

## Preferred Id: 14203

Interest Name: Farmers Coop Oil

Address1: .5 miles N of Rp Address

City: Barnesville

State: MN

Zip: 56514

Phone: NO CORE PI PH.

### Interest\_Remarks

Date and Time Printed: 5/21/2008 09:05:43

6-1-01 Tammy from Barnesville Coop called in response to 30 day deadline. They have retained Coteau Env. out of Brainerd. AWF

8.2.01 PRS - rec'd phone call from Nate Hunke-Coteau Env. Push-probe borings revealed soil and ground water contamination - aquifer appears impacted ( $t > 5$  gpd/sq ft) - so Nate wanted to know if a full RI w/MW's was necessary. The extent of ground water contamination (mainly GRO and DRO) was not delineated with borings. I told him that a full RI is required when an aquifer is impacted. Nate said the geology is sand and gravel to around 14 ft bgs (water table around 6 to 8 ft bgs) with a hard clay - probably a rock till - that the push probe could not penetrate far in - underlying the sand and gravel. I discussed need for deep strat boring and, because the release appears to have been diesel/fuel oil, samples from the worst case well should be analyzed for PAHs as discussed in FS 3.23. I also advised Nate let the driller know that flowing artersion sand and gravel aquifers have have created drilling problems in the Barnesville area. Nate asked if they should only put in 3 MWs due to Petrofund guidelines - I reuested that a sufficient number of monitoring wells are required to meet two main objectives - 1) source area well(s), depending on the number of source areas at the site and 2) delineation to HRLs. I also stated that if it takes more than 3 MWs to do this, I would support their decision and would be willing to discuss rationale with Petrofund staff about the number of wells. In most cases the project will be closed much faster and overall cost will be less if iterative mobilizations are not necessary. 8.21.01 PRS - Nate Hunke-Coteau Env. called. They are drilling the deep stratigraphic boring near the source area and found sand to 17 ft bgs, followed by a 2 ft thick clay layer underlain by sand to the 32 ft, however, they have encountered elevated PID reading in the deep soil samples and have not yet drilled out of the contamination. Nate wondered if they need to install a deep well to look at vertical gradients and document the vertical extent of ground water contamination. I agreed that a deep well should be installed, preferably deep enough to delineate the vertical extent of ground water contamination. Depending on the hydraulic behavior of the aquifer and the extent of contamination, additional deep wells may be necessary.

9.5.01PRS - rec'd call from John Houck-Petrofund regarding whether PCA supports payment for RP access to 3rd party property. Referred him to AG 7.11.01 "memo" handed out at LUST training meeting. The answer appears to be no but discussions with AG's office appear appropriate. John indicated that RP had paid \$600 for access to a third party property and would likely be submitting this cost for reimbursement.

11/15/01 SHV: DO report of free product found. Sending to PM.

12-28-01 Rev'd file for initial PF application. Adequate. AWF

1-7-02 Andy Schmidt, Coteau, called to ask whether they need to sample for VOCs and PAHs in the next rounds of GW monitoring. They have gotten some low hits, the VOCs are likely all associated with gasoline, while I'm not familiar with some of the PAHs he mentioned. I advised Andy to not sample for these parameters for now, we'll add them to the request more work letter if we feel it's necessary (they have free product, so the site is not a candidate for closure). AWF

1-15-02 LS CSR adequate sent to Commerce.

2-8-02 Andy Schmidt called wondering whether the .1' of free product in MW6 should be checked monthly or not. They have put a sock in it. Told him quarterly is fine. AWF

7.30.02 PRS - call from Nate Hunke-Coteau. I approve them completing a 1/4ly GW mon event a little early (now) since they will have someone in the area this week and would like to save the cost of a remobilization to the area in a few weeks.

12-2-02 Rev'd file for supp PF app. No comments. AWF

12/26/02 ACS - Took file to BR for review.

Interest Remarks

Date and Time Printed: 5/21/2008 09:05:43

1/2/03 ACS - Reviewed RI received 7/15/02 recommending additional monitoring for Paul Stock. Risks appear low, yet GW flow direction is unusual and strong vertical gradient exists. Reported GW velocity is quite high. Request sieve analysis results/K calculations. Not provided in RI. Possible plume dived under borings/MWs. Continue monitoring for additional year to determine plume stability and GW direction. If direction changes, may require additional investigation to determine if plume exists between gaps in MWs. FP present but little info provided. Request more info and suggestion that more aggressive recovery may be needed. Returned file to DL.

1-2-03 Issued RMW letter. AWF

1-22-03 File reassigned to LEO. AWF

1/24/03 ACS - Transferred hydro from Paul Stock to Adam Sakely.

1/29/03 Recvd Appendix F from Coteau. LEO

07/16/03. File sent to Adam Sakely, Brainerd. LEO

7/22/03 ACS - Reviewed AR dated 3/25/03 recommending additional monitoring and IT monitoring. FP remains in source area below unrecoverable levels. Deep MW had been clean the past 4 quarters. Called Nate Hunke at Coteau. Sampling events completed in 2/03 and 5/03. FP in MW-6 still below 0.1". Recommend 1 more year (2 more events) and completion of annual. Only quarterly FP monitoring is necessary.

7/22/03 ACS - Returned file to LEO in DL via inter-office mail.

7/23/03 RMW letter drafted. LEO

7/24/03. File returned. RMW Letter sent. LEO

01/12/04. Rcvd. Annual Monitoring Report. LEO.

1/21/04 ACS - Received file in BR.

1/27/04 ACS - Scott Hunke from Coteau called to discuss FP monitoring. Told him to go ahead with monthly and if it appears that monthly is not needed, then reduce to quarterly. Highest FP levels coincide with November after high WT in July. Informed him of the surface soil contamination as it pertains to our draft AST guidance.

2/2/04 ACS - Reviewed AR dated 12/31/03 recommending reduced GW monitoring and monthly FP monitoring. FP in MW-6 was 0.18' on last observation in November. This is highest level recorded, yet not significantly greater. Down-gradient MW-1 is clean. Side-gradient MW-4 (near south side of former tank locations) had low xylenes, GRO, and DRO last round. Agree with consultant for reduced monitoring and monthly FP checks (since FP level is greater than anytime before and higher than 0.1"). No GW receptors down-gradient. Site is outside and down-gradient of Barnesville WHPA. Initial borings had high levels of surface soil contamination. AST surface soil excavation assessment is needed.

2/2/04 ACS - Returned file to LEO in DL via inter-office mail.

1/12/04. Form B for Land Treatment recvd. Sent on to Sandra Kushman for processing. LEO

12-06-04 - NH Sent Form B to LEO. Noted that form is incomplete and should be returned to applicant to be completed prior to MPCA further review and possible approval.

01/20/05. Annual Monitoring Report recvd. needs hydro review and recommendations. LEO

03/21/05. Form b returned to Nate Hunke. Letter in the file LEO

04-29-05 - NH Ph call to Nate Hunke. Coteau re: is soil stockpiled yet? Nate said it hasn't been excavated yet. I explained the landfill site isn't preapproved yet and Form B won't be processed until their paperwork issues are resolved.

05/18/05. File sent to Adam S. in Brainerd. LEO

5/20/05 ACS - Received file in BR.

5/24/05 ACS - Reviewed AR dated 12/31/04. Conditions much the same as last year. Still some NAPL in MW-6 at 0.13' in 8/2004. Nothing in the three last reported months since that date. Probably could close the site now, but would like to see more time pass with levels <0.1'. Agree to continue monitoring but more reduced, although monthly FP monitoring is beneficial to see how NAPL depth changes over the season with WT fluctuations. No more sampling from MW-2 and MW-3, annual at MW-5 and semi-annual at MW-1, 4, and 5.

## Preferred Id: 14203

Interest Remarks Date and Time Printed: 5/21/2008 09:05:43  
5/24/05 ACS - Returned file to LEO in DL via inter-office mail.  
05/31/05. RMW letter drafted and sent. LEO  
06/01/05. Sent fax to Nathun Hunke regarding RAW letter. Fax in the file. LEO.  
06/11/05 Rcvd soil excavation CAD. LEO  
06-22-05 - NH Sent Form B to LEO. Noted that he should have 'new' landowner Luke Gandrud sign as landowner, verify cu yds since excavation just occurred, and make sure there are averages for 2 samples if 150 cu yds (form only shows 1-GRO and doesn't average analyticals on page 3) and need site map showing proposed plot.  
06/23/05. file sent to Adam Sekely Brainerd. LEO  
6/24/05 ACS - Received file in BR.  
7/8/05 ACS - Reviewed CAD dated 6/8/05. Additional samples collected to delineate surface soil contamination. Estimated 50 yds of soil to be removed and backfilled. Recommend approval of 50 yds and MPCA approval to remove more. I will send out letter under my name as LEO in on leave. Will keep file at my desk until LEO returns.  
7/8/05 ACS - Submitted CAD APPR letter to typing.  
7/8/05 ACS - CAD APPR letter sent.  
9/14/05 SAB - file sent to Adam Sekely in Brainerd for review  
9/15/05 ACS - Received technical reports in BR. Main site folder was not sent. I believe I sent the entire file back to DL even though a previous remark stated that I would keep it. AWF wanted all LEO site files back in DL for re-distribution in case LEO does not return.  
9/16/05 ACS - Report received 7/8/05 was not requested by us. It was logged in by DL admin as LEO is out. The report is an update to the RP that we were cc'd on. I deleted this entry from report tracking. This report requires no response on our part. I left a message for Nate Hunke @ Coteau (605-886-4009) for CA update.  
9/23/05 ACS - Returned file to SAB in DL via inter-office mail.  
9/26/05 SAB - File returned to DL from Adam in Brainerd.  
10-13-05 - NH Ph call to Nate Hunke, Coteau re: explained that the Form B approval for land treatment that was issued 9/05 was for spreading at an expired site. I told him I'd call Mr. Kent the land app owner and explain he needs to renew his site prior to spreading any soil. Nate said the soil hasn't yet been excavated and he will call Mr. Kent next week to help him get the Form A completed correctly so the work can be completed at the site this season.  
10/27/05 Sent Form B approval for 150 yards using .40 acre at 3 inch application to PRE0638 Kent. S. Palzkill  
11/1/05 ACS - Talked with Nate Hunke @ Coteau. They are excavating today. The CAD approval was for 50 yds and at the time they called they had already trucked off 90 yds and excavated 50 more. They estimated an additional 50 yds to completely remove the petro saturated soil. This is the reason the have removed more that the approved 50, although they did not receive prior approval from us. The reason for this site still being open is the continual presence of small, yet recoverable levels of product in MW-6. Additional soil removal may quicken the investigation as the petro saturated soil surrounds MW-6. I did give verbal approval to remove up to 190 disturbed yards from the site. SJP will send e-mail to Nate about land treatment. LT side of things approved treatment of up to 150 yards even though I only approved 50 for excavation. Not sure why. In order to complete the excavation, I gave them approval to abandon MW-5 and MW-6. MW-6 should be replaced. MW-5 (deep well) does not need to be replaced. Area of excavation does not exceed approved area, but depth of excavation has extended to the WT (11' bgs) near MW-6 to remove petro saturated soil.  
11/2/05 Change of PM to Steve Palzkill. S. Palzkill  
11/3/05 Sent Form B approval for 40 yards using .10 acre at 3 inch application to PRE0638 Kent. S. Palzkill  
6/20/06 ACS - Processed SDRF.  
08/07/06 Tammy Heiden, Farmers Union Co-op, 218-354-2139, Update. S. Palzkill  
08/08/06 Hate Hunke,Coteau, Excavation Report an Annual Report by September 1, 2006. S. Palzkill  
9/13/06 Received Annual Monitoring Report and Corrective Action Excavation Report Worksheet. S. Palzkill

