenzene	EPA 8260 B		78.4		1	49 - 127	%Rec		05/10/23 14:13 TJW
Surr: Dibromofluoromethane	EPA 8260 B		104		1	40 - 173	%Rec		05/10/23 14:13 TJW
Surr: Toluene-d8	EPA 8260 B		105		1	36 - 177	%Rec		05/10/23 14:13 TJW

**NWTPHDX_S
 PERCENT MOISTURE**

Percent Moisture	NWTPH		10		1	1.0			05/08/23 15:14 NKF
------------------	-------	--	----	--	---	-----	--	--	--------------------

**NWTPHDX_S
 NORTHWEST TPH DX IN SOIL**

TPH as Diesel	NWTPH-DX	A	ND		1	13.7	mg/Kg-dry		05/08/23 19:59 TJW
Lube Oil Range (C24 - C40)	NWTPH-DX	A	ND		1	27.4	mg/Kg-dry		05/08/23 19:59 TJW
Surr: o-Terphenyl	NWTPH-DX		99.5		1	50 - 150	%Rec		05/08/23 19:59 TJW

**NWTPHGX_5035_S
 NORTHWEST TPH GASOLINE IN SOIL**

TPH as Gasoline	NWTPH-GX	A	ND		1	4.58	mg/Kg-dry		05/09/23 14:05 TJW
Surr: 4-Bromofluorobenzene	NWTPH-GX		102		1	50 - 150	%Rec		05/09/23 14:05 TJW

**RCRA 8 METALS FOR SOLIDS
 MERCURY BY EPA 7471 A**

Mercury	EPA 7471 A	A	0.0370		1	0.0111	mg/Kg-dry		05/11/23 14:58 CJS
---------	------------	---	--------	--	---	--------	-----------	--	--------------------

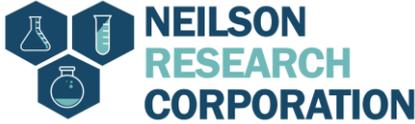
**RCRA 8 METALS FOR SOLIDS
 METALS BY EPA 6010 B ICP**

Arsenic	EPA 6010 B	A	ND		1	5.49	mg/Kg-dry		05/17/23 23:32 CSB
Barium	EPA 6010 B	A	76.7		1	11.0	mg/Kg-dry		05/17/23 23:32 CSB
Cadmium	EPA 6010 B	A	0.664		1	0.549	mg/Kg-dry		05/17/23 23:32 CSB

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

Analytical Report

WO#: 23050315
 Date Reported: 6/5/2023

CLIENT: Western States Environmental
Lab ID: 23050315-05
Client Sample ID: 23-104-1 E Wall
Project: 23-104 Ashland Tank
Sample Address:

Collection Date: 5/5/2023 7:15:00 AM
Received Date: 5/5/2023 2:30:00 PM
Matrix: SOLID

Sample Location: Grab

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	MCL	Date Analyzed/Analyst
RCRA 8 METALS FOR SOLIDS									
METALS BY EPA 6010 B ICP									
Chromium	EPA 6010 B	A	24.6		1	0.549	mg/Kg-dry		05/22/23 20:10 CSB
Lead	EPA 6010 B	A	ND		1	5.49	mg/Kg-dry		05/17/23 23:32 CSB
Selenium	EPA 6010 B	A	ND		1	5.49	mg/Kg-dry		05/17/23 23:32 CSB
Silver	EPA 6010 B	A	ND		1	0.549	mg/Kg-dry		05/17/23 23:32 CSB

QUALIFIERS	CI	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
	R	RPD outside accepted recovery limits		

Original

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



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: EPA8260_5035_S

Sample ID: 23050315-01BMS	SampType: MS	TestCode: EPA8260_503	Units: mg/Kg-dry	Prep Date: 5/10/2023	RunNo: 39376						
Client ID: 23-104-1 E	Batch ID: 21036	TestNo: SW8260B E5035		Analysis Date: 5/10/2023	SeqNo: 649665						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	0.921	0.0236	0.9430	0	97.6	53	136				
1,2-Dichloroethane (EDC)	0.958	0.0236	0.9430	0	102	55	131				
Benzene	0.889	0.0236	0.9430	0	94.3	53	141				
Ethylbenzene	0.916	0.0236	0.9430	0	97.1	51	148				
Methyl tert-butyl ether	0.906	0.0236	0.9430	0	96.0	50	139				
Toluene	0.927	0.0472	0.9430	0	98.2	46	150				
Xylenes, Total	2.72	0.0472	2.829	0	96.0	42	152				
Surr: 1,2-Dichlorobenzene-d4	1.02		1.886		53.9	36	121				
Surr: 4-Bromofluorobenzene	1.19		1.886		63.2	49	127				
Surr: Dibromofluoromethane	1.63		1.886		86.3	40	173				
Surr: Toluene-d8	1.69		1.886		89.6	36	177				

