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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, Washington 98504-7600 • 360-407-6300

May 3, 2023

Karen Deal
Lakeside Industries, Inc.
6505 226th Place Southeast, Suite 200
Issaquah, WA 98027
Karen.Deal@laksideindustries.com

Re: No Further Action opinion for the following Site

Site name:	Lakeside Industries Centralia Former Concrete Batch Plant
Property address:	2001 Johnson Rd, Centralia, Lewis County, WA 98531
Facility/Site ID:	13796544
Cleanup Site ID:	15050
VCP Project ID:	XS0015

Dear Karen Deal:

The Washington State Department of Ecology (Ecology) received your request on April 18, 2023, for an opinion regarding the sufficiency of your independent cleanup of the Lakeside Industries Centralia Former Concrete Batch Plant facility (Site) under the expedited Voluntary Cleanup Program (VCP).

This letter provides our opinion and analysis. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), chapter 70A.305 RCW.[1]

Opinion

Ecology has determined that no further remedial action is necessary at the Site.

Cleanup up of the Site was conducted consistent with the requirements of Model Remedy No. 4 for Soil[2].

[1] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305
[2] Department of Ecology. *Model Remedies for Sites with Petroleum Contaminated Soils*. December 2017.

Ecology notes that this opinion pertains solely to the identified release at the Former Concrete Batch Plant (CSID 15050) that is located within the larger Lakeside Industries Centralia facility (FSID 13796544). This letter provides no opinions regarding the sufficiency of contamination assessment or characterization activities elsewhere within the facility.

Ecology bases this opinion on an analysis of whether the remedial action meets the substantive requirements of MTCA and its implementing regulations, which are specified in chapter 70A.305 RCW and chapter 173-340 WAC[3] (collectively called "MTCA").

Site Description

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release(s), regardless of parcel boundaries:

- Petroleum (diesel and heavy oil range) into the soil.

Enclosure A includes Site and Property description, history, and diagrams. Please note a parcel of real property can be affected by multiple sites. At this time, Ecology has no information that other sites affect the parcel(s) associated with this Site.

Ecology notes that the Former Concrete Batch Plant (CSID 15050) is within a relatively small part of the larger Lakeside Industries Central facility (FSID 13796544). A second cleanup site known as the Lakeside Industries Former Asphalt Plan (CSID 15055) is located within the same facility approximately 400 feet to the southeast of the Former Concrete Batch Plant. The release located at the Former Asphalt Batch Plant is not addressed under this letter but under separate correspondence.

Basis for the Opinion

Ecology bases this opinion on the information contained in the following documents:

- Farallon, *Cleanup Action Report, Former Concrete Batch Plant, 2001 Johnson Road, Centralia, Washington*, March 23, 2023.

- Department of Ecology, *Initial Investigation Field Report, Lakeside Industries Former Concrete Plant, Centralia, Washington,* June 27, 2019.

[3] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340

You can request these documents by filing a records request.[4] For help making a request, contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or call 360-407-6040. Before making a request, check whether the documents are available on Ecology's Cleanup Site Search web page.[5]

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

Analysis of the Cleanup

Ecology has concluded that no further remedial action is necessary to clean up contamination at the Site. Ecology bases its conclusion on the following analysis.

Characterizing the Site

Ecology has determined your completed Site characterization is sufficient for setting cleanup standards and selecting a cleanup action. **Enclosure A** describes the Site.

Site Contaminants

Site contaminants include diesel and heavy oil-range petroleum in soils and groundwater. The contamination appears to be associated with releases from operations of the former concrete batch plant in this area (i.e., releases of petroleum used to operate heavy equipment associated with mixing concrete).

Soil Characterization

The extent of soil contamination appears to be sufficiently defined for the selection of cleanup levels and cleanup actions at the Site.

