CSID 2971

Michael Spencer

WORKSHEET 1
SUMMARY SCORE SHEET

Site Name/Location (Street, City, County, Section/Township/Range, TCP ID Number):
#95-08
R.J. FRANK PROPERTY
5 Mill Street
Ridgefield, WA 98642
T4N R1W Sec24 SE,SW,NE CLARK COUNTY TCP ID# S-06-6154-000

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

The property is approx. 6.2 acres in size, is approx. level across the majority of the site and is at an elevation of 20 feet above mean sea level. Ridgefield Marina on Lake River is along the western boundary.[1] An abandoned residence is along Mill Street at the northern end of the property. Two large and one smaller soil piles are located on the property.[2] The remainder of the property is utilized for vehicle parking and boat storage for the adjacent marina.

Historically the property was the former site of a lumber mill until the mid-1950s. A fuel storage and distribution facility appears to have been in operation on the property by 1973 and was present until at least 1989. A spill occurred in the mid-70s.[3]

Field screening and analytical testing indicated that significant petroleum hydrocarbon contamination (up to 30,000 ppm of total petroleum hydrocarbons(TPH)) is present in the near-surface and subsurface soils in the vicinity of the former Fuel Dispenser and Storage Area. Polychlorinated biphenyls were also detected in the soil at one location at a concentration of 7.4 ppm, which is above the Washington Department of Ecology cleanup action level. Lesser concentrations of TPH contamination were detected in the vicinity of the Railroad Siding Area located in the northern portion of the property. Soil contamination in both areas exceeds the MTCA cleanup standard.[1]

At the time of Ecology's Initial Investigation, the current property owner, Jeff Frank (son of R.J.) stated that the site was basically used as a road oil mixing and transfer facility. Bunker oil was mixed with diesel and hauled away to oil roads in the Gifford Pinchot National Forest. Mr. Frank indicated that a quick cleanup was about to begin.[4] As of September, 1995 no indications of any such cleanup beyond the soil piles have been received or noticed upon drive by.[5]

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): NONE.

ROUTE SCORES/(QUINTILES):

Surface Water/Human Health:	34.6 (5)	Surface Water/Environ.:	65.1 (5)
Air/Human Health:	19.7 (3)	Air/Environmental:	NS
Ground Water/Human Health:	43.3 (3)		

OVERALL RANK: 1

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Rev. 7/12/94

WORKSHEET 2
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE

List those substances to be considered for scoring: Source: 1
1.(191)TPH-Diesel
2.(174) PCB's

Explain basis for choice of substance(s) to be used in scoring.
Soil contamination confirmed by laboratory analysis.

List those management units to be considered for scoring: Source: 2,5
Soil piles.

Explain basis for choice of unit to be used in scoring. Source: 2,5
Only unit(s) present.

2. AIR ROUTE

List those substances to be considered for scoring: Source: 1
1.(191)TPH-Diesel
2.(174) PCB's

Explain basis for choice of substance(s) to be used in scoring.
Soil contamination confirmed by laboratory analysis.

List those management units to be considered for scoring: Source: 2,5
Soil piles.

Explain basis for choice of unit to be used in scoring. Source: 2,5
Only unit(s) present.

3. GROUND WATER ROUTE

List those substances to be considered for scoring: Source: 1
1.(191)TPH-Diesel
2.(174) PCB's

Explain basis for choice of substance(s) to be used in scoring.
Soil contamination confirmed by laboratory analysis.

List those management units to be considered for scoring: Source: 2,5
Soil piles.

Explain basis for choice of unit to be used in scoring. Source: 2,5
Only unit(s) present.

NOTE: WORKSHEET 3 NOT APPLICABLE.