Sample ID: 23050315-01BMSD	SampType: MSD	TestCode: EPA8260_503	Units: mg/Kg-dry	Prep Date: 5/10/2023	RunNo: 39376						
Client ID: 23-104-1 E	Batch ID: 21036	TestNo: SW8260B E5035		Analysis Date: 5/10/2023	SeqNo: 649666						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	0.897	0.0236	0.9430	0	95.1	53	136	0.9209	2.65	38	
1,2-Dichloroethane (EDC)	0.937	0.0236	0.9430	0	99.4	55	131	0.9581	2.19	35	
Benzene	0.893	0.0236	0.9430	0	94.7	53	141	0.8893	0.423	46	
Ethylbenzene	0.898	0.0236	0.9430	0	95.2	51	148	0.9161	1.98	46	
Methyl tert-butyl ether	0.917	0.0236	0.9430	0	97.2	50	139	0.9058	1.24	37	
Toluene	0.905	0.0472	0.9430	0	96.0	46	150	0.9265	2.32	46	
Xylenes, Total	2.67	0.0472	2.829	0	94.5	42	152	2.717	1.63	46	
Surr: 1,2-Dichlorobenzene-d4	1.07		1.886		56.9	36	121		0	0	

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

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: EPA8260_5035_S

Sample ID: 23050315-01BMSD	SampType: MSD	TestCode: EPA8260_503	Units: mg/Kg-dry	Prep Date: 5/10/2023	RunNo: 39376						
Client ID: 23-104-1 E	Batch ID: 21036	TestNo: SW8260B E5035		Analysis Date: 5/10/2023	SeqNo: 649666						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Bromofluorobenzene	1.29		1.886		68.3	49	127		0	0	
Surr: Dibromofluoromethane	1.77		1.886		93.9	40	173		0	0	
Surr: Toluene-d8	1.80		1.886		95.6	36	177		0	0	

Sample ID: MB-21036	SampType: MBLK	TestCode: EPA8260_503	Units: mg/Kg	Prep Date: 5/10/2023	RunNo: 39376						
Client ID: PBS	Batch ID: 21036	TestNo: SW8260B E5035		Analysis Date: 5/10/2023	SeqNo: 649676						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB)	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0250									
Benzene	ND	0.0250									
Ethylbenzene	ND	0.0250									
Methyl tert-butyl ether	ND	0.0250									
Toluene	ND	0.0500									
Xylenes, Total	ND	0.0500									
Surr: 1,2-Dichlorobenzene-d4	1.56		2.000		78.1	54	107				
Surr: 4-Bromofluorobenzene	1.84		2.000		92.1	56	114				
Surr: Dibromofluoromethane	2.32		2.000		116	66	124				
Surr: Toluene-d8	2.37		2.000		119	69	125				

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
 R RPD outside accepted recovery limits RL Reporting Detection Limit

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: EPA8260_5035_S

Sample ID: LCS-21036	SampType: LCS	TestCode: EPA8260_503	Units: mg/Kg	Prep Date: 5/10/2023	RunNo: 39376						
Client ID: LCSS	Batch ID: 21036	TestNo: SW8260B E5035		Analysis Date: 5/10/2023	SeqNo: 649677						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	0.965	0.0250	1.000	0	96.5	68	127				
1,2-Dichloroethane (EDC)	0.978	0.0250	1.000	0	97.9	68	124				
Benzene	0.904	0.0250	1.000	0	90.4	64	135				
Ethylbenzene	0.994	0.0250	1.000	0	99.4	67	139				
Methyl tert-butyl ether	0.984	0.0250	1.000	0	98.4	66	128				
Toluene	0.972	0.0500	1.000	0	97.2	66	136				
Xylenes, Total	2.93	0.0500	3.000	0	97.6	67	137				
Surr: 1,2-Dichlorobenzene-d4	1.45		2.000		72.3	54	107				
Surr: 4-Bromofluorobenzene	1.72		2.000		85.9	56	114				
Surr: Dibromofluoromethane	2.26		2.000		113	66	124				
Surr: Toluene-d8	2.31		2.000		115	69	125				

Qualifiers:

CI	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: HG_S_7471

Sample ID: MB-21023	SampType: MBLK	TestCode: HG_S_7471	Units: mg/Kg	Prep Date: 5/9/2023	RunNo: 39354
Client ID: PBS	Batch ID: 21023	TestNo: SW7471A	SW7471A	Analysis Date: 5/11/2023	SeqNo: 649137
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.0100			

