

CSID 209

WORKSHEET 1
SUMMARY SCORE SHEET

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

Tidewater Snake River Terminal Co.
671 Tank Farm Road
Pasco, Franklin County, WA 99301
Longitude: 119.00° 1' 44.82"
Latitude: 46.00° 13' 16.68"

Sec 35/T9N/R30E
Ecology Facility Site ID 96655412

Site scored/ranked for 08/27/02 update

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

The Tidewater facility is currently an active storage terminal for petroleum and agriculture products. The site is located along the Snake River east of Pasco, Washington. The terminal site has numerous above ground storage tanks and product transmission lines. The products stored at the terminal are currently shipped through pipelines, on barges, and by tanker truck. In the past, some products were loaded onto railroad tank cars.

The site came to State Department of Ecology's (DOE) attention on February 20, 1998 after the removal of an UST containing Bunker C range petroleum. This release is considered to be a separate issue from the Tidewater Fuel Line Leak (TFL) from their underground pipeline, which crosses over into the Chevron property which was ranked in August 2001.

Site Remediation

On February 19, 1998 Poland and Sons removed a 12,000 gallon underground heating oil storage tank. This tank stored Bunker C fuel for the boiler located in the building adjacent to the tank. After removal, soil below the UST was observed to be stained by the heating fuel. The UST was inspected and four small holes were observed. The release was reported to DOE on February 20, 1998.

On February 23 and 24, 1998, Poland and Sons excavated approximately 400 cubic yards of the impacted soil. TCM Northwest Inc. was hired as environmental consultant and collected soil samples through the excavation project. The impacted soil was removed from the site and disposed of at Finley Buttes Landfill Co. located in Boardman, Oregon. The excavation was limited by the building housing the boiler to the east and a large above ground storage tank (Tank 50) to the south.

Soil samples were taken at the limits of the excavation and submitted to American Environmental Network, Inc. (AEN) of Portland, Oregon and analyzed for NWTPH-DX. Soil tested from the east sidewall contained 1,400 mg/kg in the C10-C28 range and 900 mg/kg in the C28-C32 range, which is below Ecology's clean-up levels for both carbon ranges. Soil tested on the south sidewall contained 16,000 mg/kg in the C10-C28 range and 4,900 mg/kg in the C28-C32 range. These are well over the Ecology's Method A Clean-up Level of 2,000 mg/kg in both Carbon ranges. TMC Northwest estimated 33 cubic yards of contaminated soil was left adjacent to Tank 50 based on impacted excavated soil to the north and west sidewalls.

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):

Some remediation has occurred at the site and the only remaining contaminated soil appears under and adjacent to Tank 50. Removal of additional soil would endanger the structural integrity of the tank. Also the Tidewater facility has containment bunkers surrounding the perimeter of the site reducing possibility of surface water runoff in the area of the left contaminated soil. Due to these facts only the ground water route was scored.

While investigating possible targets certain well considerations became apparent. One, the public water supply well located at the Tidewater facility is not suitable for drinking due to contamination by tetrachloroethylene and high nitrate levels according to the Washington State Department of Health. Two, many wells which were once public water supplies have been converted to irrigation wells only, and the houses being served connected to City of Pasco Water due to a previous contamination plume from the Pasco Landfill.

ROUTE SCORES:

Surface Water/Human Health:	<u>N/A</u>	Surface Water/Environ:	<u>N/A</u>
Air/Human Health:	<u>N/A</u>	Air/Environmental:	<u>N/A</u>
Ground Water/Human Health:	<u>25.8</u>		

OVERALL RANK: 5

WORKSHEET 2 - ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE - Not Applicable/ Not Scored

2. AIR ROUTE - Not Applicable/Not Scored

3. GROUND WATER ROUTE

List those substances to be considered for scoring: Source:1,2

TPH as Diesel in the C10-C29 range
Heavy Oil in the C28-C32 range

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

Analytical results from soil samples showed concentrations greater than their respective Method A MTCA cleanup levels at the limits of the excavation.

List those management units to be considered for scoring: Source:1,2

Contaminated soil/groundwater.

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

Chemical analyses of on-site sub-surface soils indicated concentrations of diesel and heavy oil still present above Method A MTCA cleanup levels.

