

REVISED LIMITED SUBSURFACE INVESTIGATION REPORT

Former C & F Plating

406 North Pearl Street City of Albany, Albany County, New York NYSDEC Spill No.: 02-09561

Report Completed: May 2008

Prepared for:

New York State Department of Environmental Conservation Region 4 Division of Environmental Remediation 1130 North Westcott Road Schenectady, NY 12306-2014

Prepared By:

PRECISION ENVIRONMENTAL SERVICES, INC.

831 Route 67, Lot 28 Ballston Spa, New York 12020

1.0 Introduction:

Precision Environmental Services, Inc. (PES) has prepared this site investigation report to document the findings of the limited investigative work performed at the former C & F Plating site (see Attachment A, Figure 1 for site location detail). The work described within this report was initiated pursuant to a November 3, 2005 directive from the New York State Department of Environmental Conservation (NYSDEC). Work tasks completed and documented within this report include ①-installation of six (6) soil borings; ②-installation of five (5) groundwater monitoring wells; ③-performance of a site survey and base map development for newly installed monitoring wells and relevant surface features; ④-development and sampling of newly installed and existing monitoring wells; ⑤-Collection of eleven (11) surface soil samples and ⑥-sampling of sediments in the adjacent Patroon Creek.

1.1 Background:

<u>Please Note</u>: The following discussion is limited to PESs findings as they relate solely to the limits of the authorized scope of work. Specifically, information presented will address only those areas of the site where PES performed subsurface investigative work (i.e. – installed monitoring well locations) see Figure 2 for site plan details.

According to limited information provided to PES, the site was historically utilized as a chrome plating facility from the 1920's to 1985. Since 1985 the facility has been used for storage of miscellaneous equipment. In January 2004 the U.S. Environmental Protection Agency (EPA) removed numerous containers of liquid and solid wastes from the site. On October 27, 2005 PES and the NYSDEC visited the site to assess current conditions. The majority of the site is still being utilized for the storage of miscellaneous equipment, commercial and household trash and debris.

1.2 Site Description:

The subject site is located at 406 North Pearl Street, in the City of Albany, Albany County, New York (see Attachment A, Figure 1 for site location detail). A single structure, which currently exists on site, consists of a vacant two-story warehouse. The property is situated in a commercial area. In general, the land surfaces at the site are covered with asphalt, gravel, and concrete. The site and the surrounding area have an apparent topographic slope to the east-southeast towards the Hudson River. The nearest surface water body, the Patroon Creek, is located to the north/northeast, immediately adjacent to the property/building. While operational the site was serviced by municipal water and sewer systems.

2.0 Subsurface Investigation:

As directed by the NYSDEC, PES performed a subsurface investigation by installing soil borings at six (6) on-site locations. Soil boring locations were biased towards suspected areas of concern (i.e. interior trenching and drains, exterior depressions and perceived drainage patterns). Ultimately, site access was limited due to stockpiled equipment and commercial and household waste (see Attachment B, Figure 2 for detail). Five (5) of the soil borings were converted into one-inch diameter groundwater-monitoring wells (MWs). The purpose of the MWs is to provide groundwater elevation data and facilitate groundwater sample collection, both of which aid in determining contaminant occurrence, concentration and migration.

2.1 Soil Boring Installation:

On October 3 and 4, 2006 six (6) 2-1/4-inch diameter soil borings (SBs) were installed by PES at the subject site. The SBs have been designated as SB-1 through SB-6 (See Attachment A, Figure 2, for relative SB locations). Soil borings were installed utilizing PES's skid steer mounted, direct push, soil probe. Borings were advanced to varying depths throughout the site. Continuous, discreet, macro-core sampling was conducted at four (4)-foot intervals during boring advancement. Upon collection, each sample was examined for lithologic classification, and screened with a Photo Ionization Detector (PID) to qualitatively determine the presence and amount of volatile organic compounds (VOCs). Details regarding lithologic classification and PID readings were recorded on the respective boring logs and have been included as Attachment C. Screening involved sealing representative portions of the acquired sample in clean plastic bags, allowing for equilibration and scanning the headspace with the PID. Table 1 provides a summary of the PID responses for individual soil borings.

