



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, Washington 98504-7600 • 360-407-6300

February 1, 2024

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

Re: No Further Action opinion for the following contaminated Site

| | |
|--------------------------|--|
| Site name: | Lakeside Industries Former Asphalt Plant |
| Property address: | 2001 Johnson Rd, Centralia, Lewis County, WA 98531 |
| Facility/Site ID: | 13796544 |
| Cleanup Site ID: | 15055 |
| VCP Project ID: | XS0014 |

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 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.

Ecology notes that this opinion pertains solely to the identified release at the Lakeside Industries Former Asphalt Plant (CSID 15055) 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](#) WAC² (collectively called “MTCA”).

¹ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305>

² <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340>

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:

- Diesel-range Petroleum Hydrocarbons (DRO) into the soil and groundwater.
- Heavy oil-range Petroleum Hydrocarbons (ORO) into the soil and groundwater.

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 Lakeside Industries Former Asphalt Plant (CSID 15055) is within a relatively small part of the larger Lakeside Industries Central facility (FSID 13796544). A second cleanup site known as the Lakeside Industries Centralia, also known as the Former Concrete Batch Plant (CSID 15050) is located within the same facility approximately 400 feet to the northwest. A No Further Action (NFA) letter was issued by Ecology for the Former Concrete Batch Plant on May 3, 2023.

Basis for the Opinion

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

- Farallon. *Groundwater Monitoring Summary Centralia Facility – Former Asphalt Batch Plant, 2001 Johnson Road, Centralia, Washington*. January 26, 2024.
- Farallon. *Cleanup Action Report, Former Asphalt Batch Plant, 2001 Johnson Road, Centralia, Washington*. February 28, 2023.
- Department of Ecology. *Initial Investigation Field Report, Lakeside Industries Former Asphalt Plant, Centralia, Washington*. June 27, 2019.

You can request these documents by filing a [records request](#).³ 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](#).⁴

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

³ <https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>

⁴ <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=15055>

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

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 133 soil samples from 57 locations analyzed by Method NWTPH-Dx. Soil samples were collected at depths range 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 Method NWTPH-Gx.

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) | ORO (mg/kg) | DRO + ORO (mg/kg) |
|--------------------------------|----------------|----------------|----------------------|
| <i>Method A Cleanup Level</i> | <i>2,000</i> | <i>2,000</i> | <i>2,000</i> |
| Before Cleanup ^a | 21,000 | 11,000 | 32,000 |
| Following Cleanup ^b | 4,300 | 680 | 4,980 |

DRO = Diesel-Range Petroleum Hydrocarbons

ORO = Heavy Oil-Range Petroleum Hydrocarbons

^a Maximum concentrations before cleanup: all found at sample location FTP-07 at a depth of 4 ft bgs.

^b Maximum concentration following cleanup: all found at location D1-03 at a depth of 20 ft bgs.

Following cleanup, only one soil sample (D1-03 at 20 ft bgs) had a cleanup level exceedance.

Groundwater Characterization

The extent of groundwater contamination appears to be sufficiently defined for the selection of cleanup levels and cleanup actions at the Site. Groundwater occurs at a depth between approximate 16 and 31 ft bgs at the Site. Groundwater depths varied considerably with 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 northeast, southeast, and southwest.

Groundwater samples were collected five times at four monitoring wells between July 2019 and April 2022 and then for three consecutive quarters in 2023. Cleanup level exceedances for petroleum in groundwater samples occurred in July 2019 in three monitoring wells in 2019 and one monitoring well in 2020:

Table 2. Cleanup Level Exceedances for Groundwater

| Monitoring Well | Sample Date | Maximum Petroleum (Heavy Oil) Concentration (µg/L) | Method A Groundwater Cleanup Level (µg/L) ^a |
|-----------------|-------------|--|--|
| FMW-02 | 7/16/2019 | 540 | 500 |
| FMW-03 | 7/16/2019 | 520 | 500 |
| FMW-04 | 7/16/2019 | 870 | 500 |
| FMW-04 | 1/16/2020 | 570 | 500 |

^a µg/L = micrograms per liter

No cleanup level exceedances occurred during seven subsequent groundwater monitoring events at FMW-02 and FMW-03, and during five subsequent sampling events at FMW-04. Selected samples were also analyzed by method NWTPH-Dx following silica gel cleanup in 2020 and 2023. No screening levels for petroleum and polar compounds from Ecology's silica gel cleanup guidance⁵ were exceeded.

