

Subsurface Investigation Report Duofold Corporation NYSDEC Site#622030 7 Spruce Street Ilion, NY

## Prepared for:

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Consultants & Contractors, Inc.

Subsurface Investigation Report Duofold Corporation NYSDEC Site#622030 7 Spruce Street Ilion, NY

#### Introduction

Nature's Way Environmental Consultants & Contractors, Inc. (Nature's Way) conducted subsurface investigation through the advancement of soil borings and installation of monitoring wells within the property boundaries of the former Duofold Corporation site located at 7 Spruce Street, Ilion, (Herkimer County), NY. This investigation was performed at the request of by Mr. Benjamin McPherson, NYSDEC Region 6 in response to the discovery of Chlorinated Volatile Organic Compounds (CVOCs), Semi-Volatile Organic Compounds / Polycyclic Aromatic Hydrocarbons (SVOCs/PAH), and Metals during previous limited investigation at the site.

#### **Objectives**

Surface soils, subsurface soil and groundwater quality at the site were assessed as a means to determine the nature and extent of contamination at the former Duofold facility. Prior to commencement of investigation, a site walk was conducted by representatives of NYSDEC and Nature's Way during which the locations a total of twenty-four (24) surface sample borings, six (6) sub-foundation sample borings and twelve (12) soil boring/monitoring wells were reviewed and staked in the field. At the request of NYSDEC, an additional surface sample boring (located in the parking lot across Spruce Street) was added to the scope of work during field activities. Boring locations advanced during the time period of September 15, 2014 through September 25, 2014 are depicted on Figure 1.

#### Methodology

#### Surficial/Sub-Foundation Soil Sampling

A total of thirty (30) surficial/sub-foundation soil boring (SB) locations were advanced to depths of 2.0' to 4.0' below ground surface (bgs), utilizing a truck mounted direct push unit (Simco Earthprobe 200) and disposable 4' macro-core liners. The only exceptions to this were the advancement of SB-9; advanced with a hand auger due to site debris and SB 30 advanced with the drilling rig.

A 4' macro-core sampler with dedicated, disposable liners was utilized to collect samples, complemented with 3" split spoon samplers and hand augers.

#### Soil Boring / Monitoring Well Installation

A total of twelve (12) soil borings were advanced at designated locations across the site. These borings were advanced with 4 ¼" Hollow Stem Augers (HSA) to depths of 15.0' to 20.0' below ground surface (bgs) utilizing a truck mounted drilling rig (Acker-ADII). Soil samples were secured utilizing split spoon samplers, starting at ground surface and every 3.0' to 5.0' interval thereafter. Monitoring wells (MW) were installed within all 12 boring locations, with the slotted portion of the wells installed to straddle the water table, as directed by the on-site staff geologist. The wells were constructed of 2" 0.010 slot PVC screen with solid PVC riser extending to surface. A sand pack was installed surrounding the screen and extending one foot above, with a bentonite seal above the sand pack. All wells were completed with locking torque plugs, finished with 8" diameter flush mount road boxes with a 2.0' by 2.0' by 0.5' thick concrete surface seal.



#### **Decontamination Procedures**

All down hole equipment was decontaminated between holes via steam cleaning, with sampling tools decontaminated between samples utilizing fresh water with Alconox (concentrated surfactant), followed by a clean water rinse. All decon water, purge water and auger cuttings were containerized in 55 gallon drums onsite, within a plastic lined berm, pending disposal.

#### Field Logging / Screening

Collected soil samples were examined and classified by a NWEC&C, staff geologist on-site. During classification, a Phocheck+ 1000 Photo-Ionization Detector (PID) was utilized to quantify VOC concentrations. Samples submitted for analysis were immediately placed on ice to prevent atmospheric loss.

#### **Boring Locations / Elevations**

After the completion of the investigation, each boring and monitoring well location was clearly marked in the field to allow for a subcontracted surveyor (Susan M. Anacker, Professional Land Surveyor PLLC) to locate each boring, as well as establish top of PVC casing elevations at the well locations utilizing GPS. All data points were established relative to the benchmark Designation X 31, PID OE0645, also tied in to Designation W31, PID OE0644, located at the Ilion Post Office, and the bridge near the site, respectively. A copy of the survey as well as GPS coordinates per location summarized in tabular format are included as Appendix #1.

#### Sample Submission (Soil)

All analytical samples were collected and analyzed according to the most current edition of NYSDEC's Analytical Services Protocol (ASP). One soil sample from each surficial/sub foundation boring location (SB 1 thru SB 29), and four samples from each of the soil boring/monitoring well locations (MW 1- MW 12) were submitted for analytical testing and analyzed for the presence of Target Compound List (TCL) + 30, Target Analyte List (TAL), PCB's, Pesticides, TAL Metals, Cyanide and Mercury. Due to the volume of soil required for the analysis and after discussion with NYSDEC, several analyses were not conducted on the soil boring samples due to lack of volume. More specifically; eight samples were not analyzed for PCB's/Pesticides; MW 7 (4'-6' and 9'-11'), MW 8 (9'-11'), MW 9 (14'-16'), MW 10 (9'-11') and MW 12 (9'-11', 13'-15' and 18'-20'). Additionally, two of these above referenced samples (MW 8 (9'-11') and MW 12 (13'-15')) were not analyzed for SVOCs. Samples were placed within Test America (NYSDEC Contract Laboratory) supplied bottle sets, properly labeled and placed in coolers on ice, including the Chain of Custody and transported via vehicle to the Test America, Syracuse, NY service center. In addition to the soil boring samples, a total of 5 rinse blanks and Matrix Spike /Matrix Spike Dupe (MS/MSD) samples were secured and analyzed.

#### Sample Submission (Groundwater)

Water levels at each well were gauged, the wells were subsequently purged of a minimum of three well volumes and sampled utilizing disposable bailers. All discharge water was containerized in 55 gallon drums on-site pending disposal. Groundwater samples from all twelve monitoring wells were submitted to Test America for the same analysis (as outlined above), following the same protocol of the soil samples. Rinse duplicates were not required; therefore one MS/MSD groundwater sample was secured and submitted.





#### **Findings**

#### Geologic Description

Fill material with variable texture is present across the entire site. During advancement of the surficial/sub-foundation soil borings fill material was encountered to depths of 0.5' bgs to 4.0'bgs. Fill material was encountered during the advancement of all soil borings ranging in depth from 3.0' to up to 12.0' to 13.0' bgs. The deeper fill material was observed in MW 4, MW 9 and MW 11, and found to intersect the water table (approx. 6.0' to 8.0' bgs across the site) at all three of these locations. In the remaining well locations at which the fill material is shallower, the fill is underlain by natural soils consisting of fine textured silty slack water / clayey lake deposited sediment. Below these fine textured deposits, water sorted and deposited material was encountered; predominantly sand and gravel, with gravel content in the 40% to 70% range. These deposits were saturated and targeted for the placement of the monitoring wells. A more detailed sample description of horizons encountered at each boring location is provided on individual boring logs, included as Appendix #2 to this report. Material encountered at soil boring/monitoring wells is represented on cross section details A-A', B-B' and C-C', included as Appendix #3.

#### **Volatile Organic Compound (VOC) Screening Results**

VOC headspace screening readings above background (0.0 ppm) were not recorded for any sample secured from of the surficial, sub-foundation or soil boring locations.

#### Soil Analytical Results

Samples submitted for analysis from the surficial samples (SB 1-SB 6, SB 13-SB 29) were collected from the 0.5' to 2' bgs due to surficial site conditions (ie: concrete / topsoil), with sub-foundation samples (SB 7-SB 12) collected from a minimum 6" below the soil horizon exposed beneath the wood/concrete foundations. Samples from the monitoring well borings were submitted from each sampled interval (varied). Laboratory analytical results are compared to 6 NYCRR Table 375-6.8(b) Restricted Use Soil Cleanup Objectives (SCO), specifically Commercial, Industrial and Protection of Groundwater in tabular format, included in the tables section of this report. It should be noted that laboratory contamination due to extraordinarily high levels of Pesticides (due to samples from another Client/Project), particularly alpha-BHC, beta-BHC, delta-BHC, gamma-BHC and Hexachlorobenzene (not exclusively limited to these compounds, however these were the ones that were most notably seen), impacted samples submitted from this project. Any samples in the laboratory during this time (assumed 9/24 thru 9/29) were impacted and contain elevated Pesticide levels as a result; more specifically Lab Report ID 68042 and 68115 (MW 5 through MW 12 soil). The specific impact of each affected sample was noted in the case narrative of the reports. The laboratory reports have not been attached due to volume and laboratory submission to NYSEC. Results are summarized below, per analysis and per boring type (surficial/sub-foundation and soil boring).

#### PCBs (Surficial Soil)

PCBs were identified in three samples, these samples and the total PCB concentration reported for each are; SB4 at 0.19J ppm, SB 5 at 0.4 ppm, SB 15 at 0.84 ppm. Results are summarized in tabular format in Table 1A.



#### PCBs (Soil Boring)

PCBs were identified in three of the soil boring samples. These samples and the total PCB concentration reported for each are; MW 2 (0'-2') at 0.73 ppm, MW 8 (0.5'-1.5') at 0.19 ppm, and MW 9 (0.5'-2.0') at 0.47J. Results are summarized in tabular format included as Table 1B - 1D.

#### Pesticides (Surficial Soil)

Pesticides were not reported at concentrations exceeding Part 375-6.8(b) Protection of Groundwater / Commercial or Industrial SCOs in any of the surficial soil samples. Results are summarized in tabular format included as Table 1A.

#### Pesticides (Soil Boring)

The only pesticide concentration reported above Part 375-6.8(b) Protection of Groundwater / Commercial or Industrial SCOs in any of the soil samples, without a laboratory qualifier, was Endrin in the MW 11 (0.5'-2.0') sample at 91 ppm (exceeding Groundwater SCO, but below Commercial SCO). Results are summarized in tabular format included as Table 1B-D.

Alpha-BHC was reported in twenty-one samples, beta-BHC were reported present in eight samples, Lindane in three samples, all at concentrations above Protection of Groundwater SCO, however all were flagged with either EB or B (E = exceed calibration range, B = compound was found in the blank and sample). These results may be directly correlated to the laboratory contamination event.

#### VOC (Surficial Soil)

Only one method target VOC was identified above Part 375-6.8(b) Protection of Groundwater SCO in only one of the twenty nine surficial soil samples; Acetone at 160 ppb in the SB 22 sample. Results are summarized in tabular format in Table 2A.

#### **VOC** (Soil Boring)

Of the all of the samples submitted for the soil borings advanced for monitoring well installation, again, only acetone was reported above the Part 375-6.8(b) Protection of Groundwater SCO in the MW 1 (3.5'-5.5'), MW 8 (4.0'-6.0') and MW 12 (4'-6') samples at 90 ppb, 80 ppb and 79 ppb, respectively. Results are summarized in tabular format included as Table 2B-C.

#### Metals (Surficial Soil)

One to several method target analytes were reported above Part 375-6.8(b) Protection of Groundwater / Commercial or Industrial SCO's in ten of the surficial samples; SB 3, SB 8, SB 12, SB 14, SB 15, SB 19, SB 21, SB 22, SB 23 and SB 24. Reported concentrations for samples secured from six of these locations exceed Industrial SCOs. Results are summarized in tabular format included as Table 3A. More specifically: \*Arsenic was identified above both the Industrial / Protection of Groundwater SCO of 16 ppm in four (4) samples secured from SB 12, 14, 19 and 24, at concentrations of 284 ppm, 41.2 ppm, 52.6 ppm and 19.2B ppm, respectively.



#### Metals (Surficial Soil) continued:

\*Barium exceeded the Commercial SCO of 400 ppm, however below the Protection of Groundwater SCO of 820 ppm in three (3) samples from: SB 12, SB 21 and SB 24 at 585 ppm, 500 ppm, and 403 ppm, respectively.

\*Copper was identified at concentrations above the commercial SCO of 270 ppm, however below both the Industrial and Protection of Groundwater SCO(s) for samples from two (2) locations; 295B ppm in the SB 3 location and 378 ppm for the SB 22 location.

\*Lead was identified above SCOs in samples from three (3) locations; at 39600 ppm for the SB 12 location, and 5490 ppm in the SB 23 location both at concentrations exceeding both Industrial and Protection of Groundwater SCO(s) of 3,900 ppm and 450 ppm respectively. The concentration of 2890 ppm reported for the SB 24 location exceeded both the Protection of Groundwater and Commercial SCOs.

\*Total Mercury was identified above the Protection of Groundwater SCO(s) of 0.73 ppm in three samples (3); SB 8, SB 12 and SB 15 samples, with the SB 8 sample also in exceedance of the Commercial SCO of 2.8ppm.

\*Nickel was identified above the Protection of Groundwater SCO(s) of 130 ppm in only the SB 12 sample at a concentration of 195 ppm.

\*Selenium was identified above the Protection of Groundwater SCO of 4 ppm in samples from two (2) locations; both the SB 14 and SP 19 samples at concentrations of 4.4J and 39.2 ppm, respectively.

#### Metals (Soil Boring)

One to two method target analytes were identified in the MW 1 (8.5'-10.5'), MW 9 (0.5-2.0') and MW 12 (0.5'-2.0') and (9.0'-11.0') at concentrations exceeding SCO's, with at least one analyte at each location above the respective Industrial SCO. Results are summarized in tabular format included as Table 3B-C. More specifically;

\*Arsenic was identified above both the Industrial / Protection of Groundwater SCO of 16 ppm in four (4) samples, secured from: MW 1 (8.5'-10.5') MW 9 (0.5'-2.0'), MW 12 (0.5'-2.0') and MW 12 (9'-11') at concentrations of 17.1 ppm, 19.8 ppm, 113 ppm and 17.5 ppm, respectively.

\*Lead was identified above both the Protection of Groundwater SCO of 450 and Commercial SCO of 1,000 ppm for the sample secured from MW 9 (0.5'-2.0') at 1950 ppm.

#### **SVOC** (Surficial Soil)

Method target analytes were reported above Part 375-6.8(b) Protection of Groundwater / Commercial or Industrial SCO's in nine of the surficial samples; SB 1, SB 2, SB 8, SB 9, SB 10, SB 11, SB 12, SB 17, and SB 23. At least one SVOC at each above referenced location exceeded the respective Industrial SCO. Results are summarized in tabular format included as Table 4A.

#### SVOC (Soil Boring)

Four method target analytes were identified in both the MW 6 (0.5'-2.0') and MW 11 (0.5-2.0') samples, at concentrations exceeding SCO's, with only the benzo(a)pyrene result for the MW 6 sample above the respective Industrial SCO. Results are summarized in tabular format included as Table 4B-C.

#### **Groundwater Gauging / Sampling**

All twelve monitoring wells (MW 1 – MW 12) were gauged, purged, and sampled on October 14, 2014. Groundwater results are summarized in the following sections.



#### **Groundwater Elevation / Flow**

Top of casing elevations established during the survey, and water level readings (feet below TOC) gauged on 10/14/14 were utilized to calculate groundwater elevations. Depth to water during the 10/14/14 sampling event ranged from at 6.05' bgs (MW8) to 8.23' bgs (MW 2), with groundwater elevation calculated at 386.825 (MW 5) to 384.675 (MW10). Groundwater flow was determined to be in a north-northeasterly direction. Groundwater gauging data is presented below in tabular format, with interpolated groundwater flow map generated for the 10/14/14 gauging/sampling event attached (Figure 2).

#### Groundwater Elevation

Well ID	TOC	Date	Well Diam,	Depth to Water	Well Depth	Water Column	Convers	Well Volume	Total Bailed		Notes		Groundwater
	Elevation		(inches)	(feet btoc)	(feet btoc)	(feet)		(gallons)	(gallons)	Odor	Sheen	Color	Elevation
MW1	392.34291	10/7/2014	2"	6.5	15								385.84291
		10/14/2014	2"	6.6	15	8.4	0.17	1.43	5.00	no	no	Brown	385.74291
MW 2	394.05569	10/7/2014	2"	8.11	15.65								385,94569
		10/14/2014	2"	8.23	15.65	7.42	0.17	1.26	5.00	no	no	Brown	385.82569
MW3	392,15502	10/7/2014	2"	6.46	14.71	15-11-1	100			1 1 1 1	-1.14		385.69502
		10/14/2014	2"	6.58	14.71	8.13	0.17	1.38	5.00	no	no	Brown	385.57502
MW 4	393.7625	10/7/2014	2"	7.59	15.78		I I					. *	386.1725
		10/14/2014	2"	7.72	15.78	8.06	0.17	1.37	5.00	no	no	Brown	386.0425
MW 5	393.34509	10/7/2014	2"	6.42	15.4								386.92509
	1000	10/14/2014	2"	6.52	15.4	8.88	0.17	1.51	5.00	no	no	Brown	386.82509
MW 6	393.0922	10/7/2014	2"	6.43	13.42								386.6622
		10/14/2014	2"	6.56	13.42	6.86	0.17	1.17	5.00	no	no	Brown	386.5322
MW 7	392.53047	10/7/2014	2"	6.32	13.79								386.21047
		10/14/2014	2"	6.45	13.79	7.34	0.17	1.25	5.00	no	no	Brown	386.08047
MW8	391.23423	10/7/2014	2"	5.95	13.63								385.28423
		10/14/2014	2"	6.05	13.63	7.58	0.17	1.29	5.00	no	no	Brown	385.18423
MW9	392.90751	10/7/2014	2"	7.88	15.65						man		385.02751
	5 - C - C - C - C - C - C - C - C - C -	10/14/2014	2"	8	15.65	7.65	0.17	1.30	5.00	no	no	Brown	384.90751
MW 10	391.56497	10/7/2014	2"	6.79	14.7		Highway !	3 - 3					384.77497
		10/14/2014	2"	6.89	14.7	7.81	0.17	1.33	5.00	no	no	Brown	384.67497
MW 11	393.29749	10/7/2014	2"	7.01	14.59								386.28749
1.7		10/14/2014	2"	7.7	14.59	6.89	0.17	1.17	5.00	no	no	Brown	385.59749
MW 12	393.64338	10/7/2014	2"	7.22	13.8								386.42338
-	4.400	10/14/2014	2"	7.4	13.75	6.35	0.17	1.08	5.00	no	no	Brown	386.24338

#### **Groundwater Analytical Results**

Laboratory analytical results are summarized below, with results presented in tabular format compared to TOGS 1.1.1 Groundwater Aquifer guidance values / standards in the Tables section of this report. A copy of the laboratory analytical report is not attached due to volume and copy to NYSDEC.

#### VOC (Groundwater)

One to five method target analytes (without laboratory qualifiers) were identified in samples secured from MW 2, MW 6, MW 7, MW 8, MW 9, MW 10, MW 11 and MW 12. Of these wells, concentrations were reported above TOGS 1.1.1 guidance values for samples from six of these wells; MW 6 (chloroform), MW 7 (tetrochloroethene), MW 9 (trichloroethene), MW 10 (cis-1,2-Dichloroethene, trichloroethene), MW 8 (trans-1,2-Dichloroethene, 1,1 Dichloroethene, trichloroethene and benzene) and MW 2 (cis-1,2-Dichloroethene, trans-1,2- Dichloroethene, and trichloroethene). Results are summarized in tabular format in Table 5A.



#### SVOC (Groundwater)

Method target analytes were not detected in the MW 1, MW 2, MW 5, or MW 6 samples. One to three analytes were identified in the remaining samples, with all but 2,6-dinotrotoluene at a concentration of 6.4 in the MW 12 sample identified with laboratory qualifiers. Results are summarized in tabular format in Table 5B.

#### **PCB** (Groundwater)

PCBs were not identified in any of the groundwater samples. Results are summarized in tabular format in Table 5C.

#### Pesticides (Groundwater)

Pesticides were not reported for samples from eleven of the twelve wells. Chlordane (alpha) at 0.016JB ppb and gamma-chlordane at 0.027P ppb were identified in the MW 7 groundwater sample, both of which do not have established TOGS 1.1.1 guidance values / standards. Results are summarized in tabular format in Table 5C.

#### Metals (Groundwater)

Numerous metals were reported above the TOGS 1.1.1 GA guidance values / standards in samples secured from each well location. More specifically, metal concentrations reported for groundwater samples from all twelve wells exceeded respective TOGS 1.1.1 GA values for Arsenic, Chromium, Lead, Manganese, Nickel and Magnesium. Beryllium and Copper were also identified above TOGS 1.1.1 in all wells, with the exceptions of MW 1. Barium was identified above TOGS 1.1.1 in all but MW 1 and MW 5. Cadmium was identified above TOGS 1.1.1 in the MW 3, MW 4, MW 6 and MW 8 samples. Zinc and Iron were also reported above TOGS 1.1.1 in numerous samples, however all concentrations were flagged with the laboratory qualifier of B (detected in the method blank). Mercury exceeded TOGS 1.1.1 in MW2, MW3, MW4, MW6, MW7, MW8, MW9 and MW10. Antimony was reported at concentrations exceeding TOGS 1.1.1 GA guidance values in all samples for which it was reported (MW3, MW4, MW 6, MW 7, MW 8, MW 9, MW 10, MW 11 and MW 12). Sodium was identified in all twelve groundwater samples, with results for only MW 3 and MW 5 below the TOGS 1.1.1 GA standard. Results are summarized in tabular format in Table 5D.

#### Disposal

A total of six (6) drums of soil, one (1) drum containing decon pad/materials and four (4) drums of decon / purged groundwater are staged on-site within 55 gallon drums (placed within a plastic lined berm) pending additional disposal approval.

Respectfully Submitted,

Dale M Gramza

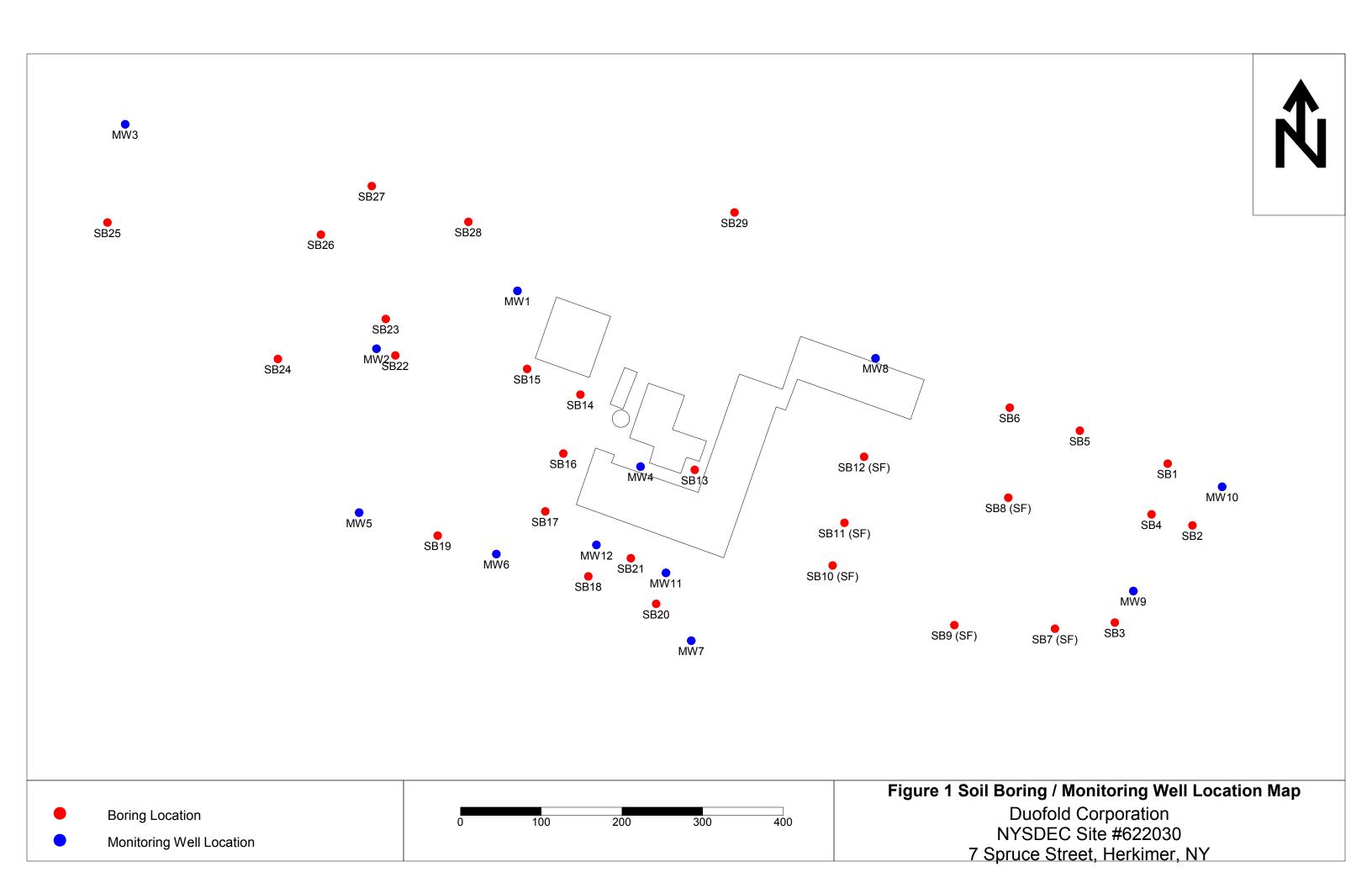
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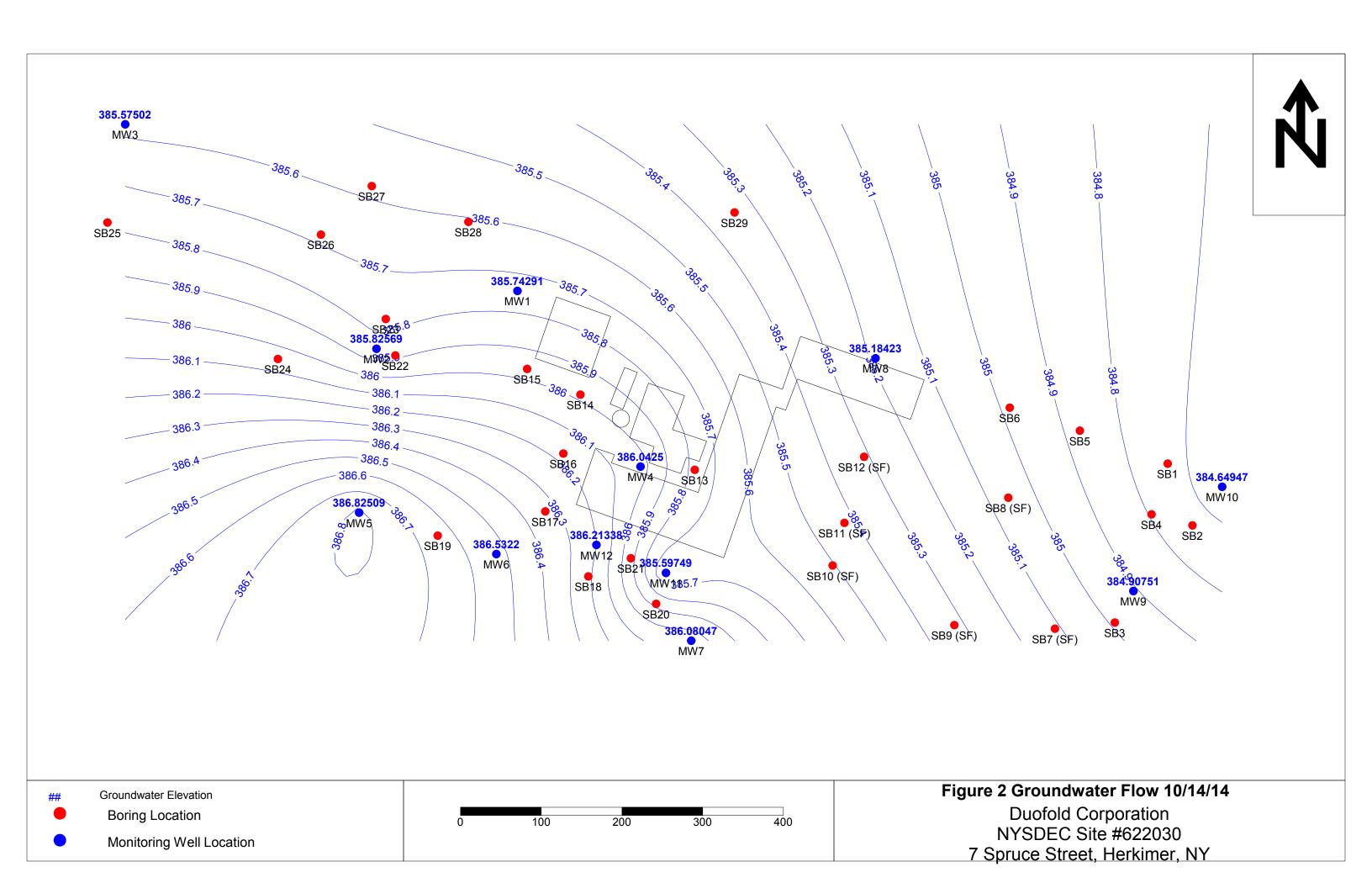


