

DuPont Corporate Remediation Group
Barley Mills Plaza - Bldg. 27
Lancaster Pike & Rte. 141
Wilmington, DE 19805
(302) 992-4366



DuPont Corporate Remediation Group

August 8, 2002

Mr. Christopher A. Saari
Hydrogeologist
Northern Region Remediation and Redevelopment
State of Wisconsin Department of Natural Resources (WDNR)
Ashland Service Center
2501 Golf Course Road
Ashland, Wisconsin 54806

**MAY 2002 RESIDENTIAL AND NON RESIDENTIAL
GROUNDWATER SAMPLING RESULTS**
Former DuPont Barksdale Works Site
(BRRTS #02-04-000156)
Barksdale, Wisconsin



Dear Mr. Saari:

Attached are the analytical results for the residential and non-residential well sampling that was conducted in May 2002 on, and in the vicinity of the former DuPont Barksdale Works. Field work and sample analysis was performed in accordance with the WDNR approved *2002 Groundwater Sampling Plan for Residential and Non-residential Wells* dated April 26, 2002 and as amended on May 6, 2002. The purpose of the residential sampling was to confirm proper functioning of activated carbon water treatment systems installed at homes where site-related organic compounds have been detected and to determine that the full extent of affected residential wells has been identified. The non-residential wells were sampled as part of DuPont's continuing efforts to evaluate whether the deep flow zone continues to be a potential alternative water supply for residents with affected wells around the site.

DuPont has reviewed all data generated during the sampling event; and, in addition, the nitramine and nitroaromatic data was submitted for independent data validation by Environmental Standards, Inc. A summary of the May 2002 analytical results is presented in the attached Tables 1 through 5. Figure 1 shows detections of nitramine/nitroaromatic and volatile organic compounds. The full list of analytical results and the validation reports are included as appendices to this letter report.

The results transmitted herein have been delayed due to issues with select inorganics analyses. Specifically, during a routine audit of the Denver, CO Severn Trent Laboratory (STL) in June 2002, DuPont observed that the sample preparation/digestion procedure for ICP metals utilized for these samples did not comply with WDNR requirements for measuring liquid sample aliquots. DuPont requested that STL re-analyze all affected metals using the correct sample digestion procedure and resubmit the results. Once DuPont received

the new data, a routine in-house data review was performed. Upon review of the electronic and hard-copy data deliverables, discrepancies were found in the sample analysis dates. The time needed for re-analysis and correction of the date discrepancies in the electronic data resulted in our delay in submitting these data.

RESIDENTIAL DRINKING WATER WELL SAMPLING

During May 2002, DuPont obtained access to 57 of the 60 residential drinking water wells that were to be sampled per the April 2002 work plan. Locations that were not sampled include Fire Call (FC) No. 73300 on Bono Creek, FC No. 29250 on East Ondossagon Road, and FC No. 73115 within the Birch Grove subdivision. Numerous attempts were made to collect samples at 73300 Bono Creek and 73115 Birch Grove, but access to these houses could not be obtained. Sampling will be attempted at these locations during the next sampling event. WDNR requested that FC No. 29250 on East Ondossagon Road be sampled; but due a conflict on the exact address location, the well was not sampled. One location was added to the event as requested by the resident of FC No. 29190 on East Ondossagon Road. Therefore, a total of 58 residential wells were sampled.

FC No. 30900 on Nolander Road was collected as a split sample with WDNR. In addition to the nitramine/nitroaromatics, volatile organics, and water quality inorganics, the inflow port was also sampled for the EPA Target Compound List (TCL) semi-volatile organics, pesticides/PCBs, and the Target Analyte List (TAL) metals/cyanide. No volatile, semi-volatile, or pesticide/PCB compounds were detected at this location. Trace levels of several metals and cyanide were reported. However, since the cyanide detection was well below the laboratory reporting limit for the analysis, the detection is likely the result of interference from the sample matrix.

Thirteen of the 58 locations sampled showed detections of nitramine/nitroaromatic organic and/or volatile organic compounds. The analytical list was divided into three categories: nitramine/nitroaromatic organic compounds, Wisconsin regulated volatile organic compounds (VOCs), and water quality inorganics (DuPont, 2002).