Interest Remarks Date and Time Printed: 5/27/2008 09:05:43

1/4/07 ACS - Reviewed CA Ex. Rpt. WS dated 8/23/06 and AR dated 8/31/06. The surface soil excavation was completed on 1/1/05 and 1/12/05. 140 yards of soil was removed (190 disturbed yds). This included more than the surface soil approval as petroleum saturated soils were encountered and removed. MWs 5 and 6 were removed, and MW-6 was replaced (MW-6R) in same location with same screen depth and interval. Soil was land farmed, yet we have not received a Form C or D. Data from the AR ends at November 1, 2005. Since that time, Coteau has completed two semi-annual monitoring events and monthly NAPL monitoring. They have collected another year of data that can be submitted in another AR. I talked to Nate and Scott Hunke at Coteau about the more recent data. Initially NAPL was present in MW-6R at levels similar to what was present in MW-6, but then it showed up in greater thickness, 0.5 to 0.6 ft. Scott said the backfill material was sand and gravel as opposed to the native silty, sandy till. Product may be migrating into the more conductive backfill material from surrounding native soil. The excavation may now have a bathtub effect, which in a way is beneficial in that we can remove more NAPL, but it will also keep the site open longer. I had planned on closing the site after the surface soil excavation was complete, but with recoverable NAPL present, more work is needed to assess how practical it is to recover it. The risks remain low, and the surface soil risk is gone, so now its a matter of recovering NAPL to the extent practicable. Recommend a NAPL bail down and recovery test be performed in MW-6R ASAP and the results submitted with all the data collected since November 2005 in an AMR. Recommendations should be made for NAPL recovery and GW monitoring if needed. Also need to remind RP about land treatment follow up.

1/4/07 ACS - Submitted RMW letter to typing.

1/8/07 ACS - RMW letter sent.

2/21/07 PM Transfer from Palzkill to Ness

3/6/07 ACS - Received a call from Scott Hunke at Coteau while he was on site conducting NAPL bail down test. WT is much lower than it ever has been. Might be drought related and might be related to excavation. Scott is going to measure WT in other MWs to see if the WT has dropped across the site. Scott explained what he was doing and I realized he did not understand the concept of a NAPL bail down test. I explained how to do it and what we were trying to obtain from it. He is going to remain on site to monitor NAPL recovery (0.3' in MW-6R before bailing). Since this is the only data I want before AR submittal, we need to get it. If the WT is low due to drought, we may have smeared NAPL deeper, or it may have already been smeared and we see more now than before the excavation because the lower WT is allowing previously submerged NAPL to enter the well. A rising water table may make remaining NAPL difficult to recover if it is trapped below the WT.

6/13/07 AEN - Review of land treatment of soils. Russell Kent PRE0638 submitted a Form C to AWF in the spring of 2007. This Form C was for both batches at this leak site totalling 188 cubic yards. There has not been a Form D submitted to date. Will need to comment to RP on next communication.

7/30/07 AEN - Rec'vd Annual Monitoring Report recommending CAD. Note: Form D submittal required for PCS soils that went to land treatment at PRE0638.

11/19/07 ACS - Reviewed AMR dated 7/18/07. This report provides the 2006 data and some data collected in March 2007. As previously mentioned in remarks, the deeper excavation in the area of MW-6 and replacement of the native silty soil with sand appears to have created a bathtub effect that has allowed the accumulation of NAPL at levels not previously measured. In any case, the product is not recovered efficiently through passive skimmers or bailing. Only 0.91 gallons were recovered in 2006 consisting of 10 monthly recovery events. The consultant is recommending installation of an MPE system. This makes no sense as there is no CA reason. Considering the lack of product recovery over ten events in 2006, site closure is warranted despite measurable NAPL in MW-6R. It is no longer practical to remove this product for no present risk. Recommend closure after land treatment is completed.

11/20/07 AEN - RMW for soil monitoring only sent to RP and Russel Kent (land treatment owner/operator). Coteau env. not ccd on letter.

11/26/07 AEN - Rec'vd call from Tammy Heiden (RP) question on who is responsible for follow up monitoring. Explained it depends on what arrangements were made between RP/consultant and land treatment owner/operator. I mentioned 5 samples should have been taken already 2 in 2006, 3 in 2007. Suggest she contact Coteau first to see if they sampled and what arrangements were made with Russel Kent. May need to contact R. Kent to see if he is doing the monitoring after conversation with Coteau.

## Preferred Id: 14203

Interest Remarks      Date and Time Printed: 5/21/2008 09:05:43

03-07-08 - NH Ph call from Nate Hunke, Coteau (605-886-4009) re: they are at the site right now to seal six mws. Two have been sealed, the third that they were working on MW-6 has 13 inches of free product. Nate wondered what to do. He tried contacting AEN. I told him she is on leave for a few days and in her absence I told him I think MW-6 should NOT be sealed. I reminded him to report the fp to the SDO and asked that they recover as much fp as they can today. He said they do have bailers and sorbent socks so they will do that. I told him I would let AEN know that I had taken the call and when she returns from leave she can tell him how she would like to have this situation handled. He said the last time the mws were monitored was about 6 mos ago and there was no fp in MW-6. I will ask AEN to call Nate when she returns.

03-07-08 - NH Spoke w/ ACS re: call from Nate. Realized after the fact that I could have referred Nate to Adam. Adam is fully aware of fp and will call Nate to tell him to move ahead w/ mw sealing afterall.

3/7/08: Rec'd DO report of free product in MW. Consultant out to site to seal well, and discovered the FP at that time. There was 13" of FP (diesel), in a 2" well, so estimaytes 2 gallons total. Depth to gw is est at 10' bgs. (KAF)

3/21/08 AEN - After discussion with Adam, we are not going to reopen an investigation on this site and the wells have been sealed. Will wait the land treatment monitoring results then can possibly close.

3/27/08 aEN - Call to Tammy Heiden, 218-354-2139 to check on status of land treatment results. She has not tried to contact Russell Kent. Gave her Kent's number and told her to call him to discuss situation. If have not sampled will need to sample in June 2008 If having difficulties contacting Kent, told her to let me know. Request she give me a call when she finds out more. Will set deadling for 4/15/08 to check status.

5/13/08 AEN - Call to Tammy Heiden. She has been trying to reach Russel Kent but has been unsuccessful. I informed her I will try to connect with him and have him call her.

5/13/08 AEN - Call to Russell Kent at 218-983-3831. Left message with wife to return my call.

5/13/08 AEN - Call rec'vd from Russell Kent. He did receive calls from Tammy Heiden and tried to call back but did not get ahold of her. He thought it was the consultants responsibility to complete follow up monitoring. The batch submitted from another leak site was applied on this site from LS#12536. Terracon completed the follow up sampling and AWF reviewed and sent a closure letter for those soils. Due to the confusioin with Coteau being removed from petro work, the soils from other site have met closure limits...will set closure of this batch the same date closed the batch from LS#12536. Will call Tammy and inform.

5/20/08 AEN - Closure letter sent. Call to Tammy Heiden to update her on closure letter. Left message for her to call me back.



**MINNESOTA DUTY OFFICER**

Bureau of Criminal Apprehension Operations Center

Report #: 94614      Report Date: 3/7/2008      Report Time: 11:21      DO#: 33

**CALLER INFORMATION**

Contact: Nate Hunke  
 Address: 312 9th Ave Southeast, Suite C  
 City Watertown  
 Phone: (605) 888-4009      Ext:      *Hudson*  
 Have local police and/or fire been notified?      *Yes*

Company: Coteau Environmental - Watertown  
 State: SD      Zip 57201-      Ext:  
 Alt phone:      Ext:

**NARRATIVE**

There is an existing well that previously had free product and had been monitored until there was no product on site and the site was closed. When caller went back to abandon the well he discovered product in the well once again. There was 13 " of free product this time which is believed to be diesel. It is a 2" well, so he estimates there is 2 gallons in there altogether.

No surface water nearby. Depth to groundwater - 10'  
 Nancy Hennen-Blomme from MPCA in Marshall. Will have them bail the product & remove from the well & then put a absorbant sock in well. Clay County.