Sample ID: LCS-21023	SampType: LCS	TestCode: HG_S_7471	Units: mg/Kg	Prep Date: 5/9/2023	RunNo: 39354
Client ID: LCSS	Batch ID: 21023	TestNo: SW7471A	SW7471A	Analysis Date: 5/11/2023	SeqNo: 649138
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	16.7	0.491	20.70	0	80.5 38 110

Sample ID: 23050315-05AMS	SampType: MS	TestCode: HG_S_7471	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39354
Client ID: 23-104-1 E Wall	Batch ID: 21023	TestNo: SW7471A	SW7471A	Analysis Date: 5/11/2023	SeqNo: 649145
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.232	0.00997	0.1993	0.03697	97.7 75 125

Sample ID: 23050315-05AMSD	SampType: MSD	TestCode: HG_S_7471	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39354
Client ID: 23-104-1 E Wall	Batch ID: 21023	TestNo: SW7471A	SW7471A	Analysis Date: 5/11/2023	SeqNo: 649146
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.242	0.0106	0.2111	0.03697	97.0 75 125 0.2317 4.22 25

Qualifiers: CI 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
 R RPD outside accepted recovery limits RL Reporting Detection Limit

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: ICP_6010_S

Sample ID: MB-21112	SampType: MBLK	TestCode: ICP_6010_S	Units: mg/Kg	Prep Date: 5/16/2023	RunNo: 39521						
Client ID: PBS	Batch ID: 21112	TestNo: SW6010B	SW3050B	Analysis Date: 5/17/2023	SeqNo: 652254						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	5.00									
Barium	ND	10.0									
Cadmium	ND	0.500									
Lead	ND	5.00									
Selenium	ND	5.00									
Silver	ND	0.500									

Sample ID: LCS-21112	SampType: LCS	TestCode: ICP_6010_S	Units: mg/Kg	Prep Date: 5/16/2023	RunNo: 39521						
Client ID: LCSS	Batch ID: 21112	TestNo: SW6010B	SW3050B	Analysis Date: 5/17/2023	SeqNo: 652255						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	112	9.98	129.0	0	86.6	71	103				
Barium	158	20.0	169.0	0	93.4	75	107				
Cadmium	196	0.998	227.0	0	86.3	71	102				
Lead	73.3	9.98	74.80	0	98.0	81	114				
Selenium	202	9.98	246.0	0	82.0	68	106				
Silver	83.2	0.998	87.50	0	95.1	71	108				

Sample ID: 23050412-01BMS	SampType: MS	TestCode: ICP_6010_S	Units: mg/Kg-dry	Prep Date: 5/16/2023	RunNo: 39521						
Client ID: BatchQC	Batch ID: 21112	TestNo: SW6010B	SW3050B	Analysis Date: 5/17/2023	SeqNo: 652282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	822	42.7	854.0	0	96.2	75	125				

Qualifiers: CI 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
 R RPD outside accepted recovery limits RL Reporting Detection Limit

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: ICP_6010_S

Sample ID: 23050412-01BMS	SampType: MS	TestCode: ICP_6010_S	Units: mg/Kg-dry	Prep Date: 5/16/2023	RunNo: 39521						
Client ID: BatchQC	Batch ID: 21112	TestNo: SW6010B	SW3050B	Analysis Date: 5/17/2023	SeqNo: 652282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	1070	85.4	854.0	165.4	105	75	125				
Cadmium	842	4.27	854.0	1.187	98.4	75	125				
Lead	881	42.7	854.0	0	103	75	125				
Selenium	784	42.7	854.0	0	91.8	75	125				
Silver	111	4.27	106.8	1.109	103	75	125				

Sample ID: 23050412-01BMSD	SampType: MSD	TestCode: ICP_6010_S	Units: mg/Kg-dry	Prep Date: 5/16/2023	RunNo: 39521						
Client ID: BatchQC	Batch ID: 21112	TestNo: SW6010B	SW3050B	Analysis Date: 5/17/2023	SeqNo: 652284						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	826	42.7	853.5	0	96.8	75	125	821.9	0.505	25	
Barium	1070	85.4	853.5	165.4	106	75	125	1066	0.349	25	
Cadmium	844	4.27	853.5	1.187	98.7	75	125	841.9	0.222	25	
Lead	878	42.7	853.5	0	103	75	125	881.3	0.408	25	
Selenium	784	42.7	853.5	0	91.9	75	125	784.0	0.0336	25	
Silver	112	4.27	106.7	1.109	104	75	125	110.6	1.13	25	

Qualifiers:

