

# 4526

A petroleum sheen was noted on floating on surface water ponds

The source of the petroleum was thought to be either the <sup>heating fuel oil</sup> supply or return lines from the tank to the boiler

The tank holds standby boiler fuel.

Pipeline Excavation + Removal 40' x 6 x 5' deep  
3' x 5' x 5' deep.

The pipelines were covered with piling + pilings.

250 yards of contaminated soil was excavated stockpiled and treated at a thermal treatment facility. based on visible staining, odors, + PID

PID Readings

24 - 212 ppm remaining on sidewalls + bottom of excavation between 1.5 - 5.0'

Soil Sample

62 ppm + 1400 ppm remaining on bottom at 5.0'

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Groundwater was encountered in the excavation in contact with contaminated soil.

## REMEDIAL INVESTIGATION

12 Soil Borings 5-9' 3 monitoring wells.

### General Geology

Varying amounts of cobbles, silty clay, a dark colored gravelly sand with clay intermixed, and a variably colored organic clay 5-9' depth encountered Prairie du Chien

### P10 Residues

0.2-3.5 ppm vicinity of the excavation 3-9'

Petroleum odors were noted in borings <sup>SB-1 + SB-2</sup> in vicinity of excavation 3-6'

### Soil Samples

NO

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# Monitoring Wells

Depth to GW is 2.4 - 8.3 feet

GW flows E-NE with a  $\frac{dh}{dr} = 0.007 \text{ ft/ft.} - 0.011 \text{ ft/ft.}$

Slug Tests MW-1, 2, + 3

$K = 0.4 \text{ ft/day}$

$V = 36 \text{ to } 57 \text{ ft/day}$  (That's Fast)

$n = 30-40\%$

The monitoring wells were sampled on 7/21/92  
9/14/92 + 3/15/93

## MW-1

3.6 ppb Tri  
2.5 ppb X  
  
190 ppb MEK  
20 + 63.8 THF

## MW-2

2.3 ppb B  
3.3 ppb T  
2.4 ppb EB  
7.8 ppb X  
2.3 ppb, 2.4 TMB  
160 - 5830 ppb MEK  
20 - 3940 ppb THF  
14 - 50.1 ppb Acetone  
2.3 ppb Chloroethane  
1,2-dichlorobenzene

## MW-3

28.8 ppb T  
EB Cumene  
X 1,2,4 TMB Naph.  
1,3,5 TMB  
MEK  
THF  
1,2-dichlorobenzene  
1,2

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## RISK ASSESSMENT

The lack of volatile hydrocarbons, location of release and ~~the~~ no basement near reduces the Risk of vapor impacts to underground structures and utilities.

### Ground Water Receptor Survey

a Prairie du Chien, Jordan SS,  
Nearest surface water Minnesota River  
700 ft NW of site

#208835, #208834, and #208836 drinking water aquifers are hydraulically connected to the impacted aquifer

Two wells near the entrance  
 $\frac{1}{2}$  mile from tank were installed in  
1940 - not in service

# 207061 drinking water aquifer is separated from the impacted aquifer with a 185' thick confining layer.

10X RAL.

(4)

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How did they know that a leak of 50-60 gallons occurred

Would the leak have occurred over a long time (corrosion + pinholes.)

PVC glue on wells Non-Fuel contam.?

2 to MW-1 MW-2 MW-3 Flush  
Solvent

Where is the well located on the site?

60-75' NE of release

Not drinking water

City water hook up