LANDAU ASSOCIATES

UST SITE ASSESSMENT AND REMEDIATION REPORT

Former Pacific Pride Facility
Spokane, Washington

December 21, 2023

Prepared for

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UST Site Assessment and Remediation Report
Former Pacific Pride Facility
7109 West Will D. Alton Drive
Spokane, Washington

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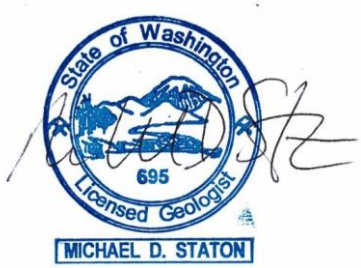

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LIST OF ABBREVIATIONS AND ACRONYMS

bgs ..... below ground surface
BTEX ..... benzene, toluene, ethylbenzene, and xylenes
CCS ..... Cowlitz Clean Sweep, Inc.
CUL ..... Cleanup Level
CY ..... cubic yard
DEF ..... diesel exhaust fluid
DRO ..... diesel-range organics
Ecology ..... Washington State Department of Ecology
ERTS ..... Ecology's Environmental Report Tracking System
ft ..... feet; foot
GRO ..... gasoline-range organics
Landau ..... Landau Associates, Inc.
Libby ..... Libby Environmental, Inc.
mg/kg ..... milligrams per kilogram
MTCA ..... Model Toxics Control Act
MW ..... monitoring well
NWTPH-Dx ..... Northwest TPH extended-range diesel analytical method
NWTPH-Gx ..... Northwest TPH extended-range gasoline analytical method
ORO ..... oil-range organics
OWS ..... oil-water separator
Pacific Recycling ..... Pacific Recycling – Spokane
PetroCard ..... PetroCard, Inc.
PID ..... photoionization detector
PNE ..... Pacific Northern Environmental
RL ..... reporting limit
Site ..... Former Spokane Pacific Pride Facility
subject property ..... former Pacific Pride fueling station
TOC ..... top casing
TPH ..... total petroleum hydrocarbon
UDC ..... underneath dispenser containment
USCS ..... Unified Soil Classification System
UST ..... underground storage tank
VOC ..... volatile organic compound
WAC ..... Washington Administrative Code

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1.0 INTRODUCTION

At the request of PetroCard, Inc. (PetroCard), Landau Associates, Inc. (Landau) prepared this report to present the results of the subsurface assessment and remediation activities that were conducted during the decommissioning of PetroCard's former Pacific Pride fueling station located at 7109 West Will D. Alton Drive in Spokane, Washington (subject property). Figure 1 shows the location of the subject property. During the decommissioning activities, the four underground storage tanks (USTs) and the associated piping and dispensers at the facility were removed. The former locations of the USTs and other features at the subject property are shown on Figure 2.

The UST decommissioning and site assessment activities were conducted in accordance with the requirements of the Washington State Department of Ecology (Ecology) UST regulations (Chapter 173-360A of the Washington Administrative Code [WAC], including WAC 173-360A-0740) and Ecology's *Guidance for Site Checks and Site Assessments for Underground Storage Tanks* (Ecology 2003). Immediately following the site assessment, soil remediation activities were conducted in accordance with WAC 173-340-450.

1.1 Site Conditions

The following subsections provide information pertaining to the physical, geologic, and hydrogeologic settings of the former Spokane Pacific Pride facility (site).

1.1.1 Physical Setting

The subject property is approximately 3.15 acres in size and includes a storage building and the former cardlock fueling station. The property is bordered by commercial properties to the south, east, and west. It is bordered to the north by West Will D. Alton Drive followed by additional commercial properties.

1.1.2 Geologic and Hydrogeologic Settings

The area in proximity to the Spokane International Airport (approximately 0.5 mile northwest of the site), including the site, is underlain by a combination of Quaternary sediments (predominantly gravel) deposited by glacial floods and the Priest Rapids Member of the Wanapum Basalt, part of the Columbia River Basalt Group (WA DNR 2004). Deposition of sediments in the area occurred outside of the principal glacial flood channels, which are to the north and east of the area (WA DNR 2004).

Groundwater flow direction was not determined during this investigation. On September 18, 2023, the depths to groundwater in two monitoring wells (MWs) identified at the site (MWs 12-A and 12-B) were 33.77 feet (ft) and 33.37 ft below top casing (TOC), respectively, as measured by Landau field personnel. MW 12-A and MW 12-B are located approximately 28 ft east of the former USTs and are screened from 68.1 to 78.1 ft below ground surface (bgs) and 25 to 45 ft bgs, respectively. The wells were installed in 1991 and the exact purpose of these wells is unknown. Appendix A contains the Resource Protection Well Reports for the wells, which were accessed via the Ecology website. Groundwater was not otherwise encountered during the facility decommissioning, assessment, or remedial activities.

1.1.3 Underground Storage Tanks and Other Site Features

Four single-walled, dielectric-coated steel USTs were present at the facility and decommissioned as a part of activities documented in this report. As shown on Figure 2, the decommissioned USTs were located within a concrete- and grass-covered area to the northeast of the cardlock facility fueling station. Each tank had a capacity of 10,000 gallons; the northern two USTs contained diesel fuel (identified by Ecology as tanks 1 and 2) and the southern two USTs contained unleaded gasoline (identified by Ecology as tanks 3 and 4). The USTs were installed on January 1, 1990, upgraded on December 21, 1990, and were operational until just prior to the decommissioning activities.

An oil-water separator (OWS) was present approximately 62 ft south of the USTs and 30 ft southeast of the dispenser island area, as shown on Figure 2. This OWS was removed as a part of the UST decommissioning activities; however, the OWS is not regulated by Ecology UST Regulations (WAC 173-360A) and is not discussed further in this report.

An aboveground diesel exhaust fluid (DEF) tank was present immediately to the west of the OWS, as shown on Figure 2. This aboveground DEF tank was removed as a part of the UST decommissioning activities; however, the DEF tank is not regulated by Ecology UST Regulations (WAC 173-360A) and is not discussed further in this report.

2.0 UNDERGROUND STORAGE TANK DECOMISSIONING

This section describes the UST decommissioning activities for the four USTs at the site and associated piping and dispensers. Figure 2 presents the layout of the former UST system components. The tanks, piping, and dispensers were decommissioned and removed during the week of September 18, 2023. The UST decommissioning activities were conducted by Pacific Northern Environmental (PNE, dba Cowlitz Clean Sweep, Inc. [CCS]) of Longview, Washington, a contractor certified by the International Code Council for UST Decommissioning, in accordance with removal procedures presented in Ecology's UST Guidance (Ecology 2003). A Landau field geologist, certified as a UST Site Assessor, was onsite during the UST and associated piping and dispenser decommissioning activities.

2.1 Notifications and Permits

Prior to decommissioning the USTs, PetroCard submitted a 30-Day Notice to Decommission USTs to Ecology, as required by WAC 173-360-385. A copy of this 30-Day Notice is included in Appendix B.

2.2 Underground Storage Tank Decommissioning

The UST decommissioning activities, including cleaning, removal, and disposal, are documented in the following subsections.

2.2.1 Piping and Dispenser Removal

Prior to decommissioning the piping and dispensers, the remaining fuel in the system piping was blown back to the USTs using compressed air. All dispensers were disassembled, drained of remaining fuel, and removed. The underneath dispenser containments (UDCs) and piping were temporarily left in place to allow for Landau personnel to map their locations as a part of the site assessment. After the locations of piping and dispensers had been documented by Landau personnel, PNE removed those components. The facility included a total of 12 fuel dispensers, including five diesel dispensers, two unleaded gasoline dispensers, one combination diesel and unleaded gas dispenser, three satellite diesel dispensers, and one combination diesel and satellite diesel dispenser. A satellite dispenser in this case was a dispenser that is plumbed to another dispenser on the next fueling island over to allow for commercial trucks to fuel the tanks on both sides of the truck simultaneously and under the same fueling transaction. The fuel line from the main dispenser to the satellite dispenser was only pressurized when the main dispenser was activated.

2.2.2 Underground Storage Tank Cleaning

Following decommissioning of the piping and dispensers, CCS cleaned the USTs using the existing ports atop the USTs for access. A total of 1,321 gallons of rinse solution, including fuel, sludge, and water, was generated.

The residual fuel mixed with rinse solution was transported by CCS to Orrco, a petroleum recycler located in Portland, Oregon, for permitted disposal. Records of disposal of rinse solution are provided in Appendix C.

2.2.3 Underground Storage Tank Removal

CCS completed one excavation for removal of all USTs. The soil excavated from above and along the sides of the USTs (approximately 0 to 13 ft bgs) was removed and stockpiled onsite immediately east and south of the excavation. The soil was presumed clean based on field-screening results and subsequently sampled as described in Section 3.2. The USTs were then removed from the excavation and immediately transported offsite for disposal. The bottom of each UST was at a depth of approximately 12 ft bgs. Before and after removal of the USTs, the tanks were observed to be in good condition, showing no cracks or holes and no evidence of leakage.

