SITE HAZARD ASSESSMENT

WORKSHEET 1

Summary Score Sheet

SITE INFORMATION:
Dawson Trucking
3537 Waitts Lake So. Road
Valley, Stevens County, WA 99181
Section/Township/Range: S17/T31N/R40E
Latitude: 48.18736 Longitude: -117.80465
Ecology Facility Site ID No.: 29392677
Cleanup Site ID No.:8618

Site scored/ranked for the February 2012 update

SITE DESCRIPTION (management areas, substances of concern, and quantities):

Dawson Trucking operated an equipment shop with diesel fuel storage and dispensing facilities to service trucks and equipment used in a commercial aggregate hauling business. The site is located in the resort community of Waitts Lake, Washington and was in operation from 1980 until 1995. Diesel service was provided by two (2) underground storage tanks (UST's). One (1) 8,000 gallon tank and one (1) 6,000 gallon tank were installed approximately 250 feet north of Waitts Lake and approximately 3,000 feet west of community drinking water wells. Wells in the area identify a confined aquifer at a depth of 50 feet below ground surface (bgs). On February 6, 1995, Washington State Department of Ecology (Ecology) responded to reports of diesel contamination discovered during UST removal.

BACKGROUND/ENVIRONMENTAL SAMPLING

On February 6, 1995, Darrell Lund of Petroleum Systems and Service, notified Ecology that a release of diesel fuel had occurred at the Dawson Trucking site. Both tanks were excavated and removed from the property. During the removal process it was determined that the 8,000 gallon tank was structurally sound and the 6,000 gallon tank had a hole in the bottom of the tank. Perched groundwater found in the bottom of the excavation from the 6,000 gallon tank had free product (diesel) floating on the surface while water in the excavation from the 8,000 gallon tank only exhibited a slight sheen. A 6 foot deep test pit was excavated approximately 20 feet south of the tanks to determine if contamination had migrated down gradient of the release site. The pit was allowed to fill with water and when sampled, a ¼ inch layer of diesel was observed on the surface. Mr. Lund informed Ecology that the observed diesel layer may have been the result of excessive soil washing and proposed to dig additional pits for further investigation. Notes from Mr. Lund indicate that no water or diesel was observed in the two (2) additional pits, yet an oily smell was noted in one of the pits. In a February 28, 1995 letter to Ecology, Mr. Lund proposed the installation of three (3) monitor wells to "determine spread of contamination and depth to water".

On September 16, 2005, Ecology contacted Darrell Lund to request additional information pertaining to the cleanup work at the site. Mr. Lund stated that because all contaminated water was pumped from

the excavations and all contaminated soils were hauled off site for remediation, it was his understanding that cleanup efforts were sufficient and no additional mitigation would be needed. He was unable to provide any additional documentation, as he was no longer providing remediation work and he had destroyed his past records.

An SHA site visit was conducted on July 25, 2011, by Bryan Hunt (NETCHD). The property owner, Mr. Denis Dawson was also present at the time of inspection. In addition to providing details pertaining to the cleanup and identifying the locations of the former UST's, Mr. Dawson also provided access to the site where soils remediation took place.

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):

The scoring and ranking of this site is based on the February 6, 1995 Initial LUST Report completed by Ecology which indicates that a release of petroleum had occurred. No sample results of any kind were submitted to Ecology for review, but because free product (Diesel) was observed in the excavation, it is assumed that the release exceeds MTCA Method A cleanup levels in soil. No new sampling data was generated during the SHA process. The scoring is based on the potential to impact the deeper aquifer. Not enough information is available to determine if the perched groundwater is interconnected to the deeper aquifer. The ranking represents the overall relative threat to human health and the environment based on Washington Ranking Method (WARM) scoring elements.

ROUTE SCORES:

Surface Water/Human Health:	0	Surface Water/Environmental:	0
Air/Human Health:	0	Air/Environmental:	0
Groundwater/Human Health:	22.8		

OVERALL RANK: 5

WORKSHEET 2
Route Documentation

1. **GROUNDWATER ROUTE**

   a. List those substances to be considered for scoring: Source: 1-7

      TPH as Diesel

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

      TPH levels detected in subsurface soils and excavated soil stockpiles, assumed to exceed acceptable regulatory levels.

   c. List those management units to be considered for scoring: Source:1-8

      Contaminated subsurface soils.

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

      The contaminating substance was detected in sub-surface soils and excavated soil stockpiles at the site in significant concentrations compared to the acceptable regulatory levels.

WORKSHEET 6
Groundwater Route

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity										
	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity		Value
								WOE	PF*	
1	TPH (diesel)	160	4	490 (rat)	5	.004	3	X	X	X

* *Potency Factor*

Source: 1-8
Highest Value: 5
(Max = 10)
Plus 2 Bonus Points?
Final Toxicity Value: 5
(Max = 12)

1.2 Mobility (use numbers to refer to above listed substances)	
Cations/Anions OR	Solubility (mg/L)
1=	1= TPH (diesel) 30
2=	2=

Source: 8
Value: 1
(Max = 3)

1.3 Substance Quantity:	
Explain basis: Approximately 325 cu. yds. of excavated soil removed and remediated off site. Volume estimated by assuming 1 foot of soil being deposited over 8,800 sq. ft. (area delineated at time of SHA by Mr. Dawson)	Source: 1-8 **Value: 3** (Max=10)

3.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** For all spills, discharges and contaminated soil, assign a containment value of 10	1-8	**10** (Max = 10)
2.2	**Net precipitation:** 23"	9	**3** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** Sand/Gravel - Clay @ depth	8,14	**2** (Max = 4)
2.4	**Vertical depth to groundwater:** 50 feet to static water level	1-8	**6** (Max = 8)

4.0 TARGETS

		Source	Value
3.1	**Groundwater usage:** Public supply, unthreatened alts. available	11,15	4 (Max = 10)
3.2	**Distance to nearest drinking water well:** 1300 ft.	11,15	4 (Max = 5)
3.3	**Population served within 2 miles:** √890 =29.83 = 29	12,15	29 (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles: (0.75)*√ 0 acres 0 = 0**	10	0 (Max = 50)

5.0 RELEASE

	Source	Value
Explain basis for scoring a release to groundwater: Free product observed floating on water in test pits down gradient from UST locations.	1-8	5 (Max = 5)

SOURCES USED IN SCORING

1. Initial Investigation Report, Dawson Trucking, Valley, WA, Ecology, February 6, 1995.
2. Fax to Ecology, Dawson Trucking, Valley, WA, Petroleum Systems and Service, February 17, 1995.
3. Memo to Ecology, Dawson Trucking, Valley, WA, Petroleum Systems and Service, February 28, 1995.
4. Initial Investigation Data Sheet, Dawson Trucking, Valley, WA, Ecology, February 28, 1995.
5. Telephone Report, Dawson Trucking, Valley, WA, Ecology, September 16, 2005.
6. SHA site visit by Bryan Hunt, Northeast Tri-County Health District, July 25, 2011.
7. Washington Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992
8. Washington State Department of Ecology, WARM Scoring Manual, April 1992.
9. PRISM Data Explorer – Net Rainfall.
10. Washington Department of Ecology, Water Rights Application System (WRATS) printout for two-mile radius of site.
11. Washington Department of Ecology, Washington State Well Log Images Map printout for two-mile radius of site.
12. Washington Department of Health, Sentry Internet Database printout for public water supplies.
13. USGS Topographic map for site area.
14. USDA NRCS, Web Soil Survey
15. Stevens County GIS Maps