CSID 6660

WORKSHEET 1
SUMMARY SCORE SHEET

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

Chevron Service Station #9-6590
232 Woodin Avenue, Chelan, WA 98816
Chelan County
Longitude:
Latitude:

STR: NE1/4, SW1/4: Sec 18; T27N, R23E
Ecology Facility Site ID: 77751227

Site scored/ranked: August 27, 2002 update

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

The Chevron Station operates in downtown Chelan. The surrounding area is urban. Four UST are located along the north side of the site. The station building is on the south side of the site. The fuel dispensers are between the tanks and the building. There is a large parking lot to the south west of the site. Interwest Bank is to the west, a retain complex to the south. Woodin Ave. is along the north side and Saunders Rd. is along the east side of the site. There are eight monitoring wells on the Chevron property and eight on neighboring property to the west and southwest.

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

There is significant ground water contamination documented on-site. The groundwater-monitoring event in January 2002 found six wells with free product in them. A map of the wells is attached. The well numbers and product thickness are listed below.

MW-7: 0.03 feet
MW-9: 0.05 feet
MW-10: 6.60 feet
MW-12: 4.68 feet
MW-15: 0.54 feet
MW-16: 6.89 feet

The thickness of free product in MW-16 indicates the contamination has migrated more than a block away from the site (toward Lake Chelan). Therefore, ground water route will be scored.

Soil samples were collected from the soil borings taken on June 1, 2001 and September 19-20, 2001. Contamination from gasoline was found in two soil samples. These two sites are under pavement and not exposed to the surface water or air routes. Due to the significant contamination documented on-site being primarily subsurface, the surface water and air routes are not applicable for WARM scoring for this site.

ROUTE SCORES:

Surface Water/Human Health: NS
Air/Human Health: NS
Ground Water/Human Health: 50.6

Surface Water/Environmental: NS
Air/Environmental: NS

OVERALL RANK: 3

WORKSHEET 2
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE: Not scored

2. AIR ROUTE: Not scored

3. GROUND WATER ROUTE

List those substances to be considered for scoring: Source: 1, 2
Benzene (from gasoline), toluene, ethylebenzene, xylene, TPH as diesel.

Explain basis for choice of substance(s) to be used in scoring:
These substances are present in the test results from the August 17, 2001, the November 9, 2001 and January 2002 sampling events. The results are above MTCA Method A cleanup levels.

List those management units to be considered for scoring: Source: 1, 2
Contaminated subsurface soils and ground water.

Explain basis for choice of unit to be used in scoring:
Leaking underground storage system caused contaminated subsurface soils and ground water. Chemical analyses of on-site soils indicated significant concentrations of substances of concern.

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.	Carcino-genicity WOE	PF*	Val.
1. Benzene	5	8	3		ND				5
2. ethylebenzene	700	4	3		1				ND
3. toluene	2,000	2	3		1				ND
4. xylene (mixed)	10,000	2	10		1				ND
5. TPH as diesel	20	6	5		3				ND

*Potency Factor

Source: 1, 2
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)

Source: 1, 2 **Value: 3**
(Max.=3)

Cations/Anions: N/A
Or
Solubility(mg/l): Substance present as a free liquid. (Note B in source 4)

1.3-Substance Quantity: Unknown quantity, use default value

Source: 4 **Value: 1**
(Max.=10)

Explain basis: The thickness of free product is variable and not present in all monitoring wells. The default value of 1 is used as suggested by Michael Spencer during the 6/17/02 training session. However, the volume may be in the thousands of gallons)

2.0-MIGRATION POTENTIAL

2.1-Containment

Source: 1, 2 **Value: 10**
(Max.=10)

Explain basis: LUST, no containment

2.2-Net Precipitation: Nov-April 7.1" rain – 2.8" ET = 4.3"

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

2.3-Subsurface Hydraulic Conductivity: Source 1-Silty sand, silts and sand. Source 8-Chelan gravelly silt loam

Source: 8 **Value: 4**
(Max.=4)

2.4-Vertical Depth to Ground Water: Observed release = 0'

Source: 1, 2 **Value: 8**
(Max.=8)

3.0-TARGETS

3.1-Ground Water Usage: The City of Chelan's Public water supply is the Lake. The private drinking water wells outside the City's service area have no other known source available.

Source: 6 **Value: 5**
(Max.=10)

3.2-Distance to Nearest Drinking Water Well: 2,600 feet

Source: 6 **Value: 3**
(Max.=5)

3.3-Population Served within 2 Miles: Number of residents served per well is not available. I estimated residents using 3 residents per private well and 25 residents per farm well and 50 per business well. Private = 24, Farm = 3, Business = 4. 24x3+3x25+4x50=347, $\sqrt{347}$=19

Source: 4 **Value: 19**
(Max.=50)

3.4-Area Irrigated by (Groundwater) Wells within 2 miles: Number of acres irrigated per well is not available. I estimated 0.5 acres per residential and business wells and 100 acres per farm. 0.5x28+4x100=414 0.75x $\sqrt{414}$ = 15

Source: 4 **Value: 15**
(Max.=100)

4.0-RELEASE

Explain basis for scoring a release to ground water:
Contaminates in ground water documented by analytical data

Source: 1, 2 **Value: 5**
(Max.=5)

SOURCES USED IN SCORING

1. Department Decision Recommendation by Krystal Rodriguez, 2/19/01
2. 1/28/02 letter from Delta EC to Brett Hunter with Chevron
3. Washington Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992.
4. Washington Department of Ecology, WARM Scoring Manual, April 1992
5. US EPA SITEINFO GIS query for lat./long. of site
6. Water Rights Application Tracking System (WRATS) printout for two-mile radius of site.
7. Attached table identified as Reference 7. (Table 27 supplied by Michael Spencer)
8. USDA-SCS (now NRCS) Soil Survey of Chelan Area, WA.

No Initial Investigation report was available. No field work was done by the District for this Site Hazard Assessment. SHA is based on information supplied by Ecology, including reports from consultants.