2.2.4 Underground Storage Tank Disposal

The USTs were transported by CCS for recycling at Pacific Recycling – Spokane (Pacific Recycling). A record of receipt by Pacific Recycling is provided in Appendix C.

3.0 UNDERGROUND STORAGE TANK SITE ASSESSMENT

As part of the decommissioning activities, Landau personnel conducted a site assessment in accordance with WAC 173-360A-0730. The completed Site Check/Site Assessment Checklist is provided in Appendix D. Site assessment activities included observation of decommissioning activities, documentation of site features, classification of soil and field screening, and collection of site assessment soil samples.

3.1 Soil Classification and Field Screening

The soil from the UST system excavations and from the subsequent remedial excavations (see Section 4.0) was classified according to the Unified Soil Classification System (USCS). The excavated soil was field screened for the potential evidence of petroleum hydrocarbons by volatile organic compound (VOC) headspace analysis using a photoionization detector (PID) and visual and olfactory observation.

The top of the UST excavation was composed of pea gravel fill with sand fill below. Native soil encountered at the subject property was brown sand with varying amounts of silt and gravel present. Highly to completely weathered Latah Formation, which consists of lacustrine and fluvial deposits of finely laminated siltstone, claystone, and minor sandstone (WA DNR 2004), was encountered at the base of the larger remedial excavation.

The results of field screening indicated the presence of petroleum hydrocarbons in the soil at multiple locations, including underneath several former diesel and gasoline dispensers and underneath the former unleaded gasoline piping at the southern end of the west sidewall of the UST excavation. There was no field-screening evidence of petroleum hydrocarbons within the soil removed from the UST excavation, or at the limits of the excavation, with the exception of the west sidewall, as mentioned above.

3.2 Soil Sampling and Analysis

Soil samples were collected from the sidewalls and floor of the UST removal excavation, from underneath the former locations of each fuel dispenser, and from underneath the former dispenser piping, as required by WAC 173-360A-0730 and as outlined in Table 0730-1: Minimum Number and Location of Soil Samples. Table 1 presents a soil sample matrix, including sample descriptions, locations, and objectives. Soil samples were collected directly from undisturbed soil when possible and from an excavation bucket when necessary. One floor sample was collected from underneath the approximate center of each UST (sample locations 27, 32, 39, and 40) and a total of seven sidewall samples were collected, four from underneath where piping from each UST entered the west sidewall (sample locations 29, 36, 42, and 43) and the remaining three were spread evenly around the rest of the UST removal excavation (sample locations 37, 38, and 41). A soil sample was collected from underneath each of the former dispenser locations (a total of 12 samples; sample locations 1 through 3, 5 through 9, and 13 through 16). Four soil samples were collected from underneath piping at the locations of joints where releases would most likely be found (sample locations 4, and 10 through 12).

The excavated soil from the UST excavation that contained limited to no field evidence of petroleum hydrocarbons was stockpiled along the southern and eastern ends of UST excavation (see Figure 2). Since the stockpile contained approximately 150 cubic yards (CYs) of soil, Landau collected five soil samples from the stockpile. Figure 2 presents the locations of the former facility features, the soil samples collected for laboratory analysis, the soil excavations, and the UST excavation soil stockpile.

Soil sample analyses were selected based on the known tank contents in accordance with WAC 173-340-900 Table 830-1 Required Testing for Petroleum Releases. All soil samples were analyzed for the following:

- Gasoline-range organics (GRO) by the Northwest total petroleum hydrocarbon (TPH) extended-range gasoline analytical method (NWTPH-Gx).
- Diesel-range organics (DRO) and oil-range organics (ORO) by the Northwest TPH extended-range diesel analytical method (NWTPH-Dx).
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by analytical method SW-846 8260D.

Site Assessment soil samples were analyzed by Libby Environmental, Inc. (Libby) at their mobile lab, which was at the subject property during site assessment activities.

3.2.1 Applicable Cleanup Levels and Soil Sample Analytical Results

Model Toxics Control Act (MTCA; WAC 173-340) Method A Soil Cleanup Levels (CULs) for Unrestricted Land Use were used to evaluate the analytical data generated during site assessment activities. Soil analytical results from the site assessment are presented in Table 2, including a comparison to CULs, and copies of the laboratory analytical reports are provided in Appendix E. Figure 2 shows the locations of the analyzed site assessment soil samples. The soil sample analytical results from the site assessment are summarized below.

Exceedances of the Method A CULs were identified as follows:

- DRO, GRO, and BTEX were detected above the CULs in sample PPSA-1, collected underneath the former location of the westernmost satellite diesel dispenser.
- DRO, GRO, and xylenes were detected above the CULs in sample PPSA-6 also collected underneath the former location of the central satellite diesel dispenser.
- DRO and benzene were detected above the CULs in sample PPSA-15, collected underneath the former location of the combination diesel and unleaded gasoline dispenser. GRO was detected below the CUL in sample PPSA-15.
- DRO was detected above the CUL in samples PPSA-5, -7, -8, and -11, which were collected underneath the former locations of a diesel dispenser, gasoline dispenser, diesel dispenser, and fuel piping locations, respectively.
- Benzene was detected above the CUL in sample PPSA-29, collected underneath the former location of unleaded gasoline piping at the western sidewall of the UST excavation. GRO was detected below the CUL in PPSA-29.

Based on the DRO and GRO concentrations, it appears that the GRO concentrations greater than the CUL are primarily due to overlap from DRO in those samples.

Toluene was detected below the CUL in a sample from the UST excavation stockpile. No analytes were detected above laboratory reporting limits (RLs) in any other site assessment soil sample.

3.3 Conclusion of Site Assessment

The Ecology Permanent Closure Notice is also provided in Appendix B. The soil sample analytical results described above confirmed that diesel releases and a gasoline release had occurred at several of the former dispensers and associated piping runs at the facility. The site assessment is considered complete. Based on the analytical data, the releases at the facility were reported to Ecology's Environmental Report Tracking System (ERTS) on September 27, 2023 (see Appendix B). Contaminated soil was subsequently excavated and removed from the site and confirmation soil samples were collected from the margins of the excavations, as described in Section 4.0 of this report.

4.0 CONTAMINATED SOIL REMOVAL AND CONFIRMATION SAMPLING

As described above, the results of the site assessment indicated that diesel releases had occurred in three discrete areas of the facility. As described in detail in the following sections, the petroleum hydrocarbon-impacted soil was removed from each of the three areas and subsequently disposed at a Subtitle D Landfill. Confirmation soil samples were collected from the excavations to confirm that the CULs were met at the limits of the excavations.

4.1 Impacted Soil Excavations

CCS excavated the impacted soil from the three areas, as guided by field-screening results. Field screening included PID readings and visual/olfactory observations of the soil as it was removed from the excavation and at the margins of the excavations. Groundwater was not encountered in any of the excavations. Figure 2 presents the locations of remedial excavations and confirmation soil samples. Table 1 presents a soil sample matrix, including sample descriptions, locations, and objectives, and Table 3 presents the soil sample analytical results from the remedial action.

The three distinct areas of soil excavation are detailed below:

PPSA-1 Excavation: Approximately 7 CY of petroleum hydrocarbon-impacted soil were removed from underneath the former location of the westernmost satellite diesel dispenser at the facility. The estimated area of excavation is shown on Figure 2. The contamination was due to a diesel release based on the DRO detection in sample PPSA-1 (28,000 milligrams per kilogram [mg/kg]) relative to the GRO concentration (120 mg/kg) and because said release was discovered underneath a former diesel fuel dispenser. The excavation was approximately 8 ft by 13 ft and extended to approximately 5 ft bgs. An approximately 3-ft layer of clean overburden was removed from the excavation prior to excavation of the contaminated soil that was generally encountered between 3 and 5 ft bgs.

PPSA-29 Excavation: Approximately 16 yards of petroleum hydrocarbon-impacted soil were removed from underneath the former location of fuel piping to the west of the southernmost unleaded gasoline UST. The contamination was due to a gasoline release based on detected concentrations of GRO and BTEX in sample PPSA-29 (with benzene above the CUL), no DRO detection above the laboratory RL in PPSA-29, and because the location of the release was discovered underneath the former location of unleaded gasoline piping. This excavation was immediately adjacent to the UST removal excavation and was approximately 7 ft by 8 ft and extended to approximately 7.5 ft bgs. The excavation area is shown on Figure 2.

Main Dispenser Island Excavation: Approximately 750 yards of petroleum hydrocarbon-impacted soil were removed from the area underneath the former dispenser island area. The impacted soil extended downward and away from the area where samples PPSA-5, -6, -7, -8, -11, and -15 were collected. This area was primarily underneath the largest dispenser island at the site, which contained five dispensers (two diesel, one satellite diesel, and two unleaded gasoline). The contamination was due to a diesel release based on DRO detections ranging from 2,600 mg/kg to 37,000 mg/kg and GRO either not being

detected above laboratory RLs or being detected at significantly lower concentrations (18 mg/kg to 78 mg/kg) than DRO in the samples mentioned above. The samples with the highest detected DRO concentrations were collected from underneath the former locations of diesel dispensers or piping.

