

## SITE HAZARD ASSESSMENT Worksheet 1: Summary Score Sheet

SITE NAME: Seattle DOT Dexter Parcel Rank: 2

Cleanup Site ID: 14785 Completed on 8/16/2021 for inclusion Facility/Site ID: 81735 on the August 2021 Hazardous Sites List.

## **LOCATION OF SITE**

615 Dexter Ave N Township 25N, Range 4E, Section 30

Seattle, King County, WA 98109 Latitude, Longitude: 47.62517, -122.34302

Tax Parcel ID: 224900-0120

## SITE DESCRIPTION

### Within Currently Defined Site Boundaries

Based on currently available information, the Seattle DOT Dexter Parcel site (Site) includes the southeast corner of the tax parcel listed above, a portion of the alley south of the parcel, and possibly the northeast corner of the parcel adjacent south (parcel 2249000100).

The 0.56 acre property is located at the southwest corner of the intersection of Roy Street and Dexter Avenue (Figure 1-1) and contains a warehouse used by Copiers Northwest and two paved parking lots. It is zoned for mixed use (Seattle Mixed Lake Union 175/85-280). The City of Seattle provides water, sewer, and stormwater services. The Site (area of contamination) is in the parking lots.

A remedial investigation and feasibility study are currently being conducted at the Site in preparation for cleanup and concurrent redevelopment under a prospective purchaser consent decree.

Contamination at the Site is attributed to releases from underground storage tanks (USTs) when the property was used as a gas station from approximately 1930 to the mid-1940s. In addition, three 1,000-gallon heating oil USTs and one 1,000-gallon bunker oil UST were previously located in the alley. The property was used for a variety of purposes between 1930 and the present (Figure 3-1), but no contamination associated with the other uses has been detected. Additional details on site history are in the remedial investigation (RI) report (Hart Crowser 2021).

## **Historical Owners and Operators**

<u>From</u>	<u>To</u>	Owner/Operator	Site Uses
late 1800s	1930s	Unknown	Residences, possibly with heating oil tanks
1930	mid-1940s	Unknown	Gasoline service station
1935	1950	Seattle Hardwood Floor Co.	Flooring
1940	1955	Colotyle Corporation	Coated wall board manufacturer
1950	1950	Unknown	Plastic mixing and storage facility
1966	1969	Unknown	Paint spray booth and woodworking shop



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unknown 1997 Unknown 3 heating oil USTs and 1 bunker oil UST

1997 present Copiers Northwest Warehouse and parking lot

## Area Surrounding the Site

The property is bounded on the west by Aurora Avenue North and across that an office building (Figure 3-1). It is bounded on the north by Roy Street and across that an office building. It is bounded on the east by Dexter Avenue North and across that a vacant lot, which is a MTCA site called Seattle DOT Mercer Parcels (Cleanup Site ID 14784). The property is bounded on the south by a warehouse and parking lot also used by Copiers Northwest and beyond that Mercer Street. The parcel to the south is a MTCA site called 601 Dexter (Cleanup Site ID 15113). Remedial investigations and feasibility studies are being conducted at the Seattle DOT Mercer Parcels site and the 601 Dexter site in preparation for redevelopment.

Across the intersection of Roy Street and Dexter Avenue North to the northeast of the Site is the American Linen site (Cleanup Site ID 12004). A plume of chlorinated solvents originating from the American Linen site has traveled in deep groundwater affecting other properties in the area. Sampling results indicate that the American Linen plume has not impacted the Dexter Parcel site.

The nearest water body is Lake Union, located 1,100 feet northeast of the Site. A 0.55-acre grassy, undeveloped area with no parcel number and no ownership information is located 270 feet south of the Site. During the site visit on August 11, 2021, the area was occupied by a tent encampment, with tents located side by side almost completely covering the ground surface.

### SITE CHARACTERIZATION AND/OR REMEDIATION

A Phase I and a Phase II Environmental Site Assessment were conducted for the Site in 2017. A RI was conducted for the Site in 2019 and 2020. The information in this section relies on the RI report (Hart Crowser 2021). For additional details, see the RI report.

