

Date: July 21, 2025

To: FILE

Through: Kevin Parrett and Katie Daugherty

From: Heidi Nelson, P.E.
Northwest Region

Subject: Met-Tek, Inc., ECSI #2024; Staff Memorandum in support of a Conditional No Further Action Determination

This document presents the basis for the Oregon Department of Environmental Quality's (DEQ's) recommended Conditional No Further Action (NFA) determination for the Met-Tek, Inc., Tax Lot 1102 and 1103, located in Clackamas County. As discussed in this report, contaminant concentrations in soils are at or below acceptable risk levels and therefore, do not pose a risk to human health and the environment. However, the No Further Action determination will be conditioned upon adherence to restrictions recorded in an Easement & Equitable Servitudes (EES) attached to the property deed.

The proposed Conditional NFA determination meets the requirements of Oregon Administrative Rules (OAR) Chapter 340, Division 122, Sections 010 to 0140; and Oregon Revised Statutes (ORS) 465.200 through 465.455.

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

1. BACKGROUND

Site location.

The site is in unincorporated Clackamas County, Oregon in an industrial complex north of Highway 212:

- Address: 15651 SE 125th Court, Clackamas, Oregon 97015
- Latitude 45.4094637° North; Longitude -122.5354596° West
- Legal Description Tax Lots 1102 and 1103, Clackamas County 11C, Section 3, Township 2 South, Range 2 East of the Willamette Meridian.

Site setting.

The Met Tek, Inc. property is located at 15651 SE 125th Court in Clackamas, Oregon (Figure 1). The site setting is in temperate Clackamas County, approximately 0.85 miles north of the Clackamas River floodplain, at an elevation of approximately 130 to 150 feet above mean sea level.

Topographic and geologic setting.

The site and surrounding area are in the southwest part of the Portland Basin within an area known as the Boring Volcanic Field. The site vicinity lies on a relatively level alluvial terrace of the ancient Clackamas River (Figure 1).

The predominant Lithologic surface unit across the site is the volcanically derived sandy gravels with cobbles that is formed within stream channels along the adjacent floodplains, which are approximately 5 to 15 feet thick. Some alluvium is interbedded with sand. Underlying this surficial layer are conglomerates of the Troutdale Formation, which are underlain by flood basalts of the Columbia River Basin Group. The property is in the vicinity of two boring lava vents which form the resistant buttes Mt. Talbert and Mt. Scott.

Hydrogeologic setting.

Saturated subsurface conditions are seasonally dependent and encountered in a shallow aquifer encountered at varying depths ranging from approximately 3 to 8 feet below ground surface (bgs). A well driller's log for a water well installed at the subject property records indurated cobbles and boulders typical of the upper Troutdale formation extending to 60 feet bgs. Approximately 10 feet of black sand underlies these cemented gravel and cobbles.

Cow Creek is connected to the site via an intermittent stormwater ditch along the northern property boundary of the site. Cow Creek flows to the west approximately 2.4 miles to the Clackamas River. The Clackamas River is the nearest major surface water body to the site, located 0.85 miles to the south. Regional groundwater in the area is south towards the Clackamas River.

Site history.

In November 1992, a Preliminary Site Assessment was conducted by Dames and Moore. The possible occurrence of hydrocarbon impacts was reported in an area of broken and stained asphalt in the parking area at the east side of the main production building. In addition, oil was suspected to be leaking into the subsurface from several large oil filled quenching tanks located within a concrete vault inside the production building.

In April 1993, Petroleum Equipment Maintenance Company (PEMCO) installed ten (10) temporary soil borings, collected soil samples at depths ranging from 0.5 to 9 feet bgs, and analyzed the soil samples for total petroleum hydrocarbons (TPH). The sample locations are shown on Figure 3. A combination of diesel range and residual range organics (DRO+RRO) concentrations were detected in eight of the 10 borings. The greatest impacts were in the asphalt parking area on the west side of the main production building and around the oil water separator. The highest concentration of DRO+RRO detected was 10,000 parts per million (ppm) in shallow soil below the asphalt at a depth of 2-feet. The detected DRO+RRO concentrations decreased laterally and vertically from this location.

In February 1994, a PGE crew discovered an on-site transformer that had leaked about 100 gallons of transformer oil to the ground; this oil contained 13 ppm polychlorinated biphenyls

(PCBs). The spill was reported through the Oregon Emergency Management System (OEMS) as DEQ Northwest Region Spill File #NWR-94-047. The spill occurred in the area surrounding the cable vault that was formerly located approximately 10-feet from the SW corner of the area that now is covered by the New Building Addition at the property (Figure 2). PGE removed six cubic yards of soil from below the transformer. PGE also pumped and disposed of groundwater that had collected in the vault excavation. Confirmation sampling conducted by PGE following soil removal in May 1994 resulted in TPH concentrations remaining at concentrations less than 660 ppm and no detectable PCBs. A pocket of contaminated soil (1.8 cubic yards) was left in place beneath the cable vault, due to the difficulty of removing the vault and the attached electrical supply cables.

In February 1995, PGE returned to the site and removed 4-feet of soil from below the bottom of the cable vault. Confirmation sampling of remaining soil did not detect PCBs, and TPH was detected at 74 ppm and 46 ppm the bottom of the excavation. Several thousand gallons of water were run through a PGE-designed oil-water separator. PCBs and TPH were not detected (<0.5 ppm) in the samples collected from the last stage of the PGE oil-water separator. The processed water was also run through Met-Tek's oil-water separator.

In February 1997, DEQs RCRA program conducted a complaint investigation of the site. The complainant alleged that heat-treating oils had drained into the stormwater treatment pond. Upon site inspection, DEQ found oil in the bottom of the concrete pit within the building and saw an oil sheen on the stormwater treatment pond. However, the Met-Tek owner at the time disputed the complaint and provided photos of run-off from the neighboring property (located at 12301 N.E. Hwy 212) entering the Site's oil-water separator, which caused it to overflow into the pond. At the time, the release was mitigated using absorbent pads and booms in the pond to prevent the oil being released to Cow Creek.