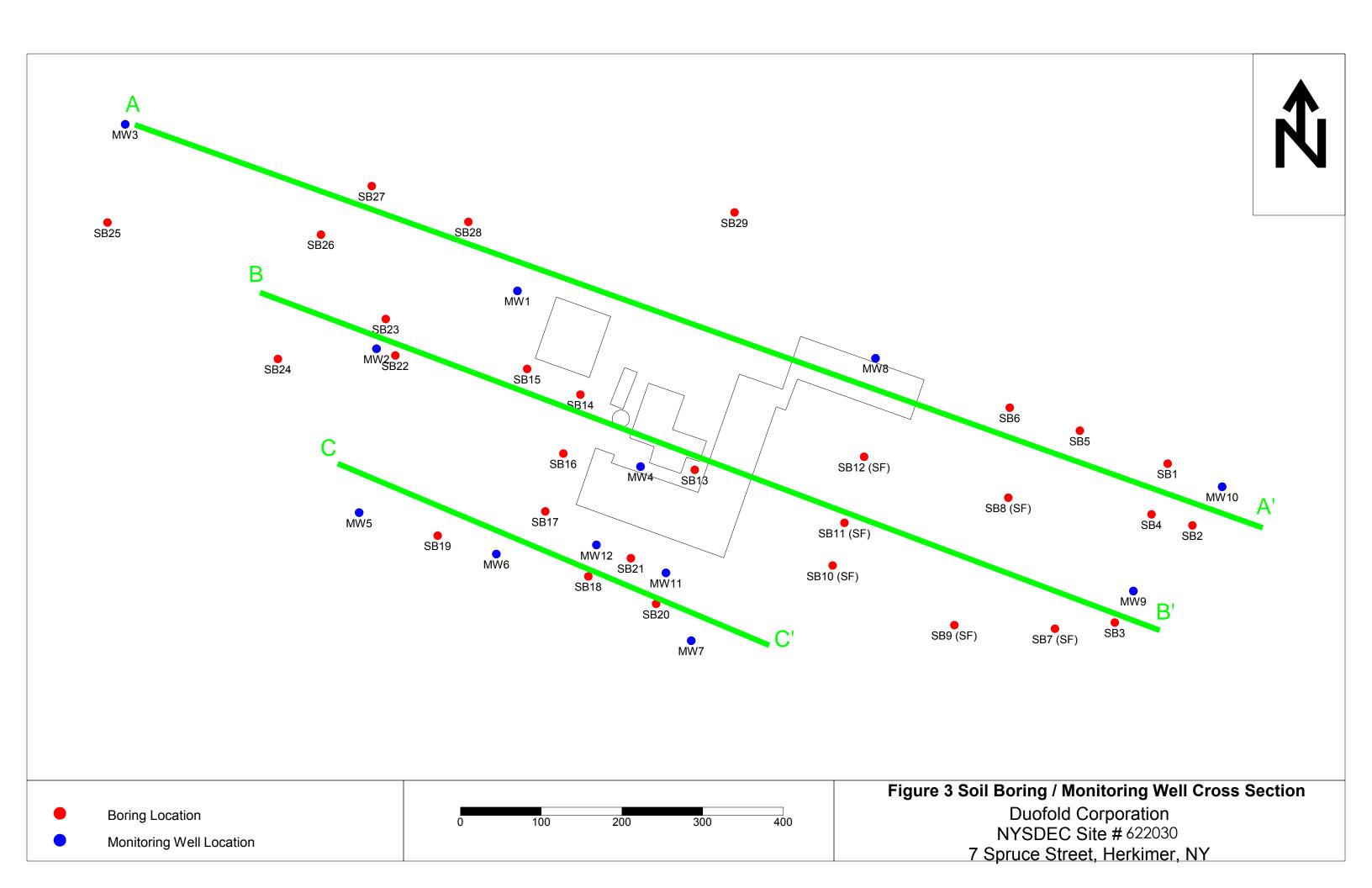
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## **Figures**

- 1. Soil Boring Location Map
- 2. Groundwater Flow 10/14/14 Map
  - 3. Cross Section Reference Map









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## **Tables**

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- 1B Soil PCB/Pest/Herbs Laboratory Analytical Results (Soil Boring/ MW 1-5)
- 1C Soil PCB/Pest/Herbs Laboratory Analytical Results (Soil Boring/ MW 6-10)
- 1D Soil PCB/Pest/Herbs Laboratory Analytical Results (Soil Boring/ MW 11-12)
- 2A Soil VOC Laboratory Analytical Results (Surficial)
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- 3A Soil Metals Laboratory Analytical Results (Surficial)
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- 4A Soil SVOC Laboratory Analytical Results (Surficial)
- 4B Soil SVOC Laboratory Analytical Results (Soil Boring/ MW 1-6)
- 4C Soil SVOC Laboratory Analytical Results (Soil Boring/ MW 7-12)
- 5A Groundwater VOC Laboratory Analytical Results
- 5B Groundwater SVOC Laboratory Analytical Results
- 5C Groundwater PCB/Pest/Herbs Laboratory Analytical Results
- 5D Groundwater Metals Laboratory Analytical Results

#### PCBs/Pesticides

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Salarana a																														Protection of	f Public Health	Protection (
Contaminant	2001		The state of	0.00			1		-095	SB 10 SS 0.5'-2.0'		SB 12 SS	A STATE OF THE	SB 14 SS 0.5'-2.0'	SB 15 SS	SB 16 SS 0.5'-2.0'		SB 18 SS 0.6'-2.0'		10000	1.00000			SB 24 0.5'-2.0'	SB 25 0.5'-2.0'	SB 26 0.5'-2.0'	SB 27 0.5'-2.0'	SB 28 0.5'-2.0'	L6000	Commercial	Industrial	Groundwat
44-DDE	<19 F1	<8.7 F1	<19 F1	<19 F1	<94 F1	<1.8 F1	<2.0 F1	<38 F1	<40 F1	<39 F1	<19 F1	<100 F1	<9.9 F1	4.8 JF1	<38 F1	<2.1 F1	<38 F1	<1.9 F1	0.89 JF1	<18 F1	<20	<11	<95	<11	<39	<19	<3.9	<9.2	<2.1	62,000	120,000	17,000
4,4'-DDT	12 JB	5.8 JB	10 JB	16 JB	110 B	4.1 B	1.3 JB	23 JB	41 B	28 JB	11 JB	58 JB	5.7 JB	17 JB	41 B	1.3 JB	24 JB	0.92 JB	3.9 B	11 JB	<20	5.0 J	26 J	<11	<39	4.4 J	<3.9	<9.2		47,000	94,000	136,000
4,4'-DDD	<19 F1	<8.7 F1	<19 F1	<19 F1	45 JF1	1.4 JF1	<2.0 F1	<38 F1	8.8 JF1	<39 F1	<19 F1	<100 F1	<9.9 F1	<19 F1	<38 F1	<2.1 F1	<38 F1	<1.9 F1	<3.6 F1	<18 F1	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	92,000	180,000	14,000
Aldrin	<19 F1	<8.7 F1	<19 F1	<19 F1	<94 F1	<1.8 F1	<2.0 F1	<38 F1	<40 F1	<39 F1	<19 F1	<100 F1	<9.9 F1	<19 F1	<38 F1	<2.1 F1	<38 F1	<1.9 F1	<3.6 F1	<18 F1	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	680	1,400	190
alpha-BHC	<19	<8.7	<19	<19	<94	<1.8	<2.0	<38	<40	<39	<19	<100	<9.9	<19	<38	<2.1	<38	<1.9	1.4 J	<18	<20	<11	<95 J	<11	11 J	<19	<3.9	<9.2	<2.1	3,400	6,800	20
peta-BHC	<19	<8.7	<19	<19	<94	<1.8	<2.0	<38	<40	<39	<19	<100	<9.9	<19	<38	<2.1	<38	<1.9	<3.6	<18	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	3,000	14,000	90
Chlordane (alpha)	<19	<8.7	<19	<19	<94	<1.8	<2.0	<38	<40	<39	<19	<100	<9.9	<19	<38	<2.1	<38	<1.9	4	<18	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	24,000	47,000	2,900
delta-BHC	<19	<8.7	<19	<19	<94	<1.8	<2.0	<38	11 J	<39	<19	<100	<9.9	<19	<38	<2.1	<38	<1.9	0.99 J	<18	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	500,000 <sup>6</sup>	1,000,000°	250
Dibenzofuran	88 J	140	250	110	27 J	<54	200	200	8900 J	1100 J	49 J	350 J	29 J	1200	290	51 J	340	<56	11 J	70	260	42 J	980 J	36 J	310	59	15 J	92	15 J	350,000	1,000,000°	210,000
Dieldrin	<19	<8.7	<19	<19	<94	<1.8	<2.0	<38	<40	<39	<19	<100	<9.9	<19	<38	<2.1	<38	<1.9	<3.6	<18	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	1,400	2,800	100
Indosulfan I	<19 F1	<8.7 F1	<19F1	<19 F1	<94 F1	<1.8 F1	<2.0 F1	<38 F1	<40 F1	<39 F1	<19 F1	<100 F1	<9.9 F1	<19 F1	<38 F1	<2.1 F1	<38 F1	<1.9 F1	<3.6 F1	<18 F1	<20 F1	11 f1	<95 F1	<11 F1	<39	<19	<3.9	<9.2	<2.1	200,000'	920,000'	102,000
Indosulfan II	<19 F1	<8.7 F1	<19 F1	<19 F1	<94 F1	<1.8 F1	<2.0 F1	<38 F1	<40 F1	<39 F1	<19 F1	<100 F1	<9.9 F1	<19 F1	<38 F1	<2.1F	<38 F1	<1.9 F1	<3.6 F1	<18 F1	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	200,000'	920,000'	102,000
ndosulfan sulfate	<19	<8.7	<19	<19	<94	0.38 J	0.45 J	<38	21 J	<39	<19	<100	<9.9	<19	<38	<2.1	<38	<1.9	<3.6	<18	<20	<11	53 J	<11	<39	<19	<3.9	<9.2	<2.1	200,000'	920,000'	1,000,000°
Endrin	<19 F1	<8.7 F1	<19F1	<19 F1	<94 F1	<1.8 F1	<2.0 F1	<38 F1	<40 F1	<39 F1	<19 F1	<100 F1	<9.9 F1	<19 F1	<38 F1	<2,1 F1	<38 F1	<1.9 F1	<3.6 F1	<18 F1	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	89,000	410,000	60
leptachlor	<19	<8.7	<19	<19	<94	<1.8	<2.0	<38	<40	<39	<19	<100	<9.9	<19	<38	<2.1	<38	<1.9	<3.6	<18	<20	<11	<95 J	<11	<39	<19	<3.9	<9.2	<2.1	15,000	29,000	380
indane	<19	2.0 J	<19	<19	<94	<1.8	<2.0	<38	9.7 J	10 J	<19	<100	<9.9	<19	<38	<2.1	<38	<1.9	0.77 J	<18	4.0 J	2.2 J	<95 J	<11	10 J	4.5 J	0.89 J	<9.2		9,200	23,000	100
Polychlorinated biphenyls	<0.26	<2.0	<0.25	0.19 J	0.4	<0.19	<0.23	<0.25	<0.25	< 0.24	<0.21	<0.30	<0.29	<0.28	0.84	<0.27	<0.19	<0.24	<0.23	<0.25	<0.27	<0.28	<0.25	<0.27	<0.20	<0.24	<0.28	<0.23	<0.28	1	25	3
Indrin aldehyde									29 J								14 14							1 - 7 3						NS	NS	NS
Indrin ketone	10 J							12 J	100	30 J	5.3 J								2.3 J	5.8 J	9.6 J		150						1.6 J	NS	NS	NS
gamma-Cholrdane																			3.0 JF1								2.0 J		1.6 J	NS	NS	NS
Heptachlor epoxide						1.200	Lac.				1		J	- S			100						LAS	1 - 2					$G = A \downarrow$	NS	NS	NS
Methoxychlor	10 JF1	4.9 JF1			39 JF1	0.92 JF1	1.0 JF1	24 JF1	50 F1	26 JF1	9.2 JF1	49 JF1	4.0 JF1	6.5 JF1	20 JF1	0.76 JF1	14 JF1		. Y	15 JF1	51	- Th	55 J							NS	NS	NS
Toxaphene	1 - 4																			1										NS	NS	NS

Soil cleanup objectives (SCOs) for Pesticides are in parts per billion (ppb). Soil cleanup objectives (SCOs) for Polychlorinated biphenyls are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes b The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

F1 MS and/or MSD Recovery exceeds the control limits

NA Sample was not analyzed due to lack of sample volume

Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is is above the Protection of Groundwater Standard

<sup>&</sup>lt;sup>6</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.
<sup>1</sup> This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

<sup>\*\*</sup> LCS or LCSD exceeds the control limits

E Result exceeded calibration range

#### PCBs/Pesticides

		-	-	4.4		71								-		1					Table 375-6.8	B(b): Restricted Objectives	Use Soil Cleanup
Contaminant	la i																				Protection of	Public Health	Protection of
Gonzamioni	MW 1 0.5'-2.0'	MW 1 3.5'-5.5'	MW 1 8.5'-10.5'	MW 1	MW 2	MW 2 6.0'-8.0'	MW 2 9.0'-11.0'	MW 2 14'-16'	MW 3 0.0'-2.0'	MW 3 4.0'-6.0'	MW 3	MW 3	MW 4 0.0'-2.0'	MW 4 4.0'-6.0'	MW 4 9.0'-11.0'	MW 4 14.0'-16.0'	MW 5 0.6'-2.0'	MW 5 6.0'-8.0'	MW 5	MW 5 14.0'-16.0'	Commercial	Industrial	Groundwater
4,4'-DDE	<46	<2.4	<2.0	<22	3.9	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<20	<38	<20	<2.2	<1.9	2.4 J	<2.2	0.48 J	<2.1	62,000	120,000	17,000
4,4'-DDT	13 J	<2.4	<2.0	<22	<3.6	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<2.0	<38	<2.0	<2.2	1.3 JB	<10	<2.2	<2.1	<2.1	47,000	94,000	136,000
4,4'-DDD	<46	<2.4	<2.0	<2.2	<3.6	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10	<2.2	<2.1	<2.1	92,000	180,000	14,000
Aldrin	<46	<2.4	<20	<2.2	<3.6	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10	<2.2	<2.1	<2.1	680	1,400	190
alpha-BHC	<46	<2.4	<20	<2.2	<3.6	<20	<22	<1.9	<2.0	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	370 EB**	490 E8**	350 EB**	470 EB**	3,400	6,800	20
beta-BHC	<46	<2.4	<2.0	<2.2	<3.6	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<20	<38	<2.0	<2.2	<1.9	35 B**	130 EB**	58 B**	110 EB**	3,000	14,000	90
Chlordane (alpha)	<46	<2.4	<2.0	<22	<3.6	<20	<22	<1.9	<2.0	<2.5	<2.0	<20	<38	<2.0	<2.2	<1.9	<10	<2.2	<2.1	<2.1	24,000	47,000	2,900
delta-BHC	<46	<2.4	<2.0	<2.2	<3.6	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10**	27 B**	4.1 B**	23 B**	500,000 <sup>b</sup>	1,000,000°	250
Dibenzofuran	160	<72	<61	<67	160 J	<61	<69	<58	15 J	<76	<63	<62	350	<61	<66	<58	23 J	<66	<64	<62	350,000	1,000,000°	210,000
Dieldrin	<46	<24	<2.0	<2.2	9.4	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10	<2.2	<2.1	<2.1	1,400	2,800	100
Endosulfan I	<46	<2.4	<2.0	<2.2	<3.6	<20	<2.2	<1.9	. <20	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10	<2.2	<2.1	<2.1	200,000'	920,000	102,000
Endosulfan II	<46	<2.4	<20	<2.2	1.5 JB	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10	<2.2	<2.1	<2.1	200,000'	920,000	102,000
Endosulfan sulfate	<46	<24	<2.0	<2.2	<3.6	<20	<2.2	<1.9	<20	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10	<2.2	<2.1	<2.1	200,000'	920,000	1,000,000°
Endrin	<46	<2.4	<20	<2.2	<3.6	<20	<2.2	<1.9	<2.0	<25	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10	<22	<2.1	<2.1	89,000	410,000	60
Heptachlor	<46	<2.4	<2.0	<2.2	<3.6	<2.0	<2.2	<1.9	<2.0	<2.5	<2.0	<2.0	<38	<2.0	<2.2	<1.9	<10**	6.3 **	<2.1**	3.8 **	15,000	29,000	380
Lindane	<46	<2.4	<20	<22	0.91 J	<2.0	<2.2	<1.9	0.45 J	<2.5	<2.0	<2.0	10 J	<2.0	<2.2	<1.9	15 B**	99 EB**	13 B**	48 B**	9,200	23,000	100
Polychlorinated biphenyls	<0.27	<0.28	<0.22	<0.29	0.73	<0.21	<0.26	<0.25	<0.25	<0.36	<0.25	<0.29	<0.24	<0.20	< 0.30	<0.25	< 0.25	<0.28	<0.25	<0.28	1	25	3
Endrin aldehyde	- 3				10**																NS	NS	NS
Endrin ketone		_																			NS	NS	NS
gamma-Cholrdane					4.2				1.5 J												NS	NS	NS
Heptachlor epoxide	1-27				1.7 J		F														NS	NS	NS
Methoxychlor																					NS	NS	NS
oxaphene																					NS	NS	NS

Soil cleanup objectives (SCOs) for Pesticides are in parts per billion (ppb). Soil cleanup objectives (SCOs) for Polychlorinated biphenyls are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes

F1 MS and/or MSD Recovery exceeds the control limits

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

" LCS or LCSD exceeds the control limits

MA Sample was not analyzed due to lack of sample volume

Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is above the Protection of Groundwater Standard

The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3

The SCOs for industrial use are capped at a maximum value of 500 ppm. See TSD section 9.3

The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3

This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

#### PCBs/Pesticides

																-		7.3	Table 375-6.8(	b): Restricted I Objectives	Jse Soil Clean
4.0.000		1 21						5.3											Protection of	Public Health	Protection (
Contaminant	MW 6 0.5'-2.0'	MW 6 4.0'-6.6'	MW 7 0.5'-2.0'	MW 7 4.0'-6.0'	MW 7 9.0'-11.0'	MW 7 12'-14'	MW 8 0.5'-1.5'	MW 8 4.0'-6.0'	MW 8	MW 8 12.0'-14.0'	MW 9 0.5'-2.0'	MW 9 4.0'-6.0'	MW 9 9.0'-11.0'	MW 9 14.0'-16.0'	MW 10 0.5'-2.0'	MW 10 4.0'-6.0'	MW 10 9.0'-11.0'	MW 10 13.0'-15.0'	Commercial	Industria)	Groundwate
4,4'-DDE	23 J	0.64 J	<34	NA	NA.	<20	0.46 J	<22	NA .	<1.9	<91	26J	<2.3	NA	<19	<2.4	NA	<1.9	62,000	120,000	17,000
4,4'-DDT	<87	0.87 J	<34	NA	NA	<2.0	<1.8	<22	NA	<1.9	<91	<9.8	<23	NA	<19	<2.4	NA	0.51 JB	47,000	94,000	136,000
4,4'-DDD	<87	<1.9	<34	NA	NA .	<20	<1.8	<22	NA	<1.9	<91	<9.8	<2.3	NA	<19	<2.4	NA	<1.9	92,000	180,000	14,000
Aldrin	<87	<1.9	<34	NA	NA	<2.0	<1.8	<22	NA	<1.9	<91	<9.8	<23	NA	<19	<2.4	NA	<1.9	680	1,400	190
alpha-BHC	380 B**	230 EB**	410 B**	NA	NA	370 E8**	320 EBH	800 EB**	NA	490 EB**	380 B**	360 EB**	530 EB**	NA.	380 B**	590 EB**	NA	4.7 B	3,400	6,800	20
beta-BHC	43 JB**	26 B**	65 B**	NA	NA	56 B**	49 B**	1100 EB**	NA	130 EB**	62 JB	150 B**	92 EB**	NA.	44 B**	150 EB**	NA	<1.9	3,000	14,000	90
Chlordane (alpha)	<87	<1.9	<34	NA	NA	<2.0	<1.8	<22	NA	<1.9	<91	<9.8	<2.3	NA	<19	<2.4	NA	<1.9	24,000	47,000	2,900
delta-BHC	<87 **	2.0 B**	<34 **	NA	NA	4.0 B**	2.0 B**	<22 **	NA.	55 B**	<91 **	90 B*	6.3 B**	NA	15 JB	51 B**	NA	<1.9	500,000 <sup>b</sup>	1,000,000°	250
Dibenzofuran	57 J	<59	51 J	NA	NA.	<61	3.8 J	<67	NA	<58	230	140	<69	NA	31 J	<2.4	NA	<58	350,000	1,000,000°	210,000
Dieldrin	<87	<1.9	<34	NA	NA.	<2.0	<1.8	<22	NA	<1.9	<91	<9.8	<2.3	NA:	<19	<2.4	NA.	<1.9	1,400	2,800	100
Endosulfan I	<87	<1.9	<34	NA	NA	<2.0	<1.8	<22	NA	<1.9	<91	<9.8	<2.3	NA	<19	<2.4	NA	<1.9	200,000	920,000'	102,000
Endosulfan II	<87	<1.9	<34	NA	NA	<2.0	<1.8	<22	NA.	<1.9	<91	<9.8	<2.3	NA	<19	<2.4	NA	<1.9	200,000	920,000	102,000
Endosulfan sulfate	<87	<1.9	<34	NA	NA.	<20	<1.8	<22	NA	<1.9	<91	<9.8	<2.3	NA.	<19	<2.4	NA	<1.9	200,000	920,000	1,000,000°
Endrin	<87	<1.9	<34	NA	NA	<2.0	<1.8	<22	NA	<1.9	<91	<9.8	<2.3	NA	<19	<2.4	NA.	<1.9	89,000	410,000	60
Heptachlor	<87 **	0.45 JB**	<34 **	NA	NA	1.2 J**	1.1 J**	<22 **	NA	5.0 **	<91 **	<9.8 **	<2.3 **	NA	<19**	7.0 **	NA	<1.9	15,000	29,000	380
Lindane	33 JB**	8.2 B**	18 JB**	NA	NA	21 B**	9.7 B**	<22 **	. NA	130 EB**	29 JB	110 B**	19 B**	NA	41 B**	160 EB**	NA	<1.9	9,200	23,000	100
Polychlorinated biphenyls	<0.24	<0.27	<0.24	NA	NA	<0.24	0.19	<0.29	NA	<0.24	0.47 J	<0.22	< 0.31	NA	<0.27	<0.33	NA	<0.27	1	25	3
Endrin aldehyde			3324								W == 3								NS	NS	NS
Endrin ketone																			NS	NS	NS
gamma-Chlordane				-					1						Ä				NS	NS	NS
Heptachlor epoxide		8.5																N. W.	NS	NS	NS
Methoxychlor		0.78 J							7-3									0.65 J	NS	NS	NS
loxaphene																			NS	NS	NS

Soil cleanup objectives (SCOs) for Pesticides are in parts per billion (ppb). Soil cleanup objectives (SCOs) for Polychlorinated biphenyls are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes

F1 MS and/or MSD Recovery exceeds the control limits

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

\*\* LCS or LCSD exceeds the control limits

E Result exceeded calibration range

NA Sample was not analyzed due to lack of sample volume

Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is is above the Protection of Groundwater Standard

<sup>&</sup>lt;sup>b</sup> The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

<sup>&</sup>lt;sup>c</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3

This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

#### PCBs/Pesticides

					4					Table 375-6	i.8(b): Restricted Objectives	Use Soil Cleanup s
Contaminant										Protection of	Public Health	Protection of
Comammant	MW 11 0.5'-2.0'	MW 11 4.0'-6.0'	MW 11 9.0'-11.0'	MW 11 13.0'-15.0'	MW 12 0.5'-2.0'	MW 12 4.0'-6.0'	MW 12 9.0'-11.0'	MW 12 13.0'-15.0'	MW 12 18.0'-20.0'	Commercial	Industrial	Groundwater
4,4'-DDE	10 J	0.57 J	<2.0	<2.0	<38	<10	NA	NA	NA	62,000	120,000	17,000
,4'-DDT	36 J	<1.9	<2.0	0.55 JB	<38	<10	NA .	NA	NA.	47,000	94,000	136,000
1,4'-DDD	<48	<1.9	<2.0	<2.0	<38	<10	NA	NA	NA	92,000	180,000	14,000
Aldrin	<48	<1.9	<2.0	<2.0	<38	<10	NA	NA	NA	680	1,400	190
alpha-BHC	590 B*	390 EB*	140 EB*	3.7 B	470 B*	2000 EB*	NA	NA	NA	3,400	6,800	20
beta-BHC	43 JB*	52 B*	16 B*	40B	50 B*	340 EB*	NA	NA.	NA.	3,000	14,000	90
Chlordane (alpha)	<48	<1.9	<2.0	<2.0	<38	<10	NA .	NA .	NA.	24,000	47,000	2,900
lelta-BHC	19 J	8.2	3.1	<2.0	<38	20	NA	NA NA	NA.	500,000 <sup>b</sup>	1,000,000°	250
Dibenzofuran	220 J	14 J	<60	<59	80	<63	NA	NA.	NA	350,000	1.000.000°	210,000
Dieldrin	<48	<1.9	<2.0	<2.0	<38	<10	· NA	NA	NA.	1,400	2,800	100
Indosulfan I	<48	<1.9	<2.0	<2.0	<38	<10	NA	NA	NA	200,000	920,000	102,000
ndosulfan II	<48	<1.9	<2.0	<2.0	<38	<10	NA	NA	NA	200.000	920.000'	102.000
Endosulfan sulfate	<48	<1.9	<2.0	<2.0	<38	<10	NA	NA.	NA	200,000'	920.000'	1,000,000°
ndrin	91	<1.9	<2.0	<2.0	<38	<10	NA	NA	NA.	89,000	410,000	60
Heptachlor	<48	<1.9	<2.0	<2.0	<38	<10	NA NA	NA	NA	15,000	29,000	380
Lindane	45 JB*	26 B*	13 B*	<2.0	24 JB*	77 B*	NA	NA	NA	9,200	23,000	100
Polychlorinated biphenyls	< 0.35	<0.21	<0.22	<0.27	<0.28	<0.30	NA	NA	NA	1	25	3
Endrin aldehyde										NS	NS	NS
ndrin ketone	0									NS	NS	NS
gamma-Cholrdane										NS	NS	NS
leptachlor epoxide		40								NS	NS	NS
Methoxychlor	1			0.60 J						NS	NS	NS
oxaphene										NS	NS	NS

Soil cleanup objectives (SCOs) for Pesticides are in parts per billion (ppb). Soil cleanup objectives (SCOs) for Polychlorinated biphenyls are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes <sup>b</sup> The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

F1 MS and/or MSD Recovery exceeds the control limits
B Compound was found in the blank and sample.
J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
"LCS or LCSD exceeds the control limits
E Result exceeded calibration range
NA Sample was not analyzed due to lack of sample volume.