During a 1997 Phase II Environmental Site Assessment, soil samples and a groundwater sample from one monitoring well were analyzed for petroleum and chlorinated solvents. During a 2012 investigation, soil samples were collected from six borings in the roads adjacent to the Site and analyzed for petroleum and metals. During a 2012-2013 investigation, soil and groundwater samples were collected from a well in the road east of the property and analyzed for petroleum and chlorinated solvents. During a 2017 Phase II assessment, ten soil and three grab groundwater samples were collected from the Site and analyzed for petroleum, metals, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). During a 2017-2020 investigation, soil and groundwater samples were collected from three monitoring wells installed in the road northeast of the Site and analyzed for petroleum, VOCs, polycyclic aromatic hydrocarbons (PAHs), metals, and PCBs. During the RI in progress at the time of the SHA, 139 soil samples and groundwater samples from 14 wells were collected throughout the Site and analyzed for petroleum, SVOCs including PAHs, VOCs, PCBs, and metals.

The top 5-10 feet of soil at the Site is generally fill comprised of sand and gravel with variable amounts of silt, cobbles, and brick, concrete, and glass debris. Underlying the fill are glacial deposits consisting primarily of silt and/or clay with varying amounts of sand to depths ranging from 16 to 40 feet. Underlying the silt layer are glacial till and ice contact deposits of dense to very dense silty sand and silty gravel to a depth of 70 feet below ground surface (bgs). Intermittent layers of clean sand and gravel are present within the silt, silty sand, and silty gravel.

There are shallow, discontinuous water-bearing zones in glacial till deposits and a deeper water-bearing zone in glacial outwash deposits. Groundwater is found at approximately 25 feet bgs. The general direction of groundwater flow is east and southeast. Historically, temporary construction dewatering at nearby sites drew down the water table and affected the direction of groundwater flow at the Site. However, recent developments in the neighborhood have not significantly affected the elevation of the water table in the vicinity of the Site.



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Gasoline-range organics (GRO) is the chemical of concern for soil. GRO exceeds its MTCA Method A soil cleanup level at concentrations up to 1,200 mg/kg at depths ranging between 10 and 25 feet bgs in the southeast corner of the parcel, extending onto the parcel to the south (Figure 7-2).

GRO, diesel-range organics (DRO), and benzene are chemicals of concern for groundwater. GRO and DRO exceed their MTCA Method A ground water cleanup levels and benzene exceeds its MTCA Method B screening level for vapor intrusion in the southeast corner of the parcel, extending onto the parcel to the south (Figure 7-4a). GRO occurs at concentrations up to 6,900 ug/L; DRO, up to 790 ug/L; and benzene, up to 2.9 ug/L.

## ADDITIONAL INFORMATION COLLECTED BY THE SITE HAZARD ASSESSOR

On August 11, 2021, Ecology conducted a drive-by site visit for the purposes of the SHA. Conditions were consistent with those described in previous reports. In addition, Ecology is overseeing the preparation of the RI and feasibility study, including site visits in December 2019 and February 2021.

### S

SPECIAL CONSIDERATIONS	
Checked boxes indicate routes applicable for Washington F	Canking Method (WARM) scoring
☐ Surface Water	
Not scored due to subsurface release.	
<b>☑</b> Air	
Vapor intrusion into buildings is not occurring no contamination, but it could occur in the future if a Furthermore there are buildings nearby to the we	new building were constructed over the contamination.
<b>☑</b> Groundwater	
Contamination has been detected in groundwate	r.
Benzene was not scored as a separate chemical of co based on benzene. The scores for DRO are based on	ncern for groundwater because the scores for GRO are naphthalene.
ROUTE SCORES	
Surface Water/ Human Health:	Surface Water/ Environment:

Air/ Human Health:

47.9

Air/ Environment:

1.6

Groundwater/ Human Health: 33.3

Overall Rank: 2



## SITE HAZARD ASSESSMENT Worksheet 1: Summary Score Sheet

## **REFERENCES**

- 1 ESRI Global Annual Evapotranspiration. Accessed July 2021. https://www.arcgis.com/home/webmap/viewer.html?layers=ad3f8cc18fc74e6894ee220acd 15020a.
- 2 Hart Crowser. 2021. Remedial Investigation, Seattle DOT Dexter Parcel, 615 Dexter Avenue North, Seattle, Washington. Public review draft. July 9.
- 3 King County iMap. Accessed July 2021. https://gismaps.kingcounty.gov/imap/.
- 4 Missouri Census Data Center. Accessed July 2021. https://mcdc.missouri.edu/applications/caps2010.html.
- 5 NOAA NCEI Climate Data Online. Accessed July 2021. https://www.ncdc.noaa.gov/cdo-web/.
- 6 Washington Ranking Method (WARM) Toxicity Database. Available from Priscilla Tomlinson, Washington State Department of Ecology, Northwest Regional Office.
- 7 Washington State Department of Ecology. 2007. Washington Ranking Method (WARM) Scoring Manual. Https://apps.ecology.wa.gov/publications/documents/90014.pdf.
- 8 WDOH Office of Drinking Water Find Water Systems. Accessed July 2021. https://fortress.wa.gov/doh/eh/portal/odw/si/Disclaimer.aspx?Page=FindWaterSystem.aspx