The subject site was added to DEQ's Environmental Cleanup Site Information (ECSI) database as ECSI #2024 on April 1, 1997. DEQ listed the site on the Confirmed Release List (CRL) on May 14, 1998.

In a letter dated February 25, 1998, Met Tek responded to DEQ detailing actions taken by the company to address some of the run-off issues:

- Met Tek installed a concrete berm to prevent the adjacent site's stormwater from flooding Met Tek's oil-water separator and stormwater retention pond.
- Met Tek collected a stormwater surface water sample and analyzed for metals; however, sediment was not sampled due to high water levels. Among the metals detected, total zinc was reported at 2,210 micrograms per liter ($\mu\text{g/L}$).

In 2016, Met-Tek, Inc. completed additional sampling to assess the on-site conditions, which included the following media:

- Installation of soil borings (EB-1 through EB-9) for additional delineation of TPH concentrations in the vicinity of previously detected TPH concentrations within the surface and/or subsurface soil (oil-water separator, parts washer, former quenching oil pit

(aka furnace pit), above ground storage and along the SW corner of the building). Boring locations are shown on Figure 3.

- Collection of groundwater samples (EB-1 through EB-9) in soil borings where TPH was historically detected.
- Collection of soil samples within two decision units (DU01 and DU02) in the western portion of the site (Tax Lot 1103), which is a gravel lay-down yard and historically used for materials storage.
- Evaluation of sediment in DU03, the former stormwater retention pond (now disconnected from the stormwater system and operating under a NPDES permit).
- Collection of composite samples to characterize the soil in two material/debris piles in the northwest and southwest corners of the property (SP02 and SP01, respectively on Tax Lot 1103).

The results of the 2016 sampling effort were evaluated using DEQ's Soil Matrix Cleanup standard and Risk-based Decision-Making (RBDM) guidance and are further described in Section 3 below. In general, TPH concentrations in soil were below the concentrations previously detected at the property. TPH concentrations were also detected in one groundwater sample, EB-03, where concentrations were also historically detected in groundwater at elevated concentration, above the RBC protective of occupational receptors at the property. Several constituents were also detected in soil stockpile SP-01.

TPH and PCBs were detected in the soil stockpile SP01 at concentrations exceeding DEQs screening levels and total lead was detected at concentrations exceeding the generic background concentration. The stockpile also contained building materials that were found to contain asbestos. In October 2022, asbestos abatement was completed at the site and the soil stockpile, SP-01 was removed. Approximately 200 tons of soil and debris was transported off-site disposal as non-hazardous waste to the Hillsboro Landfill. Confirmation soil sampling was conducted across decision unit, DU-04. One ISM sample, comprised of 50 increments, was collected across the leave surface following the removal. Residual levels of TPH, PCBs and lead were detected in the soil at levels below their respective RBCs.

2. BENEFICIAL LAND AND WATER USE DETERMINATIONS

Land use.

The 1.8-acre site is currently zoned Light Industrial (LI). The primary uses of property zoned LI, as stated in the Clackamas County Zoning and Development Ordinance, dated September 9, 2024, is for business parks, warehouses and distribution facilities, manufacturing and other compatible business and industrial uses, as determined by the Planning Director; however, residential use is allowed if the property is developed as affordable housing. Since 1974, Met Tek has occupied the subject property performing heat treating and quenching of metal parts. Historic uses of the subject property prior to 1974 are unknown. Future use of facility on Tax Lot 1102 will likely remain the same as the property is undergoing a change in ownership. The future use of Tax Lot 1103 is unknown at this time and will likely be redeveloped in the future.

Groundwater use.

The highest beneficial uses of groundwater in the site vicinity are for non-potable uses. A water well is present on site and labeled for industrial use. Neither the original owner of the well nor Met Tek has ever used the well and Met Tek currently has no plans on using the well in the future. Groundwater at the site is currently not being used for domestic use.

Because the subject property and surrounding properties are served by water provided by the Clackamas River Water District (CRWD), groundwater is reasonably unlikely to be used for domestic purposes in the future within the immediate site vicinity. The CRWD was contacted regarding municipal water use in the vicinity of the subject property. According to the CRWD all properties in the area are connected to city drinking water with the exception of:

- One active domestic well is located within approximately 0.5-mile radius of the site. The well lies northwest of the subject property within a residential district located at the top of a steep grade at the south side of Mt. Talbert along SE 142nd Ave. Due to depth, distance from the subject property and its presumed upgradient direction, the groundwater in this area should not be impacted by residual TPH impacts to the shallow groundwater at the site.
- Dravon Medical, Inc. located approximately 0.75 miles west of the site, uses a groundwater well on-site to supply non-contact cooling water to equipment at the facility (the well is not used to supply drinking water – the facility receives drinking water from the CRWD).

The CRWD acquires water from the Clackamas River. CRWD city master water plans and the municipal water supply system information indicated that a water main runs down Highway 212 and is the primary water supply source in the vicinity of the subject property, with the only alternative being groundwater. Because the area is already developed, no master water plan for the area was identified. Any improvements to the system from this point forward would be driven and financed by the property owner and not by CRWD. General upkeep and maintenance are provided under a capital improvement plan.

Surface water use.

Cow Creek is the closest flowing surface water body which receives water from the stormwater ditch adjacent along the north subject property boundary. Cow Creek flows west, then south to the confluence in the Clackamas River. The upper stretches of Cow Creek are almost entirely confined to culverts and underground pipes, which divert the creek underground for over a mile beneath industrial and commercial properties before daylighting to an open channel, totaling about 2.4 miles of distance from the Site. The lower 0.75 mile stretch of the creek's course supports a limited amount of riparian habitat.

Table 340A of ODEQ's Designated Beneficial Uses of Surface Waters (OAR 340 041 0340) lists beneficial uses of Clackamas River to include irrigation, livestock watering, aesthetic quality, and recreational use. Beneficial use of Clackamas River water as a public domestic water supply

is also listed with the but requires adequate pretreatment and natural quality that meets drinking water standards.