Nitramine/Nitroaromatic Organic Compounds

As per the approved sampling plan (DuPont, 2002), all 58 residences were sampled for nitramine/nitroaromatic organic compounds at the inflow port (location closest to the well and before carbon treatment if a system was present) from the following areas surrounding the site:

- 24 Residential Wells on Highway (HWY) 13 (between FC Nos. 70990 and 73605)
- 13 Residential Wells on Nolander Road (between FC Nos. 29600 and 30900)
- Nine Residential Wells on Birch Grove Road (between FC Nos. 31220 and 73120)
- Six Residential Wells on Wedel Road. (between FC Nos. 30145 and 30875)
- FC Nos. 73150 Bjork Road
- FC Nos. 29250, 72545 and 73055 on Ondossagon Road.

Ten of the 58 residential houses sampled had detections of nitramine/nitroaromatic organic compounds during this sampling event with no new locations identified (Table 1). In the areas listed above with carbon treatment systems and historical detections, the inflow, system (between carbon cylinders) and effluent (after final carbon treatment) sample ports were sampled. Residential wells without previous detections were sampled at the inflow port only. The system samples were collected at locations where nitramine/nitroaromatic organic compounds were detected in previous sampling events. Results from these system samples are used as an indicator of primary carbon cylinder usage so that carbon replacement can be made before the carbon is spent. Results indicate that the carbon treatment system is functioning properly and that carbon replacement does not need to occur before their annual removal from service. The concentration ranges for the detected nitramine/nitroaromatic compounds at these locations are generally consistent with historically detected concentrations (Table 1). Figure 1 shows all 10 locations where nitramine/nitroaromatic constituents were detected in the inflow port and compares the results to the Wisconsin Enforcement Standards. Analytical results show that no compounds were detected at the effluent; which indicates the carbon treatment system is removing the constituents of concern from the residential water source.

Seven residential wells had no previous data prior to this sampling event. Samples collected at these houses were analyzed on a seven-day-turn-around-time. No nitramine/nitroaromatic organic compounds were detected at these locations (see Table 2).

VOCs

Residential wells were sampled for VOCs at the inflow port at the following locations:

- 13 Residential Wells on Nolander Road (between FC Nos. 28515 and 30900),
- 22 Residential HWY 13 (between FC Nos. 72040 and 73500),
- Bjork Road (FC No. 73150),
- Nine Residential Wells on Birch Grove Road (between FC Nos. 31120 and 73120),
- Ondossagon Road (FC Nos. 72545 and 73055),
- East Ondossagon Road (FC No. 29190),
- Olson Road (FC No. 73600).

If a location had had a carbon treatment system present and a previous detection of nitramine/nitroaromatic organic and/or VOC compounds, then both the inflow and effluent ports were sampled. The remaining homes were only sampled at the inflow port.

Two VOCs [1,1,1-trichlorethane (TCE) and methylene chloride] were detected at three of the 46 different residential wells sampled (Table 3). At FC Nos. 72330 and 72370 HWY 13, TCE was qualified estimated (0.41 J and 0.98 J ug/L, respectively). Methylene chloride was detected at FC No. 72790H (3.3 ug/L) at the inflow port. Reviews of QA/QC samples indicate no detection of this compound. Upon review of historical data, methylene chloride has not been detected in any other inflow port within the last two years. However, this compound is a common laboratory artifact and the source at this time remains unclear. A carbon treatment system has been installed at each location and both compounds were not

detected at the effluent port. These locations will continue to be monitored. Figure 1 shows the extent of the VOC detections around the site.

Water Quality Inorganics

Residential wells within the area described in the sampling plan (DuPont, 2002) that have not had previous detections for nitramine/nitroaromatic organic compounds were analyzed for inorganics at the inflow sampling port. In addition, two wells with the highest concentrations of nitramine/nitroaromatic organic compounds detected during previous events (FC Nos. 30700 and 30810 Nolander) were sampled from the inflow port. Of the WDNR regulated inorganic constituents detected residential wells in May 2002, none of the detected concentrations exceed Wisconsin Enforcement Standards.

NON-RESIDENTIAL GROUNDWATER WELL SAMPLING

As stated in the approved sampling plan (DuPont, 2002), 13 non-residential wells were sampled in May 2002. Detected analytical results are summarized on Table 4 and the well locations are depicted on Figure 1. PZ-11O was dry at the time of sampling; therefore, a sample was not collected from this well.