WORKSHEET 6
GROUND WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity		
	(ug/l)	Val.	(mg/kg-bw)	Val.	(mg/kg/day)	Val.	WOE	PF*	Val.
1. Diesel	20	6	490	5	0.004	3	-	-	ND
2. Heavy Oils	-	ND	-	ND	2	1	-	-	ND

*Potency Factor Source: 1,4,5
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: _____ Source: 1,5 Value: 1
(Max.=3)

Or

Solubility(mg/l): 1) 3.0E+01=1

1.3 Substance Quantity: Estimated 33 cubic yards Source: 1,5 Value: 2
Explain basis: Based on excavation of impacted
soils to north and west sidewalls of the cavity.
Cubic Yards of >10 -100 = 2. (Max.=10)

2.0 MIGRATION POTENTIAL

2.1 Containment Source: 1,5 Value: 10
Explain basis: Spills, underground storage tank
and contaminated soil no cover score 10. (Max.=10)

2.2 Net Precipitation: 5.0 -4.1 = 0.90 inches Source: 5,8 Value: 1
(Max.=5)

2.3 Subsurf.Hydraul.Conduct.: sand and gravel Source: 1,5 Value: 4
(Max.=4)

2.4 Vertical Depth to Ground Water: <25 feet Source: 2,5 Value: 8
(Max.=8)

WORKSHEET 6 (CONTINUED)
GROUND WATER ROUTE

3.0 TARGETS

- 3.1 Ground Water Usage: There is a couple of small public water supplies within the 2 mile radius which have no alternate unthreatened sources available with minimal hookups. Source: 5,6,7 Value: 9
(Max.=10)
- 3.2 Dist. to Nearest Drinking Water Well: 1,300-2,640 Source: 5,6 Value: 3
(Max.=5)
- 3.3 Population Served within 2 Miles: (86)^{1/2} = 9.27 Source: 5,9,10 Value: 09
(Max.=100)
- 3.4 Area Irrigated by (Groundwater) Wells
within 2 miles: 1782.5 acres Source: 5,7 Value: 32
0.75(1982.5)^{1/2} = 31.66; (Max.=50)
Determined by using map of
irrigated land within a 2
mile radius.
- 4.0 RELEASE
Explain basis for scoring a release to ground water: No analytical test have been preformed to determine if a release to ground water has occurred. Source: 1,5 Value: 0
(Max.=5)

SOURCES USED IN SCORING

1. Subsurface Soil Remedial Excavation and Sampling Report, October 13, 1998, TCM Northwest Inc., for Tidewater Terminal Co., 671 Tank Farm Rd., Pasco, Washington.
2. Comprehensive Site Evaluation Report, April 19, 2001, URS, for Chevron Pipe Line Company, Pasco Bulk Terminal, Pasco, Washington.
3. Site Hazard Assessment Site Visit by Clifford Bates and Kay Rottell, April 26, 2002.
4. Washington Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992.
5. Washington Department of Ecology, WARM Scoring Manual, April 1992.
6. U.S. EPA SITEINFO GIS Query for lat./long. of Chevron site.
7. Irrigated Land Map by Franklin County Conservation District.
8. Washington Climate for Benton, Franklin Counties, Cooperative Extension Services, College of Agriculture, Washington State University.
9. Public Water Supply Files, Benton Franklin Health District, 800 W. Canal Dr., Kennewick, Washington.
10. Well Log Files, Washington State Department of Ecology, Spokane, Washington.

WASHINGTON RANKING METHOD

ROUTE SCORES SUMMARY AND RANKING CALCULATION SHEET

Site Name: Tidewater Snake River Terminal Co. Region: Eastern

Street, City, County: 671 Tank Farm Rd. Pasco, WA Franklin County

Facility ID: 96655412

This site was (X) ranked, () re-ranked, on June 25, 2002 based on the August 28, 2001 quintile values from a total of 771 assessed/scored sites.

Pathway	Route Scores	Quintile Group number(s)	Priority scores:
			$1^2/8 = 1/8 = 1/8$
SW-HH	<u>NS</u>	<u>N/A</u>	$\frac{H^2 + 2M + L}{8} = \underline{1}$
Air - HH	<u>NS</u>	<u>N/A</u>	Round to nearest whole number.
GW-HH	<u>25.8</u>	<u>1</u>	
SW-En	<u>NS</u>	<u>N/A</u>	$\frac{H^2 + 2L}{7} = \underline{N/A}$
Air-En	<u>NS</u>	<u>N/A</u>	

Use the matrix presented to the right, along with the two priority scores, to determine the site ranking. N/A refers to where there is no applicable pathway (e.g. typically with ground water route-only sites).

	Human Health					Environment
	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

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/ FINAL

Matrix ("bin") Ranking: 5 , No Further Action

CONFIDENCE LEVEL: The relative position of this site within this bin is:
 almost into the next higher bin.
 right in the middle, unlikely to ever change.
 almost into the next lower bin.