

State of Oregon
Department of Environmental Quality

Memorandum

Date: December 19, 2024

To: FILE

Through: Brad Shultz, Manager and Don Hanson, Lead Worker

From: Sarah Kingery
Western Region

Subject: Dari Mart and Auto Repair, LUST 20-23-0538; 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 Dari Mart and Auto Repair, in Eugene. As discussed in this report, contaminant concentrations in soil, groundwater, and soil vapor are below acceptable risk levels with specific restrictions set forth in an easement and equitable servitude (EES) that restricts additional construction on a portion of the site. The proposed conditional NFA determination meets the requirements of Oregon Administrative Rules Chapter 340, Division 122, Sections 0205 to 360.

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

1. BACKGROUND

Site location.

The site's location can be described as follows:

- Address: 1510 Highway 99 North, Eugene, Oregon (Figure 2)
- Latitude 44.07° North, longitude 123.166° West
- Tax Map 170422114, Tax Lot 3308, Township 17 South, Range 4 West, Section 22

Site setting.

The site is approximately 0.63 acres in size. There is an 8,616 square foot commercial building on the property that is currently occupied by two businesses: Dari Mart Convenience store and Kelly Automotive Services (Figure 3). The remainder of the property is paved with some areas of landscaping. The site and adjacent properties to the north, east, and south are zoned Community Commercial (C-2). Properties located on the west side of Jacobs Drive are zoned Low Density Residential (R-1).

Physical setting.

The site is in the Willamette Valley at an elevation of 400 feet above mean sea level. Soils encountered during site investigations consist of sand and silt to approximately 13 feet below

ground surface (bgs) and then sand and gravel to approximately 20 feet bgs. Depth to groundwater at the site ranges from 10 to 16 feet bgs. Groundwater flow is to the east. The nearest body of surface water is a pond adjacent to Hwy 99 North about 0.5 miles north of the site.

Site history.

The site is currently occupied by a convenience store (Dari Mart) and an auto parts store (Kelly Automotive). The site was previously occupied by a company called Grocery Cart, Inc who operated three underground storage tanks and had them decommissioned in 1990.

2. BENEFICIAL LAND AND WATER USE DETERMINATIONS

Land use.

According to the City of Eugene Zoning Map, the subject property and adjacent properties to the north, east, and south are zoned Community Commercial (C-2). The adjacent properties to the west across Jacobs Drive are zoned Low Density Residential (R-1). The east side of the property is bordered by Highway 99 North, a commercial corridor and City of Eugene right-of-way (ROW). Community Commercial currently has a 5-foot setback from the road and allows for housing. The City of Eugene Metropolitan Area General Plan shows the site as part of a larger commercial area along Highway 99. This area has high volume vehicle traffic, and it is unlikely to be used for housing.

Groundwater use.

Drinking water is provided to the site and surrounding properties by the Eugene Water and Electric Board (EWEB). EWEB gets their water from the McKenzie River. BB&A Environmental conducted a beneficial water use survey and identified two wells within ¼-mile of the site; A domestic well located approximately ¼ mile upgradient to the site and an irrigation well located 250 feet south and upgradient of the site.

Surface water use.

The nearest surface water is a pond adjacent to Hwy 99 North about 0.5 miles north of the site. Stormwater at the site is collected into three storm drains located in the paved areas of the site and connect to the city stormwater lines on Highway 99 North.

3. INVESTIGATION AND CLEANUP WORK

Investigation at the site was focused on the former location of the gasoline USTs and dispenser area (north side of building) and the former waste oil tank located on the southeast corner of the building. The USTs were decommissioned by removal in 1990. DEQ records indicate that one 500-gallon UST and two 1,000-gallon USTs were removed. Additional information on the decommissioning and analysis was not available in the file. Historical aerial photos (1974, 1977, and 1982) showed two concrete pads that are typical for UST locations. The aerial photo from 1990 showed fresh asphalt patches in the same location the concrete pads had been located providing further evidence pointing to the location of the former USTs. This information was used to develop a sampling plan for the site.

Eleven soil samples were collected from 11 borings completed between July 2023 and October 2024. Samples were obtained at depths ranging from 7 to 15 feet bgs. Four of the borings were completed as monitoring wells (MW-1 through MW-4). Soil samples obtained from borings P1 through P5 were analyzed by northwest total petroleum hydrocarbons hydrocarbon identification (NWTPH-HCID). No petroleum hydrocarbons were detected. Soil samples obtained from borings MW-2, MW-3 and MW-4 were analyzed for gasoline-range hydrocarbons (TPH-G) and benzene, toluene, ethylbenzene, and total xylenes (BTEX). TPH-G and BTEX were not detected in these samples. Borings P6 and P7 were completed in October 2024 on the southeast side of the building in the vicinity of the former waste oil UST. This location was identified using historical aerial photographs described previously. Two soil samples from the waste oil tank borings (P6 and P7) were analyzed for NWTPH-HCID. Oil-range hydrocarbons were detected in one of the soil samples which was subsequently also analyzed for polychlorinated biphenyls (PCBs) by EPA Method 8082A, volatile organic hydrocarbons (VOCs) by EPA Method 8260D, TCLP metals by EPA method 6020B, and polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270E.