Clean overburden was excavated from areas where the contamination had migrated away from the source areas. Approximately 250 CY of excavated soil that exhibited limited to no field evidence of contamination was stockpiled to the southeast of the main remedial excavation (see Figure 2).

The Main Dispenser Island Excavation was up to approximately 98 ft long by up to 58 ft wide and extended to a maximum depth of approximately 18 ft bgs. The excavation area is shown on Figure 2.

4.1.1 Excavation Soil Sampling and Analysis

Confirmation soil samples were collected from the base and sidewalls of each of the remedial excavations to demonstrate that remaining soil contained petroleum hydrocarbon concentrations below the CULs. A total of three sidewall samples (PPSA-24 through -26) and one floor sample (PPSA-23) were collected from the PPSA-1 Excavation, and site assessment sample PPSA-4 was used as the eastern sidewall sample. A total of three sidewall samples (PPSA-44 through -46) and one floor sample (PPSA-29A) were collected from the PPSA-29 Excavation. There was no eastern sidewall sample collected because the excavation extended into the UST excavation. A total of nine sidewall samples (PPSA-47, -48, -55, -62, -64, -66, -67, -70, and -71) and six floor samples (PPSA-54, -58, -63, -65, -69, and -72) were collected from the Main Dispenser Island Excavation. A total of five soil samples (PPSA-56, -57, -59, -60, and -61) were collected from the stockpile of non-impacted overburden from the Main Fuel Dispenser Excavation. The locations of all the excavation samples are shown on Figure 2.

The soil samples were analyzed for the same parameters as the site assessment samples. The samples were analyzed for the following:

- GRO by NWTPH-Gx
- DRO and ORO by NWTPH-Dx
- BTEX by SW-846 8260D.

Soil samples were analyzed by Libby at their mobile laboratory, which was at the subject property for a portion of the cleanup activities. After Libby's mobile laboratory left the subject property, the soil samples were analyzed by Eurofins TestAmerica at their laboratory in Spokane, Washington. It is our understanding that Libby's laboratory in Olympia, Washington conducted subsequent moisture testing of the samples that were analyzed by their mobile laboratory.

4.1.2 Excavation Soil Sample Analytical Results

As described in Section 3.2.1, MTCA Method A soil CULs for unrestricted land use were used to evaluate the soil sample analytical results from the excavation floor and sidewall samples, as well as the stockpile samples The soil sample analytical results did not indicate the presence of GRO, DRO, ORO, or BTEX at concentrations above either their RLs or CULs, including in the stockpile samples. In the Main Fuel Dispenser Excavation, DRO was detected in samples PPSA-63, -64, -67, -69, -70, and -72 at

concentrations below the CUL (14 mg/kg to 1,100 mg/kg). All the stockpile samples contained detected DRO and/or ORO concentrations (26 to 73 mg/kg and 31 to 75 mg/kg, respectively) below the CULs. The soil sample analytical results from the remedial action are presented in Table 3, while copies of the laboratory reports are included in Appendix E.

4.2 Contaminated Soil Disposal

The excavated petroleum hydrocarbon-impacted soil was temporarily stockpiled on the subject property, pending offsite disposal. A total of 1,085.29 tons of impacted soil were hauled to the Graham Road Landfill, a Subtitle D landfill, for disposal under an approved profile by CCS. The soil disposal documentation is presented in Appendix F.

4.3 Site Restoration

After remedial excavations were complete and the analytical results for the confirmation soil samples had been received, CCS backfilled and compacted the excavations to grade using the soil stockpiles generated during the site assessment and remedial excavations and with clean imported fill.

5.0 SUMMARY AND CONCLUSIONS

This report documents the decommissioning and removal of two 10,000-gallon diesel USTs and two 10,000-gallon unleaded gasoline USTs and associated fuel dispensers and piping at the former Pacific Pride fueling station in Spokane, in accordance with the requirements of WAC 173-360A. After removal of the UST fueling system, a remedial action was conducted to remove the petroleum hydrocarbon-impacted soil at the site. Landau's conclusions regarding the results of the work include the following:

- After removal, the four USTS were observed to be in good condition. The field-screening results and the confirmation soil sample analytical results from the UST excavation indicate that there was no evidence of a release from any of the tanks.
- The results of the site assessment showed that there were confirmed diesel releases and a gasoline release had occurred at several of the former dispensers and associated piping runs at the facility. These releases occurred at three distinct areas.
- Subsequent site remediation activities included the excavation and offsite disposal of 1,085.29 tons of petroleum hydrocarbon-impacted soil. The confirmation sample analytical results from the three excavations indicated remaining petroleum hydrocarbon concentrations in the soil at the site area below the MTCA Method A CULs.
- The remediation of the petroleum hydrocarbon-impacted soil is complete. The groundwater beneath the subject property occurs at depths of over 15 ft below the maximum depth of the deepest soil excavation (the maximum depth of the previous soil contamination). The remedial action results indicate that the previous releases did not extend to the groundwater table.
- Based on the assessment and remediation results, Landau believes that no further action should be necessary at the site.

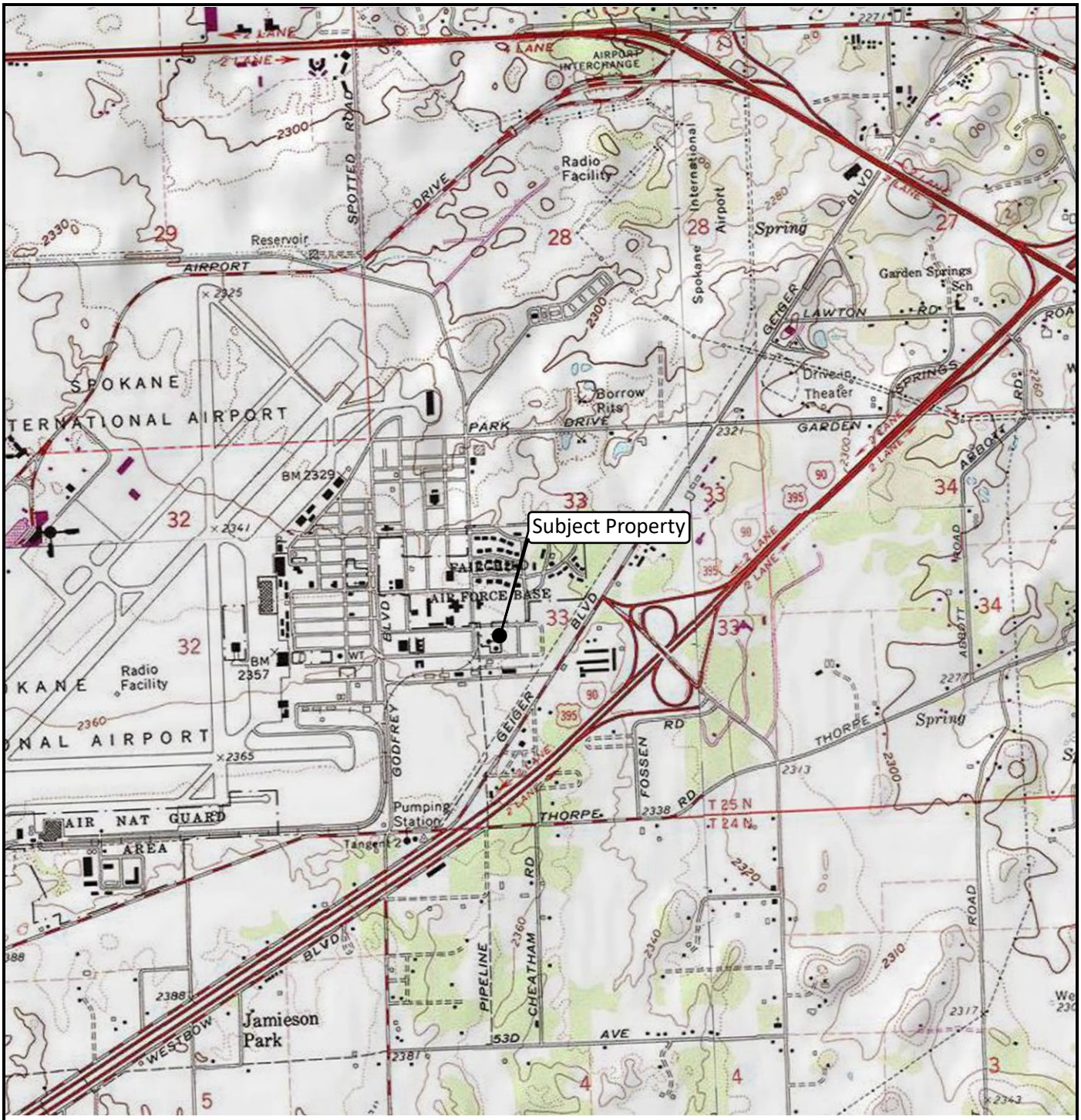
6.0 USE OF THIS REPORT

This report has been prepared for the exclusive use of PetroCard, Inc. and applicable regulatory agencies for specific application to the former Pacific Pride fueling station in Spokane. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau, shall be at the user's sole risk. Landau warrants that within the limitations of scope, schedule, and budget, these services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. Landau makes no other warranty, either express or implied.