CI	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental

Project: 23-104 Ashland Tank

TestCode: NWTPHDX_S

Sample ID: MB-21001	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 5/8/2023	RunNo: 39259						
Client ID: PBS	Batch ID: 21001	TestNo: NWTPHDX	NWTPHDX	Analysis Date: 5/8/2023	SeqNo: 647397						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH as Diesel	ND	12.5									
TPH as Lube Oil	ND	25.0									
Surr: o-Terphenyl	4.37		5.000		87.4	50	150				

Sample ID: LCS-21001	SampType: LCS	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 5/8/2023	RunNo: 39259						
Client ID: LCSS	Batch ID: 21001	TestNo: NWTPHDX	NWTPHDX	Analysis Date: 5/8/2023	SeqNo: 647398						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH as Diesel	240	12.5	250.0	0	95.9	50	150				
Surr: o-Terphenyl	5.60		5.000		112	50	150				

Sample ID: 23050315-01AMS	SampType: MS	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 5/8/2023	RunNo: 39259						
Client ID: 23-104-1 E	Batch ID: 21001	TestNo: NWTPHDX	NWTPHDX	Analysis Date: 5/8/2023	SeqNo: 647400						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH as Diesel	265	14.4	288.7	0	91.8	50	150				
Surr: o-Terphenyl	5.85		5.775		101	50	150				

Sample ID: 23050315-01AMSD	SampType: MSD	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 5/8/2023	RunNo: 39259						
Client ID: 23-104-1 E	Batch ID: 21001	TestNo: NWTPHDX	NWTPHDX	Analysis Date: 5/8/2023	SeqNo: 647401						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:	CI	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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: NWTPHDX_S

Sample ID: 23050315-01AMSD	SampType: MSD	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 5/8/2023	RunNo: 39259						
Client ID: 23-104-1 E	Batch ID: 21001	TestNo: NWTPHDX	NWTPHDX	Analysis Date: 5/8/2023	SeqNo: 647401						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH as Diesel	288	14.2	284.9	0	101	50	150	265.1	8.39	25	
Surr: o-Terphenyl	5.88		5.698		103	50	150		0	0	

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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: NWTPHGX_5035_S

Sample ID: MB-21020	SampType: MBLK	TestCode: NWTPHGX_5	Units: mg/Kg	Prep Date: 5/9/2023	RunNo: 39261						
Client ID: PBS	Batch ID: 21020	TestNo: NWTPHGX	EPA 5035	Analysis Date: 5/9/2023	SeqNo: 647411						
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 2.08 2.000 104 50 150

Sample ID: LCS-21020	SampType: LCS	TestCode: NWTPHGX_5	Units: mg/Kg	Prep Date: 5/9/2023	RunNo: 39261						
Client ID: LCSS	Batch ID: 21020	TestNo: NWTPHGX	EPA 5035	Analysis Date: 5/9/2023	SeqNo: 647412						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH as Gasoline 25.7 5.00 25.00 0 103 70 130
 Surr: 4-Bromofluorobenzene 2.06 2.000 103 50 150

Sample ID: 23050315-01BMS	SampType: MS	TestCode: NWTPHGX_5	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39261						
Client ID: 23-104-1 E	Batch ID: 21020	TestNo: NWTPHGX	EPA 5035	Analysis Date: 5/9/2023	SeqNo: 647414						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

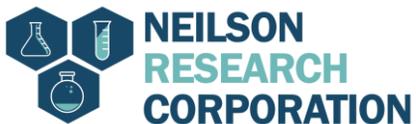
TPH as Gasoline 23.1 4.12 20.58 0 112 70 130
 Surr: 4-Bromofluorobenzene 1.49 1.647 90.4 50 150

Sample ID: 23050315-01BMSD	SampType: MSD	TestCode: NWTPHGX_5	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39261						
Client ID: 23-104-1 E	Batch ID: 21020	TestNo: NWTPHGX	EPA 5035	Analysis Date: 5/9/2023	SeqNo: 647415						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH as Gasoline 23.6 4.12 20.58 0 114 70 130 23.06 2.12 25

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
 R RPD outside accepted recovery limits RL Reporting Detection Limit

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental

Project: 23-104 Ashland Tank

TestCode: NWTPHGX_5035_S

Sample ID: 23050315-01BMSD	SampType: MSD	TestCode: NWTPHGX_5	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39261						
Client ID: 23-104-1 E	Batch ID: 21020	TestNo: NWTPHGX	EPA 5035	Analysis Date: 5/9/2023	SeqNo: 647415						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.55		1.647		94.1	50	150		0	0	

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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: PAH8270D_S