<sup>&</sup>lt;sup>6</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3

<sup>&</sup>lt;sup>1</sup>This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate

#### Volatiles

																												ī			(b): Restricted nup Objective	
Contaminant		h.												14																Protection of	Public Health	Protection of Ground
	SB 1 SS 0.5-2.0	SB 2 SS 0.5-2.0	SB 3 SS U.5'-2.0'	SB 4 SS 0.5-2.0	U.5-2.0	SB 6 SS 0.5-2.0	SB 7 SS 0.6-2.0	SB 8 SS 0.6-2.0	SB 9 SS 0.6-2.0	SB 10 SS 0.5-2.0	SB 11 SS 0.5-2.0	SB 12 S	SB 13 SS 0.5'-2.0'		SB 15 SS	SB 16 SS 0.5'-2.0'	SB 17 SS 0.6'-2.0'	SB 18 SS 0.6'-2.0'	SB 19 SS 0.6"-2.0"	0.5°-2.0°	SB 21 0.5'-2.0	SB 22 0.5-2.0	SB 23 0.5'-2.0'		SB 25 U.5'-2.0'	SB 26 0.5'-2.0'			SB 29 0.5'-2.0'	Commercial	Industrial	water
1,1,1-Trichloroethane	<5.9	<5.2	< 5.6	<5.6	<5.3	<5.5	<5.9	<5.7	<5.9	<5.9	<5.9	<6.1	<5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5,6	<5,5	<5.7	<5.4	<6.2	500,000°	1,000,000	680
1,1-Dichloroethane	<5.9	<5.2	<5.6	<5.6	<5.3	<5.5	<5.9	<5.7	< 5.9	<5.9	< 5.9	<6.1	<5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	< 5.7	< 5.4	<6.2	240,000	480,000	270
1,1-Dichloroethene	<5.9	<5.2	<5.6	<5.6	<5.3	< 5.5	<5.9	<5.7	<5.9	<5.9	<5.9	<6.1	< 5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5,5	<5.7	<5.4	<6.2	500,000°	1,000,000°	330
1,2-Dichloroethane	<5.9	<5.2	< 5.6	<5.6	<5.3	<5.5	<5.9	<5.7	<5.9	<5.9	<5.9	<6.1	< 5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	<5.7	<5.4	<6.2	30,000	60,000	20'
cis-1,2-Dichloroethene	<5.9	<5.2	<5.6	< 5.6	<5.3	<5.5	<5.9	2.2 J	<5.9	<5.9	. <5.9	<6.1	< 5.9	< 5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	10	0,87 J	<6.6	<5.6	<5.5	<5.7	<5.4	<6.2	500,000°	1,000,000	250
rans-1,2-Dichloroethene	<5.9	<5.2	<5.6	<5.6	<5.3	<5.5	<5.9	<5.7	<5.9	<5.9	< 5.9	<6.1	<5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	< 5.7	<5.4	<6.2	500,000	1,000,000	190
1,4-Dichlorobenzene	<5.9	<5.2	<5.6	<5.6	<5.3	<5.5	<5.9	<5.7	<5.9	<5.9	<5.9	<6.1	< 5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	<5.7	<5.4	<6.2	130,000	250,000	1,800
Acetone	<29	<26	<28	<28	<26	<27	<30	14 J	<29	<30	<29	<31	<30	<28	<28	<31	<27	<27	<27	<27	<29	160	<28	<33	<22	<22	<23	<21	<25	500,000	1,000,000	50
Benzene	<5.9	<5.2	<5.6	< 5.6	<5.3	<5.5	<5.9	<5.7	0.63 J	<5.9	< 5.9	<6.1	<5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5,5	<5.7	<5.4	<6.2	44,000	89,000	60
Carbon tetrachloride	<5.9	<5.2	<5.6	<5.6	<5.3	<5.5	<5.9	<5.7	<5.9	<5.9	<5.9	<6.1	<5.9	2.7 J	<5,6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	<5.7	<5.4	<6.2	22,000	44,000	760
Chlorobenzene	<5.9	<5.2	<5.6	<5.6	<5.3	<5.5	<5.9	<5.7	<5.9	<5.9	<5.9	<6.1	< 5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	<5.7	<5.4	<6.2	500,000°	1,000,000	1,100
Chloroform	<5.9	<5.2	< 5.6	<5.6	<5.3	<5.5	<5.9	< 5.7	< 5.9	<5.9	<5.9	<6.1	0.80 J	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	<5.7	< 5.4	<6.2	350,000	700,000	370
thylbenzene	<5.9	<5.2	<5.6	<5.6	<5,3	<5.5	<5.9	<5.7	<5.9	<5.9	<5.9	<6.1	< 5.9	<5.7	<5.6	<6.2	<5.5	<5,5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	<5.7	<5.4	<6.2	390,000	780,000	1,000
Butanone)	<29	<26	<28	<28	<26	<27	<30	<29	<29	<30	<29	<31	<30	<28	<28	<31	<27	<27	<27	<27	<29	<32	<28	<33	<22	<22	<23	<21	<25	500,000 <sup>b</sup>	1,000,000°	120
Methyl tert-butyl ether	<5.9	<5.2	<5.6	<5.6	<5.3	<5.5	< 5.9	<5.7	< 5.9	<5.9	< 5.9	<6.1	< 5.9	<5.7	<5.6	<6.2	<5.5	< 5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	<5.7	<5.4	<6.2	500,000	1,000,000	930
Methylene chloride	<5.9	<5.2	<5.6	<5.6	<5.3	<5.5	<5.9	<5.7	< 5.9	<5.9	<5.9	<6.1	< 5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	<6.4	<5.6	<6.6	4.1	3.2 JB	7.5 B	10 B	2.7 JB	500,000°	1,000,000	50
Tetrachloroethene	<5.9	<5.2	10	<5.6	<5.3	<5.5	<5.9	5.5 J	4.5 J	<5.9	<5.9	<6.1	2.8 J	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	38	1.9 J	<6.6	<5.6	<5.5	<5.7	20	<6.2	150,000	300,000	1,300
Toluene	<5.9	<5.2	<5.6	<5.6	<5.3	<5.5	<5.9	<5.7	< 5.9	<5.9	<5.9	<6.1	< 5.9	0.66 J	<5.6	<6.2	<5.5	<5.5	<5.4	< 5.3	<5.8	2.3 J	<5.6	<6.6	0.54 J	<5.5	<5.7	<5.4	<6.2	500,000°	1,000,000	700
Trichloroethene	<5.9	<5.2	4.5 J	<5.6	<5.3	<5.5	< 5.9	3.8 J	< 5.9	<5.9	<5.9	2.4 J	<5.9	<5.7	140	<6.2	<5.5	<5.5	<5.4	<5.3	<5.8	15	6.8	27	<5.6	<5.5	<5.7	< 5.4	<6.2	200,000	400,000	470
Vinyl chloride	<5.9	<5.2	<5.6	<5,6	<5.3	<5.5	<5.9	<5.7	<5.9	<5.9	<5.9	<6.1	< 5.9	<5.7	<5.6	<6.2	<5.5	<5.5	<5.4	< 5.3	<5.8	<6.4	<5.6	<6.6	<5.6	<5.5	<5.7	<5.4	<6.2	13,000	27,000	20
Kylene (mixed)	<12.0	<10	<5.6	<11	<11	<11	<12	<11	<12	<12	<12	<12	<12	<11	<11	<12	<11	<11	<11	<11	<12	<13	<11	<13	<11	<11	<11	<11	<12	500,000 <sup>b</sup>	1,000,000°	1,600
Carbon disulfide													1111										4							NS	NS	NS
1,2,4-Trichlorobenzene	( Lie															7			-											NS	NS	NS
Cyclohexane									1 4	11			1143										1		A 11 A					NS	NS	NS
Methylcycolhexane																									0.49 J					NS	NS	NS

Wetrybuy Contexants
All soil Cleanup objectives (SCOs) are in parts per billion (ppb). NS=Not specified. See Technical Support Document (TSD). Footnotes

All soil Cleanup objectives (SCOs) are in parts per billion (ppb). NS=Not specified. See Technical Support Document (TSD). Footnotes

The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

\* ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

<sup>&</sup>quot; LCS or LCSD exceeds the control limits

NA Sample was not analyzed due to lack of sample volume

#### Valatilan

/olatiles																															Table 375-6.8 Clea	8(b): Restrict anup Objectiv	
Caleyrage																															Protection Hea	lth	Protection of Ground
	MW 1		MW 1	MW 1	MW 2	20000	MW 2	C	MW 3	MW 3	MW 3	MW 3	Colon Bres	V. 123 V. 12	MW 4	MW 4		MW 5		MW 5	MW 6 0.5'-2.0'	MW 6 4.0'-6.6'	MW 7 0.5'-2.0'	MW 7 4.0'-6.0'			MW 8 0.5'-1.5'		MW 8 9.0'-11.0	MW 8 12.0'-14.0	Commercial	Industrial	water
1.1-Trichloroethane	<6.6		<5.7	<6.5	<5.1	<5.9	<6.4	<5.7	<5.6	3</td <td>&lt;6.3</td> <td>&lt;5.9</td> <td>&lt;5.5</td> <td>&lt;6.0</td> <td>&lt;6.0</td> <td>&lt;5.3</td> <td>&lt;6.0</td> <td>&lt;6.4</td> <td>&lt;6.3</td> <td>&lt;6.0</td> <td>&lt;5.4</td> <td>&lt;5.8</td> <td>&lt;5.1</td> <td>&lt;5.4</td> <td>&lt;5.8</td> <td>&lt;5.9</td> <td>&lt;5.5</td> <td>&lt;6.6</td> <td>&lt;6.2</td> <td>&lt;5.7</td> <td>500,000</td> <td>1,000,000</td> <td>680</td>	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	500,000	1,000,000	680
1-Dichloroethane	<6.6		<5.7	<6.5	<5.1	<5.9	<6.4	1	<5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	240,000	480,000	270
1-Dichloroethene	<6.6		<5.7	<6.5	<5.1	<5.9	<6.4	_	<5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	500,000	1,000,000	330
2-Dichloroethane	<6.6		<5.7	<6.5	<5.1	<5.9	<6.4	(34,44)	<5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	< 5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	30,000	60,000	20' 250
is-1,2-Dichloroethene	<6.6		<5.7	<6.5	0.38 J	5.5 J	110	1.2 J	< 5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	< 5.9	<5.5	<6.6	<6.2	<5.7	500,000	1,000,000	190
ans-1.2-	<6.6	<7.0	<5.7	<6.5	<5.1	<5.9	35	0.57 J	< 5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5,9	<5.5	<6.6	5.9 J	2.8 J	500,000	250,000	1,800
4-Dichlorobenzene	<6.6		<5.7	<6.5	<5.1	< 5.9	<6.4	<5.7	<5.6	<7.3	<6.3	< 5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	130,000	1,000,000	50
cetone	<26	90	<23	<26	<20	<24	<26	<23	<23	<29	<25	<24	<22	<24	<24	<21	7.3 J	<32	10 J	<30	<27	<29	10J	7.7 J	<29	<30	<27	80	30 J	<29	500,000° 44.000	89,000	60
enzene	<6.6	<7.0		<6.5	<5.1	< 5.9	<6.4	<5.7	<5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	< 5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	0.34 J	<5.7 <5.7	22,000	44,000	760
arbon tetrachloride	<6.6		<5.7	<6.5	<5.1	< 5.9	<6.4	<5.7	<5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2		500,000°	1,000,000	1,100
hlorobenzene	<6.6	<7.0	<5.7	<6.5	<5.1	< 5.9	<6.4	<5.7	<5.6	<7.3	<6.3	<5.9	<5.5**	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7 <5.7	350,000	700,000	370
hloroform	<6.6		<5.7	<6.5	<5.1	< 5.9	<6.4	<5.7	<5.6	<7.3	<6.3	<5.9	<5.5	0.52 J	<6.0	<0.54 J	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	390,000	780,000	1,000
thylbenzene	<6.6	<7.0	<5.7	<6.5	<5.1	< 5.9	<6.4	<5.7	<5.6	<7.3	<6.3	<5.9	<5.5**	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2			1,000,000°	120
lethyl ethyl ketone	<26	14 J	<23	3.6 J	<20	<24	<26	<23	<23	2.1 J	<25	<24	<22	<24	2.2 J	<21	<30	<32	<32	<30	<27	<29	<26	<27	<29	<30	<27	17 J	<31	<29	500,000 <sup>b</sup>		930
lethyl tert-butyl ether	<6.6		<5.7	<6.5	<5.1	< 5.9	<6.4	<5.7	<5.6	<7.3	<6.3	< 5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	500,000	1,000,000	50
ethylene chloride		5.5 JB		3.3 JB	4.6 JB	3.1	2.0 JB	5.7 B	5.1 JB	1.9 JB	5.6 JB	1.2 J	10 B	7,5	8	2.8 JB**	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	500,000	300,000	1,300
etrachloroethene	<6.6	<7.0		<6.5	3.1 J	3.1 J	32	<5.7	<5.6	<7.3	<6.3	<5.9	<5.5**	<6.0	<6.0	1.2 J	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	1.3 J	5.7 J	3.8 J	<5.5	<6.6	2.33	2.0.3	150,000 500,000°	1,000,000	700
oluene	<6.6	<7.0	<5.7	<6.5	<5.1	< 5.9	<6.4	<5.7	<5.6	<7.3	<6.3	< 5.9	0.84 J**	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	<5.7	200,000	400,000	470
richloroethene	<6.6	<7.0		<6.5	9.3	3.5 J	46	1.8 J	<5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	0.47 J	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5	<6.6	<6.2	3.6 J	13,000	27,000	20
inyl chloride	<6.6	<7.0	<5.7	<6.5	<5.1	<5.9	2.7 J	<5.7	<5.6	<7.3	<6.3	<5.9	<5.5	<6.0	<6.0	<5.3	<6.0	<6.4	<6.3	<6.0	<5.4	<5.8	<5.1	<5.4	<5.8	<5.9	<5.5			<11	500,000 <sup>b</sup>	1,000,000°	1,600
(ylene (mixed)	<13	<14	<11	<13	<10	<12	<13	<11	<11	<15	<13	<12	<11**	<12	<12	<11	<12	<13	<13	<12	<11	<12	<10	<11	<12	<12	<11	<13	<12	<11			1,000 NS
arbon disulfide				0.72 J																						-		15			NS NS	NS NS	NS NS
,2,4-Trichlorobenzene																	1.0 JB	0.94 JB	0.73 JB	0.73 JB					-	+			1.9 J		NS	NS.	NS
cyclohexane					1	10.			-																	4		-	1.5.3		NS	NS	NS
lethylcycolhexane						1 2 7																									IVO	NO	110

All soil cleanup objectives (SCOs) are in parts per billion (ppb). NS=Not specified. See Technical Support Document (TSD). Footnotes

The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

TABLE 2B

<sup>&</sup>lt;sup>c</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

^ ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

<sup>\*\*</sup> LCS or LCSD exceeds the control limits

NA Sample was not analyzed due to lack of sample volume

#### Volatiles

								THE									1	Table 375-6.8	3(b): Restricte Objectiv	ed Use Soil Cleanup es
Contaminant																		Protection Heal	and the second second	Protection of
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		MW 9 4.0'-6.0'	MW 9 9.0'-11.0					MW 10 13.0'-15.0				MW 11 13.0'-15.0	1111/10/10 1111	F-8	MW 12 9.0'-11.0	1.00000	MW 12 18.0'-20.0	Commercial	Industrial	Groundwater
1,1,1-Trichloroethane	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	500,000°	1,000,000	680
1,1-Dichloroethane	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	< 5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	240,000	480,000	270
1,1-Dichloroethene	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	500,000	1,000,000	330
1,2-Dichloroethane	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	30,000	60,000	20'
cis-1,2-Dichloroethene	<5.5	<5.9	<6.8	1.2 J	<5.5	<7.0	2.1 J	<5.7	<7.1	< 5.6	<6.0	10	<5.7	<6.1	<5.8	<5.8	<6.1	500,000°	1,000,000	250
trans-1,2-	<5.5	<5.9	<6.8	0.68 J	<5.5	<7.0	<5.3	< 5.7	<7.1	<5.6	<6.0	0.94 J	<5.7	<6.1	<5.8	<5.8	<6.1	500,000°	1,000,000	190
1,4-Dichlorobenzene	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	130,000	250,000	1,800
Acetone	<27	26 J	15 J	<28	<28	<35	<26	5.1 J	<35	<28	<30	<29	<28	79	<29	<29	<30	500,000	1,000,000	50
Benzene	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	44,000	89,000	60
Carbon tetrachloride	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5,3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	22,000	44,000	760
Chlorobenzene	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5,3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5,8	<6.1	500,000	1,000,000	1,100
Chloroform	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	0.45 J	0.86 J	<6.1	350,000	700,000	370
Ethylbenzene	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	0.62 JB	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	390,000	780,000	1,000
Butanone)	<27	<30	34	<28	<28	<35	<26	<29	<35	<28	<30	<29	<28	19 J	<29	<29	<30	500,000 <sup>b</sup>	1,000,000°	120
Methyl tert-butyl ether	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	500,000°	1,000,000	930
Methylene chloride	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	< 5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	500,000	1,000,000	50
Tetrachloroethene	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	1.8 J	<5.7	<7.1	< 5.6	<6.0	<5.8	9.2 ^	<6.1	<5.8	<5.8	<6.1	150,000	300,000	1,300
Toluene	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	0.73 JB	1.2 JB	0.72 JB	0.61 JB	<5.8	0.66 JB	0.61 JB	<5.8	<5.8	<6.1	500,000	1,000,000	700
Trichloroethene	<5.5	<5.9	<6.8	7.9	<5.5	<7.0	4.8 J	<5.7	<7.1	<5.6	<6.0	3.4 J	<5.7	<6.1	<5.8	<5.8	<6.1	200,000	400,000	470
Vinyl chloride	<5.5	<5.9	<6.8	<5.7	<5.5	<7.0	<5.3	<5.7	<7.1	<5.6	<6.0	<5.8	<5.7	<6.1	<5.8	<5.8	<6.1	13,000	27,000	20
(ylene (mixed)	<11	<12	<14	<11	<11	<14	<11	1.2 JB	1.9 JB	1.0 JB	<12	<12	1.1 JB	<12	<12	<12	<12	500,000 <sup>b</sup>	1,000,000°	1,600
Carbon disulfide																	1.30	NS	NS	NS
Trichlorobenzene													1 = 6					NS	NS	NS
Cyclohexane							-											NS	NS	NS
Methylcycolhexane																		NS	NS	NS

NA Sample was not

TABLE 2C

All soil cleanup objectives (SCOs) are in parts per billion (ppb). NS=Not specified. See Technical Support Document (TSD). Footnotes

The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

<sup>1</sup> For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

^ ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

<sup>\*\*</sup> LCS or LCSD exceeds the control limits

#### Metals

wetais								177		5			1				1			1										Table 375-6.8(	o): Restricted   Objectives	Use Soil Cleanu
Contaminant													25																	Protection of	Public Health	Protection of Groundwater
Contaminant	CD 1 CC	CD 2 CC	SB 3 SS	SRASS	SR 5 SS	SB 6 SS	SB 7 SS	SB 8 SS	SB9SS	SB 10 SS	SB 11 SS	SB 12 SS	SB 13 SS	SB 14 SS	SB 15 SS	SB 16 SS	SB 17 SS	SB 18 SS	SB 19 SS	SB 20 SS	SB 21	SB 22	SB 23	SB 24	SB 25		SB 27	SB 28	SB 29	Commercial	Industrial	Signaturate
	0.5'-2.0'	0.5'-2.0'		0.5'-2.0'		0.5'-2.0'	0.6'-2.0'	0.6'-2.0'	0.6'-2.0'	0.5'-2.0'	0.5'-2.0'	10 10 10	0.5'-2.0'	0.5'-2.0'		0.5'-2.0'	0.6'-2.0'	0.6'-2.0'	0.6'-2.0'	0.5'-2.0'				0.5'-2.0'				-	0.5'-2.0'			16
Arsenic	12.4	7.3	14.6	13.1	7.7	7.5	6.4	9,8	7.8	8.7	10.9	284	9	41.2	15.2	10.9	8.1	11.3	52.6	5.3	15.1 B	11.0 B	The second	19.2 B	11.8	5.2	6.1 27.1 ^	6.8	14.4 85.3 ^	16' 400	16' 10,000 <sup>d</sup>	820
Barium	99.8	97.6	88.5	78.1	78.2	40.5	49.2	92.1	42.2	55.6	120	585	92.5	247	138	136	73.3	50.7	36.3	41.4	500	75.9	138	403	93.8	48.4	30.00	the state of the s	1 (4.51.5)	590	2.700	A7
Beryllium	0.78	0.72	0.71	0.69	0.53	0.42	0.57	0.51	0.49	0.5	0.57	0.7	0.6	0.8	0.72	0.5	0.59	0.43	0.32	0.33	0.92	0.61	0.59	1.2	0.53	0.35	0.28	0.34 0.21 JB	0.71 0.37 B	9.3	60	7.5
Cadmium	0.32 B	0.45 B	0.47 B	0.33 B	0.26 B	0.20 B	0.23 B	0.27 B	0.18 JB	0.25 JB	0.30 B	2.9 B	0.22 JB	0.39 B	1.9 B	0.65 B	0.29 B	0.38 B	1.1 B	0.15 JB	10000		0.63 B	10000	0.20 JB		_			1.500	1 190 1	9775
Chromium <sup>h</sup>	16	15.3	15.7	16.4	10.8	11.6	11,4	10.8	8.6	10.3	28.7	28.5	9.3	92.3	28.7	15.8	31.4	10.6	7.6	7.9	51.9	13.9	14.1	17.5	14.4	5.9	6.1	7.8	17.7	1,500	6,800	NS 4.700
Copper	44.4 B <sup>A</sup>	33.6 B	295 B^	77.5 B^	39.1 B	34.2 B	24.2 B	40.5 B	24.9 B	26.6 B	52.9 B	231 B	30.1 B	48.6 B	229 B	33.8 B	84.2 B	24.3 B	17.3 B	41.5 B	68.4	378	77.2	171	25.7	16.5	11	23.1	90.9	270	10,000 °	1,720
Total Cyanide "	<1.1	<1.0	<1.1	<1.1	0.71 J	<1.1	0.56 J	<1.1	<1.2	<1.2	1.2	5.6	<1.1	<1.1	1.8	<1.2	<1.1	<1.1	<1.0	<1.0	<1.1	<1.2	<1.1	1.7	0.59 JB	<1.1	0.62 JB	<1.1	<1.2	27	- 2 C C - 3 L C - 1	40 450
Lead	45.3	28.5	174	389	52.7	17.8	9.1	118	23.7	18.3	40.8 ^	39600	67.3 ^	109 ^	370 ^	148 ^	46.2 ^	12.8	30.6 ^	47.1 ^	153	219	5490	2890	78.2	41.2	15.2	47	59.5	1,000	3,900 10,000	2,000
Manganese	713 B	547 B	506 B	458 B	360 B	421 B	572 B	315 B	378 B	569 B	749 ^B	540 ^B	292 ^B	166 ^B	304 ^B	372 ^B	968 ^B	554 B	413 ^B	244 ^B	303 B	403 B	419 B	263 B	324 B	165 B	210 B <sup>^</sup>	207 B^	426 B^			
Total Mercury	0.082	0.089	0.053	0.26	0.055	0.022	0.031	15.9	0.021 J	0.053	0.052	0.87	0.034	0.079	1.2	0.08	0.12	0.025	0.095	0.065	0.14	0.24	0.34	0.71	0.11	0.043	0.39	0.023	0.041	2.8	5.71	0.73
Nickel	29.1	23.6	28.8	26.8	17.5	19	21.9	18.9	16.6	17.9	30.7	195	13.2	16	76.3	24.9	37.8	18.6	13.3	14.8	87.2	21	19.6	24.9	14.9	11.1	10.4	11.9	29.7	310	10,000 <sup>d</sup>	130
Selenium	1.2 J	0.68 J	0.52 J	<4.6	2.3 J	0.52 J	0.49 J	2.0 J	0.66 J	1.4 J	1.4 J	1.7 J	2.4 J	4.4 J	1.9 J	2.1 J	0.99 J	1.9 J	39.2	2.1 J	1.9 J	<5.4	0.97 J	0.87 J	0.60 J	0.62 J	1.2 J	0.55 J	<5.5	1,500	6,800	4'
Silver	<0.76	<0.62	<0.69	<0.69	<0.64	<0.61	<0.65	<0.73	<0.66	<0.80	<0.74	0.86	< 0.73	<0.71	5.6	<0.77	<0.62	<0.74	<0.65	<0.61	<0.74	0.33 J	0.39 J	<0.80	<0.67	<0.71	<0.71	<0.67	<0.83	1,500	6,800	8.3
Zinc	80.1 B	102 B	153 B	142 B	68.7 B	71.6 B	48.7 B	92.9 B	38.5 B	48.1 B	69.8 B	203 B	71.0 B	65.7 B	313 B	194 B	108 B	66.9 B	44.4 B	41.1 B	593 B	173 B	209 B	159 B	44.4	35.7	34.1	59.4	132	10,000 <sup>d</sup>	10,000 <sup>d</sup>	2,480
Aluminum	12900	11000	8980	10600	6800	7560	9250	7070	6580	7010	12100	6620	5700	3330	4600	7170	10100	7440	4980	4250	5560 B	9620 B	7380 B	6790 B	7750	3850	3830	4420	11500	NS	NS	NS
Antimony	2.7 J	1.4 J	3.8 J	5.2 J		<15.2					8-015	1060	2.2 J	1.1 J	0.78 J	later to a	<15.4				2.6 J	3.2 J	2.0 J	1.6 J			*****	00000 D	0070 B	NS	NS	NS
Calcium	16000 B	8230 B	26900 B	24700 B	39900 B	6970 B	21000 b	26800 B	11300 B	27200 B	39900 B	40900 B	60200 B	15200 B	16800 B	52000 B	26500 B	92600 B	139000 B	36400 B	34300 B	81100 B	19100 B	8440 B	20300 B	40200 B	30600 B	22600 B	8670 B	NS	NS	NS
Cobalt	13.5	10	9.9	9.6	5.8	6.7	10.2	6.5	7	7.3	7.3	10.7	5.1	7.5	9.1	7.4	8.6	9.1	4.1	6.6	12.4	8.6	7	8	5.8	4	4.4	4.7	10.5	NS	NS	NS
Iron	30300 B	22000	24800 B	22400 B	14600 ^B	19600 ^B	19200 ^B	15400 ^B	17300 ^B	16200 ^B	21600 ^B	55600 ^B	12200 ^B	29800 ^B	18500 ^B	17900 ^E	27400 ^B	16900 B	11600 ^B	17000 ^B	26200 ^B	20600 B	20600 B	11700 B	18900 B	9680 B	9640 B	10600 B	22200 B	NS	NS	NS
Magnesium	6100	3870	6620	7780	8970	4170	4330	5050	2420	6500	7430	6340	6380	7190	3380	13800	8250	11500	26100	9460	5960	9390	3530	1120	3020	5080	10000 ^	5030 ^	5020 ^	NS	NS	NS
Potassium	2190	1680	1770	1980	1340	1500	1680	1290	1290	1500	2510	989	1200	878	919	1710	1290	1530	1070	867	1140	1920	1250	762	2130	876	833	885	1420	NS	NS	NS
Sodium	117 J	50.3 J	124 J	84.2 J	175	49.7 J	74.8 J	96.0 J	54.4 J	73.9 J	417	141 J	96.2 J	225	94.3 J	166 J	76.7 J	108 J	137 J	92.4 J	106 J	146 J	96.2 J	162 J	540	107 J	69.2 J	71.2 J	80.1 J	NS	NS	NS
Thallium					11 - 7				100	LESSEE				1		-	00.0	40.0	4.7 J	42	150	22.0	24.2	26.2	24.9	12.3	9.6	12.1	21.4	NS NS	NS NS	NS NS
Vanadium	31.2	21.3	20.3	21.9	17.2	15.8	18.9	15.6	15.1	16.7	22.4	23	13	19.8	25	28	22.2	18.3	10.6	12	15.8	22.9	24.3	26.2	24.5	12.0	3.0	1641	- 20.7	INO	142	IVO