Soil samples were collected from varying depths in select borings based on PID response, location relative to the perceived water table and visible or olfactory characteristics. Soil samples were secured in laboratory-supplied glassware, placed on ice and submitted via chain-of-custody protocol to Adirondack Environmental Services, Inc., of Albany, NY. The collected samples were analyzed for VOCs via EPA analytical method 8260, PCBs via EPA method 8082 and TAL Metals. A summary of the analytical results has been included in Attachment A, Tables 4, 5 & 6 (see Attachment B, Figures 5, 6 and 7 for additional detail).

TABLE 1: Soil Screening Results

Boring/ Well ID	Sample Interval (feet)	Maximum Observed PID Value (PPM) *1	Sample Submitted for Laboratory Analysis	Notes
SB-1	10-12'	ND	Yes	Sample selected based on location relative to water table
SB-2	10-12'	14	Yes	Slight petroleum odor
SB-3	3-6'	ND	Yes	Discoloration/Staining evident
SB-3	7-9'	ND	Yes	Sample selected based on location relative to water table
SB-4	0-8'	ND	No	N/A
SB-5	8-10'	ND	Yes	Sample selected based on location relative to water table
SB-6	8-10'	153	Yes	Staining and petroleum odor evident

NOTE *1:All results obtained by H-NU model DL-102 PID

ND = Not Detected

N/A = Not Available/Not Applicable



2.2 Monitoring Well Installation:

On October 3 and 4, 2006, five of the soil borings were converted into 1-inch diameter groundwater monitoring wells. The monitoring wells have been designated as MW-1 through MW-5 (See Attachment A, Figure 2, for relative MW locations). Each MW was constructed using one-inch schedule 40 PVC well screen and casing with flush threaded joints (see Table 2 below for a well construction summary). Each MW was constructed such that the screened interval extended across the observed water table (refer to Attachment C for well completion details). The annular space around the well screen was filled with #0 silica sand to approximately one (1)-foot above the well screen. A bentonite seal was then placed above the sand to prevent the infiltration of surface water. Each MW was completed as a stick-up such that a section of solid well riser extends above finished grade.

TABLE 2: Well Construction Summary*²

Boring/Well ID	Total Depth (feet)	Screen Interval (feet)	Depth at which Groundwater was Encountered (feet)
SB-1/MW-1	15	5-15	8
SB-2/MW-2	15	5-15	8
SB-3/MW-3	16	5-16	8
SB-5/MW-4	10	5-10	9
SB-6/MW-5	16	5-16	7.5

^{*2:} See Attachment C (Drilling Logs) for complete well construction details

2.3 Monitoring and Surveying:

On October 27, 2006 top of well casing elevations at newly installed wells were surveyed to determine groundwater elevation and/or groundwater gradient in the subsurface. All elevation data acquired is relative to an assumed elevation of a temporary benchmark. Depth to water (gauging) was also determined for each data point on October 27, 2006 using a water level indicator (WLI). The WLI utilized is capable of distinguishing the air/water interface to an accuracy of 0.01 feet. The Groundwater Elevation Data Table included as Attachment A, Table 3 summarizes the top of casing elevations, the depth to groundwater and the corresponding groundwater elevations for all site wells at the time of the gauging event.

2.4 Monitoring Well Sampling:

On October 27, 2006 groundwater samples were collected from the MWs using dedicated disposable polyethylene bailers. Prior to sampling, each well was developed by repetitive bailing. Samples were then secured in laboratory-supplied glassware, placed on ice and submitted via chain-of-custody protocol to Adirondack Environmental Services, Inc., of Albany, NY to be analyzed for VOCs via EPA analytical method 8260, SVOCs via method 8270, PCBs via method 8082 and TAL Metals. A summary of the analytical results has been included as Attachment A, Tables 7, 8, 9, 10 and 10A.



