



January 31, 2013

Privileged and Confidential Prepared at Request of Legal Counsel

Kevin M. Hogan, Esquire Phillips Lytle LLP 3400 HSBC Center Buffalo, NY 14203

Re: VanDeMark Chemical Inc., Lockport, New York

Supplemental Investigation Results

Dear Mr. Hogan:

Gnarus Advisors LLC and the Palmerton Group LLC implemented a supplemental investigation at the VanDeMark Chemical facility in Lockport, New York from October 29 to November 15, 2012. The field activities involved collecting soil and groundwater samples at various locations identified as a result of prior research conducted by Gnarus. This letter summarizes the work performed as well as data collected during a Phase II investigation conducted by GaiaTech during October 2012.

Field Activity Summary

The overall purpose of the supplemental investigation was to further characterize soil and groundwater quality, particularly along the northern property boundary and at various areas within the plant manufacturing area. Nothnagle Drilling (Scottsville, New York) was retained to advance 23 soil borings (SP-19 through SP-41) at the locations shown in Figure 1. Before drilling, the sample locations were scanned for underground utilities by a subcontracted utility locator, Pegasus Environmental (Spencertown, New York), utilizing ground penetrating radar (GPR). Under Palmerton Group's direction, Nothnagle then advanced the soil borings utilizing a direct push unit (Geoprobe 6620DT) collecting soil samples in 4-foot intervals. Nothnagle used a new disposable plastic liner for each 4-foot interval and advanced the borings to bedrock refusal (depths ranging from 4.9 feet below ground surface [bgs] to 22.7 feet bgs).

A Palmerton Group geologist collected soil samples at two to three intervals from each soil boring depending on the depth of bedrock refusal. In general, Palmerton collected soil samples from the following intervals: 1 to 3 feet bgs, 4 to 5 feet bgs, and at the interval above refusal. If refusal was close to the 4 to 5-foot interval, a third soil sample was not collected from the boring. The sampling methodology followed that described in the ICM Work Plan. Recovered soils were logged and screened in the field by Palmerton Group utilizing a RAE Systems MiniRAE 3000 Handheld VOC Meter (a photoionization detector [PID]). Appendix A contains the soil boring logs, including the field



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measurements. Soil samples were placed in laboratory-supplied containers, placed on ice, and shipped to Alpha Analytical in Westborough, Massachusetts, for analyses, following the chain of custody and analytical procedures in the ICM Work Plan.

Initially, the plan was to install temporary wells using direct push equipment; however, due to the presence of bedrock, groundwater was not encountered at some locations. Temporary wells that produced sufficient groundwater for sampling were installed at five locations using the direct push equipment (SP-27, SP-29, SP-30, SP-32, and SP-37) by placing a 1-inch diameter Schedule 40 PVC well casing with a 0.010-slot well screen at the bottom of the borehole. The screen lengths varied from 1 to 4 feet depending on the depth of groundwater above the bedrock surface.

An additional eight temporary wells were installed using a CME 85 auger drill rig (well locations SP-19, SP-20, SP-25, SP-26, SP-28, SP-33, and SP-34). These wells were also installed with 1-inch diameter Schedule 40 PVC well casing with a 0.010-slot well screen. The wells were designated with an "A" in their title description since the wells were co-located with the direct push borings.

A Palmerton Group geologist collected groundwater samples from the temporary wells using low flow sampling techniques. The low flow technique entailed first measuring and recording the static water level measurement, which was compared to the well installation records for reference to well construction and screen depth. Next, 0.25-inch polyethylene tubing was cut to length for purging. Groundwater purging involved using a peristaltic pump and collecting real-time water quality measurements using a YSI Professional Plus with a flow cell to measure temperature, pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity (a separate turbidity meter was used). Groundwater quality measurements were recorded and when simultaneous readings were observed to be within a 10% range of each other, the groundwater samples were collected. A field duplicate sample was collected from temporary well SP–25(A). No groundwater accumulated in well SP–19 after a 24-hour period, and this well was not sampled.

After completing the sampling, Nothnagle backfilled each boring with bentonite and finished the ground surface with asphalt patch. Nothnagle also pulled the PVC well casing and screen from each temporary well location and disposed of the material as investigation-derived non-hazardous waste.

Field Observations

The Palmerton Group geologist recorded lithology observations on the boring logs provided in Appendix A. In general, the upper-most zone of unsaturated soil consists of gravel with some intermingled sand, silt, organic matter, and weathered bedrock. In some locations, Palmerton Group identified the presence of ash, cinders, or brick near the ground surface and a silt layer deeper. Palmerton Group also observed a blue-green color in borings SP-26, SP-27, and SP-34, a fuel odor in SP-21 and SP-28, and a thin coal tar seam in SP-25.



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Bedrock was encountered at depths less than 10 feet bgs across the entire property (average depth of approximately 5 feet bgs), except at the southwest corner where the depth to bedrock was approximately 20 feet bgs. Limited perched water was encountered and generally the first groundwater encountered was in the bedrock zone. This was similar to observations made during GaiaTech's investigation in which perched groundwater was detected intermittently on the west side of the site. GaiaTech did not encounter perched groundwater on the east side of the site (east of Transit Road).

Investigation Results

The soil data are provided in Table 1 and the groundwater data in Table 2. Gnarus and Palmerton Group compared the soil results to the industrial soil cleanup objectives (SCOs) and protection of groundwater SCOs. The exceedances are highlighted on Table 1 with the colors yellow (direct contact SCOs) and blue (protection of groundwater SCOs). The groundwater data are compared to the NYSDEC Technical & Operational Guidance Series (TOGS) values. Groundwater concentrations exceeding TOGS are highlighted in yellow on Table 2.

The supplemental investigation did not identify any newly discovered substantial issues at the site. There were generally intermittent exceedances of the industrial SCOs and TOGS for PAHs, particularly in the main portion of the plant site. The PAH issues will be addressed by the coal tar investigation work and are not discussed in this report. However, the data are useful for the ongoing coal tar investigation.

In considering the results, Gnarus combined the recent data generated during the Phase II investigation conducted by GaiaTech as well as the recent work completed by Gnarus. GaiaTech collected 17 soil samples for analysis of VOCs, PAHs, and metals. GaiaTech summarized its investigation results in a letter, dated October 31, 2012.

Soil

No VOCs were detected above the industrial SCOs. The only metals detected above the industrial SCOs were lead in soil boring SB-34 at a depth of 2 to 3 feet (6,600 mg/kg) and copper in boring GT-6 at a depth of 1 to 2 feet (21,000 mg/kg). In addition, there were three detections of arsenic (SB-26, SB-28, and SB-34), which were both below 30 mg/kg.

The investigation included collecting four soil samples from around a previous sample collected by Environ in 2011 from boring B-3 in the southwest portion of the site. The sample collected by Environ contained 227 mg/kg of arsenic. The recent data from the four borings in this area do not exceed the industrial SCOs for arsenic, suggesting that the 2011 arsenic result was an anomaly and not indicative of a widespread presence of arsenic in that area of the site. No further investigation is warranted in this area due to the presence of arsenic.



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Groundwater

The presence of VOCs in groundwater during this recent investigation was more limited than previously detected during investigations by Dames & Moore (1999), Benchmark (2006), and Environ (2011). Although several samples contain VOCs above TOGS, the detections are not excessive and are not indicative of source area concentrations. For example, NYSDEC guidance considers nonaqueous phase liquid (NAPL) to be suspected in groundwater when the chemical concentration exceeds 1% of the solubility. No VOC was detected at a concentration greater than 0.1% of its solubility and, thus, there are no chemical data supporting the presence of a VOC-based NAPL. The areas where groundwater samples with detections that warrant discussion are as follows (note: the comparison levels provided below are above TOGS, but provide a general indication of the magnitude of the concentrations; Table 2 includes a comparison to TOGS):

- South of the laboratory (vicinity of historical samples B-6/SB-11 where chloroform was detected) - only xylenes (478 ug/l [total]) and ethylbenzene (160 ug/l) were detected at a concentration above 100 ug/l. In addition, benzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, isopropylbenzene, and n-propyl benzene were detected above TOGS (but all at or below 50 ug/l). The data clearly do not indicate a substantive source of chloroform, which was the primary focus of the investigation in this area.
- North of the administration building Only xylenes were detected above 100 ug/l (155 ug/l [total]); this area is south and downgradient of the laboratory.
- South of phosgene production although VOCs were detected in this area, the concentrations were below 100 ug/l and are not deemed indicative of a source or even warranting further investigation. Temporary well SP-25(A) installed in this area was the only location that contained detectable concentrations of trichloroethene (TCE) or tetrachloroethene (PCE). The groundwater sample from this well contained an estimated TCE concentration of 42 ug/l (47 ug/l in the duplicate sample) and an estimated PCE concentration of 57 ug/l (64 ug/l in the duplicate sample).
- Maintenance shop area SP-26(A) to the south contained 20 ug/l chloroform and SB-28(A) to the north contained 18 ug/l 1,2,4-trimethylbenzene.
- West portion of manufacturing area the groundwater sample collected from GT-12 contained chlorobenzene at 16 ug/l.
- Southwest corner of site the groundwater sample collected from GT-11 contained relatively low concentrations of benzene, toluene, and xylenes, all at concentrations less than 20 ug/l.

¹ New York State Department of Environmental Conservation. (2010). Final DER-10, Technical Guidance for Site Investigation and Remediation. May. P. 46.



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In addition, there were a few detections of dissolved metals in the groundwater samples. The concentrations are not indicative of a concern considering that the samples were collected from temporary wells.

The most interesting aspect of the investigation results is that the samples from shallow groundwater did not contain chlorinated solvents, except in one location, SP-25(A), located south of the phosgene production area. Data from previous investigations, such as the Environ groundwater investigation from 2011, indicated the presence of 1,1,1-trichloroethane (TCA) and its degradation products in the western portion of the property. In 2011, TCA was detected as high as 86 ug/l, 1,1-dichloroethane up to 230 ug/l, and 1,1-dichloroethene up to 65 ug/l. Therefore, the chlorinated solvents previously detected in the deeper portion of the aquifer on the western portion of the site, primarily 1,1,1-trichloroethane and its degradation byproducts, were not detected in the shallow groundwater samples at concentrations above TOGS in this most recent investigation. Furthermore, chloroform was not detected south of the laboratory where it was previously detected in MW-9D (groundwater) and SB-11 (soil) in 2011. Most importantly, none of the VOC detections are indicative of source concentrations.

Please do not hesitate to contact us with any questions or comments.