No detections were found in the nine wells that draw water from the deep flow zone wells, PZ-36O (shallow zone), and PZ-36D (intermediate zone). Six nitramine/nitroaromatic organic compounds detected in PZ-11D with similar concentrations reported in the October 2001 event (Table 4). It should be noted that during the independent data validation by Environmental Standards, Inc., the result for HMX at PZ-11D was qualified as non-detect due to the poor recoveries of this compound in the matrix spike/matrix spike duplicate samples.

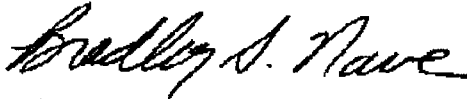
RESULT SUMMARY/CONCLUSIONS

Results of the May 2002 residential groundwater sampling indicate nitramine/nitroaromatic organic compounds and/or VOCs were detected in 13 of the 58 residential wells sampled. All 13 locations have carbon treatment systems installed with no detections at the effluent port. Semi-volatile and pesticide/PCB compounds were not detected at the single residential location where these compounds were quantified. None of the inorganic constituents detected exceeded Wisconsin Enforcement Standards. These data indicate that the carbon treatment systems continue to remove organic constituents of concern from impacted residential drinking water and that the full extent of affected residential wells surrounding the site has been identified. Further sampling of residential wells beyond the May 2002 monitoring "radius" is not warranted at this time.

The analytical results for the non-residential wells screened in the deep zone confirm the October 2001 results and continue to indicate that it is a potential alternative drinking water supply for affected residences. Further evaluation of this flow zone will be conducted this year.

If you have any questions regarding this report, please call either me (502-569-2148) or Mr. Cary Pooler (502-569-2444).

Sincerely,



Bradley S. Nave
Project Director
DuPont Corporate Remediation Group

Enclosures:

Tables:

Table 1	Summary of Residential Wells with Detections
Table 2	Nitramine and Nitroaromatic Organic Compounds for First Time Sampled Residential Wells
Table 3	Wisconsin Regulated Volatile Organic Compounds Detections
Table 4	Nitramine and Nitroaromatic Organic Compound Historical Detections for PZ-11D

Figures:

Figure 1	May 2002 Nitroaromatic/Nitramine and Volatile Organics Sample Results from Inflow Port
----------	--

Appendices:

Appendix A	Barksdale Works – May 1-2, 2002 Residential Well Sampling
Appendix B	Barksdale Works – May 15-22, 2002 Residential Well Sampling
Appendix C	Barksdale Works – May 14, 2002 Resident 30900N Well Sampling
Appendix D	Barksdale Works Non-Residential Well Sampling – May 14-15, 2002

References:

- DuPont. April 26, 2002. *2002 Groundwater Sampling Plan for Residential and Non Residential Wells.*
- DuPont. May 6, 2002. *Amended 2002 Groundwater Sampling Plan for Residential and Non-Residential Wells.*

cc: P. Bretting, C.G. Bretting Mfg., Inc
H. Nehls-Lowe, Wisconsin DHFS
A. Lindsey, Bayfield County Health Dept.
C. Pooler, URSD
M. Tureo, URSD
File 7355

Bcc:
Mike Lukas
Bernie Reilly

TABLES

Table 1
Summary of Residential Wells with Detections

		Sample ID	30700N-EFFLUENT	30700N-INFLOW	30700N-SYSTEM	30810N-EFFLUENT	30810N-INFLOW	30810N-SYSTEM
		Date	5/20/2002	5/20/2002	5/20/2002	5/20/2002	5/20/2002	5/20/2002
Analyte	units	Duplicate #	1	1	1	1	1	1
1,3,5-TRINITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
1-METHYL-2-NITROBENZENE	ug/l		ND (0.026)	0.030 J	ND (0.026)	ND (0.026)	0.041 J	ND (0.026)
1-METHYL-3-NITROBENZENE	ug/l		ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)
1-METHYL-4-NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
2,4,6-TRINITROTOLUENE	ug/l		ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)
2,4-DINITROTOLUENE	ug/l		ND (0.026)	0.21	ND (0.026)	ND (0.026)	0.23	ND (0.026)
2,6-DINITROTOLUENE	ug/l		ND (0.022)	1.5	ND (0.022)	ND (0.022)	1.7	ND (0.022)
2-AMINO-4,6-DINITROTOLUENE	ug/l		ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	0.14	ND (0.036)
4-AMINO-2,6-DINITROTOLUENE	ug/l		ND (0.020)	0.056 J	ND (0.020)	ND (0.020)	0.21	ND (0.020)
M-DINITROBENZENE	ug/l		ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)
NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
HMX (1)	ug/l		ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)
NITROGLYCERIN	ug/l		ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)
PETN	ug/l		ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)
RDX (2)	ug/l		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
TETRYL (3)	ug/l		ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)