7.0 REFERENCES

Ecology. 2003. *Guidance for Site Checks and Site Assessments for Underground Storage Tanks.* Washington State Department of Ecology.

WA DNR. 2004. Geologic Map of the Four Lakes 7.5-minute Quadrangle, Spokane County, Washington. Washington State Department of Natural Resources.



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Feet

Data Source: Esri, USGS.

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PetroCard Former Pacific Pride Facility Spokane, Washington	**Location of Subject Property**	Figure 1

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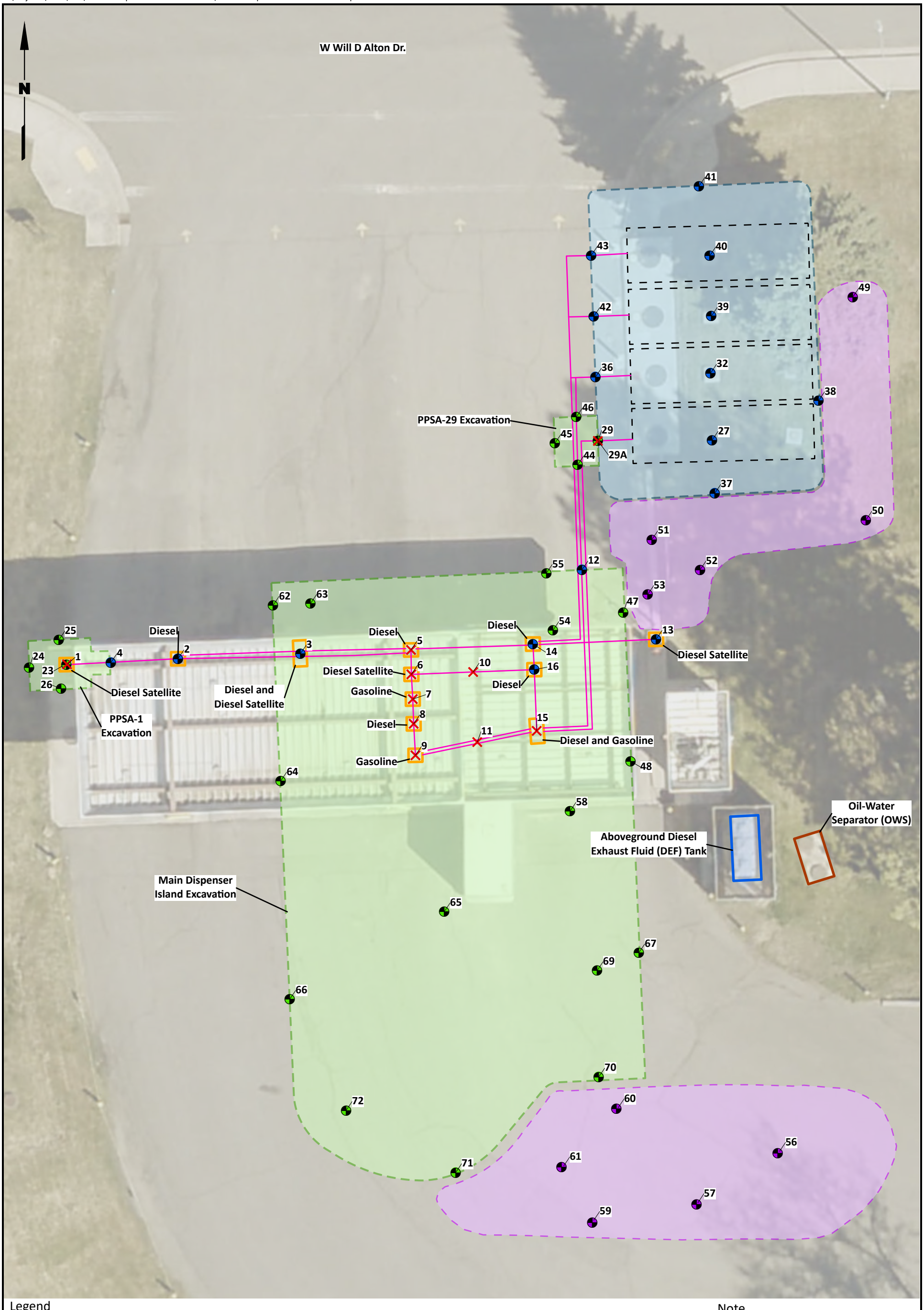

Legend

- Site Assessment Soil Sample Location – Subsequently Removed
- Site Assessment Soil Sample Location – Not Removed
- Remedial Excavation Confirmation Soil Sample Location
- Stockpile Soil Sample Location
- Former Fuel Piping
- Remedial Excavation
- UST Removal Excavation
- Excavated Soil Stockpile
- Former Aboveground Diesel Exhaust Fluid (DEF) Tank
- Former Fuel Dispensers
- Former Oil-Water Separator (OWS)
- Former USTs

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Source: Esri World Imagery.

0 15 30

Scale in Feet

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PetroCard
Former Pacific Pride Facility
Spokane, Washington

Soil Excavation and Soil Sample Locations

Figure 2

Table 1
Soil Sample Descriptions, Locations, and Objectives
UST Site Assessment and Cleanup Report
PetroCard Spokane

Sample ID	Sample Depth (ft)	Date	Time	Sample Location	Sample Description	Sample Purpose	Removed?
PPSA-1-091823-2.75TO3.25	2.75-3.25	9/18/2023	13:45	Underneath westernmost dispenser (satellite diesel)	Brown, dry, dense, silty, fine SAND. Petro odor, no sheen. PID 370 ppm.	SA	Yes
PPSA-2-091823-2.75TO3.25	2.75-3.25	9/18/2023	14:05	Underneath second from easternmost dispenser (diesel)	Brown, dry, dense, silty, fine SAND. No odor. PID 0.1 ppm.	SA	No
PPSA-3-091823-3TO3.5	3-3.5	9/18/2023	14:20	Underneath dispenser (3rd island from W, gas & diesel)	Brown, dry, dense, silty, fine SAND. No odor. PID 0.1 ppm.	SA	No
PPSA-4-091823-3TO3.5	3-3.5	9/18/2023	14:45	Underneath piping between westernmost dispenser and dispenser to the east.	Brown, dry, dense, silty, fine SAND. PID 0.3 ppm.	SA	No
PPSA-5-091823-2.75TO3.25	2.75-3.25	9/18/2023	15:00	Underneath diesel dispnser (N end of 3rd island from E)	Brown, dry, dense, silty, fine SAND. Slight petro odor. PID 140 ppm.	SA	Yes
PPSA-6-091923-3TO3.5	3-3.5	9/19/2023	9:45	Underneath diesel satellite dispenser (S of sample #5)	Grayish-brown, dry, dense, silty, fine SAND. Strong petro odor. PID 355 ppm.	SA	Yes
PPSA-7-091923-3TO3.5	3-3.5	9/19/2023	10:15	Underneath gasoline dispenser (S of sample 6)	Brown, dry, dense, silty, fine SAND. PID 265 ppm.	SA	Yes
PPSA-8-091923-3TO3.5	3-3.5	9/19/2023	10:30	Underneath diesel dispenser (S of sample 7)	Brown, dry, dense, silty, fine SAND. PID 156 ppm.	SA	Yes
PPSA-9-091923-3.5TO4	3.5-4	9/19/2023	11:15	Underneath gasoline dispenser (S of sample 8)	Brown, dry, dense, silty, fine SAND. PID 41 ppm.	SA	Yes
PPSA-10-091923-2.75TO3.25	2.75-3.25	9/19/2023	11:40	Underneath diesel piping joint.	Brown, dry, medium dense, fine SAND with cobbles. No odor, no sheen. PID 0.7 ppm.	SA	Yes
PPSA-11-091923-2.75TO3.25	2.75-3.25	9/19/2023	11:55	Underneath gasoline piping joint.	Brown, dry, medium dense, fine SAND with cobbles. No odor, no sheen. PID 1.9 ppm.	SA	Yes
PPSA-12-091923-2.75TO3.25	2.75-3.25	9/19/2023	13:15	Underneath piping run from tanks to E dispenser island.	Brown, dry, medium dense, fine SAND with cobbles. No odor, no sheen. PID 0.5 ppm.	SA	No
PPSA-13-091923-3.25TO3.75	3.25-3.75	9/19/2023	13:35	Underneath easternmost diesel satellite dispenser.	Brown, dry, medium dense, fine SAND with cobbles. No odor, no sheen. PID 0.4 ppm.	SA	No
PPSA-14-091923-3TO3.5	3-3.5	9/19/2023	14:00	Underneath diesel dispenser of easternmost dispenser island.	Brown, dry, medium dense, fine SAND with cobbles. No odor, no sheen. PID 0.5 ppm.	SA	No
PPSA-15-091923-3TO3.5	3-3.5	9/19/2023	14:40	Underneath gasoline/diesel dispenser at south end of eastern dispenser island.	Brown, dry, medium dense, fine SAND with cobbles. Slight petro odor. PID 1288 ppm.	SA	Yes
PPSA-16-091923-3TO3.5	3-3.5	9/19/2023	14:50	Underneath Diesel dispenser in E dispenser island.	Brown, dry, medium dense, fine SAND with cobbles. No odor, no sheen.. PID 1.0 ppm.	SA	No
PPSA-23-092023-5TO5.5	5-5.5	9/20/2023	12:35	Base of W remedial excavation.	Brown, medium dense, moist, silty SAND. No odor, no sheen. PID 0.4 ppm.	RA	No
PPSA-24-092023-3.5TO4	3.5-4	9/20/2023	12:55	W sidewall of W remedial excavation.	Brown, medium dense, moist, silty SAND. No odor, no sheen. PID 0.4 ppm.	RA	No
PPSA-25-092023-3.5TO4	3.5-4	9/20/2023	13:10	N sidewall of W remedial excavation.	Brown, medium dense, moist, silty SAND. No odor, no sheen. PID 0.6 ppm.	RA	No
PPSA-26-092023-3.5TO4	3.5-4	9/20/2023	13:30	S sidewall of W remedial excavation.	Brown, medium dense, moist, silty SAND. No odor, no sheen. PID 0.8 ppm.	RA	No