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 3. Method A Cleanup Levels for Soil and Groundwater

| Contaminant | Method A Soil Cleanup Level (mg/kg) | Method A Groundwater Cleanup Level (µg/L) |
|-------------|-------------------------------------|---|
| DRO | 2,000 | 500 |
| ORO | 2,000 | 500 |
| DRO + ORO | 2,000 | 500 |

⁵ Department of Ecology. *Guidance for Silica Gel Cleanup in Washington State*. November 2023.

Points of Compliance

The points of compliance are throughout the Site.

Based on the groundwater monitoring rounds without cleanup level exceedances, Ecology has concluded that an empirical demonstration of a lack of continued impact to groundwater has been successfully made, consistent with the requirements WAC 173-340-747(9)(b). Therefore, the soil-to-groundwater pathway is incomplete, and soil cleanup levels based on protection of groundwater do not apply.

Cleanup levels based on the direct contact pathway apply to soils to a depth of 15 ft bgs. Although the Method A cleanup levels for petroleum in soil are based on preventing the accumulation of free product on the groundwater (as described in WAC 173-340-747(10)), these cleanup levels are considered by Ecology to be sufficiently protective for the direct contact pathway.

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 asphalt batch plant is in an area of active facility operations and potential for habitat in the immediate vicinity of the petroleum release is low.

Remaining soil contamination is at a depth of 20 ft bgs, and ecological receptor concerns are expected to be limited to a depth of 6.0 ft bgs, the depth of the standard biologically active zone.⁶ Therefore, the remaining soil contamination does not constitute a risk to ecological receptors and no further actions regarding the TEE pathway is warranted at this time.

Selecting and implementing the cleanup action

An interim action consisting of excavation and offsite disposal was conducted at the Site in April and May 2019. A total of 19,991 tons of petroleum contaminated soil (PCS) was excavated and disposed of at the Cowlitz County landfill. Disposal receipts were provided with 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. Confirmation soil sampling included 52 confirmation soil samples. All confirmation soil samples had results below the Method A cleanup level except for soil sample D1-03 at 20 ft bgs which had DRO at 4,300 mg/kg and DRO + ORO at 4,980 mg/kg.

⁶ WAC 173-340-7490(4)(a).

The Cleanup Action Report concluded:

A localized area of PCS on the western portion of the excavation at a depth of approximately 20 to 24 feet bgs was not excavated due to disproportionate costs associated with removing a significant volume of overburden and complex dewatering requirements to access a small volume of PCS remaining in-place within the shallow groundwater-bearing zone. This localized area of PCS is greater than 15 feet bgs, which is the point of compliance for soil. Based on the results from the cleanup action and post-excavation groundwater monitoring, the potential exposure pathways related to the small volume of PCS remaining in-place, including direct contact and soil to groundwater, are incomplete.

Since no cleanup level exceedances have occurred in groundwater samples collected since early 2020, Ecology concludes that an empirical demonstration indicates that the soil-to-groundwater pathway is more likely than not incomplete at the Site. No further cleanup work nor soil or groundwater characterization appears to be warranted based on the following considerations:

- Method A cleanup levels for soil have been achieved at the standard point of compliance for the direct contact pathway (15 ft bgs).
- The one remaining location with an exceedance of the Method A cleanup level for soil (D1-03 at a depth of 20 ft bgs) is deeper than the standard point of compliance for the direct contact pathway.
- Groundwater has achieved Method A cleanup levels for the last five to seven monitoring rounds. The lack of groundwater contamination above cleanup levels indicates that the soil-to-groundwater pathway is no longer complete. Hence, the remaining contamination at location D1-03 does not appear to present a threat to groundwater quality at the Site.
- Concentrations of remaining petroleum in soil and groundwater at concentrations less than MTCA cleanup levels are anticipated to further decline through natural attenuation processes. Natural attenuation is suggested by groundwater analyses with silica gel cleanup, which show that the petroleum in groundwater largely consists of polar metabolites.