*L#14203: site open 5/4/01 - AEN*

**INCIDENT REPORT: TANK****RESPONSIBLE PARTY/PROPERTY OWNER**

Name: Tammy Heiden  
 Company:  
 Address: 115 2nd Ave SW  
 City Barnesville      State M      Zip 56514-  
 Phone: (218) 354-2139      Ext  
 Alt. phone:      Ext

**SITE LOCATION**

Name: *Farmers Coop Oil*  
 Address: .5 mi north of RP Address  
 City BARNESVILLE      Zip 56514-  
 County CLAY

**SITE INFORMATION**

Discovery date 3/7/2008      Discovery time:      Previously reported site? YES      Leak #: 14203

Is E85 on site?

**RELEASE INFORMATION**

Number/Size of Tank(s)      Tank Contents      Age of Tank(s)      Type of Tank

Native soil type:      Surface water nearby?  
 Source of Release      Site water source:  
 Contaminated soil excavated?      Quantity      Able to dig out contamination?  
 Ground water encountered?      Depth to ground water: 10'

**ANY QUESTIONS - PLEASE CONTACT THE MN DUTY OFFICER AT 651-649-5451 OR 800-422-0798**

RECEIVED

MAR 11 2008

MPCA - BRainerd  
BAXTER, MN

*Open L#14203 PM: AEN*





Highest vapor reading:

Analytical results:

If not tank related, specify Release Source and Product Type

MPCA Project Manager: \_\_\_\_\_

Leak Number: \_\_\_\_\_

In:	Out:	Link:	Date:	Time:	Agency:	County:	Method of Cont
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3/7/2008	12:19	MPCA Metro		Fax
Narrative:							
In:	Out:	Link:	Date:	Time:	Agency:	County:	Method of Cont
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3/7/2008	12:19	MPCA Region 3		Fax
Narrative:							
In:	Out:	Link:	Date:	Time:	Agency:	County:	Method of Cont
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3/7/2008	12:20		CLAY	Fax
Narrative:							

ANY QUESTIONS - PLEASE CONTACT THE MN DUTY OFFICER AT 651-649-5451 OR 800-422-0798



# MINNESOTA DUTY OFFICER HAZARDOUS MATERIAL INCIDENT REPORT: TANKS

Report #: 33182      Report Date: 11/15/2001      Report Time: 15:38      DO#: 37

Caller Information:

Name: Nate Hunkle

Name:

Company: Coteau Environmental - Watertown

Company: Ottertall Valley Railroad

Address: 312 9th Ave Southeast, Suite C

Address: 200 North Mill Street

City: Watertown

State: SD

City: Fergus Falls

State: MN

Phone: (605) 886-4009      Ext:

Zip: 57201-

Phone: (218) 736-6073      Ext:

Zip 56537-

Alt. Phone:      Ext:

Alt. Phone:      Ext:

Site Name:

Site Location:

Site Address: 115 2nd Ave. SW

Site City: BARNESVILLE

Site County: CLAY

Site Zip: 56514-

Site Information:

Discovery Date: 11/15/2001      Discovery Time: 15:30

Previously Reported Site?: YES

Leak #: 14203

Tank Information:

Number/Size of Tank(s):

Tank Contents:

Age of Tank(s):

Type of Tank:

Native Soil Type: Sand

Surface Water Nearby?: Yes

Monitoring Wells on Site?: No

Site Water Source: Unknown

Contaminated Soil Excavated?: No

Quantity: n/a

Able to dig out Contamination?: No

Ground Water Encountered?: No

Depth to Ground Water: n/a

Free Product Found?: Yes

Stained Soils?: Yes

Petroleum Odors?: Yes

Highest Vapor Reading: 450

Analytical Results: 4400ppm

If this incident involves an A.S.T. is there secondary containment around the tank?:

If a Phase I or Phase II site assessment is being done, is it tank related? No

Narrative: Free Product found.

ANY QUESTIONS PLEASE CONTACT THE MINNESOTA DUTY OFFICER AT 651-649-5451 OR 800-422-0798

MPCA Project Manager: \_\_\_\_\_

AWF

Leak Number: \_\_\_\_\_



33182

11/15/2001

15:38

37

In:  Out:  Link:  Date: 11/15/2001 Time: 15:58 Agency: MPCA Metro County: Method of Contact: Fax

Narrative:

In:  Out:  Link:  Date: 11/15/2001 Time: 15:58 Agency: MPCA Region 3 County: Method of Contact: Fax

Narrative:



# MINNESOTA DUTY OFFICER HAZARDOUS MATERIAL INCIDENT REPORT: TANKS

Report #: 27171      Report Date: 5/4/2001      Report Time: 8:31      DO#: 54

Caller Information:

Name: Nate Hunke  
Company: Coteau Environmental  
Address: 312 9th Ave SE Suite C

Responsible Party/Property Owner:

Name: Tammy Heiden  
Company: Farmers coop Oil  
Address: 115 2nd Ave Sw

*s tandord*

City: Watertown      State: SD      City: Barnesville      State: MN  
Phone: (320) 846-4668      Ext:      Zip: 57201-      Phone: (218) 354-2274      Ext:      Zip 56514-  
Alt. Phone:      Ext:      Alt. Phone:      Ext:

Site Location:

Site Name:  
Site Address: .5 mile north of RP address  
Site City: BARNESVILLE      Site County: CLAY      Site Zip:

Site Information:

Discovery Date: 5/4/2001      Discovery Time: 8:00      Previously Reported Site?: NO      Leak #: 0

Tank Information:

Number/Size of Tank(s):      Tank Contents:      Age of Tank(s):      Type of Tank:

Native Soil Type: silty clay      Surface Water Nearby?: No  
Monitoring Wells on Site?: No      Site Water Source:  
Contaminated Soil Excavated?: No      Quantity: Able to dig out Contamination?: No  
Ground Water Encountered?: No      Depth to Ground Water:  
Free Product Found?: No      Stained Soils?: Yes      Petroleum Odors?: Yes

Highest Vapor Reading: 225 ppm PID      Analytical Results:

If this incident involves an A.S.T. is there secondary containment around the tank?:

If a Phase I or Phase II site assessment is being done, is it tank related? Yes

Narrative: Test holes dug for closure assessment of former bulk storage plant.

ANY QUESTIONS PLEASE CONTACT THE MINNESOTA DUTY OFFICER AT 651-649-5451 OR 800-422-0708

MPCA Project Manager: AWF

Leak Number: 14203





**NOTIFICATIONS**

REPORT #  
27171

REPORT DATE  
5/4/2001

REPORT TIME  
8:31

LV:  
54

In:  Out:  Link:  Time: 8:55  
Narrative:  Agency: MPCA Metro County: Method of Contact: Fax

In:  Out:  Link:  Time: 8:55  
Narrative:  Agency: MPCA Region 3 County: Method of Contact: Fax





# ENVIRONMENTAL

312 9th Ave. SE, Suite C • Watertown, SD 57201 • Bus (605) 886-4009 • Fax (605) 882-4152  
728 Janes Circle Dr. SW • Alexandria, MN 56308 • Bus/Fax (320) 846-4668

July 6, 2005

Ms. Tammy Heiden  
Farmers Union Oil Company  
115 2<sup>nd</sup> Ave. SW  
Barnesville, MN 56514

RECEIVED  
JUL 08 2005

RE: Applicant Status Update - Monthly Free-Phase Product Recovery /  
Semi-Annual Ground Water Monitoring - 3<sup>rd</sup> Event  
Former AST Bulk Plant  
Barnesville, Minnesota  
MPCA Leak No. 14203

BY:-----

Dear Ms. Heiden:

Coteau Environmental (Coteau) has prepared this letter report regarding the results for the monthly free-phase product recovery and third (3<sup>rd</sup>) semi-annual ground water monitoring event at the above-referenced site. Fluid levels were measured in all monitor wells on December 14, 2004 and January 4, February 8, March 17, April 7 and May 13, 2005. The monitor wells were also checked for free-phase product on these dates. Approximately 0.02 foot of free-phase product was observed in monitor well MW-6 on December 14, 2004, 0.02 foot of free-phase product was observed in monitor well MW-6 on January 4, 2005, 0.03 foot of free-phase product was observed in monitor well MW-6 on February 8, 2005, 0.02 foot of free phase product was observed in monitor well MW-6 on March 17, 2005. No measurable free-phase product was bailed from monitor wells MW-6 or on these dates. However, approximately 0.25 gallon of free product was recovered from the petroleum absorbent sock installed in monitor well MW-6 on December 14, 2004 and January 4 and February 8, 2005. In addition, approximately 0.31 gallon of free-phase product was recovered from the petroleum absorbent sock installed in monitor well MW-6 on March 17, 2005. Approximately 0.25 gallon of free-phase product was recovered from the petroleum absorbent sock installed in monitor well MW-6 on April 7, 2005. A new petroleum absorbent sock was installed in MW-6 following each free product recovery event. Based on the fluid level measurements in the monitor wells, ground water flow is to the west. Please note, the fluid level in monitor well MW-5



was above the top of the screen on December 14, 2004 and January 4, February 8, March 17, April 7 and May 13, 2005. Monitor well MW-5 is a deep monitor well and the top of the screen was installed below the water table to identify the vertical hydraulic gradient. The water level elevation for monitor well MW-5 was not considered during the construction of the water table contour maps. Ground water elevations are illustrated by water table contour maps shown on Figure 1A, 1B, 1C, 1D, 1E and 1F.

Ground water samples were collected from monitor wells MW-1, MW-4 and MW-6 on May 13, 2005. Ground water samples were purged by removing a minimum of five (5) well casing volumes from the well prior to sampling using a disposable polyethylene bailer.