Stormwater at the facility infiltrates into the ground surface within the unpaved storage yard located on Tax Lot 1103, on the western half of the property and is captured through roof drains and catch-basins within the operating area of the property, which is located on Tax Lot 1102. The stormwater that is captures is directed to the on-site oil-water separator. The oil-water separator discharges the stormwater to an engineered stormwater flow-through filter and discharges to the storm-water flow-through treatment box, which discharges water to the adjacent storm ditch following treatment under a NPDES 1200-Z stormwater discharge general permit.

3. INVESTIGATION AND EVALUATION

As indicated above, site investigations have occurred at the site since the early 1990's. At which time concentrations of DRO+RRO were detected in several areas of the property. However, considering the time and potential for degradation at the property between the early sampling events and the most recent site investigations conducted in 2016, only the most recent data are evaluated in this section.

2016 Sampling event.

In 2016, an independent investigation was conducted at the site and consisted of the following:

- Installing nine soil borings (EB01 through EB09) across the site at up to 11 feet bgs and collect surface and subsurface grab samples. Samples were analyzed for TPH (GRO, DRO and RRO) and PAHs, PCBs and metals for any samples where TPH was detected in soil.
- Conducting incremental sampling methodology (ISM) for shallow soil within two decision units (DU01 and DU02) in Tax Lot 1103 located in the western half of the site in the storage yard. Samples were analyzed for TPH (GRO, DRO and RRO) and metals. PAHs and PCBs were added for any samples where TPH was detected in soil. (DU01 was analyzed in triplicate).
- Incremental sediment sampling within DU03 - the former stormwater pond. The sediment sample was analyzed for metals, TPH, PCBs, VOCs, and PAHs.
- Completing reconnaissance ground water sampling at EB01 through EB09. Groundwater samples were analyzed for metals, TPH, PCBs, VOCs, and PAHs.
- Collected composite soil samples within two soil stockpiles, SP01 and SP02, located near the southwest and northwest corners of the property in Tax Lot 1103. the soil samples were analyzed for metals, TPH, PCBs, naphthalene, and PAHs. (SP01 was analyzed in triplicate).

Soil and former stormwater settling pond sediment results.

TPH was not detected in EB01 through EB09 surface or subsurface soil samples. Therefore, no additional analyses were conducted in these subsurface locations.

At DU01 and DU02, the TPH concentrations were found to be below the laboratory method detection limits in the ISM samples. Metals were found at low levels, except for lead, which ranged in DU01 from 33.4 PPM to 47.3 PPM and was found to be 94.9 PPM in DU02, which is above the regional background value, but below the lowest applicable screening level protective of workers in direct contact with the soil in the yard.

The sediment sample at DU03 was collected approximately 0.5 feet from the top of the sediment/water interface, which is a depth of 4.5 feet below the surrounding ground surface. At sediment sample ISM location, DU03, all the constituents analyzed were either not detected above the laboratory method detection limit or were below the lowest RBC protective of workers at the site, except for DRO, which was detected at 1,900 ppm and RRO, which was detected at 3,200 ppm. These concentrations are below the RBCs protective of workers who may come into direct contact with the sediment within the former stormwater settling pond.

Each of the composite (SP01 and SP02) the soil samples were analyzed for metals, TPH, PCBs, and PAHs. Several constituents were detected in stockpile sample SP01, including the following: Lead concentrations were detected at concentrations between 77.9 ppm and 100 ppm. Because of the elevated lead concentrations, the sample was also analyzed for leachable lead to determine waste disposition and lead was not detected above the laboratory method detection limit. The maximum DRO and RRO concentrations detected in SP01 were 1900 ppm and 3200 ppm, respectively. PCBs were also detected in SP01 at a maximum concentration of 0.61 ppm, which is above the RBC protective of occupational workers in direct contact with the soil in this stockpile at the property. No detections were above the laboratory method detection limits for the constituents analyzed in SP02.

Groundwater results.

Groundwater was not encountered in sample location EB02. For the remaining groundwater samples, only one groundwater sample, EB03, had concentrations detected above the laboratory method detection limits and/or above the applicable RBCs. EB03 had DRO and RRO present at 1,800 µg/L and 2,600 µg/L respectively. This sample also had a concentration of arsenic of 5.6 µg/L. Each of the constituents detected at EB03, which is above the RBC protective of occupational workers who may have direct contact with the groundwater but is below the levels protective of construction and excavation workers. The EB03 groundwater sample was collected at approximately 5-10 feet bgs. Groundwater at this well typically fluctuates between 3 to 7 feet bgs. Based on the methods used to sample, through temporary well points that were minimally developed, elevated concentrations of arsenic may be related to higher turbidity levels in the groundwater sample.

2022 Soil stockpile SP01 removal and confirmation sampling.

In November 2022, Soil Stockpile SP-01 was removed at the site. The soil stockpile contained soil, rock, building materials and was impacted with TPH, PCBs, lead and asbestos. The removal

included asbestos abatement, soil excavation and disposal of 198.7 tons of petroleum and asbestos containing material for off-site disposal as non-hazardous waste. Follow-up confirmation ISM sampling was conducted for the surface soil below the area of the removed soil pile SP01. The ISM sample (DU-04) was only analyzed for the constituents that were detected in the pre-removal sample, SP01, including, NW-TPH DX, EPA 8082A, total lead by EPA 6020. Residual levels of lead (38.2 ppm), DRO (120 ppm), RRO (21 ppm), and PCBs (0.031 ppm) were detected at concentrations below their respective RBCs protective of direct contact by on-site workers.

Nature and extent of contamination.

Residual concentrations of petroleum hydrocarbons and metals are present along the western edge of the asphalt parking lot at the property near EB03, and within the sediment at the bottom of the former stormwater retention pond, where historic releases occurred and impacted the sediment. An occupational worker is unlikely to be in direct contact with the sediment in within the settling pond.