WORKSHEET 4
SURFACE 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.	Carcinogenicity WOE	PF*	Val.
1.(191)TPH-Diesel		6		5		3			ND
2.(174) PCB's		10		3		ND			6

*Potency Factor

Source: 6
Highest Value: 10 (Max.=10)

+2 Bonus Points? 2
Final Toxicity Value 12 (Max.=12)

1.2 Environmental Toxicity

(X) Freshwater
( ) Marine

Substance	Acute Water Quality Criteria (ug/l)	Value	Non-human Mammalian Acute Toxicity (mg/kg)	Value
1.(191)TPH-Diesel		2		ND
2.(174) PCB's		8		ND

Source: 6 **Value: 8** (Max.=10)

1.3 Substance Quantity: estimated 10,200 square feet Source: 2,5 **Value: 7** (Max.=10)

Explain basis: Assume there are 2 x 250'contaminated soil piles with a total volume of 950 cubic yards: Volume = 25,650 cu.ft. Divided by 500 linear ft. = 51.3 sq. foot cross section of pile. Assume cross section shape is approximately an equilateral triangle with base length = 2 x height. Then cross section area = height^2. Then height = square root of 51.3 = 7.2 feet. Distance of slope on each side of the pile then = square root of (2x7.2^2) = square root of (2x51.3) = square root of 102.6 = 10.1 ft. Surface area of pile then approx. = 2 x 10.1 x 500 = 10,130 square feet.^{2}

WORKSHEET 4 (CONTINUED)
SURFACE WATER ROUTE

2.0 MIGRATION POTENTIAL

2.1 Containment — Source: 2,5 — **Value: 10** (Max.=10)
Explain basis: Waste Pile;outside;no run on/off controls.

2.2 Surface Soil Permeability: SmB = Moderately Low — Source: 7 — **Value: 3** (Max.=7)

2.3 Total Annual Precipitation: 60.36 (3yr.ave.)inches — Source: 8 — **Value: 4** (Max.=5)

2.4 Max. 2-Yr/24-hour Precipitation: 1.5-2.0 inches — Source: 9 — **Value: 2** (Max.=5)

2.5 Flood Plain: Class A - within 100 year. — Source: 10 — **Value: 2** (Max.=2)

2.6 Terrain Slope: approx. 10% — Source: 4 — **Value: 5** (Max.=5)

3.0 TARGETS

3.1 Distance to Surface Water: adjacent — Source: 1,5 — **Value: 10** (Max.=10)

3.2 Population Served within 2 miles (See WARM Scoring Manual Regarding Direction): √pop.=√ 0 = 0 — Source: 11 — **Value: 0** (Max.=75)

3.3 Area Irrigated within 2 miles 0.75√no. acres=78.01
(Refer to note in 3.2.): 0.75√ =0.75(8.8)= 6.6 — Source: 11 — **Value: 7** (Max.=30)

3.4 Distance to Nearest Fishery Resource: Adjacent — Source: 12 — **Value: 12** (Max.=12)

3.5 Distance to, and Name(s) of, Nearest Sensitive Environment(s) Lake River - Adjacent
Ridgefield National Wildlife Refuge - 400 ft. — Source: 13 — **Value: 12** (Max.=12)

4.0 RELEASE

Explain basis for scoring a release to surface water: — Source: - — **Value: 0** (Max.=5)
None documented.

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 (ug/m^3)	Val.	Acute Toxicity (mg/m^3)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcinogenicity WOE	PF*	Val.
1.(191)TPH-Diesel		4		ND		ND			ND
2.(174) PCB's		ND		ND		ND			ND
3.									
4.									
5.									

*Potency Factor

Source: 6
Highest Value: 4 (Max.=10)

+2 Bonus Points? -
Final Toxicity Value: 4 (Max.=12)

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

1.3.1 Gaseous Mobility
Vapor Pressure(s) (mmHg): 1= 8.2E-2 (3)
2= 7.7E-5 (2)
Source: 6
Value: 3 (Max.=4)

1.3.2 Particulate Mobility
Soil type: Sauvie silt loam
Erodibility: 47 t/a/yr
Climatic Factor: 1-10
Source: 7,9
Value: 1 (Max.=4)

1.4 Highest Human Health Toxicity/Mobility Matrix Value (from Table A-7) equals **Final Matrix Value:** 6 (Max.=24)

1.5 Environmental Toxicity/Mobility Source: 6

Substance	Non-human Mammalian Acute Inhal. Toxicity (mg/m^3)	Value	Mobility (mmHg)	Value	(Table A-7) Matrix Value
1.(191)TPH-Diesel		ND		-	NS
2.(174) PCB's		ND		-	NS
3.					
4.					
5.					

