

CSID 3189

WORKSHEET 1  
SUMMARY SCORE SHEET

NFA

Site Name/Location (Street, City, County, Section/Township/Range, TCP ID Number):

Wondrack Distribution S-35 T-18 R-18  
15th and Waters TCP# C-19-2020-000  
Ellensburg WA 98926

Site Description (Include management areas, substances of concern, and quantities):

The site is a former bulk fuel facility that is no longer in use. The existing aboveground bulk tanks and the associated piping have been removed. A warehouse that was used to store oil and other lubricants in smaller containers was also removed. The only structure left on the site is a garage, that is used to store vehicles. The limited background history stated that the facility was previously owned by Chevron and then purchased by Mr. Wondrack. The business operated as a bulk fuel distribution center. It was in operation from 1920 until it ceased operation in 1986. The property surrounding the site is residential and open land. The residential is predominately on the south and east side of the site. The west and north side of the site is owned by the Washington State Parks Commission. This area includes the John Wayne Trail

During installation of a new sewer line by the City of Ellensburg along Water Street at the intersection of 15th, a long thick seam of Petroleum Contaminated Soil (PCS) was encountered in November 1995. The PCS seam was visually obvious and had a strong odor. The seam of PCS that was encountered extended for about 50-60 feet in the trench at a depth of about 3-6 feet. The contaminated seam was up to three feet in depth and was present on both sides of the trench. Samples of the contaminated soil were taken and found to contain very old kerosene. Ecology's research indicated that the kerosene was used during the 1940s and 1950s.

On March 26 - 28th, 1997, Kittitas County conducted field sampling of the site. The sampling included digging 12 test pits in and around the property. The test pits were dug until groundwater was encountered. On the average, groundwater was encountered between 4.5 and 5.0 feet. All samples were analyzed for WTPH -Gas/BTEX and WTPH-Diesel extended range. The samples that showed high concentrations of VOC's from field screening with a PID, were then also analyzed for Volatile Organics, SW Method 8240 GC/MS.

Sample concentrations were in the following ranges:

- WTPH-Gas - 600 mg/kg to 3900 mg/kg
- WTPH-Diesel - 390 mg/kg to 19,000 mg/kg
- Benzene - 0.23 mg/kg
- Total Xylenes - 49 mg/kg to 120 mg/kg
- Ethylbenzene - 3.9 mg/kg to 19 mg/kg
- Toluene - 1.8 mg/kg to 13 mg/kg

Special Considerations (Include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):

*Since significant contamination at this site is predominately subsurface, therefore, only the groundwater route is applicable for scoring under the Washington Ranking Method (WARM).*

ROUTE SCORES:

Surface Water/Human Health: NS      Surface Water/Environ.: NS  
 Air/Human Health: NS      Air/Environmental: NS  
 Ground Water/Human Health: 73.1

OVERALL RANK: 2

**WORKSHEET 2**  
**ROUTE DOCUMENTATION**

**1. SURFACE WATER ROUTE**

List those substances to be considered for scoring:

Source: NS

*Not applicable / Not scored*

Explain basis for choice of substance(s) to be used in scoring.

List those management units to be considered for scoring:

Source:    

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

Source:    

**2. AIR ROUTE**

List those substances to be considered for scoring:

Source: NS

*Not applicable / Not scored*

Explain basis for choice of substance(s) to be used in scoring.

List those management units to be considered for scoring:

Source:    

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

Source:

**WORKSHEET 2 (CONTINUED)**  
**ROUTE DOCUMENTATION**

**3. GROUND WATER ROUTE**

List those substances to be considered for scoring:

Source: 3

*TPH as gasoline TPH as diesel, and xylene*

Explain basis for choice of substance(s) to be used in scoring.

*The above substances were detected at elevated concentrations in subsurface soils at the soil/groundwater interface in excess of MTCR clean up levels.*

List those management units to be considered for scoring:

Source: 3

*Contaminated subsurface soil*

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

*Analytical Results*

**WORKSHEET 3 (If Required)**  
**SUBSTANCE CHARACTERISTICS WORKSHEET**  
**FOR MULTIPLE UNIT/SUBSTANCE SITES**

Combination 1   Combination 2   Combination 3

Unit:

**1. SURFACE WATER ROUTE**

Substance(s):  
 Human Toxicity Value:  
 Environ. Toxicity Value:  
 Containment Value:  
 Rationale:

Surface Water Human

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 Subscore: ( +3)( +1)=   ( +3)( +1)=   ( +3)( +1)=  
                   ( X ) = \_   ( X ) = \_   ( X ) = \_

Surface Water Environ.