Sincerely yours,

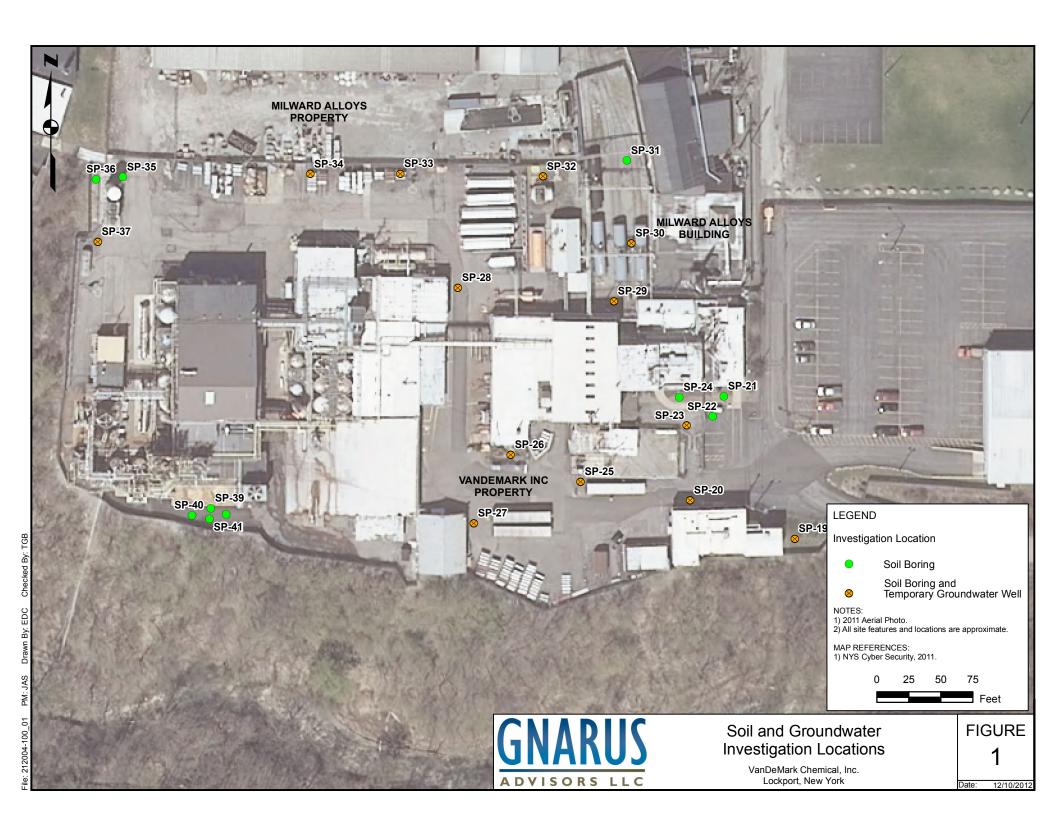
John A. Simon

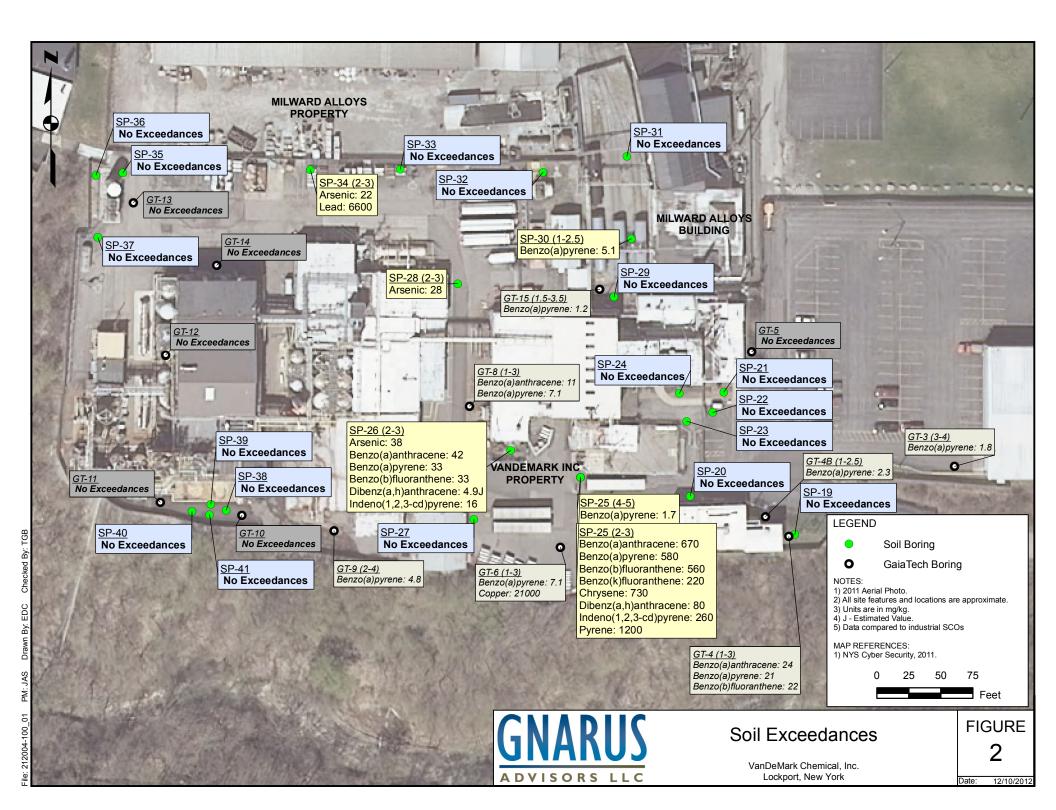
Director, Gnarus Advisors LLC

A. Amon

Todd Bown

Technical Specialist - Geologist, Palmerton Group LLC





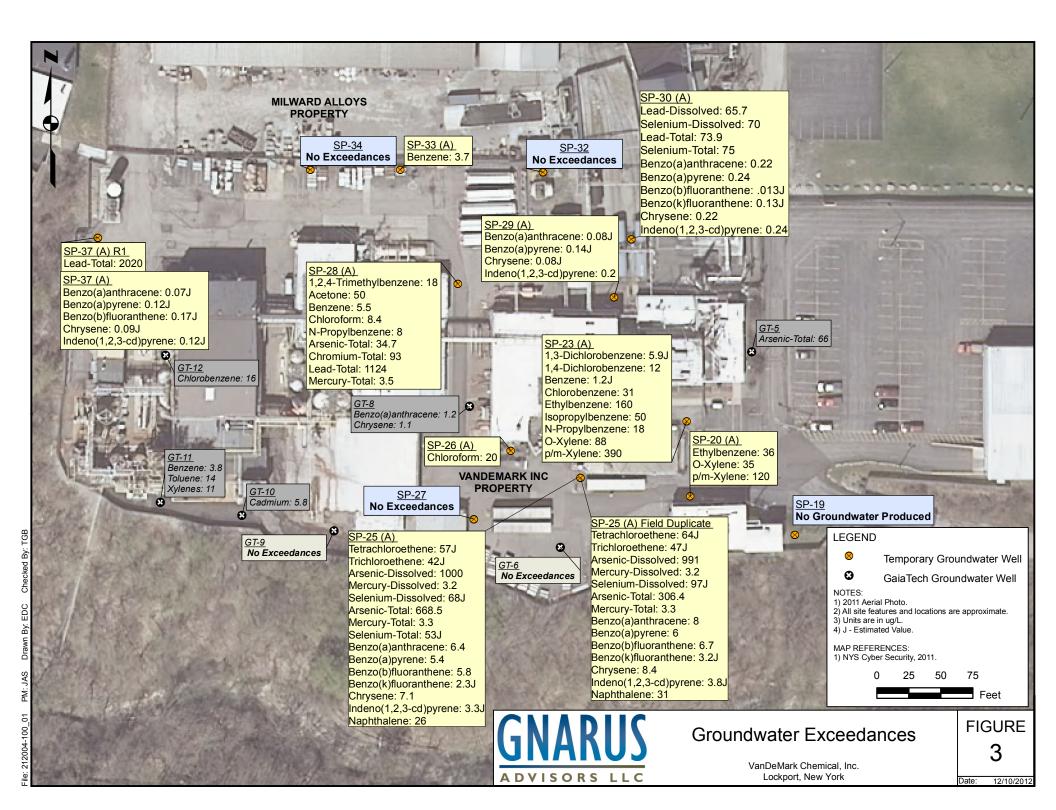


Table 1 Soil Data - October and November 2012 VanDemark Chemical Lockport, New York

Sampl Sampl Sampl			SP-38 (1-2) 10/29/12 11:00	SP-38 (8-9) 10/29/12 11:05	SP-38 (17-18.5) 10/29/12 11:10	SP-39 (2-2.5) 10/29/12 11:20	SP-39 (8-9) 10/29/12 11:30	SP-39 (16-16.6) 10/29/12 11:40	SP-40 (1-2) 10/29/12 11:50	SP-40 (8-9) 10/29/12 11:55	SP-40 (19-19.9) 10/29/12 12:05	SP-41 (1-1.5) 10/29/12 13:15	SP-41 (8-9) 10/29/12 13:20	SP-41 (19-19.5) 10/29/12 13:30	SP-35 (2-2.5) 10/29/12 14:00	SP-35 (4-5) 10/29/12 14:10	SP-36 (1-2) 10/29/12 14:25	SP-36 (4-5) 10/29/12 14:30	SP-36 (4-5) R2 10/29/12 14:30	SP-37 (1-2) 10/31/12 9:05	SP-37 10/3 9:
Jumpi		NYSDEC			1			<u> </u>													<u> </u>
	NYSDEC	Protection of																			
Analyte		Groundwater																			
-	Industrial SCOs ^a				I	1	I	1	l	1	I		l	1			1	1	1	1	1
5		SCOs ^b																			
,1,2-Tetrachloroethane															ND	ND	ND		ND	ND	l N
,1-Trichloroethane	1,000														0.00086 J	ND	ND		ND	ND	1
,2,2-Tetrachloroethane															ND	ND	ND		ND	ND	1
1,2-Trichloroethane															ND	ND	ND		ND	ND	1
1-Dichloroethane	480														ND	ND	ND		ND.	ND	1 .
L-Dichloroethene	1,000														ND	ND	ND		ND	ND	
	1,000		-			-						-			ND ND	ND	ND ND		ND ND	ND	;
-Dichloropropene																	1				
,3-Trichlorobenzene													-		ND	ND	ND		ND	ND	
,3-Trichloropropane															ND	ND	ND		ND	ND	
,4,5-Tetramethylbenzene															ND	ND	ND		ND	ND	'
2,4-Trichlorobenzene															ND	ND	ND		ND	ND	1
,4-Trimethylbenzene	380	3.6													ND	ND	ND		ND	ND	
2-Dibromo-3-chloropropane															ND	ND	ND		ND	ND	
2-Dibromoethane															ND	ND	ND		ND	ND	
2-Dichlorobenzene	1,000					_			_				_		ND	ND	ND	I -	ND	ND	
-Dichloroethane	60		-		I	-	I		_			-	l _		ND ND	ND.	ND ND		ND.	ND.	1 7
	00														ND ND	ND ND	ND ND	1	ND ND	ND ND	
2-Dichloropropane	200	0.4	-					-						-				_			
,5-Trimethylbenzene	380	8.4				-			-						ND	ND	ND	_	ND	ND	
3-Dichlorobenzene	560					-	-	-	-				-		ND	ND	ND	-	ND	ND	
I-Dichloropropane								-						-	ND	ND	ND	-	ND	ND	
l-Dichlorobenzene	250														ND	ND	ND		ND	ND	
-Diethylbenzene					-	-			-				-		ND	ND	ND	-	ND	ND	
-Dioxane	250														ND	ND	ND	-	ND	ND	
!-Dichloropropane															ND ND	ND	ND ND		ND ND	ND	
Sutanone	1,000		-	I -	I		I -	I _					l -	I -	0.01 J	ND ND	ND ND	1 -	ND ND	ND ND	
	1,000			1	I		I	~	I -	1	1		l					1 -			
lexanone								-	-					-	ND	ND	ND		ND	ND	
thyltoluene															ND	ND	ND		ND	ND	
Methyl-2-pentanone															ND	ND	ND		ND	ND	
etone	1,000	0.05													0.061	ND	0.0071 J		0.01 J	ND	
ylonitrile															ND	ND	ND		ND	ND	
nzene	89														ND	ND	ND		ND.	ND	
omobenzene															ND	ND	ND		ND	ND	
omochloromethane															ND	ND	ND		ND	ND	
omodichloromethane															ND ND	ND ND	ND ND		ND ND	ND ND	1
								-							ND ND		ND ND		ND ND	ND ND	
omoform								-					-		1	ND			1		
omomethane															ND	ND	ND		ND	0.0016 J	0.0
rbon Disulfide	1,000	2.7													0.0012 J	ND	ND		0.00042 J	ND	1
rbon Tetrachloride	44	0.76													ND	ND	ND		ND	ND	1
lorobenzene	1,000														ND	ND	ND		ND	ND	
loroethane															ND	ND	ND		ND	ND	
loroform	700	0.37													0.0019	ND	ND		0.00046 J	ND	
loromethane	700	0.57													ND	ND	ND ND		ND	ND	
	1 000		-			-						-									
-1,2-Dichloroethene	1,000														ND	ND	ND		ND	ND	
-1,3-Dichloropropene								-							ND	ND	ND	-	ND	ND	
oromochloromethane						-								-	ND	ND	ND	-	ND	ND	
romomethane					-	-			-				-		ND	ND	ND	-	ND	ND	
hlorodifluoromethane					-	-			-				-		ND	ND	ND	-	ND	ND	
nyl ether					-	-		-	-				-	-	ND	ND	ND	-	ND	ND	
ylbenzene	780	1													ND	ND	ND	-	ND	ND	
xachlorobutadiene					l										ND ND	ND	ND ND		ND ND	ND.	
				I	I	1	I		l	Ī	I .		l .				1	1	1		
propylbenzene	Not For 1 !!	N-4				-									ND	ND	ND		ND	ND	
-P-Xylene	Not Established	Not established				-		-	-								1 .	-	1 .	1 .	
ethyl tert butyl ether	1,000					-								-	ND	ND	ND		ND	ND	
thylcyclohexane	Not Established	Not established			-	-	-	-	-				-	-			1	-	1	1	
ethylene Chloride	1,000	0.05													ND	ND	ND		ND	ND	
ohthalene	1,000														ND	ND	0.016		0.008	ND	0
utylbenzene	1,000					_			_				_		ND	ND	ND	I -	ND	ND	
ropylbenzene	1,000		-		I		I		_				l _		ND ND	ND.	ND ND	I -	ND ND	ND ND	
nlorotoluene	1,000			I	I		I	I	I	1 .	I			I	ND ND	ND ND	ND ND	1 -	ND ND	ND ND	
					I		I -					-						1 -			
ylene	Not Established	Not established											-		ND	ND	ND	-	ND	ND	
-Xylene													-		ND	ND	ND	-	0.00069 J	ND	
hlorotoluene					-	-	-	-	-				-	-	ND	ND	ND	-	ND	ND	
opropyltoluene						-			-				-		0.0022	ND	ND	-	ND	ND	
Butylbenzene	1,000														ND	ND	ND	-	ND	ND	
rene	/					_			_				_		ND	ND	ND ND	I -	ND	ND	
	1.000				l	_	l						_		ND ND	ND.	ND ND		ND.	ND.	
-Butylbenzene	,	4.2			I		I -								1			1 -			1
rachloroethene	300	1.3				-		-	-						ND	ND	ND	_	ND	ND	١.
uene	1,000	0.7				-		-	-				-	-	ND	ND	0.00046 J	-	0.00033 J	0.00041 J	0.
ns-1,2-Dichloroethene	1,000														ND	ND	ND	-	ND	ND	
ns-1,3-Dichloropropene															ND	ND	ND	-	ND	ND	
ns-1,4-Dichloro-2-butene															ND	ND	ND		ND	ND	
	400	0.47			l				-		I				ND ND	ND.	ND ND	1	ND ND	ND.	

Table 1 Soil Data - October and November 2012 VanDemark Chemical Lockport, New York