Highest Environmental Toxicity/Mobility Matrix Value (From Table A-7) equals **Final Matrix Value:** NS (Max.=24)

WORKSHEET 5 (CONTINUED)
AIR ROUTE

1.6 Substance Quantity: est. 10,200 sq. ft. Source: 2,5 **Value: 5** (Max.=10)
Explain basis:
see worksheet 4, 1.3 Substance Quantity.

2.0 MIGRATION POTENTIAL

2.1 Containment: Waste pile; outdoors, uncovered. Source: 2,5 **Value: 10** (Max.=10)

3.0 TARGETS

3.1 Nearest Population: approx. 435 feet. Source: 14 **Value: 10** (Max.=10)

3.2 Distance to, and Name(s) of, Nearest Sensitive Environment(s) Lake River - adjacent
Ridgefield National Wildlife Refuge - 400 ft. Source: 13 **Value: 7** (Max.=7)

3.3 Population within 0.5 miles: √pop.=√1605 = 40 Source: 15 **Value: 40** (Max.=75)

4.0 RELEASE

Explain basis for scoring a release to air: None documented. Source: - **Value: 0** (Max.=5)

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.	WOE	Carcino-genicity PF*	Val.
1.(191)TPH-Diesel		6		5		3			ND
2.(174) PCB's		10		3		ND			6

*Potency Factor

Source: 6
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)
Cations/Anions: 1= ; 2= ; 3= ; 4= ; 5= ; 6= . Source: 6 **Value:** 1 (Max.=3)

OR
Solubility(mg/l): 1= 3.0E+1 (1)
2= 3.1E-2 (0)

1.3 Substance Quantity: est. 950 cu.yds. contam. soil. Source: 2,5 **Value:** 3 (Max.=10)
Explain basis: Dick Heggen's notes state 900-1000 cu. yds.

2.0 MIGRATION POTENTIAL

2.1 Containment Source: 2,5 **Value:** 10 (Max.=10)
Explain basis: Waste pile; no base, cover, or leachate / runoff controls.

2.2 Net Precipitation: 23.2 - 26.4 inches Source: 16 **Value:** 3 (Max.=5)

2.3 Subsurface Hydraulic Conductivity: moderate Source: 7,9 **Value:** 2 (Max.=4)

2.4 Vertical Depth to Ground Water: 7 - 19 feet Source: 1 **Value:** 8 (Max.=8)

WORKSHEET 6 (CONTINUED)
GROUND WATER ROUTE

3.0 TARGETS

3.1 Ground Water Usage: Public, No alt. available. Source: 11 **Value:** 9 (Max.=10)

3.2 Distance to Nearest Drinking Water Well: 440 ft Source: 11,14 **Value:** 5 (Max.=5)

3.3 Population Served within 2 Miles: √pop.=√1554= 40 Source: 11,17 **Value:** 40 (Max.=~~50~~ 100)

3.4 Area Irrigated by (Groundwater) Wells within 2 miles: 0.75√no.acres= 0.75√82.5= 0.75(9.1)= 6.8 Source: 11 **Value:** 7 (Max.=~~100~~ 50)

4.0 RELEASE

Explain basis for scoring a release to ground water: None documented. Source: - **Value:** 0 (Max.=5)

SOURCES USED IN SCORING

1. A LEVEL II ENVIRONMENTAL PROPERTY TRANSFER ASSESSMENT, R.J. Frank Property, by Hahn and Assoc., Inc., Portland, OR, Project #2011, July 2, 1992.

