SITE HAZARD ASSESSMENT
Worksheet 1
Summary Score Sheet

SITE INFORMATION:

Cleanup Site ID: 7321

Elliott Tire and Service Co Inc

Facility/Site ID: 94563865

1961 4th Ave S

Seattle, King County, WA 98134

Section:	8	Latitude:	47.58430
Township:	24N	Longitude:	-122.32955
Range:	4E	Tax/Parcel ID:	7666205155

Site Scored/ranked for the August 2013 Hazardous Sites List Publication

SITE DESCRIPTION:

The Elliott Tire and Service Co Inc site is a former Budget rental car facility located in Seattle, King County, Washington. The 0.42-acre property is located approximately 3,250 feet from the Duwamish River, and zoned for industrial (IG1 U/85) use.

Adjacent properties include 4th Ave S to the east, S Walker St to the south, and Third Ave S followed by the BNSF railroad to the west. Land use in the site vicinity is mixed commercial and industrial.

The site is currently operated as a tire service center by Flajole Family Partnership.

Current activities at the site include tire sales/repair and other automotive services.

The site is located in the SODO neighborhood of Seattle, at the northwest corner of 4th Street S and S Walker Street.

SITE BACKGROUND:

A summary of prior operations/tenants at the subject property is presented below.

From	To	Operator/Tenant	Activity
	2013	Elliott Tire and Service Co.	tire sales/repair
		Budget Rent-a-car	car rental

SITE CONTAMINATION:

In 2003 the Elliott Tire and Service Co Inc site was reported to Washington Department of Ecology and placed on the LUST list with ID number 6059.

Gasoline and diesel range hydrocarbon releases to subsurface soils were identified in 2003 during the removal of three USTs.

PAST REMEDIATION ACTIVITIES:

In 2003, six USTs were removed from the site. One diesel and three gasoline USTs were associated with petroleum stained soil, and it was noted that these tanks contained small to large holes. Approximately 921 tons of petroleum-impacted soil was removed and transported off-site for disposal. Confirmation soil sampling of the excavation indicated that soils onsite met MTCA cleanup levels, with the exception of one sample collected on the southern boundary of the subject property that contained TPH (as diesel) at a concentration of 3,800 mg/kg. The impacted soil remains in a lens beneath South Walker Street, and was left in-place due to access limitations. Based on field observations, Kleinfelder, Inc, estimates that less than 10 tons of petroleum-impacted soil associated with this release was left in place.

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CURRENT SITE CONDITIONS:

Based on Kleinfelder's field observation and analytical results, it was estimated (Kleinfelder, Inc., 2005) that less than 10 tons of petroleum-impacted soil remains in a lens beneath South Walker Street.

Diesel-range hydrocarbon contamination is present in the subsurface soils.

The approximate depth to groundwater is 11 feet below ground surface, with groundwater flowing to the west. Subsurface soils are medium grained sands.

SPECIAL CONSIDERATIONS:

Checked boxes indicate routes applicable for WARM scoring

☐ **Surface Water**

Release occurred in subsurface

☐ **Air**

Release of diesel in suburface not available to air route.

☑ **Groundwater**

Shallow groundwater is documented to be at approximately 11 feet bgs. Diesel impacted soil was noted at this approximate depth.

Water infiltrated into the excavations at a depth of 11 feet. No visible hydrocarbon sheen was present on groundwater and no groundwater samples were collected.

ROUTE SCORES:

Surface Water/ Human Health:		Surface Water/ Environment:	
Air/ Human Health:		Air/ Environment:	
Groundwater/ Human Health:	17.6		

Overall Rank: 5

REFERENCES:

WARM Toxicological Database

WARM Scoring Manual

Washington Department of Transportation 24-hour Isopluvial Maps, January 2006 update. http://www.wsdot.wa.gov/publications/fulltext/Hydraulics/Wa24hrIspoluvials.pdf

King County GIS Center iMAP application, Property Information, Groundwater Program, and Sensitive Areas mapsets. Accessed January 2013. http://www.kingcounty.gov/operations/GIS/Maps/iMAP.aspx

National Climatic Data Center 2011 Local Climatological Data for Seattle, Seattle Tacoma Airport. http://www1.ncdc.noaa.gov/pub/orders/IPS-90B1F39F-6CFA-4A6B-AA82-5ED1FF897CCC.pdf

Washington State Department of Health Source Water Assessment Maps. March 2011 update. https://fortress.wa.gov/doh/eh/dw/swap/maps/

Ecology Water Resources Explorer, accessed January 2013. https://fortress.wa.gov/ecy/waterresources/map/WaterResourcesExplorer.aspx

FEMA Map Service Center, accessed January 2013. https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1

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Missouri Census Data Center, Circular Area Profiles - 2010 census data around a point location. Http://mcdc.missouri.edu/websas/caps10c.html. Accessed February 2013

Kleinfelder Inc, 2005. UST Closure and Voluntary Cleanup Action Report Elliott Tire & Services Facility. March 2005

SITE HAZARD ASSESSMENT
Worksheet 2
Route Documentation

Cleanup Site ID: 7321 Elliott Tire and Service Co Inc

Facility/Site ID: 94563865

1. SURFACE WATER ROUTE

List those substances to be considered for scoring:

Not applicable

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:

Not applicable

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:

3. GROUNDWATER ROUTE

List those substances to be considered for scoring:

Diesel range hydrocarbons

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

Presence in shallow subsurface soils

List those management units to be considered for scoring:

Shallow groundwater

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

Petroleum contaminated soils were left in place at depths up to 10 feet. Shallow groundwater was noted to be at approximately 11 feet bgs.

