Spokane Co.
Mead Well Site
TCP / SHA ✓

WORKSHEET 1
SUMMARY SCORE SHEET
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Site Name/Location (Street, City, County, Section-Township-Range):

TCP #: 738

Mead Well Site
11600 N Market
Mead WA 99021-

formerly Spokane County Water Dist 3
@ Market & Florence

County: Spokane

Section-Township-Range: 10-26-43

Lattitude 47° 45' 52"

Longitude 117° 21' 19"

Site Description (Include management areas, substances of concern and quantities
The Mead Well Site, also known as Spokane County Water District #3-Mead Well, is situated approximately three miles north of the city of Spokane Washington. The Mead well site is located in the unincorporated town of Mead, a suburb within Spokane County. The site is a rectangular parcel of approximately two acres. Landscape consists of grass lawn and sparse pines. Development in the area consists of single-family residences (homes and mobile homes) north, west, and south of the wells. East of the wells the land use is chiefly commercial and light industrial.

The Mead Site consists of two municipal water supply wells situated within fifty feet of the other. The "old" well was hand dug in 1946; the "new" 16 inch diameter well was drilled in 1980. Both wells were taken out of service in June 1990 after carbon tetrachloride concentrations exceeded the MCL for drinking water. The wells remain out of service at this time.

The site has been owned and operated be Spokane County Water District Number 3 since 1988. Previous site owners/operators include the now defunct Spokane Suburban Water, 1983-1988, and The Washington Water Power Company, pre 1983. The original well was constructed in 1946, W.D. Reeder was the owner listed on the well record.

Routine well water monitoring conducted by the water purveyor during February 1989 revealed carbon tetrachloride (CCL4) concentrations of 1.1 ug/L. The wells were removed from service in June 1990 in response to the high CCL4 concentrations (5.5 ug/L) detected during April 1990 ground water monitoring. The state Maximum Contaminant Level (MCL) for CCL4 is 5.0 ug/L for drinking water. In addition to CCL4, trace amounts of 1,2-dichloroethane and

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chloroform have been detected in the ground water.

Washington State Department of Health, Division of Drinking Water personnel, notified Ecology of the contamination on February 11, 1993. Ecology's Toxics Cleanup Program staff conducted an Initial Investigation on March 18, 1993. Through an Ecology grant the water district developed an alternative public water supply well during 1994, approximately one mile northwest of the Mead Well Site.

In an attempt to confirm the source of CCL4 contamination, Ecology conducted a Contaminant Source Identification/Assessment (CSI/A) study during the period of 1997-1998. The CSI/A study, conducted under a Site Assessment Cooperative Agreement between the Ecology and EPA, was similar to a phase I Environmental Site Assessment. The CSI/a activities included review of public and governmental documents, research regarding the contaminant's use and properties, interviews of officials and residents, and field reconnaissance, including visits to the well site. Supplemental to the CSI/a, Ecology re-sampled both wells to confirm the continued presence of CCL4 - 3.7 ug/l in October 1997. The CSI/A study did not identify any confirmed nor highly suspected sources for the CCL4 contamination found in ground water at this site.

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):
No point source of contamination has been identified for this site hazard assessment. Groundwater test results dating from 1989 through 1997 have displayed consistent levels of carbon tetrachloride. The wells were taken out of service due to the persistent presence of carbon tetrachloride. The carbon tetrachloride contamination exists in subsurface soils. No surface water or air pathways are impacted nor influenced by the groundwater contamination therefore the site will be scored on the groundwater pathway only.

WORKSHEET 1
SUMMARY SCORE SHEET

ROUTE SCORES:

Surface Water Pathway

Surface Water/Human Health:	0
Surface Water/Environmental Health:	0

Air Pathway

Air/Human Health:	0
Air/Environmental Health:	0

Ground Water Pathway

Ground Water/Human Health:	55

OVERALL RANK: 2

WORKSHEET 2
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE

List those substance(s) to be considered for scoring: Source:
Not scored.

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

List those management unit(s) to be considered for scoring: Source:

Explain basis for choice of unit(s) to be used in scoring:

2. AIR ROUTE:

List those substance(s) to be considered for scoring:
Not scored. Source:

Explain basis for choice of substance(s) to be used in sccoring:

List those management unit(s) to be considered for scoring:
Source:

Explain basis for choice of unit(s) to be used in scoring:

3. GROUND WATER ROUTE:

List those substance(s) to be considered for scoring: Source: 1
Carbon Tetrachloride

Explain basis for choice of substance(s) to be used in scoring:
Contaminant exceed MCL for drinking water.

List those management unit(s) to be considered for scoring: Source: 1
Groundwater pathway only.

Explain basis for choice of unit to be used in scoring:
Although the source of the contamination has not been determined, a "liquid in contact with groundwater" source was assumed for assessment purposes.

WORKSHEET 6
GROUND WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water (ug/l)	Value	Acute Toxicity (mg/kg-bw	Value	Chronic Toxicity (mg/kg/day	Value	Carcinoginicity WOE	PF*	Value
1 carbon tetrachloride	5	8	2350	3	0.0007	5	B2	0.13	4
2.									
3.									
4.									
5.									
6.									

*Potency Factor

Source: 2, 3
Highest value: 8
+2 bonus points? 0
Final toxicity value: 8 (Max = 12)

1.2 Mobility (use numbers above to refer to listed subst
Cations/Anions
or
Solubility: 1 = 7.6E + 2

Source: 3
Value: 2 (Max = 3)

1.3 Substance Quantity
Explain basis: Quantity unknown. No confirmed source of the carbon tetrachloride contamination has been identified. Default score value 1; not estimated.