Sample ID: MB-21018	SampType: MBLK	TestCode: PAH8270D_S	Units: mg/Kg	Prep Date: 5/9/2023	RunNo: 39368						
Client ID: PBS	Batch ID: 21018	TestNo: SW8270D	E3550	Analysis Date: 5/11/2023	SeqNo: 649281						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.0100									
Acenaphthylene	ND	0.0100									
Anthracene	ND	0.0100									
Benzo(a)anthracene	ND	0.0100									
Benzo(a)pyrene	ND	0.0250									
Benzo(b)fluoranthene	ND	0.0100									
Benzo(k)fluoranthene	ND	0.0100									
Benzo(g,h,i)perylene	ND	0.0100									
Chrysene	ND	0.0100									
Dibenz(a,h)anthracene	ND	0.0100									
Fluoranthene	ND	0.0100									
Fluorene	ND	0.0100									
Indeno(1,2,3-cd)pyrene	ND	0.0100									
Naphthalene	ND	0.0100									
Phenanthrene	ND	0.0100									
Pyrene	ND	0.0100									
Surr: 2-Fluorobiphenyl	0.823		1.000		82.3	54	101				
Surr: 4-Terphenyl-d14	0.926		1.000		92.6	65	114				

Sample ID: LCS-21018	SampType: LCS	TestCode: PAH8270D_S	Units: mg/Kg	Prep Date: 5/9/2023	RunNo: 39368						
Client ID: LCSS	Batch ID: 21018	TestNo: SW8270D	E3550	Analysis Date: 5/11/2023	SeqNo: 649282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	0.424	0.0100	0.5000	0	84.8	58	101				

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
 R RPD outside accepted recovery limits RL Reporting Detection Limit

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: PAH8270D_S

Sample ID: LCS-21018	SampType: LCS	TestCode: PAH8270D_S	Units: mg/Kg	Prep Date: 5/9/2023	RunNo: 39368						
Client ID: LCSS	Batch ID: 21018	TestNo: SW8270D	E3550	Analysis Date: 5/11/2023	SeqNo: 649282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthylene	0.433	0.0100	0.5000	0	86.5	58	114				
Anthracene	0.404	0.0100	0.5000	0	80.8	58	96				
Benzo(a)anthracene	0.458	0.0100	0.5000	0	91.7	67	102				
Benzo(a)pyrene	0.363	0.0250	0.5000	0	72.6	58	105				
Benzo(b)fluoranthene	0.433	0.0100	0.5000	0	86.5	58	106				
Benzo(k)fluoranthene	0.486	0.0100	0.5000	0	97.2	59	122				
Benzo(g,h,i)perylene	0.464	0.0100	0.5000	0	92.8	63	111				
Chrysene	0.470	0.0100	0.5000	0	94.0	68	109				
Dibenz(a,h)anthracene	0.479	0.0100	0.5000	0	95.8	62	124				
Fluoranthene	0.468	0.0100	0.5000	0	93.5	65	107				
Fluorene	0.452	0.0100	0.5000	0	90.4	60	117				
Indeno(1,2,3-cd)pyrene	0.468	0.0100	0.5000	0	93.6	68	110				
Naphthalene	0.383	0.0100	0.5000	0	76.6	59	102				
Phenanthrene	0.460	0.0100	0.5000	0	91.9	60	115				
Pyrene	0.454	0.0100	0.5000	0	90.9	60	100				
Surr: 2-Fluorobiphenyl	0.855		1.000		85.5	54	101				
Surr: 4-Terphenyl-d14	0.946		1.000		94.6	65	114				

Sample ID: 23050315-01AMS	SampType: MS	TestCode: PAH8270D_S	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39368						
Client ID: 23-104-1 E	Batch ID: 21018	TestNo: SW8270D	E3550	Analysis Date: 5/11/2023	SeqNo: 649285						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	0.589	0.113	0.5663	0.06226	93.0	14	168				
Acenaphthylene	0.583	0.113	0.5663	0.1019	85.0	14	176				

Qualifiers: CI 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
 R RPD outside accepted recovery limits RL Reporting Detection Limit