Ground water samples collected from monitor wells MW-1, MW-4 and MW-6 were analyzed for benzene, toluene, ethyl benzene, xylenes (BTEX), total petroleum hydrocarbons (TPH) using gasoline range organics (GRO) methodology, TPH using diesel range organics (DRO) methodology and methyl tertiary-butyl ether (MTBE). No BTEX and TPH as GRO impacts were identified in ground water collected from monitor wells MW-1 and MW-4, above the laboratory method detection limits. BTEX and TPH as GRO impacts in ground water collected from monitor well MW-6 were identified at concentrations of 170, 610, 260, 1,500 and 17,000 parts per billion (ppb), respectively. Benzene impacts in ground water collected from monitor well MW-6 exceeded the health risk limit (HRL) of 10 ppb. TPH as DRO impacts in ground water collected from monitor wells MW-1, MW-4 and MW-6 were identified at concentrations of 410, 490 and 75,000 ppb, respectively. No MTBE impacts were identified in ground water collected from monitor wells MW-1, MW-4 and MW-6, above the laboratory method detection limit. Benzene, TPH as GRO and TPH as DRO concentrations are illustrated on Figures 2, 3 and 4, respectively, and are included in Table 1.

If you have any questions regarding this letter report, please contact me at (605) 886-4009. Coteau appreciates the opportunity to provide professional consulting services to Farmers Union Oil Company.



Sincerely,  
COTEAU ENVIRONMENTAL

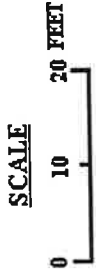
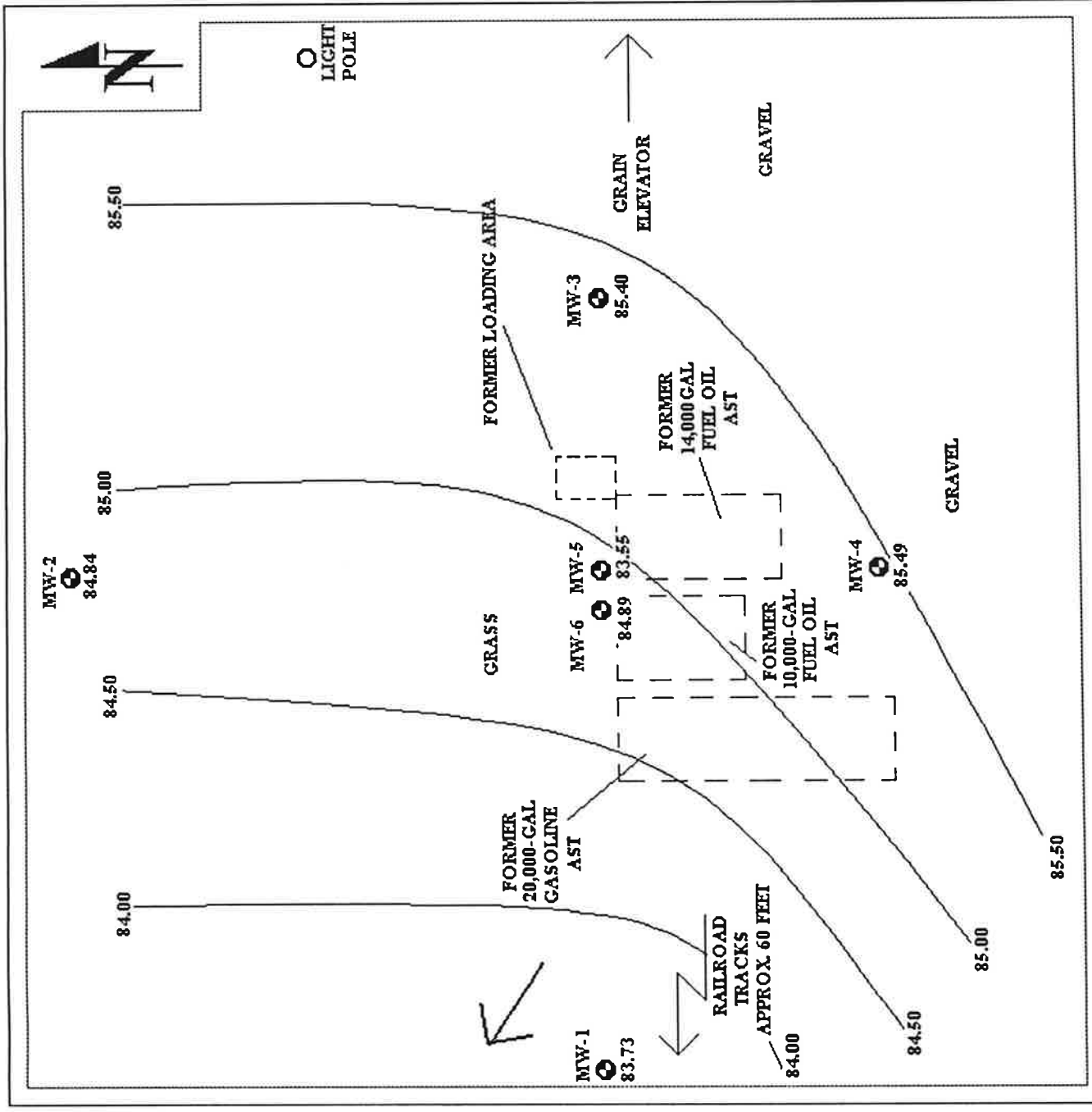
A handwritten signature in black ink, appearing to read "N. T. Hunke". The signature is written in a cursive style with a large initial "N".

Nathan T. Hunke, P.G., M.S.  
Senior Hydrogeologist

cc: Mr. Larry Olson - MPCA





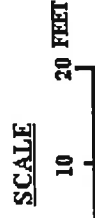
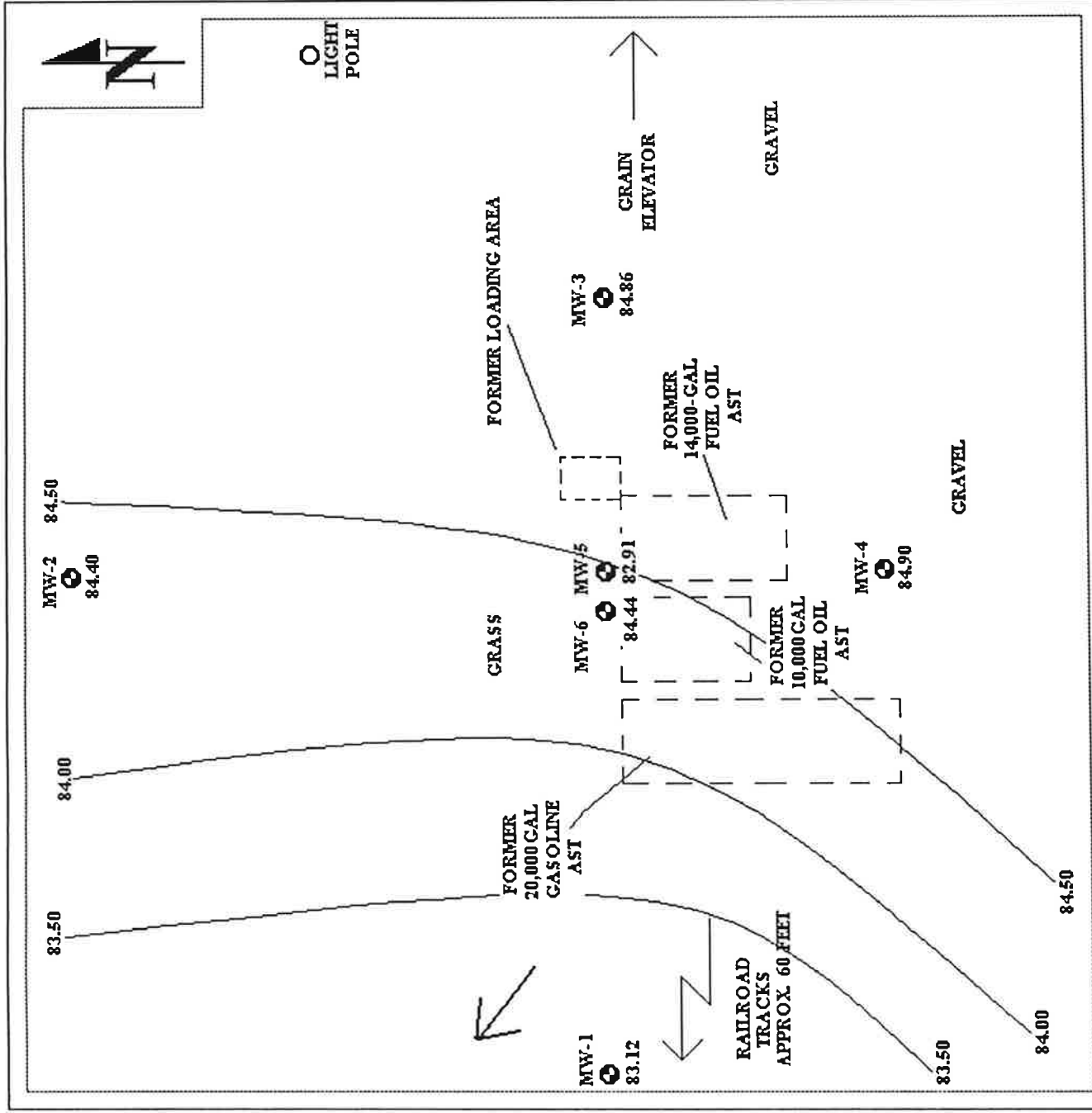


**KEY**

- MW-1 MONITOR WELL LOCATION
- MW-1 GROUND WATER ELEVATION (FEET)
- 83.73 GROUND WATER ELEVATION CONTOUR (APPROXIMATE)
- GROUND WATER FLOW DIRECTION
- AST ABOVEGROUND STORAGE TANK

<b>FARMERS UNION OIL CO. BARNESVILLE, MINNESOTA</b>	
GROUND WATER ELEVATIONS DECEMBER 14, 2004	
DATE	REVISED
COTEAU ENVIRONMENTAL 728 JAMES CIRCLE DRIVE SW ALEXANDRIA, MN 56308 (320) 846-4668	
DRAWN BY:	DATE: JUNE 05
	FIGURE: 1A





