URS

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February 05, 2004

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

Re: Progress of Investigation Activities
Production Area Investigation
Former DuPont Barksdale Works

Dear Mr. Saari:

This letter has been prepared to inform you of the progress of activities proposed in the Production Area Investigation work plan submitted to you for the of the Former DuPont Barksdale Works in Sept, 2003. Continuation of the investigation activities is planned for spring 2004 to achieve the stated work plan goals.

The activities conducted to date include:

- Collection of 21 grab soil samples at 21 locations.
- Collection of 22 composite soil samples at 11 locations.
- Collection of 87 direct push soil samples at 60 locations.

The analytical testing of these samples is underway.

Activities remaining to be completed are:

- Trenching and sampling at 40 locations.
- Obtaining soil sampled to the capillary fringe at 9 locations.
- Surveying of all sampling areas.

The remaining activities are planned to begin as soon as the snow has melted and ground conditions allow equipment access in the spring; hopefully by late April or early May 2004.

During the sampling the following alterations to the proposed plan were made:

- Location PAB003 was collected as a direct push sample rather than a grab to better penetrate the debris layered in the culvert.

- Locations PAI002, PAE009, PAL002 and PAL003 were collected as grab samples rather than direct push samples since the locations were not truck accessible. PAI was in dense trees, PAE was inside concrete walls too high for the probe, and PAL was too muddy and the probe truck became mired down.
- Collection of soil samples to the groundwater surface has been delayed until spring 2004. The direct push sampler was unable to reach the groundwater surface due to heavy skin friction resistance from the cohesive clays encountered. It is likely that a more powerful drilling method will be needed to achieve the required depth. Since it became apparent early on that the direct push method would not reach the required depth, several of the associated near surface samples were also put off until spring when the new method would be used at all proposed depths in the deep sampling locations.

The field screening and preliminary analytical results to date show TNT soil concentrations in ranges from non-detect to 6.5 percent. The high concentrations were associated with bare spots near the TNT Nos. 2 and 4 lines. DNT concentrations have been observed up to 4.9 percent (at the former Dynamite Skid location). In 31 locations, screening did not indicate any impacts and only the Non-Detect sample was collected rather than both a High and Non-Detect sample pair. An updated sample location table is attached to show which locations have been sampled and which remain for 2004.

To reach the capillary fringe, alternate methods are being currently being evaluated, details of our proposed methodology will be forwarded to you for approval once we complete our evaluation.

Sincerely,

C.E. Cary Pooler /gs

C.E. "Cary" Pooler
URSD Project Manager

Table 1
Sample Collection Data
Barksdale Works Production Area Investigation
October 2003