Subscore: ( +3)( +1)=   ( +3)( +1)=   ( +3)( +1)=  
                   ( X ) = \_   ( X ) = \_   ( X ) = \_

**2. AIR ROUTE**

Substance(s):  
 Human Toxicity/Mobility Value:  
 Environ. Toxicity/Mobility Value:  
 Containment Value:  
 Rationale:

Air Human Subscore: ( +3)( +1)=   ( +3)( +1)=

( +3)( +1)=

( X ) = \_   ( X ) = \_   ( X ) = \_

Air Environ. Subscore: ( +3)( +1)=   ( +3)( +1)=   ( +3)( +1)=

( X ) = \_   ( X ) = \_   ( X ) = \_

**3. GROUND WATER ROUTE**

Substance(s):  
 Human Toxicity Value:  
 Containment Value:  
 Rationale:

Ground Water Subscore: ( +3)( +1)=   ( +3)( +1)=

( +3)( +1)=

( X ) = \_   ( X ) = \_   ( X ) = \_

Based on their respective highest scoring toxicity/containment combinations, the following management units will be used for route scoring:

- Surface Water -
- Air -
- Ground Water -

**WORKSHEET 6  
GROUND WATER ROUTE**

**1.0 SUBSTANCE CHARACTERISTICS**

**1.1 Human Toxicity**

| Substance       | Drinking Water Standard (ug/l) | Val. | Acute Toxicity (mg/kg-bw) | Val. | Chronic Toxicity (mg/kg/day) | Val. | WOE | Carcinogenicity PF* | Val. |
|-----------------|--------------------------------|------|---------------------------|------|------------------------------|------|-----|---------------------|------|
| 1. WTPH - Gas   | 5                              | 8    | 3306                      | 3    | -                            | -    | A   | 0.029               | 5    |
| 2. Xylene       | 10000                          | 2    | 50                        | 10   | 2                            | 1    | D   | -                   | -    |
| 3. WTPH- Diesel | 20                             | 6    | 490                       | 5    | .004                         | 5    | D   | -                   | -    |

Potency Factor

Source: 1

Highest Value: 10  
(Max.=10)

+2 Bonus Points? 2

Final Toxicity Value: 12  
(Max.=12)

**1.2 Mobility (Use numbers to refer to above listed substances)**

Cations/Anions: 1= ; 2= ; 3= ; 4= ; 5=  
6=

Source: 2 Value: 3  
(Max.=3)

OR

Solubility(mg/l): 1=  $1.8E + 03$  ; 2=  $2.0E + 02$  ;  
3=  $3.0E + 01$

**1.3 Substance Quantity: 8000 ft<sup>3</sup> or 296 yd<sup>3</sup>**

Explain basis: Field Estimates  
80 ft X 20 ft X 5ft

Source: 2, 3 Value: 3  
(Max.=10)

**2.0 MIGRATION POTENTIAL**

**2.1 Containment**

Explain basis: Discharge to groundwater from subsurface soil contamination

Source: 3 Value: 10  
(Max.=10)

2.2 Net Precipitation: 2.9 inches

Source: 7 Value: 1  
(Max.=5)

2.3 Subsurface Hydraulic Conductivity: > 1 x 10<sup>-3</sup>

Source: 2, 3 Value: 4  
(Max.=4)

2.4 Vertical Depth to Ground Water: 0 feet

Source: 2, 3 Value: 8  
(Max.=6)

**WORKSHEET 6 (CONTINUED)**  
**GROUND WATER ROUTE**

**3.0 TARGETS**

- 3.1 Ground Water Usage: Private alternate sources available with minimum hook up Source: 2 Value: 4  
(Max.=10)
- 3.2 Distance to Nearest Drinking Water Well: 1000 ft Source: 12 Value: 4  
(Max.=5)
- 3.3 Population Served within 2 Miles:  $\sqrt{\text{pop.}} = \sqrt{13000} =$  Source: 12 Value: 100  
(Max.=100)
- 3.4 Area Irrigated by (Groundwater) Wells  
within 2 miles:  $0.75 \sqrt{\text{no. acres}} = 154$  Source: 13 Value: 9.3  
 $0.75 \sqrt{0} = 0.75 (154) = 9.3$  (Max.=50)

**4.0 RELEASE**

- Explain basis for scoring a release to ground water: During field sampling visible sheen on groundwater Source: 3 Value: 5  
(Max.=5)

**SOURCES USED IN SCORING**

1. *Washington Department of Ecology, Toxicology Database for use in WARM Scoring, January 1992.*
2. *Washington Department of Ecology, WARM Scoring Manual April 1992.*
3. *Subsurface Field Investigation by Kittitas County, March 26 -28, 1997.*
4. *USGS 7.5 minute Topographic Quadrangle - North and South Ellensburg*
5. *Flood Insurance Rate Map Kittitas County, Washington - Community - Panel Number 530095 0557B, May 1981.*
6. *USDA Soil Conservation Survey, Soil Survey of Kittitas County 1945 and 1995.*
7. *Washington Climate for Kittitas County, May 1979.*
8. *Office of Finance Management Population Projects*
9. *Kittitas County Planning Department GIS.*
10. *Sole Source Aquifers in the State of Washington, EPA 1995.*
11. *Water well report, state of Washington.*
12. *City of Ellensburg Water Plan.*
13. *Water rights database, Department of Health, Spokane.*