Worksheet 6

Groundwater Route

CSID: 7321 **Site Name:** Elliott Tire and Service Co

1.0 Substance Characteristics

1.1 Human Toxicity

Substance	Drinking Water Standard Value	Acute Toxicity Value	Chronic Toxicity Value	Carcinogenicity Value
Diesel/naphthalene	6	5	3	ND

Highest Value 6

Bonus Points? 0

Toxicity Value 6

1.2 Mobility

Cations/Anions Max Value:

Solubility Max Value: 1 Mobility Value 1

1.3 Substance Quantity

Amount: 7 cubic yards of soil

Basis: Estimated volume of impacted soil remaining in-place

Substance Quantity Value 1

2.0 Migration Potential

2.1 Containment Containment Value 10

Explain Basis: Contaminated soil

2.2 Net Precipitation 10-20 inches Net Precipitation Value 2

2.3 Subsurface Hydraulic Conductivity Conductivity Value 3

Medium grained sand

2.4 Vertical Depth to Groundwater Depth to Aquifer Value 8

Less than 1 foot to groundwater

3.0 Targets

3.1 Groundwater Usage Aquifer Use Value 2

Groundwater used for irrigation

3.2 Distance to Nearest Drinking Water Well Well Distance Value 0

Not used for drinking water

3.3 Population Served within 2 Miles Population Served Value 0.00

0 population (estimated)

Worksheet 6

Groundwater Route

CSID: 7321 **Site Name:** Elliott Tire and Service Co

3.4 Area Irrigated by GW Wells within 2 miles Area Irrigated Value 1.50

4 acres

4.0 Release Release to Groundwater Value 0

Explain basis for scoring a release to groundwater:

No confirmed release

Pathway Scoring - Groundwater Route, Human Health Pathway

$GW_H = (SUB_{GH}*40/208)*[(MIG_G*25/17)+REL_G+(TAR_{GH}*30/165)]/24$

Where:

SUB_{GH} =(Human toxicity + mobility + 3) * (Containment + 1) + Substance Qty	SUB_{GH}	111
MIG_G=Depth to Aquifer+Net Precip + Hydraulic Conductivity	MIG_G	13
REL_G = Release to Groundwater	REL_G	0
TAR_{GH} = Aquifer Use + Well Distance + Population Served + Area Irrigated	TAR_{GH}	3.5
	GW_H	17.6

Legend:

- Property Location (approximate)
- Excavation Location (approximate)
- TP—Test Pit (approximate)

Notes:

1. All locations are approximate, and not to scale.

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Elliot Tire & Service Co, Inc.
1961 4th Avenue South
Seattle, WA 98134

DEPARTMENT OF ECOLOGY
State of Washington

Site Overview Map

CSID 7321

CSID7321.vsd

Washington Ranking Method
Route Scores Summary and Ranking Calculation Sheet

Site Name: Elliott Tire and Service Co **CSID:** 7321

Site Address: 1961 4th Ave S **FSID:** 94563865

HUMAN HEALTH ROUTE SCORES

Enter Human Health Route Scores for all Applicable Routes:

Pathway	Route Score	Quintile Group
Surface Water	ns	0
Air	ns	0
Groundwater	17.6	1

H=	1
M=	0
L=	0

$$\frac{H^2 + 2M + L}{8} = \frac{1 + 0 + 0}{8}$$

Human Health Priority Bin Score: **1**

rounded up to next whole number

ENVIRONMENT ROUTE SCORES

Enter Environment Route Scores for all Applicable Routes:

Pathway	Route Score	Quintile Group
Surface Water	ns	0
Air	ns	0

H=	0
L=	0

$$\frac{H^2 + 2L}{7} = \frac{0 + 0}{7}$$

Environment Priority Bin Score: **N/A**

rounded up to next whole number

Comments/Notes:

FINAL MATRIX RANKING **5**

FOR REFERENCE:

Final WARM Bin Ranking Matrix

Human Health Priority	Environment 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

Quintile Values for Route Scores

Quintile	Human Health: Surface Water	Human Health: Air	Human Health: Ground Water	Environment: Surface Water	Environment: Air
5	>= **27.0**	>= **32.0**	>= **50.6**	>= **47.1**	>= **30.3**
4	>= **17.3**	>= **21.1**	>= **40.4**	>= **30.2**	>= **25.3**
3	>= **11.0**	>= **13.4**	>= **31.4**	>= **22.2**	>= **17.0**
2	>= **5.0**	>= **7.2**	>= **22.4**	>= **10.6**	>= **6.2**
1	< **5.0**	< **7.2**	< **22.4**	< **10.6**	< **6.2**

Quintile value associated with each route score entered above