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## SITE HAZARD ASSESSMENT Worksheet 2: Route Documentation

SITE NAME: Seattle DOT Dexter Parcel

Cleanup Site ID: 14785 Facility/Site ID: 81735

## 1. SURFACE WATER ROUTE

List those substances to be considered for scoring:

None

Explain the basis for choice of substances to be used in scoring:

List those management units to be considered for scoring:

Explain basis for choice of unit to be used in scoring:

## 2. AIR ROUTE

List those substances to be considered for scoring:

GRO

DRO

Explain the basis for choice of substances to be used in scoring:

Volatile chemicals detected in soil

List those management units to be considered for scoring:

Soil

Explain basis for choice of unit to be used in scoring:

Soil contamination is shallower than groundwater contamination

## 3. GROUNDWATER ROUTE

List those substances to be considered for scoring:

**GRO** 

DRO

Explain the basis for choice of substances to be used in scoring:

Detected in groundwater

List those management units to be considered for scoring:

Groundwater

Explain basis for choice of unit to be used in scoring:

Data available for groundwater

# Worksheet 4 Surface Water Route

CSID: 14785

**Site: Seattle DOT Dexter Parcel** 

Not scored.

## **Worksheet 5 Air Route**

CSID: 14785

Site: Seattle DOT Dexter Parcel

## **1.0 SUBSTANCE CHARACTERISTICS**

### 1.1 Introduction

No scoring in Section 1.1.

## 1.2 Human Toxicity

	Amb. Air	Stnd.	nd. Acute Tox		xicity Chronic Toxicit			
Substance	Value (ug/m³)	Score	Value (mg/m³)	Score	Value (mg/kg/day)	Score	Adj. CPFi (risk/mg/kg- day)	Score
GRO	0.0345	10	31947	3	8.57E-03	8	2.73E-02	5
DRO	0.0294	10		Χ	8.57E-04	10	5.95E-02	5

Maximum score: 10

2 Bonus points:

Source: **WARM Toxicity Database**  Human Toxicity Score: 12

Range: 1-12

## 1.3 Mobility

Gaseous Mobility

	Vapor Pre	essure	Henry's Law		
	Value		Value (atm-		
Substance	(mm Hg)	Score	m3/ mol)	Score	
GRO	9.50E+01	4	5.56E-03	4	
DRO	8.20E-02	3	4.83E-04	3	

Maximum score:

4 Source: WARM Toxicity Database

**Particulate Mobility** 

Not scored; surface covered by pavement Soil type:

Erodibility factor: Climatic factor:

Mobility value: Mobility Score: 4

Source: Range: 0-4 1.4 Human Toxicity/Mobility

Source: WARM Scoring Manual Human Tox/Mobil Score: 24

Range: 1-24

1.5 Environmental Toxicity/Mobility

е

Maximum score 3 Environmental Toxicity Score: 3

Source: WARM Toxicity Database Range: 1-10

Environmental Tox/Mobil Score: 6

Range: 1-24

1.6 Substance Quantity

Quantity: 300 cu yd

Basis: Soil in 40x67 foot area, 3 feet thick

Source: RI Figure 7-2 Substance Quantity Score: 6

Range: 1-10

2.1 Containment

Description: Cover > 2 ft thick; no vapor collection system

Basis: RI Figure 7-5 Containment Score: 5

Range: 0-10

SUBSTANCE PARAMETER CALCULATIONS

**Human Health Pathway** 

SUBh (Human Tox/Mobil + 5) x (Containment +1) + Substance Quantity

180.0

**Environmental Pathway** 

SUBe (Environ. Tox/Mobil + 5) x (Containment +1) + Substance Quantity

72.0

3.0 TARGETS

3.1 Nearest Population

Description: Building southeast of plume

Distance (ft): 24 ft Nearest Population Score: 10

Source: RI Table 7-4 Range: 0-10

3.2 Nearest Sensitive Environment

Description: Lake Union

Distance (ft): 960 ft Nearest Sensitive Environment Score: 7

Source: King County iMap Range: 0-7

3.3 Population within One-Half Mile

Number: 6,053 Population within Half Mile Score: 75.0

Source: Missouri Census Data Center Range: 0-75

**TARGET PARAMETER CALCULATIONS** 

**Human Health Pathway** 

TARh=Nearest Population + Population within Half Mile 85.0

**Environmental Pathway** 

TARe Nearest Sensitive Environment 7.0

4.0 RELEASE

Evid. of release? No; no visual evidence and no air sampling

Source: RI Release Score (REL): 0.0

Range: 0 or 5

**AIR ROUTE CALCULATIONS** 

**Human Health Pathway** 

AIRh = (SUBh x 60/329) x {REL + (TARh x 35/85} / 24 47.9

**Environmental Pathway** 

AIRe =(SUBe x 60/329) x {REL + (TARe x 35/85} / 24

Range: 0-100

## Worksheet 6 Groundwater Route

CSID: 14785

**Site: Seattle DOT Dexter Parcel** 

## **1.0 SUBSTANCE CHARACTERISTICS**

## 1.1 Human toxicity

	Drink. Wa	t. Stnd	Acute To	xicity	Chronic To	xicity	Carcinoge	nicity
Substance	Value (ug/L)	Score	Value (mg/kg)	Score	Value (mg/kg/day)	Score	Adj. CPFo (risk/mg/kg-day)	Score
GRO	5	8	3,306	3	4.00E-03	3	5.50E-02	5
DRO		Χ	490	5	2.00E-02	1		Χ

Maximum score: 8

Bonus points: 0

WARM Toxicity Database

**Human Toxicity Score:** 

Range: 1-12

## 1.2 Mobility

Source:

	Solubility		
	Value		
Substance	(mg/L)	Score	
GRO	1.75E+03	3	
DRO	3.10E+01	1	

Maximum value: 3 Mobility Score: 3

Source: WARM Toxicity Database Range: 1-3

1.3 Substance quantity

Quantity: 300 cu yd

Basis: Ground water in 60 ft x 42 ft area, assumed 3 feet thick

Source: RI Figure 7-5 Substance Quantity Score: 6

Range: 1-10

2.1 Containment

Description: Contaminated ground water

Source: RI Containment Score: 10

Range: 0-10

#### SUBSTANCE PARAMETER CALCULATION

SUB = (Human Toxicity + Mobility + 3) x (Containment + 1) + Substance Quantity

160.0

### 2.0 MIGRATION POTENTIAL

2.2 Net precipitation

Amount (in.): 22 Net Precipitation Score: 3

Source: NOAA NCEI Climate Data Online Range: 0-5

**ESRI Global Annual Evapotranspiration** 

2.3 Subsurface Hydraulic Conductivity

Description: Hydraulic conductivity measured at 1E-5 cm/sec

Source: RI Hydraulic Conductivity Score: 3

Range: 1-4

2.4 Vertical Depth to Aquifer

Depth (ft): 0 Depth to Aquifer Score: 8

Source: Contamination detected in aquifer Range: 1-8

MIGRATION PARAMETER CALCULATION

MIG = Depth to Aquifer + Net Precipitation + Hydraulic Conductivity

14.0

## 3.0 TARGETS

3.1 Aquifer Usage

Description: Ground water not used but useable

Source: King County iMap Aquifer Use Score: 2

WDOH Office of Drinking Water-Find Water Systems Range: 1-10

3.2 Distance to Nearest Drinking Water Well

Distance (ft): >10,000 Well Distance Score: 0

Source: King County iMap Range: 0-5

WDOH Office of Drinking Water-Find Water Systems

3.3 Population Served by Drinking Water Wells within Two Miles Population Served Score: 0.0

No. of people: 0 Range: 0-100

Source: WDOH Office of Drinking Water-Find Water Systems

3.4 Area Irrigated by Wells within Two Miles Area Irrigated Score: 0.0

Area (acres): 0 Range: 0-50

Source: King County iMap

## TARGET PARAMETER CALCULATION

2.0

TAR = Aquifer Use + Well Distance + Population Served + Area Irrigated

**4.0 RELEASE** 

Evid. of release? Yes; detections in aquifer Release Score (REL): 5.0

Source: RI Range: 0 or 5

**GROUND WATER ROUTE CALCULATION** 

33.3

 $GW = (SUB \times 40/208) \times \{(MIG \times 25/17) + REL + (TAR \times 30/165)\} / 24$ 