Analyte Trichlorofluoromethane Vinyl acetate Vinyl chloride Xylenes , Total otal Metals Arsenic Barium Cadmium Chomium Copper Lead Magnesium Mercury Nickel Selenium	NYSDEC Industrial SCOs ³ 27 1,000	NYSDEC Protection of Groundwater SCOsb 1.6		11:05	11:10	11:20	11:30	11:40	11:50	11:55	12:05	13:15	13:20	13:30	14:00	14:10	14:25	14:30	14:30	9:05	9:1
Trichlorofluoromethane Vinyl acetate Vinyl chloride Xylenes, Total Datal Metals Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel	27 1,000	Protection of Groundwater SCOs ^b																			
Trichlorofluoromethane Vinyl acetate Vinyl chloride Xylenes, Total Datal Metals Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel	27 1,000	Groundwater SCOs ^b	-																		
Trichlorofluoromethane Vinyl acetate Vinyl chloride Xylenes, Total Otal Metals Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel	27 1,000	SCOs ^b	-		1	İ											1				
Vinyl acetate Vinyl chloride Vinyl chloride Arylenes, Total btal Metals Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel	1,000																				
Vinyl acetate Vinyl chloride Xylenes , Total stal Metals Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel	1,000		-																		
Vinyl acetate Vinyl chloride Xylenes, Total tal Metals Arsenic Barium Cadmium Chromium Cropper Lead Magnesium Mercury Nickel	1,000	1.6													ND	ND	ND		ND.	ND	NE
Vinyl chloride Xylenes , Total barium Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel	1,000	1.6													ND	ND	ND		ND	ND	NI
Xylenes , Total otal Metals Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel	1,000	1.6			1																
otal Metals Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel	16	1.6												-	ND	ND	ND		ND	ND	NE
Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel																					
Arsenic Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel																					
Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel																					
Barium Cadmium Chromium Copper Lead Magnesium Mercury Nickel		16	3.7	4.3	2	6	6.8	3.4	4.9	5.7	9.5	5.1	7.7	9.7	9.2	1	4.3	0.71		2.5	3.0
Cadmium Chromium Copper Lead Magnesium Mercury Nickel	10,000	10	3.7	4.3	1 *	0	0.0	3.4	4.5	3.7	3.3	3.1	/./	5.7							
Chromium Copper Lead Magnesium Mercury Nickel															73	38	130	18	-	25	53
Copper Lead Magnesium Mercury Nickel	60	7.5													1	0.06 J	4.2	0.37 J		0.14 J	1.0
Lead Magnesium Mercury Nickel	800	19													39	12	56	5.8		3.2	16
Lead Magnesium Mercury Nickel	10,000	1,720																			
Magnesium Mercury Nickel	3,900	450													3800	12	920	87		16	240
Mercury Nickel	Not Established														5000		320	0,		10	
Nickel		Not established						I													
	5.7														0.05 J	0.05 J	0.31	0.03 J		ND	0.0
Selenium	10,000	130																-			
	6,800														0.87 J	0.66 J	0.6 J	0.16 J		0.27 J	1.:
Silver	6.800														0.56 J	ND	0.8	ND		0.13 J	0.14
		2.400						I	1						0.303	שאו	1	l IND		0.15 J	0.14
Zinc	10,000	2,480																-			
					1	l		1	I	l					1	1	1	1			1
/OCs				1	I		I	1	1	1					1	1	1	1	1		
2,4,5-Trichlorophenol	1,000	0.1		l	l	I	l		L							l		1			
	Not established		-						I		l - [-				l .					
2,4,6-Trichlorophenol			-																		
2,4-Dichlorophenol	1,000	0.4						-										-			1
2,4-Dimethylphenol	Not established	Not established																-			
2,4-Dinitrophenol	1,000	0.2																			
2,4-Dinitrotoluene	Not established	Not established																			
									-			-							1		
2,6-Dinitrotoluene	Not established																		-		
2-Chloronaphthalene	Not established														ND	ND	ND	ND	-	ND	NE
2-Chlorophenol	1,000	Not established																			
2-Methylnaphthalene	Not established	36.4													ND	ND	ND	ND		ND	NI
2-Methylphenol	Not established																				
2-Nitroaniline	Not established																				
2-Nitrophenol	Not established																		-		
3 & 4 Methylphenol	Not established	Not established																			
3,3'-Dichlorobenzidine	Not established	Not established																			
3-Nitroaniline	Not established																				
																	1				
4,6-Dinitro-2-methylphenol	Not established																		-		
4-Bromophenyl phenyl ether	Not established	Not established																			
4-Chloro-3-methylphenol	Not established	Not established																			
4-Chloroaniline	1.000	0.22																			
4-Chlorophenyl phenyl ether	Not established																				
4-Nitroaniline	Not established																				
4-Nitrophenol	Not established	0.1																			
Acenaphthene	1,000	98													ND	ND	ND	0.059 J		ND	NE
Acenaphthylene	1,000	107													ND	ND	ND	ND		ND	NE
															IND	ND.	I ND	I ND	1	IND	INI
Acetophenone	Not established												-						-		
Anthracene	1,000	1,000													0.069 J	ND	0.098 J	0.077 J		ND	NI
Atrazine	Not established	Not established																-	-		1
Benzaldehyde	Not established																1	-			
		1		-	-	-	-		I .		_	-	-	_	0.28	ND	0.22	0.1 J		0.1	l N
Benzo(a)anthracene	11		_		I		I -				-			-							
Benzo(a)pyrene	1	22	-					-	-				-	-	0.24	ND	0.18	0.075 J		0.096 J	N
Benzo(b)fluoranthene	11	1.7													0.29	ND	0.25	0.11	-	0.13	NE
Benzo(g,h,i)perylene	1,000	1,000													0.14 J	ND	0.098 J	ND	-	0.079 J	N
Benzo(k)fluoranthene	110	1.7													0.12	ND	0.087 J	0.043 J		0.051 J	l N
Biphenyl	Not established								I						1	-	1	1		1	"
			-				I		1					-	1	1 -	1 -	1 "			
Bis(2-chloroethoxy)methane	Not established				-														-		
Bis(2-chloroethyl)ether	Not established							-										-			1
Bis(2-chloroisopropyl) ether	Not established	Not established																			
Bis(2-ethylhexyl)phthalate	Not Established																	-			
Butyl benzyl phthalate	1,000	122		1	I .	1	I .	l .	I .	1	_			_	I .	1 .		1			
			_		I		I -				-			-			1	1 "	1		
Caprolactam	Not established												-					-	-		
Carbazole	Not established	Not established					-		-								-	-			
Chrysene	110	1													0.31	ND	0.24	0.1 J		0.12	N
Dibenz(a,h)anthracene	1	1.000													0.042 J	ND	ND	ND		ND	, N
	_	-,			I								-		0.042 3	""	"	""		140	"
Dibenzofuran	1,000	210											-						-		
Diethyl phthalate	1,000	7.1						-										-	-		
Dimethyl phthalate	1,000	27																			
Di-n-butyl phthalate	1,000	8.1																			
			_		I		1			1	_	-	_	_	1	l		1	1		
Di-n-octyl phthalate	1,000	120																-	-		
Fluoranthene	1,000	1,000													0.43	ND	0.44	0.21		0.19	0.
Fluorene	1,000	386													ND	ND	ND	0.06 J	-	ND	N
Hexachlorobenzene	12	3.2																-			
Hexachlorobetizette		Not established	_	1	I		1	1		l	_	-	_	_		I	1	1	1		

VanDemark Chemical Lockport, New York

Privileged and Confidential

Prepared at Request of Counsel

Sampl	le ID		SP-38 (1-2)	SP-38 (8-9)	SP-38 (17-18.5)	SP-39 (2-2.5)	SP-39 (8-9)	SP-39 (16-16.6)	SP-40 (1-2)	SP-40 (8-9)	SP-40 (19-19.9)	SP-41 (1-1.5)	SP-41 (8-9)	SP-41 (19-19.5)	SP-35 (2-2.5)	SP-35 (4-5)	SP-36 (1-2)	SP-36 (4-5)	SP-36 (4-5) R2	SP-37 (1-2)	SP-37 (4-5)
Sample	Date		10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/31/12	10/31/12
Sample	Time		11:00	11:05	11:10	11:20	11:30	11:40	11:50	11:55	12:05	13:15	13:20	13:30	14:00	14:10	14:25	14:30	14:30	9:05	9:15
		NYSDEC																			
	NYSDEC	Protection of																			
Analyte	Industrial SCOs ^a	Groundwater																			
		SCOs ^b																			
Hexachlorocyclopentadiene	Not established	Not established																			
Hexachloroethane	Not established	Not established																			
Indeno(1,2,3-cd)pyrene	11	1,000													0.12 J	ND	0.1 J	ND		0.088 J	ND
Isophorone	1,000	4.4																			
Naphthalene	1,000	12													0.065 J	ND	ND	0.08 J		ND	ND
Nitrobenzene	140	0.17																			
N-Nitrosodi-n-propylamine	Not established	Not established																			
N-Nitrosodiphenylamine	Not established	Not established																			
Pentachlorophenol	55	0.8																			
Phenanthrene	1,000	1,000	-												0.43	ND	0.39	0.26		0.074 J	0.048
Phenol	1,000	0.33																			
Pyrene	1,000	1,000													0.51	ND	0.42	0.18		0.18	0.054

All concentrations are in mg/kg.

ND = Not detected.

-- = Not analyzed.

E = Estimated value obtained from a 125:1 dilution.

J = Estimated concentration.

(1) Sample had an adjusted volume during extraction due to extract matrix and/or viscosity.

(2) Dilution required due to high concentration of target analyte.

(3) Analyte detected at a level less that Reporting Limit and greater than or equal to the Method Detection Limit.

(4) Laboratory Control Sample and/or laboratory control sample duplicate recovery was below acceptance limits.

(a) Laboratory Colintor Sample and/or Inadiatory Control sample duplicate recovery was been acceptance mins.

Bold text and yellow highlighting indicates exceedance of NYSDEC Industrial Soil Cleanup Objectives (SCOs).

Bold text and blue highlighting indicates exceedance of NYSDEC Protection of Groundwater SCOs.

Bold text, yellow/blue highlighting, and boxed values indicate exceedance of both MYSDEC Industrial SCOs and Protection of Groundwater SCOs.

a) NYSDEC industrial SCOs from NYSDEC Table 375-6.8(b): Restricted Use Soil Cleanup Objectives (Industrial) and NYSDEC CP-S1 Soil Cleanup Guidelines.

b) NYSDEC Protection of Groundwater SCOs from NYSDEC Table 375-6.8(b): Restricted Use Soil Cleanup Objectives (Industrial) and NYSDEC CP-51 Soil Cleanup Guidelines.

**FIELD DUPLICATE is associated with SP-24 (1.5-3)

Table 1 Soil Data - October and November 2012 VanDemark Chemical Lockport, New York

Sampl Sampl Sampl	e Date		SP-37 (8-9) 10/31/12 9:25	SP-34 (2-3) 10/31/12 9:55	SP-28 (2-3) 10/31/12 10:20	SP-28 (4-5) 10/31/12 10:30	SP-29 (2-3) 10/31/12 10:40	SP-29 (4-5) 10/31/12 10:45	SP-30 (1-2.5) 10/31/12 14:35	SP-30 (4-5.3) 10/31/12 14:40	SP-31 (2-2.5) 10/31/12 15:10	SP-31 (4-4.9) 10/31/12 15:15	SP-26 (2-3) 11/1/12 9:40	SP-26 (4-5) 11/1/12 9:50	SP-25 (2-3) 11/1/12 10:15	SP-25 (4-5) 11/1/12 10:20	SP-22 (2-3) 11/1/12 10:55	SP-22 (4-5) 11/1/12 11:00	SP-21 (2-2.5) 11/1/12 11:10	SP-21 (4-5) 11/1/12 11:15	SP-23 (2-2.5) 11/1/12 13:10
		NYSDEC																			
	NYSDEC	Protection of																			
Analyte		Groundwater																			
	Industrial SCOs ^a																				
		SCOs ^b																			
VOCs																					
1,1,1,2-Tetrachloroethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	480		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene			ND	ND	3.4	0.0079	ND	ND	ND	ND	ND	ND	ND	ND	0.062 J	0.0003 J	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	380	3.6	ND	ND	0.74	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.55 J	0.0029 J	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	60		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	380	8.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17J	0.00082 J	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	560		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	250		ND	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND	0.0019 J	ND ND
1,4-Diethylbenzene			ND	ND.	0.47 J	0.00075 J	ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	0.39 J	0.0015	ND ND	0.00023 J	ND	ND	ND ND
1.4-Dioxane	250		ND	ND	ND	ND	ND	ND	ND	ND.	ND	ND	ND.	ND	ND	ND	ND.	ND	ND	ND	ND
2,2-Dichloropropane	250		ND	ND.	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND
2-Butanone	1,000		ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
2-Hexanone	1,000		ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
			ND ND	ND ND	0.081 J	ND ND	ND ND	ND ND	ı	ND ND	ND ND	ND ND	ND ND	ND ND	0.94		ND ND	ND ND	ND ND	ND ND	ND ND
4-Ethyltoluene			ND ND	ND ND	0.081 J ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	0.94 ND	0.0034 J ND	ND ND	ND ND	ND ND	ND ND	ND ND
4-Methyl-2-pentanone	4 000	0.05		1																	
Acetone	1,000	0.05	0.009 J	0.04	ND	0.01 J	0.05	0.0093 J	0.031	0.068	0.034	0.022	ND	0.0091 J	ND	0.028	0.015	0.019	ND	0.015	ND
Acrylonitrile			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	89		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.26	0.0018	ND	ND	ND	ND	ND
Bromobenzene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane			ND	0.00092 J	ND	0.00077 J	ND	ND	0.0012 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	1,000	2.7	ND	ND	ND	0.00056 J	0.00048 J	ND	ND	ND	0.001 J	0.00047 J	0.002 J	0.00053 J	ND	0.0032 J	ND	ND	ND	0.00071 J	0.00046 J
Carbon Tetrachloride	44	0.76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0017	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.006	ND	ND	ND	0.0057	ND
Chloroethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	700	0.37	ND	0.0094	ND	ND	ND	ND	ND	0.00048 J	ND	ND	0.058	0.006	15	0.15	0.027	0.0021	0.00066 J	0.00045 J	0.61 E
Chloromethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12 J	0.0029	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl ether			ND	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND	ND ND	ND ND
Ethylbenzene	780	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.89	0.0038	ND	ND	ND	0.0013	ND
Hexachlorobutadiene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene			ND	ND.	0.13	ND	ND	ND	ND ND	ND	ND ND	ND	ND ND	ND	0.13 J	0.00048 J	ND ND	ND ND	ND	0.003	ND ND
M+P-Xvlene	Not Established	Not established								-			-								
Methyl tert butyl ether	1,000	ar a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Not Established	Not established			""	"			"	"	140			"-	-		"	"-		"-	"
Methylcyclohexane Methylene Chloride	1,000	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0038 J	ND	ND	ND	ND	ND
Naphthalene	1,000	0.03	ND ND	ND ND	0.18 J	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	20	0.0038 3	0.0012 J	ND ND	ND ND	ND ND	ND ND
			ND ND	ND ND	0.18 J	0.000871	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	0.061 J	0.12 ND	0.00121 ND	ND ND	ND ND	ND ND	ND ND
n-Butylbenzene	1,000			1														1			
n-Propylbenzene	1,000		ND	ND	0.38	0.00056 J	ND	ND	ND ND	ND	ND ND	ND	ND ND	ND	0.09 J	ND	ND ND	ND ND	ND	0.0015	ND ND
o-Chlorotoluene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND 0.000551	ND
O-Xylene	Not Established	Not established	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.42	0.0033	ND	ND	ND	0.00066 J	ND
p/m-Xylene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.97	0.0062	ND	ND	ND	0.001 J	ND
p-Chlorotoluene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.059 J	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1,000		ND	ND	0.38	0.00063 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	1,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	300	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7	0.022	ND	ND	ND	ND	0.0014
Toluene	1,000	0.7	0.00063 J	ND	ND	ND	ND	0.00028 J	ND	0.0013 J	ND	ND	0.00032 J	ND	0.82	0.0055	ND	ND	ND	0.00034 J	ND
trans-1,2-Dichloroethene	1,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene			ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND	ND	ND ND
		0.47		ND ND		ND ND	ND	ND ND	ND ND												0.0011 J

Table 1 Soil Data - October and November 2012 VanDemark Chemical Lockport, New York