Area	Sample ID	Method	Date Sampled	Time Sampled
Production Area soil samples collected in 2003				
A: TNT #3&#5 and Reed Fields	BAR-S-PAA001(0-2)	Composite	10/25/2003	10:20
A: TNT #3&#5 and Reed Fields	BAR-S-PAA002(0-2)	Composite	10/25/2003	10:15
A: TNT #3&#5 and Reed Fields	BAR-S-PAA003(3-4)	Direct Push	10/29/2003	09:40
A: TNT #3&#5 and Reed Fields	BAR-S-PAA003(6-7)	Direct Push	10/29/2003	09:45
A: TNT #3&#5 and Reed Fields	BAR-S-PAA004(5-6)	Direct Push	10/28/2003	16:05
A: TNT #3&#5 and Reed Fields	BAR-S-PAA004(6-7)	Direct Push	10/28/2003	16:10
A: TNT #3&#5 and Reed Fields	BAR-S-PAA005(0-1)	Direct Push	10/28/2003	09:15
A: TNT #3&#5 and Reed Fields	BAR-S-PAA005(4-5)	Direct Push	10/28/2003	09:25
A: TNT #3&#5 and Reed Fields	BAR-S-PAA006(5-6)	Direct Push	10/28/2003	14:50
A: TNT #3&#5 and Reed Fields	BAR-S-PAA006(7-8)	Direct Push	10/28/2003	14:55
A: TNT #3&#5 and Reed Fields	BAR-S-PAA007(1-2)	Direct Push	10/28/2003	10:15
A: TNT #3&#5 and Reed Fields	BAR-S-PAA007(7-8)	Direct Push	10/28/2003	10:20
A: TNT #3&#5 and Reed Fields	BAR-S-PAA008(2-3)	Direct Push	10/29/2003	09:10
A: TNT #3&#5 and Reed Fields	BAR-S-PAA008(4-5)	Direct Push	10/29/2003	09:15
A: TNT #3&#5 and Reed Fields	BAR-S-PAA009(5-6)	Direct Push	10/28/2003	13:50
A: TNT #3&#5 and Reed Fields	BAR-S-PAA009(6-7)	Direct Push	10/28/2003	13:55
A: TNT #3&#5 and Reed Fields	BAR-S-PAA010(4-5)	Direct Push	10/28/2003	11:45
A: TNT #3&#5 and Reed Fields	BAR-S-PAA010(5-6)	Direct Push	10/28/2003	11:55
A: TNT #3&#5 and Reed Fields	BAR-S-PAA011(1-2)	Direct Push	10/28/2003	11:00
A: TNT #3&#5 and Reed Fields	BAR-S-PAA011(3-4)	Direct Push	10/28/2003	11:10
A: TNT #3&#5 and Reed Fields	BAR-S-PAA012(0-2)	Grab	10/24/2003	11:45
A: TNT #3&#5 and Reed Fields	BAR-S-PAA013(0-2)	Grab	10/24/2003	11:50
B: TNT #2 & #4	BAR-S-PAB001(3-4)	Direct Push	10/29/2003	15:50
B: TNT #2 & #4	BAR-S-PAB002(2-3)	Direct Push	10/29/2003	15:30
B: TNT #2 & #4	BAR-S-PAB002(3-4)	Direct Push	10/29/2003	15:40
B: TNT #2 & #4	BAR-S-PAB003(0-2)	Grab	10/29/2003	15:20
B: TNT #2 & #4	BAR-S-PAB004(0-1)	Direct Push	10/29/2003	15:00
B: TNT #2 & #4	BAR-S-PAB004(1-2)	Direct Push	10/29/2003	15:09
B: TNT #2 & #4	BAR-S-PAB005(0-2)	Composite	10/25/2003	10:40
B: TNT #2 & #4	BAR-S-PAB006(0-2)	Composite	10/25/2003	10:35
B: TNT #2 & #4	BAR-S-PAB007(0-2)	Composite	10/25/2003	10:50
B: TNT #2 & #4	BAR-S-PAB008(0-2)	Composite	10/25/2003	10:45
B: TNT #2 & #4	BAR-S-PAB009(0-2)	Composite	10/25/2003	11:00
B: TNT #2 & #4	BAR-S-PAB010(0-2)	Composite	10/25/2003	10:55
B: TNT #2 & #4	BAR-S-PAB011(0-2)	Composite	10/25/2003	11:25
B: TNT #2 & #4	BAR-S-PAB012(0-2)	Composite	10/25/2003	11:20

Table 1
Sample Collection Data
Barksdale Works Production Area Investigation
October 2003