All soil cleanup objectives (SCOs) for Metals are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes

<sup>&</sup>lt;sup>d</sup> The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

<sup>&</sup>lt;sup>1</sup> This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

B Compound was found in the blank and sample,

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

<sup>^</sup> ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

NA Sample was not analyzed due to lack of sample volume

Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is is above the Protection of Groundwater Standard.

#### Metals

																					Table 375-6.8(b): R	estricted Use Soil (	Cleanup Objective
Control																				Ai	Protection of	Public Health	Protection of
Contaminant	MW 1 0.0'-2.0'	MW 1 3.5'-5.5'	MW 1 8.5'-10.5'	MW 1	MW 2	MW 2 6.0'-8.0'	MW 2 9.0'-11.0'	MW 2	MW 3 0.0'-2.0'	MW 3 4.0'-6.0'	MW 3 9.0'-11.0'	MW 3 14.0'-16.0'	MW 4 0.0'-2.0'	MW 4 4.0'-6.0'	MW 4 9.0'-11,0'	MW 4 14.0'-16.0'	MW 5 0.6'-2.0'	MW 5 6.0'-8.0'	MW 5	MW 5	Commercial	Industrial	Groundwater
Arsenic	13.7	7.2	17.1	8.3	7.1	9.5	8.8	12.5	14	5.6	6.9	9.8	12.7	8.2	5.2	11.9	3.6	0.0044	8	4.8	16	16'	16 <sup>1</sup>
Barium	226	75.5	74.4 ^	65.8 ^	122 ^	92.1 ^	57.9 ^	58.5 ^	77.0 ^	67.7 ^	52.6 ^	62.3 ^	287 A	51.0 ^	64.6 ^	155	31	0.15	37.6	81.5	400	10,000 d	820
Beryllium	0.64	0.63	0.72	0.48	0.41	0.75	0.73	0.5	0.7	0.64	0.6	0.5	0.72	0.49	0.39	0.5	0.20 J	0.00096	0.61	0.43	590	2700	47
Cadmium	0.38 B	0.24 JB	0.19 JB	0.15 JB	0.50 B	0.31 B	0.16 JB	0.16 JB	0.24 JB	0.25 JB	0.16 JB	0.17 JB	0.43 B	0.20 JB	0.17 JB	0.18 J	0.10 J	J	0.17 J	0.093 J	9.3	60	7.5
Chromium <sup>h</sup>	12.4	14.1	24.5	12.8	10	19.6	18	15.7	17.2	14.1	17	14	9.7	12.7	20.2	17.1	7.3	0.02	15.8	11.4	1,500	6800	NS
Copper	65.2	23.8	36.3	23,5	68,2	29.9	26.3	32.5	35.7	24.3	35.5	26.7	77.3	21.7	17.2	29.5	14.8	0.028	24.5	19.6	270	10,000 d	1720
Total Cyanide h	0.86 JB	<1.4	<1.2	<1.3	0.59 JB	1.2	<1.3	<1.1	<1.2	<1.5	<1.2	<1.1	1.0 J	<1.1	<1.3	<1.1	<1.2	<1.3	<1.2	<1.2	27	10,000 d	40
Lead	108	18.9	12.1	15.1	123	28.7	24.4	14.1	250	13.9	12.5	13.2	109	18.3	12.2	12.3	19	0.018	16.4	12.1	1,000	3900	450
Manganese	184 B	507 B	1130 B <sup>^</sup>	392 B*	144 B*	451 B <sup>4</sup>	394 B^	593 B <sup>4</sup>	436 B^	182 B^	338 B^	483 B^	777 B*	481 B	274 B	821 B	257 B	0.15 B	234 B	211 B <sup>^</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	2,000
Total Mercury	0.07	0.041	0.018 J	0.031	0.043	0.14	0.023 J	0.013 J	0.046	0.059	<0.024	<0.012 J	0.1	0.028	0.017 J	0.015 J	0.13	0.077	0.017 J	< 0.024	2.8 <sup>j</sup>	5.7	0.73
Vickel	25.3	22.5	31.6	19.8	26.8	25.1	27.9	23	31	24.3	26.4	22.2	20.4	18.6	15.3	22.9	10.9	0.023	24.2	18.2	310	10,000 <sup>d</sup>	130
Selenium	<5.9	<5.9	1.3 J	0.93 J	1.1 J	0.64 J	<5.4	1.6 J	<4.9	0.81 J	<5.2	<5.4	0.57 J	<5.2	1.3 J	<4.7	1.4 J	<0.0054	<5.3	<5.2	1,500	6800	4
Silver	1.7	<0.88	<0.77	<0.76	<0.63	<0.78	<0.81	<0.69	<0.74	<0.90	<0.78	<0.81	<0.75	<0.79	<0.72	<0.70	<0.68	<0.00081	<0.80	<0.78	1,500	6800	8.3
Zinc	122	78.4	90.6	58,3	107	109	77.9	76.2	105	62.9	88.4	75.4	128	84.4	84.7	83.8 B	45.2 B	0.17 B	73.7 B	54.0 B	10,000 a	10,000 °	2480
Aluminum	5160	9510	13800	8780	4360	12800	12700	10200	11300	9630	11800	9480	7010	8450	6760	9450	3430	15.7	10800	7800	NS	NS	NS
Antimony																					NS	NS	NS
Calcium	10100 B	16200 B	59600 B	45600 B	14400 B	23100 B	3440 B	93200 B	13800 B	8250 B	14900 B	33800 B	32100 B	33300 B	122000 B	62800 B	44500 B	16.6 B	31000 B	28900 B	NS	NS	NS
Cobalt	11.4	9.9	14.5	8.5	4.3	11.2	12.9	8.1	12.9	10.1	9.3	8.6	6.2	8.6	6.7	8.7	5.4	0.0092	11.2	7.9	NS	NS	NS
ron	18200 B	20300 B	26000 B	16300 B	11700 B	22200 B	24800 B	20100 B	22400 B <sup>^</sup>	19500 B*	21700 B*	19200 B <sup>4</sup>	14000 B*	16100 B^	13500 B <sup>^</sup>	20500 B	11100 B	17.2 B	18500 B	16200 B	NS	NS	NS
Magnesium	3680	6830	24300 ^	17700 ^	2140 ^	7330 ^	5480 ^	19100 ^	6170 ^	5810 ^	10800 ^	17300 ^	7680 ^	9000	4840	11200 B	8220	5.3	14800	10200	NS	NS	NS
Potassium	917	1340	3010	1970	639	1880	2120	2040	1570	1410	1890	1910	1290	1380	1280	1800	755	1.7	2070	1580	NS	NS	NS
Sodium	114 J	5.55 J	106 J	108 J	184	68.8 J	54.1 J	126 J	49.0 J	62.0 J	58.8 J	81.4 J	129 J	56.8 J	100 J	114 JB	116 J	0.044 J	92.9 J	97.0 J	NS	NS	NS
Thallium	T FAT								27.17	EAN!							4 .			Lvi	NS	NS	NS
/anadium	17.8	18.9	21.9	16.7	17.5	22.9	23.4	18	21.7	19.7	19.7	17.6	13.8	15.5	13	17.3	11.7	0.022	19.4	13.8	NS	NS	NS

All soil cleanup objectives (SCOs) for Metals are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes

B Compound was found in the blank and sample.

<sup>&</sup>lt;sup>d</sup> The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

h The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

<sup>&</sup>lt;sup>1</sup> This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

<sup>^</sup> ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

NA Sample was not analyzed due to lack of sample volume

Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is is above the Protection of Groundwater Standard.

#### Metals

						1 31										7														: Restricted p Objectives
Contaminant																													n of Public ealth	Protection of
	MW 6 0.5'-2.0'	MW 6 4.0'-6.6'	MW 7 0.5'-2.0'	MW 7 4.0'-6.0'	MW 7 9.0'-11.0'	MW 7 12'-14'	MW 8 0.5'-1.5'	MW 8 4.0'-6.0'	MW 8 9.0'-11.0'	MW 8 12.0'-14.0'	MW 9 0.5'-2.0'	MW 9 4.0'-6.0'	MW 9 9.0'-11.0'	MW 9 14.0'-16.0	MW 10 0.5'-2.0'	MW 10 4.0'-6.0'		MW 10 13.0'-15.0		MW 11 4.0'-6.0'	MW 11 9.0'-11.0		MW 12 0.5'-2.0'				MW 12 18.0'-20.0	Commer cial	Industrial	Groundwate
Arsenic	8.9	12.4	5.4	12	8.2	6.3	8.3	10.4	6.9	12.3	19.8	7.5	7.8	12.6	10.6	5.9	9.3	4.4	11.1	8.3	13.6	.5	113	11.7	17.5	11.1	11.5	16"	16"	16
Barium	75.2	46.9	34.1	76.5	52.7	98.2	32.5	108	58.5	93.5	77.4	64.8	46.4	28.6	91.6	45.1	51.1	57.6	92.6	43.5	59	56.3	80.5	67.7	67.9	75.3	167	400	10,000 d	820
Beryllium	0.39	0.44	0.31	0.61	0.34	0.49	0.34	0.79	0.29	0.47	0.45	0.66	0.42	0.31	0.53	0.46	0.32	0.6	0.33	0.46	0.53	0.3	1.1	0.75	0.52	0.56	0.52	590	2,700	47
Cadmium	0.74	0.23	0.13 J	0.18 J	0.12 J	0.094 J	0.17 J	0.33	0.24	0.10 J	0.45	0.18 J	0.14 J	0.049 J	0.36	0.17 J	0.15 J	0.059 J	0.32	0.20 J	0.12 J	0.080 J	0.12 J	0.26	0.14 J	0.069 J	0.085 J	9.3	60	7.5
Chromium"	13.5	10.3	7.8	15.4	9.1	13.2	14	18.2	8.5	16.1	8	12.7	11.8	7.1	12.1	10	10.4	15.7	5.1	7.1	15.4	8.5	11.1	17.4	13.2	15.4	13.3	1,500	6,800	NS
Copper	46.5	21.8	24.5	34.2	13,9	22.1	23	31.7	15.7	26.4	115	27.3	19.9	12.3	45.7	16	19.6	22.7	178	22.4	27,8	11.9	112	26.1	30.5	29.7	21.5	270	10.000 d	1,720
Total Cyanide "	<1.0	<1.1	<1.0	NA	NA	<1.1	<1.0	<1.3	NA.	<1.1	0.63 J	<1.2	<1.4	NA	<1.1	<1.4	NA	<1.1	<1.4	0.68 J	<1.1	<1.2	<1.1	0.54 J	NA	NA	NA	27	10.000 d	40
Lead	254	69.7	26.7	22.5	8.4	12.4	24.9	40.8	9.2	11.5	1950	13.8	11	10.6	228	12.8	40.8	16	52.8	52.4	22.7	9.2	102	20.7	17.3	12.5	14.2	1,000	3,900	450
Manganese	439 B*	517 B*	214 B*	564 B*	343 B*	191 B^	267 B^	1090 B*	433 B <sup>^</sup>	828 B^	113 B*	424 B^	282 B^	203 B <sup>^</sup>	437 B	294 B	431 B	300 B	79.0 B	381 B	736 B	217 B	74.9 B	706 B	720 B	562 B	441 B	10.000 d	10.000 d	2.000 <sup>f</sup>
l otal Mercury	0.36	0.038	0.045	0.046	0.021	<0.022	0.022	0.062	< 0.023	< 0.023	0.067	0.015 J	<0.028	<0.023	0.068	0.072	< 0.019	< 0.023	0.03	0.23	0.013 J	0.012 J	0.13	0.054	<0.022	0.0098 J	0.025	2.8	5.71	0.73
Vickel	19.5	17.4	11.5	21.4	14.3	20	16.2	27.7	12.2	21.2	17.2	26.1	16.9	12.7	21	14.1	13.3	25.3	22.9	15.7	26.4	13.1	25	24.2	23.9	24.5	20.3	310	10.000 d	130
Selenium	1.7 J	1.2 J	0.95 J	<4.1	0.83 J	0.85 J	<4.3	<5.1	1.3 J	<4.7	0.46 J	<4.6	2.1 J	<4.8	<4.4	<5.3	0.99 J	<4.7	1.2 JB	0.60 JB	<4.6	<4.9	5.7 B	<4.8	<4.4	<4.4	<4.6	1,500	6,800	4'
Silver	< 0.63	< 0.65	<0.58	< 0.62	< 0.69	< 0.71	< 0.65	<0.77	<0.69	<0.70	< 0.67	<0.70	< 0.81	<0.72	< 0.65	<0.79	< 0.70	< 0.70	<0.86	< 0.63	<0.70	<0.73	<0.69	< 0.72	< 0.67	< 0.65	<0.69	1,500	6,800	8.3
Zinc	135 B	95.7 B	40.2 B	84.3 B	60.6 B	63.1 B	64.5 B	117 B	58.2 B	77.1 B	200 B	94.4 B	84.6 B	39.1 B	136 B	68.0 B	64.4 B	73.2 B	123 B	53.7 B	127 B	73.9 B	67.3 B	103 B	92.2 B	82.6 B	58.3 B	10,000	10,000 d	2,480
AJuminum	6070	7130	4610	10400	6930	9090	7290	12900	4910	8500	3070	11500	7880	4890	6470	7140	5080	10900	1730	5260	11000	6190	4190	12400	10500	10600	9530	NS	NS	NS
Antimony		0.45 J									27.7				0.63 J				0.61 J				0.72 J	100				NS	NS	NS
Calcium	65300 B	36400 B	73700 B	26700 B	81100 B	23600 B	20600 B	12200 B	157000 B	80900 B	20600 B	32100 B	85400 B	44000 B	28600 B	5220 B	72500 B	35700 B	2570 B	52100 B	60500 B	39500 B	9420 B	31100 B	73200 B	31800 B	54900 B	NS	NS	NS
Cobalt	4.8	7	4.9	8.7	6.1	8.5	6	13.2	4.4	8.3	3.6	10.5	6.7	4.8	6.8	5.7	4.8	9.5	4.1	5.6	11.6	4.8	7.5	10.8	8.3	10.1	9.1	NS	NS	NS
ron	13600 B	28800 B	11000 B	21500 B	14400 B	15900 B	18000 B	26900 B	11500 B	17700 B	10200 B	22000 B	17800 B	9810 B	16300 B	12900 B	21400 B	23100 B	17000 B	13600 B	26300 B	11100 B	12800 B	22000 B	25700 B	21900 B	18200 B	NS	NS	NS
Magnesium	4860	7510	18400	5700	9120	10200	9520	6480	7760	15600	1400	5610	6520	4530	5810	3920	12000	13400	275	6040	7340	6110	1230	10100	6600	15500	20400	NS	NS	NS
otassium	981	1110	1090	1410	1270	1860	1230	1780	982	1750	461	1580	1790	835	1110	1040	971	2270	177	969	1410	1460	404	1570	1500	1990	2210	NS	NS	NS
Sodium	99.8 J	56.3 J	136	71.5 J	97.2 J	94.5 J	59.9 J	63.4 J	74.6 J	117 J	90.1 J	71.9 J	71.8 J	203	92.1 J	46.6 J	83.2 J	112 J	77.2 J	145 J	83.6 J	99.9 J	103 J	82.8 J	100 J	108 J	136 J	NS	NS	NS
hallium																			127		14.		0.91 J				100	NS	NS	NS
/anadium	12	16.5	10.8	18.9	11.7	15.8	17	23.3	9.6	15.9	12.8	20.4	15.2	9.4	16.9	12.8	11.5	19.8	8.2	15.7	21	11.5	21.4	23	20.4	18.9	18.3	NS	NS	NS

All soil cleanup objectives (SCOs) for Metals are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes <sup>d</sup> The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

NA Sample was not analyzed due to lack of sample volume

For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

h The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

<sup>&</sup>lt;sup>1</sup> This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

^ ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is is above the Protection of Groundwater Standard.

#### Sami Valatila

	T												111					-		T								H		Table 375-6.8(	b): Restricted Use Objectives	≥ Soil Cleanup
									111																					Protection of	Public Health	Protection of
Contaminant	SB 1 SS 0,5'-2.0'	E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-	SB 3 SS 0.5'-2.0'	1000 1103				SB 8 SS 0.6'-2.0'				SB 12 SS	SB 13 SS 0.5'-2.0'	SB 14 SS 0.5'-2.0'	SB 15 S	SB 16 SS 0,5'-2,0'			SB 19 SS 0.6'-2.0'	SB 20 SS 0.5'-2.0'	SB 21 0.5'-2.0'	199.00	SB 23 0.5'-2.0'	SB 24 0.5'-2.0'	SB 25 0.5'-2.0'	SB 26 0.5'-2.0'	SB 27 0.5'-2.0'		SB 29 0.5'-2.0'	Commercial	Industrial	Groundwater
Acenaphthene	70	360	43	51	20	<7.2	51	56	1600	320	<32	67	18	<31	50	31	<15	<7.5	<7.1	12	<16	14 J	340	<8.8	47	<7.5	<7.8	<7.5	<8.4	500,000 <sup>6</sup>	1,000,000	98,000
Acenapthylene	140	64	74	84	28	4.4 J	190	220	21000	2000	210	1100	18	<31	140	53	380	<7.5	13	36	95	55	1400	<8.8	40	14	- 11	18	25	500,000 <sup>6</sup>	1,000,000°	
Anthracene	560	610	49	130	69	3.7 J	460	430	41000	6100	370	1200	71	<31	150	130	310	<7.5	28	81	84	53	2700	24	61	12	11	20	20	500,000 <sup>b</sup>	1,000,000°	1,000,000°
Benz(a)anthracene	2100	1600	280	490	260	24	810	1400	87000	16000	2100	6500	230	290	510	320	1300	<7.5	81	500	440	220	12000	150	310	53	59	81	99	5,600	11,000	1,000
Benzo(a)pyrene	1800	1400	230	490	250	23	740	1200	76000	14000	1900	6900	180	180	550	270	1200	<7.5	67	530	400	210	9900	160	280	49	60	79	100	1,000	1,100	1,700
Benzo(b)fluoranthene	2400	1900	370	620	360	35	990	1700	110000	17000	2400	8900	270	250	630	380	2000	<7.5	110	700	830	290	16000	260	340	75	92	110	140	5,600 500,000 <sup>b</sup>	1,000,000°	1,000,000°
Benzo(g,h,i)perylene	1100	490	150	330	180	12	290	380	29000	8300	1200	4100	150	150	570	210	840	<7.5	55	330	140	190	2300	77	150	28	48 28	70 37	71 51	56,000	110,000	1,700
Benzo(k)fluoranthene	800	530	110	240	120	13	370	720	41000	6200	840	3000	78	88	200	130	730	<7.5	49	230	310	140	5500	99 310	380	81	71	120	140	56,000	110,000	1,000
Chrysene	1900	1600	380	560	310	26	740	1300	81000	15000		6700	340	500	630	360	1500	<7.5	100	590	670	230	10000		24.7	_			100000	560	1,100	1.000.000°
Dibenz(a,h)anthracene	230	130	53	73	46	<7.2	77	160	7800	1700	260	1100	41	<31	140	56	260	<7.5	20	86	<16	38	900	<8.8	43	<7.5	16	24	22	500,000 <sup>b</sup>	1,000,000°	1,000,000°
Fluoranthene	4000	2700	490	1000	530	48	1500	2200	200000	32000	4100	9000	420	320	760	730	2000	6.0 J	170	700	750	490	22000	270	540	87	130	120 <7.5	170	500,000 500.000 <sup>b</sup>	1,000,000°	386,000
Fluorene	100	300	42	93	25	<7.2	140	95	5800	1400	34	250	24	<31	<15	47	<15	<7.5	5.7 J	27	<16	21	530	<8.8	57	<7.5	<7.8		<8.4	5.600	11,000	8,200
ndeno(1,2,3-cd)pyrene	1000	480	130	280	160	12	300	440	31000	7600	1100	4100	120	88	350	190	830	<7.5	51	300	140	140	2800	61	120 <1200*	24 <450*	40 <470*	56 <450*	66 <500*	5,600 500,000°	1.000.000°	330°
m-Cresol	<1900°	<1100*	<450*	<230	<460*	<430*	<480*	58 J*	<81000*		<1900*	<3300*	<490*	<1800*	96 J*	<510°	<920*	<450*	<420*	<440*	<940*		<9200* 640	<530* 86	760	130	34	220	31	500,000°	1,000,000°	12.000
Naphthalene	140	110	430	160	41	8.8	89	170	14000	1300	160	780	66	3100	780	110	640	<7.5	21	130	730	61	640	60	700	100	34	220	1	armin no s	1500000	
o-Cresol	<930	<540	<220	<450*	<230	<220	<240	<460	<41000	<4900	<950	<1700	<240	<920	35 J	<250	<460	<220	<210	<220	<470	<510	<4600	<260	<590	<230	<240	<220	<250	500,000	1,000,000°	330 <sup>e</sup>
o-Cresol	<1900*	<1100*	<450°	<450°	<460*	<430*	<480*	58 J*	<81000*	<9800*	<1900*	<3300*	<490*	<1800*	96 J*	<510°	<920*	<450*	<420*	<440*	<940*	<1000*	<9200*	<530*	<1200*	<450*	<470°	<450*	<500°	500,000 <sup>b</sup>	1,000,000°	330 <sup>e</sup>
Pentachlorophenol	<700	<410	<170	<170	<170	<160	<180	<340	<31000	<3700	<720	<1300	<180	<690	<340	<190	<350	<170	<160	<160	<350	<390	<3400	<200	<440	<170	<180	<170	<190	6,700	55,000	800°
Phenanthrene	2200	2300	710	910	340	19	1400	1800	120000	27000	1300	2800	430	2700	1200	630	1400	7.4 J	120	400	620	430	12000	250	740	170	90	300	110	500,000°	1,000,000°	1,000,000°
Phenol	<230	<140	<56	<57	<58	<54	<61	41 J	<10000	<1200	<240	140 J	<61	<230	<110	<63	<120	<56	<53	<55	<120	<130	310 J	<66	<150	<56	<59	<56	<63	500,000 <sup>b</sup>	1,000,000°	330°
Pyrene	3600	2500	400	900	480	44	1300	1900	160000	28000	4000	8600	410	410	870	650	2000	6.0 J	150	640	650	450	18000	240	50	91	100	120	200	500,000 <sup>b</sup>	1,000,000°	1,000,000°
1.1'-Biphenyl	17 J	23 J	88	31 J	6.9 J		25 J	34 J	1100 J	110 J		72 J	11 J	400	98 J	13 J	130		4.1 J	29 J	71 J		120 J	25 J	120 J	24 J	7.1 J	36 J	5.9 J	NS	NS	NS
2.4-Dimethylphenol												. 12		1 3	73 J									1	1,000	1411	11.0			NS	NS	NS
2-Methylnaphthalene	100	100	850	180	50	6.2 J	50	230	2400	420	39	240	69	5500	1300	120	990		22	120	1100	38	540	160	1200	230	63	440	59	NS	NS	NS
Atrazine	-		777												1			1		1.6				100						NS	NS	NS
Acetophenone	_		98 J	26 J	17 J			32 J				250 J	16 J	480	130 J		150 J			13 J	100				130 J			5	_ =	NS	NS	NS
Benzaldehvde	_		000	20.0	10.0								23 J			30 J			14 J	32 J		68 J		N. Paris	140 J					NS	NS	NS
	220J	230	140	240	280	180	120	110 J		800 J	210 J	240 J	310	130 J	140 J	34 J	97 J	70 J	120	88	50 JB	110 JB		74 JB	97 J	84	62 J	97	140	NS	NS	NS
Bis(2-ethylhexyl) phthalate	2203		140	240	200	100	79 J	1103		0003	2103	2400	010	1000	1100				144		177.50			67 J	300 J		-			NS	NS	NS
Caprolactam		110 J	10.1	100	24.1	-		400	10000	3200	+	250 J	-		70 J	69	150			39 J		_	740 J			1				NS	NS	NS
Carbazole Di-n-butly phthalate		180	46 J 32 J	100 23 J	31 J 19 J		200	160	10000	3200		2503	-		270	03	100		_	00.0		_	1.100			1				NS	NS	NS

All soil cleanup objectives (SCOs) are in parts per billion (ppb). NS=Not specified. See Technical Support Document (TSD). Footnotes

<sup>&</sup>lt;sup>b</sup> The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

<sup>&</sup>lt;sup>c</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

<sup>\*</sup> For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

<sup>\*</sup> The values for m-cresol and p-cresol were reported together, therefore the RL is the sum of both contaminants

NA Sample was not analyzed due to lack of sample volume
Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is is above the Protection of Groundwater Standard.