Sampl Sample Sample	e Date		SP-37 (8-9) 10/31/12 9:25	SP-34 (2-3) 10/31/12 9:55	SP-28 (2-3) 10/31/12 10:20	SP-28 (4-5) 10/31/12 10:30	SP-29 (2-3) 10/31/12 10:40	SP-29 (4-5) 10/31/12 10:45	SP-30 (1-2.5) 10/31/12 14:35	SP-30 (4-5.3) 10/31/12 14:40	SP-31 (2-2.5) 10/31/12 15:10	SP-31 (4-4.9) 10/31/12 15:15	SP-26 (2-3) 11/1/12 9:40	SP-26 (4-5) 11/1/12 9:50	SP-25 (2-3) 11/1/12 10:15	SP-25 (4-5) 11/1/12 10:20	SP-22 (2-3) 11/1/12 10:55	SP-22 (4-5) 11/1/12 11:00	SP-21 (2-2.5) 11/1/12 11:10	SP-21 (4-5) 11/1/12 11:15	SP-23 (2-2.5) 11/1/12 13:10
	NYSDEC	NYSDEC Protection of																			
Analyte	Industrial SCOs ^a	Groundwater																			
	industrial SCOs	SCOs ^b																			
Trichlorofluoromethane		5005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	27	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes , Total	1,000	1.6				-	-		-	-	-		-	-							_
Total Metals																					
Arsenic	16	16	1.4	22	28	1.9	4.9	1	3.9	1.4	0.7	1.1	38	9.3	6.2	7.1					-
Barium	10,000		130	400	72	30	55	25	91	38	16	28	240	84	73	77					-
Cadmium Chromium	60 800	7.5 19	0.12 J	0.66 J	0.24 J 12	ND 5.7	1.1 140	0.07 J 9.8	0.96 19	0.71 15	ND 5.1	0.3 J 10	0.14 J 11	1.9 15	0.06 J 8.4	0.21 J 13					
Copper	10,000	1,720								-											
Lead	3,900	450	32	6600	470	24	12	3.1	130	30	1.9 J	6.8	28	140	29	44					
Magnesium	Not Established	Not established																			
Mercury Nickel	5.7 10,000	130	ND 	0.12	0.11	ND	0.11	ND	0.1	0.04 J	ND	ND	0.08 J	0.07	0.05 J	0.03 J	-				
Selenium	6,800	150	2	5.4	1.9	0.74 J	1.2	0.81 J	1.4	1.2	0.6 J	0.86	6.2	1.1	2.1	1.1	-				
Silver	6,800		ND	3.1	0.17 J	ND	ND	ND	0.33 J	0.16 J	ND	ND	ND	0.26 J	0.18 J	0.2 J					
Zinc	10,000	2,480	-			-			-	-	-		-	-	-	-	-	-	-		-
SVOCs																					
2,4,5-Trichlorophenol	1,000	0.1																			
2,4,6-Trichlorophenol	Not established	Not established				-	-		-				-	-	-		-				-
2,4-Dichlorophenol	1,000	0.4																			-
2,4-Dimethylphenol	Not established	Not established																			-
2,4-Dinitrophenol 2.4-Dinitrotoluene	1,000 Not established	0.2 Not established	-			-			-		-		-	-	-		-				
2,6-Dinitrotoluene	Not established	1				_			-								-				
2-Chloronaphthalene	Not established	Not established	ND				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
2-Chlorophenol	1,000	Not established																			-
2-Methylnaphthalene	Not established	36.4 Not established	ND			-	ND	ND	ND	ND	ND	ND	ND	ND	66 J	0.34 J					
2-Methylphenol 2-Nitroaniline	Not established Not established	0.4	-				-				-		-		-				-		
2-Nitrophenol	Not established	0.3																			
3 & 4 Methylphenol	Not established	Not established																			-
3,3'-Dichlorobenzidine	Not established	Not established				-							-	-	-		-				-
3-Nitroaniline 4.6-Dinitro-2-methylphenol	Not established Not established	0.5 Not established				-	-		-	-	-		-	-	-		-				-
4-Bromophenyl phenyl ether	Not established	Not established																			
4-Chloro-3-methylphenol	Not established	Not established																			
4-Chloroaniline	1,000	0.22							-	-	-										-
4-Chlorophenyl phenyl ether 4-Nitroaniline	Not established Not established	Not established Not established	-			-			-				-	_	-		-				
4-Nitrophenol	Not established	0.1				-	-				-		-				-				
Acenaphthene	1,000	98	ND				ND	ND	0.57J	0.068 J	ND	ND	2.7 J	ND	35 J	0.27 J					-
Acenaphthylene	1,000	107	ND				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					-
Acetophenone Anthracene	Not established 1,000	Not established 1,000	ND				0.12 J	ND	1.5	0.19	 ND	0.032 J	9.1	ND	110	0.65	-				
Atrazine	Not established	Not established				-	0.123			0.19		0.0321				0.03					
Benzaldehyde	Not established	Not established																			
Benzo(a)anthracene	11	1	ND				0.66	0.2 J	5.5	0.67	ND	0.1 J	42	0.063 J	670	1.9			-		
Benzo(a)pyrene Benzo(b)fluoranthene	1 11	22 1.7	ND ND			-	0.62 0.58	0.19 J 0.18 J	5.1 4.6	0.6 0.64	ND ND	0.12 J 0.18	33 33	0.053 J 0.063 J	580 560	1.7 1.6			-		-
Benzo(g,h,i)perylene	1,000	1,000	ND ND			-	0.58 0.29 J	0.18 J 0.11 J	2.6	0.64	ND ND	0.18 0.072 J	17	0.063 J	280	0.79			-		
Benzo(k)fluoranthene	110	1.7	ND				0.18 J	0.07 J	2.2	0.18	ND	0.064 J	11	ND	220	0.57					
Biphenyl	Not established	Not established																			-
Bis(2-chloroethoxy)methane	Not established Not established	Not established Not established	-		-	-				-	-		-	-	-		-				
Bis(2-chloroethyl)ether Bis(2-chloroisopropyl) ether	Not established	Not established	-			-	-				-		-		-				-		
Bis(2-ethylhexyl)phthalate	Not Established	435							-												
Butyl benzyl phthalate	1,000	122	-			-			-	-	-		-	-	-				-		-
Caprolactam	Not established	Not established				-			-				-				-				
Carbazole Chrysene	Not established 110	Not established	ND	-		-	0.79	0.23	6.5	0.75	0.034 J	0.18	49	0.079 J	730	2.1	-				
Dibenz(a,h)anthracene	1	1,000	ND				ND	ND	0.64 J	0.076 J	ND	ND	4.9 J	ND	80	0.22 J	-				-
Dibenzofuran	1,000	210							-												
Diethyl phthalate	1,000	7.1				-			-				-	-	-						
Dimethyl phthalate	1,000 1,000	27 8.1	-	-		-							_	-	-		-				
Di-n-butyl phthalate Di-n-octyl phthalate	1,000	120	-	-			-				-					-			-		
Fluoranthene	1,000	1,000	ND			-	0.62	0.19 J	6.6		ND	0.15	48	0.12	650	2.3	-				
Fluorene	1,000	386	ND				ND	ND	0.56 J	0.061 J	ND	ND	2.6 J	ND	41 J	0.29 J	-				
Hexachlorobenzene	12	3.2	-						-	-			-	-	-	-	-				-
Hexachlorobutadiene	Not established	Not established				-			-		-		-		-		-		-		1

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Samp	ole ID		SP-37 (8-9)	SP-34 (2-3)	SP-28 (2-3)	SP-28 (4-5)	SP-29 (2-3)	SP-29 (4-5)	SP-30 (1-2.5)	SP-30 (4-5.3)	SP-31 (2-2.5)	SP-31 (4-4.9)	SP-26 (2-3)	SP-26 (4-5)	SP-25 (2-3)	SP-25 (4-5)	SP-22 (2-3)	SP-22 (4-5)	SP-21 (2-2.5)	SP-21 (4-5)	SP-23 (2-2.5)
Sample	e Date		10/31/12	10/31/12	10/31/12	10/31/12	10/31/12	10/31/12	10/31/12	10/31/12	10/31/12	10/31/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12
Sample	e Time		9:25	9:55	10:20	10:30	10:40	10:45	14:35	14:40	15:10	15:15	9:40	9:50	10:15	10:20	10:55	11:00	11:10	11:15	13:10
		NYSDEC																			
	NYSDEC	Protection of																			
Analyte	Industrial SCOs ^a	Groundwater																			
	industrial Scos	SCOs ^b																			
Hexachlorocyclopentadiene	Not established	Not established	-																		
Hexachloroethane	Not established	Not established																			
Indeno(1,2,3-cd)pyrene	11	1,000	ND				0.27 J	0.098 J	2.3	0.3	ND	0.074 J	16	ND	260	0.76					
Isophorone	1,000	4.4																			
Naphthalene	1,000	12	ND				ND	ND	ND	ND	ND	ND	ND	ND	84	0.47					
Nitrobenzene	140	0.17																			
N-Nitrosodi-n-propylamine	Not established	Not established	-			-															
N-Nitrosodiphenylamine	Not established	Not established																			

0.48

ND

--0.037 J 0.059 J

51

0.12

320

2.2

4.2

--10

0.57

0.089 J

Pentachlorophenol

Phenanthrene

Phenol

55

1,000

1,000

0.8

1,000

0.33

ND

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Semple 10									Lockpo	ort, New York		
August March Mar	Samp	le ID		SP-23 (2-2.5) R1	SP-23 (4-5)	SP-24 (1.5-3)	SP-24 (1.5-3) R1	FIELD DUPLICATE**	FIELD DUPLICATE** R1	SP-24 (4-5)	SP-19 (1-2.5)	SP-19 (4-5)
VISIC Machinal SCO Machinal SC												
March Marc	Sample	Time	NYSDEC	13:10	13:15	13:30	13:30	13:30	13:30	13:35	14:00	14:15
VICA 1.1.3 First received mase 1.000		NYSDEC										
	Analyte	Industrial SCOs ^a	Groundwater									İ
1.1.2 Fraincembase 1.00			SCOs ^b									İ
1.1.3—Price/absorbance 1.000 NO NO NO NO NO NO NO												İ
1.1.2 Friendeniemburg 1.1.2 Priendeniemburg 1.1.2 Priendeniemburg 1.1.3 Priendeniemburg		4 000				1			-			
1.1.2 Freinholmentense		1,000										
1.1 - 1.1 - 1.2	, , ,					1			I			
1.3.1-Friendergenages 1.2.3.1-Friendergenages 1.2.3.1-Friendergenages 1.2.3.1-Friendergenages 1.2.4-Friendergenages 1.2.4-Friendergenages 1.2.4-Friendergenages 1.2.4-Friendergenages 1.2.4-Friendergenages 1.2.4-Friendergenages 1.2.4-Friendergenages 1.2.4-Friendergenages 1.2.5-Friendergenages 1.2.5-Friendergenages 1.2.6-Friendergenages 1.2.6-Frienderge		480							-			
1.2.3.7 inchioroprogenee - NO NO NO - NO NO NO NO NO NO NO NO NO NO NO NO NO		1,000							I			
1.3.1-7-10-follower-proper 1.2.4-5 1.2.5												
1.2.4.5 First interfederates	, ,					1			I			
1.2.4 Friendshorenees 380 3.6 NO NO NO NO NO NO						1			I			
1.2-Deformed-schedunger									I			
1.2 Delichorebrane 1.000	1,2,4-Trimethylbenzene	380	3.6		ND	0.34 J		0.34 J		ND	ND	ND
1.2-Gehiorostename												
1.2-Ocidioropages		1.000										
1.2-Dickhoropopase												
1.3-0-Chirocherenee 560 8.4 - ND	,	00				1			I			
1.3-Dickhorpropane 1.4-Ochiohorprosence 250 1.4-Ochiohorpropane 1.4-Ochiohorprosence 250 1.4-Ochiohorpropane 250 1.4-Ochiohorpropane 250 1.4-Ochiohorpropane 250 1.4-Ochiohorpropane 250 1.5-Ochiohorpropane 250 1.5-Ochiohorpropane 250 1.0000 1.0000 1.0000 1.00000 1.00000000		380	8.4						-			
1.4-Dethybraneme	,	560										
1.4-Dischargereane 250		250										
1.4 Discourse 250	,	250				1			I			
2.2-Dichlorograpare 2.2-Butanone 2.1,000 2-No 2-Retanone 1,000 2-Retanone 1,000 2-Retanone 1,000 2-Retanone 1,000 2-Retanone 1,000 3-Rethyl-Zegetanone 3-Rethyl-Zegetanone 1,000 3-Rethyl-Zegetanone 1,000 3-Rethyl-Zegetanone 3-Rethyl-		250										
2-Hexanone 4-Ethytholizers 4-					ND	ND		ND		ND	ND	ND
4-Hyptolure 4-Hyptolure	2-Butanone	1,000			ND	ND		ND		ND	ND	ND
A-extense												
Action A									I			
Benzene Brombehrenzene Brombehrenz		1.000	0.05									
Bromcheneme Bromcheneme		_,,,,,,				1			I			
Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane Bromockloromethane 1,000 2.7		89										
Bromodichioromethane Bromodichioromethane Bromodichioromethane Carhon Disulfide Carhon Disulfide Carhon Disulfide Carhon Disulfide Carhon Tetrachloride 44 0.76 ND 0.11 0.26 ND ND ND ND ND ND N									I			
Bromoform Bromomethane												
Strommerhane Carhon Disulfide Carhon Tetrachloride A4 0.76 ND ND ND ND ND ND N									I			
Carbor Tetrachloride												
Chioroethane	Carbon Disulfide	-,						0.056 J				
Chloroform			0.76									
Chloroform		1,000							-		1	
Chicromethane Cis-1,2-Dichloropropene Cis-1,2-Dichloropene		700	0.37	0.81					48			
Cist_3-13-Dichloropropene Dibromochloromethane Dibromochlorome		100										
Dibromomethane Dibr		1,000							-			
Dithornomethane Dichlorodiffluoromethane Ethylether Company Compan												
Dichlorodiffuoromethane Ethylether Fig. Fig. Ethylether Fig.												
Ethylehrer Ethylenzene Hexachlorobutadiene Horoburdadiene Horopylenzene M-F-Xylene Methylcyclohexane Mot Established Mot e												
Hexachlorobutadiene Isopropylenzene Not Established Not es									-	ND		
		780	1				520		120			
M-P-Xylene Not Established Methyl tert burly ether Not established Methylene (hloride 1,000												
Methyl tert butyl ether 1,000 ND testablished		Not Established	Not established		ND	5.1		4.9	I	ND 	ND 	ND
Methylene Chloride	•		Not established		ND	ND		ND		ND	ND	ND
Naphthalene	Methylcyclohexane	Not Established	Not established						-			-
n-Butylbenzene 1,000			0.05									
n-Propylebrazene												
O-Chlorotoluene O-Chlorotoluen												
O-Xylene Not Established Not established		2,300							I			
p-Chlorotoluene ND ND ND	O-Xylene	Not Established	Not established		ND	150 E		140 E			ND	ND
P-Isopropyltoluene 1,000							2000		490			
Sec-Butylbenzene						1			-			
Styrene		1.000										
tert-Butylbenzene 1,000 ND ND ND <td></td> <td>1,000</td> <td></td>		1,000										
Toluene				-				ND	-			
trans-1,2-Dichloroethene 1,000 ND ND ND <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
trans-1,3-Dichloropropene ND ND ND			0.7	-					-			
trans-1,4-Dichloro-2-butene ND ND ND ND ND ND ND		1,000										
Trichloroethene 400 0.47 0.00041J ND 0.38 ND ND ND						1						
	Trichloroethene	400	0.47	-	0.00041 J	ND	-	0.38	-	ND	ND	ND