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

Listing of the Site

Based on this opinion, Ecology will delete the Site from the Contaminated Sites List (CSL) and add the Site to the NFA 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).⁷

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](#)⁸ and WAC [173-340-545](#).⁹

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).¹⁰

Termination of the Agreement

Thank you for cleaning up the Site under the VCP. This opinion terminates the VCP Agreement governing VCP Project No. XS0014. Ecology will deduct the applicable close out fee from the prepayment deposit and will refund the remaining balance to you in the near future.

⁷ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040>

⁸ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080>

⁹ <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545>

¹⁰ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170>

Questions

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

Sincerely,



Frank P. Winslow, LHG
Cleanup Site Manager
Headquarters Section

FPW/tm

Enclosure (1): A – Site Description and Diagrams

cc by email: Pete Kingston, Farallon Consulting, pkingston@farallonconsulting.com
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Treasure Mitchell, Ecology, treasure.mitchell@ecy.wa.gov
TCP Operating Budget Analyst, Ecology, tra.thai@ecy.wa.gov
VCP Fiscal Analyst, Ecology, ecyrevcp@ecy.wa.gov
Ecology Site File

Enclosure A

Site Description and Diagrams

Site Description

Site

The Site is defined by diesel-range and heavy oil-range petroleum hydrocarbons (DRO and ORO, respectively) in soil and groundwater. 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 asphalt batch plant was located on Lewis County Parcel No. 009772001000, an 81.38-acre parcel. The vicinity of the former asphalt 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 Asphalt Batch Plant began operating on the eastern side of the rail lines in the 1950s. In 2008, Lakeside Industries closed the eastern asphalt batch plant operations and constructed a new asphalt batch plant on the western side of the rail lines, which is currently in operation. The western portion of the Property currently is operated as an asphalt batch plant with aggregate storage and associated structures. The eastern portion of the Property, including the area of the Former Asphalt Batch Plant, currently is used for storage and staging of paving equipment.

Sources of Contamination

The diesel and heavy oil in soil and groundwater appear to be attributable to operations at the former asphalt batch plant. This would have included fueling and lubrication of the heavy equipment associated with the asphalt 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, located near Interstate 5 (I-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 I-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. 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 therefore be expected to flow to the east. Rainfall infiltration at the Site with sandy surface soils would be expected to be significant.

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 Asphalt 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 Asphalt 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 Asphalt 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 Asphalt 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 15 feet bgs during excavation and monitoring well installation activities in May and July 2019. Groundwater elevations ranged from approximately 151 to 167 feet NAVD88 during groundwater monitoring events conducted at the Former Asphalt 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 has consistently been to the northeast during the three most recent monitoring events.

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. Potential impacts to water supply wells from the Site contamination appear to be unlikely.

Site Diagrams

Figures from *Cleanup Action Report* dated February 2, 2023:

Figure 2 Property Layout, Former Asphalt Batch Plant

Figure 3 Former Operational Areas, Former Asphalt Batch Plant

Figure 4 Soil Analytical Results for DRO and ORO, Pre-Cleanup Action

Figure 9 Groundwater Contours, April 12, 2022

Figure 11 Soil Analytical Results for DRO and ORO, Post-Cleanup Action

Figure 12 Groundwater Analytical Results for DRO and ORO



LEGEND

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



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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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Checked By: SS