**KEY**

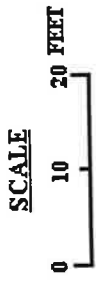
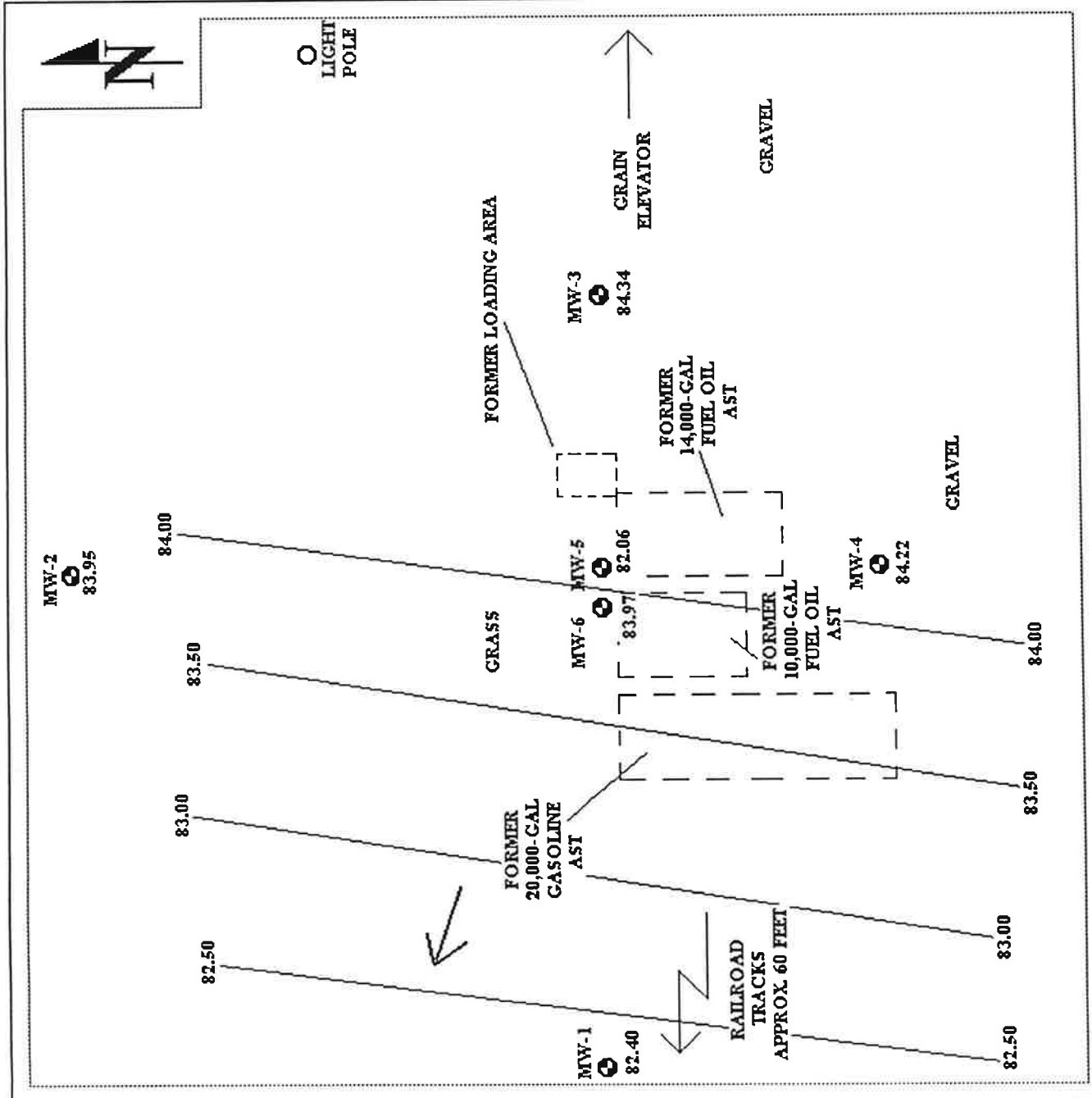
- MW-1 MONITOR WELL LOCATION
- MW-1 GROUND WATER ELEVATION (FEET)
- 83.12 GROUND WATER ELEVATION CONTOUR (APPROXIMATE)
- 83.50— GROUND WATER FLOW DIRECTION
- ABOVEGROUND STORAGE TANK

**FARMERS UNION OIL CO.  
BARNESVILLE, MINNESOTA**

**GROUND WATER ELEVATIONS  
JANUARY 4, 2005**

DATE	REVISED
COTEAU ENVIRONMENTAL 728 JANES CIRCLE DRIVE SW ALEXANDRIA, MN 56308 (320) 846-4668	
DRAWN BY:	
DATE: JUNE 05	FIGURE: 1B



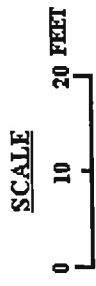
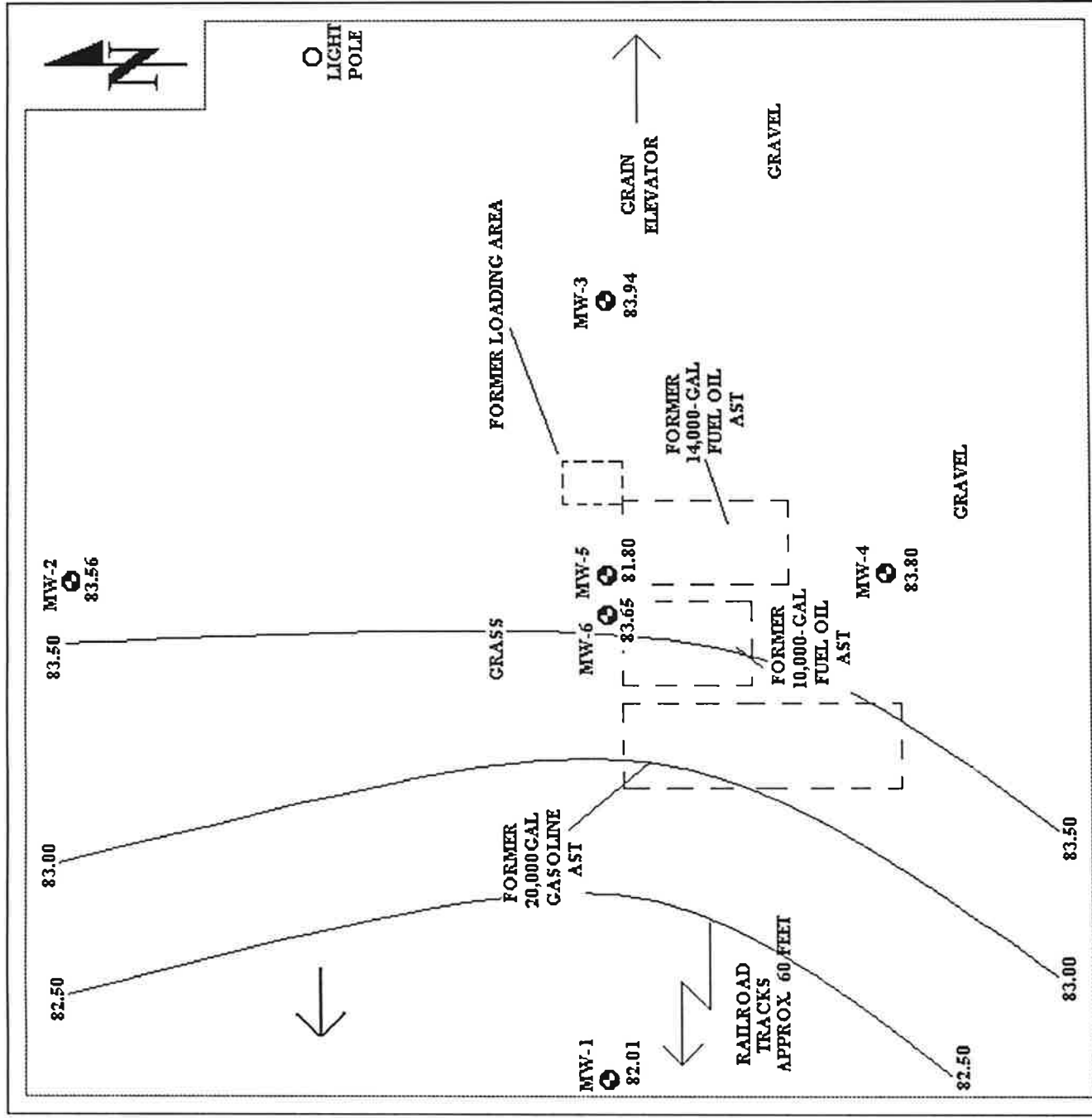


**KEY**

- MW-1 MONITOR WELL LOCATION
- MW-1 82.40 GROUND WATER ELEVATION (FEET)
- 82.50 - (APPROXIMATE) GROUND WATER ELEVATION CONTOUR
- GROUND WATER FLOW DIRECTION
- AST ABOVEGROUND STORAGE TANK

<b>FARMERS UNION OIL CO. BARNESVILLE, MINNESOTA</b>	
<b>GROUND WATER ELEVATIONS FEBRUARY 8, 2005</b>	
DATE	REVISED
COTEAU ENVIRONMENTAL 728 JAMES CIRCLE DRIVE SW ALEXANDRIA, MN 56308 (320) 846-4668	
DRAWN BY:	DATE: JUNE 05
	FIGURE: 1C