Groundwater sampling and monitoring was conducted at the site between July 2023 and October 2024. Initial groundwater samples were analyzed for gasoline, diesel, and oil-range hydrocarbons (by NWTPH-HCID method), diesel-range hydrocarbons by TPH-D and VOCs. An initial groundwater grab sample was obtained from boring P3. Due to concentrations detected in the sample, another boring was drilled in this location and monitoring well MW-1 was installed. Groundwater samples obtained from MW-1 through MW-4 were analyzed for TPH-G and VOCs. One sample was also analyzed for total lead. One groundwater grab sample was obtained from boring P6 in the vicinity of the waste oil tank. This sample was analyzed for NWTPH-HCID and VOCs. No Analytes were detected.

Three soil vapor samples were obtained from beneath the building slab (SSVP-01, SSVP-02, and SSVP-03) in August 2023 and analyzed for TPH-G and VOCs by method TO-15.

Nature and extent of contamination.

Analysis of soil, groundwater and soil vapor sampling indicate that there have been releases from the former UST systems and there is residual contamination at the site.

Analytical testing of soil at the site indicates that soil has not been impacted by the former USTs on the north side of the building. Oil-range hydrocarbons were detected in the vicinity of the waste oil UST between 13 and 14 feet bgs at a concentration of 1,490 mg/kg. This contamination is limited and does not extend offsite.

TPH-G and ethylbenzene were both detected in groundwater at concentrations greater than the RBCs for vapor intrusion in the vicinity of the former gasoline USTs. Groundwater collected from MW-1 contained concentrations of TPH-G at a concentration of 4,760 µg/l. Ethylbenzene, xylenes, naphthalene, isopropylbenzene, and 1,2,4-trimethylbenzene were also detected. Groundwater contamination is limited to the area around MW-1 and does not extend offsite.

Soil vapor samples collected beneath the building detected gasoline-range hydrocarbons and various VOC. VOCs detected include those associated with petroleum such as benzene, toluene, ethylbenzene, xylenes. Chlorinated solvents, typically associated with automotive repair and drycleaner operations, were also detected. Concentrations of VOCs in soil vapor were all low and all below risk-based concentrations.

4. RISK EVALUATION

Conceptual site model.

The source of contamination at the site is the former USTs. Secondary sources are soil, groundwater, and soil vapor. Pathways that could impact human receptors are ingestion, dermal contact, inhalation, volatilization to outdoor air and vapor intrusion into buildings. Occupational workers could be exposed to soil if it is 0-3 feet bgs, and vapors inside and outside of the building. Excavation workers could be exposed to soil and groundwater contamination. To evaluate human exposure to residual chemical contamination requires an assessment of the type and extent of that exposure. This is based on current and reasonably likely future site use. DEQ publishes risk-based concentrations (RBCs) for contaminants commonly encountered, for different types of exposure scenarios. These RBCs are conservative estimates of protective levels of contaminants in soil, groundwater and air. 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			
			Is pathway complete?	Is RBC Exceeded?	Comments
Soil	Ingestion, Dermal Contact, and Inhalation	Residential and/or Urban Residential	No	No	The site has a commercial use and zoning. Soil contamination is at depth.
		Occupational	No	No	
		Construction Worker	No	No	
		Excavation Worker	Yes	No	
	Volatilization to Outdoor Air	Residential and/or Urban residential	No	No	
		Occupational	No	No	
	Volatilization to Indoor Air	Residential	yes	No	See Note
		Commercial			
	Leaching to Groundwater	Residential and/or Urban residential	No	N/A	Shallow groundwater beneath the site and in vicinity is not currently used nor reasonably likely to be used in the future. Water is provided by EWEB.
		Occupational	No	N/A	

Groundwater	Ingestion & Inhalation from Tap Water	Residential and/or Urban residential	No	Yes	Shallow groundwater beneath the site and in vicinity is not currently used nor reasonably likely to be used in the future. Water is provided by EWEB.
		Occupational	No	Yes	
	Volatilization to Outdoor air	Residential	No	No	The site has a commercial use and zoning.
		Urban residential	No	No	
		Occupational	Yes	No	
	Vapor Intrusion into Buildings	Residential	No	Yes	Concentrations in soil vapor beneath building is below RBCs. Additional construction in area of contamination restricted with EES.
		Commercial	No	Yes	
Ecological	Groundwater in Excavation	Construction & excavation worker	Yes	No	
		Terrestrial & Surface Water	No	No	

Contaminant concentrations.