Shallow groundwater remains impacted in the area identified historically, by PEMCO in 1993, sample location 3, which was located south of the oil-water separator (Figure 3). The data indicates the TPH concentration are not widespread across the site in the soil. The only concentration that exceeds human health risks to occupational workers is at EB03, for a worker in direct contact with the shallow groundwater. The impacts in groundwater appear to be isolated to the area near EB03.

In general, all the concentrations detected are below levels protective of construction and excavation workers. The detections in groundwater above the level protective of occupational workers in direct contact with the groundwater include arsenic and RRO in one sample (EB3); however, based on the current uses of the property is unlikely an occupational worker would be in direct contact with the groundwater at this location.

4. RISK EVALUATION

Conceptual site model.

A conceptual site model identifies the sources of contamination at a site, the human or ecological receptors that could be exposed to the contamination, and the pathways by which the exposures could occur.

To evaluate human exposure to residual chemical contamination requires an assessment of the type and extent of that exposure. This is based on current and reasonably likely future site use. DEQ publishes RBCs for contaminants commonly encountered, for different types of exposure scenarios. These RBCs are conservative estimates of protective levels of contaminants in soil and groundwater. The constituents evaluated for the property are not volatile and therefore are unlikely to impact air; therefore, air has not been further evaluated. Table 1 shows potential exposure pathways and receptors for this site. Based on this, applicable RBCs are identified and used for risk screening.

Table 1. Identification of applicable RBCs, based on pertinent pathways and receptors

Pathway	Receptor	Applicable RBC?	Basis for exclusion
SOIL			
Ingestion, dermal contact, and inhalation	Residential	No	See Note 1
	Urban residential	No	See Note 1
	Occupational	Yes	
	Construction worker	Yes	
	Excavation worker	Yes	
Volatilization to Indoor/Outdoor Air	Residential	No	See Note 2
	Urban Residential	No	See Note 2
Leaching to groundwater	Residential	Yes	See Notes 2, 3, and 4.
	Urban residential	Yes	See Notes 2, 3, and 4.
	Occupational	No	See Note 2, 3, and 4.
	Construction/Excavation Worker	No	See Note 2, 3 and 4.

Notes:

1. Property is zoned light industrial in developed industrial park; however, does allow residential reuse for future low-income housing developments.
2. This exposure pathway is not likely to be complete; only residual concentrations of TPH and metals are present in isolated location at the site.
3. Municipal groundwater is supplied by the CRWD, City of Oregon City.
4. Groundwater is present and may be impacted in the perched aquifer south of the oil-water separator at this site; however, there are several deeper aquifers that the nearest domestic wells are screened in and are separated from the perched groundwater zone by low-permeability clay lenses; contaminants are unlikely to migrate to the depths of the well screen intakes.

Contaminant concentrations.

Contaminants of Potential Concern (COPCs) are contaminants that are present at a site at concentrations exceeding the occupational RBC, which is the applicable RBC for the property zoning. Residential is included in the screening to provide a comparison to the most conservative of DEQ RBCs for human health. It should be noted, however, that no constituents were identified above the applicable occupational RBCs. The following tables provide a brief summary of constituents compared to the most conservative RBC and the applicable RBC for Occupational users to determine if there are any COPCs.

Table 2. Screening for Occupational and Background COPCs for the Soil Ingestion, Dermal Contact, and Inhalation exposure pathways.

Contaminant of Interest	Maximum Soil Concentration (ppm)/Location ¹	Occupational RBC (ppm)	Regional Background (ppm)	COPC (Y/N)
Arsenic	3.68/DU01@0.5 (2016)	1.9	8.8	N ²
Barium	240/DU03@0.5 (2016)	220,000	790	N
Cadmium	2.7/DU01@0.5 (2016)	1,100	0.63	N
Chromium (III)	70.9/DU01@0.5 (2016)	>MAX	76	N
Lead	94.9/DU02@0.5 (2016)	530	28	N
Mercury	<1 (ND)/ DU01@0.5 (2016)	350	0.23	N ³
Selenium	<1 (ND)/ DU01@0.5 (2016)	22,000	0.71	N ³
Silver	<1 (ND)/ DU01@0.5 (2016)	5,800	0.82	N ³
Fluoranthene	0.082/Comp 3	30,000	NA	N
Pyrene	0.17/KSS05	23,000	NA	N ³
DRO	1,900/DU03@0.5 (2016)	14,000	NA	N ³
RRO	3,200/DU03@0.5 (2016)	36,000	NA	N
DRO+RRO	10,000/#3@2 (1993)	NA	NA	N

Notes:

<0.1 (ND) = Constituent was not detected above the laboratory method detection limit shown.

ppm = parts per million

COPC = constituent of potential concern

NA = Not Available

ND = Not Detected

>Max = The constituent RBC for this pathway is calculated as greater than 1,000,000 ppm.

¹Soil samples represent shallow soil samples from 0 to 3 feet below grade.

²Constituent was detected above the occupational RBC but was below regional background concentration.

³Constituent concentration was not detected above the laboratory method detection limit or was detected below the occupational RBC; however, laboratory method detection limit was slightly above the most conservative risk-based screening level value, protective of background but was below the occupational RBC

Construction and excavation workers may come into direct contact with soils or sediment at a site during utility installation activities and/or future redevelopment activities. Table 3 shows the maximum concentrations of contaminants remaining in soils at the site and compares those concentrations with DEQ's direct contact RBCs to determine if there are any COPCs.

Table 3. Screening for Construction Worker and Excavation Worker COPCs for the Soil Ingestion, Dermal Contact, and Inhalation exposure pathway.