Range: 0-100

# Washington Ranking Method Route Scoring Summary and Ranking Calculation

CSID: 14785

Site: Seattle DOT Dexter Parcel

Human Health Route Scores

Pathway	Score	Quintile
Surface water	0.0	0
Air	47.9	5
Groundwater	33.3	3
Groundwater	33.3	

Quintile	Value
High (H)	5
Middle (M)	3
Low (L)	0

 $(H^2 + 2M + L) / 8$ 

Human Health Pathway Quintiles - based off February 2021 HSL

Quintile	Surface Water		Air		Groundwater	
1	<=	7.3	<=	8.6	<=	24.1
2	7.4	14.7	8.7	16.4	24.2	33.2
3	14.8	21.1	16.5	25.8	33.3	40.4
4	21.1	29.7	25.9	40.2	40.5	49.7
5	>=	29.8	>=	40.3	>=	49.8

Human Health Priority Bin Score:

3.9

**Environmental Route Scores** 

Pathway	Score	Quintile
Surface water	0.0	0
Air	1.6	3

Quintile	Value
High (H)	3
Low (L)	0

 $(H^2 + 2L) / 7$ 

Environmental Pathway Quintiles - based off Febrauary 2021 HSL

Quintile	Surface	Water	Air		
1	<=	11.3	<=	1.2	
2	11.4	24.1	1.3	1.5	
3	24.2	32.5	1.6	13.8	
4	32.6	49.6	13.9	26.5	
5	>=	49.7	>=	26.6	

Environmental Priority Bin Score:

1.3

### **FINAL MATRIX RANKING**

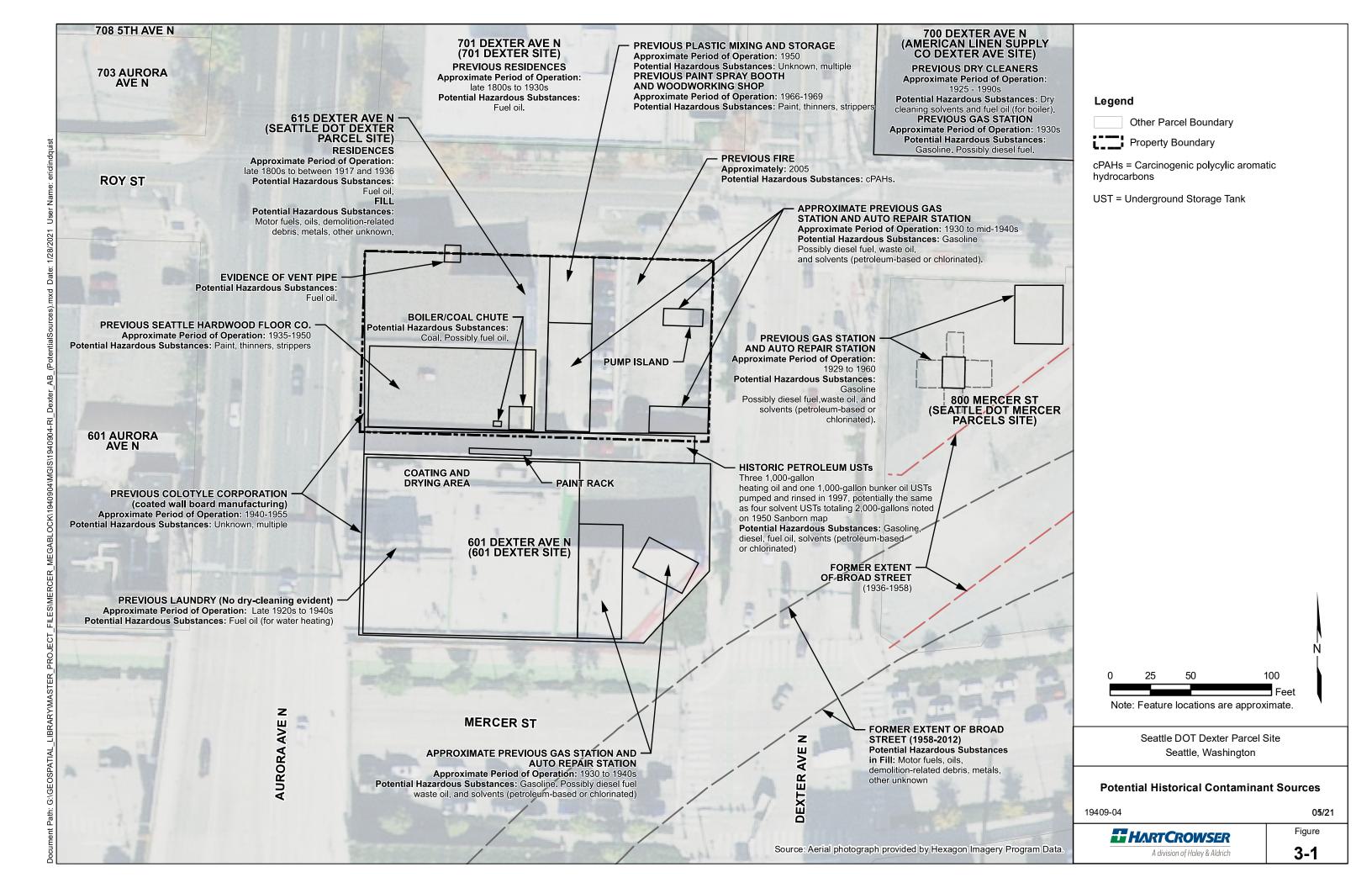
Human Health		ty				
Priority	5	4	3	2	1	n/a
5	1	1	1	1	1	1
4	1	2	2	2	3	2
3	1	2	3	4	4	3
2	2	3	4	4	5	3
1	2	3	4	5	5	5
n/a	3	4	5	5	5	NFA