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental

Project: 23-104 Ashland Tank

TestCode: PAH8270D_S

Sample ID: 23050315-01AMS	SampType: MS	TestCode: PAH8270D_S	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39368						
Client ID: 23-104-1 E	Batch ID: 21018	TestNo: SW8270D	E3550	Analysis Date: 5/11/2023	SeqNo: 649285						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anthracene	1.12	0.113	0.5663	0.3849	129	40	140				
Benzo(a)anthracene	3.49	0.113	0.5663	2.258	217	61	124				MI
Benzo(a)pyrene	1.87	0.283	0.5663	1.551	56.1	55	109				
Benzo(b)fluoranthene	3.86	0.113	0.5663	2.604	221	60	111				MI
Benzo(k)fluoranthene	1.55	0.113	0.5663	1.002	96.1	67	107				
Benzo(g,h,i)perylene	2.63	0.113	0.5663	1.766	152	67	106				MI
Chrysene	3.08	0.113	0.5663	1.970	195	55	123				MI
Dibenz(a,h)anthracene	0.997	0.113	0.5663	0.4189	102	61	110				
Fluoranthene	5.55	0.113	0.5663	3.379	383	51	126				MI
Fluorene	0.634	0.113	0.5663	0.07924	98.0	17	173				
Indeno(1,2,3-cd)pyrene	2.21	0.113	0.5663	1.381	147	62	112				MI
Naphthalene	0.510	0.113	0.5663	0.05094	81.0	10	158				
Phenanthrene	3.94	0.113	0.5663	2.009	340	10	176				MI
Pyrene	4.48	0.113	0.5663	2.751	305	24	151				MI
Surr: 2-Fluorobiphenyl	0.770		1.133		68.0	39	106				
Surr: 4-Terphenyl-d14	0.883		1.133		78.0	34	141				

Sample ID: 23050315-01AMSD	SampType: MSD	TestCode: PAH8270D_S	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39368						
Client ID: 23-104-1 E	Batch ID: 21018	TestNo: SW8270D	E3550	Analysis Date: 5/11/2023	SeqNo: 649286						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	0.492	0.114	0.5716	0.06226	75.1	14	168	0.5890	18.0	25	
Acenaphthylene	0.595	0.114	0.5716	0.1019	86.2	14	176	0.5833	1.90	25	
Anthracene	0.869	0.114	0.5716	0.3849	84.7	40	140	1.116	24.9	25	

Qualifiers: CI 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
 R RPD outside accepted recovery limits RL Reporting Detection Limit

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental
Project: 23-104 Ashland Tank

TestCode: PAH8270D_S

Sample ID: 23050315-01AMSD	SampType: MSD	TestCode: PAH8270D_S	Units: mg/Kg-dry	Prep Date: 5/9/2023	RunNo: 39368						
Client ID: 23-104-1 E	Batch ID: 21018	TestNo: SW8270D	E3550	Analysis Date: 5/11/2023	SeqNo: 649286						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(a)anthracene	3.25	0.114	0.5716	2.258	173	61	124	3.489	7.17	25	MI
Benzo(a)pyrene	2.11	0.286	0.5716	1.551	97.7	55	109	1.869	12.1	25	
Benzo(b)fluoranthene	4.02	0.114	0.5716	2.604	248	60	111	3.857	4.11	25	MI
Benzo(k)fluoranthene	1.82	0.114	0.5716	1.002	144	67	107	1.546	16.5	25	MI
Benzo(g,h,i)perylene	2.93	0.114	0.5716	1.766	203	67	106	2.628	10.8	25	MI
Chrysene	3.00	0.114	0.5716	1.970	180	55	123	3.075	2.43	25	MI
Dibenz(a,h)anthracene	1.13	0.114	0.5716	0.4189	124	61	110	0.9967	12.2	25	MI
Fluoranthene	4.17	0.114	0.5716	3.379	138	51	126	5.550	28.5	25	MI
Fluorene	0.503	0.114	0.5716	0.07924	74.1	17	173	0.6343	23.1	25	
Indeno(1,2,3-cd)pyrene	2.41	0.114	0.5716	1.381	179	62	112	2.214	8.32	25	MI
Naphthalene	0.474	0.114	0.5716	0.05094	74.1	10	158	0.5097	7.16	25	
Phenanthrene	2.62	0.114	0.5716	2.009	106	10	176	3.936	40.2	25	MI
Pyrene	3.54	0.114	0.5716	2.751	138	24	151	4.480	23.5	25	
Surr: 2-Fluorobiphenyl	0.755		1.143		66.0	39	106		0	0	
Surr: 4-Terphenyl-d14	0.892		1.143		78.0	34	141		0	0	

Qualifiers:	CI	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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental

Project: 23-104 Ashland Tank

TestCode: PCB_S

Sample ID: MB-21138	SampType: MBLK	TestCode: PCB_S	Units: µg/Kg	Prep Date: 5/17/2023	RunNo: 39527						
Client ID: PBS	Batch ID: 21138	TestNo: SW8082	E3550	Analysis Date: 5/17/2023	SeqNo: 652435						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aroclor 1016	ND	25.0									
Aroclor 1221	ND	25.0									
Aroclor 1232	ND	25.0									
Aroclor 1242	ND	25.0									
Aroclor 1248	ND	25.0									
Aroclor 1254	ND	25.0									
Aroclor 1260	ND	25.0									
Surr: Decachlorobiphenyl	13.2		12.50		106	70	130				