Date: 1/10/2023

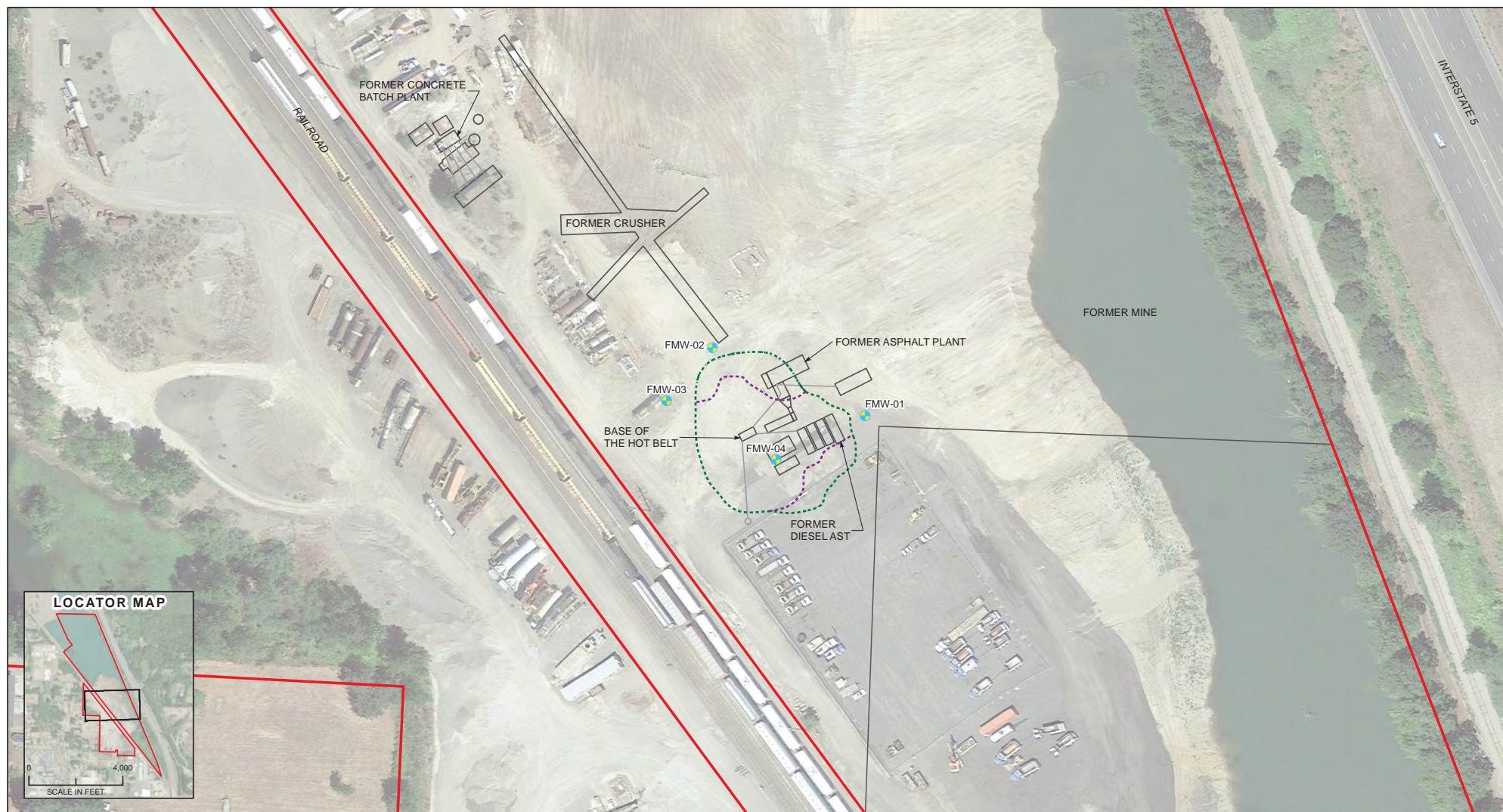
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FIGURE 2

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

FARALLON PN: 525-031



LEGEND

- MONITORING WELL (FARALLON, 2019)
- ▬ PROPERTY BOUNDARY
- EXCAVATION BENCHING
- EXCAVATION EXTENT
- ▬ FORMER PROPERTY FEATURE
- ▬ LEWIS COUNTY PARCEL BOUNDARY
- AST = ABOVEGROUND STORAGE TANK

