

WORKSHEET 2
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE

List those substances to be considered for scoring:
Not applicable to site/not scored.

Source: NS

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:
Not applicable to site/not scored.

Source: NS

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:
TPH as diesel

Source: 8

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

During a Tracer tank/line test, a 2 inch fiberglass line was penetrated causing a diesel release, diesel was detected at concentrations in excess of MTCA clean up levels.

List those management units to be considered for scoring:
Subsurface soil and groundwater.

Source: 8

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

Subsurface soil samples exceeded MTCA clean up levels and a .5 inch product thickness was documented on top of the groundwater.

**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

Subscore: (+3)(+1)= (+3)(+1)= (+3)(+1)=
 () () = _ () () = _ () () = _
Surface Water Environ.

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

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)=
 () () = _ () () = _ () () = _

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

3. GROUND WATER ROUTE

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

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

(+3)(+1)=
 () () = _ () () = _ () () = _

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.		Carcinogenicity WOE PF* Val.	
	1. TPH as diesel	20	6	490	5	0.004	3	-
2.								
3.								
4.								
5.								
6.								

*Potency Factor Source: 1
 Highest Value: 6 (Max.=10)
 +2 Bonus Points? _____
 Final Toxicity Value 6 (Max.=12)

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

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

Source: 1 Value: 1 (Max.=3)

OR

Solubility(mg/l): 1= 30 mg/L ; 2= ; 3= ; 4= ; 5= ;
 6= _____

1.3 Substance Quantity: 8400 gallons of diesel released
 Explain basis: Greater than 16.8 cubic yards

Source: 8, 14 Value: 5 (Max.=10)

2.0 MIGRATION POTENTIAL

2.1 Containment

Explain basis: Discharge for underground storage tank
WARM assigns value of 10.

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

2.2 Net Precipitation: 26.0 inches

Source: 7 Value: 3 (Max.=5)

2.3 Subsurface Hydraulic Conductivity: >10⁻³

Source: 6, 8 Value: 4 (Max.=4)

2.4 Vertical Depth to Ground Water: 0 feet

Source: 8 Value: 8 (Max.=8)

WORKSHEET 6 (CONTINUED)
GROUND WATER ROUTE

3.0 TARGETS

- | | |
|--|---|
| 3.1 Ground Water Usage: <u>Public supply/alternative sources</u> | Source: <u>5</u> Value: <u>4</u>
<small>(Max.=10)</small> |
| 3.2 Distance to Nearest Drinking Water Well: <u>3000 ft</u> | Source: <u>3</u> Value: <u>2</u>
<small>(Max.=5)</small> |
| 3.3 Population Served within 2 Miles: $\sqrt{\text{pop.}} = \sqrt{2500} = 50$ | Source: <u>3, 5</u> Value: <u>50</u>
<small>(Max.=100)</small> |
| 3.4 Area Irrigated by (Groundwater) Wells
within 2 miles: $0.75 \sqrt{\text{no. acres}} = 139$
<u>$0.75 \sqrt{\quad} = 0.75 (88) = 9$</u> | Source: <u>15</u> Value: <u>9</u>
<small>(Max.=50)</small> |
| 4.0 RELEASE
Explain basis for scoring a release to ground
water: <u>.5 inch liquid phase or groundwater</u>

_____ | Source: <u>8</u> Value: <u>5</u>
<small>(Max.=5)</small> |

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. USGS 7.5 minute Topographic Quadrangle - Cle Elum - Washington.
4. Flood Insurance Rate Map Kittitas County, Washington - Community - Panel Number 530095 0261B May 1981.
5. City of Cle Elum Comprehensive Plan Draft I, February 28, 1995.
6. USDA Soil Conservation Survey, Soil Survey of Kittitas County.
7. Washington Climate for Kittitas County, May 1979.
8. Underground storage tank decommissioning and site assessment for De Vere and Son's Dist., Inc., July 15, 1994.
9. NOAA Atlas 2, Volume LX, Isopluvials of 2 yr., 24 hr precipitation in tenths of an inch, US Dept. Of Commerce.
10. Kittitas County Department of Solid Waste Site Hazard Assessment Field Investigations on April 24, 1996.
11. National Wetland Inventory, map Cle Elum, Washington.
12. Water Well Report, State of Washington.
13. Sole Source Aquifers in the State of Washington, EPA 1995.
14. Pacific Northern Environmental letter to Ecology dated March 18, 1994.
15. Water Rights Information System, Washington Department of Health, Spokane