Table 1
Summary of Residential Wells with Detections

		Sample ID	30900N-EFFLUENT	30900N-INFLOW	30900N-SYSTEM	31120BG-EFFLUENT	31120BG-INFLOW	31120BG-SYSTEM
		Date	5/14/2002	5/14/2002	5/14/2002	5/22/2002	5/22/2002	5/22/2002
Analyte	units	Duplicate #	1	1	1	1	1	1
1,3,5-TRINITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
1-METHYL-2-NITROBENZENE	ug/l		ND (0.026)	0.035 J	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)
1-METHYL-3-NITROBENZENE	ug/l		ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)
1-METHYL-4-NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
2,4,6-TRINITROTOLUENE	ug/l		ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)
2,4-DINITROTOLUENE	ug/l		ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	0.099 J	ND (0.026)
2,6-DINITROTOLUENE	ug/l		ND (0.022)	1.1	ND (0.022)	ND (0.022)	0.64	ND (0.022)
2-AMINO-4,6-DINITROTOLUENE	ug/l		ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)
4-AMINO-2,6-DINITROTOLUENE	ug/l		ND (0.020)	0.060 J	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
M-DINITROBENZENE	ug/l		ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)
NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
HMX (1)	ug/l		ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)
NITROGLYCERIN	ug/l		ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)
PETN	ug/l		ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)
RDX (2)	ug/l		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
TETRYL (3)	ug/l		ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)

< and ND = Non detect at stated reporting limit

Table 1
Summary of Residential Wells with Detections

		Sample ID	72040H-EFFLUENT	72040H-INFLOW	72040H-SYSTEM	72480H-EFFLUENT	72480H-INFLOW	72480H-INFLOW	72480H-SYSTEM
		Date	5/2/2002	5/2/2002	5/2/2002	5/1/2002	5/1/2002	5/1/2002	5/1/2002
Analyte	units	Duplicate #	1	1	1	1	1	2	1
1,3,5-TRINITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
1-METHYL-2-NITROBENZENE	ug/l		ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	0.078 J	0.095 J	ND (0.026)
1-METHYL-3-NITROBENZENE	ug/l		ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)
1-METHYL-4-NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
2,4,6-TRINITROTOLUENE	ug/l		ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)
2,4-DINITROTOLUENE	ug/l		ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	0.3	0.31	ND (0.026)
2,6-DINITROTOLUENE	ug/l		ND (0.022)	1.5	ND (0.022)	ND (0.022)	0.23	0.26	ND (0.022)
2-AMINO-4,6-DINITROTOLUENE	ug/l		ND (0.036)	0.33	ND (0.036)	ND (0.036)	0.47	0.53	ND (0.036)
4-AMINO-2,6-DINITROTOLUENE	ug/l		ND (0.020)	0.3	ND (0.020)	ND (0.020)	0.82	0.93	ND (0.020)
M-DINITROBENZENE	ug/l		ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)
NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
HMX (1)	ug/l		ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)
NITROGLYCERIN	ug/l		ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)
PETN	ug/l		ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)
RDX (2)	ug/l		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
TETRYL (3)	ug/l		ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)