Soil was characterized in 2018 to 2019 with the collection of 89 soil samples from 63 locations analyzed by Method NWTPH-Dx. Soil samples were collected at depths ranging from 3.0 to 24 feet below ground surface (ft bgs) during initial characterization activities and during remedial excavation work conducted in May through July 2019. Selected soil samples were also analyzed for gasoline by NWTPH-Gx, metals, pH, volatile organic compounds (VOCs), and carcinogenic polycyclic aromatic hydrocarbons (CPAHs). Laboratory analysis of soil samples was conducted consistent with MTCA's required testing for petroleum site.[6]

[4] https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests
[5] https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=15050
[6] WAC 173-340-900, Table 830-1

Method A cleanup levels for petroleum in soil (diesel and heavy oil range) were exceeded. Maximum concentrations before and following excavation cleanup were as follows:

Table 1. Maximum Contaminant Concentrations in Soil Samples (Before and After Cleanup)

Cleanup Phase	**DRO** (mg/kg)[a]	**ORO** (mg/kg)	**DRO + ORO** (mg/kg)
Method A Cleanup Level	*2,000*	*2,000*	*2,000*
Before Cleanup [b]	14,000	23,000	37,000
Following Cleanup	2,300	2,200	2,450

DRO = Diesel Range Petroleum Hydrocarbons
ORO = Heavy Oil Range Petroleum Hydrocarbons
[a] mg/kg equals milligrams per kilogram.
[b] Maximum concentrations all found at sample location FTP-30 at a depth of 17 ft bgs.

Two soil samples were also analyzed for volatile and extractable petroleum hydrocarbons (VPH and EPH), and a direct contact-based Method B cleanup level for total petroleum of 2,796 milligrams per kilogram (mg/kg) was calculated. None of the soil samples collected following the excavation cleanup at the Site exceeded this calculated cleanup level.

No vapor intrusion concerns have been identified at the Site as there are no structures located in the vicinity of the soil contamination. In addition, the Site contaminants are of relatively low volatility and the relatively low concentrations of remaining petroleum contamination in soil are unlikely to generate vapors.

Groundwater Characterization

Groundwater appears to have been sufficiently characterized for the selection of cleanup levels and cleanup actions at the Site. Groundwater occurs at a depth between approximately 14 to 29 ft bgs at the Site. Groundwater depths varied considerably with the seasons, with highest water levels in April 2022 and lowest water levels in October 2019. Apparent groundwater flow directions varied considerably with flow directions to the east, south, and west.

Groundwater samples were collected three times at four monitoring wells. No cleanup levels were exceeded in the monitoring well samples. The maximum detected concentrations were 338 micrograms per liter (µg/L) DRO, 460 µg/L ORO, and 460 µg/L DRO + HRO. The collected groundwater data suggests that either the petroleum release to soil did not result in cleanup level exceedances in groundwater, or concentrations of DRO in ORO have attenuated to below cleanup levels. In addition, no Group A/B water wells are located within 1,000 feet of the Site; risk to water supply wells is low. No further sampling for petroleum in groundwater at the Former Concrete Batch Plant Site appears to be warranted at this time.

Setting Cleanup Standards

Ecology has determined the cleanup levels and points of compliance presented below meet the substantive requirements of MTCA. The following cleanup levels and screening levels have been selected for the Site:

Table 2. Cleanup Levels for Soil and Groundwater

Contaminant	Method B Soil Cleanup Level (mg/kg)	Method A Groundwater Cleanup Level (µg/L)
DRO	--	500
ORO	--	500
DRO + ORO	2,796[a]	500

[a] Calculated Method B concentration for total petroleum hydrocarbons (TPH) in soil.

Points of Compliance

The points of compliance are throughout the Site. Cleanup levels based on the direct contact pathway apply to soils to a depth of 15 ft bgs. Ecology has concluded that an Empirical Demonstration consistent with the requirements of WAC 173-340-747(3)(f) show that groundwater is not adversely impacted. Hence, soil cleanup levels based on the proposed Site-specific direct contact cleanup level apply at the Site.