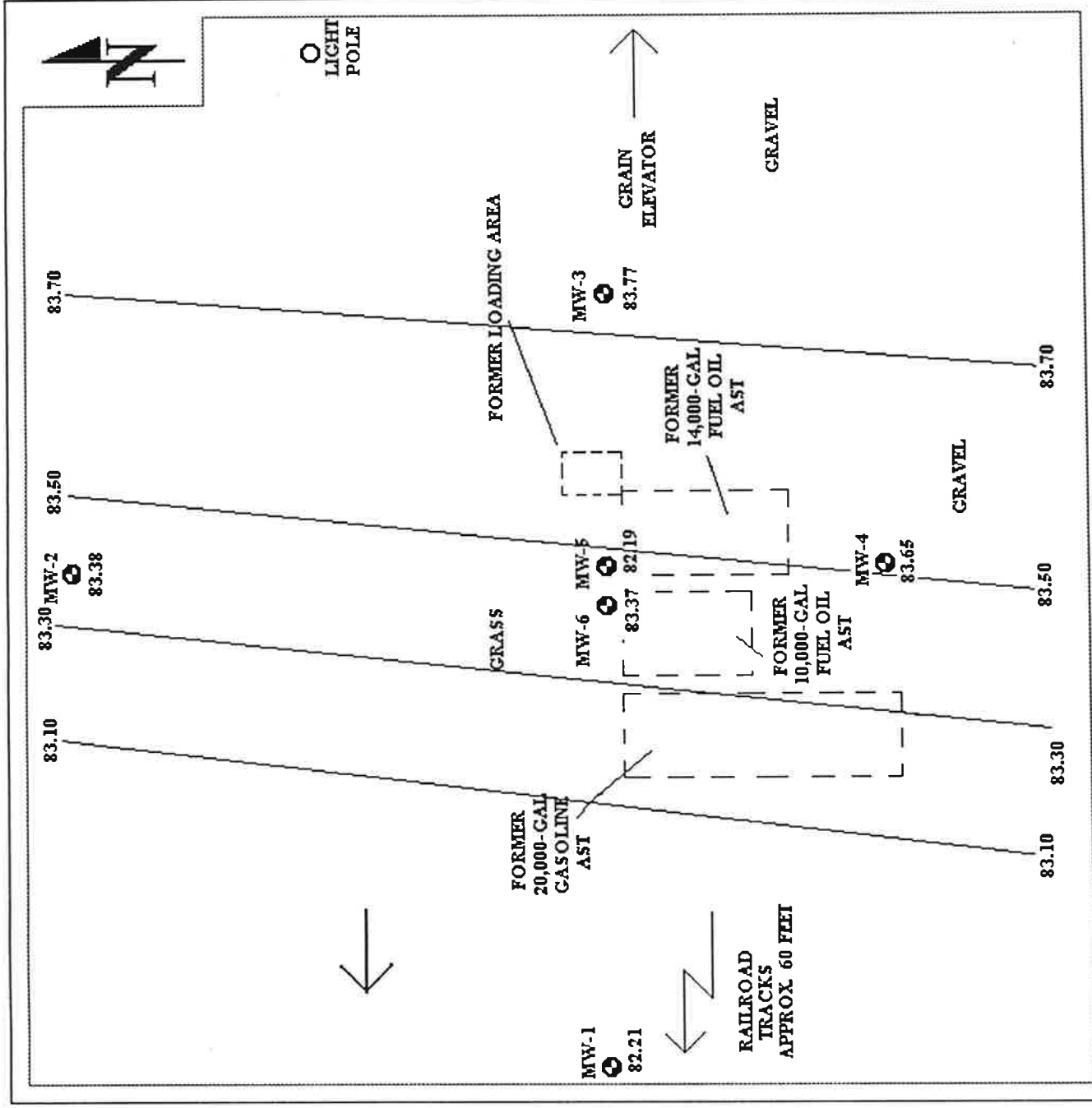
**KEY**

- MW-1 MONITOR WELL LOCATION
- MW-1 GROUND WATER ELEVATION (FEET)
- 82.50- GROUND WATER ELEVATION CONTOUR (APPROXIMATE)
- GROUND WTER FLOW DIRECTION
- AST ABOVEGROUND STORAGE TANK

<b>FARMERS UNION OIL CO. BARNESVILLE, MINNESOTA</b>	
<b>GROUND WATER ELEVATIONS MARCH 17, 2005</b>	
DATE	REVISED
COTTEAU ENVIRONMENTAL 728 JAMES CIRCLE DRIVE SW ALEXANDRIA, MN 56308 (320) 846-4668	
DRAWN BY:	DATE: JUNE 05
	FIGURE: 1D







**KEY**

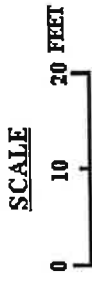
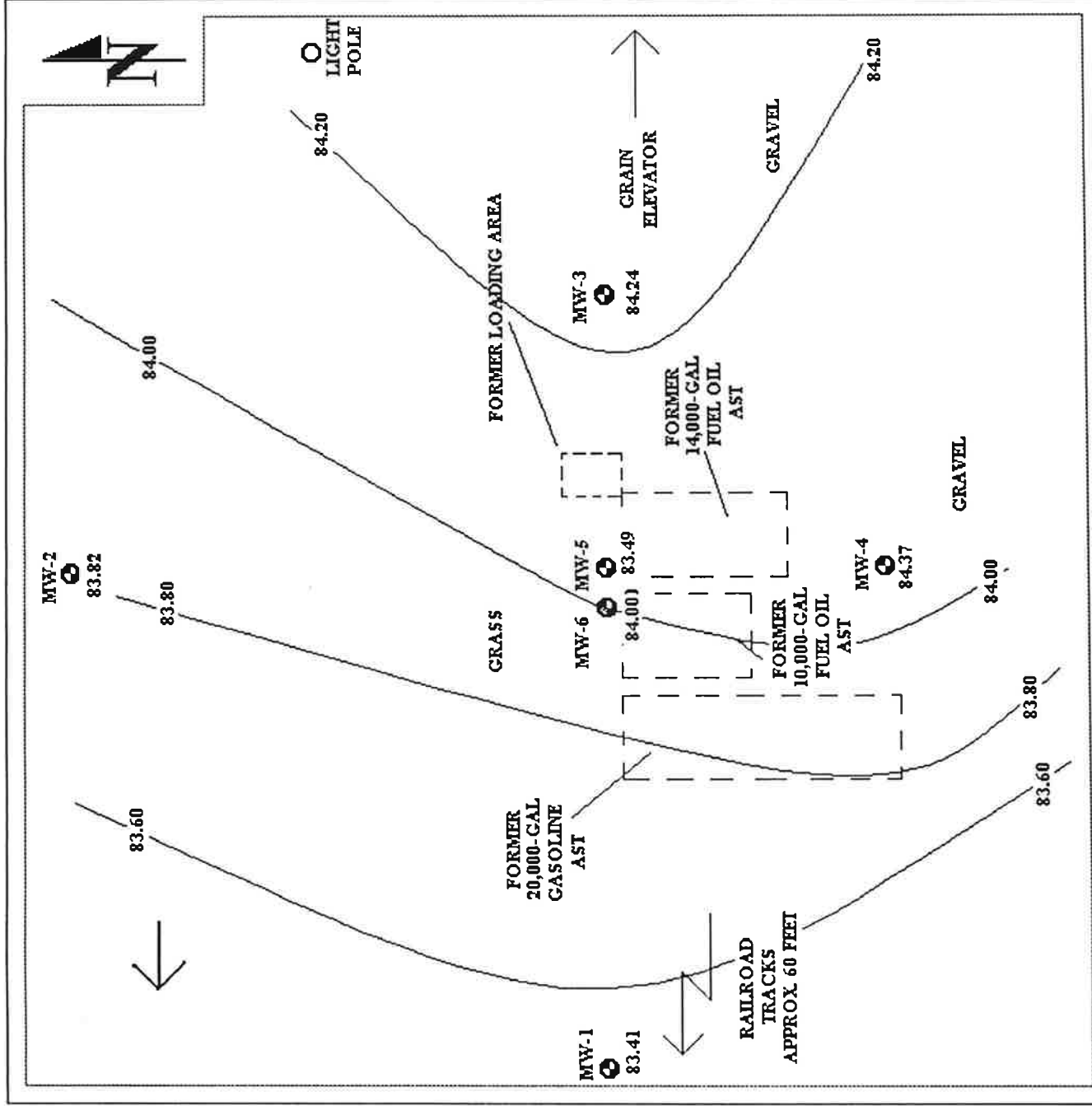
- MW-1 MONITOR WELL LOCATION
- MW-1 GROUND WATER ELEVATION (FEET)
- 82.21 GROUND WATER ELEVATION (FEET)
- 83.10 — (APPROXIMATE) GROUND WATER ELEVATION CONTOUR
- GROUND WTER FLOW DIRECTION
- AST ABOVEGROUND STORAGE TANK

**FARMERS UNION OIL CO.  
BARNESVILLE, MINNESOTA**

**GROUND WATER ELEVATIONS  
APRIL 7, 2005**

DATE	REVISED
COTEAU ENVIRONMENTAL 728 JAMES CIRCLE DRIVE SW ALEXANDRIA, MN 56308 (320) 846-4668	
DRAWN BY:	
DATE: JUNE 05	FIGURE: 1E





**KEY**

- MW-1 MONITOR WELL LOCATION
- MW-1 GROUND WATER ELEVATION (FEET)
- 83.41 GROUND WATER ELEVATION CONTOUR (APPROXIMATE)
- 83.60 - GROUND WTER FLOW DIRECTION
- AST ABOVEGROUND STORAGE TANK