Sample ID: LCS-21138	SampType: LCS	TestCode: PCB_S	Units: µg/Kg	Prep Date: 5/17/2023	RunNo: 39527						
Client ID: LCSS	Batch ID: 21138	TestNo: SW8082	E3550	Analysis Date: 5/17/2023	SeqNo: 652436						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aroclor 1016	121	25.0	125.0	0	96.6	70	130				
Aroclor 1260	116	25.0	125.0	0	92.5	70	130				
Surr: Decachlorobiphenyl	13.3		12.50		106	70	130				

Sample ID: 23050315-01AMS	SampType: MS	TestCode: PCB_S	Units: µg/Kg-dry	Prep Date: 5/17/2023	RunNo: 39527						
Client ID: 23-104-1 E	Batch ID: 21138	TestNo: SW8082	E3550	Analysis Date: 5/17/2023	SeqNo: 652438						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aroclor 1016	148	28.7	143.6	0	103	70	130				
Aroclor 1260	475	28.7	143.6	0	331	70	130				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 exceeded
MI	Recovery outside control limits due to Matrix Interference	ND	Not Detected at the Reporting Limit	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental

Project: 23-104 Ashland Tank

TestCode: PCB_S

Sample ID: 23050315-01AMS	SampType: MS	TestCode: PCB_S	Units: µg/Kg-dry	Prep Date: 5/17/2023	RunNo: 39527						
Client ID: 23-104-1 E	Batch ID: 21138	TestNo: SW8082	E3550	Analysis Date: 5/17/2023	SeqNo: 652438						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	13.2		14.36		91.6	70	130				

Sample ID: 23050315-01AMSD	SampType: MSD	TestCode: PCB_S	Units: µg/Kg-dry	Prep Date: 5/17/2023	RunNo: 39527						
Client ID: 23-104-1 E	Batch ID: 21138	TestNo: SW8082	E3550	Analysis Date: 5/17/2023	SeqNo: 652439						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	157	28.7	143.4	0	109	70	130	148.2	5.55	25	
Aroclor 1260	476	28.7	143.4	0	332	70	130	474.9	0.250	25	MI
Surr: Decachlorobiphenyl	13.6		14.34		94.7	70	130		0	0	

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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		

Original



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

QC SUMMARY REPORT

WO#: 23050315
 05-Jun-23

Client: Western States Environmental

Project: 23-104 Ashland Tank

TestCode: TCLP_METALS

Sample ID: MB-21272	SampType: MBLK	TestCode: TCLP_META	Units: mg/L	Prep Date: 5/30/2023	RunNo: 39885
Client ID: PBW	Batch ID: 21272	TestNo: SW6010	SW3010A	Analysis Date: 6/1/2023	SeqNo: 658250
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead ND 0.0500

Sample ID: LCS-21272	SampType: LCS	TestCode: TCLP_META	Units: mg/L	Prep Date: 5/30/2023	RunNo: 39885
Client ID: LCSW	Batch ID: 21272	TestNo: SW6010	SW3010A	Analysis Date: 6/1/2023	SeqNo: 658251
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead 1.04 0.0500 1.000 0 104 85 115

Sample ID: 23050315-04AMS	SampType: MS	TestCode: TCLP_META	Units: mg/L	Prep Date: 5/30/2023	RunNo: 39885
Client ID: 23-104-2 W	Batch ID: 21272	TestNo: SW6010	SW3010A	Analysis Date: 6/1/2023	SeqNo: 658256
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead 10.3 0.500 10.00 0 103 75 125

Sample ID: 23050315-04AMSD	SampType: MSD	TestCode: TCLP_META	Units: mg/L	Prep Date: 5/30/2023	RunNo: 39885
Client ID: 23-104-2 W	Batch ID: 21272	TestNo: SW6010	SW3010A	Analysis Date: 6/1/2023	SeqNo: 658257
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead 10.2 0.500 10.00 0 102 75 125 10.35 1.24 20

Qualifiers: CI 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
 R RPD outside accepted recovery limits RL Reporting Detection Limit

Original

Sample Log-In Check List

Client Name: **WesternStates** Work Order Number: **23050315** RcptNo: **1**

Logged by:	Sarah Cohen	5/5/2023 2:30:00 PM	<i>Sarah Cohen</i>
Completed By:	Tamra Schmedemann	5/10/2023 9:48:28 AM	<i>Tamra Schmedemann</i>
Reviewed By:	Tamra Schmedemann	5/10/2023 9:48:31 AM	<i>Tamra Schmedemann</i>

Chain of Custody

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

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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good				SLC