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									nark Chemica ort, New York		
Samp	ple ID le Date le Time		SP-23 (2-2.5) R1 11/1/12 13:10	SP-23 (4-5) 11/1/12 13:15	SP-24 (1.5-3) 11/1/12 13:30	SP-24 (1.5-3) R1 11/1/12 13:30	FIELD DUPLICATE** 11/1/12 13:30	FIELD DUPLICATE** R1 11/1/12	SP-24 (4-5) 11/1/12 13:35	SP-19 (1-2.5) 11/1/12 14:00	SP-19 (4-5) 11/1/12 14:15
Analyte	NYSDEC Industrial SCOs ^a	NYSDEC Protection of Groundwater	13:10	13:15	13:30	13:30	13:30	13:30	13:35	14:00	14:15
Trichlorofluoromethane		SCOs ^b		ND	ND		ND		ND	ND	ND
Vinyl acetate				ND	ND		ND	-	ND	ND	ND
Vinyl chloride	27		-	ND	ND		ND		ND	ND	ND
Xylenes , Total	1,000	1.6						-			
											i
Total Metals			-					-			-
Arsenic	16	16	-					-		-	
Barium Cadmium	10,000	7.5								-	
Chromium	800	19		-		-			-	-	
Copper	10,000	1,720									i -
Lead	3,900	450								42	6
Magnesium	Not Established	Not established									
Mercury	5.7							-			
Nickel	10,000	130	-					-			-
Selenium	6,800		-					-			
Silver	6,800		-								
Zinc	10,000	2,480	-		-			-			
							1				i
SVOCs	4 000						1				i
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	1,000 Not established	0.1 Not established	-		-	-		-	-	-	-
2,4-Dichlorophenol	1,000	0.4							-	-	-
2,4-Dimethylphenol	Not established	Not established							-	-	-
2,4-Dinitrophenol	1,000	0.2									i I
2,4-Dinitrophenol	Not established	Not established								-	
2.6-Dinitrotoluene	Not established	1									
2-Chloronaphthalene	Not established	Not established									
2-Chlorophenol	1,000	Not established						-			
2-Methylnaphthalene	Not established	36.4	-								
2-Methylphenol	Not established	Not established									
2-Nitroaniline	Not established	0.4						-			
2-Nitrophenol	Not established	0.3	-					-			
3 & 4 Methylphenol	Not established	Not established	-					-			
3,3'-Dichlorobenzidine	Not established	Not established	-					-			-
3-Nitroaniline	Not established	0.5	-		-	-				-	
4,6-Dinitro-2-methylphenol	Not established	Not established Not established		-	-	-			-		-
4-Bromophenyl phenyl ether 4-Chloro-3-methylphenol	Not established Not established	Not established						-	-	-	-
4-Chloroaniline	1,000	0.22					-		-	-	-
4-Chlorophenyl phenyl ether	Not established	Not established			-				-	-	
4-Nitroaniline	Not established	Not established									
4-Nitrophenol	Not established	0.1									
Acenaphthene	1,000	98						-			
Acenaphthylene	1,000	107	-								
Acetophenone	Not established	Not established									
Anthracene	1,000	1,000	-					-			
Atrazine	Not established	Not established	-					-			
Benzaldehyde	Not established	Not established	-		-			-		-	-
Benzo(a)anthracene	11	1	-					-		-	
Benzo(a)pyrene	1 11	22 1.7	-		-	-			-	-	-
Benzo(b)fluoranthene	1,000	1.7		-	-	-			-		
Benzo(g,h,i)perylene Benzo(k)fluoranthene	110	1.7								-	-
Biphenyl	Not established	Not established							-		
Bis(2-chloroethoxy)methane	Not established	Not established			-					-	
Bis(2-chloroethyl)ether	Not established	Not established									
Bis(2-chloroisopropyl) ether	Not established	Not established	-					-			
Bis(2-ethylhexyl)phthalate	Not Established	435	-							-	-
Butyl benzyl phthalate	1,000	122						-			
Caprolactam	Not established	Not established	-					-			
Carbazole	Not established	Not established						-			
Chrysene	110	1	-					-			
Dibenz(a,h)anthracene	1	1,000	-					-		-	-
Dibenzofuran	1,000	210	-					-		-	
Diethyl phthalate	1,000	7.1	-		-	-		-			
Dimethyl phthalate	1,000 1.000	27 8.1	I		-	-					-
Di-n-butyl phthalate Di-n-octyl phthalate	1,000	120				-			-		-
Fluoranthene	1,000	1,000		-	-	-			-		-
Fluorene	1,000	386	_			-				-	
Hexachlorobenzene	12	3.2									
Heyachlorobutadiene	Not established	Not established	l					l I			i

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Hexachlorobutadiene

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Samp	le ID		SP-23 (2-2.5) R1	SP-23 (4-5)	SP-24 (1.5-3)	SP-24 (1.5-3) R1	FIELD DUPLICATE**	FIELD DUPLICATE** R1	SP-24 (4-5)	SP-19 (1-2.5)	SP-19 (4-5)
Sample	Date		11/1/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12	11/1/12
Sample	Time		13:10	13:15	13:30	13:30	13:30	13:30	13:35	14:00	14:15
		NYSDEC									
	NYSDEC	Protection of									
Analyte	Industrial SCOs ^a	Groundwater									
		SCOs ^b									
Hexachlorocyclopentadiene	Not established	Not established									
Hexachloroethane	Not established	Not established									
Indeno(1,2,3-cd)pyrene	11	1,000									
Isophorone	1,000	4.4									
Naphthalene	1,000	12									
Nitrobenzene	140	0.17									
N-Nitrosodi-n-propylamine	Not established	Not established									
N-Nitrosodiphenylamine	Not established	Not established									
Pentachlorophenol	55	0.8									
Phenanthrene	1,000	1,000									
Phenol	1,000	0.33									
Pyrene	1,000	1,000									

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Table 2 Groundwater Data - October and November 2012 VanDemark Chemical Lockport, New York

Sample ID Sample Date(s)		SP-27 110212 11/2/12	SP-27 110212 R1 11/2/12	SP-37 110212 11/2/12	SP-37 110212 R1 11/2/12	SP-29 110212 11/2/12	SP-32 110212 11/2/12	SP-30 110212 11/2/12	11/2/12	TRIP BLANK 111312 11/2/12	SP-23(A) 111312 11/13/12	SP-25(A) 11131 11/13/12
Sample Time(s)		9:40	9:40	11:25	11:25	14:00	15:10	15:45	''	' '	13:35	15:20
Location at Site		SP-27	SP-27	SP-37	SP-37	SP-29	SP-32	SP-30	TRIP BLANK	TRIP BLANK	SP-23(A)	SP-25(A)
	NYSDEC Class GA							i			, ,	1
Analyte	Standards ¹											
VOCs	Standards											
	_	ND	_	ND		ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane	5 5	ND ND		ND 1.1 J		ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
1,1,2,2-Tetrachloroethane	5	ND ND		ND	-	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
1,1,2-Trichloroethane	1	ND ND	i	ND ND		ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	=		-	ND ND		ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
1,1-Dichloroethane	5	ND	-						1			
1,1-Dichloroethene	5	ND	-	ND		ND	ND	ND ND	ND NB	ND	ND	ND
1,1-Dichloropropene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.04	ND	-	ND	-	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene		ND	-	ND		ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND		ND		ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.04	ND		ND		ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.0006	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND		ND		ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND		ND		ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	-	ND		ND	ND	ND	ND	ND	5.9 J	ND
1,3-Dichloropropane	5	ND		ND		ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND		ND		ND	ND	ND	ND	ND	12	ND
1,4-Diethylbenzene		ND		ND		ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane		ND		ND		ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND		ND		ND	ND	ND	ND	ND	ND	ND
2-Butanone	50	ND		ND		ND	ND	ND	ND ND	ND	ND	ND
2-Hexanone	50	ND		ND		ND	ND	ND ND	ND ND	ND ND	ND	ND
4-Ethyltoluene	50	ND		ND		ND	ND	ND	ND	ND	4 J	ND
4-Methyl-2-pentanone		ND ND		ND		ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND
Acetone	50*	ND ND		ND		ND	ND ND	12	ND ND	ND ND	18 J	ND ND
Acrylonitrile	5	ND ND		ND		ND	ND ND	ND	ND ND	ND ND	ND	ND ND
	-		i I								1.2 J	1
Benzene	1	ND	-	ND		ND	ND ND	ND ND	ND ND	ND		ND ND
Bromobenzene	5	ND	;	ND	1	ND	ND	ND ND	ND NB	ND	ND	ND
Bromochloromethane	5	ND	-	ND	-	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50*	ND	-	0.26 J	-	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	-	ND	-	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	-	ND	-	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	60	ND	-	ND	-	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	0.23 J	-	ND		ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	-	ND		ND	ND	ND	ND	ND	31	ND
Chloroethane	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
Chloroform	7	18	-	2.3 J	-	ND	ND	ND	ND	ND	ND	ND
Chloromethane		ND	-	ND		ND	ND	ND	ND	ND	ND	ND
Cis-1,2-Dichloroethene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
Cyclohexane	Not Established											
Dibromochloromethane	50*	ND	-	ND		ND	ND	ND	ND	0.5	ND	ND
Dibromomethane	5	ND	-	ND		ND	ND	ND	ND	5	ND	ND
Dichlorodifluoromethane	5	ND	-	ND		ND	ND	ND	ND ND	5	ND	ND
Ethyl ether	-	ND		ND		ND	ND	ND	ND ND	2.5	ND	ND
Ethylbenzene	5	ND ND		ND		ND	ND ND	ND ND	ND ND	ND	160	ND
Hexachlorobutadiene	0.5	ND ND		ND		ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND
Isopropylbenzene	5	ND ND	- I	ND		ND	ND ND	ND ND	ND ND	ND ND	50	ND ND

Table 2 Groundwater Data - October and November 2012

VanDemark Chemical

						, New York						
Sample ID		SP-27 110212	SP-27 110212 R1	SP-37 110212	SP-37 110212 R1	SP-29 110212	SP-32 110212	SP-30 110212	TRIP BLANK 110212	TRIP BLANK 111312	SP-23(A) 111312	SP-25(A) 111312
Sample Date(s)		11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/13/12	11/13/12
Sample Time(s)		9:40	9:40	11:25	11:25	14:00	15:10	15:45			13:35	15:20
Location at Site		SP-27	SP-27	SP-37	SP-37	SP-29	SP-32	SP-30	TRIP BLANK	TRIP BLANK	SP-23(A)	SP-25(A)
	NYSDEC Class GA										, ,	` '
Analyte	Standards ¹											
M+P-Xylene	10											
Methyl-t-Butyl Ether (MTBE)	10*	 ND		ND		ND	ND	ND	ND	ND	ND	ND
				ND	1	ND		ND ND	1	I ND		
Methylcyclohexane	Not Established		-		-							
Methylene Chloride	5	ND	-	ND	-	ND	ND	ND	ND NB	ND	ND	ND ND
Naphthalene	10	ND	-	ND	-	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
N-Propylbenzene	5	ND	-	ND	-	ND	ND	ND	ND	ND	18	ND
o-Chlorotoluene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
O-Xylene	5	ND	-	ND		ND	ND	ND	ND	ND	88	ND
p/m-Xylene	5	ND	-	ND		ND	ND	ND	ND	ND	390	ND
p-Chlorotoluene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
p-Cymene	5		-		-							
p-Isopropyltoluene	5	ND	-	ND	-	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	ND		ND		ND	ND	ND	ND	ND	ND	ND
Styrene	5	ND		ND		ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	0.51	-	ND		ND	ND	ND	ND	ND	ND	64 J
Toluene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	5	ND	-	ND		ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	0.46 J	_	ND		ND	ND	ND	ND	ND	ND	47 J
Trichlorofluoromethane	5	ND	_	ND		ND	ND	ND	ND	ND	ND	ND
Vinyl acetate		ND	_	ND		ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	_	ND		ND	ND	ND	ND	ND	ND	ND
Xylenes , Total	5		_									
,,												
Dissolved Metals												
Arsenic	25		2.3		6.2	5		21.9				991
Barium	1,000	124	-	2.1		8.2		782.9				5.3 J
Beryllium	3*											
Cadmium	5	0.4 J	_	0.1 J		0.1 J		1.8 J				ND
Chromium	50		4.1		0.4 J	15.5		7.5 J				18.4 J
Copper	200							7.5 5				
Iron	300											
			_									
Lead Magnesium	25 35,000*	9.2	_	22.7		2.2		65.7 				ND
_	35,000*		_									
Manganese Mercury	0.7	 ND		ND		ND		ND				3.2
Nickel	100			ND 		ND 		110		1		
Nickei Selenium	100		 ND		 1 J	 1 J		70				97 J
			:		1							
Silver	50	ND 	_	ND	_	ND 		ND 				ND
Sodium	20,000		-		-							
Takal Baskala												
Total Metals	25			0.7		F 2		22.5				205.4
Arsenic	25		4	8.7	-	5.2		23.6				306.4
Barium	1,000	144.5	-	56.3	-	9.4		858.7				46.8
Cadmium	5	1.4 J	-	1.6	-	0.1 J		1.6 J				ND
Chromium	50		6.3	10.1		16.7		7.6 J				ND
Lead	25	23.9	-		2020	2.5		73.9				4.1 J
Mercury	0.7	ND	-	0.2		ND		ND				3.3
Selenium	10		ND	1 J		2 J		75				9 J
Silver	50	ND	-	0.2 J		ND		ND				ND
					1							

VanDemark Chemical

Laslanaut Nam Vaul

										Lockport, New York									
Sample ID		SP-27 110212	SP-27 110212 R1	SP-37 110212	SP-37 110212 R1	SP-29 110212	SP-32 110212	SP-30 110212	1	TRIP BLANK 111312									
Sample Date(s)		11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/2/12	11/13/12	11/13/12							
Sample Time(s)		9:40	9:40	11:25	11:25	14:00	15:10	15:45			13:35	15:20							
Location at Site		SP-27	SP-27	SP-37	SP-37	SP-29	SP-32	SP-30	TRIP BLANK	TRIP BLANK	SP-23(A)	SP-25(A)							
	NYSDEC Class GA																		
Analyte	Standards ¹																		
SVOCs																			
2-Chloronaphthalene	10*	ND	-	ND		ND		ND				ND							
2,4-Dimethylphenol	50*		-																
2-Methylnaphthalene	Not Established	ND	-	ND		ND		0.06				9.4							
Acenaphthene	20	ND	-	ND		ND		0.74				4.9							
Acenaphthylene	Not Established	ND	-	ND		ND		ND				ND							
Acetophenone	Not Established		-																
Anthracene	50*	ND	-	ND		ND		0.29				3.8 J							
Benzaldehyde	Not Established		-																
Benzo(a)anthracene	0.002*	ND		0.07 J		0.08 J		0.22				8							
Benzo(a)pyrene	ND	ND	-	0.12 J		0.14 J		0.24				6							
Benzo(b)fluoranthene	0.002*	ND	-	0.17 J		ND		0.13 J				6.7							
Benzo(g,h,i)perylene	Not Established	ND	-	0.1 J		ND		0.1 J				4.3							
Benzo(k)fluoranthene	0.002*	ND	-	ND		ND		0.13 J				3.2 J							
Biphenyl	5		-																
bis(2-Chloroethyl) ether	1		-																
Bis(2-ethylhexyl)phthalate	5		-																
Carbazole	Not Established		-																
Chrysene	0.002*	ND	-	0.09 J		0.08 J		0.22				8.4							
Dibenz(a,h)anthracene	Not Established	ND	-	ND		ND		ND				2.2 J							
Dibenzofuran	Not Established		-																
Diethylphthalate	50*		-																
Di-n-butylphthalate	50		-																
Fluoranthene	50*	0.1 J	-	0.12 J	-	0.11 J		0.62				12							
Fluorene	50*	ND	-	ND		ND		0.38				3.6 J							
Indeno(1,2,3-cd)pyrene	0.002*	ND	-	0.12 J		0.2		0.24				3.8 J							
Naphthalene	10*	0.18 J	-	ND		ND		0.1 J				31							
N-Nitrosodiphenylamine	50*		-																
Pentachlorophenol	1*		-																
Phenanthrene	50*	0.22 J	-	ND		0.08 J		0.65				16							
Phenol	1*		-																
Pyrene	50*	0.13 J	-	0.12 J		0.13 J		0.67				20							

Notes:

All concentrations are in $\mu\text{g}/\text{L}.$

ND = Not detected.