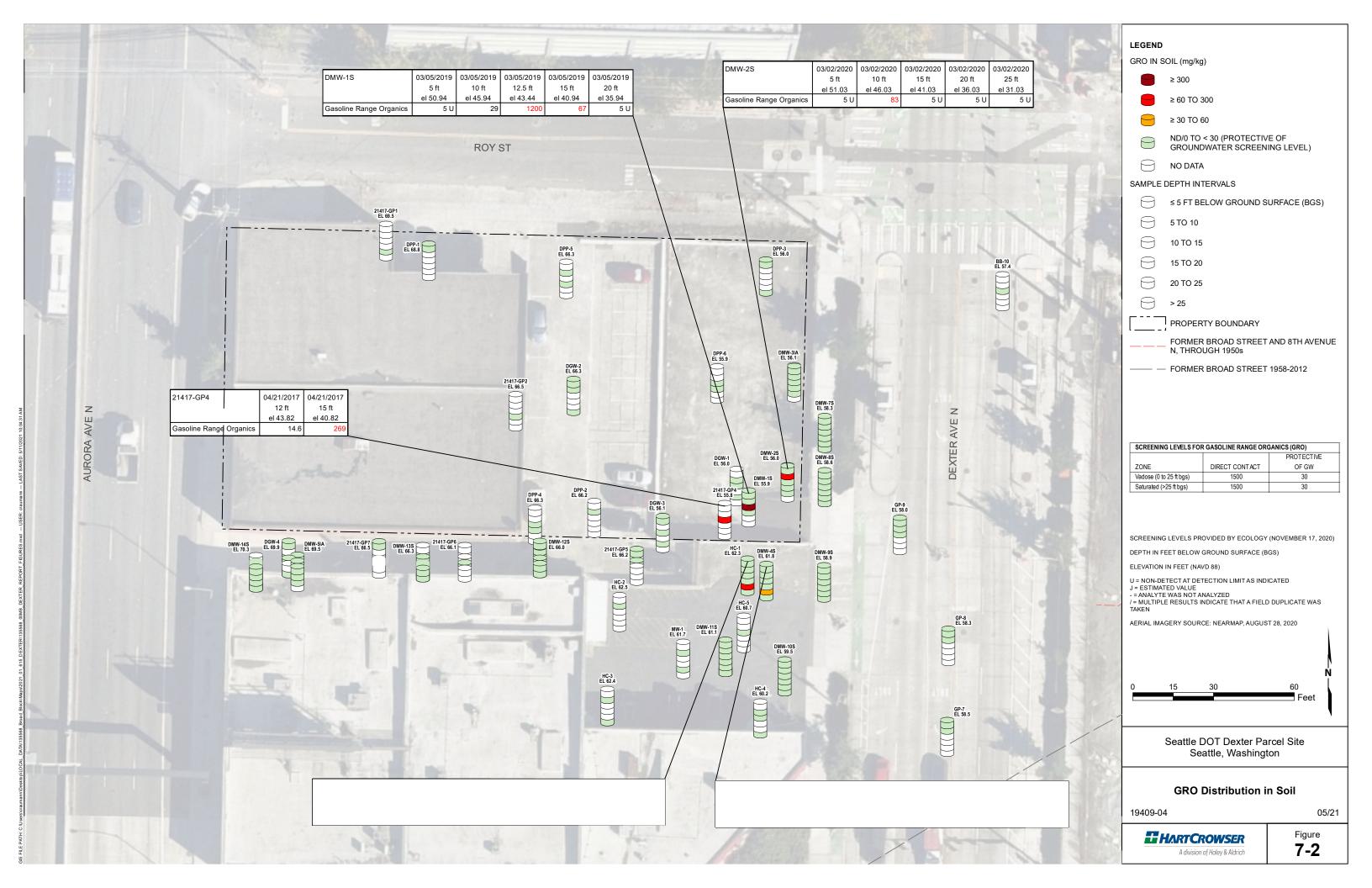
n/a - not applicable

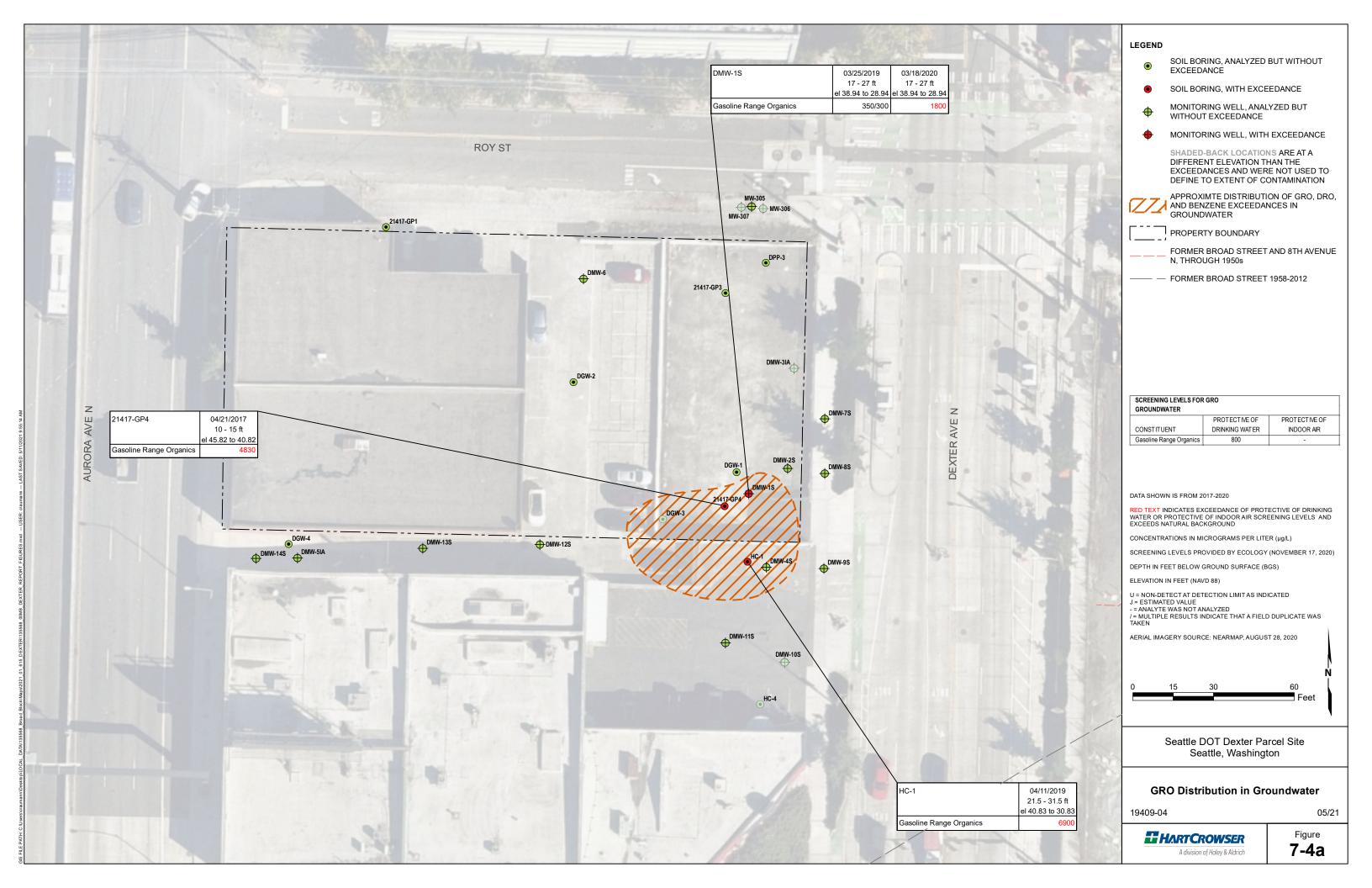
NFA - no further action