Source: 1, 3
Value: 1 (Max = 10)

2.0 MIGRATION POTENTIAL

2.1 Containment
Explain basis: Spills, discharges and contaminated soils.

Source: 3
Value: 10 (Max = 10)

2.2 Net Precipitation:
> 0.1-10 inches

Source: 4
Value: 1 (Max = 5)

2.3 Subsurface hydraulic conductivity:
> 10 (-5) to 10 (-3) Soil(s): McB Silty Sand

Source: 5
Value: 3 (Max = 4)

2.4 Vertical depth to ground water:
0 - 25 ft

Source: 1, 6
Value: 8 (Max = 8)

WORKSHEET 6
GROUND WATER ROUTE

3.0 TARGETS

3.1 Ground water usage:
Federally designated sole source aquifer.

Source: 7
Value: 10 (Max = 10)

3.2 Distance to nearest drinking water well:
> 1,300 - 2640 ft

Source: 6, 8
Value: 3 (Max = 5)

3.3 Population served within 2 miles:
Total Population: > 10,00 Sq. Rt. of Population: 100

Source: 8
Value: 100 (Max = 100)

3.4 Area irrigated by groundwater wells within 2 miles:
Total Acres: 1033 0.75 * Sq. Rt. of # of Acres: 24

Source: 9
Value: 24 (Max = 50)

4.0 RELEASE

Explain basis for scoring a release to ground water:
Contaminant carbon tetrachloride detected consistently in groundwater samples.

Source: 1
Value: 5 (Max = 5)

SOURCES USED IN SCORING

1 Preliminary Assessment, Mead Well Site, Phil Leinart, DOE Toxics Cleanup Program, May 2000

2 Toxicology Database - Washington Ranking Method Scoring (WARM)

3 WARM Scoring Manual

4 Washington Climate, Spokane Co. WSU Dept. of Agriculture

5 Soil Survey of Spokane Co. Washington, USDA Soil Conservation Svc.

6 Washington State Department of Ecology, Well Logs

7 Aquifer Sensitive Area Overlay Zone Map, Spokane Co. Washington

8 Washington State Department of Health Drinking Water Information Network (DWIN)

9 Water Rights Application Tracking System (WRATS) Washington State Department of Ecology

10 FEMA Flood Insurance Rate Map

11 Quadrangle Maps of Washington, Spokane

12 US Census Data

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

December 18, 2002

Mr. Ty Wick
General Manager
Spokane Water District Number 3
P.O. Box 11187
Spokane, WA 99211-1187

RE: Site Hazard Assessment – Spokane Co. Water District 3
Ecology Facility Site ID: 738

Dear Mr. Wick:

The Department of Ecology (Ecology) will conduct a site hazard assessment (SHA) of the Spokane Co. Water District 3 site, Market & Florence, Mead,WA 98201, under the Model Toxics Control Act (MTCA), Chapter 173-340-320 WAC. This site has been on Ecology's Confirmed and Suspected Contaminated Sites List, awaiting assessment, since August 15, 1994. This assessment will be performed by Michael LaScuola and Jim Sackville-West, Spokane Regional Health District. They will contact you in the near future to arrange a suitable time for a site visit.

The purpose of an SHA is to gather information on past/present waste management activities, along with other basic site-specific environmental data, in order to score the site following the Washington Ranking Method (WARM) Scoring Manual guidelines. Potential/actual threats to human health and the environment are evaluated for each applicable migration route, with a resultant "hazard ranking" for the site determined.

Sites are ranked on a scale of one to five, with one representing the highest level of concern, and five the lowest, relative to all other assessed/ranked sites in the state. The level of relative concern may be such that a recommendation of "No Further Action" (NFA) is made, and your site will then be removed from Ecology's Integrated Site Information System (ISIS) list.

For your information, Ecology will publish a notice in an upcoming issue of the Site Register that an SHA is scheduled for this site. This notice may evoke media inquiries. Likewise, the outcome of the SHA, either as a ranked site or a determination as NFA, will be published in the Site Register.

In addition to any required field work, the following information will be considered in scoring this site:

- Ecology Eastern Regional Office Site Files
- Spokane Regional Health District Site Files

You are requested to submit any additional environmental information regarding this site to:

Mr. Michael LaScuola
Spokane Regional Health District
West 1101 College Avenue
Spokane, WA 99201-2095

Additional data could include any environmental assessments or laboratory analyses which have been conducted regarding this site and which have not previously been submitted to Ecology. Every attempt will be made to obtain the most recent and accurate data for scoring your site. If you have better information or comments on the adequacy of the data we already have, please let us know as soon as possible. The final site rank and eventual site priority will be based primarily on the information used in the scoring. Your active participation in the assessment and scoring process is important to insure that only the best data available is used.

Fact sheets describing Site Hazard Assessments, the Washington Ranking Method and the Hazardous Sites List are enclosed for your information. If you have any questions please call me at (360) 407-7195 or Michael LaScuola at (509) 324-1574.

Sincerely,

Michael J. Spencer
Site Hazard Assessments
Toxics Cleanup Program

MJS:ms
Enclosures(3)

cc: Michael LaScuola, Spokane Regional Health District
Patti Carter, Ecology Toxics Cleanup Program, ERO