

WORKSHEET 1
SUMMARY SCORE SHEET

10/1/96
11/1/1996

Note: This document currently has no provision for sediment route scoring.

Site Name/Location (City, County, Section/Township/Range):

Tony's Auto Repair
1220 South 6th Street
Yakima, WA 98901

Parcel number: R=19 T=13 S=30 - 13442

Date Scored: 7/9/96

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

This site is currently an auto repair business. It is not known what the site was used for prior to this. To the south of the site is an empty lot. To the west of the site is an auto repair shop (Midas) and an empty lot. To the north of the site is a house. To the east of the site, across the street, is a mission. The site is zoned arterial commercial, but a low density residential zone is across the street to the east.

Yakima Health District personnel first visited the site on March 31, 1995 because of a complaint. Large areas of staining were at various locations at the site. Barrels were draining in the alley. Barrels were at various locations around the property. A site hazard assessment was recommended at the conclusion of this initial investigation.

On March 18, 1996, Yakima Health District personnel returned to the site to take samples. At that time a septic tank like device (with an inlet and an outlet) was discovered which appeared to be full of oil. This liquid was also sampled during this visit. Results of the sampling showed that heavy oil, acetone, xylenes, toluene, and ethylbenzene were present at levels exceeding the MTCA clean up standards. An interim action was recommended as a result of this discovery.

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):

ROUTE SCORES:

Surface Water/Human Health: 6.61; Surface Water/Environ.: 7.34;
Air/Human Health: 27.8; Air/Environmental: 9.35;
Ground Water/Human Health: 54.37.

OVERALL RANK: 3.

WORKSHEET 2
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE

List substances to be considered for scoring:

1. acetone
2. xylenes
3. toluene
4. ethylbenzene

Source: 1

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

These were the substances found at the site above MTCA method A levels. There is no run-on run-off control and with the availability of storm drains which discharge directly to the river, migration of contaminants to surface water is highly probable.

List management units to be considered in scoring:

Spill

Source: 3

Explain basis for choice of unit used in scoring.

These substances were spilled at the site.

2. AIR ROUTE

List substances to be considered for scoring:

1. acetone
2. xylenes
3. toluene
4. ethylbenzene

Source: 1

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

These were the substances found on the ground surface at the site above MTCA method A levels.

List management units to be considered in scoring:

Spill

Source: 3

Explain basis for choice of unit used in scoring.

These substances were spilled at the site.

3. GROUND WATER ROUTE

List substances to be considered for scoring:

1. acetone
2. xylenes
3. toluene
4. ethylbenzene

Source: 1

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

These were the substances found at the site above MTCA method A levels.

List management units to be considered in scoring:

Spill

Source: 3

Explain basis for choice of unit used in scoring.

These substances were spilled at the site.

4.0 RELEASE

Explain basis for scoring a release to surface water: There is no visible or analytical data to support scoring a release to surface water. Source: 3 Value: 0

WORKSHEET 5
AIR ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Introduction (WARM Scoring Manual) - Please review before scoring

1.2 Human Toxicity

Substance	Air Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity	
	(ug/m ³)	Val.	(mg/kg)	Val.	(mg/kg/day)	Val.	WOE	PE* Val.
1. acetone	5927.4	1	50100	3	X	X	X	X
2. xylenes	1448.6	1	21714	3	.085	1	X	X
3. toluene	1248.8	1	X	X	.57	1	X	X
4. ethylbenzene	1448.6	1	X	X	X	X	X	X

Source: 1,2

*Potency Factor

Highest Value: 3
+2 Bonus Points? 0
Final Toxicity Value: 3

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

1.3.1 Gaseous Mobility

Vapor Pressure(s): 1: 2.7E+02; 2: 1.0E+01; 3: 2.8E+01; 4: 7.0E+00

Source: 2
Value: 4

1.3.2 Particulate Mobility

Soil type: _____ Source: _____
Erodibility: _____ Value: _____
Climatic Factor: _____