#### Semivolatiles

Semivolatile	<del>3</del> 5												-						111				Table 375-6.8	(b): Restricted U Objectives	Jse Soil Cleanup
																							Protection of	Public Health	Protection of
Contaminant	MW 1	MW 1		MW 1	MW 2					MW 3 4.0'-6.0'	MW 3	MW 3 14.0'-16.0		MW 4	MW 4	MW 4 14.0'-16.0	MW 5		MW 5 9.0'-11.0'	MW 5 14.0'-16.0'	MW 6 0.5'-2.0'	MW 6 4.0'-6.6'	Commercial	Industrial	Groundwater
	0.5'-2.0'	3.5'-5.5	8.5'-10.5	13,5'-17.5		6.0'-8.0'				74.5		<8.3	94	<8.1	<8.8	<7.8	6.5 J	<8.8	<8.6	<8.2	34	<7.8	500,000°	1,000,000°	98,000
Acenaphthene	<9.2	<9.6	<8.1	<8.9	<29	<8.1	<9.2	<7.8	<8.0	<10	<8.4			<8.1	<8.8	<7.8	8.9	<8.8	<8.6	<8.2	260	9.9	500,000 <sup>b</sup>	1,000,000°	107,000
Acenapthylene	40	<9.6	<8.1	<8.9	72	<8.1	<9.2	<7.8	11	<10	<8.4	<8.3	69	<8.1	<8.8	<7.8	18	<8.8	<8.6	<8.2	230	7.1 J	500,000 <sup>b</sup>	1,000,000°	1,000,000°
Inthracene	37	5.7 J	<8.1	<8.9	140	4.7 J	<9.2	<7.8	18	<10	<8.4	<8.3	200			<7.8	64	<8.8	<8.6	<8.2	1400	35	5,600	11,000	1,000 <sup>f</sup>
Benz(a)anthracene	150	10	<8.1	<8.9	470	11	<9.2	<7.8	92	<10	<8.4	<8.3	470	9.2	<8.8	<7.8	53	<8.8	<8.6	<8.2	1400	37	1,000 <sup>f</sup>	1,100	22,000
Benzo(a)pyrene	150	9.4 J	<8.1	<8.9	390	12	<9.2	<7.8	82	<10	<8.4	<8.3	410	7.7 J	<8.8 <8.8	<7.8	120	<8.8	<8.6	<8.2	1900	59	5,600	11,000	1,700
Benzo(b)fluoranthene	220	9.6	<8.1	<8.9	740	17	<9.2	<7.8	110	<10	<8.4	<8.3	570	10		<7.8	41	<8.8	<8.6	<8.2	680	25	500,000 <sup>b</sup>	1,000,000°	1,000,000°
Benzo(g,h,i)perylene	78	9.8	<8.1	<8.9	230	13	<9.2	<7.8	58	<10	<8.4	<8.3	220	8.1	<8.8 <8.8	<7.8	26	<8.8	<8.6	<8.2	660	18	56,000	110,000	1,700
Benzo(k)fluoranthene	67	<9.6	<8.1	<8.9	260	7.1 J	<9.2	<7.8	38	<10	<8.4	<8.3	180	7.1 J			130	<8.8	<8.6	<8.2	1400	46	56,000	110,000	1,000
Chrysene	220	10	<8.1	<8.9	590	17	<9.2	<7.8	98	<10	<8.4	<8.3	610	8.7	<8.8	<7.8	14	<8.8	<8.6	<8.2	170	<7.8	560	1,100	1,000,000°
Dibenz(a,h)anthracene	28	<9.6	<8.1	<8.9	91	<8.1	<9.2	<7.8	19	<10	<8.4	<8.3	74	<8.1	<8.8	<7.8		<8.8	<8.6	<8.2	2800	70	500,000 <sup>b</sup>	1.000,000°	1,000,000°
Fluoranthene	270	19	<8.1	<8.9	740	27	<9.2	<7.8	130	8.8 J	<8.4	<8.3	1100	11	<8.8>	4.2 J	140	<8.8	<8.6	<8.2	63	<7.8	500,000 <sup>b</sup>	1.000.000°	386,000
Fluorene	<9.2	<9.6	<8.1	<8.9	56	<8.1	<9.2	<7.8	<8.0	<10	<8.4	<8.3	120	<8.1	<8.8>	<7.8	9.5	<8.8	<8.6	<8.2	750	23	5,600	11,000	8,200
Indeno(1,2,3-cd)pyrene	71	6.4 J	<8.1	<8.9	230	11	<9.2	<7.8	49	<10	<8.4	<8.3	200	<8.1 <480*	<8.8 <530*	<7.8 <470*	<500*	<530*	<520°	<490°	<1700°	<470°	500,000°	1,000,000	330°
m-Cresol	<550°	<570*	<490*	<530°	<1700°	<490°	<550*	<470*	<480°	<610*	<500*	<500*	<910*	<8.1	<8.8	<7.8	34	<8.8	<8.6	<8.2	72	8.6	500,000 <sup>b</sup>	1,000,000°	12,000
Naphthalene	350	<9.6	<8.1	<8.9	390	10	<9.2	<7.8	24	<10	<8.4	<8.3	710		<260	<230	<250	<260	<260	<250	<850	<230	500,000 <sup>b</sup>	1,000,000°	330°
o-Cresol	<280	<290	<240	<270	<870	<240	<270	<230	<240	<300	<250 <500*	<250 <500*	<450 <910*	<240 <480*	<530*	<470°	<500*	<530*	<520*	<490*	<1700*	<470*	500,000	1,000,000	330°
p-Cresol	<550*	<570°	<490*	<530*	<1700		<550*	<470*	<480*	<610*	- CALLEGE -		<340	<180	<200	<170	<190	<200	<190	<190	<640	<180	6,700	55,000	800e
Pentachlorophenol	<210	<220	<180	<200	<650	<180	<210	<180	<180	<230	<190	<190	1600	<8.1	<8.8	<7.8	140	<8.8	<8.6	<8.2	1200	27	500,000 <sup>b</sup>	1,000,000°	1,000,000°
Phenanthrene	480	12	<8.1	4.9 J	800	28	<9.2	<7.8	86	6.4 J	<8.4	<8.3		<61	<66	<58	<63	<66	<64	<62	<210	<59	500,000 <sup>b</sup>	1,000,000°	330°
Phenol	<69	<72	<61	<67	<220	<61	<69	<58	<60	<76	<63 <8.4	<62 <8.3	<110 880	10	<8.8	4.1 J	100	<8.8	<8.6	<8.2	2300	57	500,000	1,000,000	1,000,000
Pyrene	270	27	<8.1	<8.9	680	22	<9.2	<7.8	120	11	<0.4	~0.5	CANA.	10		- 4.4.	9.1 J		77.4	_	15 J	10.	NS	NS	NS
1.1'-Biphenyl	56 J				49 J				5.7 J			-	120				9.13				100		NS	NS	NS
2.4-Dimethylphenol				6-5-		1		311					1300	-			42	+		-	59	10	NS	NS	NS
2-Methylnaphthalene	660				620	13			42			-	1300	-			76					+	NS	NS	NS
Acetophenone	72 J	1		1									-			-	-						NS	NS	NS
Atrazine		27 J													1		51 J			-		1	NS	NS	NS
Benzaldehyde								-	1000	20.0	0.15	200		81 J	80 J	72 J	26 J					29 J	NS	NS	NS
Bis(2-ethylhexyl) phthalate	80 J	140	120	92 J	100 J	160		300	140	54 J	340	360		013	00.0	120	220 J	4				4	NS	NS	NS
Caprolactam	7											-	150	-	1	-	2200				130 J		NS	NS	NS
Carbazole						E						1	150						/				NS	NS	NS
Di-n-butly phthalate	27 J				68 J										_	_	_	_	_	-	-				

All soil cleanup objectives (SCOs) are in parts per billion (ppb). NS=Not specified. See Technical Support Document (TSD). Footnotes

<sup>&</sup>lt;sup>b</sup> The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

<sup>&</sup>lt;sup>e</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

<sup>\*</sup> For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

For constituents where the calculated SCO was lower than the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

<sup>\*</sup> The values for m-cresol and p-cresol were reported together, therefore the RL is the sum of both contaminants

NA Sample was not analyzed due to lack of sample volume

Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is is above the Protection of Groundwater Standard.

#### Samivalatiles

										-													-			Table 3/5-6.8(6	): Restricted U Objectives	se Soil Cleanu
																										Protection of	Public Health	Protection of Ground-
Contaminant	MW 7 0.5'-2.0'	MW 7 4.0'-6.0'	MW 7 9.0'-11.0	MW 7 12'-14'	MW 8 0.5'-1.5'		MW 8 9.0'-11.0	MW 8												MW 11 13.0'-15.0				MW 12 13.0'-15.0		Commercial	Industrial	water
Acenaphthene	7.9	<7.3	<7.8	<8.1	<7.4	<8.9	NA	<7.7	18	220	<9.2	<7.8	<7.5	<9.7	<7.1	<7.8	110	<7.6	<8.1	<7.9	24	<8.4	<7.8	NA	<8.2	500,000°	1,000,000	98,000
cenapthylene	17	<7.3	<7.8	<8.1	5.2 J	<8.9	NA	<7.7	56	11	5.3 J	<7.8	23	<9.7	<7.1	<7.8	430	5.4 J	<8.1	<7.9	110	<8.4	<7.8	NA	<8.2	500,000 <sup>b</sup>	1,000,000°	107,000
Anthracene	28	<7.3	<7.8	<8.1	5.3 J	5.5 J	NA	<7.7	43	370	11	<7.8	18	<9.7	<7.1	<7.8	390	5.5 J	<8.1	<7.9	140	<8.4	<7.8	NA	<8.2	500,000 <sup>b</sup>	1,000,000°	1,000,000°
Benz(a)anthracene	110	10	<7.8	<8.1	29	11	NA	<7.7	190	420	33	<7.8	110	6.7 J	<7.1	<7.8	1400	25	<8.1	<7.9	630	<8.4	<7.8	NA	<8.2	5,600	11,000	1,000 <sup>t</sup>
Benzo(a)pyrene	100	9.5	4.2 J	<8.1	29	<8.9	NA	<7.7	190	330	27	<7.8	110	6.7 J	<7.1	<7.8	1100	17	<8.1	<7.9	440	<8.4	<7.8	NA	<8.2	1,000 <sup>f</sup>	1,100	22,000
Benzo(b)fluoranthene	180	14	4.6 J	<8.1	45	12	NA	<7.7	310	440	35	<7.8	140	9.1 J	5.8 J	<7.8	2000	36	<8.1	<7.9	830	11	<7.8	NA	<8.2	5,600	11,000	1,700
Benzo(g,h,i)perylene	80	9.4	<7.8	<8.1	20	5.9 J	NA	<7.7	86	98	11	<7.8	49	<9.7	<7.1	<7.8	600	11	<8.1	<7.9	220	<8.4	<7.8	NA	<8.2	500,000 <sup>b</sup>	1,000,000°	1,000,000°
Benzo(k)fluoranthene	53	11	<7.8	<8.1	12	5.6 J	NA	<7.7	98	150	16	<7.8	55	<9.7	<7.1	<7.8	690	5.0 J	<8.1	<7.9	260	<8.4	<7.8	NA	<8.2	56,000	110,000	1,700
Chrysene	160	16	<7.8	<8.1	31	10	NA	<7.7	260 .	380	29	<7.8	120	7.0 J	<7.1	<7.8	2100	39	<8.1	<7.9	870	<8.4	<7.8	NA	<8.2	56,000	110,000	1,000
Dibenz(a,h)anthracene	19	<7.3	<7.8	<8.1	<7.4	<8.9	NA	<7.7	32	36	<9.2	<7.8	14	<9.7	<7.1	<7.8	210	<7.6	<8.1	<7.9	89	<8.4	<7.8	NA	<8.2	560	1,100	1,000,000°
Fluoranthene	210	22	4.0 J	<8.1	55	23	NA	<7.7	330	880	71	4.5 J	180	11	5.5 J	<7.8	4700	46	5.2 J	<7.9	980	16	<7.8	NA	<8.2	500,000 <sup>b</sup>	1,000,000°	1,000,000°
7-11-1-1-1-1	18	<7.3	<7.8	<8.1	<7.4	<8.9	NA	<7.7	19	250	4.8 J	<7.8	<7.5	<9.7	<7.1	<7.8	170	<7.6	<8.1	<7.9	40	<8.4	<7.8	NA	<8.2	500,000 <sup>b</sup>	1,000,000°	386,000
Fluorene Indeno(1,2,3-cd)pyrene	75	7.2 J	<7.8	<8.1	17	5.5 J	NA.	<7.7	84	110	13	<7.8	46	<9.7	<7.1	<7.8	560	11	<8.1	<7.9	230	<8.4	<7.8	NA	<8.2	5,600	11,000	8,200
m-Cresol	<410*	<440*	<470*	<480*	<440*	33 J.	NA NA	<460°	<450*	76 J*	<550°	<470*	<450°	<580°	<420*	<470°	<2900*	<460*	<480*	<470*	<450"	28 J*	<470*	NA	<490*	500,000°	1,000,000	330°
Naphthalene	100	4.0 J	<7.8	<8.1	9.5	<8.9	NA	<7.7	580	70	5.1 J	<7.8	69	<9.7	5.3 J	<7.8	460	20	<8.1	<7.9	200	<8.4	<7.8	NA	<8.2	500,000 <sup>b</sup>	1,000,000°	12,000
o-Cresol	<210	<220	<230	<240	<220	<270	NA	<230	<220	<240	<270	<230	<220	<290	<210	<230	<1400	<230	<240	<240	<230	<250	<230	NA	<250	500,000 <sup>b</sup>	1,000,000°	330°
p-Cresol	<410*	<440*	<470*	<480*	<440*	33 J*	NA	<460*	<450*	76 J*	<550*	<470*	<450*	<580*	<420*	<470°	<2900*	<460*	<480*	<470*	<450*	28 J*	<470*	NA	<490*	500,000	1,000,000	330°
Pentachlorophenol	<160	<170	<170	<180	<170	<200	NA	<170	<170	<180	<210	<180	<170	<220	<160	<180	<1100	<170	<180	<180	<170	<190	<180	NA	<180	6,700	55,000	800°
Phenanthrene	220	14	<7.8	<8.1	27	12	NA	<7.7	470	900	37	<7.8	140	9.9	6.8 J	<7.8	2700	65	<8.1	<7.9	640	10	<7.8	NA	<8.2	500,000 <sup>b</sup>	1,000,000°	1,000,000°
Phenol	<52	<55	<58	<61	<55	<67	NA	<58	<56	<59	<69	<58	<56	<73	<53	<58	<360	<57	<60	<59	<56	<63	<59	NA	<62	500,000 <sup>b</sup>	1,000,000°	330°
Pyrene	170	20	<7.8	<8.1	47	23	NA	<7.7	280	720	54	4.1 J	180	9.6 J	5.8 J	5.0 J	3600	38	4.4 J	<7.9	720	12	<7.8	NA	<8.2	500,000	1,000,000	1,000,000
1,1'-Biphenyl	20 J					_			68	20 J			11 J		-	1	81 J		-		37 J					NS	NS	NS
2,4-Dimethylphenol	200					-			- 00	23.0															1	NS	NS	NS
2-Methylnaphthalene	160	5.5 J			12				870	65			110	5.3 J	8.2		460	38			230					NS	NS	NS
Acetophenone	12 J	5.00			1				93 J				19 J			10.50					41 J		V			NS	NS	NS
Atrazine				1			21	11.3			He 7					E+=0	1									NS	NS	NS
Benzaldehyde	1 - 1					19 J		71	- XX	-						1					100 J					NS	NS	NS
Bis(2-ethylhexyl) phthalate		33 J		30 J	21 J		11		50 J	22 J			24 J		31 J				100				-	1 1 1		NS	NS	NS
Caprolactam		555		0.0	51 J				150 J	140 J								48 J			220 J	65 J	-		-	NS	NS	NS
Carbazole	-								39 J	110		7					380				57		-			NS	NS	NS
Di-n-butly phthalate									20 J																	NS	NS	NS

All soil cleanup objectives (SCOs) are in parts per billion (ppb). NS=Not specified. See Technical Support Document (TSD). Footnotes

B Compound was found in the blank and sample.

<sup>&</sup>lt;sup>b</sup> The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

<sup>&</sup>lt;sup>c</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

<sup>\*</sup> For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is

For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

<sup>\*</sup> The values for m-cresol and p-cresol were reported together, therefore the RL is the sum of both contaminants

NA Sample was not analyzed due to lack of sample volume

Laboratory Detection Limit is above the value for Pro Laboratory Detection Limit is above the value for Protection of Ground Water, therefore even though result is below Laboratory Detection Limits, it cannot be determined whether is is above the Protection of Groundwater Standard.

#### **Groundwater VOC**

EPA 8260 TCL (Results in ug/L / ppb)														
Contaminant	MW 1	MW 2	MW 3	MW 4	MW 5	MW 6	MW 7	MW 8	MW 9	MW 10	MW 11	MW 12	TOGS 1	.1.1
													GA	
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5***	S
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5***	S
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.00	<1.0	<1.0	<1.0	<1.0	0.7	gv
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.6	S
cis-1,2-Dichloroethene	<1.0	21.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.60	54.00	<1.0	<1.0	5***	S
trans-1,2-Dichloroethene	<1.0	9.70	<1.0	<1.0	<1.0	<1.0	<1.0	32^	<1.0	3.3^	<1.0	<1.0	5***	s
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3*	S
Acetone	<10	<10	5.8J	<10	<10	<10	<10	<10	<b>&lt;</b> 10	<10	<10	<10	50	gv
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.20	<1.0	<1.0	<1.0	<1.0	1	S
Carbon tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5	S
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>~</b> 1.0	<1.0	<1.0	<1.0	5***	s
Chloroform	0.71J	0.39J	<1.0	1.4J	<1.0	11.00	1.50	0.5J	<1.0	<1.0	1.10	1.80	7	5
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5***	S
Methyl ethyl ketone (2-Butanone)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	50	gv
Methyl tert-butyl ether	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	gv
Methylene chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5***	S
Tetrachloroethene	1.50	1.40	<1.0	0.54J	<1.0	<1.0	6.70	2.50	0.7J	3.00	<1.0	<1.0	5***	S
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5***	S
Trichloroethene	<1.0	6.70	<1.0	<1.0	<1.0	<1.0	0.85J	5.00	25.00	21.00	<1.0	<1.0	5***	S
Vinyl chloride	<1.0	1.80	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.70	<1.0	<1.0	2	5
Xylene (mixed)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5***	5
Cyclohexane								7.7^				1	NE	
Methylcyclohexane								2.6^					NE	

Bold: Exceed TOGS 1.1.1 . G.A. Values

All Ambient Water Quality Standards and Guidance Values are in parts per billion (ppb). See Technical Support Document (TSD), Footnotes

NE=Not Established

ND means a non-detectable concentration by the approved analytical methods referenced in section 700.3 of TOGS 1.1.1

**TABLE 5A** 

<sup>\*</sup> Applies to each isomer (1,2-,1,3- and 1,4-dichlorobenzene) individually

<sup>\*\*\*</sup> The principal organic contaminant standard for groundwater of 5 ug/L applies to this substance.

s=Standard that has been promugulated and placed into regulation gv= Guidance Value, recommended value where no standard has been promugulated

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

<sup>^</sup> ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

#### **Groundwater SVOC**

			-	EPA 8	270 SV	OC (re	sults ir	ug/L/	ppb)					
Contaminant	MW 1	MW 2	MW 3	MW 4	MW 5	MW 6	MW 7	MW 8	MW 9	MW 10	MW 11	MW 12	TOGS 1. GA	1.1
Acenaphthene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	20	gv
Acenapthylene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	NS	
Anthracene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	50	gv
Benz(a)anthracene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	1	s
Benzo(a)pyrene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	ND	
Benzo(b)fluoranthene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	0.57 J	<4.9	<4.9	<4.9	<4.9	<5.0	0.002	gv
Benzo(g,h,i)perylene	<4.7	<4.9	<5.0	<5.0	<4.7	<b>≤</b> 5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	NE	
Benzo(k)fluoranthene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	0.002	gv
Chrysene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	0.002	gv
Dibenz(a,h)anthracene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	NE	
Fluoranthene	<4.7	<4.9	<5.0	<5.0	<4.7	_<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	50	gv
Fluorene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	50	gv
Indeno(1,2,3-cd)pyrene	<4.7	<4.9	_<5.0	<5.0	<4.7	<5.2	0.79 J**	<4.9	0.66 J**	<4.9	<4.9	<5.0	0.002	gv
Naphthalene	<4.7	<4.9	<5.0	<5.0	<4.7	<sup></sup> <5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	10	gv
o-Cresol	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	0.40 JB	0.45 JB	<5.0	NE	
m+p-Cresol****	<9.4	<9.7	<10	<10	<9.4	<10	<10	<9.8	<9.7	<b>&lt;</b> 9.8	<9.8	<10	NE	S
Pentachlorophenol	<9.4	<9.7	<10	<10	<9.4	<b>&lt;</b> 10	<10	<9.8	<9.7	<9.8	<9.8	<10	1*	
Phenanthrene	<4.7	<4.9	0.46 J	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	50	gv
Phenol	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	1*	5
Pyrene	<4.7	<4.9	<5.0	<5.0	<4.7	<5.2	<5.1	<4.9	<4.9	<4.9	<4.9	<5.0	50	gv
2,4-Dinitrotoluene									5.1 B			5.1 B	5***	s
2,6-Dinitrotoluene												6.4	5***	s
Bis(2-ethylhexyl)			2.2 J	3.6 J									5	s
Di-n-butyl phthalate								0.37 JB	0.32 JB			0.37 JB	50	s

Bold: Exceed TOGS 1.1.1 . G.A. Values

All Ambient Water Quality Standards and Guidance Values are in parts per billion (ppb). See Technical Support Document (TSD). Footnotes

NE=Not Established

ND means a non-detectable concentration by the approved analytical methods referenced in section 700.3 of TOGS 1.1.1

\*referred to entry for "phenolic compounds" (total phenols) \*\* applies to the sum of these substances

\*\* LC6 or LC6D exceeds the control limits

\*\*\* The principal organic contaminant standard for groundwater of 5 ug/L applies to this substence.

\*\*\*\* The values for m-cresol and p-cresol were reported together, therefore the RL is the sum of both contaminants

s=Standard that has been promugulated and placed into regulation

gv= Guidance Value, recommended value where no standard has been promugulated

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concantration is an approximate value.

^ ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

**TABLE 5B** 

#### **Groundwater Pesticides / PCB**

1			EPA	8080 B	/ 8081	B /8082	2 A (res	ults in ા	ɪg/L / pլ	ob)			
Contaminant	MW 1	MW 2	MW 3	MW 4	MW 5	MW 6	MW 7	MW 8	MW 9	MW 10	MW 11	MW 12	<b>TOGS 1.1.1</b> GA
4,4'-DDE	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.2
4,4'-DDT	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.2
4,4'-DDD	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.3
Aldrin	<0.024	<0.025	<0.025	<0.025	< 0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	ND
alpha-BHC	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.01
beta-BHC	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.04
Chlordane (alpha)	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	0.016 Jp	<0.027	<0.026	<0.027	<0.026	<0.026	0.05
delta-BHC	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.04
Dibenzofuran	<9.4	<9.7	<10	<10	<9.4	<10	<10	<9.8	<9.7	<9.8	<9.8	<10	NE
Dieldrin	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.004
Endosulfan I	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	NE
Endosulfan II	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	NE
Endosulfan sulfate	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	NE
Endrin	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	ND
Heptachlor	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.04
Lindane	<0.024	<0.025	<0.025	<0.025	<0.024	<0.028	<0.026	<0.027	<0.026	<0.027	<0.026	<0.026	0.05
Polychlorinated biphenyls	<0.46	<0.48	<0.49	<0.49	<0.49	<0.49	<0.50	< 0.49	<0.56	<0.50	<0.49	<0.47	0.09*
gamma-Chlordane							0.027 p						NE

Bold: Exceed TOGS 1.1.1 . G.A. Values

All Ambient Water Quality Standards and Guidance Values are in parts per billion (ppb). See Technical Support Document (TSD). Footnotes NE=Not Established

ND means a non-detectable concentration by the approved analytical methods referenced in section 700.3 of TOGS 1.1.1

s=Standard that has been promugulated and placed into regulation

gv= Guidance Value, recommended value where no standard has been promugulated

\* applies to the sum of these substances

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

p The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

^ ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

**TABLE 5C** 

#### **Groundwater Metals**

EPA 6010C / 7470A (results in kg/L / ppm)														
Contaminant	MW 1	MW 2	MW 3	MW 4	MW 5	MW 6	MW 7	MW 8	MW 9	MW 10	MW 11	MW 12	<b>TOGS 1.1.</b> GA	1
Arsenic	0.073	0.27	0.26	0.55	0.19	0.35	0.35	0.34	0.21	0.39	0.33	0.26	0.025	s
Barium	0.45	1.2	3.4	2.7	0.85	1.7	2.1	2.4	1.3	3.7	2.1	1.4	1	s
Beryllium	0.003	0.0096	0.012	0.014	0.0079	0.015	0.016	0.014	0.012	0.018	0.019	0.011	0.003	gν
Cadmium	0.0015	0.0027	0.0099	0.0082	0.0024	0.0058	0.0018	0.0054	0.0025	0.0037	0.004	0.0032	0.005	s
Chromium	0.087	0.26	0.34	0.73	0.21	0.4	0.45	0.58	0.34	0.47	0.52	0.32	0.05	s
Copper	0.15	0.58	1.6	1.3	0.45	0.92	0.88	0.92	0.67	1.1	1.1	0.69	0.2	s
Cyanide	<0.010	<0.010	0.0064	0.0090	<0.010	0.0084	<0.010	0.0090	0.0074	0.0054	<0.010	<0.010	0.2	S
Lead	0.086	0.33	0.5	0.86	0.28	0.75	0.75	0.59	0.8	0.93	0.87	0.39	0.025	S
Manganese	6.1 B	11.7 B	20.4 B	40.4 B	2.8 B	21.8 B	10.8	38	10.3	35.4	16.9	20	0.3*	S
Total Mercury	0.0003	0.0009	0.0016	0.0008	0.0005	0.0011	0.0015	0.0008	0.0014	0.0011	0.0006	0.0006	0.0007	s
Nickel	0.12	0.43	0.77	1.2	0.36	0.81	0.86	0.92	0.58	1.2	1.1	0.65	0.1	S
Selenium	<0.025	<0.025	<0.025	<0.025	< 0.025	<0.025	<0.025	<0.025	<0.025	< 0.025	0.015 J	<0.025	0.01	s
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.05	S
Zinc	0.44 B	1.3 B	1.8 B	2.2 B	1.2 B	2.3 B^	2.2 B	2.2 B	1.9 B	2.8 B	2.7 B	1.8 B	2	gv
Aluminum	54.6	185	254	298	150	308	320	290	243	352	365	233	NE	
Antimony			0.0079	0.013 J		0.015 J	0.029	0.026	0.025	0.037	0.038	0.021	0.003	s
Calcium	484	595	834	1490 ^	628	1380 ^	2080 B	1780 B	1290 B	1800 B	1380 B	1280 B	NE	
Cobalt	0.043	0.18	0.25	0.42	0.15	0.3	0.36	0.32	0.21	0.4	0.47	0.21	NE_	
Iron	103 B	354 B	413 B	604 B	303 B	546 B	508 B	448 B	395 B	587 B	606 B	391 B	0.3	s
Magnesium	104	209	424	446	137	337	643	636	294	378	349	339	35	gv
Potassium	15.4	34.2	45.6	51.8	25.4	59	58.6	57.6	46.5	65.2	67.5	46.1	ΝE	
Sodium	25.6	29.4	9.3	32.1	10.2	27.4	29.3	23.1	22.6	26.8	33.2	42.9	20	s
Vanadium	0.098	0.29	0.43	0.52	0.27	0.52	0.54	0.49	0.41	0.62	0.65	0.4	NE	

Bold: Exceed TOGS 1.1.1 . G.A. Values

\* also see iron and manganese

**TABLE 5D** 

All Ambient Water Quality Standards and Guidance Values are in parts per billion (ppb). See Technical Support Document (TSD). Footnotes NE=Not Established

ND means a non-detectable concentration by the approved analytical methods referenced in section 700.3 of TOGS 1.1.1

s=Standard that has been promugulated and placed into regulation

gv= Guidance Value, recommended value where no standard has been promugulated

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

<sup>^</sup> ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.



Subsurface Investigation Report Duofold Corporation NYSDEC Site#622030 7 Spruce Street Ilion, NY

# **Appendices**

1 Survey2 Soil Boring Logs3 Cross Section



Subsurface Investigation Report
Duofold Corporation
NYSDEC Site#622030
7 Spruce Street
Ilion, NY

Appendix 1

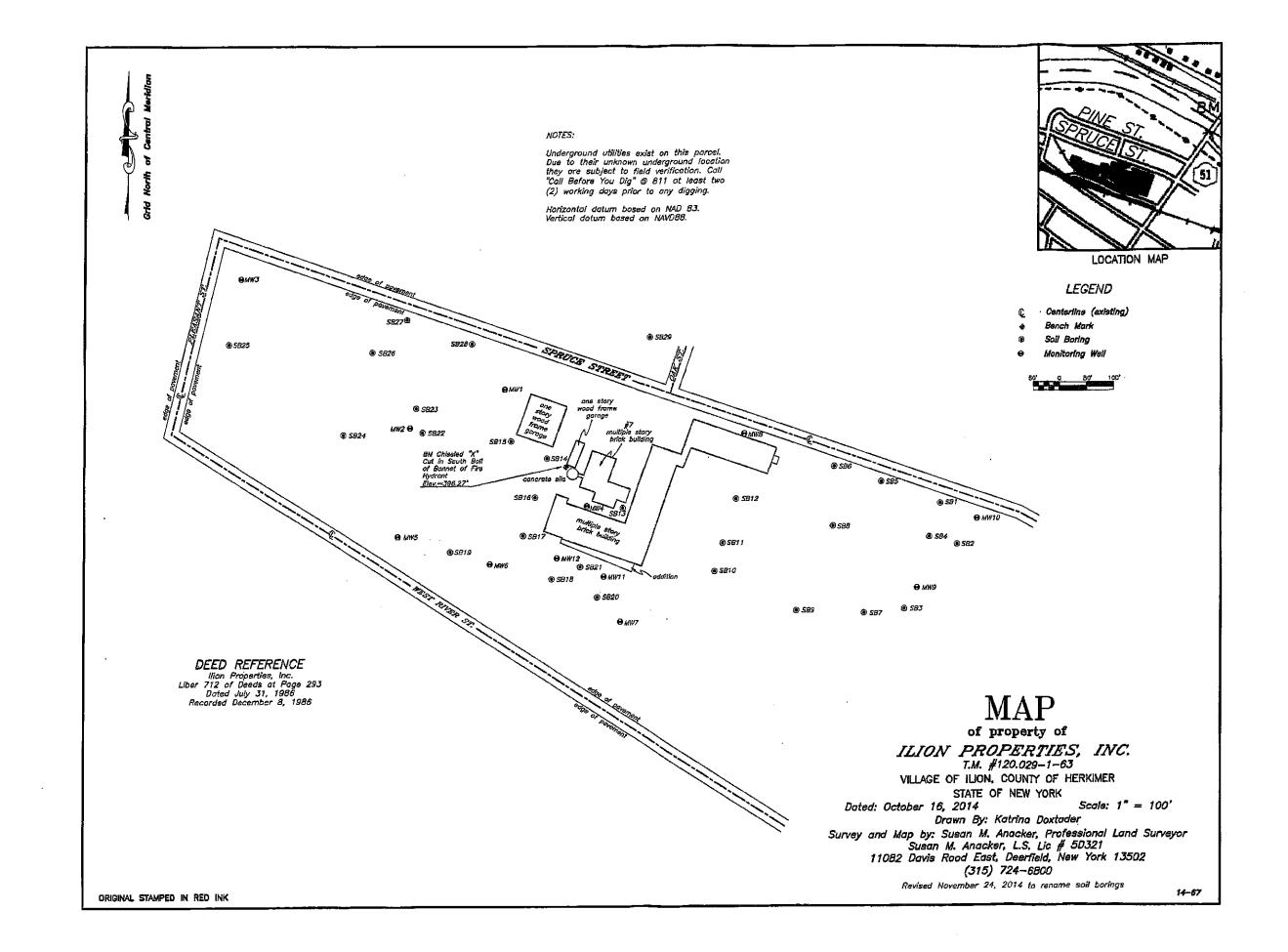
Survey

# GPS Corridnates Soil Borings / Monitoring Wells

			Elevation at the Top of	
Monitoring Well #	X	Υ	PVC	<b>Ground Elevation</b>
MW1	1104280.772	1234011.479	392.34291	•
MW1	1104280.826	1234011.482		392.85749
MW2	1104209.196	1233836.904	394.05569	<u> </u>
MW2	1104209.173	1233836.903		394.37725
MW3	1104487.03	1233525.394	392.15502	
MW3	1104487.117	1233525.448		392.561
MW4	1104063.221	1234164.106	393.7625	
MW4	1104063.04	1234164.07		394.07536
MW5	1104006.159	1233815.261	393.34509	
MW5	1104006.092	1233815.314		393.76087
MW6	1103954.693	1233985.529	393.0922	
MW6	1103954.744	1233985.431		393.46493
MW7	1103847.425	1234226.72	392.53047	
MW7	1103847.47	1234226.846		392.78967
MW8	1104197.453	1234455.216	391.23423	
MW8	1104197.29	1234455.158		391.62054
MW9	1103908.979	1234774.649	392.90751	
MW9	1103908.909	1234774.616		393.33692
MW10	1104038.062	1234884.503	391.56497	
MW10	1104038.142	1234884.622		392.06535
MW11	1103931.445	1234195.683	393.29749	
MW11	1103931.484	1234195.579		393.81774
MW12	1103966.147	1234109.327	393.64338	
MW12	1103966.057	1234109.426		393.93467

GPS Corridnates
Soil Borings / Monitoring Wells

Soil Boring # & Sub-Foundation			
Sample #	Х	Y	Ground Elevation
SB1	1104066.714	1234817.215	391.86237
SB2	1103990.222	1234847.862	392.40673
SB3	1103869.97	1234751.645	393.11331
SB4	1104003.998	1234797.143	393.22297
SB5	1104107.62	1234708.39	390.72293
SB6	1104136.145	1234621.476	391.49884
SB7 (SF)	1103862.338	1234677.508	394.13458
SB8 (SF)	1104024.629	1234619.668	393.21084
SB9 (SF)	1103866.757	1234552.83	394.11179
SB10 (SF)	1103940.551	1234402.105	394.10986
SB11 (SF)	1103993.383	1234416.714	394.05361
SB12 (SF)	1104075.3	1234441.087	393.28451
SB13	1104059.174	1234231.131	393.43805
SB14	1104152.285	1234089.534	393.57463
SB15	1104184.148	1234023.55	393.03216
SB16	1104079.319	1234068.431	394.26444
SB17	1104007.547	1234046.098	393.5098
SB18	1103927.035	1234099.31	392.98197
SB19	1103977.673	1233912.665	393.28578
SB20	1103893.012	1234183.447	392.53853
SB21	1103949.662	1234152.107	393.39992
SB22	1104200.718	1233860.261	394.32894
SB23	1104246.006	1233848.326	392.13828
SB24	1104196.351	1233714.673	392.54889
SB25	1104365.423	1233503.52	392.4748
SB26	1104350.488	1233768.019	392.25688
SB27	1104410.58	1233831.068	391.94945
SB28	1104366.251	1233950.66	392.20124
SB29	1104378.007	1234280.592	391.141





Subsurface Investigation Report Duofold Corporation NYSDEC Site#622030 7 Spruce Street Ilion, NY

Appendix 2

Soil Boring Logs



9/15/14

DATE:

3553 Crittenden Road Alden, NY 14004 (716) 937- 6527

www.natureswayenvironmental.com Hole Number: \_\_\_ SB 1

ELEVATION: <u>391.86237</u> Subsurface Investigation at the Duofold Corporation PROJECT:

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6
See Location Man

BORING LOCATION:

0/ 6	6/ 12	12/ 18	18/ 24	N	OVM				
<u> </u>					OVIVI	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
¥					0			1.0'	Topsoil/fill to 0.5 foot over coarse silty fill with little gravel to 0.8 foo over silty slack water sediment with trace sand to end of boring
<u> </u>					0		Moist, brown (SILT) with trace very fine size sand, blocky soil structure Extremely moist, gray (SILT) with trace	1.0'	No Water at Completion
					GCED RY: Dala N			with 15 to 25% gravel, little to some very 20 fine size sand Moist, brown (SILT) with trace very fine size sand, blocky soil structure Extremely moist, gray (SILT) with trace very fine size sand, weakly thinly bedded40	with 15 to 25% gravel, little to some very 20 fine size sand Moist, brown (SILT) with trace very fine size sand, blocky soil structure Extremely moist, gray (SILT) with trace very fine size sand, weakly thinly bedded Earthprobe Completed at 4.0' BGS  with 15 to 25% gravel, little to some very 20 fine size sand, with 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to some very 20 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25% gravel, little to 30 fine size sand. With 15 to 25



www.natureswayenvironmental.com Hole Number: SB 2

								•	iole Hambel. — OD Z	_	
DA		_		9/15/							LEVATION: <u>392.40673</u>
PR	O	JEC	:T:					Su	bsurface Investigation at the Duofold	l Co	rporation
		_ =							7 Spruce Street, Ilion, NY		
				FOF	_				NYSDEC Region 6		
BC	RI	NG	LO	CAT	ION	:			See Location Map		
s	N	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	
0 1	2			1		N	OVM		Moist, dark gray, gravelly (SILTY-SAND) ostopsoil/fill with 20 to 40% gravel, little very fine size sand Moist, brown (SILT) fill with little very fine size sand Moist, mixed brown to dark gray, very gravelly (SILTY-SAND) fill with 40 to 60% gravel, cinders and ash  Earthprobe Completed at 4.0' BGS	0.8' 0.8' 0.8'	Topsoil/fill to 0.5 foot over silty fill with little sand to 1.5 feet over sand and gravel fill with cinders and ash to end of boring
Ļ						1 2					
L	U(	JG	⊏₽	RX:	. <u>D</u> a	<u>aie N</u>	<u>vi. G</u>	<u>ramza</u>	/ Senior Geologist		PAGE <u>1</u> of <u>1</u>



www.natureswayenvironmental.com Hole Number: SB 3

DATE: ELEVATION: <u>393.11331</u> 9/15/14 PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

J I	0/6	6/ 12	12/18	18/ 24	N	0 0 0 0	LITH	DESCRIPTION AND CLASSIFICATION  Moist, dark brown (SILTY-SAND) topsoil 0.5  / fill with very fine size sand  Moist, mixed brown and dark brown (SILTY-SAND) fill with 10 to 15% gravel, with occasional pockets of (SILT) fill 2.0  Moist, brown (CLAYEY-SILT) with little to some clay, weakly thinly bedded with very thin coarse silt lenses	1.0'	COMMENTS  Topsoil / fill to 0.5 foot over sandy fill with trace gravel to 2.0 feet ove silty tending toward clayey slack water sediment to end of boring
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					0		/ fill with very fine size sand Moist, mixed brown and dark brown (SILTY-SAND) fill with 10 to 15% gravel, with occasional pockets of (SILT) fill Moist, brown (CLAYEY-SILT) with little to some clay, weakly thinly bedded with	1.0' 1.0'	fill with trace gravel to 2.0 feet ove silty tending toward clayey slack
								Earthprobe Completed at 4.0' BGS		No Water at Completion
+										

LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1



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	Hole Number:SB 4	
DATE:9/16/14	ELEVATION: 393.22297	_
PROJECT:	Subsurface Investigation at the Duofold Corporation	_
	7 Spruce Street, Ilion, NY	
PREPARED FOR:	NYSDEC Region 6	
BORING LOCATION: _	See Location Map	_
0/ 6/ 12/ 18/		-

0 —	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	1						0		Moist, dark brown (SANDY-SILT) topsoil <sub>0.5</sub> \(\frac{1}{2}\) fill with little very fine size sand, with	1.0'	Topsoil / fill to 0.5 foot over coarse silty soil fill with trace gravel to 1.5
	2	<u> </u>					0		fine size roots	1.0'	feet over silty fill with trace gravel
	_								Moist, brown (SANDY-SILT) fill with 10		and little clay to end of boring
	3	<u>v</u>					0		\to 15% gravel, little very fine size sand \/ Moist, brown (CLAYEY-SILT) fill with 5 to	1.0'	
									10% gravel with occasional red brick		
	4	Ĭ					0		fragments, little clay	1.0'	
									4.0		
									Earthprobe Completed at 4.0' BGS		No Water at Completion
5 —											
10 —											
15 —											
	Ļ					1 -					
	LC	)GC	iΕD	BX:	<u>Da</u>	ile N	1. G	<u>ramza</u>	/ Senior Geologist		PAGE <u>1</u> of <u>1</u>



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•	LINVI	NUMBER	TAL GU	NouLIA	ט אט פווי	UNTNA	JIUNO, II	 	Hole Number:	SB 5		,		
D	АТ	E: _		9/16/	14						E	LEVATION: <u>390.72293</u>		
Ρ	RC	JEC	CT:					Su	bsurface Investiga	ition at the Duofold	Co	rporation		
		_							7 Spruce S	Street, Ilion, NY				
				FOF	_					EC Region 6				
В	OR	RING	LO	CAT	ION	: _			See L	_ocation Map				
	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION ANI	D CLASSIFICATION	REC	COMMENTS		
0 —	1	<u> </u>					0		∖ fill with 5 to 15% gr	/	1	Topsoil / fill to 0.6 foot over silty with trace gravel to 1.0 foot ove silty slack water sediment to 3.0 f		
	3	<u> </u>				-	0		Moist, brown (SILT) gravel and red brick Moist, brown (SILT) size sand, weakly th	fragments with trace very fine	1.0'	over silty lake sediment with trac clay to end of boring		
	4	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				-	0		Moist, dark gray (SIL	3.0	1.0'	No Water at Completion		
5 —						-			Earthprobe Complet	ed at 4.0' BGS		No Water at Completion		
						-								
						-								
0 —														
_														
5 —														
						_								
						-								
						_								
						1	1							

LOGGED BY: Dale M. Gramza / Senior Geologist



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DATE:9/16/14	ELEVATION: <u>391.49884</u>
PROJECT:	Subsurface Investigation at the Duofold Corporation
	7 Spruce Street, Ilion, NY
PREPARED FOR:	NYSDEC Region 6
BORING LOCATION:	See Location Map
0/ 6/ 12/ 18/	

0 —	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	1						0		Extremely moist, dark brown (SILT) \(\)\topsoil / fill with trace very fine size sand	0.8'	Topsoil / fill to 0.5 foot over sand and gravel fill to 1.5 feet over sandy
	2	<u> </u>					0		with fine size roots	0.8'	slack water sediment to 3.0 feet
	_							× • • • • • • • • • • • • • • • • • • •	Moist, brown, very gravelly (SILTY-		over silty lake sediment to end of boring
	3	<u>v_</u>					0		SAND) fill with 40 to 50% gravel, very fine to fine size sand, little silt	0.8'	bornig
									Extremely moist to wet, brown (SILTY-		
	4						0		SAND) with very fine size sand, little to some silt, thinly bedded	0.8'	
									Extremely most, dark gray (SILT) with		No Water at Consulation
									trace clay, thinly bedded		No Water at Completion
5 —									Earthprobe Completed at 4.0' BGS		
10 —											
15 —											
		<u> </u>		DV:		lo N	/ C	romze	/ Senior Geologist		DAGE 1 . 1
	LC		טבט	. ז ט	שני	HE IV	1. U	amza	/ Schol Ocologist		PAGE <u>1</u> of <u>1</u>



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ENVIRONMENTAL BUNGULTANTO & BUNTHABTUNG, ING	Hole Number:	SB 7 (SF)	,	
DATE:9/16/14			ELEVATION: _	394.13458
PROJECT:	Subsurface Investigation	at the Duofold	Corporation	
	7 Spruce Stre	et, Ilion, NY		
PREPARED FOR:	NYSDEC	Region 6		
BORING LOCATION:		ation Man		

		O/\ i	ION	· —			See Location Map		
SN 0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
1 V					0 0		Wood Floor Gravel fill  Extremely moist, brown (SILT) fill with trace clay, with pockets of (SILTY-SAND) fill		Wood floor to 0.4 foot over gravel to 0.6 foot over silty soil fill to end boring
4					0		Earthprobe Completed at 4.0' BGS	0.8'	No Water at Completion



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Hole Number: SB 8 (SF)

DATE:	9/16/14	ELEVATION:	393.21084

Subsurface Investigation at the Duofold Corporation PROJECT: 7 Spruce Street, Ilion, NY

PREPARED FOR:

NYSDEC Region 6
See Location Man BORING LOCATION:

В	BORING LOCATION: See Location Map										
	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	1						0		Degraded Concrete	0.7'	Degraded concrete to 0.6 foot over
	3	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					0		Extremely moist, gray and brown (SANDY- SILT) fill with 5 to 10% gravel, little very fine size sand (SLIGHT CHEMICAL ODOR)	0.7'	coarse silty soil fill with trace gravel to 3.0 feet over sandy fill with some gravel to end of boring
5 —	4	\					0		Moist, gray, gravelly (SILTY-SAND) fill with 20 to 40% gravel, very fine size sand, little silt  Earthprobe Completed at 4.0' BGS	0.7'	No Water at Completion
<b>J</b>											
10 —											
15 —											
	LC	)GG	iED	BY:	<u>Da</u>	ale N	<u> 1. G</u>	<u>ramza</u>	/ Senior Geologist		PAGE $\underline{1}$ of $\underline{1}$



3553 Crittenden Road Alden, NY 14004 (716) 937- 6527 www.natureswayenvironmental.com

Hole Number: AWWWWSB 9 (SF)

DATE:	9/16/14	(Hand Auger Boring) <b>ELEVATION</b> :	394.11179
PROJECT:		Subsurface Investigation at the Duofold Corporation	
·		7 Common Otropat High NIV	

PREPARED FOR: 7 Spruce Street, Ilion, NY
NYSDEC Region 6

BORING LOCATION: See Location Map

•		,	CAI	ION	• —			See Location Map		
SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
2	V					0		Wood Moist, dark gray (CINDER) fill Moist, brown (SILT) fill with trace clay	1.0'	fill to 0.6 foot over silty soil fill to er
	_ <b>↓</b>				-			Earthprobe Completed at 2.0' BGS	<u>)</u>	No Water at Completion
					-					
					-					
					-					
					-					
					-					
					-					
					-					
					-					
					-					



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Hole Number: SB 10 (SF)

DATE:	9/16/14	ELEVATION: _	394.10986
<b>PROJECT</b>	·:	Subsurface Investigation at the Duofold Corporation	

Subsurface Investigation at the Duofold Corporation 7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

BORING LOCATION: See Location Map

SUR	IING	LO	CAI	ION	: _			See Location Map		
SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
2	\ \ \					0		Moist, mixed brown and dark gray, gravelly (SANDY-SILT) fill with 15 to 25% gravel, little very fine size sand Moist, brown (SANDY-SILT) fill with little		Concrete to 0.3 foot over coarse silty fill with little gravel to 1.5 feet over coarse silty fill with little sand to end of boring
4	\ \ \					0 0		very fine size sand, with pockets of (SILTY-SAND) and (CLAYEY-SILT)  Earthprobe Completed at 4.0' BGS	0.6'	No Water at Completion
					1 -			/ Senior Geologist		PAGE <u>1</u> of <u>1</u>



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Hole Number: SB 11 (SF)

DATE:	9/16/14	ELEVATION: _	394.05361
PROJECT:		Subsurface Investigation at the Duofold Corporation	
		7 Spruce Street, Ilion, NY	
PREPARED	FOR:	NYSDEC Region 6	

3OF	CINC	LO	CAI	ION	:			See Location Map		
SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
2	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					0		Concrete Cinder fill Moist, brown, gravelly (SILTY-SAND) fill with 15 to 25% gravel, very fine to fine size sand Moist, brown (CLAYEY-SILT) with some clay, blocky soil structure Earthprobe Completed at 2.0' BGS	1.0'	Concrete to 0.3 foot over cinder f to 0.6 foot over sandy fill with littl gravel to 1.5 feet over apparent clayey lake sediment to end of boring  No Water at Completion



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Hole Number: SB 12 (SF)

DATE:	9/16/14	ELEVATION: _	393.28451
PROJECT	•	Subsurface Investigation at the Duofold Corporation	

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

BORING LOCATION: See Location Map

0/6	6/12	12/18	18/24	N	0 OVM O	LITH	DESCRIPTION AND CLASSIFICATION  Concrete Extremely moist, mixed brown and dark gray, gravelly (SILTY-SAND) fill with 20 to 40% gravel, very fine size sand, little silt  Earthprobe Completed at 2.0' BGS	1.0'	COMMENTS  Concrete to 0.3 foot over sandy fir with some gravel to end of boring  No Water at Completion
							Extremely moist, mixed brown and dark gray, gravelly (SILTY-SAND) fill with 20 to 40% gravel, very fine size sand, little silt	1.0'	with some gravel to end of boring
									No Water at Completion
					1				
				-					
				-					
				-					
				-					
				- - -					
	<b>36</b>	GED	GED BY	GGED BY: D	GGED BY: Dale N	GGED BY: Dale M. G	GGED BY: Dale M. Gramza	GGED BY: Dale M. Gramza / Senior Geologist	GGED BY: Dale M. Gramza / Senior Geologist



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Hole Number: SB 13 DATE: ELEVATION: <u>393.43805</u> 9/16/14 Subsurface Investigation at the Duofold Corporation PROJECT: 7 Spruce Street, Ilion, NY PREPARED FOR: NYSDEC Region 6 See Location Map BORING LOCATION:

	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	1			-			0		Asphalt 0.2	1.0'	Asphalt to 0.2 foot over sand and
		$\downarrow$							Sand and Gravel fill 0.5		gravel fill to 0.5 foot over mixed soil
	2	İ					0		Moist, brown, mixed (CLAYEY-SILT) fill	1.0'	fill to end of boring
									and (SILTY-SAND) fill with 5 to 15% gravel		
		•						V. V.	Earthprobe Completed at 2.0' BGS	1	No Water at Completion
5 —											
10 —											
15											
15 —											
•	LC	)GG	ED	BY:	Da	ıle N	1. G	ramza	/ Senior Geologist		PAGE <u>1</u> of <u>1</u>



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	Hole Number:SB 14	
DATE:9/16/14	ELEVATION:393.57463	3
PROJECT:	Subsurface Investigation at the Duofold Corporation	
	7 Spruce Street, Ilion, NY	
PREPARED FOR:	NYSDEC Region 6	
BORING LOCATION:	See Location Man	