Terrestrial Ecological Evaluation (TEE)

The Site is in an area with significant open space in proximity to a large surface water body. Therefore, the possibility of wildlife in this area cannot be precluded. However, the former concrete batch plant is in an area of active facility operations and potential for habitat in the immediate vicinity of the petroleum release is currently low.

Remaining soil contamination is primarily at a depth greater than or equal to 12 ft bgs, and ecological receptor concerns are limited to a depth of 6.0 ft bgs[7]. One shallower soil sample, F2-01 at 3.0 ft bgs had DRO + ORO concentration of 2,120 mg/kg. Ecology has concluded that although this sample had petroleum exceeding the TEE-based concentration of 460 mg/kg[8], the one location does not constitute a significant risk to ecological receptors and consistent with WAC 173-340-360(2), no further actions regarding the TEE pathway is considered to be warranted at this time.

[7] WAC 173-340-7490(4)(a).
[8] MTCA Table 749-2.

Selecting and implementing the cleanup action

An interim action consisting of excavation and offsite disposal was conducted at the Site from May through July 2019. A total of 4,748 tons of contaminated soil were excavated and disposed of at the Cowlitz County landfill in Longview, Washington. Disposal receipts were provided within the Cleanup Action Report.

Because excavation and offsite disposal is considered the most permanent cleanup solution by Ecology, no feasibility study nor disproportionate cost analysis is needed. The interim action removed most of the petroleum contaminated soil at the Site. Some contamination remained with concentrations greater than the Method A cleanup level but below the calculated Method B cleanup level.

Ecology has concluded that the cleanup has been conducted consistent with the requirements of Model Remedy No. 4 for soil. Since no cleanup level exceedances have occurred in groundwater samples, Ecology has concluded that an empirical demonstration indicates that the soil-to-groundwater pathway is incomplete at the Site. No further cleanup work or soil or groundwater characterization appears to be warranted based on the following considerations:

- Method B cleanup levels for soil and Method A cleanup levels for groundwater have been achieved. With most of the soil contamination removed, the threat to groundwater from remaining petroleum in soil is low.

- Concentrations of remaining petroleum in soil and groundwater at concentrations less than MTCA cleanup levels are anticipated to further decline through natural attenuation processes.

Ecology notes that this no further action determination applies solely to the petroleum release that took place within the former concrete batch plant area. Other operations at the facility may present a risk of additional releases and should historical or new releases be identified, these should be addressed consistent with MTCA requirements.

Listing of the Site

Based on this opinion, Ecology will update the Site status on the Confirmed and Suspected Contaminated Sites List.

Limitations of the Opinion

Opinion does not settle liability with the state

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion does not:

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

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).[9]

Opinion does not constitute a determination of substantial equivalence

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. See RCW 70A.305.080[10] and WAC 173-340-545.[11]

State is immune from liability

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70A.305.170(6).[12]

[9] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040
[10] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080
[11] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545
[12] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170

Termination of the Agreement

Thank you for cleaning up the Site under the VCP. This opinion terminates the VCP Agreement governing VCP Project No. XS0015. Ecology has deducted the applicable close out fee in the amount of $1,500.00 from the prepayment deposit and will refund the remaining balance to you within 45 calendar days.

Questions

If you have any questions about this opinion, please contact me at frank.winslow@ecy.wa.gov or 509-424-0543.

Sincerely,

Frank P. Winslow, LHG
Cleanup Site Manager
Headquarters Section

fpw/tam

Enclosure: A – Site Description and Diagrams

cc by email: Pete Kingston, Farallon Consulting, pkingston@farallonconsulting.com
Fiscal, VCP Fiscal Analyst
TCP, Operating Budget Analyst
Ecology Site File

Enclosure A

Site Description and Diagrams

Site Description

Site

The Site is defined by petroleum (DRO and ORO) in soil. The Site is associated with petroleum releases from historical concrete batch plant operations.