2. A) Dick Heggen, Ecology, SWRO, 2 hand written notes, one dated 2/14/94, one undated; and B) Pictures dated 93-12-1.

3. AN ENVIRONMENTAL PROPERTY TRANSFER ASSESSMENT, LEVEL I, R.J. Frank Property, by Hahn & Assoc., Inc., Portland, OR, Project #1987, April 22, 1992.

4. Ecology INITIAL INVESTIGATION REPORT FORM, ERTS Number S6218, by Richard Heggen and Tom Todd, Inspection Date: 10/22/92.

5. Site drive-by, Tom H. White, S.W. WA Health District, October 16, 1995.

6. Toxicology Database for Use in Washington Ranking Method Scoring, Washington State Department of Ecology, Toxics Cleanup Program, Publication #92-37, January 1992.

7. Clark County Soil Survey, USDA-SCS, November 1972. Sheet 21; pages 40 & 49.

8. City of Ridgefield, Public Works Office, phone call, January 16, 1996.

9. Washington Ranking Method (WARM) Scoring Manual, Washington State Department of Ecology, Toxics Cleanup Program, Publication #90-14, April 1990, Revised April 1992.

10. Flood Plain Map, panel #530298-0001B, effective May 19, 1996.

11. (WRIS) Washington Water Rights Information System, WA Department of Ecology.

12. Steve Manlow, WA Dept. of Fish & Wildlife, phone conversation, January 16, 1996.

13. Clark County Road Atlas, 1994, Department of Assessment and GIS, pg. 33.

14. USGS Maps, Ridgefield, WA and St. Helens, OR, 1954, photorevised 1970, photoinspected 1975.

15. 1994 POPULATION & ECONOMIC HANDBOOK, Clark County Dept. of Assessment & GIS, July, 1994.

16. Estimated Evapotranspiration Table, EM 2462, page 42, table 16.

17. Public Well Database print-out, WA Department of Health.

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WASHINGTON RANKING METHOD

ROUTE SCORES SUMMARY AND RANKING CALCULATION SHEET

Site name: R.J. Frank Property Region: S.W.

Street, city, county: 5 Mill St. Ridgefield, CLARK CO.

Ecology TCP ID: S-06-6154-000

This site was (X) ranked, ( ) re-ranked, on June 30, 1994 based on quintile values from a total of 482 assessed/scored sites.

Pathway	Route Score(s)	Quintile Group number(s)
SW-HH	34.6	5
Air-HH	19.7	3
GW-HH	43.3	3
SW-En	65.1	5
Air-En	NS	NS

Priority scores:

$\frac{H^a + 2M + L}{8} = \frac{25+6+3}{8} = \frac{34}{8} = 4.25 = 5$

$\frac{H^a + 2L}{7} = \frac{25}{7} = 3.57 = 4$

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.

Human Health	Environment 5	4	3	2	1	N/A
(6)	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

DRAFT / FINAL

Matrix ("bin") Ranking: 1, or _____ No Further Action

CONFIDENCE LEVEL: The relative position of this site within this bin is:

_____almost into the next higher bin.
__X__right in the middle, unlikely to ever change.
_____almost into the next lower bin.

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Pathway Score Ranges

The following ranges of pathway scores are the quintile breakdowns as of July 20, 1994, based on a total of 420 assessed sites. Slight changes to any, or all, of these ranges may occur in the future when additional sites are assessed/scored, and their applicable pathway scores added to their respective master list for ranking purposes. When sites are "de-listed" from Ecology's hazardous sites list their pathway scores will also be removed from the respective master lists. This may also result in minor alterations of these ranges.

Following the scoring of an appropriate number of sites with a sediment route, a quintile breakdown of sediment pathway score ranges will be made available.