Area	Sample ID	Method	Date Sampled	Time Sampled
C: Lydol and Trivelene	BAR-S-PAC001(1-2)	Direct Push	10/30/2003	08:45
C: Lydol and Trivelene	BAR-S-PAC002(1-2)	Direct Push	10/30/2003	08:50
C: Lydol and Trivelene	BAR-S-PAC003(0-2)	Composite	10/25/2003	12:20
C: Lydol and Trivelene	BAR-S-PAC004(0-2)	Composite	10/25/2003	12:15
C: Lydol and Trivelene	BAR-S-PAC005(13-14)	Direct Push	10/30/2003	10:10
C: Lydol and Trivelene	BAR-S-PAC005(4-5)	Direct Push	10/30/2003	09:50
C: Lydol and Trivelene	BAR-S-PAC005(6-7)	Direct Push	10/30/2003	10:00
C: Lydol and Trivelene	BAR-S-PAC006(1-2)	Direct Push	10/30/2003	12:00
C: Lydol and Trivelene	BAR-S-PAC006(3-4)	Direct Push	10/30/2003	12:10
C: Lydol and Trivelene	BAR-S-PAC007(1-2)	Direct Push	10/30/2003	11:45
C: Lydol and Trivelene	BAR-S-PAC008(0-2)	Composite	10/25/2003	12:00
C: Lydol and Trivelene	BAR-S-PAC009(0-2)	Composite	10/25/2003	11:55
C: Lydol and Trivelene	BAR-S-PAC010(0-1)	Direct Push	10/30/2003	11:30
C: Lydol and Trivelene	BAR-S-PAC010(3-4)	Direct Push	10/30/2003	11:35
C: Lydol and Trivelene	BAR-S-PAC011(0-2)	Grab	10/24/2003	15:35
C: Lydol and Trivelene	BAR-S-PAC012(0-2)	Grab	10/24/2003	15:25
C: Lydol and Trivelene	BAR-S-PAC013(0-2)	Grab	10/24/2003	15:15
C: Lydol and Trivelene	BAR-S-PAC014(0-2)	Grab	10/24/2003	15:40
C: Lydol and Trivelene	BAR-S-PAC015(0-2)	Grab	10/24/2003	15:50
D: TNT # 6 and West Triton Area	BAR-S-PAD001(0-1)	Direct Push	10/31/2003	16:50
D: TNT # 6 and West Triton Area	BAR-S-PAD002(0-1)	Direct Push	10/31/2003	16:15
D: TNT # 6 and West Triton Area	BAR-S-PAD003(0-2)	Direct Push	10/27/2003	16:10
E: Triton Finishing	BAR-S-PAE001(0-1)	Direct Push	11/3/2003	14:15
E: Triton Finishing	BAR-S-PAE001(3-4)	Direct Push	11/3/2003	14:20
E: Triton Finishing	BAR-S-PAE002(0-1)	Direct Push	11/3/2003	14:25
E: Triton Finishing	BAR-S-PAE002(3-4)	Direct Push	11/3/2003	14:30
E: Triton Finishing	BAR-S-PAE003(0-1)	Direct Push	11/3/2003	14:25
E: Triton Finishing	BAR-S-PAE003(3-4)	Direct Push	11/3/2003	14:30
E: Triton Finishing	BAR-S-PAE004(0-2)	Composite	10/25/2003	12:40
E: Triton Finishing	BAR-S-PAE005(0-2)	Composite	10/25/2003	12:30
E: Triton Finishing	BAR-S-PAE006(0-1)	Direct Push	11/3/2003	14:50
E: Triton Finishing	BAR-S-PAE006(3-4)	Direct Push	11/3/2003	14:55
E: Triton Finishing	BAR-S-PAE007(0-2)	Composite	10/25/2003	13:00
E: Triton Finishing	BAR-S-PAE008(0-2)	Composite	10/25/2003	12:55
E: Triton Finishing	BAR-S-PAE009(0-2)	Grab	10/24/2003	12:07
F: Acid Recovery	BAR-S-PAF001(0-1)	Direct Push	10/31/2003	17:10
F: Acid Recovery	BAR-S-PAF002(0-1)	Direct Push	10/31/2003	16:45

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Sample Collection Data
Barksdale Works Production Area Investigation
October 2003