Table 1
Soil Sample Descriptions, Locations, and Objectives
UST Site Assessment and Cleanup Report
PetroCard Spokane

Sample ID	Sample Depth (ft)	Date	Time	Sample Location	Sample Description	Sample Purpose	Removed?
PPSA-27-092023-12.5TO13	12.5-13	9/20/2023	14:00	Base beneath UST #1.	Brown, medium dense, moist, silty SAND. No odor, no sheen. PID 1.0 ppm.	SA	No
PPSA-29-092023-4.5TO5	4.5-5	9/20/2023	14:25	W sidewall adjacent to UST #1.	Brown, medium dense, moist, silty SAND. Petro odor, no sheen. PID 120 ppm.	SA	Yes
PPSA-32-092023-12.5TO13	12.5-13	9/20/2023	15:15	Base beneath UST #2.	Brown, medium dense, moist, silty SAND. No odor, no sheen. PID 0.3 ppm.	SA	No
PPSA-36-092023-4TO4.5	4-4.5	9/20/2023	16:30	W sidewall adjacent ot UST #2.	Brown, medium dense, moist, silty SAND. No odor no sheen. PID 0.9 ppm.	SA	No
PPSA-37-092023-5.5TO6	5.5-6	9/20/2023	16:40	S sidewall of tank excavation.	Brown, stiff, dry CLAY. No odor no sheen. PID 0.9 ppm.	SA	No
PPSA-38-092023-7TO7.5	7-7.5	9/20/2023	16:55	E sidewallof tank excavation.	Brown, dry, gravelly SAND. No odor no sheen. PID 0.9 ppm.	SA	No
PPSA-39-092123-12.5TO13	12.5-13	9/21/2023	8:10	Base beneath UST #3	Brown, wet, loose, silty SAND with gravel. No odor no sheen. PID 0.9 ppm.	SA	No
PPSA-40-092123-12.5TO13	12.5-13	9/21/2023	9:00	Base beneath UST #4	Brown, wet, loose, silty SAND with gravel. No odor no sheen. PID 0.0 ppm.	SA	No
PPSA-41-092123-9TO9.5	9-9.5	9/21/2023	9:15	N sidewall of UST excavation.	Brown, dry, loose SAND (fine to coarse) with organics (roots). No odor no sheen. PID 0.0 ppm.	SA	No
PPSA-42-092123-4TO4.5	4-4.5	9/21/2023	9:50	W sidewall adjacent to UST #3.	Brown, moist, medium dense SAND with gravel. Very slight petro odor, no sheen. PID 1.0 ppm.	SA	No
PPSA-43-092123-4TO4.5	4-4.5	9/21/2023	10:05	W sidewall adjacent to UST #4.	Brown, damp, loose, gravelly SAND. No odor, no sheen. PID 0.2 ppm.	SA	No
PPSA-29A-092123-7.5TO8	7.5-8	9/21/2023	11:35	Sample 29 location after remedial excavation.	Brown, damp, loose gravelly SAND. No odor, no sheen. PID 2.4 ppm.	RA	No
PPSA-44-092123-5.5TO6	5.5-6	9/21/2023	11:50	Sample 29 remedial excavation (SW end of tank excavation) S sidewall.	Brown, damp, loose SAND. No odor no sheen. PID 0.3 ppm.	RA	No
PPSA-45-092123-4.5TO5	4.5-5	9/21/2023	12:30	Sample 29 remedial excavation W sidewall.	Brown, damp, loose SAND with gravel. No odor no sheen. PID 0.1 ppm.	RA	No
PPSA-46-092123-4.5TO5	4.5-5	9/21/2023	12:45	Sample 29 remedial excavation N sidewall.`	Brown, damp, loose SAND. No odor no sheen. PID 0.0 ppm.	RA	No
PPSA-47-092123-11TO12	11-12	9/21/2023	14:40	Dispenser island remedial excavation N end of E sidewall.	Brown, dry, stiff CLAY. Slight petro odor no sheen PID 5.4 ppm.	RA	No
PPSA-48-092123-11TO12	11-12	9/21/2023	16:05	Dispenser island remedial excavation S end of E sidewall (SE corner)	Brown, dry, stiff CLAY. No odor no sheen. PID 1.5 ppm.	RA	No
PPSA-49-092123-SP	NA	9/21/2023	8:05	Tank area stockpile	No odor, no sheen. PID 0.0 ppm.	SP	No
PPSA-50-092123-SP	NA	9/21/2023	8:10	Tank area stockpile	No odor, no sheen. PID 0.0 ppm.	SP	No
PPSA-51-092123-SP	NA	9/21/2023	8:20	Tank area stockpile	No odor, no sheen. PID 0.0 ppm.	SP	No

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Sample ID	Sample Depth (ft)	Date	Time	Sample Location	Sample Description	Sample Purpose	Removed?
PPSA-52-092123-SP	NA	9/21/2023	8:35	Tank area stockpile	No odor, no sheen. PID 0.0 ppm.	SP	No
PPSA-53-092123-SP	NA	9/21/2023	8:50	Tank area stockpile	No odor, no sheen. PID 0.2 ppm.	SP	No
PPSA-54-092123-14.5TO15	14.5-15	9/21/2023	11:55	Remedial excavation base	Brown, dry, medium stiff CLAY. No odor no sheen. PID 2.1 ppm.	RA	No
PPSA-55-092123-13.5TO14	13.5-14	9/21/2023	12:30	Remedial excavation sidewall	SAA. PID 0.0 ppm.	RA	No
PPSA-56-092123-SP	NA	9/21/2023	14:30	Remedial excavation stockpile.	Brown, dry, medium stiff CLAY. No odor no sheen. PID 0.1 ppm.	SP	No
PPSA-57-092123-SP	NA	9/21/2023	14:50	Remedial excavation stockpile.	NO/NS PID 1.2 ppm.	SP	No
PPSA-58-092123-17.5TO18	17.5-18	9/21/2023	15:00	Remedial excavation base.	Grey, damp, stiff SILT. Very slight petro odor, no sheen. PID 5.0 ppm.	RA	No
PPSA-59-092123-SP	NA	9/21/2023	15:30	Remedial excavation stockpile.	No odor, no sheen. PID 0.2 ppm.	SP	No
PPSA-60-092123-SP	NA	9/21/2023	15:40	Remedial excavation stockpile.	No odor, no sheen. PID 0.3 ppm.	SP	No
PPSA-61-092123-SP	NA	9/21/2023	15:50	Remedial excavation stockpile.	No odor, no sheen. PID 0.3 ppm.	SP	No
PPSA-62-092523-11.5TO12.5	11.5-12.5	9/25/2023	8:25	Remedial excavation sidewall	Brown, fine to medium silty SAND. No odor, no sheen. PID 0.0	RA	No
PPSA-63-092523-14	14	9/25/2023	8:30	Remedial excavation bottom	Brown gray silty SAND. No odor, no sheen. PID 0.0	RA	No
PPSA-64-092523-12TO13	12-13	9/25/2023	8:45	Remedial excavation sidewall	Gray brown silty SAND, no odor, no sheen. PID 0.0	RA	No
PPSA-65-092523-14	14	9/25/2023	9:05	Remedial excavation bottom	Brown silty SAND. No odor, no sheen. PID 0.0	RA	No
PPSA-66-092523-12TO13	12-13	9/25/2023	11:05	Remedial excavation sidewall	Brown silty SAND. No odor, no sheen. PID 0.0	RA	No
PPSA-67-092523-12TO13	12-13	9/25/2023	11:20	Remedial excavation sidewall	Gray brown very silty SAND, slight sheen, PID 0.8 ppm	RA	No
PPSA-69-092523-15	15	9/25/2023	14:40	Remedial excavation bottom	Brown silty SAND. No odor, no sheen. PID 1.0	RA	No
PPSA-70-092523-14	14	9/25/2023	15:15	Remedial excavation sidewall	Brown silty SAND. No odor, no sheen. PID 0.1 ppm	RA	No
PPSA-71-092523-13	13	9/25/2023	16:25	Remedial excavation sidewall	Brown very gravelly SAND, No odor, no sheen. PID 0.0	RA	No