NOTES:
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FIGURE 3

FORMER OPERATIONAL AREAS
 FORMER ASPHALT BATCH PLANT
 2001 JOHNSON ROAD
 CENTRALIA, WASHINGTON

FARALLON PN: 525-031

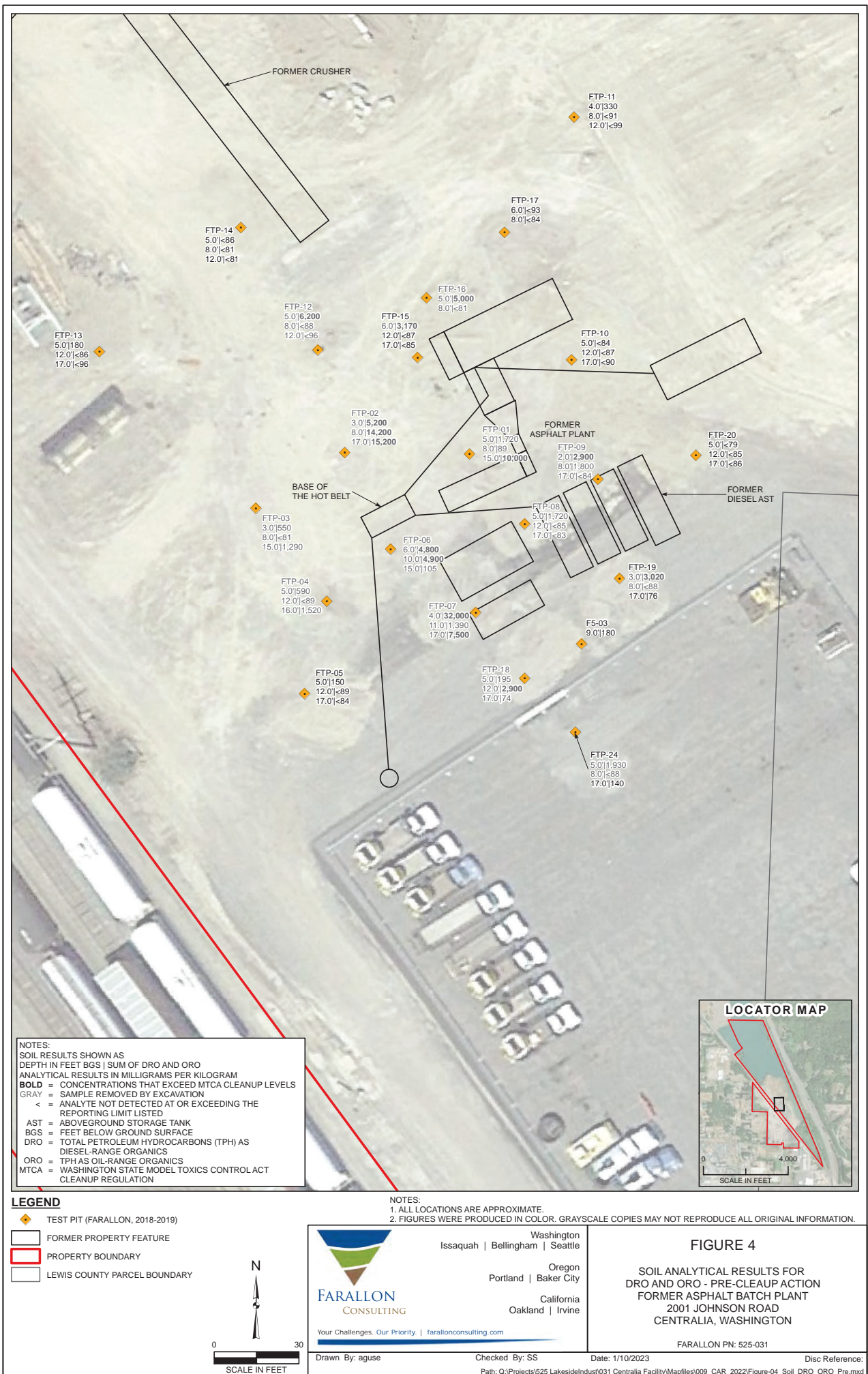
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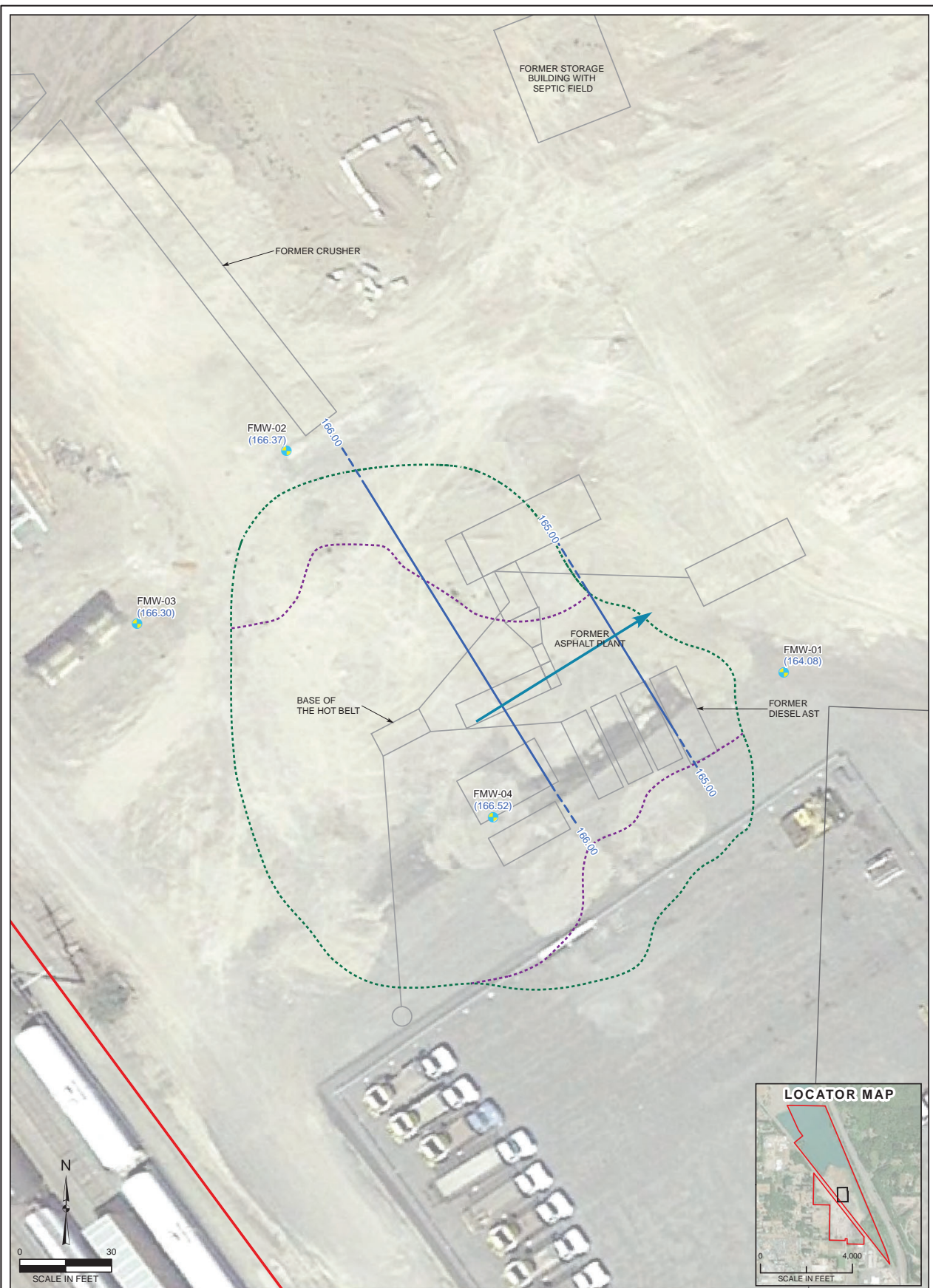
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Date: 1/11/2023

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LEGEND

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

NOTES:

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Date: 1/10/2023

FIGURE 9

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

FARALLON PN: 525-031

Disc Reference:

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