Chain of Custody Record

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: Western States Environmental		Project Name: Ashland Tank		Attention: Christy Dungan		<input checked="" type="checkbox"/> Standard: 10 Business Days <input type="checkbox"/> Priority: 5 Business Days (List x 1.50) <input type="checkbox"/> Express: 3 Business Days (List x 1.75) <input type="checkbox"/> Rush: 2 Business Days (List x 2.00) <input type="checkbox"/> Rush: 1 Business Day (List x 2.50) <input type="checkbox"/> Rush: Same Day (List x 3.00)																																																																																												
Address: PO Box 1745		Project Number: 23-104		Company Name: Western States Environmental		<input type="checkbox"/> Authorized <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																																												
Jacksonville, OR 97530		Report To: cdungan@wsenvironmental.com		Address: PO Box 1745																																																																																														
Email: cdungan@wsenvironmental.com, kchesnut@wsenvironmental.com		Ccpy To: kchesnut@wsenvironmental.com		Jacksonville, OR 97530																																																																																														
Phone: 541-770-2482 Fax: 541-772-0293		tbush@wsenvironmental.com		P.O. #																																																																																														
Collected By (Print): Kerry Chesnut		<table border="1"> <thead> <tr> <th colspan="13">Analysis Requested</th> </tr> <tr> <th>No. of Containers</th> <th>NW HCID</th> <th>TCLP RCRA 8</th> <th>NW TPH-DX</th> <th>NW TPH-GX</th> <th>PAH</th> <th>BTEX</th> <th>ICP RCRA 8</th> <th>TCLP Lead</th> <th>MTBE + EDB/EDC</th> <th>PCB</th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <td>5</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td>X</td> </tr> </tbody> </table>						Analysis Requested													No. of Containers	NW HCID	TCLP RCRA 8	NW TPH-DX	NW TPH-GX	PAH	BTEX	ICP RCRA 8	TCLP Lead	MTBE + EDB/EDC	PCB			5			X	X	X	X	X	X	X	X	X	X	5			X	X	X	X	X	X	X	X	X	X	4			X	X	X	X	X	X	X	X	X	X	4			X	X	X	X	X	X	X	X	X	X	4			X	X	X	X	X	X	X	X	X	X
Analysis Requested																																																																																																		
No. of Containers	NW HCID							TCLP RCRA 8	NW TPH-DX	NW TPH-GX	PAH	BTEX	ICP RCRA 8	TCLP Lead	MTBE + EDB/EDC	PCB																																																																																		
5			X	X	X	X	X	X	X	X	X	X																																																																																						
5			X	X	X	X	X	X	X	X	X	X																																																																																						
4			X	X	X	X	X	X	X	X	X	X																																																																																						
4			X	X	X	X	X	X	X	X	X	X																																																																																						
4			X	X	X	X	X	X	X	X	X	X																																																																																						
Collected By (Sign): Kerry Chesnut																																																																																																		
Email Report <input checked="" type="checkbox"/> Mail Report <input type="checkbox"/> Fax Report <input type="checkbox"/>																																																																																																		

Section E Sample Information					Analysis Requested													Section D Rush Status (Subject to Scheduling)		
Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	NW HCID	TCLP RCRA 8	NW TPH-DX	NW TPH-GX	PAH	BTEX	ICP RCRA 8	TCLP Lead	MTBE + EDB/EDC	PCB	NRC Workorder # (Lab Use Only)	Remarks / Field Data	NRC Sample # Use Only)	(Lab)	
23-104-1E	G	S	5/4/23	16:50	5			X	X	X	X	X	X	X	X	23050315-01-05	Hold TCLP Lead	01		
23-104-1W	G	S	5/4/23	17:00	5			X	X	X	X	X	X	X	X		pending ICP	02		
23-104-2E	G	S	5/4/23	15:23	4			X	X	X	X	X	X	X	X			03		
23-104-2W	G	S	5/4/23	15:18	4			X	X	X	X	X	X	X	X			04		
23-104-1E Wall	G	S	5/5/23	07:15	4			X	X	X	X	X	X	X	X			05		

*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:	Kerry Chesnut	Kerry Chesnut		5/5/23	13:40
Received By:	Derek Wolf	Derek Wolf		5-5-23	13:40
Relinquished By:	Derek Wolf	Derek Wolf		5-5-23	14:36
Received By:					
Relinquished By:	Sarah Cohen	Sarah Cohen		5/5/23	14:30
Received By Laboratory:					

Section G Lab Use Only	
Temp:	5.5
≤6°C:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Received on Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Number of Bottles Received:	
pH Checked:	
COC Seals Intact:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Field Blank Included:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Received Via	<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input checked="" type="checkbox"/> Hand
Payment:	<input checked="" type="checkbox"/> Invoice <input type="checkbox"/> Cash <input type="checkbox"/> VISA, M/C <input type="checkbox"/> 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.
 - 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) 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.
 - 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.