Table 1
Summary of Residential Wells with Detections

		Sample ID	72520H-EFFLUENT	72520H-INFLOW	72520H-SYSTEM	73110BG-EFFLUENT	73110BG-INFLOW	73110BG-SYSTEM
		Date	5/1/2002	5/1/2002	5/1/2002	5/22/2002	5/22/2002	5/22/2002
Analyte	units	Duplicate #	1	1	1	1	1	1
1,3,5-TRINITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
1-METHYL-2-NITROBENZENE	ug/l		ND (0.026)	0.086 J	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)
1-METHYL-3-NITROBENZENE	ug/l		ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)
1-METHYL-4-NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
2,4,6-TRINITROTOLUENE	ug/l		ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)
2,4-DINITROTOLUENE	ug/l		ND (0.026)	0.14	ND (0.026)	ND (0.026)	0.14	ND (0.026)
2,6-DINITROTOLUENE	ug/l		ND (0.022)	0.35	ND (0.022)	ND (0.022)	0.74	ND (0.022)
2-AMINO-4,6-DINITROTOLUENE	ug/l		ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)
4-AMINO-2,6-DINITROTOLUENE	ug/l		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
M-DINITROBENZENE	ug/l		ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)
NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
HMX (1)	ug/l		ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)
NITROGLYCERIN	ug/l		ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)
PETN	ug/l		ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)
RDX (2)	ug/l		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
TETRYL (3)	ug/l		ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)

Table 1
Summary of Residential Wells with Detections

		Sample ID	73110H-EFFLUENT	73110H-INFLOW	73110H-SYSTEM	73120BG-EFFLUENT	73120BG-INFLOW	73120BG-SYSTEM
		Date	5/21/2002	5/21/2002	5/21/2002	5/23/2002	5/23/2002	5/23/2002
Analyte	units	Duplicate #	1	1	1	1	1	1
1,3,5-TRINITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
1-METHYL-2-NITROBENZENE	ug/l		ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)
1-METHYL-3-NITROBENZENE	ug/l		ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)
1-METHYL-4-NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
2,4,6-TRINITROTOLUENE	ug/l		ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)
2,4-DINITROTOLUENE	ug/l		ND (0.026)	0.051 J	ND (0.026)	ND (0.026)	0.031 J	ND (0.026)
2,6-DINITROTOLUENE	ug/l		ND (0.022)	0.36	ND (0.022)	ND (0.022)	0.48	ND (0.022)
2-AMINO-4,6-DINITROTOLUENE	ug/l		ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)
4-AMINO-2,6-DINITROTOLUENE	ug/l		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
M-DINITROBENZENE	ug/l		ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)
NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
HMX (1)	ug/l		ND (0.040)	ND (0.20)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)
NITROGLYCERIN	ug/l		ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)
PETN	ug/l		ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)
RDX (2)	ug/l		ND (0.020)	ND (0.10)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
TETRYL (3)	ug/l		ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)

Table 2
Nitramine and Nitroaromatic Organic Compounds for First Time Sampled Residential Wells

Analyte	units	Sample ID	28515N-INFLOW	29190E-INFLOW	30870W-INFLOW	70990H-INFLOW	73055O-INFLOW	73600OL-INFLOW	73605H-INFLOW
		Date	5/1/2002	5/15/2002	5/1/2002	5/1/2002	5/1/2002	5/15/2002	5/1/2002
Duplicate #			1	1	1	1	1	1	1
1-METHYL-2-NITROBENZENE	ug/l		ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)
1-METHYL-3-NITROBENZENE	ug/l		ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)	ND (0.027)
1-METHYL-4-NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
2,4,6-TRINITROTOLUENE	ug/l		ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.021)
2,4-DINITROTOLUENE	ug/l		ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.026)
2,6-DINITROTOLUENE	ug/l		ND (0.022)	ND (0.022)	ND (0.022)	ND (0.022)	ND (0.022)	ND (0.022)	ND (0.022)
2-AMINO-4,6-DINITROTOLUENE	ug/l		ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)	ND (0.036)
4-AMINO-2,6-DINITROTOLUENE	ug/l		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
M-DINITROBENZENE	ug/l		ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)	ND (0.023)
NITROBENZENE	ug/l		ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.025)
HMX	ug/l		ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)	ND (0.040)
NITROGLYCERIN	ug/l		ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.030)
PETN	ug/l		ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)
RDX	ug/l		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
TETRYL	ug/l		ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)	ND (0.024)