Contaminant of Interest	Maximum Soil Concentration (ppm)/Location ¹	Construction Worker RBC (ppm)	Excavation Worker RBC (ppm)	Regional Background (ppm)	COPC (Y/N)
Arsenic	3.68/DU-01@0.5 (2016)	15	420	8.8	N
Barium	240/DU03@0.5 (2016)	69,000	> Max	790	N
Cadmium	2.7/DU01@0.5 (2016)	350	9,700	0.63	N
Chromium (III)	70.9/DU01@0.5 (2016)	530,000	> Max	76	N
Lead	94.9/DU02@0.5 (2016)	270	740	28	N
Mercury	<1 (ND)/ DU01@0.5 (2016)	110	2,900	0.23	N ²
Selenium	<1 (ND)/ DU01@0.5 (2016)	NA	NA	0.71	N ²
Silver	<1 (ND)/ DU01@0.5 (2016)	1,800	49,000	0.82	N ²
Fluoranthene	0.082/Comp 3	10,000	280,000	NA	N
Pyrene	0.17/KSS05	7,500	210,000	NA	N
DRO	1900/DU03@0.5 (2016)	4,600	> Max	NA	N
RRO	3200/DU03@0.5 (2016)	11,000	> Max	NA	N
DRO+RRO	10,000/#3@2 (1993)	NS	> Max	NA	N

Notes:

<0.1 (ND) = Constituent was not detected above the laboratory method detection limit shown.

ppm = parts per million

COPC = constituent of potential concern

NA = Not Available

>Max = The constituent RBC for this pathway is calculated as greater than 1,000,000 ppm.

¹Soil samples represent maximum of all soil sample concentrations between surface and 15-feet below grade.

²Constituent concentration was not detected above the laboratory method detection limit or was detected below the most conservative RBCs protective of construction/excavation worker; however, laboratory method detection limit was slightly above the most conservative risk-based screening level value for the background.

Table 4. Screening Maximum Concentration for Lowest Occupation Construction Worker and Excavation Worker COPCs for the Groundwater Ingestion, Dermal Contact, and Inhalation exposure pathway.

Contaminant of Interest	Maximum Soil Concentration (µg/L)/Location ¹	Occupational Worker RBC (µg/L)	Construction/Construction Worker RBC (µg/L)	COPC (Y/N)
Arsenic	5.60/EB03 (2016)	0.31	6,300	Y ²
Barium	240/EB03 (2016)	33,000	>S	N
Chromium (III)	3.81/DU03 (2016)	250,000	530,000	N
Lead	1.23/DEB03 (2016)	15	>S	N
Xylene	4.5/EB04 (2016)	830	23,000	N
DRO	1,800/EB03 (2016)	430	>S	Y ²
RRO	2,600/EB03 (2016)	1,300	>S	N

Notes:

<0.1 (ND) = Constituent was not detected above the laboratory method detection limit shown.

µg/L = micrograms per liter

COPC = constituent of potential concern

NA = Not Available

>S = The constituent RBC for this pathway is calculated as greater than saturated concentration.

¹Groundwater grab sample location between 5-10 feet below grade.

²Constituent is a COPC for Occupational Worker risks to direct contact exposure pathway only.

Human health risk.

Arsenic and TPH as diesel range organics exceeded the RBCs protective of occupational worker exposed through direct contact with the shallow groundwater at the site.

Ecological risk.

A formal ecological risk screening was not conducted for the site. The nearest significant ecological habitat is an ephemeral stream, Cow Creek, that flows east-west just beyond the northern fenced property line. The intermittent creek turns westward for approximately 1.25 miles then south to the confluence of the Clackamas River, which is listed as Essential Salmonid Habitat and is located approximately 2.4 miles southwest of the Property.

Residual contamination is present at low concentrations in surface sediments within the on-site former stormwater infiltration pond. Several metals have been detected at the property at concentrations below the regional background concentrations. Based on the conditions present, impacts to the ecological receptors utilizing Cow Creek seasonally each year are not likely to occur from the sediment within the pond.

Upland species such as birds, deer, squirrels, and coyotes may be passing through the property and/or nearby Cow Creek property. A search of the Oregon Department of Environmental Quality, Oregon Metro, Bureau of Land Management, State of Oregon GEO, State of Oregon, Esri, HERE, Garmin, INCREMENT P, NGA, USGS, U.S. Forest Service Information System was consulted to identify any critical habitat in the vicinity of the property. No critical habitat was identified for plants, fish, bird, reptile or vertebrate species at the property; therefore, the

site-specific data was screened against the screening level values for sediment exposure for non-threatened and endangered (T&E) species to provide a screening level evaluation for any potential ecological exposures.

Table 4. Ecological Screening for Birds and Mammals for the upland Former Stormwater Pond Sediment Exposure pathway.

Contaminant of Interest	Maximum Soil Concentration (PPM) @DU-03 Former Stormwater Infiltration Pond ¹	Plants Direct Toxicity (ppm)	Inverts Direct Toxicity (ppm)	Top Consumers Birds, Non-T&E Species (ppm)	Top Consumers Mammals Non-T&E Species (ppm)	Regional Background (ppm)	COPC (Y/N)
Arsenic	2.55	18	6.8	1,000	290	8.8	N
Barium	240	110	330	13,000	44,000	790	N²
Chromium	42.4	0.35	0.34	560	10,000	76	N²
Lead	16.9	120	1,700	160	1,600	28	N
Phenanthrene	0.086	NA	29	37,000	59,000	NA	N
Fluoranthene	0.082	NA	29	37,000	59,000	NA	N
Pyrene	0.17	NA	29	37,000	59,000	NA	N
Total PCBs	<0.2	160	NA	1.9	6.9	NA	N
TPH-DRO+RRO	5,100 (1,900/3,200)	260	260	6,000	6,000	NA	Y

Notes:

- <0.2 = Constituent was not detected above the laboratory method detection limit shown.
- ppm = parts per million
- COPC = constituent of potential concern
- NA = not available
- > Max = The constituent RBC for this pathway is calculated as greater than 1,000,000 ppm.
- Shaded text represents applicable risk-based concentration considered to determine COPC.
- ¹Sediment samples represent shallow sediment from 0 to 6 inches below bottom of the former stormwater infiltration pond.
- ²Sediment sample concentration was above the risk-based concentration but below the regional background concentration.