Area and Property Description

The Site is associated with the Lakeside Industries Centralia facility (FSID 13796544) a large, multi-parcel facility located at 2001 Johnson Road in Centralia. The former concrete batch plant was located on Lewis County Parcel No. 009772001000, an 81.38-acre parcel. The vicinity of the former concrete batch plant is reportedly currently used for storage and staging of paving equipment.

The western part of the Lakeside Industries Centralia facility (see Figure 2) is currently operated as an asphalt batch plant with aggregate storage. To the east of the Site, sand and gravel mining activities created a depression resulting in an approximately 77-acre lake. Farms and rural residences are found in the surrounding areas.

Site History

The following Site history discussion is from the Cleanup Action Report:

> *According to the information currently available to Lakeside Industries, the Former Concrete Batch Plant was constructed in approximately 1983. Glacier Northwest Inc. dba CalPortland historically leased and operated the Former Concrete Batch Plant. Prior to CalPortland operations, Central Reddi-Mix, Inc. operated the Former Concrete Batch Plant. Both CalPortland and Central Reddi-Mix, Inc. have ceased operations at the Property.*

Sources of Contamination

The diesel and heavy oil in soil and groundwater appear to be attributable to operations at the former concrete batch plant. This would have included fueling and lubrication of the heavy equipment associated with the concrete batch plant and the petroleum in soils and groundwater are evidently from spills.

Physiographic Setting

The Site is located in southwest Washington in the Chehalis River valley. The river valley bottom is relatively flat and approximately 10,000 feet wide near the Site. The Site is located approximately 700 feet west of the eastern valley boundary, which is located near Interstate 5.

Further east of the valley, land rises from an elevation of approximately 180 feet above mean sea level (ft amsl) at the Site to approximately 480 ft amsl, about a half mile east of the Interstate 5.

Surface/Storm Water

An approximately 77-acre sand and gravel quarry lake is located approximately 400 feet north and 600 feet east of the Site. Based on the distance to the lake, Ecology considers risks to surface water from the Site to be low. A portion of the lake is reportedly currently being backfilled with imported fill material in accordance with a Mitigated Determination of Nonsignificance dated May 14, 2010, prepared by the City of Centralia. The Chehalis River is located approximately one mile west of the Site.

Land in the vicinity of the Site slopes from an elevation of approximately 180 ft amsl near the railroad tracks on the west to approximately 164 ft amsl adjacent to the lake to the east. Any runoff in the vicinity of the Site would be expected to flow to the east. Sandy surface soils at the Site would be expected to result in significant infiltration of rainfall.

Ecological Setting

The Site is in an area with significant open space in proximity to a large surface water body. Therefore, the possibility of wildlife in this area cannot be precluded. However, the former concrete batch plant is in an area of active facility operations and potential for habitat in the immediate vicinity of the petroleum release is low.

Geology

The following discussion regarding the geology at the Site is from the Cleanup Action Report:

> *The Former Concrete Batch Plant is located in an area underlain by younger glacial drift, consisting of advance and recessional outwash, stratified drift, and associated deposits. Surficial geology predominantly consists of silt, sand, and gravel with some clay.*
>
> *Farallon observed and logged soil conditions encountered during the subsurface investigation. The stratigraphy underlying the Former Concrete Batch Plant consists of silty sands and sandy silts to a depth of approximately 10 to 12 feet bgs, underlain by well-graded or silty gravels to the maximum explored depth of approximately 40 feet bgs.*

Groundwater

The following discussion regarding the hydrogeology at the Site is from the Cleanup Action Report:

> *Associated Earth Sciences Inc. (AESI) performed groundwater level monitoring at the Property to evaluate groundwater conditions associated with reclamation of the large pond area located north and east of the Former Concrete Batch Plant (AESI 2020). Groundwater elevation data collected by AESI between April 2010 and January 2020 indicated that seasonal groundwater elevations fluctuated by as much as 15 feet in the vicinity of the Former Concrete Batch Plant, with depth to groundwater typically encountered between 20 and 30 feet bgs at an elevation of approximately 150 to 165 feet North America Vertical Datum of 1988 (NAVD88).*
>
> *The top of the shallow groundwater-bearing zone was encountered at approximately 17 feet bgs during excavation and monitoring well installation activities in May and July 2019.*
>
> *Groundwater elevations ranged from approximately 152 to 166 feet NAVD88 during groundwater monitoring events conducted at the Former Concrete Batch Plant between July 2019 and April 2022. Based on groundwater elevations calculated using synoptic measurements during each groundwater monitoring event, the shallow groundwater-bearing zone flow direction fluctuated between monitoring events but is generally toward the east within proximity to the rail lines and toward the south to west further west of the rail lines.*

Water Supply

Potable water is provided to the Property by the City of Centralia. The nearest water supply well is a Group B well located approximately 1,000 feet south of the Site. The Site is within the 5-year wellhead protection zone of the City of Centralia water supply wells, which are located approximately 6,000 feet to the southwest of the Site. Impacts to water supply wells from the Site contamination appear to be unlikely.

Site Diagrams

Figures from Cleanup Action Report

LEGEND

- FORMER PROPERTY FEATURE
- PROPERTY BOUNDARY
- LEWIS COUNTY PARCEL BOUNDARY

N

0 400

SCALE IN FEET

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

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FIGURE 2

PROPERTY LAYOUT
FORMER CONCRETE BATCH PLANT
2001 JOHNSON ROAD
CENTRALIA, WASHINGTON

FARALLON PN: 525-032

Drawn By: lmurock | Checked By: SS | Date: 2/6/2023 | Disc Reference:

Path: Q:\Projects\525 LakesideIndust\032 CalPortland Batch Plant\Mapfiles\007_CAR_2022\Figure-02_PropertyLayout.mxd

LEGEND

- MONITORING WELL (FARALLON, 2019)
- EXCAVATION EXTENT
- FORMER PROPERTY FEATURE
- PROPERTY BOUNDARY
- LEWIS COUNTY PARCEL BOUNDARY

AST = ABOVEGROUND STORAGE TANK

0 50 100
SCALE IN FEET

N

NOTES:
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FIGURE 3

PROPERTY PLAN
FORMER CONCRETE BATCH PLANT
2001 JOHNSON ROAD
CENTRALIA, WASHINGTON

FARALLON PN: 525-032

Drawn By: lmurock | Checked By: SS | Date: 2/6/2023 | Disc Reference:

Document Path: Q:\Projects\525 LakesideIndust\032 CalPortland Batch Plant\Mapfiles\007_CAR_2022\Figure-03_PropertyPlan.mxd

FTP-33
4.0'|78
12.0'|120
17.0'|140

FTP-30
12.0'|2,080
17.0'|**37,000**
24.0'|130

FTP-29
8.0'|200
12.0'|262
17.0'|110

FORMER CRUSHER

FTP-28
4.0'|<84
8.0'|<85
17.0'|<88

REPORTED LOCATION OF FORMER DIESEL AST

FTP-31
4.0'|1,270
12.0'|120
17.0'|<84

FTP-27
4.0'|2,360
8.0'|<84
17.0'|<89

FTP-23
2.0'|1,700
8.0'|**2,800**
17.0'|240

FTP-22
4.0'|673
12.0'|<90
17.0'|<87

FORMER ADMIX STORAGE

FTP-32
4.0'|<78
8.0'|<82
17.0'|<87

POTENTIAL FORMER AST LOCATION

FORMER CONCRETE BATCH PLANT

FORMER SETTLING POND

FTP-21
4.0'|150
6.0'|110
17.0'|<84

FTP-26
8.0'|<83
12.0'|<83
17.0'|<84

FORMER PROPANE AST

FORMER BOILER ROOM

FTP-25
4.0'|<92
8.0'|<87
17.0'|<84

RAILROAD

NOTES:
SOIL RESULTS SHOWN AS
DEPTH IN FEET BGS | SUM OF DRO AND ORO
ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM
BOLD = CONCENTRATIONS THAT EXCEED SITE-SPECIFIC MTCA METHOD B CLEANUP LEVELS
GRAY = SAMPLE REMOVED BY EXCAVATION
< = ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
AST = ABOVEGROUND STORAGE TANK
BGS = FEET BELOW GROUND SURFACE
DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
MTCA = WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION

LOCATOR MAP

0 4,000
SCALE IN FEET

LEGEND

- TEST PIT (FARALLON, 2018-2019)
- FORMER PROPERTY FEATURE
- PROPERTY BOUNDARY
- LEWIS COUNTY PARCEL BOUNDARY

N

0 30
SCALE IN FEET

NOTES:
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FIGURE 4

SOIL ANALYTICAL RESULTS FOR
DRO AND ORO - PRE-CLEAUP ACTION
FORMER CONCRETE BATCH PLANT
2001 JOHNSON ROAD
CENTRALIA, WASHINGTON

FARALLON PN: 525-032

Drawn By: chartman | Checked By: SS | Date: 3/3/2023 | Disc Reference:

Path: \\edgefs02\GIS\Projects\525 LakesideIndust\032 CalPortland Batch Plant\Mapfiles\007_CAR_2022\Figure-04_Soil_DRO_ORO_Pre.mxd

EXCAVATION AREA 2

FORMER CRUSHER

FMW-07
(166.05)

FMW-06
(166.23)

EXCAVATION AREA 1

REPORTED LOCATION
OF FORMER DIESEL AST

FMW-08
(165.34)

FMW-05
(166.19)

166.00

165.50

165.50

166.00

FORMER ADMIX STORAGE

POTENTIAL FORMER
AST LOCATION

FORMER CONCRETE
BATCH PLANT

FORMER SETTLING POND

FORMER PROPANE AST

FORMER
BOILER ROOM

N

0 30

SCALE IN FEET

LOCATOR MAP

0 4,000

SCALE IN FEET

LEGEND

- MONITORING WELL (FARALLON, 2019)
- EXCAVATION EXTENT
- FORMER PROPERTY FEATURE
- PROPERTY BOUNDARY
- LEWIS COUNTY PARCEL BOUNDARY
- (166.23) GROUNDWATER ELEVATION (4/12/2022) MEASURED IN FEET REFERENCED TO NORTH AMERICAL VERTICAL DATUM OF 1988 (NAVD88)
- 165.50 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:
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FIGURE 7

GROUNDWATER CONTOURS
APRIL 12, 2022
FORMER CONCRETE BATCH PLANT
2001 JOHNSON ROAD
CENTRALIA, WASHINGTON

FARALLON PN: 525-032

Drawn By: lmurock | Checked By: SS | Date: 2/9/2023 | Disc Reference:

Path: \\edgefs02\GIS\Projects\525 LakesideIndust\032 CalPortland Batch Plant\Mapfiles\007_CAR_2022\Figure-07_GW_Contours_202204.mxd