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Soil Sample Descriptions, Locations, and Objectives
UST Site Assessment and Cleanup Report
PetroCard Spokane

Sample ID	Sample Depth (ft)	Date	Time	Sample Location	Sample Description	Sample Purpose	Removed?
PPSA-72-092523-14	14	9/25/2023	16:30	Remedial excavation bottom	Brown SAND with gravel. No odor, no sheen. PID 0.0	RA	No

Notes:
RA = remedial action
SA = site assessment
SP = stockpile
ppm = parts per million
NO/NS = no odor, no sheen

Table 2
Site Assessment Soil Sample Analytical Results
UST Site Assessment and Cleanup Report
PetroCard Spokane

Sample Loction	Sample Depth (ft)	Sample Date	Labortory SDG	TPH (mg/kg; NWTPH-Dx, -Gx)			BTEX (mg/kg; SW-846 8260D)					
				Diesel Range Organics	Oil Range Organics	Gasoline	Benzene	Ethylbenzene	m-&p-Xylenes	o-Xylene	Toluene	Xylenes, Total
			MTCA Method A CULs	2,000	2000	30/100 (a)	0.03	6	9 (b)	9 (b)	7	9
PPSA-1	2.75 to 3.25	9/18/2023	E23I003	**28,000**	3000 U	**120**	**1**	**8.1**	--	--	**11**	**40**
PPSA-2	2.75 to 3.25	9/18/2023	E23I003	62 U	310 U	8.6 U	0.017 U	0.043 U	--	--	0.086 U	0.13 U
PPSA-3	3 to 3.5	9/18/2023	E23I003	62 U	310 U	8.8 U	0.018 U	0.044 U	--	--	0.088 U	0.13 U
PPSA-4	3 to 3.5	9/18/2023	E23I003	61 U	310 U	8.3 U	0.017 U	0.042 U	--	--	0.083 U	0.12 U
PPSA-5	2.75 to 3.25	9/18/2023	E23I003	**5,200 J**	320 U	**14**	0.018 U	0.045 U	--	--	0.09 U	**0.33**
PPSA-6	3 to 3.5	9/19/2023	E23I003	**22,000**	3200 U	**78**	0.019 U	**1.9**	--	--	**0.25**	**19**
PPSA-7	3 to 3.5	9/19/2023	E23I003	**4,600 J**	330 U	9.6 U	0.019 U	**0.21**	--	--	0.096 U	**0.93**
PPSA-8	3 to 3.5	9/19/2023	E23I003	**37,000**	6400 U	9.3 U	0.019 U	**0.39**	--	--	0.093 U	**2.4**
PPSA-9	3.5 to 4	9/19/2023	E23I003	**180 J**	330 U	9.7 U	0.019 U	0.048 U	--	--	0.097 U	0.14 U
PPSA-10	2.75 to 3.25	9/19/2023	E23I003	**70 J**	300 U	7.7 U	0.015 U	0.039 U	--	--	0.077 U	0.12 U
PPSA-11	2.75 to 3.25	9/19/2023	E23I003	**2,600 J**	320 U	9 U	0.018 U	0.045 U	--	--	0.09 U	0.13 U
PPSA-12	2.75 to 3.25	9/19/2023	E23I003	60 U	300 U	8 U	0.016 U	0.04 U	--	--	0.08 U	0.12 U
PPSA-13	3.25 to 3.75	9/19/2023	E23I003	**71**	290 U	7.1 U	0.014 U	0.036 U	--	--	0.071 U	0.11 U
PPSA-14	3 to 3.5	9/19/2023	E23I003	**320 J**	280 U	6.8 U	0.014 U	0.034 U	--	--	0.068 U	0.1 U
PPSA-15	3 to 3.5	9/19/2023	E23I003	**2,900 J**	320 U	**18**	**0.18**	0.045 U	--	--	0.089 U	0.13 U
PPSA-16	3 to 3.5	9/19/2023	E23I003	62 U	310 U	8.7 U	0.017 U	0.044 U	--	--	0.087 U	0.13 U
PPSA-27	12.5 to 13	9/20/2023	E23I003	66 U	330 U	9.7 U	0.019 U	0.048 U	--	--	0.097 U	0.15 U
PPSA-29	4.5 to 5	9/20/2023	E23I003	54 U	270 U	**15**	**0.5 J**	**0.28 J**	--	--	**2 J**	**1.5 J**
PPSA-29A	7.5 to 8	9/21/2023	E23I003	54 U	270 U	6.3 U	0.013 U	0.032 U	--	--	0.063 U	0.095 U
PPSA-32	12.5 to 13	9/20/2023	E23I003	57 U	280 U	7 U	0.014 U	0.035 U	--	--	0.07 U	0.11 U
PPSA-36	4 to 4.5	9/20/2023	E23I003	53 U	260 U	5.8 U	0.012 U	0.029 U	--	--	0.058 U	0.087 U
PPSA-37	5.5 to 6	9/20/2023	E23I003	64 U	320 U	9 U	0.018 U	0.045 U	--	--	0.09 U	0.14 U
PPSA-38	7 to 7.5	9/20/2023	E23I003	52 U	260 U	5.6 U	0.011 U	0.028 U	--	--	0.056 U	0.085 U
PPSA-39	12.5 to 13	9/21/2023	E23I003	61 U	310 U	8.4 U	0.017 U	0.042 U	--	--	0.084 U	0.13 U
PPSA-40	12.5 to 13	9/21/2023	E23I003	61 U	310 U	8.3 U	0.017 U	0.042 U	--	--	0.083 U	0.12 U
PPSA-41	9 to 9.5	9/21/2023	E23I003	52 U	260 U	5.6 U	0.011 U	0.028 U	--	--	0.056 U	0.085 U
PPSA-42	4 to 4.5	9/21/2023	E23I003	56 U	280 U	6.9 U	0.014 U	0.035 U	--	--	0.069 U	0.1 U
PPSA-43	4 to 4.5	9/21/2023	E23I003	52 U	260 U	5.6 U	0.011 U	0.028 U	--	--	0.056 U	0.084 U
PPSA-49	Stockpile	9/22/2023	L23I089	53 U	270 U	5.9 U	0.012 U	0.03 U	--	--	0.059 U	0.19
PPSA-50	Stockpile	9/22/2023	L23I089	54 U	270 U	6.2 U	0.012 U	0.031 U	--	--	0.062 U	0.092 U
PPSA-51	Stockpile	9/22/2023	L23I089	56 U	280 U	6.9 U	0.014 U	0.034 U	--	--	0.069 U	0.1 U
PPSA-52	Stockpile	9/22/2023	L23I089	63 U	310 U	8.8 U	0.018 U	0.044 U	--	--	**0.21**	0.13 U
PPSA-53	Stockpile	9/22/2023	L23I089	57 U	290 U	7.3 U	0.015 U	0.036 U	--	--	0.073 U	0.11 U

Notes:

Bold text indicates detected analyte**.**
Gray shading indicates material at sample location was subsequently removed.
Green shading indicates detected analyte exceeds applicable cleanup level.
(a) MTCA Method A cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture; otherwise the cleanup level is 30 mg/kg.
(b) MTCA Method A cleanup level is for total xylenes.
U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Abbreviations and Acronyms:

CUL = cleanup level
BTEX = benzene, toluene, ethylbenzene, and xylenes
ft = feet
mg/kg = milligrams per kilogram
MTCA = Model Toxics Control Act
-- = not analyzed
SDG = sample delivery group
TPH = total petroleum hydrocarbons

Table 3
Remedial Action Soil Sample Analytical Results
UST Site Assessment and Cleanup Report
PetroCard Spokane