Soil

Oil-range hydrocarbons and chrysene were detected in soil in the vicinity of the former waste oil UST at a depth of 13-14 feet. These concentrations are below risk-based concentrations for construction and excavation workers.

Groundwater

Concentrations of gasoline-range hydrocarbons and ethylbenzene detected in MW-1 exceed the occupational RBCs for vapor intrusion.

Soil Vapor

Soil vapor samples collected from beneath the current building slab contained gasoline-range hydrocarbons and some VOCs. All detected contaminants in these samples were below the commercial vapor intrusion RBCs.

Soil		
Contaminant of Concern	Maximum Concentration mg/kg	Are any applicable RBCs exceeded?
Oil-range hydrocarbons	1,490	No
Chrysene	0.0755	No

Groundwater

Contaminant of Concern	Maximum Concentration µg/l	Are any applicable RBCs exceeded?
Gasoline-range hydrocarbons	4,760	Yes
Benzene	Not detected	No
Toluene	Not detected	No
Ethylbenzene	61.6	Yes
Xylenes	74.7	No
Naphthalene	24.8	No

Soil Gas

Contaminant of Concern	Maximum Concentration $\mu\text{g}/\text{m}^3$	Are any applicable RBCs exceeded?
Gasoline-range hydrocarbons	867	No
Benzene	4.12	No
Toluene	23.4	No
Ethylbenzene	7.67	No
Xylenes	40.6	No
Naphthalene	Not detected	No

Human health risk.

Contaminant concentrations in soil onsite and soil vapor beneath the current building are below applicable RBCs and do not pose a health risk to occupational, construction and excavation worker receptors.

Gasoline-range hydrocarbon and ethylbenzene concentrations exceed the groundwater vapor intrusion RBCs and are contaminants of potential concern if future development were to extend north of the present building. Concentrations of gasoline-range hydrocarbons and ethylbenzene do not exceed the groundwater in excavation RBCs for construction and excavation workers.

Ecological risk.

There is no terrestrial habitat at the site as it is all developed and commercial and there is no expectation that there will be terrestrial habitat at the site in the future. There are no surface water pathways associated with or potentially impacted by the site, therefore there are no unacceptable ecological risks.

5. RECOMMENDATION

Based on the current conditions at the site and future uses of the site, a conditional NFA is recommended, provided an EES is recorded on the property that requires the following conditions:

Only with the prior written approval of DEQ, the Owner may construct future buildings for human occupation on the northern portion of the Property. Future buildings constructed at the Property must incorporate DEQ-approved, professionally designed, and installed vapor mitigation engineering control(s) into the building design. Alternatively, Owner can perform additional cleanup and/or site assessment in accordance with a DEQ-approved work plan adequate to demonstrate that residual contamination would not pose unacceptable vapor intrusion risks to future building occupants.

Following the recording of the EES, the conditional No Further Action determination should be recorded in DEQ's leaking underground storage tank database (LUST No. 20-23-0538).

6. ADMINISTRATIVE RECORD

1990-01-30_20-23-0538_Notice of UST Permanent decom

Dairy Mart and Auto Repair, LUST 20-23-0538

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2023-09-08_20-23-0538_20DayReport

2023-09-08_20-23-0538_Phase2Report

2023-11-10_20-23-0538_FinalReport

2024-01-11_20-23-0538_FirstQuarterGroundwaterUpdateReport

2024-01-11_20-23-0538_FirstQuarterGroundwaterUpdateReport

2024-07-03_20-23-0538_FourthQuarterGroundwaterUpdateReport

2024-10-30_20-23-0538_Used Oil UST Investigation

7. ATTACHMENTS

1. Site Aerial Figure 2 (BB&A Environmental)
2. Site Plan Figure 3(BB&A Environmental)



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(FEET)



PHOTO SOURCE: GOOGLE EARTH, July, 21, 2019.



SUBJECT PROPERTY



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32986 Roberts Ct.
Coburg, OR
ph: 541.484.9484

PORTLAND OFFICE
25195 SW Parkway Ave., #207
Wilsonville, OR
ph: 503.570.9484

www.BBAENV.COM

SITE AERIAL
COMMERCIAL PROPERTY
1510 HIGHWAY 99 N., EUGENE, OREGON

PROJECT CODE:
G&G01PH2.23E

DATE:
08/03/23

SCALE:
AS SHOWN

DRAWN:
K.D.DESIGNS

CHECKED:
MATTHEW LUCZAK

FIGURE #:

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