I. Human health pathway scores

Quintile No.	Surface Water	Air	Ground Water
5	~~>28.5~~ >28.1	>38.0	>58.6
4	22.1 - 28.5	23.3 - 37.9	46.6 - 58.6
3	15.4 - 22.0	14.1 - 23.2	38.7 - 46.5
2	6.1 - 15.3	7.4 - 14.0	30.6 - 38.6
1	<6.1	<7.4	<30.6

II. Environmental pathway scores

Quintile No.	Surface Water	Air
5	>52.9	>33.1
4	37.0 - 52.9	23.7 - 33.1
3	24.8 - 36.9	13.7 - 23.6
2	9.8 - 24.7	0.1 - 13.6
1	<9.8	<0.1

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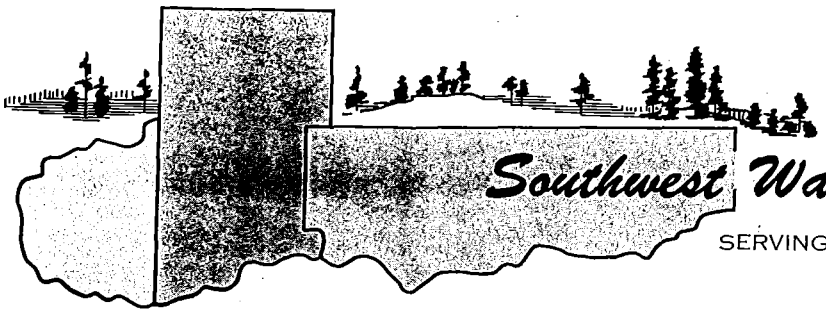

Southwest Washington Health District

SERVING CLARK, KLICKITAT AND SKAMANIA COUNTIES

February 21, 1996

G. J. Frank, Trustee
P.O. Box 22
Ridgefield, WA 98642

RE: Site Hazard Assessment of 5 Mill Street, Ridgefield

Dear Mr. Frank:

The Southwest Washington Health District has completed the Site Hazard Assessment (SHA) of the R. J. Frank Property site, as required under the Model Toxics Control Act. This site's hazard ranking, an estimation of the potential threat to human health and/or the environment relative to all other Washington State sites assessed at this time, has been determined to be a 1, where 1 represents the highest relative risk and 5 the lowest.

For your information, Ecology has published the ranking of this and other recently assessed sites in the February 20, 1996 Special Issue of the Site Register. The site hazard ranking will be used in conjunction with other site-specific considerations in determining Ecology's priority for future actions.

Please contact me at (360) 696-8428 if you have any questions relating to the SHA of your site. If you have any inquiries/comments about the site scoring/ranking process, please call Michael Spencer at (360) 407-7195. For inquiries regarding any further activities at your site now that it is on Ecology's Hazardous Sites List, please call Dick Heggen at (360) 407-6267.

Sincerely,

Thomas H. White

Thomas H. White
Environmental Health Specialist

THW/cat

c: Michael Spencer, Washington State Dept. of Ecology
Dick Heggen, Washington State Dept. of Ecology, SW Regional Office
Tom Newman, Port of Ridgefield
Claudia Shobert, Clerk-Treasurer, City of Ridgefield

#95-08

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ADDRESS REPLY TO APPROPRIATE OFFICE:
ADMINISTRATIVE OFFICE
VANCOUVER/CLARK COUNTY HEALTH CENTER
P.O. BOX 1870 — 2000 FORT VANCOUVER WAY
Vancouver, WA 98668
(206) 695-9215

STEVENSON/SKAMANIA COUNTY HEALTH CENTER
.96L MILE POST - 2nd ST. EXT. - P.O. BOX 162
Stevenson, WA 98648
(509) 427-5138

WHITE SALMON/KLICKITAT COUNTY HEALTH CENTER
170 N.W. LINCOLN - P.O. BOX 159
White Salmon, WA 98672
(509) 493-1558

GOLDENDALE/KLICKITAT COUNTY HEALTH CENTER
228 WEST MAIN STREET
Goldendale, WA 98620
(509) 773-4565