Sample Loction	Sample Depth (ft)	Sample Date	Labortory SDG	TPH (mg/kg; NWTPH-Dx, -Gx)			BTEX (mg/kg; SW-846 8260D)					
				Diesel Range Organics	Oil Range Organics	Gasoline	Benzene	Ethylbenzene	m-&p-Xylenes	o-Xylene	Toluene	Xylenes, Total
			MTCA Method A CULs	2,000	2000	30/100 (a)	0.03	6	9 (b)	9 (b)	7	9
PPSA-23	5 to 5.5	9/20/2023	E23I003	55 U	280 U	6.6 U	0.013 U	0.033 U	--	--	0.066 U	0.099 U
PPSA-24	3.5 to 4	9/20/2023	E23I003	62 U	310 U	8.7 U	0.017 U	0.043 U	--	--	0.087 U	0.13 U
PPSA-25	3.5 to 4	9/20/2023	E23I003	62 U	310 U	8.7 U	0.017 U	0.044 U	--	--	0.087 U	0.13 U
PPSA-26	3.5 to 4	9/20/2023	E23I003	61 U	300 U	8.3 U	0.017 U	0.041 U	--	--	0.083 U	0.12 U
PPSA-29A	7.5 to 8	9/21/2023	E23I003	54 U	270 U	6.3 U	0.013 U	0.032 U	--	--	0.063 U	0.095 U
PPSA-44	5.5 to 6	9/21/2023	E23I003	52 U	260 U	5.7 U	0.011 U	0.029 U	--	--	0.057 U	0.086 U
PPSA-45	4.5 to 5	9/21/2023	E23I003	52 U	260 U	5.7 U	0.011 U	0.029 U	--	--	0.057 U	0.086 U
PPSA-46	4.5 to 5	9/21/2023	E23I003	53 U	260 U	5.8 U	0.012 U	0.029 U	--	--	0.058 U	0.088 U
PPSA-47	11 to 12	9/21/2023	E23I003	76 U	380 U	13 U	0.025 U	0.063 U	--	--	0.13 U	0.19 U
PPSA-48	11 to 12	9/21/2023	E23I003	70 U	350 U	11 U	0.022 U	0.056 U	--	--	0.11 U	0.17 U
PPSA-54	14.5 to 15	9/22/2023	590-21785-1	14 U	34 U	9.0 U	0.036 U	0.18 U	0.72 U	0.36 U	0.18 U	1.1 U
PPSA-55	13.5 to 14	9/22/2023	590-21785-1	13 U	33 U	9.6 U	0.038 U	0.19 U	0.77 U	0.38 U	0.19 U	1.1 U
PPSA-56	Stockpile	9/22/2023	590-21785-1	**49**	**75**	6.6 U	0.027 U	0.13 U	0.53 U	0.27 U	0.13 U	0.80 U
PPSA-57	Stockpile	9/22/2023	590-21785-1	**71**	**32**	5.8 U	0.023 U	0.12 U	0.47 U	0.23 U	0.12 U	0.70 U
PPSA-58	17.5 to 18	9/22/2023	590-21785-1	14 U	35 U	10 U	0.040 U	0.20 U	0.80 U	0.40 U	0.20 U	1.2 U
PPSA-59	Stockpile	9/22/2023	590-21785-1	**73**	**70**	5.5 U	0.022 U	0.11 U	0.44 U	0.22 U	0.11 U	0.66 U
PPSA-60	Stockpile	9/22/2023	590-21785-1	**26**	29 U	7.5 U	0.030 U	0.15 U	0.60 U	0.30 U	0.15 U	0.90 U
PPSA-61	Stockpile	9/22/2023	590-21785-1	**43**	**31**	7.3 U	0.029 U	0.15 U	0.58 U	0.29 U	0.15 U	0.87 U
PPSA-62	11.5 to 12.5	9/25/2023	590-21799-1	15 U	37 U	11 U	0.042 U	0.21 U	0.85 U	0.42 U	0.21 U	1.3 U
PPSA-63	14	9/25/2023	590-21799-1	**27**	35 U	12 U	0.049 U	0.24 U	0.98 U	0.49 U	0.24 U	1.5 U
PPSA-64	12 to 13	9/25/2023	590-21799-1	**16**	35 U	9.0 U	0.036 U	0.18 U	0.72 U	0.36 U	0.18 U	1.1 U
PPSA-65	14	9/25/2023	590-21799-1	13 U	33 U	9.5 U	0.038 U	0.19 U	0.76 U	0.38 U	0.19 U	1.1 U
PPSA-66	12 to 13	9/25/2023	590-21799-1	12 U	29 U	7.2 U	0.029 U	0.14 U	0.57 U	0.29 U	0.14 U	0.86 U
PPSA-67	12 to 13	9/25/2023	590-21799-1	**1,100**	36 U	7.2 U	0.039 U	0.20 U	0.78 U	0.39 U	0.20 U	1.2 U
PPSA-69	15	9/25/2023	590-21803-1	**23**	34 U	9.3 U	0.037 U	0.19 U	0.74 U	0.37 U	0.19 U	1.1 U
PPSA-70	14	9/25/2023	590-21803-1	**73**	32 U	7.9 U	0.031 U	0.16 U	0.63 U	0.31 U	0.16 U	0.94 U
PPSA-71	13	9/25/2023	590-21803-1	13 U	34 U	9.7 U	0.039 U	0.19 U	0.78 U	0.39 U	0.19 U	1.2 U
PPSA-72	14	9/25/2023	590-21803-1	**14**	28 U	5.3 U	0.021 U	0.11 U	0.42 U	0.21 U	0.11 U	0.64 U

Notes:
Bold text indicates detected analyte**.**
Gray shading indicates material at sample location was subsequently removed.
Green shading indicates detected analyte exceeds applicable cleanup level.
(a) MTCA Method A cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture; otherwise the cleanup level is 30 mg/kg.
(b) MTCA Method A cleanup level is for total xylenes.
U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Abbreviations and Acronyms:
CUL = cleanup level
BTEX = benzene, toluene, ethylbenzene, and xylenes
ft = feet
mg/kg = milligrams per kilogram
MTCA = Model Toxics Control Act
-- = not analyzed
SDG = sample delivery group
TPH = total petroleum hydrocarbons

APPENDIX A

Monitoring Well Logs

RESOURCE PROTECTION WELL REPORT

START CARD NO. 33164

PROJECT NAME: Army Corp of Engineers
WELL IDENTIFICATION NO. MW 11A & 11B, 12A & 12B
DRILLING METHOD: Air Rotary
DRILLER: Rod Fogle
FIRM: Fogle Pump & Supply
SIGNATURE: Rod Fogle
CONSULTING FIRM: Ecova Corp
REPRESENTATIVE: Karen May

COUNTY: Spokane
LOCATION: NE ¼ SW ¼ Sec 33 Twn 25 R 42
STREET ADDRESS OF WELL:
WATER LEVEL ELEVATION:
GROUND SURFACE ELEVATION:
INSTALLED:
DEVELOPED:

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	"SEE ATTACHED"	

RECEIVED
FEB 6 1991

SCALE: 1" = _____ PAGE _____ OF _____

ECY 050-12 (Rev. 11/89)

ECOVA Corporation

Well Installation Log

Well Number MW-12A

Date Drilled 4/11/90

Client · Army Corps of Engineers | Drilling Company Fogle Pump & Supply | Coordinates 244203.3091 N

Site Pacific Pride (Task 10) | Boring Method Air Rotary | 2459408.1227 E

Job Number 801126 | Borehole Depth 97.0 Feet | Casing Elevation 2351.30

Field Geologist K. May | Water Depth 35.0 Feet | Sheet 1 of 2

Depth (Feet)	Blow Counts	Sample No.	Recover	Organic* Vapor (ppm)	% LEL	% O_2	General: / Sample Description	Graphic Log
5							SILTY SAND (SM) – Fine– to medium–grained sand, brown to reddish brown, cobbles and boulders encountered to 3.5', loose, dry.	
10							WEATHERED BASALT – Basalt cuttings with silty sand.	
15								
20				2			WEATHERED BASALT.	
25								
30								
35							▽ Static water level at 35 feet.	
40								
45							BASALT – Dark Brown. Harder drilling.	
50								

801126-A-MW12A

* Background = 2 ppm

ECOVA Corporation

Well Installation Log

Well Number MW-12A

Client Army Corps of Engineers | Drilling Company Fogle Pump & Supply | Date Drilled 4/11/90

Site Pacific Pride (Task 10) | Boring Method Air Rotary | Coordinates 244203.3091 N, 2459408.1227 E

Job Number 801126 | Borehole Depth 97.0 Feet | Casing Elevation 2351.30

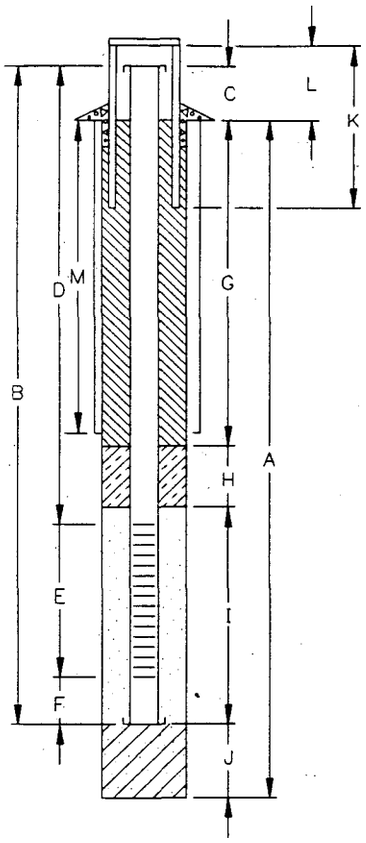
Field Geologist K. May | Water Depth 35.0 Feet | Sheet 2 of 2

Depth (Feet)	Blow Counts	Sample No.	Recover	Organic* Vapor (ppm)	% LEL	% O_2	General: / Sample Description	Graphic Log
55							BASALT – Gray, dry.	
60								
65								
70							WEATHERED BASALT – Strongly weathered vesicular basalt, with medium-grained sand and subrounded gravel (interbed?), orange to yellowish white. Water yielding zone at 71 feet.	
75								
80								
85							WEATHERED BASALT – Same as above, yellow-white, gray-rust, black, at 85 feet – 4 foot interval produced abundant water.	
90								
95								
100							Bottom of Hole – 97 FEET	

801126-A-MW12A

* Background = 2 ppm

WELL COMPLETION MW-12A



TOP OF CASING ELEVATION 2351.30'

A BORING DEPTH _____ FT.
BORING DIAMETER 6 IN.