Area	Sample ID	Method	Date Sampled	Time Sampled
F: Acid Recovery	BAR-S-PAF003(0-2)	Composite	10/25/2003	13:15
F: Acid Recovery	BAR-S-PAF004(0-2)	Composite	10/25/2003	13:10
F: Acid Recovery	BAR-S-PAF005(0-1)	Direct Push	10/31/2003	17:00
F: Acid Recovery	BAR-S-PAF006(0-1)	Direct Push	10/31/2003	16:55
G: Test Shot Grounds	BAR-S-PAG001(1-2)	Direct Push	11/1/2003	12:30
G: Test Shot Grounds	BAR-S-PAG002(1-2)	Direct Push	11/1/2003	12:35
G: Test Shot Grounds	BAR-S-PAG003(2-3)	Direct Push	11/1/2003	12:40
G: Test Shot Grounds	BAR-S-PAG004(1-2)	Direct Push	11/1/2003	12:45
G: Test Shot Grounds	BAR-S-PAG005(1-2)	Direct Push	11/1/2003	12:56
G: Test Shot Grounds	BAR-S-PAG006(1-2)	Direct Push	11/1/2003	13:30
G: Test Shot Grounds	BAR-S-PAG007(1-2)	Direct Push	11/1/2003	13:40
G: Test Shot Grounds	BAR-S-PAG008(0-1)	Direct Push	11/1/2003	13:50
G: Test Shot Grounds	BAR-S-PAG009(0-1)	Direct Push	11/1/2003	14:05
G: Test Shot Grounds	BAR-S-PAG010(0-1)	Direct Push	11/1/2003	14:20
H: TNT #7 - #10	BAR-S-PAH001(1-2)	Direct Push	10/31/2003	17:15
H: TNT #7 - #10	BAR-S-PAH002(0-1)	Direct Push	10/31/2003	18:00
H: TNT #7 - #10	BAR-S-PAH003(0-1)	Direct Push	10/31/2003	16:30
I: TNX #1 - #5	BAR-S-PAI001(0-1)	Direct Push	11/3/2003	16:00
I: TNX #1 - #5	BAR-S-PAI002(0-1)	Hand auger	11/3/2003	16:10
I: TNX #1 - #5	BAR-S-PAI002(1-2)	Hand auger	11/3/2003	16:15
I: TNX #1 - #5	BAR-S-PAI003(0-1)	Direct Push	10/31/2003	18:05
I: TNX #1 - #5	BAR-S-PAI004(0-1)	Direct Push	10/31/2003	18:15
J: Triton Refinery	BAR-S-PAJ001(0-2)	Grab	10/24/2003	13:30
J: Triton Refinery	BAR-S-PAJ002(0-2)	Grab	10/24/2003	13:20
J: Triton Refinery	BAR-S-PAJ003(0-2)	Grab	10/24/2003	12:35
J: Triton Refinery	BAR-S-PAJ004(0-2)	Grab	10/24/2003	12:40
J: Triton Refinery	BAR-S-PAJ005(0-2)	Grab	10/24/2003	12:50
J: Triton Refinery	BAR-S-PAJ006(0-2)	Grab	10/24/2003	13:55
J: Triton Refinery	BAR-S-PAJ007(0-2)	Grab	10/24/2003	14:05
J: Triton Refinery	BAR-S-PAJ008(0-2)	Grab	10/24/2003	13:40
K: Transformer Area	BAR-S-PAK001(0-1)	Direct Push	11/1/2003	08:20
K: Transformer Area	BAR-S-PAK001(1-2)	Direct Push	11/1/2003	08:22
K: Transformer Area	BAR-S-PAK002(0-1)	Direct Push	11/1/2003	08:08
K: Transformer Area	BAR-S-PAK002(1-2)	Direct Push	11/1/2003	08:10
K: Transformer Area	BAR-S-PAK003(1-2)	Direct Push	11/1/2003	08:15
K: Transformer Area	BAR-S-PAK003(2-3)	Direct Push	11/1/2003	08:17
K: Transformer Area	BAR-S-PAK004(0-1)	Direct Push	11/1/2003	08:22

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Sample Collection Data
Barksdale Works Production Area Investigation
October 2003