< and ND = Non detect at stated reporting limits

Table 3
Wisconsin Regulated Volatile Organic Compounds Detections

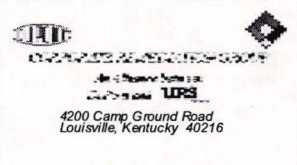
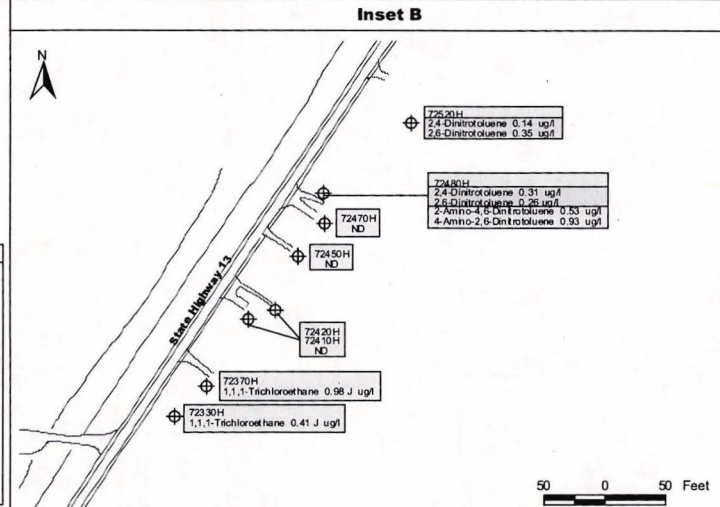
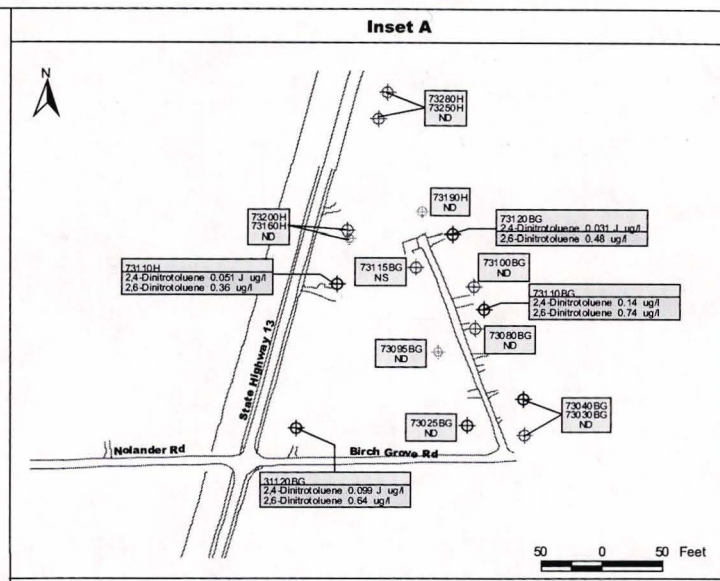
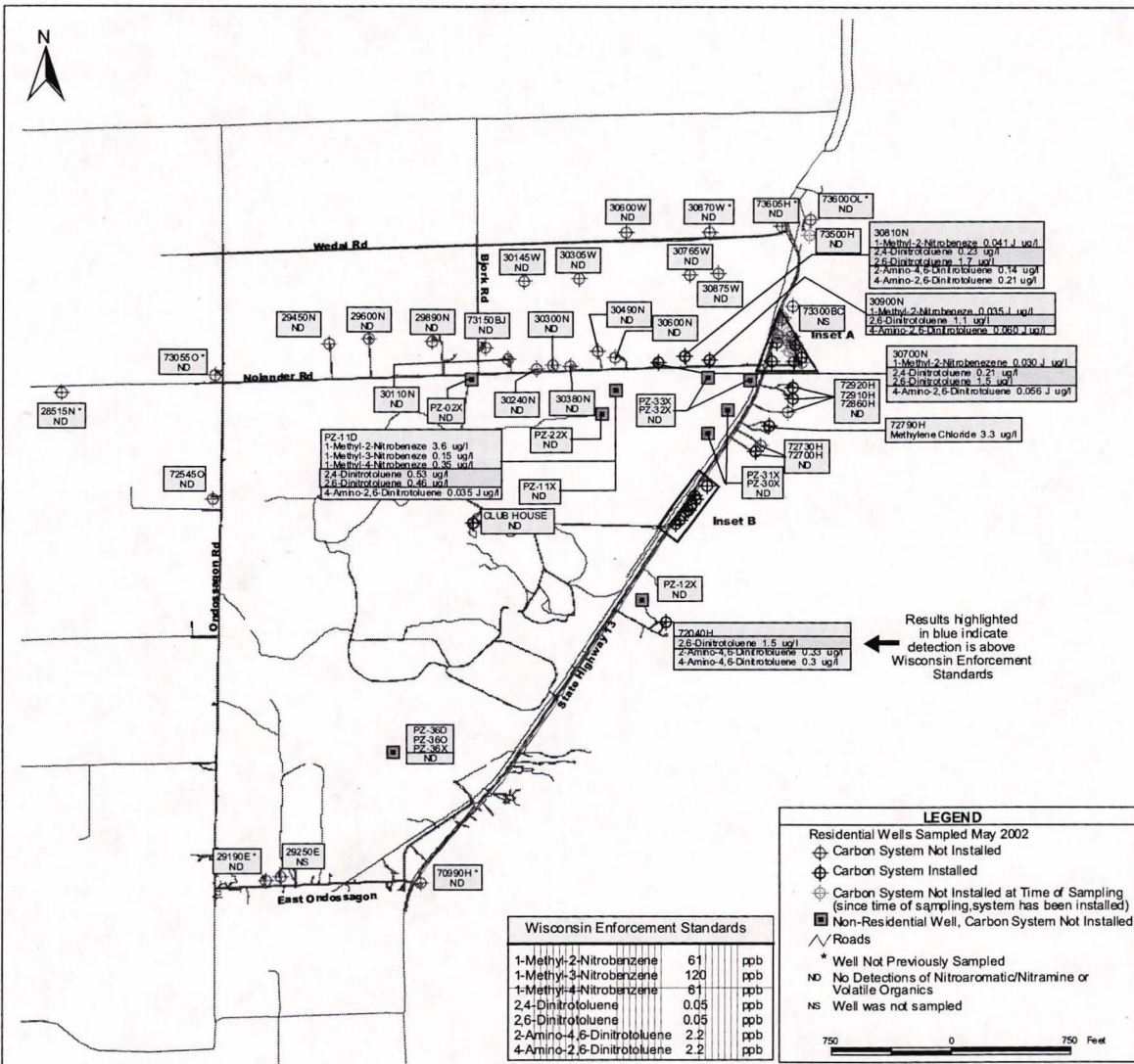
Analyte	units	Sample ID Date Duplicate #	72330H-INFLOW	72370H-INFLOW	72790H-INFLOW
			5/21/2002 1	5/21/2002 1	5/21/2002 1
1,1,1,2-TETRACHLOROETHANE	ug/l		ND (0.28)	ND (0.28)	ND (0.28)
1,1,1-TRICHLOROETHANE	ug/l		0.41 J	0.98 J	ND (0.32)
1,1,2,2-TETRACHLOROETHANE	ug/l		ND (0.50)	ND (0.50)	ND (0.50)
1,1,2-TRICHLOROETHANE	ug/l		ND (0.41)	ND (0.41)	ND (0.41)
1,1-DICHLOROETHANE	ug/l		ND (0.29)	ND (0.29)	ND (0.29)
1,1-DICHLOROETHENE	ug/l		ND (0.31)	ND (0.31)	ND (0.31)
1,2,3-TRICHLOROPROPANE	ug/l		ND (0.76)	ND (0.76)	ND (0.76)
1,2,4-TRIMETHYLBENZENE	ug/l		ND (0.30)	ND (0.30)	ND (0.30)
1,2-DIBROMO-3-CHLOROPROPANE	ug/l		ND (0.49)	ND (0.49)	ND (0.49)
1,2-DIBROMOETHANE	ug/l		ND (0.46)	ND (0.46)	ND (0.46)
1,2-DICHLOROETHANE	ug/l		ND (0.43)	ND (0.43)	ND (0.43)
1,2-DICHLOROETHENE	ug/l		ND (0.54)	ND (0.54)	ND (0.54)
1,2-DICHLOROPROPANE	ug/l		ND (0.38)	ND (0.38)	ND (0.38)
1,3,5-TRIMETHYLBENZENE	ug/l		ND (0.31)	ND (0.31)	ND (0.31)
1,3-DICHLOROPROPANE	ug/l		ND (0.37)	ND (0.37)	ND (0.37)
