SITE HAZARD ASSESSMENT
WORKSHEET 1
Summary Score Sheet

SITE INFORMATION:

Food Mart 041
804 Main Street
Colfax, Whitman County, WA 99111

Section/Township/Range: Sec 14/T16N/R43E
Latitude: 46° 53' 22.92"
Longitude: 117° 21' 38.16"
Ecology Facility Site ID No.: 96954884

Site scored/ranked for the August 22, 2007, update
August 13, 2007

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

The Food Mart 041 site (formerly known as Time Oil Property 01-041 or Jackpot 041) is located at 804 Main Street in the northern portion of Colfax, WA, at the northeast corner of Main Street (U.S. Highway 195) and Tyler Street, and within the Palouse River Valley. The main branch of the Palouse River flows south and at its closest point is about 400 feet north of the site; the South Fork Palouse River flows north and at its closest point it is about 600 feet west of the site. The confluence of the two rivers is about 900 feet west-northwest of the site, at which point the general flow is to the west.

The site was operated as a Phillips 66 gasoline service station from about 1956 until 1976, when Time Oil purchased the facility and fuel dispensing equipment. In 1980, Time Oil then purchased the real property, as well as two adjoining parcels later in 1996. A Jackpot gasoline sales retail facility and convenience store soon became operating at the site following Time Oil's purchase.

In mid-1999, the Jackpot store was closed for remodeling and Time Oil contractor, GeoEngineers, provided oversight during partial removal of petroleum contaminated soils associated with underground storage tanks (USTs) and sumps identified during construction activities. This resulted in the site becoming listed by the Washington Department of Ecology (Ecology) Underground Storage Tank (UST) Program (UST Site ID#4122), and an Early Notice Letter to this effect went to the site owners on August 8, 2000.

In 2001, seven groundwater monitoring wells (MW1 through MW-7) were installed on-site, with five more wells (MW-8 through MW-12), including four off-site wells (MW-9 through MW-12), being installed in November 2002.

Two of the off-site wells (MW-10 and MW-12) were placed immediately downgradient of the Colfax Grange and Supply (aka Cenex) facility directly south across Tyler Street. This latter property is the

location of a "cardtrol" fueling facility owned and operated by the Colfax Grange and Supply Company, Inc. and the subject of a separate site hazard assessment (SHA). Negotiations are underway for an Agreed Order between Ecology and these two parties (Time Oil Company and Colfax Grange Supply Company, Inc) to conduct a Remedial Investigation and Feasibility Study (RI/FS) at these two site properties, which collectively are now referred to as the North Colfax Petroleum Contamination site.

Analytical results from MW-1 through MW-12 from 2001 though 2006 have shown concentrations of gasoline constituents benzene, ethylbenzene, toluene, and xylenes (BETX) above their respective Model Toxics Cleanup Act (MTCA) Method A Groundwater Cleanup Levels, as well as significant concentrations of methyl tert-butly ether (MTBE), although the concentrations specifically at this site have reportedly decreased over time. The highest concentrations typically have been recorded in two "off-site" wells (MW-10 and MW-12).

The site was added to Ecology's Confirmed and Suspected Contaminated Sites list on August 18, 2006, and the owners were notified on September 13, 2006, that an SHA of the site under MTCA (Chapter 173-340-320) would be conducted. A site visit on June 5, 2007, visually confirmed that the site was totally covered either by building structures or pavement/asphalt cover. No noticeable odors of petroleum products were noted during a thorough walk-around of the property border (other than that normally associated with a fuel supply facility)..

The immediate area around the site is commercial/business with a substantial number residential population within a mile radius. Two City of Colfax wells, within a quarter to a half mile of the site provide drinking water to a total residential population of 2841.

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):

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. Thus, only the groundwater route will be scored, with BETX being the constituents of concern, as this allows the maximum of toxicity points that can be assigned. MTBE would also be a chemical of concern, if necessary for additional scoring points.