-- = Not analyzed.

J = Estimated concentration.

Bold text and highlighting indicates exceedance of NYSDEC Class GA Standards.

1) NYSDEC Class GA Standards from NYSDEC Table 1 (cf. section 703.5) Water Quality Standards Surface Waters and Groundwater.

* Guidance values used where NYSDEC Class GA Standards are not yet established. Guidance values taken from NYSDEC Technical & Operational Guidance Series (TOGS) 1.1.1 - Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

**FIELD DUPLICATE 11312 is associated with SP-25(A)

Table 2 Groundwater Data - October and November 2012 VanDemark Chemical Lockport, New York

								Г		
Sample ID		D DUPLICATE 1113:					TRIP BLANK 111512			RINSATE BLANK 1115
Sample Date(s)		11/13/12	11/14/12	11/14/12	11/14/12	11/14/12	11/15/12	11/15/12	11/15/12	11/15/12
Sample Time(s)				9:30	12:05	13:35		9:15	10:15	
Location at Site		FIELD DUPLICATE	TRIP BLANK	SP-26(A)	SP-28(A)	SP-20(A)	TRIP BLANK	SP-33(A)	SP-34(A)	RINSATE BLANK
	NYSDEC Class GA									
Analyte	Standards ¹									
VOCs										
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene		ND	ND	ND	27	ND	ND	4.9	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	18	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.0006	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Diethylbenzene		ND	ND	ND	3.2	ND	ND	0.79 J	ND	ND
1,4-Dioxane		ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	50	ND	ND	ND	8.4	ND	ND	3.1 J	1.8 J	ND
2-Hexanone	50	ND	ND	ND	1.1 J	ND	ND	ND	ND	ND
4-Ethyltoluene		ND	ND	ND	1.6 J	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	50*	ND	ND	1.2 J	50	ND	ND	17	14	ND
Acrylonitrile	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	0.25 J	5.5	ND	ND	3.7	0.4 J	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	60	ND	ND	ND	3.8	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	2.6	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	20	8.4	ND	ND	ND	ND	ND
Chloromethane		ND	ND	ND	ND	ND	ND	1.2 J	ND	ND
Cis-1,2-Dichloroethene	5	ND ND	ND	ND ND	ND	ND ND	ND	1.2 J	ND ND	ND
cis-1,3-Dichloropropene	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	Not Established	 ND		 ND	 ND	 ND	 ND	 ND	 ND	
Dibromochloromethane	50*	ND ND	ND	ND	ND	ND ND	ND	ND	ND ND	ND
Dibromomethane	5	ND ND	ND	ND ND	ND	ND ND	ND	ND	ND ND	ND
Dichlorodifluoromethane	5	ND ND	ND	ND	ND	ND ND	ND	ND	ND ND	ND
Ethyl ether	-	ND ND	ND	ND	ND	ND	ND	ND	ND ND	ND
Ethylbenzene Hexachlorobutadiene	5 0.5	ND ND	ND ND	ND ND	ND ND	36 ND	ND ND	ND ND	ND ND	ND ND
		I IND	I IVID	ı ND	ı IVL	ND	ND	i ND	l ND	I ND

Table 2 Groundwater Data - October and November 2012 VanDemark Chemical

vanbemark chemical

					Lockport	, New York				
Sample ID		D DUPLICATE 1113	TRIP BLANK 111412	SP-26(A) 111412	SP-28(A) 111412	SP-20(A) 111412	TRIP BLANK 111512	SP-33(A) 111512	SP-34(A) 111512	RINSATE BLANK 111512
Sample Date(s)		11/13/12	11/14/12	11/14/12	11/14/12	11/14/12	11/15/12	11/15/12	11/15/12	11/15/12
Sample Time(s)				9:30	12:05	13:35		9:15	10:15	
Location at Site		FIELD DUPLICATE	TRIP BLANK	SP-26(A)	SP-28(A)	SP-20(A)	TRIP BLANK	SP-33(A)	SP-34(A)	RINSATE BLANK
	NYSDEC Class GA									
Analyte	Standards ¹									
M+P-Xylene	10									
Methyl-t-Butyl Ether (MTBE)	10*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	Not Established									
Methylene Chloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND ND	ND	ND	5	ND	ND	1 J	ND ND	ND ND
n-Butylbenzene	5	ND ND	ND	ND	3.5	ND	ND	ND	ND ND	ND
N-Propylbenzene	5	ND ND	ND	ND	8	ND	ND	1.1 J	ND ND	ND
o-Chlorotoluene	5	ND ND	ND	ND	ND	ND	ND	ND	ND ND	ND
O-Xylene	5	ND ND	ND	ND ND	2.2 J	35	ND	ND	ND ND	ND
p/m-Xylene	5	ND	ND	ND	2.6	120	ND	ND	ND	ND
p-Chlorotoluene	5	ND ND	ND	ND ND	ND	ND ND	ND	ND	ND	ND
p-Cymene	5									
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	ND ND	ND	ND	2.7	ND	ND	0.76 J	ND ND	ND ND
Styrene	5	ND	ND	ND ND	ND	ND ND	ND	ND	ND ND	ND ND
tert-Butylbenzene	5	ND	ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
Tetrachloroethene	5	57 J	ND	0.57	ND	ND	ND	0.27 J	ND ND	ND
Toluene	5	ND	ND	ND	2.9	ND	ND	1.6 J	ND	ND
trans-1,2-Dichloroethene	5	ND ND	ND	ND ND	ND	ND	ND	ND	ND ND	ND ND
trans-1,3-Dichloropropene	0.4	ND ND	ND	ND ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	42 J	ND	0.32 J	ND	ND	ND	0.44 J	ND	ND
Trichlorofluoromethane	5	ND ND	ND	ND	ND	ND	ND	ND	ND ND	ND ND
Vinyl acetate		ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	0.37 J	ND	ND
Xylenes , Total	5									
.,,,										
Dissolved Metals										
Arsenic	25	1000		1.4 J	10.4	12.4				
Barium	1,000	31.7		27.5	242.4	103.4				
Beryllium	3*									
Cadmium	5	ND		0.48 J	0.1 J	ND				
Chromium	50	16.6 J		0.7 J	0.5 J	0.5 J				
Copper	200									
Iron	300									
Lead	25	ND		ND	0.6 J	ND				
Magnesium	35,000*									
Manganese	300									
Mercury	0.7	3.2		ND	ND	ND				
Nickel	100									
Selenium	10	68 J		3 J	1 J	1 J				
Silver	50	ND		ND	ND	ND				
Sodium	20,000									
Total Metals										
Arsenic	25	668.5		ND	34.7	11.6				0.2
Barium	1,000	ND		19.9	634	89.8				ND
Cadmium	5	ND		ND	3.1	ND				ND
Chromium	50	ND		ND	93	ND				0.3
Lead	25	50		ND	1124	ND				ND
Mercury	0.7	3.3		ND	3.5	ND				ND
Selenium	10	53 J		3 J	ND	ND				ND
Silver	50	ND		ND	ND	ND				ND
		1			1	1		1	I	

Table 2 Groundwater Data - October and November 2012 VanDemark Chemical

vanbemark Chemical

Page 6 of 6

					Lockport	, New York				
Sample ID		D DUPLICATE 1113	TRIP BLANK 11141	SP-26(A) 111412			TRIP BLANK 111512	SP-33(A) 111512	SP-34(A) 111512	RINSATE BLANK 111512
Sample Date(s)		11/13/12	11/14/12	11/14/12	11/14/12	11/14/12	11/15/12	11/15/12	11/15/12	11/15/12
Sample Time(s)				9:30	12:05	13:35		9:15	10:15	
Location at Site		FIELD DUPLICATE	TRIP BLANK	SP-26(A)	SP-28(A)	SP-20(A)	TRIP BLANK	SP-33(A)	SP-34(A)	RINSATE BLANK
	NYSDEC Class GA									
Analyte	Standards ¹									
SVOCs										
2-Chloronaphthalene	10*	ND		ND		ND				ND
2,4-Dimethylphenol	50*									ND
2-Methylnaphthalene	Not Established	7.8		ND ND		0.07 J				ND
Acenaphthene	20	4.4		ND		0.08 J				ND
Acenaphthylene	Not Established	ND		ND		ND				
Acetophenone	Not Established									
Anthracene	50*	3.6 J		ND		0.09 J				ND
Benzaldehyde	Not Established									
Benzo(a)anthracene	0.002*	6.4		ND		ND				ND
Benzo(a)pyrene	ND	5.4		ND		ND				ND
Benzo(b)fluoranthene	0.002*	5.8		ND		ND				ND
Benzo(g,h,i)perylene	Not Established	3.7 J		ND		ND				ND
Benzo(k)fluoranthene	0.002*	2.3 J		ND		ND				ND
Biphenyl	5									
bis(2-Chloroethyl) ether	1									
Bis(2-ethylhexyl)phthalate	5									
Carbazole	Not Established									
Chrysene	0.002*	7.1		ND		ND				ND
Dibenz(a,h)anthracene	Not Established	2 J		ND ND		ND				ND
Dibenzofuran	Not Established									
Diethylphthalate	50*									
Di-n-butylphthalate	50									
Fluoranthene	50*	9.8		0.09 J		0.18 J				ND
Fluorene	50*	3.3 J		0.08 J		0.12 J				ND
Indeno(1,2,3-cd)pyrene	0.002*	3.3 J		ND		ND				ND
Naphthalene	10*	26		0.1 J		0.12 J				ND
N-Nitrosodiphenylamine	50*									
Pentachlorophenol	1*									
Phenanthrene	50*	14		1.4		1.2				ND
Phenol	1*									
Pyrene	50*	16		0.07 J		0.13 J				ND



PALMERTIEN GROUP

Appendix A – Boring Logs

PAL	MERT (∜N GI	Start Date: 11/0		Boring No. SP - 19
Project N	umber: 31.01	80011.00 00			Wind
	narus - Van D		Project Manager: J. Sandberg Northing:		Datum:
Location	(City, State):	Lockport, N			Elev.:
Drill Rig 1	ype: Tru	ıck □ Geo		meter (in.):	: 2
Type of Sa	ampling Devi	ice: SS 🗆 U	T a Macro/DT X Rx Core a Type of Casing: HSA a Casing a	Macro 🗆 D	
Depth	Sample ID	Stratum	SOIL DESCRIPTION	uscs	PID Screening
(feet)	(Recovery)	Change		Symbol	(ppm)
	S1				
	(31/48)		Brown/Black, SILT with small gravel, little fine sand, moist.	ML	0.0
	, ,				
			Sample SP - 19 (1 - 2.5) collected on 11/01/2012 at 14:00		
4	4	4.5			
	S2	4.5 4.5			
	(25/48)		Red Brown, large GRAVEL with silt, weathered rock, dry to moist.	GM	0.0
			Sample SP - 19 (4 - 5) collected on 11/01/2012 at 14:15		
	8				
8	S3		Red Brown, large GRAVEL with silt, weathered rock, dry to moist.	GM	0.0
8	.3 (2/4)				
			Geoprobe Refusal at 8.3 ft bgs		
				-	
Depth to	Water	(ft) Date	& Time		Boring No. SP - 19
Depth to			& Time		35 - 18
_ op.ii to		- 11.7 Date			I .

PALA	∕ IERT®	∦N GI	Start Date: 1		SP - 20
Project Nu	ımber: 31.01	180011.00 00	002 Geologist: T. Bown Weather: -	· 45°F, Rain &	Wind
Client: Gn	arus - Van D	DeMark	Project Manager: J. Sandberg Northing:		Datum:
Location (City, State):	Lockport, N	IY Driller: J. Schweitzer Easting:		Elev.:
Drill Rig T	ype: Tru	ıck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole [Diameter (in.)	: 2
Type of Sa	mpling Dev	ice: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro 🗆 D	ual Tube 🗆 PID
Depth (feet)	Sample ID (Recovery)		SOIL DESCRIPTION	USCS Symbol	Screening (ppm)
0	S1	0.5	Asphalt		
	(24/48)				
			Gray brown, small GRAVEL , little medium to fine sand, dry.	GP	0.0
				-	
	4	4			
4	S2	4			
	(42/46)	5	Brown, small GRAVEL, some fine sand, little medium sand, moist.	GP	0.0
			Red brown, large GRAVEL with silt, some fine sand, dry, weathered bedrock.	GM	0.0
7.9	9		County Defend at 7.0 febru	+	
			Geoprobe Refusal at 7.9 ft bgs	-	
				_	
				-	
				-	
				+	
Denth to V	Nator	(ft) Dot-	& Time		Boring No.
Depth to V			& Time		SP - 20
Depth to V	vater	_ (ft) Date	& Time		

PAL	MERT	»N G	Start Date: 11/0		SP - 21
Project N	umber: 31.01	80011.00 0			Wind
	narus - Van D		Project Manager: J. Sandberg Northing:		Datum:
Location	(City, State):	Lockport, N	IY Driller: J. Schweitzer Easting:		Elev.:
Drill Rig T	ype: Tru	ıck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole Dia	meter (in.):	: 2
Type of Sa	ampling Dev	ice: SS 🗆 U	T □ Macro/DT X Rx Core □ Type of Casing: HSA □ Casing □ I	Macro 🗆 Dı	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0	S1	0.5	Brown, ORGANIC SILT, trace roots present, moist.	OL	
	(29/48)		Light brown, small GRAVEL with course sand, little medium to fine sand, dry.	GW	0.0
			Sample SP - 21 (2 - 2.5) collected on 11/01/2012 at 11:10		
	4	4			
4		4	Black, SILT with medium sand, little small gravel, fuel - like odor, moist.	ML	0.0
	S2 (24/38)	5	Sample SP - 21 (4 - 5) collected on 11/01/2012 at 11:15		
7			Red brown, SILT, some medium sand, moist.	ML	0.0
			Geoprobe Refusal at 7.2 ft bgs		
			Geophobe Relusal at 1.2 it bgs		
		<i>(</i>) -	Comments:		Boring No.
Depth to \	Water	_(ft) Date	& Time		SP - 21
Depth to \	Water	(ft) Date	& Time		<u> </u>