FTP-33
4.0'|78
12.0'|120
17.0'|140

EXCAVATION AREA 2

BB5-01
17.0'|2,330

BB6-01
11.0'|276

CC6-02
3.0'|100

CC6-04
14.0'|550

CC6-01
17.0'|267

CC6-03
9.0'|70

CC5-01
8.0'|1,690

CC5-03
17.0'|1,360

CC5-02
12.0'|280

FTP-30
24.0'|130

17-FEET BGS

CC7-01
12.0'|2,450

FMW-07

D1-04
3.0'|100

D2-03
17.0'|<88

D2-01
8.0'|<88

D2-02
13.0'|<86

FTP-29
8.0'|200
12.0'|262
17.0'|110

DD6-05
16.0'|1,500

DD5-01
14.0'|300

DD6-04
10.0'|858

DD6-03
12.0'|2,100

FORMER CRUSHER

17-FEET BGS

D2-04
4.0'|<85

D3-02
8.0'|<83

D4-01
3.0'|262

FMW-06

DD6-01
12.0'|1,420

EXCAVATION AREA 1

D1-03
12.0'|<84

D2-06
10.0'|<83

D3-01
4.0'|150

D4-02
9.0'|<87

DD6-02
17.0'|1,330

REPORTED LOCATION
OF FORMER DIESEL AST

FTP-28
4.0'|<84
8.0'|<85
17.0'|<88

FMW-08

FTP-31
4.0'|1,270
12.0'|120
17.0'|<84

FTP-27
17.0'|<89

FTP-23
17.0'|240

E4-03
12.0'|<81

FTP-22
4.0'|673
12.0'|<90
17.0'|<87

FMW-05

E2-02
17.0'|<87

E4-02
8.0'|<81

E2-04
10.0'|240

E3-01
17.0'|210

FTP-34
3.0'|<174
12.0'|<166

F3-01
2.0'|700

F3-02
6.0'|165

E4-01
4.0'|86

E2-03
3.0'|2,290

FTP-35

FORMER ADMIX STORAGE

F3-08
15.0'|<84

F3-04
17.0'|<85

FTP-32
4.0'|<78
8.0'|<82
17.0'|<87

POTENTIAL FORMER
AST LOCATION

F2-02
8.0'|<81

F3-03
12.0'|<84

F2-03
12.0'|2,300

F2-01
3.0'|2,120

FORMER CONCRETE
BATCH PLANT

FTP-21
4.0'|150
6.0'|110
17.0'|<84

FORMER SETTLING POND

F3-06
9.0'|<88

F3-05
3.0'|120

FTP-26
8.0'|<83
12.0'|<83
17.0'|<84

F3-07
14.0'|<85

FORMER PROPANE AST

FORMER
BOILER ROOM

FTP-25
4.0'|<92
8.0'|<87
17.0'|<84

RAILROAD

NOTES:
SOIL RESULTS SHOWN AS
DEPTH IN FEET BGS | SUM OF DRO AND ORO
ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM
< = ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED
AST = ABOVEGROUND STORAGE TANK
BGS = FEET BELOW GROUND SURFACE
DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
MTCA = WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION

LOCATOR MAP

0 4,000
SCALE IN FEET

LEGEND

- MONITORING WELL (FARALLON, 2019)
- CONFIRMATION SAMPLE (FARALLON, 2019)
- TEST PIT (FARALLON, 2018-2019)
- TEST PIT (FARALLON, 2022)
- EXCAVATION EXTENT (17-FEET BGS)
- FORMER PROPERTY FEATURE
- PROPERTY BOUNDARY
- LEWIS COUNTY PARCEL BOUNDARY

N

0 30
SCALE IN FEET

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

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FIGURE 10

SOIL ANALYTICAL RESULTS FOR
DRO AND ORO - POST-CLEAUP ACTION
FORMER CONCRETE BATCH PLANT
2001 JOHNSON ROAD
CENTRALIA, WASHINGTON

FARALLON PN: 525-032

Drawn By: chartman | Checked By: SS | Date: 3/3/2023 | Disc Reference:

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LEGEND

- MONITORING WELL (FARALLON, 2019)
- EXCAVATION EXTENT
- FORMER PROPERTY FEATURE
- PROPERTY BOUNDARY
- LEWIS COUNTY PARCEL BOUNDARY

N

0 30

SCALE IN FEET

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
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FIGURE 11

GROUNDWATER ANALYTICAL RESULTS
FOR DRO AND ORO
FORMER CONCRETE BATCH PLANT
2001 JOHNSON ROAD
CENTRALIA, WASHINGTON

FARALLON PN: 525-032

Drawn By: lmurock | Checked By: SS | Date: 2/9/2023 | Disc Reference:

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