**FARMERS UNION OIL CO.  
BARNESVILLE, MINNESOTA**

**GROUND WATER ELEVATIONS  
MAY 13, 2005**

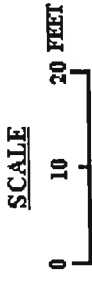
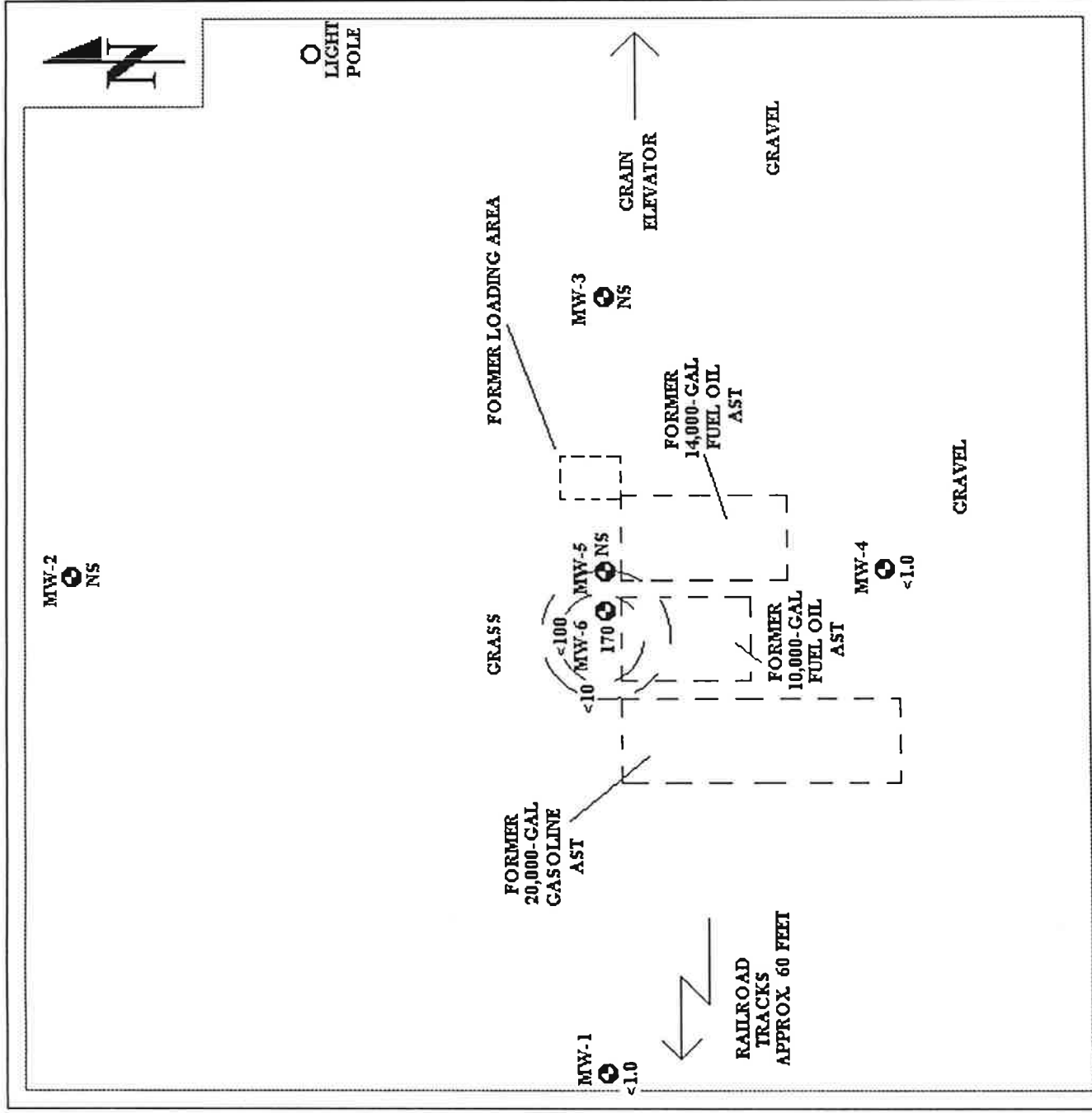
DATE	REVISED

COTEAU ENVIRONMENTAL  
728 JAMES CIRCLE DRIVE SW  
ALEXANDRIA, MN 56308  
(320) 846-4668

DRAWN BY:

DATE: JUNE 05      FIGURE: 1F



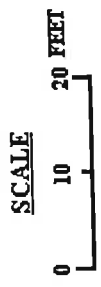
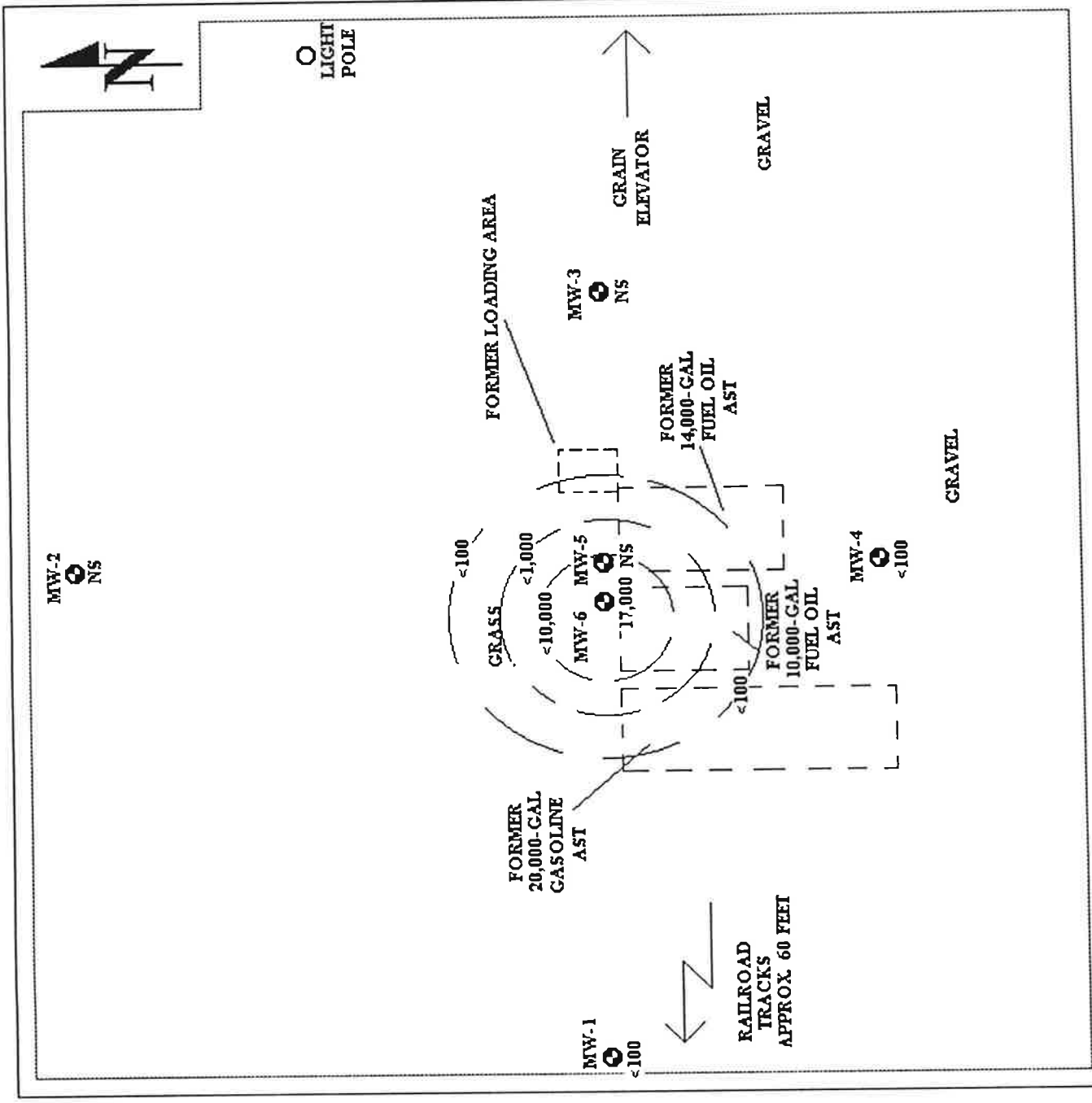


**KEY**

- MW-1
- MW-6
- 170
- <100 -
- PPB
- AST
- NS
- MONITOR WELL LOCATION
- GROUND WATER BENZENE CONCENTRATION (PPB)
- GROUND WATER BENZENE CONTOUR (APPROXIMATE)
- PARTS PER BILLION
- ABOVEGROUND STORAGE TANK
- NO SAMPLE COLLECTED

<b>FARMERS UNION OIL CO. BARNESVILLE, MINNESOTA</b>	
<b>GROUND WATER BENZENE CONC. MAY 13, 2005</b>	
DATE	REVISED
	COTEAU ENVIRONMENTAL
	728 JANES CIRCLE DRIVE SW
	ALEXANDRIA, MN 56308
	(320) 846-4668
DRAWN BY:	
DATE: JUNE 05	FIGURE: 2