Following a review of the analytical results from the October 27, 2006 sampling event a second round of groundwater monitoring/sampling was conducted to obtain additional analytical data with respect to the levels of metals dissolved in the groundwater. The second round of sampling, which was conducted on May 17, 2007, included additional monitoring of groundwater parameters, such as turbidity, temperature, pH and conductivity. The goal of the additional round of sampling was to obtain relatively turbid free samples in an effort to determine if the metals contamination observed during the October 2006 sampling round was due to suspended solids or dissolved constituents.

Prior to sample collection each well was developed with a peristaltic pump. A minimum of three well volumes was purged from each well during development. Purge water was monitored for turbidity during well development. Pursuant to NYSDEC technical and administrative guidance memorandum (TAGM) 4015 groundwater samples were collected following confirmation that the turbidity level was less than 50 NTU's. Where field verification of turbidity levels could not be determined (MW-2 and MW-4), turbidity was determined through laboratory analysis. Samples were secured in laboratory-supplied glassware, placed on ice and submitted via chain-of-custody protocol to Adirondack Environmental Services, Inc., of Albany, NY to be analyzed for TAL Metals to include a category B data deliverable package. A summary of the analytical results from the May 2007 sampling event has been included as Attachment A, Table 10A.

3.0 Surface Soil Sampling:

To supplement the subsurface investigation eleven (11) surface soil samples were obtained in accessible areas at the site on October 3 and 4, 2006. Surface soil samples were collected from 0 to 2 inches below relative ground surface beneath existing vegetative cover and/or concrete/asphalt. Sample locations were biased towards the suspected area of greatest contamination based on professional judgment utilized in the field and as identified by others. A sample was collected at each soil boring location as well as select locations in waste storage areas and interior floor drains.

Surface soil samples were secured in laboratory-supplied glassware, placed on ice and submitted via chain-of-custody protocol to Adirondack Environmental Services, Inc., of Albany, NY. The collected samples were analyzed for VOCs via EPA analytical method 8260, PCBs via EPA method 8082 and TAL Metals. A summary of the analytical results has been included in Attachment A, Tables 4, 5 & 6 (see Attachment B, Figures 5 and 7 for additional detail).

4.0 Patroon Creek Sediment Sampling:

Based on the close proximity to the Patroon Creek to areas of former plating operations, it was prudent to investigate potential impacts to the Patroon Creek. As such, PES collected sediment samples from the immediately adjacent Patroon Creek. Sediment soils were collected in a stainless steel split-spoon sampler from one to six inches beneath the creek bottom. Due to a lack of accessible sample locations and appreciable sample media only five samples, including one background, were collected. Two sediment samples were collected immediately adjacent to the C&F Plating facility (C&F East and C&F West), two samples were collected at the nearest down stream access point where the Patroon Creek enters the Hudson River (Patroon Mouth North and South samples) and one background sample was obtained in an upstream location (Background sample). Figure 8, included in Attachment A, depicts sediment sample locations.



Sediment soil sample locations were based primarily on perceived accessibility and availability of sediments. Sediment soil samples were secured in laboratory-supplied glassware, placed on ice and submitted via chain-of-custody protocol to Adirondack Environmental Services, Inc., of Albany, NY. The collected samples were analyzed for VOCs via EPA analytical method 8260, SVOCs via EPA analytical method 8270, PCBs via EPA method 8082 and TAL Metals. A summary of the analytical results has been included in Attachment A, Tables 11, 12, 13 & 14 (see Attachment B, Figure 8 for additional detail).

5.0 Geologic/Hydrogeologic Findings:

5.1 Regional Geology:

The subject property is located within the Hudson Mohawk Lowland Physiographic Province. The overburden soils in the surrounding area have been characterized as Lacustrine Sand, which are composed of well sorted, stratified sand deposits, or Lacustrine Silt and Clay, which are composed of generally laminated silt and clay (Cadwell et al, 1987). The bedrock geology identified in the vicinity of the property is the Normanskill Shale, which is of Middle Ordovician origin (Fisher et al, 1970).