B WELL DEPTH 81 FT.

C WELL STICKUP 1 FT.

D BLANK INTERVAL 69' FT.
BLANK DIAMETER 2 IN.

E SCREEN INTERVAL 68.1-78.1' FT.
SCREEN DIAMETER 2 IN.
TYPE/SLOT SIZE 0.01

F SEDIMENT TRAP 2'3" FT.

G ANNULAR SEAL _____ FT.
MATERIAL: GROUT

H. BENTONITE SEAL 6 FT.

I SANDPACK 15 FT.
TYPE/SIZE: 20/40

J BOTOM SEAL/PACK 5" FT.
MATERIAL: _____

K WELL COVER _____ FT.

L STICKUP _____ FT.

M CONDUCTOR CASING _____ FT.

NOT TO SCALE

DRILLING TIMES:
START 1505 4/11/90 FINISH 1720 4/11/90
STANDBY or DOWN TIME:

METHOD OF DECON. PRIOR TO DRILLING:

DEVELOPMENT

METHOD OF DEVELOPMENT:

PUMP TIME 1330 TO 1500 DATE

TURBIDITY AFTER DEVELOPMENT: _____ CLEAR _____ MOD. TURBID _____ SL. TURBID _____ TURBID

ODOR IN WATER ?

WATER DISCHARGED TO: _____ GROUND SURFACE _____ STORM SEWERS _____ DRUMS _____ STORAGE TANK _____ TANK TRUCK

DEPTH OF WATER AFTER DEVELOPMENT:

MATERIALS USED

8 SACKS of 20/40 SAND
12 1/2 SACKS of PORTLAND CEMENT CEMENT
_____ SACKS of PREMIX CONCRETE
_____ GALLONS of GROUT USED
_____ GROUT COMPOSITION #6 BENTONITE
2 SACKS of BENTONITE PELLETS
_____ BUCKETS of BENTONITE PELLETS
_____ YARDS CEMENT - SAND USED
4 CENTRALIZERS at EVERY 25' BGS

WELL COVER USED:
_____ Above Grade
X At Grade
_____ Other
X Lockable

801126-A-MW12AW

RESOURCE PROTECTION WELL REPORT

START CARD NO. 33164

PROJECT NAME: Army Corp of Engineers
WELL IDENTIFICATION NO. MW 11A & 11B, 12A & 12B
DRILLING METHOD: Air Rotary
DRILLER: Rod Fogle
FIRM: Fogle Pump & Supply
SIGNATURE: Rod Fogle
CONSULTING FIRM: Ecova Corp
REPRESENTATIVE: Karen May

COUNTY: Spokane
LOCATION: NE ¼ SW ¼ Sec 33 Twn 25 R 42
STREET ADDRESS OF WELL:
WATER LEVEL ELEVATION:
GROUND SURFACE ELEVATION:
INSTALLED:
DEVELOPED:

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	"SEE ATTACHED"	

RECEIVED
FEB 6 1991

SCALE: 1" = _____ PAGE _____ OF _____

ECY 050-12 (Rev. 11/89)

ECOVA Corporation

Well Installation Log

Well Number MW-12B

Client Army Corps of Engineers | Drilling Company Fogle Pump & Supply | Date Drilled 4-12-90

Site Pacific Pride (Task 10) | Boring Method Air Rotary | Coordinates 244197.6254 N, 2459408.9907 E

Job Number 801126 | Borehole Depth 51.0 Feet | Casing Elevation 2351.21

Field Geologist K. May | Water Depth 35 Feet | Sheet 1 of 2

General: 8 feet of 6" casing.

Depth (Feet)	Blow Counts	Sample No.	Recover	Organic* Vapor (ppm)	% LEL	% O_2	Sample Description	Graphic Log
5							SILTY SAND (SM) – Fine– to medium–grained, brown to reddish brown, loose, dry.	
10							WEATHERED BASALT – Reddish–brown.	
15								
20								
25								
30							WEATHERED BASALT – Gray–brown.	
35							Moist cuttings. ▽ Static water level at 35 feet.	
40							BASALT – Black, dry.	
45								
50								

801126-A-MW12B

* Background = _____ppm

ECOVA Corporation

Well Installation Log

Well Number MW-12B

Client: Army Corps of Engineers | Drilling Company: Fogle Pump & Supply | Date Drilled: 4-12-90

Site: Pacific Pride (Task 10) | Boring Method: Air Rotary | Coordinates: N ____ E ____

Job Number: 801126 | Borehole Depth: 51.0 Feet | Casing Elevation: 2351.21

Field Geologist: K. May | Water Depth: Not Encountered | Sheet 2 of 2

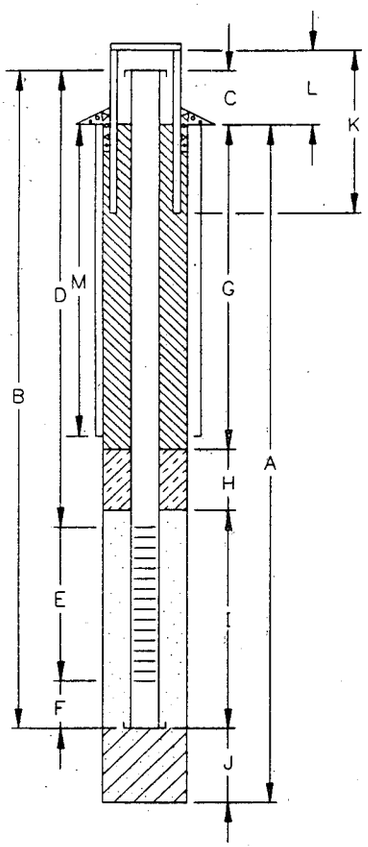
General: 8 feet of 6" casing.

Depth (Feet)	Blow Counts	Sample No.	Recover	Organic* Vapor (ppm)	% LEL	% O_2	Sample Description	Graphic Log
							BASALT – Black.	
							Bottom of Hole – 51 Feet	
55								
60								
65								
70								
75								
80								
85								
90								
95								
100								

801126-A-MW12B

* Background = _____ppm

WELL COMPLETION MW-12B



TOP OF CASING ELEVATION 2351.21'

A BORING DEPTH 51' FT.
BORING DIAMETER 6 IN.
B WELL DEPTH 51 FT.
C WELL STICKUP 0 FT.
D BLANK INTERVAL _____ FT.
BLANK DIAMETER 2 IN.
E SCREEN INTERVAL 25-45' FT.
SCREEN DIAMETER 2 IN.
TYPE/SLOT SIZE .01
F SEDIMENT TRAP 5'3" FT.
G ANNULAR SEAL 11' FT.
MATERIAL: GROUT
H. BENTONITE SEAL 5 FT.
I SANDPACK 27 FT.
TYPE/SIZE: 20/40
J BOTOM SEAL/PACK 1 FT.
MATERIAL: SAND
K WELL COVER _____
L STICKUP 0 FT.
M CONDUCTOR CASING _____ FT.

NOT TO SCALE

DRILLING TIMES:
START 1420 4/12/90 FINISH 1615 4/12/90
STANDBY or DOWN TIME:

METHOD OF DECON. PRIOR TO DRILLING:

DEVELOPMENT

METHOD OF DEVELOPMENT:

PUMPING TIMES 0930 TO 1200 DATE

TURBIDITY AFTER DEVELOPMENT: _____ CLEAR _____ MOD. TURBID _____ SL. TURBID _____ TURBID

ODOR IN WATER ?

WATER DISCHARGED TO: _____ GROUND SURFACE _____ STORM SEWERS X DRUMS _____ STORAGE TANK _____ TANK TRUCK

DEPTH OF WATER AFTER DEVELOPMENT: 37'

MATERIALS USED

8 SACKS of 20/40 SAND
6 SACKS of PORTLAND CEMENT
_____ SACKS of PREMIX CONCRETE
_____ GALLONS of GROUT USED
_____ GROUT COMPOSITION
2 SACKS of BENTONITE PELLETS
_____ BUCKETS of BENTONITE PELLETS
_____ YARDS CEMENT - SAND USED
2 CENTRALIZERS at 25 AND 46 FEET BGS

WELL COVER USED:
_____ Above Grade
X At Grade
_____ Other
X Lockable

801126-A-MW12BW