1.4 Highest Human Health Toxicity/Mobility Matrix Value (from Table A-7) equals Final Matrix Value: 6

1.5 Environmental Toxicity/Mobility

Substance	Non-human Mammalian Acute		(Table A-7)		
	Inhal. Toxicity (mg/m ³)	Value	Mobility Value	Matrix Value	Matrix Value
1. acetone	50100	3	2.7E+02	4	2
2. xylenes	21714	3	1.0E+01	4	2
3. toluene	X	X	2.8E+01	4	X
4. ethylbenzene	X	X	1.0E+00	4	X

Highest Environmental Toxicity/Mobility Matrix Value (From Table A-7) equals Final Matrix Value: 6

1.6 Substance Quantity: approx. 300 sq. ft. of soil Source: 1,3 Value: 2

Explain basis: approximately 35 gallons of liquid in the tank; approximately 300 square feet of contaminated soil. Soil gives the higher value.

2.0 MIGRATION POTENTIAL

2.1 Containment: visible liquids, no cover, soil contamination Source: 3 Value: 10

3.0 TARGETS

3.1 Nearest Population: <1,000 feet Source: 3 Value: 10

3.2 Distance to, and Name(s) of, Nearest Sensitive Environment(s) 5280 feet; Kiwanis Park Source: 3 Value: 1

3.3 Population within 0.5 miles: (2,522)²=50 Source: 4 Value: 50

4.0 RELEASE

Explain basis for scoring a release to air: Source: 1,2 Value: 5
Detectable odors at the site and an open disposal vessel containing laboratory documented volatile contaminants.

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*
1. acetone	X	X	3,000	2	.1	1	X	X
2. xylenes	10,000	2	50	10	2.	1	X	X
3. toluene	2,000	2	5,000	3	.2	1	X	X
4. ethylbenzene	700	4	3,500	3	.1	1	X	X

Source: 1,2

*Potency Factor

Highest Value: 10
+2 Bonus Points? 0
Final Toxicity Value: 10

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

Cations/Anions: _____ Source: _____ Value: _____

OR

Solubility(mg/l) 1: 1.0E+06; 2: 2.0E+02; 3: 5.4E+02; 4: 1.5E+02
Source: 2 Value: 3

1.3 Substance Quantity: approx. 33 cu. yd. of soil Source: 1,3,5 Value: 2

Explain basis: approximately 300 square feet of contaminated soil with an assumed depth of 3 feet as per the Washington Ranking Method Scoring Manual.

2.0 MIGRATION POTENTIAL

2.1 Containment Source: 1,3,5 Value: 10
Explain basis: It was direct discharge to ground surface. Spills always score a 10.

2.2 Net Precipitation: 1.2 inches Source: 6 Value: 1

2.3 Subsurface Hydraulic Conductivity: >10⁻³ Source: 3 Value: 4

2.4 Vertical Depth to Ground Water: <25 feet Source: 7 Value: 8

3.0 TARGETS

3.1 Ground Water Usage: Public supply with alternate sources available with minimum hookup requirements Source: 3 Value: 4

- 3.2 Distance to Nearest Drinking Water Well: 1,200 ft Source: 3 Value: 4
- 3.3 Population Served within 2 Miles: 11,594 = 41 Source: 4 Value: 11
- 3.4 Area Irrigated by (Groundwater) Wells
within 2 miles: .75(1,362) = 20 Source: 3,5 Value: 23

4.0 RELEASE

Explain basis for scoring a release to ground water: Contamination is in a dry well like device and has been dumped directly on the surface of the ground. Source: 1,3,5 Value: 5

SOURCES USED IN SCORING

1. Sample results from Yakima Health District sampling visit on March 19, 1996.
2. Toxicology Database for Use in Washington Ranking Method Scoring, January 1992.
3. Sample Visit by Yakima Health District personnel on March 19, 1996.
4. 1990 U.S. Census Data.
5. Washington Ranking Method, April 1992.
6. Washington Climate for Grant, Kittitas, Klickitat, and Yakima Counties, May 1979.
7. Soil profiles in Yakima Health District Records.
8. WDOE Water Rights Information System.
9. Flood Insurance Rate Maps for Yakima County.
10. 7.5 minute USGS Topographical Map; Yakima, East.