

Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



Mr. Mike Berkopec
Waste Management, Inc
12448 Pennsylvania Avenue
Savage, Minnesota 55378

July 11, 1990

Dear Mr. Berkopec:

RE: Remedial Investigation Report;
Remedial Investigation Report, Phase II
Site: Waste Management, Savage
Site ID: LEAK00000990

The Minnesota Pollution Control Agency (MPCA) staff has completed its review of the above-captioned reports and offer the following comments for your consideration.

1. Neither report on this site discusses UST #1 in any detail, except that it is beneath the on-site building. Since the tank has been abandoned in place, the investigation must show the location of the tank, and either the extent of the release from UST #1, or that no release from UST #1 has taken place. This point was discussed at a meeting between MPCA and Foth & Van Dyke on January 24, 1990.
2. The report does not mention the conditions of the on-site well (unique number 207947) during the Phase II work. According to the March 1989, report, this well is cased to 38 feet, with a total depth of 53 feet (open hole in the Prairie du Chien). An opportunity may have been missed to demonstrate Foth & Van Dyke's hypothesized upward vertical ground water flow at the site, which could have been done by installing a shallow monitoring well in the same location (assuming hydrogeologic connection between the Prairie du Chien and the unconsolidated materials above). Such an analysis would also depend upon the location of the on-site deep case, the deep well should have been inspected and (depending upon its location) sampled during the Phase II work. At a minimum, a map showing the well's location should be provided.
3. The location of monitoring well MW-2 is ambiguous with respect to the UST #2 excavation, as shown on Figures 2-2 and 4-1 of the March 1990, report. This is a critical point since MW-2 is cross-gradient of the excavation as shown on Figure 2-2, and downgradient as shown on Figure 4-1. This problem needs to be addressed by Foth & Van Dyke. The problem of properly constructed maps was discussed at the meeting between MPCA and Foth & Van Dyke on January 24, 1990.

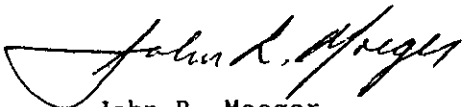
Mr. Mike Berkopec
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4. The monitoring wells are situated such that it is not possible to effectively evaluate ground water flow direction in the central portion of the site, where former UST #2 was located. This may have been necessary due to on-site constraints, but this is not discussed in the report. Flow direction as determined by wells MW-2, MW-3 and MW-4 has a significant eastward component, which suggests ground water contaminants from the UST #2 basin (and perhaps from the UST #1 basin, depending on its location; see comment #1 above) may be moving off-site towards the east. The ground water sample collected from TP-2 had significantly high concentrations of BETX and TPH/G, and Figure 4-1 of the March 1990, report shows TP-2 within approximately 50 feet of the property boundary. Therefore at least one monitoring well is necessary off-site to the east.

5. The report apparently considers the soil investigation closed since there is no discussion of soil quality and no soil Hnu headspace or laboratory analytical work was done during Phase II. However, though about 100 cubic yards of contaminated soils were removed with UST #2, test pit TP-2 to the northeast showed significant concentrations of TPH/FO (2,200 ppm). Soils contaminated to this extent are not normally left in place without remediation, especially close to the downgradient property, as these are. The soil remedial investigation is therefore still incomplete, and a CAD for soils will be necessary.

Please let me know how and when you wish to proceed by providing me with a schedule for installing and sampling the additional well(s), as well as a soil remediation plan. If I can be of further assistance please call me at 612/643-3425.

Sincerely,



John R. Moeger
Project Leader
Tanks and Spills Section
Hazardous Waste Division

JRM:baj

cc: Fred J. Doran, Foth & Van Dyke
Richard Pager, Waste Management, Inc.
Craig L. Johanesen, Foth & Van Dyke
James C. Fahrback, Foth & Van Dyke



Minnesota Pollution Control Agency

SIGNATURE MEMO

DATE 7-7-90

	INITIAL	DATE	DATE
TO: <u>John Meeger</u>	<u>JM</u>	<u>7/9</u>	
FROM: <u>Reshita</u>			

(AUTHOR)

RETURN TO: [Signature]
[Signature]
(SECTION)

COMMENTS: _____

Originated:

- Air Quality Division
- Ground Water/Solid Waste Div.
- Hazardous Waste Division
- Water Quality Division
- Administration/_____

bcc: _____

IDENTIFICATION NUMBER: _____/_____ DATE DUE:
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