Concentrations of total TPH (combined DRO and RRO) and chromium are above their representative RBCs protective of direct toxicity to invertebrates in the former stormwater infiltration pond sediment; however, the chromium concentration was below the regional background concentration. Barium, chromium, and total TPH also exceeded their respective RBCs for direct toxicity to plants; however, the barium and chromium were below the regional background screening level values. In general, while still accessible to wildlife, the pond is no longer used for stormwater infiltration and will be filled in with clean fill during future planned redevelopment of the storage yard area of the site.

Non-T&E birds and mammals have been identified at the property within some blackberry plants along the boundaries of the site but are unlikely to be present at the property for an extended period of time since the property is an active manufacturing facility, which creates a nuisance

and active deterrent for many wildlife species. Future redevelopment within the proposed Industrial facility may further reduce accessible space across the property for wildlife use. Based on the conditions present, and the constituents not being detected or detected below the risk-based concentrations and/or regional background values, unacceptable risks to upland wildlife are unlikely at the property.

5. RECOMMENDATION

Based on the soil sampling results and history provided for the property, DEQ has concluded that, although risk levels are exceeded for petroleum hydrocarbons and some metals at isolated locations, including the former stormwater settling pond sediment and EB03 shallow groundwater sampling location, these areas are not widespread and the risk scenarios that are exceeded are unlikely to occur at the site. Therefore, DEQ recommends a conditional No Further Action determination be issued for the property.

The Conditional NFA will require engineering controls, in the form of an EES, to ensure future site development activities do not result in risks to human health or ecological receptors. The conditions of the institutional controls at the property are described in the attached draft EES (Attachment 4); and include the following: restrictions for future groundwater uses unless additional groundwater evaluation is completed at the Property, implementation of a Contaminated Media Management Plan (CMMP) that is recorded with the property to ensure property management of site soil and groundwater during future develop; and a restriction for future residential uses of the property unless additional site evaluation, specifically for residential receptors, is completed.

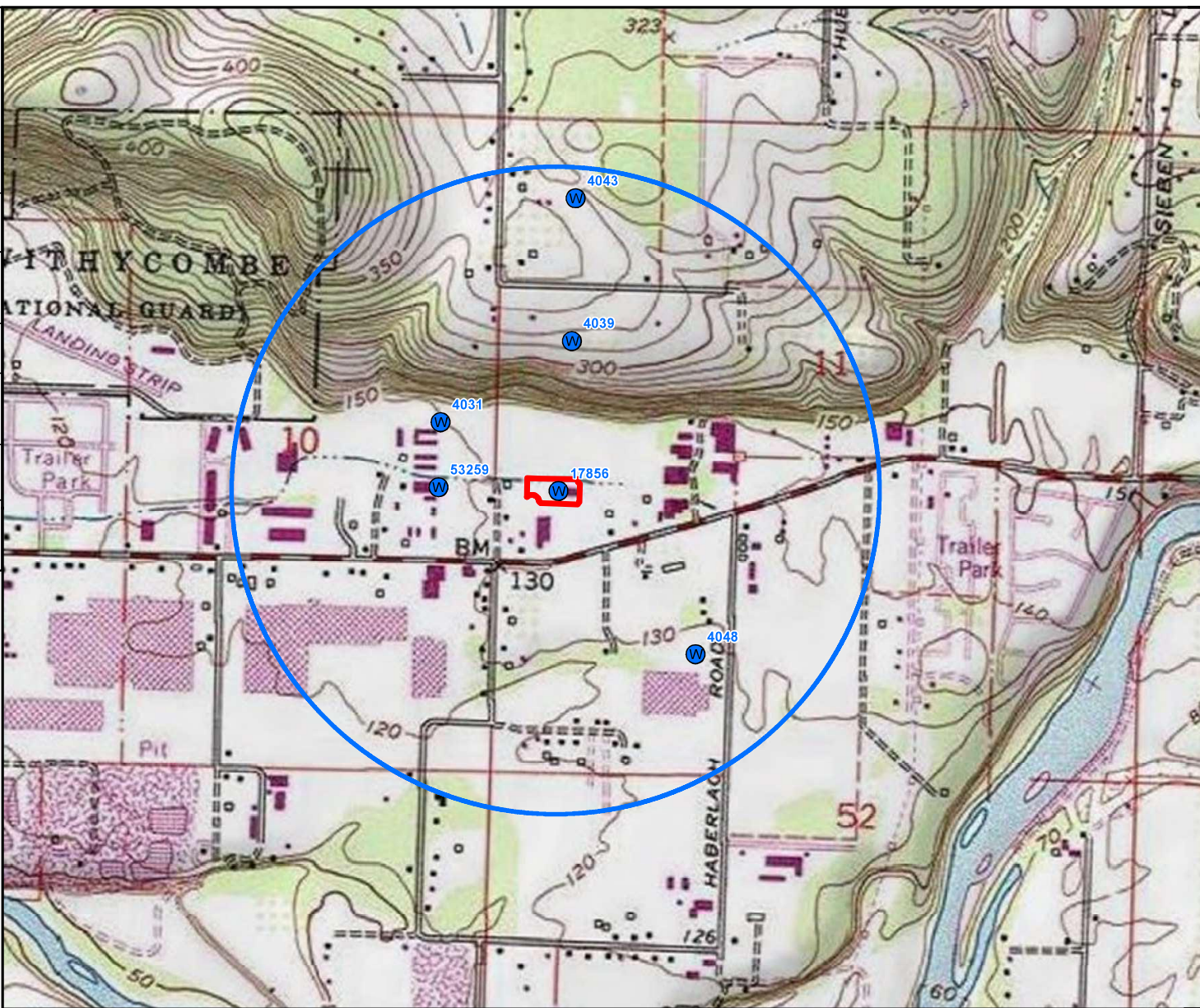
6. ADMINISTRATIVE RECORD

1. EVREN Northwest, Inc., Independent Cleanup Pathway Final Report. 15651 SE 125th Court, Clackamas, Oregon. January 20, 2025.
2. EVREN Northwest, Inc., Stockpile Removal Report. 15651 SE 125th Court, Clackamas, Oregon. January 20, 2025.
3. EVREN Northwest, Inc., Focused Site Investigation (With Risk-Based Assessment). 15651 SE 125th Court, Clackamas, Oregon. April 21, 2023.
4. Dames & Moore., Preliminary Site Assessment, Met-Tek, Inc. Clackamas, Oregon. November 5, 1992.