Site Rank:









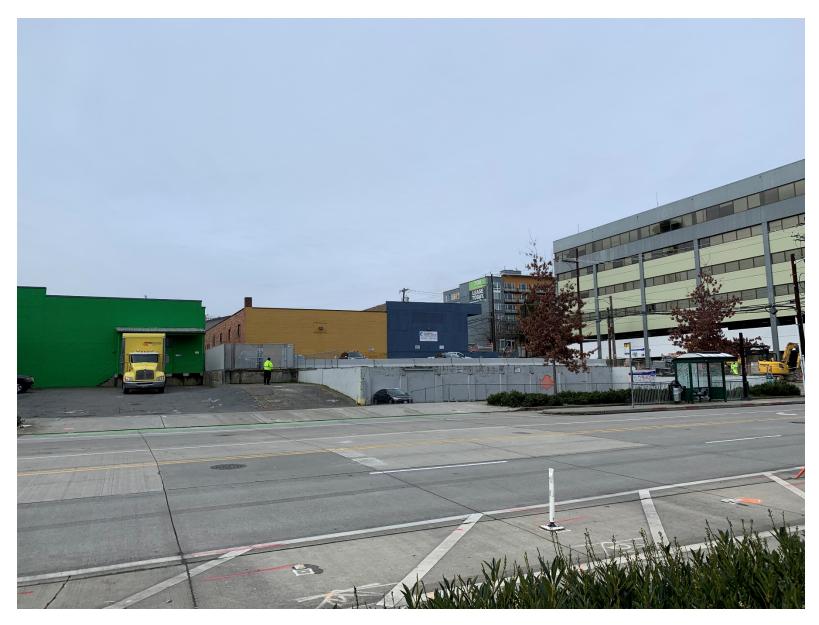


Figure 1. Dexter Parcel, looking west, February 2021.