ACETONE	ug/l		ND (2.9)	ND (2.9)	ND (2.9)
BENZENE	ug/l		ND (0.27)	ND (0.27)	ND (0.27)
BROMODICHLOROMETHANE	ug/l		ND (0.35)	ND (0.35)	ND (0.35)
BROMOFORM	ug/l		ND (0.46)	ND (0.46)	ND (0.46)
CARBON DISULFIDE	ug/l		ND (0.67)	ND (0.67)	ND (0.67)
CARBON TETRACHLORIDE	ug/l		ND (0.35)	ND (0.35)	ND (0.35)
CHLOROBENZENE	ug/l		ND (0.24)	ND (0.24)	ND (0.24)
CHLOROETHANE	ug/l		ND (0.26)	ND (0.26)	ND (0.26)
CHLOROFORM	ug/l		ND (0.29)	ND (0.29)	ND (0.29)
DIBROMOCHLOROMETHANE	ug/l		ND (0.37)	ND (0.37)	ND (0.37)
DICHLORODIFLUOROMETHANE	ug/l		ND (0.44)	ND (0.44)	ND (0.44)
ETHYLBENZENE	ug/l		ND (0.51)	ND (0.51)	ND (0.51)
METHYL BROMIDE	ug/l		ND (0.28)	ND (0.28)	ND (0.28)
METHYL CHLORIDE	ug/l		ND (0.26)	ND (0.26)	ND (0.26)
METHYL ETHYL KETONE	ug/l		ND (2.4)	ND (2.4)	ND (2.4)
METHYL TERTIARY BUTYL ETHER	ug/l		ND (0.88)	ND (0.88)	ND (0.88)
METHYL-ISO-BUTYL KETONE	ug/l		ND (1.8)	ND (1.8)	ND (1.8)
METHYLENE CHLORIDE	ug/l		ND (0.86)	ND (0.86)	3.3
STYRENE	ug/l		ND (0.28)	ND (0.28)	ND (0.28)
TETRACHLOROETHENE	ug/l		ND (0.27)	ND (0.27)	ND (0.27)
TOLUENE	ug/l		ND (0.26)	ND (0.26)	ND (0.26)
TRICHLOROETHENE	ug/l		ND (0.24)	ND (0.24)	ND (0.24)
TRICHLOROFLUOROMETHANE	ug/l		ND (0.43)	ND (0.43)	ND (0.43)
VINYL CHLORIDE	ug/l		ND (0.26)	ND (0.26)	ND (0.26)
XYLENES (TOTAL)	ug/l		ND (0.73)	ND (0.73)	ND (0.73)