Area	Sample ID	Method	Date Sampled	Time Sampled
K: Transformer Area	BAR-S-PAK004(1-2)	Direct Push	11/1/2003	08:24
K: Transformer Area	BAR-S-PAK005(0-1)	Direct Push	11/1/2003	08:29
K: Transformer Area	BAR-S-PAK005(1-2)	Direct Push	11/1/2003	08:31
K: Transformer Area	BAR-S-PAK006(1-2)	Direct Push	11/1/2003	08:38
K: Transformer Area	BAR-S-PAK006(2-3)	Direct Push	11/1/2003	08:40
K: Transformer Area	BAR-S-PAK007(0-1)	Direct Push	11/1/2003	08:48
K: Transformer Area	BAR-S-PAK008(0-1)	Direct Push	11/1/2003	08:56
K: Transformer Area	BAR-S-PAK008(1-2)	Direct Push	11/1/2003	08:58
L: Shell House Skid Area	BAR-S-PAL001(2-3)	Direct Push	10/30/2003	15:00
L: Shell House Skid Area	BAR-S-PAL002(0-1)	Direct Push	11/3/2003	16:30
L: Shell House Skid Area	BAR-S-PAL003(0-1)	Direct Push	11/3/2003	16:35
L: Shell House Skid Area	BAR-S-PAL003(2-3)	Direct Push	11/3/2003	16:40
L: Shell House Skid Area	BAR-S-PAL004(0-2)	Composite	10/25/2003	13:50
L: Shell House Skid Area	BAR-S-PAL005(0-2)	Composite	10/25/2003	13:45
L: Shell House Skid Area	BAR-S-PAL006(0-1)	Direct Push	11/3/2003	16:45
L: Shell House Skid Area	BAR-S-PAL007(2-3)	Direct Push	11/3/2003	16:50
M: Dynamite Line	BAR-S-PAM001(0-2)	Grab	10/24/2003	14:35
M: Dynamite Line	BAR-S-PAM002(0-2)	Grab	10/24/2003	14:40
M: Dynamite Line	BAR-S-PAM003(0-2)	Grab	10/24/2003	14:50
M: Dynamite Line	BAR-S-PAM004(0-2)	Grab	10/24/2003	14:45
"High" samples not collected since there were no screening detections at the location				
C: Lydol and Trivelene	BAR-S-PAC001(	Direct Push	ns	ns
C: Lydol and Trivelene	BAR-S-PAC002(	Direct Push	ns	ns
C: Lydol and Trivelene	BAR-S-PAC007(	Direct Push	ns	ns
D: TNT # 6 and West Triton Area	BAR-S-PAD001(	Direct Push	ns	ns
D: TNT # 6 and West Triton Area	BAR-S-PAD002(	Direct Push	ns	ns
D: TNT # 6 and West Triton Area	BAR-S-PAD003(	Direct Push	ns	Ns
F: Acid Recovery	BAR-S-PAF001(	Direct Push	ns	ns
F: Acid Recovery	BAR-S-PAF002(	Direct Push	ns	ns
F: Acid Recovery	BAR-S-PAF005(	Direct Push	ns	ns
F: Acid Recovery	BAR-S-PAF006(	Direct Push	ns	ns
G: Test Shot Grounds	BAR-S-PAG001(	Direct Push	ns	ns
G: Test Shot Grounds	BAR-S-PAG002(	Direct Push	ns	ns
G: Test Shot Grounds	BAR-S-PAG003(	Direct Push	ns	ns
G: Test Shot Grounds	BAR-S-PAG004(	Direct Push	ns	ns
G: Test Shot Grounds	BAR-S-PAG005(	Direct Push	ns	Ns
G: Test Shot Grounds	BAR-S-PAG006(	Direct Push	ns	ns

Table 1
Sample Collection Data
Barksdale Works Production Area Investigation
October 2003

Area	Sample ID	Method	Date Sampled	Time Sampled
G: Test Shot Grounds	BAR-S-PAG007(	Direct Push	ns	ns
G: Test Shot Grounds	BAR-S-PAG008(	Direct Push	ns	ns
G: Test Shot Grounds	BAR-S-PAG009(	Direct Push	ns	ns
G: Test Shot Grounds	BAR-S-PAG010(	Direct Push	ns	ns
H: TNT #7 - #10	BAR-S-PAH001(	Direct Push	ns	ns
H: TNT #7 - #10	BAR-S-PAH002(	Direct Push	ns	ns
H: TNT #7 - #10	BAR-S-PAH003(	Direct Push	ns	ns
I: TNX #1 - #5	BAR-S-PAI001(	Direct Push	ns	ns
I: TNX #1 - #5	BAR-S-PAI003(	Direct Push	ns	ns
I: TNX #1 - #5	BAR-S-PAI004(	Direct Push	ns	ns
L: Shell House Skid Area	BAR-S-PAL001(	Direct Push	ns	ns
L: Shell House Skid Area	BAR-S-PAL002(	Direct Push	ns	ns
L: Shell House Skid Area	BAR-S-PAL006(	Direct Push	ns	ns
L: Shell House Skid Area	BAR-S-PAL007(	Direct Push	ns	ns
Sample not analyzed due to bottle damage during shipment				
K: Transformer Area	BAR-S-PAK007(1-2)	Direct Push	11/01/03	08:49