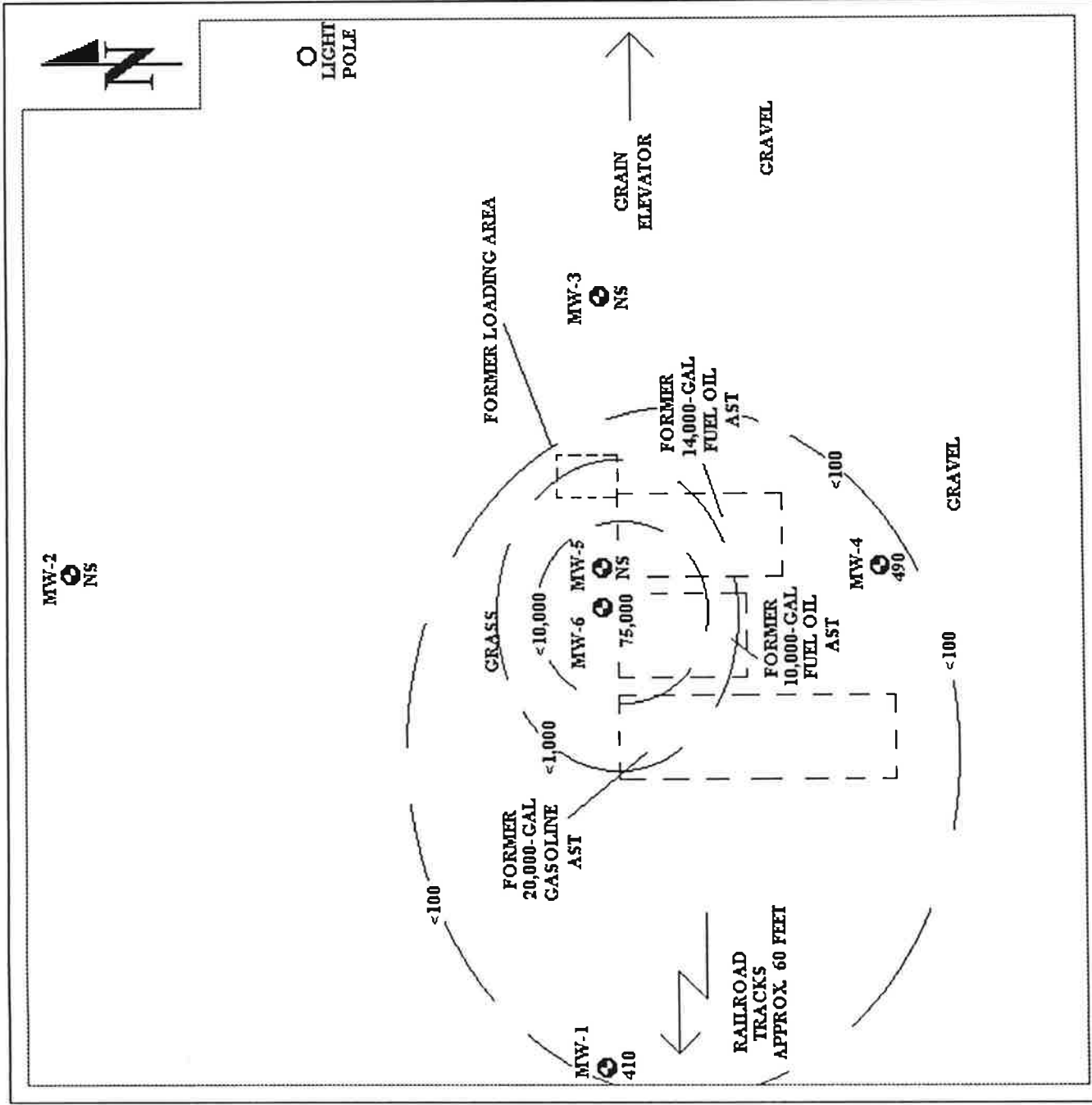
**KEY**

- MW-1 MONITOR WELL LOCATION
- MW-6 GROUND WATER TPH AS GRO CONCENTRATION (PPB)
- 17,000
- <100 - GROUND WATER TPH AS GRO CONTOUR (APPROXIMATE)
- AST ABOVEGROUND STORAGE TANK
- PPB PARTS PER BILLION
- TPH TOTAL PETROLEUM HYDROCARBONS
- GRO GASOLINE RANGE ORGANICS
- NS NO SAMPLE COLLECTED

<b>FARMERS UNION OIL CO. BARNESVILLE, MINNESOTA</b>	
<b>GROUND WATER TPH AS GRO CONC. MAY 13, 2005</b>	
DATE	REVISED
	COTEAU ENVIRONMENTAL
	728 JANES CIRCLE DRIVE SW
	ALEXANDRIA, MN 56308
	(320) 846-4668
DRAWN BY:	
DATE: JUNE 05	FIGURE: 3







**KEY**

- MW-1 ● MONITOR WELL LOCATION
- MW-6 ● GROUND WATER TPH AS DRO CONCENTRATION (PPB)
- 75,000 — GROUND WATER TPH AS DRO CONTOUR (APPROXIMATE)
- <10,000 — NO SAMPLE COLLECTED
- NS DRO DIESEL RANGE ORGANICS
- DRO TOTAL PETROLEUM HYDROCARBONS
- TPH PARTS PER BILLION
- PPB ABOVEGROUND STORAGE TANK
- AST

**FARMERS UNION OIL CO.  
BARNESVILLE, MINNESOTA**

**GROUND WATER TPH AS DRO CONC.  
MAY 13, 2005**

DATE	REVISED	COTEAU ENVIRONMENTAL
		728 JANES CIRCLE DRIVE SW
		ALEXANDRIA, MN 56308
		(320) 846-4668

**DRAWN BY:** DATE: JUNE 05 FIGURE: 4



TABLE 1  
LABORATORY ANALYTICAL RESULTS  
GROUND WATER SAMPLES

Water sample	Date	Concentrations (ppb)						
		Benzene (10.0)	Toluene (1,000)	Ethyl Benzene (700)	Total Xylene (10,000)	TPH as GRO	TPH as DRO	MTBE
MW-1	05/13/05	<1.0	<1.0	<1.0	<3.0	<100	410	<5.0
MW-2	05/13/05	NS	NS	NS	NS	NS	NS	NS
MW-3	05/13/05	NS	NS	NS	NS	NS	NS	NS
MW-4	05/13/05	<1.0	<1.0	1.3	<3.0	<100	490	<5.0
MW-5	05/13/05	NS	NS	NS	NS	NS	NS	NS
MW-6	05/13/05	170	610	260	1,500	17,000	75,000	<250
FIELD BLANK	05/13/05	<1.0	<1.0	1.5	<3.0	140	NA	NA
TRIP BLANK	05/04/05	<1.0	<1.0	<1.0	<3.0	NA	NA	NA

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MTBE - Methyl-tertiary-butyl ether

NA = Not analyzed for parameter

NS = No sample collected

ppb = parts per billion

Note: The Minnesota Department of Health Risk Limits (HRL's) are in parenthesis below the compound of interest. Concentrations at or above the HRL's are shaded.



---

**Sekely, Adam**

**From:** Sekely, Adam  
**Sent:** Thursday, January 04, 2007 14:12  
**To:** Sekely, Adam  
**Subject:** LEAK #14203, Farmers Coop Oil, Barnesville

RE: hydro review of Coteau Environmental's "Corrective Action Excavation Report Worksheet" dated 8/23/2006 and "Annual Monitoring Report" dated 8/31/2006 recommending additional monitoring.

File,

I have reviewed the aforementioned report and have the following comments and recommendations:

#### COMMENTS

- The surface soil excavation was completed on 11/1/05 and 11/2/05. 140 yards of soil was removed (190 disturbed yds). This included more than the surface soil approval as petroleum saturated soils were encountered and removed. MWs 5 and 6 were removed, and MW-6 was replaced (MW-6R) in same location with same screen depth and interval.
- Soil was land farmed, yet we have not received a Form C or D.
- Data from the AR ends at November 1, 2005. Since that time, Coteau has completed two semi-annual monitoring events and monthly NAPL monitoring. They have collected another year of data that can be submitted in another AR. I talked to Nate and Scott Hunke at Coteau about the more recent data. Initially NAPL was present in MW-6R at levels similar to what was present in MW-6, but then it showed up in greater thickness, 0.5 to 0.6 ft. Scott said the backfill material was sand and gravel as opposed to the native silty, sandy till. Product may be migrating into the more conductive backfill material from surrounding native soil. The excavation may now have a bathtub effect, which in a way is beneficial in that we can remove more NAPL, but it will also keep the site open longer. I had planned on closing the site after the surface soil excavation was complete, but with recoverable NAPL present, more work is needed to assess how practical it is to recover it. The risks remain low, and the surface soil risk is gone.

#### RECOMMENDATIONS

*Consultant's Recommendations:*

*Semi-annual sampling at MWs 1, 4, and 6. Annual sampling at MWs 2, 3, and 5. Monthly FP monitoring.*

Adam's Recommendations

(Suggested language to be included in a Request for Additional Work letter. Please review for clarity and grammar.)

During review of the aforementioned reports, MPCa staff contacted your environmental consultant, Coteau Environmental, regarding additional investigative activities completed since November 1, 2005, the last monitoring date documented in the most recent annual report. Two ground water monitoring events have been completed as well as monthly free product monitoring. Enough data have been collected to complete another annual monitoring report. Your consultant also indicated that levels of free product in the MW-6 replacement well, MW-6R, exceed those levels found in MW-6 prior to the excavation, and have exceeded 0.5 feet. Although the risks associated with the remaining contamination are low, the presence of free product at this

1. Cease all current ground water and free product monitoring activities.
2. Complete a free product bail down and recovery test in MW-6R. This will consist of bailing (or pumping) the product from MW-6R until no measurable thickness remains and then measuring the length of time it takes to recover. During the test, your consultant should collect the following information at a minimum:
  - a. Length of time needed to bail or pump the product from MW-6R until no measurable thickness is present.
  - b. Volume of product and water removed during the bail down stage.
  - c. Number of bailing attempts made during the bail down stage. If using a pump, record the pumping duration and pumping rate if known. That pumping rate can also be calculated based on the duration of pumping and the volume of product and water recovered.
  - d. Record the depth to product and the depth to water during the recovery stage. Measurements should be made more frequently at the start of recovery, such as every five (5) minutes, and then can be taken at longer intervals if recovery is slow.

It may take several hours for recovery to occur and may require measurements to continue over a two-day period. If recovery is quicker, more than one test may be able to be completed in one day. As a suggestion, if product levels recover to 90% of their pre-test conditions after a few hours, then complete the test again by bailing the product to no measurable thickness and recording its subsequent recovery. The more tests that can be completed, the more data we will have to judge what type of recovery method is best suited for the situation, and we can better determine what the practical extent of recovery is.

3. Submit the results of the bail down and recovery test and the monitoring data collected since November 1, 2005, in an annual monitoring report. Recommendations should be made regarding continued free product recovery and additional ground water monitoring if deemed necessary.
4. Please note that the MPCCA has not received Guidance Document 3-06 *Notification of Spreading Petroleum Contaminated Soil at a Land Treatment Site (Form C)*. This form should have been submitted within ten days following spreading. In addition, required monitoring of the batch of contaminated soil is required. Soil samples should have been collected from the treatment plot in 2006 to document contaminant levels. Soil samples results need to be reported following each sampling event using MPCCA Guidance Document 3-07 *Soil Monitoring Results for Land Treated Petroleum Contaminated Soil (Form D)*. Please see MPCCA Guidance Document 3-03 *Land Treatment of Petroleum Contaminated Soil* for more information. Proper documentation of soil treatment is required before site closure will be granted.