PALM	MERT!	NG	SUBSURFACE BORING LOG Start Date: 11/ End Date: 11/		Boring No. SP - 22
Project N	umber: 31.01	80011.00 00			Wind
	narus - Van D		Project Manager: J. Sandberg Northing:		Datum:
Location ((City, State):	Lockport, N			Elev.:
Drill Rig T		ck □ Geo		ameter (in.)	: 2
		ce: SS 🗆 U	T □ Macro/DT X Rx Core □ Type of Casing: HSA □ Casing □	Macro D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			Gray/Black, small GRAVEL , particles and specks of black ash, trace cinder, dry.	GW	0.0
	S1 (34/48)				
	(0 11 10)	2.5	Sample SP - 22 (2 - 3) collected on 11/01/2012 at 10:55		
		2.5	Red Brown/Gray, large GRAVEL , weathered bedrock, dry.	GP	0.0
	4				
4	S2		Red Brown/Gray, large GRAVEL , weathered bedrock, dry.	GP	0.0
	5 (12/12)	5	Sample SP - 22 (4 - 5) collected on 11/01/2012 at 11:00		
			Geoprobe Refusal at 5.0 ft bgs	-	
				-	
				-	
				-	
				 	
				-	
				 	
				 	
Depth to \	Water	(ft) Date	& Time		Boring No. SP - 22
Depth to \	N ater	(ft) Date	& Time		

PALA	∕ IERT®	NG	SUBSURFACE BORING LOG Start Date: 11/		Boring No. SP - 23
Project Nu	umber: 31.01	80011.00 00			Wind
	arus - Van D		Project Manager: J. Sandberg Northing:		Datum:
Location ((City, State):	Lockport, N	IY Driller: J. Schweitzer Easting:		Elev.:
Drill Rig T	ype: Tru	ck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole Di	ameter (in.)	: 2
Type of Sa	ampling Devi	ce: SS 🗆 U	T □ Macro/DT X Rx Core □ Type of Casing: HSA □ Casing □	Macro D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			Gray Brown/Black, small GRAVEL with particles of cinders and ash, dry	GP	0.0
	S1 (31/48)		Sample SP - 23 (2 - 2.5) collected on 11/01/2012 at 13:10		
4	4 \$2	4	Brown, large GRAVEL , some silt, wet.	GM	0.0
	5 (8/12)	5	Sample SP - 23 (4 - 5) collected on 11/01/2012 at 13:15		
			Geoprobe Refusal at 5.0 ft bgs		
			Comments:		Boring No.
Depth to V			& Time		SP - 23

PAL	MERT!	%N GI	SUBSURFACE BORING LOG Start Date: 11/0 End Date: 11/0		SP - 24	
Project N	umber: 31.01	80011.00 0			Wind	
	narus - Van D		Project Manager: J. Sandberg Northing:		Datum:	
Location	(City, State):	Lockport, N	Y Driller: J. Schweitzer Easting:		Elev.:	
Drill Rig T	ype: Tru	ck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole Dia	ameter (in.)	: 2	
Type of Sa	ampling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro Dual Tube		
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)	
0	S1		Brown, ORGANIC SILT, roots present, moist.	OL	0.0	
1.5	.5 (6/18)	1.5	Black, particles and specks of cinders, dry.		112.0	
	S2		Sample SP - 24 (1.5 - 2) collected on 11/01/2012 at 13:30; Field Duplicate		112.0	
	(18/30)					
4	4	4				
	S3		Red Brown, SILT, some clay, little medium to fine sand, weathered bedrock, moist.	ML	0.0	
	(28/36)					
			Sample SP - 24 (4 - 5) collected on 11/01/2012 at 13:50			
	7	7				
			Geoprobe Refusal at 7.0 ft bgs			
			Comments:		Boring No.	
Depth to \	Water	(ft) Date	& Time		SP - 24	
Depth to \	Water	(ft) Date	& Time			

PALM	MERT!	≋N GI	SUBSURFACE BORING LOG Start Date: 11/ End Date: 11/		Boring No. SP - 25	
Project N	umber: 31.01	80011.00 00			k Wind	
	narus - Van D		Project Manager: J. Sandberg Northing:		Datum:	
Location ((City, State):	Lockport, N	IY Driller: J. Schweitzer Easting:		Elev.:	
Drill Rig T	ype: Tru	ck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole Di	ameter (in.)	: 2	
Type of Sa	ampling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro Dual Tube		
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)	
	S1		Gray Brown/Black, small GRAVEL , particles and specks of cinder and ash, coal tar seam from 2.5 to 3ft., dry.	GP	1.2	
	(37/48)		Sample SP - 25 (2 - 3) collected on 11/01/2012 at 10:15			
4	4	4				
	S2 (13/36)		Brown, large GRAVEL, trace medium to fine sand, wet.	GP	0.0	
			Sample SP - 25 (4 - 5) collected on 11/01/2012 at 10:20			
	7	7				
			Geoprobe Refusal at 7.0 ft bgs			
			Comments:		Boring No.	
Depth to \	Nater	(ft) Date	& Time		SP - 25	
Depth to \	Nater	(ft) Date	& Time			

PALM	MERT!	%N GI	Start Date: 11/0		SP - 26	
Project No	umber: 31.01	80011.00 0			Wind	
	narus - Van D		Project Manager: J. Sandberg Northing:		Datum:	
Location ((City, State):	Lockport, N	Y Driller: J. Schweitzer Easting:		Elev.:	
Drill Rig T	ype: Tru	ck □ Geo	Probe X Track Skid ATV Tri-Pod Sonic Borehole Dia	ameter (in.)	: 2	
Type of Sa	ampling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing			
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)	
	S1		Gray Brown/Black, coarse SAND with small gravel, little medium sand, moist.	SW	1.2	
	(37/48)		Some particles and specks of ash, brick, and cinder, with some blue-green color.			
			Sample SP - 26 (2 - 3) collected on 11/01/2012 at 09:40			
4	4	4				
	S2		Brown, large GRAVEL, some silt, trace medium sand, wood fragements, wet.	GM	0.0	
	(15/30)		Sample SP - 26 (4 - 5) collected on 11/01/2012 at 09:50			
6	.5	6.5				
			Geoprobe Refusal at 6.5 ft bgs			
			Comments:		Boring No.	
Depth to \			& Time		SP - 26	
Depth to \	Water	(ft) Date	& Time			

PALM	MERT!	≋N GI	Start Date: 11/0		SP - 27
Project N	umber: 31.01	80011.00 00			Wind
	narus - Van D		Project Manager: J. Sandberg Northing:	-	Datum:
Location ((City, State):	Lockport, N	IY Driller: J. Schweitzer Easting:		Elev.:
Drill Rig T	ype: Tru	ck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole Dia	meter (in.)	: 2
Type of Sa	ampling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro □ D	
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
	S1		Gray, small GRAVEL with coarse to medium sand, trace fines, dry. Some brick particles and some	SW	0.0
	(30/48)		blue green color.		
			Sample SP - 27 (2 - 2.5) collected on 11/01/2012 at 09:10		
	4				
	S2		Gray, small GRAVEL with coarse to medium sand, trace finess, dry.	SW	0.0
	(25/42)	6			
		6	Drawn and CDAVEL with madium and little first week	014	0.0
			Brown, small GRAVEL with medium sand, little fines, wet.	SW	0.0
8	8				
	S3 (25/42)		Brown, small GRAVEL with medium sand, little fines, wet.	SW	0.0
11.	.5	11.5			
			Geoprobe Refusal at 11.5 ft bgs		
Depth to \	Nater	(ft) Date	& Time		Boring No. SP - 27
Depth to \		(ft) Date	& Time]

PALN	MERT	»N GI	ROUP SUBSURFACE BORING LOG	!	Start Date: 10/3		SP - 28
Project Nu	umber: 31.01	80011.00 00	002 Geologist: T. Bown		Weather: ~ 4		Wind
Client: Gn	arus - Van D	eMark	Project Manager: J. Sandbe	erg	Northing:		Datum:
Location ((City, State):	Lockport, N	IY Driller: J. Schweitzer		Easting:		Elev.:
Drill Rig T	ype: Tru	ıck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic	: 🗆	Borehole Dia	meter (in.):	2
Type of Sa	ampling Dev	ice: SS 🗆 U	T D Macro/DT X Rx Core D	ype of Casing: HSA	□ Casing □	Macro 🗆 D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION			USCS Symbol	PID Screening
0	(-,	(ppm)
	S1		Gray, large GRAVEL with some sand, dry.			GW	0.0
	(38/48)						
		2.5 2.5					
			Sample SP - 28 (2 - 3) collected on 10/31/2012 at 10:20 Black, coarse SAND, fuel - like odor, dry			SP	85.0
	4	4	Elect, coalse Salte, luci - like ouol, dry			or	00.0
4	S2	4	Red Brown, large GRAVEL with some sand, trace fines, dry.			GW	3.8
	(12/16)		Sample SP - 28 (4 - 5) collected on 10/31/2012 at 10:30				
5.	3	5.3					
	1		Cooprobe Defined at F.2 ft have				
	1		Geoprobe Refusal at 5.3 ft bgs				
	1						
	1						
	1						
	1						
	1						
	1						
	1						
	1						
Depth to V	Vater	(ft) Date	& Time	Comments:			Boring No.
							SP - 28
Depth to V	vater	(ft) Date	& Time				

PALME	RT#N G	ROUP	SUBSURFACE BORING LOG	Start Date: 10/		SP - 29
Project Nu	mber: 31.01	80011.00 00	002 Geologist: T. Bown	Weather: ~ 4		Wind
	arus - Van D		Project Manager: J. Sandberg	Northing:		Datum:
Location (City, State):	Lockport, N	Y Driller: J. Schweitzer	Easting:		Elev.:
Drill Rig Ty	/pe: Tru	ıck □ Geol	Probe X Track Skid ATV Tri-Pod Sonic	Borehole Dia	ameter (in.):	2
Type of Sa	mpling Devi	ice: SS 🗆 U	T Macro/DT X Rx Core Type of Casi	ng: HSA 🗆 Casing 🗆	Macro D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION		USCS Symbol	PID Screening (ppm)
0		0.5	Asphalt			
	S1	0.0	Gray Brown, small GRAVEL with medium sand, dry.		GP	0.2
	(38/48)	1.5 1.5				
			Sample SP - 29 (2 - 3) collected on 10/31/2012 at 10:40			
			Red Brown, SILT with medium sand, little small gravel, trace coarse sand, wet.		ML	0.0
4	4					
4	S2 (20/23)		Red Brown, SILT with some large gravel and medium sand, trace coarse sand, wet.		ML	0.0
			Sample SP - 29 (4 - 5) collected on 10/31/2012 at 10:45			
5.8		5.8				
			Geoprobe Refusal at 5.8 ft bgs			
]		Comments:			Boring No.
Depth to W	/ater	(ft) Date	& Time			SP - 29
Depth to W	/ater	(ft) Date	& Time			

PALM	MERT [®]	»NG	ROUP SUBSURFACE BORING LOG Start Date: 10/3 End Date: 10/3		SP - 30
Project N	umber: 31.01	80011.00 0			Wind
	narus - Van D		Project Manager: J. Sandberg Northing:		Datum:
Location ((City, State):	Lockport, N	Y Driller: J. Schweitzer Easting:		Elev.:
Drill Rig T	ype: Tru	ıck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole Dia	ımeter (in.):	2
Type of Sa	ampling Dev	ice: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro 🗆 D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
	S1	0.3	Gray, small GRAVEL , dry.	GP	
	(32/48)		Gray, SILT with medium to fine sand, moist, mottled.	ML	0.0
			Red Brown, SILT, little medium sand, moist.	ML	0.0
			Sample SP - 30 (1 - 2.5) collected on 10/31/2012 at 14:35; Matrix Spike/ Matrix Spike Duplicate (MS/MSD)	IVIE	0.0
4	4 S2	4	Red Brown, SILT, little medium sand, moist.	ML	0.0
5	(14/15)	5.3	Sample SP - 30 (4 - 5.3) collected on 10/31/2012 at 14:40		
			Geoprobe Refusal at 5.3 ft bgs		
Don'th ()	Notes	(fu) B :	Comments:		Boring No.
Depth to \			& Time		SP - 30
Depth to \	<i>N</i> ater	(ft) Date	& Time		

PALM	MERT(∜N GI	Start Date: 10/3		SP - 31
Project No	umber: 31.01	80011.00 0			Wind
	arus - Van D		Project Manager: J. Sandberg Northing:		Datum:
Location ((City, State):	Lockport, N			Elev.:
Drill Rig T		ıck □ Geo		meter (in.):	2
		ice: SS 🗆 U	T □ Macro/DT X Rx Core □ Type of Casing: HSA □ Casing □	Macro 🗆 D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0	S1	1	Gray, small GRAVEL with coarse to meduim sand, traces fines, moist.	GW	0.0
	(31/48)		Brown, SILT with clay, some medium to fine sand, moist.	ML	0.0
4	S2		Red brown, SILT with fine sand, trace small gravel, moist.	ML	0.0
4.	.9 (10/11)	4.9			
			Geoprobe Refusal at 4.9 ft bgs		
			Comments:		Boring No.
Depth to \	Nater	(ft) Date	& Time		SP - 31
Depth to \	Nater	(ft) Date	& Time		

PALN	MERT %	∜N GI	ROUP SUBSURFACE BORING LOG	Start Date: 10		SP - 32
Project Nu	ımber: 31.01	80011.00 00	002 Geologist: T. Bown	Weather: ~		Wind
Client: Gn	arus - Van D	eMark	Project Manager: J. Sandberg	Northing:		Datum:
Location (City, State):	Lockport, N	IY Driller: J. Schweitzer	Easting:		Elev.:
Drill Rig T	ype: Tru	ck □ Geo	Probe X Track Skid ATV Tri-Pod Sonic	Borehole Di	ameter (in.)	: 2
Type of Sa	mpling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing:	HSA Casing	Macro D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION		USCS Symbol	PID Screening (ppm)
	S1		Gray/Red Brown, large GRAVEL with some coarse to medium sand, brick fragments, moist.		GW	0.0
	(32/48)	2				
		2	Black, coarse to medium SAND , wet.		SP	0.0
	4	4				
4	S2	4	Red Brown, SILT with fine sand, trace medium sand, dry to moist.		ML	0.0
5.	(14/18)	5.5				
			Geoprobe Refusal at 5.5 ft bgs			
			Comments:			Boring No.
Depth to V	Vater	(ft) Date	& Time			SP - 32
Depth to V	Vater	(ft) Date	& Time			

PALM	MERT∜	∜N GI	Start Date: 10/		Boring No. SP - 33
Project No	umber: 31.01	80011.00 0			Wind
	arus - Van D		Project Manager: J. Sandberg Northing:	-	Datum:
Location ((City, State):	Lockport, N	Y Driller: J. Schweitzer Easting:		Elev.:
Drill Rig T	ype: Tru	ck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole Dia	ameter (in.)	: 2
Type of Sa	ampling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro 🗆 D	
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0	S1	0.5	Asphalt		
	(38/48)	2	Gray, small GRAVEL with some coarse to medium sand, moist.	GW	0.0
		2	Brown, CLAY with silt, little small gravel, moist.	CL	0.0
	4	4			
4	S2	4	Red Brown, SILT with fine sand, trace coarse sand, moist.	ML	0.0
5.	(14/18)	5.3			
			Geoprobe Refusal at 5.3 ft bgs		
			Comments:		Boring No.
Depth to \			& Time & Time		SP - 33