BORING LOCATION: See Location Map											
0	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	2	<b>*</b>					0 0		Extremely moist, dark brown (SANDY- SILT) topsoil / fill with little very fine size sand, with fine size roots Extremely moist, gray, gravelly (SILTY- SAND) fill with 20 to 40% gravel, very fine to fine size sand	0.9' 0.9' 0.9'	Topsoil / fill to 0.5 foot over sandy fill with some gravel to 0.8 foot over cinders, coal and ash fill to 3.0 feet sand and gravel fill to end of boring
5 —	4	\ \ \ \					0		Moist, dark gray to black and rusty brown, cinders/coal and ash fill Moist, gray, very gravelly (SILTY-SAND) fill with 40 to 50% gravel, very fine to coarse size sand, little silt Earthprobe Completed at 4.0' BGS	0.9'	No Water at Completion
10 —											
15 —											
	LC	GG	ED	BY:	Da	ıle N	М. G	ramza	. / Senior Geologist		PAGE <u>1</u> of1



www.natureswayenvironmental.com Hole Number: SB 15

DATE:9	9/16/14		ELEVATION: _	393.03216
PROJECT:		Subsurface Investigation at the Duofold	Corporation	
		7 Spruce Street Ilion NY		

PREPARED FOR: NYSDEC Region 6

DODING LOCATION:

В	BORING LOCATION: See Location Map										
	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	2	\ \ \					0		Moist, dark brown (SANDY-SILT) topsoil 0.4 / fill with little very fine size sand Moist, black, gravelly (SILTY-SAND) fill with 20 to 40% gravel and coal fragments Moist, brown, gravelly (SANDY-SILT) fill with 5 to 10% gravel, coal and red brick fragments Earthprobe Completed at 2.0' BGS	1.0'	Topsoil / fill to 0.4 foot over sandy fill with some gravel to 0.8 foot over coarse silty fill with trace gravel to end of boring No Water at Completion
5 —											
10 —											
15 —											
	LC	)GG	SED	BY:		ale M	И. G	ramza	ı / Senior Geologist		PAGE <u>1</u> of <u>1</u>



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			TINE OU	TOULTN	11000	JIV 1 11110	TORO, II	⊢	lole Number: _	SB 16		•	
[	DAT	E:		9/17/	14				_		- El	LEVATION: _	394.26444
		_						Sul	osurface Investi	gation at the Duofole			
		_								e Street, Ilion, NY			
F	PRE	PAF	RED	FOF	₹:					SDEC Region 6			
E	3OF	RING	LO	CAT	ION	:				e Location Map			
	SN	0/	6/	12/	18/	N	OVM	LITH	DESCRIPTION	AND CLASSIFICATION	REC	COMM	MENTS
0 -	+	6	12	18	24	IN	0	KXXX			1.0'		
	1						"			dark brown (SANDY- with little very fine size	1.0		5 foot over coarse gravel to 1.0 foot
	2	<u> </u>					0		¬∖sand with fine size	e roots	1.0'	over sand and g	ravel fill to end of
	-									NDY-SILT)) fill with 5 to		bo	ring
		V						<i>X</i> . <b>X</b> .	Moist, brown, very	very fine size sand 2.	2	No Water a	t Completion
									SAND) fill with 40	to 50% gravel and red			
									brick fragments, v	ery fine to fine size			
									Earthprobe Comp	oleted at 2.0' BGS			
									Lantinprobe comp	1010d dt 2.0 'B00			
5 -													
5													
10 -													
15 -													

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						⊢	lole Number:	SB 17					
DATE:		9/17/	14						E	LEVATION:	393.5098		
PROJEC	CT:					Sul	osurface Investigat	ion at the Duofold	l Co	rporation			
_							7 Spruce S	Street, Ilion, NY					
PREPAI					NYSDEC Region 6								
BORING	S LO	CAT	ION	:	See Location Map								
SN 0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND		REC				
				N	0 0		Extremely moist, dark SILT) topsoil / fill with sand fine size roots	velly (SILTY-SAND) avel and coal to fine size sand,  y (SILTY-SAND) I, very fine size	1.0'		oot over sandy to end of boring		
										1			

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www.natureswayenvironmental.com Hole Number: SB 18

DATE: 9/17/14 ELEVATION: \_\_\_392.98197\_\_ PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

Е	BOR	ING	LO	CAT	ION	:			See Location Map		
	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	2	\ \ \		-			0		Extremely moist, gray, very gravelly \(\sum_{\text{(SILTY-SAND)}}\) fill with 40 to 60% grave/\) Moist, brown, gravelly (SILTY-SAND) fill with 20 to 40% gravel, very fine size	1.0' 1.0'	Sand and gravel fill to 0.5 foot over sandy fill with some gravel to end of boring
								****	sand, little silt 2.0 BGS		No Water at Completion
5 —											
10 —											
15 —											
	LC	GG	ED	BY:	Da	ale N	1. G	ramza	/ Senior Geologist	·	PAGE <u>1</u> of <u>1</u>



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								Н	lole Number: SB 19	_		
DATE:9/17/14										El	_EVATION: _	393.28578
Ρ	RC	JEC	CT:					Sul	osurface Investigation at the Duofold	Cor	poration	
		_							7 Spruce Street, Ilion, NY		-	
PREPARED FOR:									NYSDEC Region 6			
BORING LOCATION: _									See Location Map			
	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COM	MENTS
7	1						0	$\times\!\times\!\times$	Extremely moist, dark brown (SANDY- 0.4	1.0'	Topsoil / fill to 0	.4 foot over sand

•	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	1						0	XXX	Extremely moist, dark brown (SANDY- 0.4	1.0'	Topsoil / fill to 0.4 foot over sand
							•		SILT) topsoil / fill with little very fine size sand, with fine size roots	4 01	and gravel fill to end of boring
	2						0		Moist, brown, very gravelly (SILTY-	1.0'	
		<u> </u>							SAND) fill with 40 to 60% gravel, very 20		No Water at Completion
									fine to fine size sand  Earthprobe Completed at 2.0' BGS		No Water at Completion
									Earth probe completed at 2.0 Bee		
-											
5 —											
4.0											
10 —											
45											
15 —											
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		$\overline{\mathcal{L}}$		DV.	$\overline{\Gamma}$	1 1	$\overline{\Lambda}$		/ Sonior Goologist		DACE 1 . 1

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Hole Number: \_\_\_\_\_ SB 20 \_\_\_\_

DATE:9/17/14	ELEVATION: _	392.53853
PROJECT:	Subsurface Investigation at the Duofold Corporation	
	7 Spruce Street, Ilion, NY	
	NIVODEO Davida O	

PREPARED FOR: NYSDEC Region 6

BORING LOCATION: See Location Map

SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
2	<u> </u>					0 0		SILT) topsoil / fill with little very fine size sand, with fine size roots	1.0'	Topsoil / fill to 0.1 foot over sand fill with some gravel, cinders, asl and coal to end of boring
	<b>*</b>							Moist, dark brown and dark gray, gravelly (SILTY-SAND) fill with 20 to 40% gravel, cinder, ash and coal fragments, very fine to coarse size sand		No Water at Completion
								Earthprobe Completed at 2.0' BGS		
LC	GG	ED	BY	Da	ale N	И. G	ramza	/ Senior Geologist		PAGE <u>1</u> of <u>1</u>



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Hole Number: SB 21 DATE: 9/17/14\_\_\_\_ ELEVATION: \_\_\_393.39992\_\_\_ Subsurface Investigation at the Duofold Corporation PROJECT: 7 Spruce Street, Ilion, NY PREPARED FOR: NYSDEC Region 6 See Location Map BORING LOCATION:

				0 0 0		Moist, dark gray (SANDY-SILT) topsoil / 0.2 fill with little very fine size sand  Moist, dark gray to black, very gravelly (SILTY-SAND) fill with 40 to 50% gravel with cinders and ash, very fine size sand, little silt  Moist, brown, gravelly (SILTY-SAND) fill	1.0'	Topsoil / fill to 0.2 foot over sand and gravel fill to 2.0 feet over sand fill with some gravel to end of borin
				0		Moist, dark gray to black, very gravelly (SILTY-SAND) fill with 40 to 50% gravel with cinders and ash, very fine size sand, little silt  Moist, brown, gravelly (SILTY-SAND) fill	1.0'	fill with some gravel to end of borin
						with cinders and ash, very fine size sand, little silt  Moist, brown, gravelly (SILTY-SAND) fill		
						\sand, little silt \ Moist, brown, gravelly (SILTY-SAND) fill	1.0'	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				0		Moist, brown, gravelly (SILTY-SAND) fill		,
				U	$\times$	with $20$ to $40\%$ arough vary tipo to tipo	4 01	
					KXXXX	with 20 to 40% gravel, very fine to fine size sand, little silt	1.0'	
					<i>*</i> ***********************************	Earthprobe Completed at 4.0' BGS		No Water at Completion
						Zaranproso completed at no 200		
	CED	GED BY:	GED BY: Da	GED BY: Dale N	GED BY: Dale M. G	GED BY: Dale M. Gramza	GED BY: Dale M. Gramza / Senior Geologist	GED BY: Dale M. Gramza / Senior Geologist



www.natureswayenvironmental.com Hole Number: SB 22

	Tiole Number:	
DATE: 9/17/14	ELEVATION: <u>394.3289</u> 4	4
PROJECT:	Subsurface Investigation at the Duofold Corporation	
	7 Spruce Street, Ilion, NY	
PREPARED FOR:	NYSDEC Region 6	
BORING LOCATION:	See Location Map	

Earthprobe Completed at 4.0' BGS    Continue of the continue o	0	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
Saravel fill Signavel fill Sig	0 —	1						0		Extremely moist, dark brown (SANDY-	0.8'	Topsoil / fill to 0.2 foot over gravel
Gravel fill Moist, brown, gravelly (SANDY-SILT) fill with 20 to 40% gravel with occasional cinders and ash, little to some very fine size sand  Earthprobe Completed at 4.0' BGS  No Water at Completion		_	$\overline{}$					0			ام ی	with some gravel to end of boring
The state of the s		2						U		Gravel fill 1.5	0.6	
To a size sand ash, little to some very fine s		,	<u> </u>					0		Moist, brown, gravelly (SANDY-SILT) fill	0.8'	
S Earthprobe Completed at 4.0' BGS  No Water at Completion		3								cinders and ash, little to some very fine		
Earthprobe Completed at 4.0' BGS  No Water at Completion		4	<u> </u>					0			0.8'	
Earthprobe Completed at 4.0' BGS  No Water at Completion			1.									
									/45/ C)			No Water at Completion
										·		
15	5 —											
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	10 —											
	15 —											
LOGGED BY: Dale M. Gramza / Senior Geologist  PAGE 1 of 1	10											
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1		$\vdash \vdash$										
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
		LC	GG	ED	BY:	Da	ale N	1. G	ramza	/ Senior Geologist		PAGE 1 of 1



www.natureswayenvironmental.com
Hole Number: SB 23

ELEVATION: <u>392.13828</u>	
Subsurface Investigation at the Duofold Corporation	
7 Spruce Street, Ilion, NY	
NYSDEC Region 6	
See Location Map	
-	Subsurface Investigation at the Duofold Corporation 7 Spruce Street, Ilion, NY NYSDEC Region 6

_									COO ECOATION MAP		
	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 -	2	\ \ \					0		Moist, dark brown (SANDY-SILT) topsoil 0.5  / fill with some very fine size sand, with fine size roots  Moist, dark gray, gravelly (SILTY-SAND)  fill with 15 to 25% gravel, very fine to fine 2.0	1.0'	Topsoil / fill top 0.5 foot over sandy fill with little gravel to 1.0 foot over silty fill with little gravel and clay to end of boring
- - -									size sand Moist, brown, gravelly (CLAYEY-SILT) fill with 15 to 25% gravel, little clay Earthprobe Completed at 2.0' BGS		No Water at Completion
5											
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L	<u> </u>	<u>)C</u> C	:FD	RV.		ale N	<u> </u>	ramzo	/ Senior Geologist		PAGE <u>1</u> of1
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Hole Number: SB 24 DATE: ELEVATION: <u>392.54889</u> 9/17/14 Subsurface Investigation at the Duofold Corporation PROJECT: 7 Spruce Street, Ilion, NY PREPARED FOR: NYSDEC Region 6 See Location Map **BORING LOCATION:** 

ט	OI.		, LO		ION.	• —			See Location wap		_
•	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	2	\ \ \					0		Moist, dark brown (SANDY-SILT) topsoil 0.4 / fill with little very fine size sand, with fine size roots Moist, faintly mottled, brown (SANDY-SILT) fill with 10 to 15% gravel, little very 2.0 fine size sand Moist, dark gray, gravelly (SILTY-SAND)	1.0'	Topsoil / fill to 0.4 foot over coarse silty fill with trace gravel to 0.7 foot over sandy fill with some gravel to end of boring  No Water at Completion
									fill with 20 to 40% gravel, cinders and ash  Earthprobe Completed at 2.0' BGS		
5 —											
0 —											
0											
5 —											
						1 -			(G. 1. G. 1		DAGE 4
	LC	JGG	iΕU	BY:	<u>Da</u>	ale N	<u>и. G</u>	<u>ramza</u>	/ Senior Geologist		PAGE <u>1</u> of <u>1</u>



www.natureswayenvironmental.com Hole Number: SB 25

								•	OD 20	-	
	)AT	E: _		9/17/	14					El	LEVATION: <u>392.4748</u>
F	PRC	JEC	CT: ,					Sul	osurface Investigation at the Duofold	l Coi	rporation
		_							7 Spruce Street, Ilion, NY		
				FOF	_				NYSDEC Region 6		
E	3OR	ING	LO	CAT	ION	:			See Location Map		
0 -	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
	2	\ \ \ \					0		Moist, dark brown (SANDY-SILT) topsoil 0.4 / fill with little very fine size sand Moist, dark gray, gravelly (SILTY-SAND) fill with 15 to 30% gravel, very fine size sand, little silt	1.0'	Topsoil / fill to 0.4 foot over sandy fill with little gravel to 0.8 foot over sandy fill with some gravel to end or boring
									Moist, brown, gravelly (SILTY-SAND) fill with 20 to 40% gravel with red bricks  Earthprobe Completed at 2.0' BGS		No Water at Completion
5 –											
10 –											
15 –											
	LC	GG	ED	BY:	Da	ale N	/I. G	ramza	/ Senior Geologist		PAGE <u>1</u> of1



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С	ΑТ	E:		9/17/	14			•	OB 20	El	_EVATION:392.25688
		_						Su	bsurface Investigation at the Duofold		
		_							7 Spruce Street, Ilion, NY		
F	RE	PAF	RED	FOF	₹: _				NYSDEC Region 6		
Е	OR	ING	i LO	CAT	ION	: _			See Location Map		
o —	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	2	<b>&gt;</b>					0		Moist, dark gray (SILTY-SAND) topsoil / 0.4 fill with very fine size sand, little silt, with fine size roots  Moist, dark gray, gravelly (SILTY-SAND) 1.4 fill with 15 to 25% gravel with cinders Moist, brown (SILTY-SAND) fill with 5 to 15% gravel, very fine size sand, little silt Earthprobe Completed at 2.0' BGS	1.0'	Topsoil / fill to 0.4 foot over sandy fill with little gravel and cinders to 1.4 feet over sandy fill with trace gravel to end of boring  No Water at Completion
5 —											
0 —											
5 —											
					<u> </u>	1	1	I '	1		

LOGGED BY: Dale M. Gramza / Senior Geologist



Www.natureswayenvironmental.com
Hole Number: SB 27

DATE:	9/18/14	ELEVATION: _	391.94945
PROJECT:		Subsurface Investigation at the Duofold Corporation	

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6
BORING LOCATION: See Location Map

Size Foots    Size Foots   1.0	В	OF	KIING	LU	CAI	ION				See Location Map		
Moist, dark gray (SANDY-SILT) topsoil of the outer sand, with fine of the complete of the comp	0	SN				18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
	0—		\ \ \							fill with little very fine size sand, with fine size roots  Moist, dark gray becoming brown below 1.0', gravelly (SILTY-SAND) fill with 15 to2.0 25% gravel, very fine size sand, little silt	1.0'	Topsoil / fill to 0.3 foot over sandy fill with little gravel to end of boring  No Water at Completion
15	5 —											
15												
	10 —											
LOGGED BY: Dale M. Gramza / Senior Geologist  PAGE 1 of 1	15 —											
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1												
		I C	)G(-	SED	BY.	D:	ale N	/ G	ramza	/ Senior Geologist		PAGE 1 of 1



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								F	lole Number: SB 28		
	)AT	E: _		9/18/	14					El	LEVATION: <u>392.20124</u>
F	PRO	JEC	CT:					Sul	osurface Investigation at the Duofold	Cor	poration
		_							7 Spruce Street, Ilion, NY		
F	PRE	PAF	RED	FOF	₹:				NYSDEC Region 6		
Е	3OR	ING	LO	CAT	ION:	:			See Location Map		
	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	1	T	12	10	24		0		ດ Moist, dark brown, very gravelly (SILTY <u>0.3</u>	1.0'	Topsoil / fill to 0.3 foot over sandy
									SAND) topsoil / fill with 40 to 50% gravel,		fill with some gravel to end of boring
	2	Ĭ					0		very fine to fine size sand, little silt	1.0'	
									Moist, gray and brown, gravelly (SILTY-SAND) fill with 20 to 40% gravel, very 20		
								\$. <b>%</b>	fine to fine size sand, little silt		No Water at Completion
									Earthprobe Completed at 2.0' BGS		
5 —											
40											
10 –											
	$\vdash$										
	$\Box$										
15 –											
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	LC	GG	ED	BY:	Da	ale N	1. G	ramza	/ Senior Geologist		PAGE <u>1</u> of <u>1</u>



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ENVIRONMENTAL BUNDULTANTO & BUTT MADTURO, IND	Hole Number:	SB 29	_	
DATE:9/18/14			ELEVATION:	391.141
PROJECT:	Subsurface Investig	ation at the Duofold	d Corporation	
	7 Spruce	Street, Ilion, NY		
PREPARED FOR:	NYSI	DEC Region 6		
BORING LOCATION:	See	Location Map		

0 —	SN	0/ 6	6/ 12	12/ 18	18/ 24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0 —	1						0	X X X	\Asphalt Pavement 0.1 Moist, dark gray, gravelly (SILTY-SAND) 0.8	1.0'	Asphalt pavement to 0.1 foot over sandy fill with some gravel to 0.8
	2	<u> </u>					0		fill with 20 to 40% gravel with occasional	1 0'	foot over silty soil fill with little grave
	2						Ū		red brick fragments, very fine size sand		and clay to end of boring
		Ψ							Moist, brown, gravelly (CLAYEY-SILT) fill with 15 to 25% gravel, little clay		No Water at Completion
									Earthprobe Completed at 2·0' BGS		
5 —											
10 —											
15 —											
10											
	LC	GG	ED	BY:	Da	ale N	1. G	ramza	/ Senior Geologist		PAGE <u>1</u> of <u>1</u>



3553 Crittenden Road Alden, NY 14004 (716) 937-6527 www.natureswayenvironmental.com

Hole Number: **SB 30** 

	ΑT	_		9/25/	14							392.57516
F	RC	JEC	CT:					Sul	osurface Investigation at the Duofold		-	_
_	D		) E D	<u> </u>	<u> </u>				7 Spruce Street, Ilion, NY			
				FOF	t: ION				NYSDEC Region 6 See Location Map			
L						·	<u> </u>	T 1	See Location Map	1	ī	
0 —	SN	6	12	12/	24	N	OVM	LITH	DESCRIPTION AND CLASSIFICATION	REC		IMENTS
0 — 5 —		0/	6/	12/	18/		0 OVM	LITH	·	1.7'	* Advanced 4 sampli  Below 2.0' sar gravel and little solution.  No Water at Note: No sample	IMENTS  1/4 HSA without ng to 2.0'  andy fill with some silt to end of boring at Completion  es were submitted tical testing
5 —		)GC	SED.	RY	· Da	ale N	M. G	ramza	./ Senior Geologist		PAGE 1	of 1



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ENVIRONMENTAL CONSULTANTS & CONTRACTORS. INC HOLE NUMBER: MW 1

DATE: 9/17/14

ELEVATION: 392.85749

3553 Crittenden Road

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

BORING LOCATION: See Location Map

В	OF	KIIN	GL	.OC	AH	ON:		See Locati	on Ma	ар		
0 —	SN	0/ 6	6/ 12	12/ 18	18/ 24	PID (ppm)	LITH	DESCRIPTION AND CLASSIFICATION	REC	MONITORING WELL	REMARKS	COMMENTS
U	1	15				0		┐Moist, dark brown (SANDY-SILT <u>) ₀.2</u>			TOC	Topsoil to 0.2 foot
			12					topsoil / fill with little very fine size to the size			ELEVATION	over silty soil fill with
				14			$\times\!\!\times\!\!\times$	sand   Moist, brown, gravelly (SANDY-			392.34291	little gravel to 0.8 foot over sandy fill
					12		$\otimes \otimes$	SILT) fill with 15 to 25% gravel,			Cement /	with little gravel to
							$\times\!\!\times\!\!\times$	little clay, compact			Bentonite	3.0 feet over water
							$\otimes \otimes$	Moist, dark gray, gravelly (SILTY-			Grout	sorted and
								$\neg$ SAND) fill with 15 to 25% gravel $\int_{-\infty}^{3.0}$				deposited sand with
	Ļ	_				0		with occasional slag fragments,	2.0'	3.	Bentonite Seal	1 11410 0114 10 110 1004
	2	2						very fine to fine size sand, little	0		2" PVC Riser Pipe	over silty tending
	_		3					silt, compact in place			Pipe	toward clayey lake sediment to 8.5 feet
5 —				3			$\Box\Box$	Wet, brown (SILTY-SAND) with very fine size sand, loose, weakly				over water sorted
					4		PEA	thinly bedded		5.	5	and deposited sand
								Extremely moist, gray (CLAYEY-				and gravel with trace
								SILT) with little to some clay, firm,				to little silt to 15.5
								thinly laminated with very thin				feet over silty
								coarse silt lenses				tending toward clayey lake sediment
							Ŀăd					to end of boring
								0.5				to one or somig
	3	12				0	4.	Wet, brown, very gravelly (SILTY-	1.6'			▼ Water Level at
			14					SAND) with 40 to 50% gravel,				6.9' BGS at 7:15 AM
				10				very fine to coarse size sand,				on 9/18/14 with 41/4 HSA at 8.5'
10 —					11			trace to little silt, compact in place				110/4 at 0.5
	-						<i>9</i> .					
									4 5,		0" 40 Clat DVC	
	4	6				0			1.5'		2" 10 Slot PVC Screen	
			11								Ocieen	
15 —				13								
10					5			15.5		15.	5	
	5	1				0		Extremely moist to wet, gray	2.0'			
			1				ball	(CLAYEY-SILT) with little to				
				1			Eci	some clay, very soft, thinly laminated with very thin coarse				
					1			silt lenses		17:	5	
								Boring Completed at 17.5' BGS		17.3	-	
								,		1		
										1		
						-						
20 —												
	$\vdash$											
	۱	\C (	<u></u>		V·	Dala		Franza / Sonior Coologist	<u> </u>	DACE 1	of 1	
	L	יטי	JE	ם ט	Ι.	Dale	, IVI. C	Gramza / Senior Geologist		PAGE 1	of <u>1</u>	



MW 2

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DATE: \_\_\_9/18/14\_\_ ELEVATION: 394.37725

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

LOGGED BY: Dale M. Gramza / Senior Geologist

**BORING LOCATION:** See Location Map MONITORING 12/ 18/ LITH DESCRIPTION AND CLASSIFICATION REC **REMARKS** COMMENTS WELL 18 24 (ppm) Moist, dark brown (SANDY-SILT) of 2.0' TOC Topsoil / fill to 0.5 topsoil / fill with little very fine size foot over silty fill with **ELEVATION** sand, with fine size roots trace gravel to 1.0 394.05569 foot over sandy fill Moist, brown (CLAYEY-SILT) fill/ with trace gravel to with 5 to 15% gravel, little clay Cement / Moist, dark gray (SILTY-SAND) -2.3 Bentonite 2.3 feet over Grout concrete rubble to fill with 5 to 15% gravel, very fine 6.0 feet over silty to medium size sand, little silt Bentonite Seal lake sediment to Concrete rubble fill 12.0 feet over water 2" PVC Riser sorted and Pipe deposited sand and gravel with little silt to end of boring 1.2' #2 Size Sand Moist, gravish brown to brown 10 (CLAYEY-SILT) with little clay, 7 thinly laminated with very thin 6 coarse silt lenses 12 Water Level at 8.5' BGS at 1.8' 2" 10 Slot PVC 0 3 3 Completion Screen 4 4 5 Wet, brown, very gravelly (SILTY-SAND) with 40 to 60% gravel, very fine to coarse size sand, little silt, dense in place, stratified 2.0' Note: Sample #1 4 16 obtained with an 20 Earthprobe 0.0'-2.0' 20 23 Boring Completed at 16.0' BGS 20

PAGE 1 of 1



MW 3

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DATE: **ELEVATION: 392.561** 9/18/14

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

**BORING LOCATION:** See Location Map MONITORING 12/ 18/ LITH DESCRIPTION AND CLASSIFICATION REC **REMARKS** COMMENTS WELL 18 24 (ppm) Extremely moist, dark brown 2.0' TOC Topsoil / fill to 0.2 (SANDY-SILT) topsoil / fill with foot over silty fill with **ELEVATION** little very fine size sand, with fine 392.15502 trace gravel to 1.8 feet over sandy fill size roots Moist, brown (CLAYEY-SILT) fill with little silt to 3.0 Cement / with 5 to 10% gravel, little clay Bentonite feet over silty slack Grout water sediment with Moist, brown (SILTY-SAND) fill with very fine size sand, little silt/ trace clay to 10.0 Bentonite Seal Extremely moist, brown to gray feet over water sorted and (SILT) with trace clay, very loose, 2.0' 2" PVC Riser 0 deposited sand and 2 1 thinly bedded with thin (SILTY-Pipe gravel with little to SAND) layers 2 some silt to 14.5 feet 1 over silty lake 2 sediment to end of boring 0 1.6' #2 Size Sand 3 5 6 ▼ Water Level at Wet, gray, very gravelly (SILTY-14 2" 10 Slot PVC 10.1' BGS at SAND) with 40 to 50% gravel, 11 Completion Screen very fine to fine size sand, little to some silt, compact, stratified 1.5' 4 8 Note: Sample #1 Wet, brown and gray (SILT) with 10 obtained with an 15 trace very fine size sand, Earthprobe 0.0'-2.0' compact, thinly bedded 14 Boring Completed at 16.0' BGS

LOGGED BY: Dale M. Gramza / Senior Geologist

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MW 4 www.natureswayenvironmental.com

DATE: 9/19/14 ELEVATION: 394.07536

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR:

NYSDEC Region 6

POPING LOCATION:

See Legation Man

В	OF	RIN	G L	OC	ATI	ON:		See Locati	ion Ma	ар		
	SN	0/ 6	6/ 12	12/ 18	18/ 24	PID (ppm)	LITH	DESCRIPTION AND CLASSIFICATION	REC	MONITORING WELL	REMARKS	COMMENTS
0 —	1	27	7	8	9	0		Asphalt 0.1 Sand and Gravel fill 0.4 Moist, dark gray (SILTY-SAND) fill with 20 to 40% gravel, with coal fragments, very fine to fine size sand, compact	1.8'	1.5	TOC ELEVATION 393.7625 Cement / Bentonite Grout	Asphalt to 0.1 foot over sand and gravel fill to 0.4 foot over sandy fill with some gravel to 3.0 feet over sandy fill with trace gravel to
5 —	2	2	1	2	5	0		Extremely moist, brown (SILTY-SAND) fill with 5 to 10% gravel with occasional glass fragments, very fine size sand, little silt, very loose	2.0'	6.0	Bentonite Seal  2" PVC Riser  Pipe	8.0 feet over coarse
10 —	3	1	2	6	8	0		Extremely moist to wet, dark gray (SANDY-SILT) fill with 5 to 10% cinders, little very fine size sand, loose  Wet, light brown, very gravelly (SILTY- SAND) fill with 40 to 50% gravel and cinders, very fine to coarse size sand, little silt, loose	2.0'		*#2 Size Sand 2" 10 Slot PVC / Screen	▼ Water Level at 8.5' BGS at Completion
15 —	4	6	12	15	21	0		Wet brown, very gravelly (SILTY-SAND) with 40 to 50% gravel, very fine to coarse size sand, little silt, compact, stratified  Boring Completed at 16.0' BGS	1.8'	16.0		
20 —	LC	)G(	GE	D B	Y:	Dale	 e М. С	ramza / Senior Geologist		PAGE <u>1</u> c	of <u>1</u>	



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ENVIRONMENTAL CONSULTANTS & CONTRACTORS. INC HOLE NUMBER: NO DATE: 9/22/14

ELEVATION: 393.76087

3553 Crittenden Road

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

BORING LOCATION: See Location Map

В	BORING LOCATION: See Location Map											
	SN	0/	6/ 12	12/ 18	18/ 24	PID (ppm)	LITH	DESCRIPTION AND CLASSIFICATION	REC	MONITORING WELL	REMARKS	COMMENTS
0 —	1	5	12	10	24	(ppiii)		Moist, dark brown (SANDY-SILT)	1.7'		TOC	Topsoil / fill to 0.6
			11					$\gamma$ topsoil / fill with 5 to 15% gravel, $\int_{0.6}^{0.6}$			ELEVATION	foot over sandy fill
				30		•		little very fine size sand, compact			393.34509	with little gravel to
					23	-		with fine size roots			0	1.5 feet over sand
						-		Moist, dark gray, gravelly (SILTY-SAND) fill with 15 to 25% gravel,		2.0	Cement / Bentonite	and gravel fill to 4.5 feet over silty slack
						-		very fine to fine size sand, little			Grout	water sediment with
						-		silt, dense				trace sand to 6.5
						-		Moist, brown, very gravelly			-Bentonite Seal	
						0		(SILTY-SAND) fill with 40 to 50%	0.3'	4.0	2" PVC Riser	tending toward
	2	4	_			1	$\infty$	mostly fine size gravel, little silt, dense in place	0.0		Pipe	clayey lake sediment to 7.5 feet over
5 —			6			-		Moist, brown (SILT) with trace			'	water sorted and
				6		_		very fine size sand, compact,				deposited sand with
					10			weakly thinly bedded	4 7	6.0	)	some gravel to 9.5
	3	2				0		6.5	1.7'		#0 C: C	feet over silty slack
			2			_		Extremely moist, olive brown			-#2 Size Sand	water sediment with sand layers to 13.5
				2				(CLAYEY-SILT) with some clay, firm, thinly laminated with very				feet over water
					5			thin coarse silt lenses			2" 10 Slot PVC	sorted and
								Wet, brown, gravelly (SILTY-			Screen	deposited sand with
								SAND) with 20 to 40% gravel and			2010011	little silt to 15.5 feet
	4	1				0		white shell fragments, very fine to	1.8'			over silty lake sediment with trace
40			1					coarse size sand, loose, thinly bedded				clay to end of boring
10 —				2				Wet, gray (SILT) with trace to				
					2			little clay, very loose, thinly				▼ Water Level at
							1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1	laminated with wet (SILTY-				9.3' BGS at Completion
								SAND) layers, 1" to 2" thick				Completion
						-						
							711121	Wet, brown (SILTY-SAND) with				
	5	2				0		very fine size sand, little silt, very	1.9'			
	Ť	_	1			1		loose, thinly bedded				
15 —			·	1								
				•	1	-		Extremely moist, gray (SILT) with <sub>16.0</sub>				
					<u>'</u>	-		trace clay, very loose, thinly		16.0	1	No Water at
						-		bedded, with partially				Completion
	<u> </u>					-		decomposed organic material				
						-		Boring Completed at 16.0' BGS				
						-						
						-						
						-						
						-						
20 —						_						
						_						
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	LC	)G	GΕ	DE	SY:	Dale	<u>е М. С</u>	Gramza / Senior Geologist		PAGE 1 0	of <u>1</u>	



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VIRONMENTAL CONSULTANTS & CONTRACTORS. INC HOLE NUMBER:

MW 6

DATE: 9/23/14 ELEVATION: 393.46493

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

**BORING LOCATION:** See Location Map MONITORING 6/ 12/ 18/ LITH DESCRIPTION AND CLASSIFICATION REC **REMARKS** COMMENTS WELL 12 18 24 (ppm) Moist, dark brown (SANDY-SILT) 0.5 1.8' TOC Topsoil / fill to 0.5 4 topsoil / fill with little very fine size foot over sandy fill **ELEVATION** sand, compact with fine size 393.0922 with some gravel to 13 5.0 feet over silty roots 16 Moist, brown, gravelly (SILTY-Cement / slack water SAND) fill with 20 to 40% gravel 'Bentonite sediment with trace with cobbles, very fine size sand, Grout clay to 8.5 feet over little silt, compact in place water sorted and Bentonite Seal deposited gravel with little sand to **PVC** Riser 1.6' 11 end of boring 2 Pipe 7 Extremely moist, brown (SILT) 6 with trace clay, stiff, thinly bedded 4 Water Level at Wet, brown (GRAVEL) with 50 to 8.5' BGS at 70% gravel, little very fine to very 1.0' #2 Size Sand 3 20 Completion coarse size sand, compact in 12 place, loose when disturbed, 9 stratified 12 0.9' 2" 10 Slot PVC 5 Screen 15 13 16 0.3' 17 5 28 28 Boring Completed at 15.0' BGS 20 LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1



MW 7 www.natureswayenvironmental.com

DATE: 9/23/14 ELEVATION: 392.78697

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

**BORING LOCATION:** See Location Map MONITORING 6/ 12/ 18/ LITH DESCRIPTION AND CLASSIFICATION REC **REMARKS** COMMENTS WELL 12 18 24 (ppm) 4 Moist, dark brown (SANDY-SILT) 0.4 1.6' TOC Topsoil / fill to 0.4 topsoil / fill with little very fine size foot over sandy fill **ELEVATION** 10 sand, compact with fine size 392.53047 with some gravel to 39 4.5 feet over silty roots 50/3" Moist, brown and dark gray, Cement / slack water gravelly (SILTY-SAND) fill with 20 Bentonite sediment with trace to 40% gravel with occasional Grout to little clay to 8.5 feet over water cobbles, very fine size sand, little Bentonite Seal silt, dense sorted and deposited sand and 0.7' 2" PVC Riser 29 gravel to 12.0 feet 2 Pipe over water sorted Moist, brown (SILT) with trace to 8 and deposited sand little clay, compact, weakly thinly 6 to end of boring bedded 10 Wet, brown, very gravelly (SAND) with 40 to 60% gravel, very fine 0.6' #2 Size Sand 3 14 Water Level at to coarse size sand, trace silt, 13 8.9' BGS at compact in place, loose when Completion 8 disturbed, stratified 10 1.0' 2" 10 Slot PVC 0 Wet, brown (SILTY-SAND) with 2 Screen very fine size sand, little silt, very 1 loose, thinly bedded with thin 1 (SILT) seams 2 No Water at Boring Completed at 14.0' BGS Completion 20 LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1



PROJECT:

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8 WM

ENVIRONMENTAL CONSULTANTS & CONTRACTORS. INC HOLE NUMBER:

DATE: 9/24/14

ELEVATION: 391.62054

Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

BORING LOCATION: See Location Map

Ь	See Location Map											
	SN	0/ 6	6/ 12	12/ 18	18/ 24	PID (ppm)	LITH	DESCRIPTION AND CLASSIFICATION	REC	MONITORING WELL	REMARKS	COMMENTS
5 —	2	5 WH	2	4	3	0		Extremely moist, dark brown (SANDY-SILT) topsoil / fill with 5 to 15% gravel, little to some very fine size sand Moist, brown, gravelly (SILTY- SAND) fill with 20 to 40% gravel, very fine to fine size sand, little silt, loose Extremely moist, dark gray (SILT) with trace to little clay, loose, weakly thinly bedded		0.5	TOC ELEVATION 391.23423 Cement / Bentonite Grout Bentonite Seal 2" PVC Riser Pipe	sorted and deposited sand and gravel (possible ash fill) to 11.5 feet over
	3	8			6	0		Wet, brown to light brown, very gravelly (SILTY-SAND) with 40 to 50% gravel, very fine to coarse size sand, compact	0.4'		-#2 Size Sand	water sorted and deposited sand and gravel to end of boring Water Level at 6.0' BGS at Completion  WH - Sampler penetration with
10 —			13	12	8			Wet, brown (GRAVEL) with 50 to				weight of Rods and Hammer
	4	2	5	6	4	0		60% gravel, very fine to very coarse size sand, trace silt, compact in place, loose when disturbed, stratified  Boring Completed at 14.0' BGS	1.6'	14.0	2" 10 Slot PVC Screen	
15 —												
20 —												
	LC	)G(	GE	D E	Y:			Gramza / Senior Geologist		PAGE <u>1</u> c	of <u>1</u>	



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ENVIRONMENTAL CONSULTANTS & CONTRACTORS. INC HOLE NUMBER: MW 9

DATE: 9/24/14

ELEVATION: 393.33692

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

BORING LOCATION: See Location Map

1	В	BORING LOCATION: See Location Map											
Moist, dark brown (SILTY-SAND) as 1.4    10   10   12   12   12   12   12   12	0	SN						LITH				REMARKS	COMMENTS
below 5.5' (SILTY-SAND) fill with very fine size sand, little silt, compact, weakly thinky bedded with thin (SILT) lenses  1.9'  Extremely moist, brownish gray (CLAYEY-SILT) fill with white ash fragments and wood, little day, firm Wet, gray, gravelly (SILTY-SAND) fill with so to 60% gravel with ash pieces, loose with ash pieces, loose with ash pieces, loose with ash pieces, loose sand, trace silt, loose, stratified  4 2 0 0  Boring Completed at 16.0' BGS  Boring Completed at 16.0' BGS  Boring Completed at 16.0' BGS	0	1	4	10	22	22			topsoil / fill with very fine size sand, loose with fine size roots  Moist, dark gray, gravelly (SILTY-SAND) fill with 15 to 25% gravel, very fine to fine size sand, little silt, dense in place		4.0	ELEVATION 392.90751  Cement / Bentonite Grout  Bentonite Seal	foot over sandy fill with little gravel to 4.0 feet over sandy alluvial sediment to 9.0 feet over apparent clayey soil fill with ash and wood to 10.0 feet
3 1 2	5 —	2	5	7	5	10	0		below 5.5' (SILTY-SAND) fill with very fine size sand, little silt, compact, weakly thinly bedded with thin (SILT) lenses	1.7'	6.0	Pipe	and ash to 12.0 feet over water sorted and deposited gravel
Boring Completed at 16.0' BGS  Boring Completed at 16.0' BGS	10 —				3	4	0		Extremely moist, brownish gray (CLAYEY- SILT) fill with white ash fragments and wood, little clay, firm  Wet, gray, gravelly (SILTY-SAND) fill with 20 to 40% gravel with ash pieces, loose  Wet, brown (GRAVEL) with 50 to 60% gravel with occasional cobbles, very fine to coarse size			· 2" 10 Slot PVC	10.0' BGS at
	20 —	LC	DG(				Dale	e M. G	Boring Completed at 16.0' BGS		PAGE 1 C		



Alden, NY 14004 MW 10

PAGE 1 of 1

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3553 Crittenden Road

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DATE: **ELEVATION: 392.06535** 9/24/14

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: NYSDEC Region 6

LOGGED BY: Dale M. Gramza / Senior Geologist

**BORING LOCATION:** See Location Map MONITORING 6/ 12/ 18/ LITH DESCRIPTION AND CLASSIFICATION REC **REMARKS** COMMENTS 12 18 24 (ppm) WFII 6 Extremely moist, dark brown 1.8' TOC Topsoil / fill to 0.5 (SILTY-SAND) topsoil / fill with **ELEVATION** foot over mixed soil 6 very fine size sand, little silt, fill with little gravel to 391.56497 11 compact, with roots 3.0 feet over cinder Moist, brown, mixed, gravelly and ash fill to 5.0 Cement / (SILTY-SAND) fill with 15 to 25% Bentonite feet over siltv alluvial gravel and (CLAYEY-SILT) fill Grout sediment with trace clay to 9.5 feet over with little clay, compact and very/ Bentonite Seal apparent water Extremely moist, gray and dark sorted and 2.0' 2" PVC Riser gray, gravelly (SILTY-SAND) fill deposited sand and 2 2 Pipe with 20 to 40% cinders and ash, gravel with little silt 1 (possible fill) to 13.0 very fine size sand, very loose 1 feet over water Moist, brown (SILT) with trace 2 sorted and clay, very loose, blocky soil deposited sand with structure some gravel (possible dredging material) to end of boring Water Level at 7.3' BGS at Completion 1.4' #2 Size Sand 0 3 2 Wet, brown, very gravelly (SILTY-6 SAND) with 40 to 50% gravel, 8 very fine to fine size sand, little silt, compact, weakly stratified 2.0' 2" 10 Slot PVC Wet, brown and white, gravelly 4 1 Screen (SAND) with 20 to 40% gravel and broken shell fragments, very 5 fine to coarse size sand, loose, 3 weakly thinly bedded Boring Completed at 15.0' BGS 20



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DATE: ELEVATION: 393.81774 9/24/14

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR: **NYSDEC Region 6** 

В	3OF	RIN	G L	OC.	ATI	ON:	See Location Map						
	SN	0/ 6	6/ 12	12/ 18	18/ 24	PID (ppm)	LITH	DESCRIPTION AND CLASSIFICATION	REC	MONITORING WELL	REMARKS	COMMENTS	
0 —	1	4	8	7		0		Moist, brown (SILTY-SAND) topsoil / fill with very fine to fine size sand, loose, with fine size	1.8'	1.0	TOC ELEVATION 393.29749	Topsoil / fill to 0.4 foot over gravel, cinder and sand fill	
					6			roots  Moist, dark gray, very gravelly (SILTY- SAND) fill with 40 to 60% gravel and cinders, very fine to very coarse size sand, compact		3.0	Cement / Bentonite Grout	to 4.0 feet over sandy fill with some gravel to 9.0 feet over apparent sand and gravel fill to 12.0	
	2	9				0		in place, loose when disturbed  Moist to extremely moist, brown,	1.7'		Bentonite Seal  –2" PVC Riser	feet over apparent water sorted and deposited sand with	
5 —		3	18	12		_		gravelly (SILTY-SAND) fill with 20 to 40% gravel and red brick fragments, very fine to fine size		5.0	Pipe	little silt to end of boring	
					10			sand, little silt, compact					
						_		9.0				<b>▼</b> Water Level at	
10 —	3	7	6	6		0		Wet, brown, very gravelly (SILTY-SAND) with with 40 to 50% gravel with white broken shell fragments, very fine to very	2.0'		#2 Size Sand	8.9' BGS at Completion	
					9			coarse size sand, little silt (possible fill)					
	4	1				0		Wet, gray (SILTY-SAND) with very fine to medium size sand, little silt, loose, weakly thinly bedded	1.8'		°2" 10 Slot PVC Screen		
15 —			2	2	3			15.0		15.0	Corcon		
10								Boring Completed at 15.0' BGS				No Water at Completion	
20 —													
	LC	G	GE	D E	 	Dale	<u>                                       </u>	Gramza / Senior Geologist		 PAGE	of <u>1</u>		



MW 12

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DATE: 9/25/14 ELEVATION: 393.93467

PROJECT: Subsurface Investigation at the Duofold Corporation

7 Spruce Street, Ilion, NY

PREPARED FOR:

NYSDEC Region 6

RORING LOCATION:

See Location Man

E	3OF	RIN	G L	OC	ATI	ON:		See Location Map				
•	SN	0/ 6	6/ 12	12/ 18	18/ 24	PID (ppm)	LITH	DESCRIPTION AND CLASSIFICATION	REC	MONITORING WELL	REMARKS	COMMENTS
0 —	1	3	7	8	15	0		Moist, dark brown (SANDY-SILT) 0.2 topsoil / fill with some very fine size sand Moist, dark gray, gravelly (SILTY-SAND) fill with 20 to 40% gravel with cinders, very fine to medium size sand, little silt	2.0'	1.5	TOC ELEVATION 393.64338  Cement / Bentonite Grout	Topsoil / fill to 0.2 foot over sandy fill with some gravel and cinders to 4.5 feet over silty alluvial sediment with little clay to 8.5 feet over
5 —	2	8	4	5	7	0		Extremely moist, gray (CLAYEY-SILT) with little clay, firm, thinly laminated with very thin coarse silt lenses	1.7'	5.0	Bentonite Seal 2" PVC Riser Pipe	water sorted and deposited sand and gravel with little silt to 10.0 feet over silty lake sediment to end of boring
10 —	3	6	8			0		Wet, brown, very gravelly (SILTY-SAND) with 50 to 60% gravel, very fine to coarse size sand, little silt, compact, weakly	1.6'		~#2 Size Sand	▼ Water Level at 7.7' BGS at Completion
	4	2	5	11	9	0		stratified	0.5'		·2" 10 Slot PVC Screen	
15 —				2	4					15.0		
20 —	5	2	2	2	3	0		Wet, brown (SILT) with trace very fine size sand, loose, thinly bedded  Boring Completed at 20.0' BGS  20.0	0.7'	20.0		
	LC	G	GE	D E	Y:	Dale	M. C	Gramza / Senior Geologist		PAGE 1 c	of <u>1</u>	1





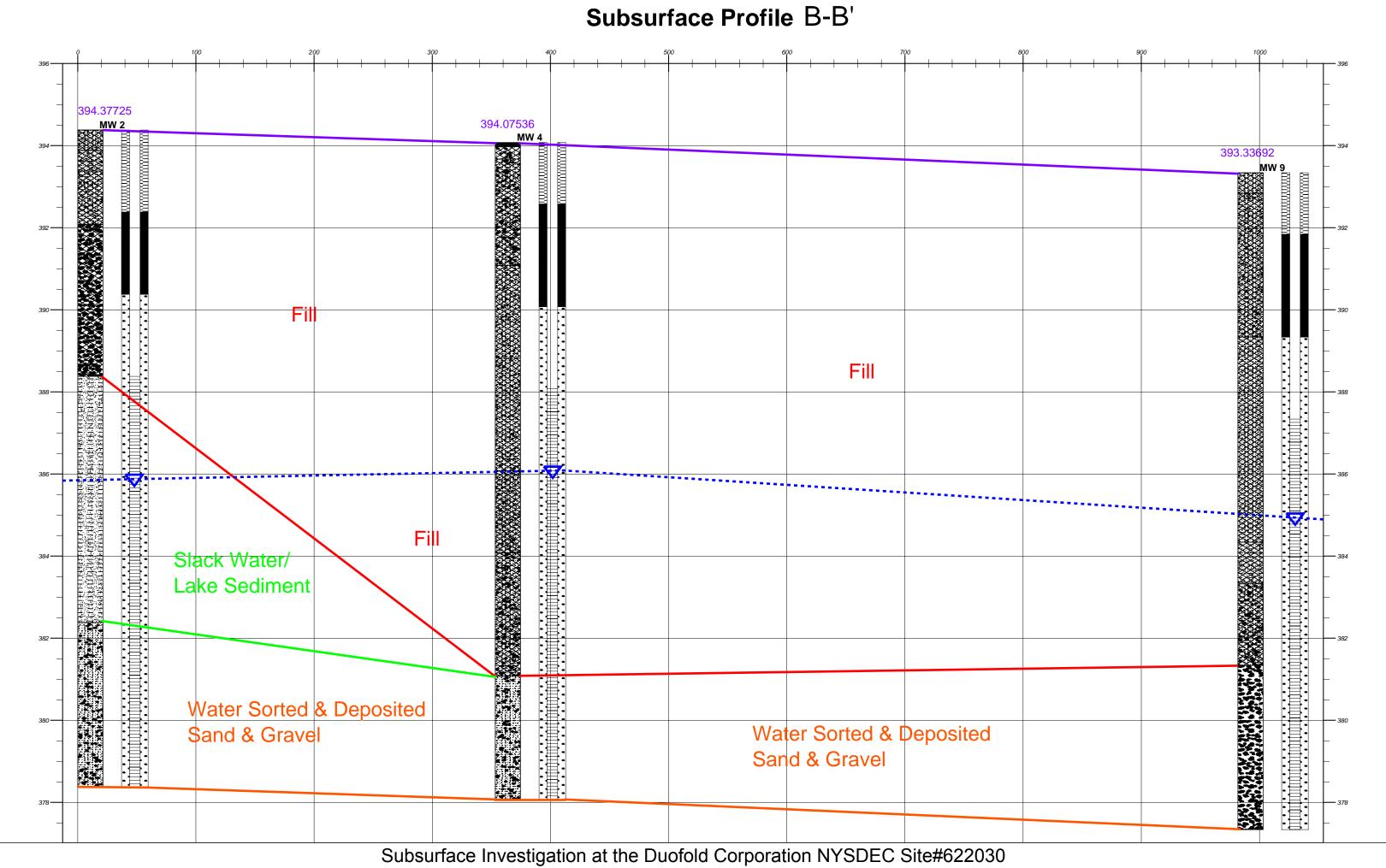
Subsurface Investigation Report Duofold Corporation NYSDEC Site#622030 7 Spruce Street Ilion, NY

## Appendix 3

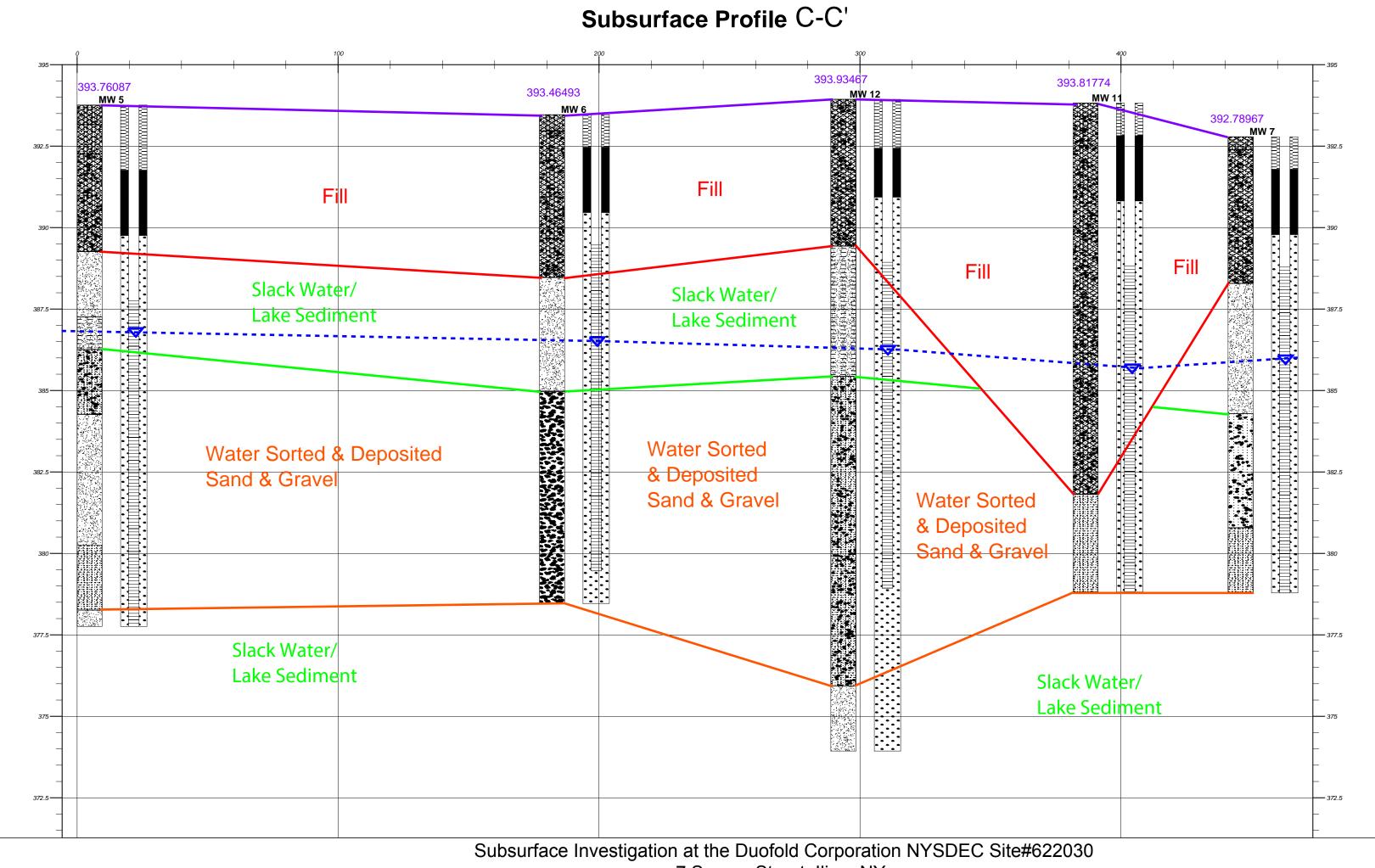
**Cross Section** 

## **Subsurface Profile A-A'** 392.85749 392.561 392.06535 391.62054 Fill Fill Fill Slack Water/ Slack Water/ Lake Sediment Lake Sediment Slack Water/ Lake Sediment Water Sorted & Deposited Water Sorted & Deposited Water Sorted & Deposited Sand & Gravel Sand & Gravel Sand & Gravel Slack Water/ Slack Water/ Slack Water/ **Lake Sediment** Lake Sediment Lake Sedimen Subsurface Investigation at the Duofold Corporation NYSDEC Site#622030

7 Spruce Street, Ilion, NY



7 Spruce Street, Ilion, NY



7 Spruce Street, Ilion, NY