7. ATTACHMENTS

1. Site Vicinity Map
2. Site Plan
3. Sample Location Diagram
4. Draft EES

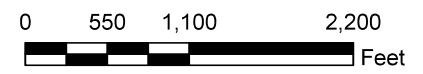
DRAWN BY: M. FERRY 12/26/2024
 CHECKED BY: E. CHAPMAN 12/26/2024
 APPROVED BY: L. GREEN 12/26/2024
 DRAWING NUMBER: 435-14001(V03)



- LEGEND:**
- SUBJECT PROPERTY BOUNDARY
 - 0.5-MILE RADIUS
 - W WELLS

NOTES:

1. BASE MAP DEVELOPED BY THE USGS (2013).




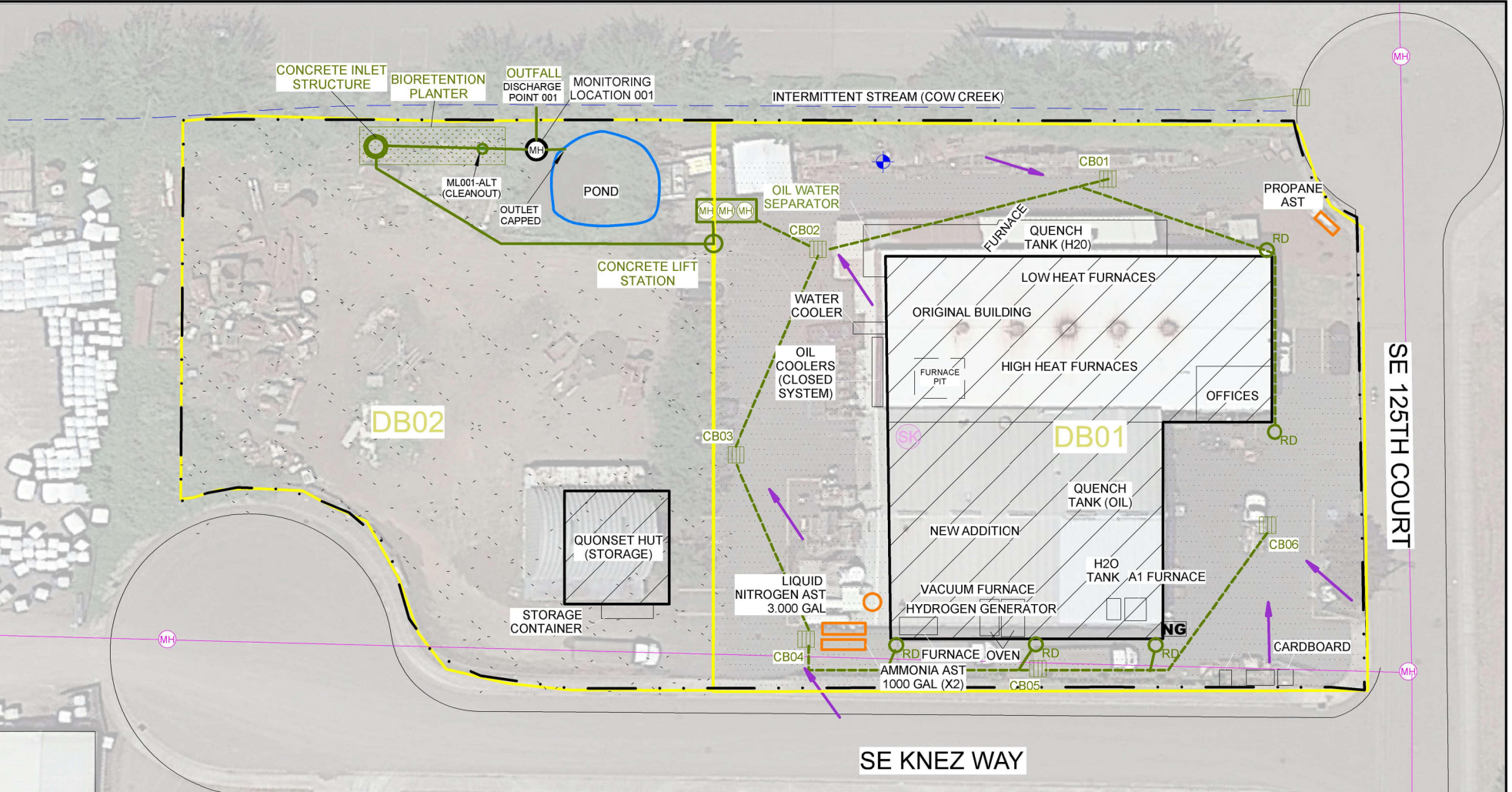


FIGURE 1

SITE VICINITY MAP

MET-TEK
 15651 SE 125TH COURT
 CLACKAMAS, OREGON

DRAWN BY: M. FERRY 01/09/2025
 CHECKED BY: E. BRUGGEMAN 01/09/2025
 APPROVED BY: L. GREENE 01/09/2025
 DRAWING NUMBER: 435-14001 (v02)



LEGEND:

	SUBJECT BUILDINGS
	SUBJECT PROPERTY BOUNDARIES
	GRAVEL/ SOIL
	ASPHALT
	NATURAL GAS METER
	MONITORING LOCATION

	CATCH BASIN
	SANITARY SEWER PIPE
	STORM SYSTEM
	ROOF DOWNSPOUT
	AST ABOVE GROUND STORAGE TANK

	WATER WELL LOCATION
	SPILL KIT
	SANITARY SEWER MANHOLE
	STORM SEWER MANHOLE
	ABOVE GROUND STORAGE TANK
	SLOPE
	1-FOOT CONTOUR