5.2 Site Geology:

Subsurface soils were investigated at the site by utilizing the soil borings as previously discussed. The depth of overburden exploration reached 16-feet below grade. Soils encountered at the site were generally composed of silty sand, silt and silty clay (see Attachment C for soil boring details).

5.3 Surface Water:

The nearest surface water body, the Patroon Creek, is located immediately adjacent to the north/northeast of the subject property (see Attachment A, Figure 1). The Patroon Creek physically contacts the eastern boundary of the building that occupies the majority of the site (see Figure 8 for detail).

5.4 Site Hydrogeology:

Depth to groundwater measurements, obtained on October 27, 2006 were observed under static conditions from each well (see Attachment A, Table 3). See the above Table 2 for a summary of groundwater occurrence during the drilling process. A groundwater gradient map was developed from the gauging data and has been included as Attachment B, figure 3. The data presented in Figure 3 indicates that groundwater contained within the overburden material is migrating east/southeast towards the Patroon Creek.



6.0 Conclusion:

As directed and as approved by the NYSDEC, six (6) soil borings and five (5) groundwater-monitoring wells were installed to varying depths at the subject site to investigate the subsurface. Eleven surface and six subsurface soil samples were collected as part of the site investigation. Soil screening and sampling took place during soil boring installation and sample collection procedures.

The laboratory results from the surface and subsurface soil samples collected during the investigation indicate that elevated levels of inorganic contaminants exist at the site above Recommended Soil Cleanup Objectives (RSCO) levels as published in NYSDEC TAGM 4046 Heavy Metals Soil Cleanup Criteria Table. Several of these inorganics are readily attributed to typical chrome plating operations including Cadmium, Chromium and Nickel. Cadmium was detected at concentrations greater than the corresponding RSCO level in ten out of the eleven surface soil samples and five of the six subsurface soil samples collected. Elevated chromium concentrations were detected in seven of the eleven surface soil samples and in two subsurface soil samples. The concentration of Nickel was detected at elevated levels in six of the eleven surface samples and three subsurface samples (see Table 6 and Figures 5 and 6 for detail).

In addition to Cadmium, Chromium and Nickel, Several other inorganics were detected in soil samples at the site exceeding relevant Eastern USA Background levels including: Arsenic, Barium, Beryllium, Cobalt, Copper, Mercury and Zinc.

Newly installed monitoring wells were surveyed, gauged, developed and sampled subsequent to their installation. The analytical results indicate that groundwater at the subject site has been impacted by heavy metals (see Table 10A and Figures 4-4c for detail). A comparison of the October 2006 and May 2007 groundwater analytical results suggest that the significantly higher concentrations of heavy metals observed during the first round are due to suspended solids in the groundwater samples. However, analytical results from the less turbid samples collected during the second round indicate direct impacts to the groundwater from past site operations. Most notable are elevated concentrations of Cadmium, Chromium and Nickel, relative to the NYSDEC groundwater standard as defined in 6 NYCRR Part 703. Volatile and Semi-volatile organic compounds and PCBs were not detected in groundwater. Gauging data also indicates that groundwater encountered is migrating east/southeast.

To assess potential impacts to the Patroon Creek five (5) sediment soil samples were obtained from the creek bottom. The analytical results suggest that the creek sediments have not been adversely impacted by site operations. The creek flows primarily through commercial and industrial properties where numerous releases and environmental impacts to the creek have been documented. The compounds identified in the sediment samples both near the site and down stream, as summarized in Attachment A, Tables 11-14, are commonly found in such settings. The lack of a marked increase in concentrations down stream as compared to those discovered upstream provide further support that the creek has not been impacted by the subject facility.