< and ND = Non detect at stated reporting limit

Table 4
Nitramine and Nitroaromatic Organic Compound Historical Detections for PZ-11D

Analyte	units	Duplicate #	Sample ID	PZ-11D	PZ-11D	PZ-11D
			Date	10/19/2001	5/14/2002	5/14/2002
1,3,5-TRINITROBENZENE	ug/l			ND (0.017)	ND (0.025)	ND (0.025)
1-METHYL-2-NITROBENZENE	ug/l			2.9	3.6	3.4
1-METHYL-3-NITROBENZENE	ug/l			0.12	0.15	0.13
1-METHYL-4-NITROBENZENE	ug/l			0.29	0.35	0.31
2,4,6-TRINITROTOLUENE	ug/l			ND (0.049)	ND (0.021)	ND (0.021)
2,4-DINITROTOLUENE	ug/l			0.52	0.53	0.48
2,6-DINITROTOLUENE	ug/l			0.48	0.46	0.41
2-AMINO-4,6-DINITROTOLUENE	ug/l			ND (0.013)	ND (0.036)	ND (0.036)
4-AMINO-2,6-DINITROTOLUENE	ug/l			0.027 J	0.035 J	0.042 J
M-DINITROBENZENE	ug/l			ND (0.02)	ND (0.023)	ND (0.023)
NITROBENZENE	ug/l			ND (0.025)	ND (0.025)	ND (0.025)
RDX	ug/l			ND (0.028)	ND (0.020)	ND (0.020)

< and ND = Non detect at stated reporting limit
 J = estimated value



View1
 May 2002 Nitroaromatic/Nitramine and Volatile Organics Sample Results from Inflow Port
 Former DuPont Barksdale Works
 Barksdale, Wisconsin

DRAWN: KJB	APPROVED: CEP	PROJECT NO: 44D4BA735502
CHECKED: TTR	DATE: 08/06/2002	FIGURE NO: 1
FILE NAME: may2002_sampling.apr	REVISION: 1	