PALA	∕ IERT∜	»N GI	ROUP SUBSURFACE BORING LOG	Start Date: 10/		SP - 34
Project Nu	ımber: 31.01	80011.00 00	002 Geologist: T. Bown	Weather: ~ 4	5°F, Rain &	Wind
Client: Gn	arus - Van D	DeMark	Project Manager: J. Sandberg	Northing:		Datum:
Location (City, State):	Lockport, N	Y Driller: J. Schweitzer	Easting:		Elev.:
Drill Rig T	ype: Tru	ıck □ Geo	Probe X Track Skid ATV Tri-Pod Sonic	Borehole Dia	ameter (in.):	2
Type of Sa	mpling Dev	ice: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA	\ □ Casing □	Macro 🗆 D	ual Tube 🗆 PID
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION		USCS Symbol	Screening (ppm)
	S1	0.5	Asphalt			
	(39/48)		Gray/Black, large GRAVEL with coarse to medium sand, some fines, brick fragments, blue-green c Sample SP - 34 (2 - 3) collected on 10/31/2012 at 09:55	olor, dry.	GW	0.0
	4	3.5				
4	S2 (12/18)		Brown, large GRAVEL with little medium to fine sand, trace fines, moist to wet.		GP	0.0
5.4		5.5				
			Geoprobe Refusal at 5.5 ft bgs			
Depth to V	Vater	_(ft) Date				Boring No. SP - 34
Depth to V			& Time			01 - 04

PALN	MERT ®	‰N GI	Start Date: 10		SP - 35
Project Nu	umber: 31.01	180011.00 00			Wind
Client: Gn	arus - Van D	DeMark	Project Manager: J. Sandberg Northing:		Datum:
Location ((City, State):	Lockport, N	IY Driller: J. Schweitzer Easting:		Elev.:
Drill Rig T	ype: Tru	ıck □ Geo	Probe X Track Skid ATV Tri-Pod Sonic Borehole D	ameter (in.)	: 2
Type of Sa	ampling Dev	ice: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro D	ual Tube 🗆 PID
Depth (feet)	Sample ID (Recovery)		SOIL DESCRIPTION	USCS Symbol	Screening (ppm)
	S1	0.5	Asphalt		
	(30/48)		Gray/Black, coarse to medium SAND with some small gravel, dry.	SW	0.0
			Sample SP - 35 (2 - 2.5) collected on 10/29/2012 at 14:00		
	4	4			
4	S2	4	Red Brown, large GRAVEL with some fines, weathered bedrock, moist.	GP	0.0
	(12/18)		Sample SP - 35 (4 - 5) collected on 10/29/2012 at 14:10		
6.	6	6.6			
			Geoprobe Refusal at 6.6 ft bgs		
	1				
	1				
	+				
	1				
	1				
	1	-			
	1				
	1				
	1				
	1		Comments:		Boring No.
Depth to V	Water	_(ft) Date	& Time		SP - 35
Depth to V	Water	_(ft) Date	& Time		

PALN	MERT!	»N GI	Start Date: 1 Start Date: 1		Boring No. SP - 36
Project Nu	umber: 31.01	80011.00 00		45°F, Rain &	Wind
Client: Gn	arus - Van D	DeMark	Project Manager: J. Sandberg Northing:		Datum:
Location ((City, State):	Lockport, N	IY Driller: J. Schweitzer Easting:		Elev.:
Drill Rig T	ype: Tru	ıck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole □	iameter (in.)	: 2
Type of Sa	ampling Dev	ice: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro 🗆 D	ual Tube PID
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	Screening (ppm)
0	S1	0.5	Asphalt		
	(22/48)		Gray/Black, coarse to medium SAND with some small gravel, dry.	SW	0.0
			Sample SP - 36 (1 - 2) collected on 10/29/2012 at 14:25		
	4	4			
4	\$2	4	Red Brown, large GRAVEL with some fines, weathered bedrock, moist.	GP	0.0
	(16/25)		Sample SP - 36 (4 - 5) collected on 10/29/2012 at 14:30	<u> </u>	0.0
6.	2	6.2			
			Constants Defined at C.O.M. has		
			Geoprobe Refusal at 6.2 ft bgs		
		(f) -	Comments:		Boring No.
Depth to V			& Time		SP - 36
Depth to V	Nater	(ft) Date	& Time		

PAL	MERT!	»N GI	SUBSURFACE BORING LOG Start Date: 10/7 End Date: 10/3		SP - 37
Project N	umber: 31.01	80011.00 00			Wind
	narus - Van D		Project Manager: J. Sandberg Northing:		Datum:
Location	(City, State):	Lockport, N	Y Driller: J. Schweitzer Easting:		Elev.:
Drill Rig 1	Type: Tru	ıck □ Geo	Probe X Track Skid ATV Tri-Pod Sonic Borehole Dia	meter (in.):	: 2
Type of S	ampling Dev	ice: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro 🗆 D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
	S1	0.5	Asphalt		
	(26/48)		Gray/Brown, large GRAVEL with medium to fine sand, little small gravel, dry	GW	0.0
			Sample SP - 37 (1 - 2) collected on 10/31/2012 at 09:05		
4	4				
	S2	4.5 4.5			
	(30/48)		Red Brown, large GRAVEL with silt, some medium to fine sand, dry to moist. Sample SP - 37 (4 - 5) collected on 10/31/2012 at 09:15	GM	0.0
	8				
8	S3 (13/18)		Red Brown, large GRAVEL with silt, some medium to fine sand, dry to moist. Sample SP - 37 (8 - 9) collected on 10/31/2012 at 09:25	GM	0.0
			Geoprobe Refusal at 9.5 ft bgs		
Depth to	Water	_(ft) Date	& Time		Boring No. SP - 37
Depth to	Water	_(ft) Date	& Time		

PALM	MERT!	%NG	SUBSURFACE BORING LOG Start Date: 10 End Date: 10		SP - 38
Project Nu	umber: 31.01	80011.00 0	002 Geologist: T. Bown Weather: -	- 45°F, Rain 8	k Wind
	arus - Van D		Project Manager: J. Sandberg Northing:		Datum:
Location ((City, State):	Lockport, N			Elev.:
Drill Rig T		ck □ Geo		Diameter (in.)	
			T □ Macro/DT X Rx Core □ Type of Casing: HSA □ Casing		
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
)		0.5	Asphalt		
	S1		Gray/Brown, large GRAVEL with some medium to fine sand, dry to moist.	GW	0.0
	(24/48)				
			Sample SP - 38 (1 - 2) collected on 10/29/2012 at 11:00		
1	4				
			Pod Prous lorge CRAVEL with some medium to fine and trace fines drute maint	CW	0.0
	S2		Red Brown, large GRAVEL with some medium to fine sand, traces fines, dry to moist.	GW	0.0
	(40/48)	f			
	(.5/40)	6	Brown, ORGANIC SOIL with small gravel, wood fragments, moist.	OL/OH	0.0
		7			
		7			
	8				
	S3		Red brown, lean CLAY, some large to small gravel, trace fine sand, moist. Seam of Organic Soil (OL/OH)	CL	0.0
	(44/48)		from 11.6 to 11.8ft.		
			Sample SP - 38 (8 - 9) collected on 10/29/2012 at 11:05		
12	2	12			
			Red Brown, SILT with fine sand, wet.	ML	0.0
	S4		ited brown, SiLT with time saind, wet.	IVIL	0.0
	(12/48)				
	(12,10)				
1	6				
16					
	S5		Red Brown, SILT with fine sand, trace clay, wet.	ML	0.0
	(21/30)				
			Sample SP - 38 (17 - 18.5) collected on 10/29/2012 at 11:10		
18.	.4				
			Geoprobe Refusal at 18.4 ft bgs		
Depth to V	Nater	(ft) Date	& Time		Boring No
			& Time		SP - 38

PALMERT®N GRO		NG	ROUP SUBSURFACE BORING LOG Start Date: 10/2 End Date: 10/2	Start Date: 10/29/2012 End Date: 10/29/2012		
Project N	umber: 31.01	80011.00 0			Wind	
Client: Gnarus - Van DeMark Project Manager: J. Sandberg Northing:					Datum:	
Location (City, State): Lockport, NY Driller: J. Schweitzer Easting:				Elev.:		
			Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole Dia	ameter (in.):): 2	
Type of Sa	ampling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro D	ual Tube 🗆	
Depth	Sample ID	Stratum	SOIL DESCRIPTION	USCS	PID Screening	
(feet)	(Recovery)	Change	COLE DECOMINATION	Symbol	(ppm)	
0		0.5	Asphalt			
				 		
	S1		Black/Brown, small GRAVEL with some coarse sand, brick fragments, dry to moist.	GW	0.0	
	(30/48)					
			Sample SP - 39 (2 - 2.5) collected on 10/29/2012 at 11:20			
				<u> </u>		
	4					
4	-					
	S2			 		
	(24/48)					
		6		_ _		
			Brown, CLAY, trace fine sand, moist	CL	0.0	
				<u> </u>		
8	8			<u> </u>		
			Sample SP - 39 (8 - 9) collected on 10/29/2012 at 11:30	 		
	S3					
	(32/48)					
				<u> </u>		
		11	Brown, large GRAVEL with medium sand, little fines, moist.	GP	0.0	
	12	12		GF	0.0	
12		12				
		13				
	S4	13				
	(12/48)		Red Brown, SILT, wet.	ML	0.0	
				<u> </u>		
				<u> </u>		
16	16	16				
	S5		Red Brown, large GRAVEL with silt, moist.	GM	0.0	
16	.6 (5/7)		Sample SP - 39 (16 - 16.6) collected on 10/29/2012 at 11:40			
			Canada Datural et 40 0 ft has			
			Geoprobe Refusal at 16.6 ft bgs			
				<u> </u>		
				 		
				 		
				 		
			Comments:		Boring No.	
Depth to Water		(ft) Date	& Time		SP - 39	
Depth to \	Water	(ft) Date	& Time			

PALMERT®N GROU		∜N G	ROUP SUBSURFACE BORING LOG Start Date: 10	Start Date: 10/29/2012 End Date: 10/29/2012		
Project N	umber: 31.01	80011.00 0			k Wind	
Client: Gnarus - Van DeMark Project Manager: J. Sandberg Northing:					Datum:	
Location (City, State): Lockport, NY Driller: J. Schweitzer Easting:			NY Driller: J. Schweitzer Easting:		Elev.:	
			ameter (in.)	: 2		
Type of Sa	ampling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro 🗆 D	ual Tube 🗆	
Depth	Sample ID	Stratum	SOIL DESCRIPTION	USCS	PID Screening	
(feet)	(Recovery)	Change		Symbol	(ppm)	
		0.5	Asphalt	· 		
	S1		Gray Brown, large GRAVEL with coarse to fine sand, dry.	GW	0.0	
	(24/48)		Stay Storm, range of the same same same range and range same range same same range same		0.0	
	, ,		Sample SP - 40 (1 - 2) collected on 10/29/2012 at 11:50			
4	4			 	<u> </u>	
	S2 (22/48)	5.5 5.5		+		
	(22/46)		Brown, CLAY, moist.	CL	0.0	
					0.0	
0	8					
6						
			Sample SP - 40 (8 - 9) collected on 10/29/2012 at 11:55			
	S3					
	(20/48)		Brown, CLAY, moist.	CL	0.0	
	12	12				
12		12				
	S4					
	(12/48)		Brown, large GRAVEL with little clay, moist.	GC	0.0	
1	16	16				
16	S 5	16	Red Brown, large GRAVEL with silt, wet.	GM	0.0	
16	.6 (5/7)		Sample SP - 40 (19 - 19.9) collected on 10/29/2012 at 11:40			
				-		
19	.9					
			Geoprobe Refusal at 19.9 ft bgs			
				1		
			Comments:	1	Boring No.	
Depth to \	Water	(ft) Date	& Time		SP - 40	
Depth to	Water	(ft) Date	& Time			

PALMERT®N GRO		NG	ROUP SUBSURFACE BORING LOG Start Date: 10	Start Date: 10/29/2012 End Date: 10/29/2012	
Project Number: 31.0180011.00 0002 Client: Gnarus - Van DeMark				45°F, Rain 8	Wind
			Project Manager: J. Sandberg Northing:		Datum:
Location ((City, State):	Lockport, N	NY Driller: J. Schweitzer Easting:	Easting:	
Drill Rig T	ype: Tru	ck □ Geo	Probe X Track □ Skid □ ATV □ Tri-Pod □ Sonic □ Borehole D	iameter (in.)	: 2
Type of Sa	ampling Devi	ce: SS 🗆 U	T Macro/DT X Rx Core Type of Casing: HSA Casing	Macro 🗆 D	ual Tube 🗆
Depth (feet)	Sample ID (Recovery)	Stratum Change	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0		0.5	Asphalt		
	S1		Black/Brown, coarse SAND with small gravel, little medium to fine sand, fragments and particles of brick, dry.	SW	0.0
	(18/48)				
			Sample SP - 41 (1 - 1.5) collected on 10/29/2012 at 13:15		
	4				
4	4	4.5			
		4.5			
	S2		Gray/Brown, large GRAVEL with clay, little small gravel and medium sand, moist.	GC	0.0
	(22/48)				
8	8	8			
•		-			
			Gray/Brown, CLAY, little small gravel, moist.	CL	0.0
	S3				
	(40/48)		Sample SP - 41 (8 - 9) collected on 10/29/2012 at 13:20		
		11			
			Red Brown, large GRAVEL , little fines, weathered bedrock, dry.	GP	0.0
12	2	12			
			Red Brown/Light Brown, large GRAVEL, little fines, weathered bedrock, dry.	GP	0.0
	S4		Treat brown Light brown, range Graves, mile miles, weathered bedrock, dry.	- Oi	0.0
	(34/48)				
1	6				
16	S5		Red Brown/Light Brown, large GRAVEL, little fines, weathered bedrock, dry.	GP	0.0
16.	.6 (38/48)		Sample SP - 41 (19 - 19.5) collected on 10/29/2012 at 11:40		
20	20				
	000				
	S6 (19/31)		Red Brown/Light Brown, large GRAVEL , little fines, weathered bedrock, wet at 21.5ft	GP	0.0
	(19/31)		Ned blown/Light blown, range GNAVLE, little lines, weathered bedrock, wet at 21.5tt	Gr	0.0
22.	7				
			Geoprobe Refusal at 22.7 ft bgs		
			Comments		Boring M-
Depth to V	Nater	(ft) Date	& Time		Boring No. SP - 41
Depth to V	Notor	(ft) Date	& Time		''