ROUTE SCORES:

Surface Water/Human Health:	**NS**	Surface Water/Environmental.:	**NS**
Air/Human Health:	**NS**	Air/Environmental:	**NS**
Groundwater/Human Health:	**36.0**		

OVERALL RANK: 3

WORKSHEET 2
Route Documentation

1. **SURFACE WATER ROUTE** – *Not Scored*

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

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

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

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

2. **AIR ROUTE** – *Not Scored*

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

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

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

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

3. **GROUNDWATER ROUTE**

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

      Benzene, ethylbenzene, toluene, xylenes

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

      These substances have detected in on-site groundwater samples associated with the site in concentrations exceeding their respective MTCA cleanup levels.

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

      Subsurface soils and groundwater.

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

      The contaminating substances have been detected in on-site groundwater samples in concentrations exceeding their respective MTCA cleanup levels.

WORKSHEET 6
Groundwater Route

1.0 SUBSTANCE CHARACTERISTICS

1.2 Human Toxicity

	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity WOE	Carcinogenicity PF*	Value
1	Benzene	5	8	3306	3	ND	-	A=1	.029	5
2	Ethylbenzene	700	4	3500	5	0.1	1	ND	ND	-
3	Toluene	2000	2	5000	3	0.2	1	ND	ND	-
4	Xylenes	10,000	2	50	10	2	1	ND	ND	-

* *Potency Factor*

Source: 1,2,4
Highest Value: 10
(Max = 10)
Plus 2 Bonus Points? 2
Final Toxicity Value: 12
(Max = 12)

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

Cations/Anions	OR	Solubility (mg/L)
1=		1= $1.8 \times 10^3 = 3$
3=		2= $1.5 \times 10^2 = 2$
		3 = $5.4 \times 10^2 = 2$
4 =		3 = $2.0 \times 10^2 = 2$

Source: 1,2,4
Value: 3
(Max = 3)

1.3 Substance Quantity:

Explain basis: Unknown, use default = 1	Source: 1,5 **Value: 1** (Max=10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** Contaminated area is covered by a building and parking lot, score as a landfill: 1) No liner = 3; 2) Low permeability cover = 1; 3) No leachate collection system = 2.	1,3,6	6 (Max = 10)
2.2	**Net precipitation:** 14.1" – 3.4" = 10.7"	6	2 (Max = 5)
2.3	**Subsurface hydraulic conductivity:** Silts/sands/gravels	1,2	3 (Max = 4)
2.4	**Vertical depth to groundwater:** Obs. release to groundwater = 0'	1,2	8 (Max = 8)

3.0 TARGETS

		Source	Value
3.1	**Groundwater usage:** Public supply, unthreatened alts. avail.	7,8	4 (Max = 10)
3.2	**Distance to nearest drinking water well:** 1,300 - 2640 feet	7,8	3 (Max = 5)
3.3	**Population served within 2 miles:** $\sqrt{2841}$ = 53.3	7,8	53 (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles: (0.75)*$\sqrt{}$ 10 acres = 2.4**	7,8	2 (Max = 50)

4.0 RELEASE

	Source	Value
Explain basis for scoring a release to groundwater: Confirmed by presence of analytical results.	1,2	5 (Max = 5)

SOURCES USED IN SCORING

1. Groundwater Monitoring Reports for Time Oil, GeoEngineers, 2001 -2006.
2. Correspondence between Time Oil Co. and Debbie Charloe/Doug Ladwig, Washington Department Ecology Toxics Cleanup, Eastern Regional Office, 2001 – 2006.
3. Site hazard assessment site visit by Michael Spencer, Washington Department of Ecology Toxics Cleanup Program, June 5, 2007.
4. Washington State Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992
5. Washington State Department of Ecology, WARM Scoring Manual, April 1992.
6. Washington Climate – Net Rainfall Table
7. Washington State Department of Ecology, Water Rights Application System (WRATS) printout for two-mile radius of site.
8. Washington State Department of Health, Sentry Internet Database printout for public water supplies