SPILL KIT CONTENTS

- ABSORBENT BROOMS
- ABSORBENT TOWELS
- CATCH BASIN BLOCKER
- GLOVES
- GARBAGE BAGS

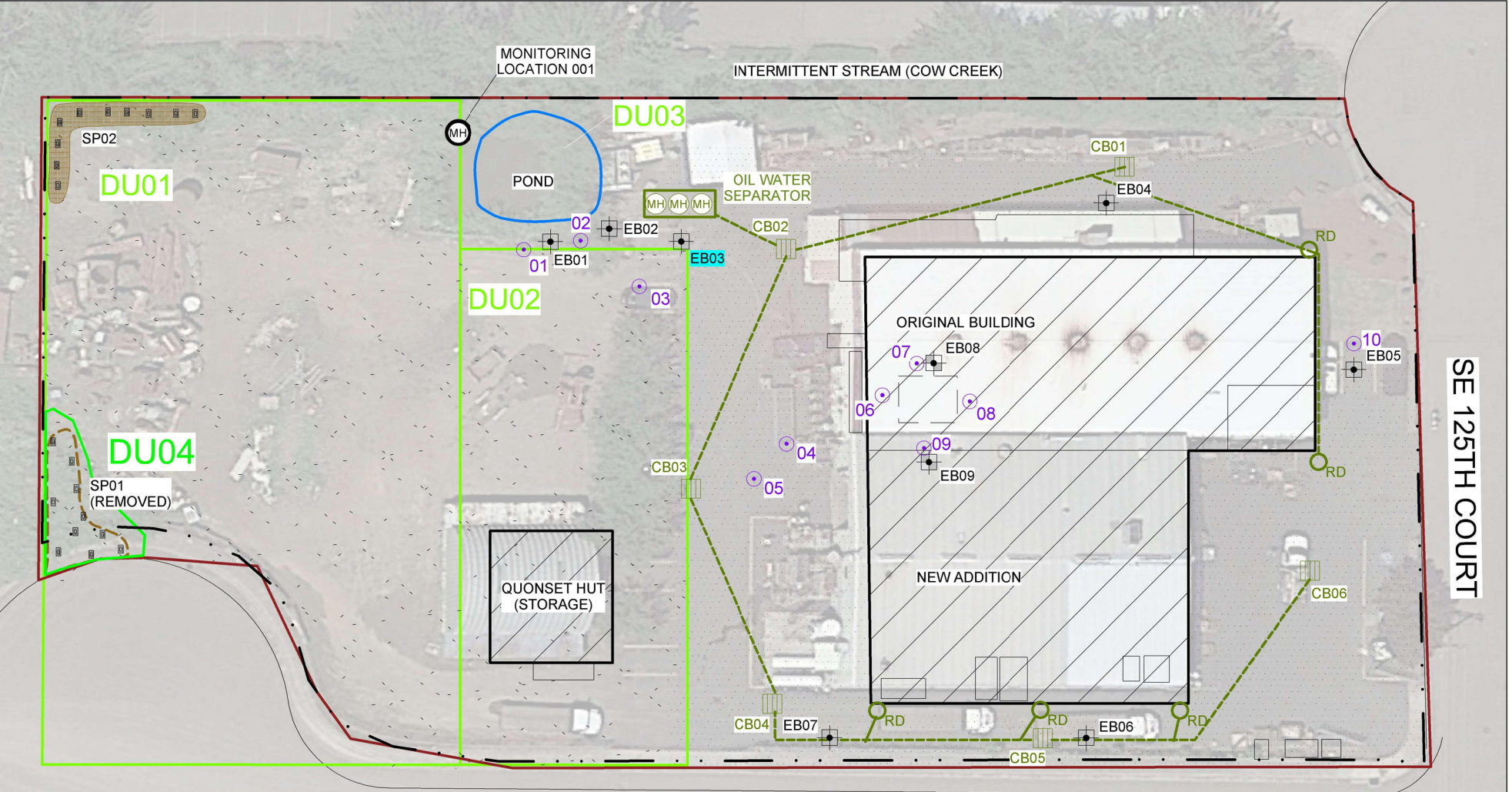
NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2017 AND ENW FIELD NOTES.
2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.
3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT, SHAPE, SIZE, OR ORIENTATION
4. CONTOURS DERIVED FROM 2014 DOGAMI LIDAR APPROXIMATE SCALE

environmental, natural resource consultants
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 P: (503)452-5561, E: ENW@EVREN-NW.COM

FIGURE 2
SITE PLAN
 MET-TEK
 15651 SE 125TH COURT
 CLACKAMAS, OREGON

DRAWN BY: M. FERRY | 01/16/2025 | CHECKED BY: E. BRUGGEMAN | 01/16/2025 | APPROVED BY: L. GREEN | 01/16/2025 | DRAWING NUMBER: 435-14001 (004)



LEGEND:

SUBJECT BUILDINGS	DECISION UNIT	CATCH BASIN
SUBJECT PROPERTY BOUNDARIES	LOCALITY OF FACILITY	ROOF DOWNSPOUT
GRAVEL/ SOIL	PEMCO SAMPLE LOCATION 1993	INFERRED STORM SYSTEM
ASPHALT	ENW TEMPORARY BORING LOCATION (2016)	
SOIL PILES	TEST PITS	

BLUE HIGHLIGHTING MEANS CONSTITUENT OF CONCERN PRESENT AT GROUND WATER SAMPLE LOCATION

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2017 AND ENW FIELD NOTES.
2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.
3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

APPROXIMATE SCALE

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FIGURE 3
SAMPLE LOCATION DIAGRAM
 MET-TEK
 15651 SE 125TH COURT
 CLACKAMAS, OREGON