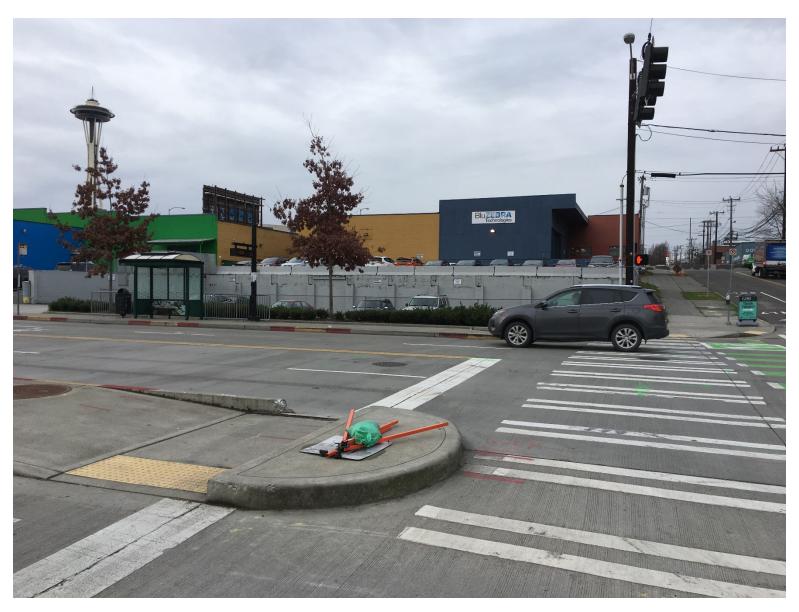


Figure 2. Dexter Parcel, looking west-southwest, December 2019.