7.0 Discussion/Recommendations:

Based on the findings discussed within this report, PES attributes the elevated levels of heavy metals detected in soil and groundwater at the site to historic chrome plating operations. An insufficient amount of



background samples were obtained to accurately ascertain the local baseline levels for many of the metals of concern. Due to site logistics, sufficient background samples could not be obtained from areas that were suspected to be free of potential historic contamination. Background samples collected/analyzed from off-site locations was not part of the scope of authorized services. However, based on the perceived groundwater flow direction and various site characteristics noted during the field assessment (i.e.: impervious cover and elevation relative to suspected target areas of concern) the location of SB-1/MW-1 could prove to be a viable background sample location. With this concept in mind, the data presented in Figures 4 and 5 suggests that several of the metals of concern exist at the site in an area that is hydraulically upgradient and in a location that was perceived to be non-impacted by facility operations. The occurrence of these constituents of concern at the SP-1/MW-1 location therefore suggests the possibility that these metals are indigenous to the site and may not be related to historic plating operations. With this hypothesis established, it becomes plausible that the elevated concentrations of contaminants detected in surface soil samples collected within the limits of the building as well as groundwater from MW-2, 3, 4, and 5 are the direct result of the historic site usage (plating activities).

PES recommends the following:

- Collection of additional soil samples on adjacent properties to accurately determine area background levels for heavy metals, with particular regards to the metals of concern identified above as well as Antimony, Lead, Silver and Cyanide.
- Begin quarterly monitoring of the site to assess contaminant concentrations over time and potential seasonal fluctuations.
- Installation of additional groundwater monitoring wells at perceived down gradient locations. Possible location for additional wells is the sidewalk along the north side of North Pearl Street adjacent to the front of the existing site building.



8.0 Disclaimer:

Any statement or opinion contained in this Report prepared by Precision Environmental Services, Inc. (PES) shall not be construed to create any warranty or representation that the real or personal property on which the investigation was conducted is free of pollution or complies with any or all applicable regulatory or statutory requirements, or that the property is fit for any particular purpose. Unless otherwise indicated in this Report, PES did not independently determine the compliance of present or past owners of the site with federal, state or local laws and regulations. The conclusions presented in this Report were based upon the services described, within the time and budgetary constraints imposed by the client, and not on scientific tasks or procedures beyond the scope of those described services. PES shall not be responsible for conditions or consequences arising from any facts that were concealed, withheld or not fully disclosed by any person at the time the evaluation was performed.

Any person or entity considering the acquisition, use or other involvement or activity concerning the property that is the subject of this Report shall be solely responsible for determining the adequacy of the property for any and all such purposes. The person or entity should enter into any such acquisition or use relying solely on its own judgment and personal investigation of the property, and not upon reliance of any representation by PES regarding the property or the character, quality or value thereof.

Should you have any questions regarding the above report, please feel free to contact the undersigned at 518-885-4399.

SINCERELY

PRECISION ENVIRONMENTAL SERVICES, INC.

Stephen M. Phelps Project Manager

Enclosures:

Attachment A: Tables Attachment B: Figures Attachment C: Boring Logs

Attachment D: Data Usability Summary Report

Laboratory Analytical Report submitted under separate cover



Former C & F Plating, Albany, NY Revised *Limited* Subsurface investigation Report, May 2008 NYSDEC Spill No.: 02-09561

Attachment A

TABLES



Former C & F Plating 406 North Pearl Street., Albany, NY Limited Subsurface Investigation, March 2007

	TABLE 3												
Groundwater Elevation Data Table													
Well ID	Well ID Top of Casing Depth to Depth to Elevation* Depth to LNAPL Water *2 Elevation Notes												
Well ID	Elevation* ¹	Hotes											
MW-1	102.59	NA	8.63	93.96									
MW-2	101.48	NA	8.85	92.63	Light sheen, slight petro. odor								
MW-3	99.34	NA	7.78	91.56									
MW-4	102.80	NA	10.21	92.59									
MW-5	100.50	NA	8.12	92.38	Light sheen, slight petro. odor								

Comments: All values are reported in feet.

LNAPL - Light Non Aqeous-Phase Liquid

NA - Not Available/Applicable.

DRY - No water present in well at time of sampling

* 1 - Survey performed October 27, 2007

*2 - Data Obtained on October 27, 2007

Former C & F Plating 406 North Pearl Street., Albany, NY Revised Limited Subsurface Investigation, May 2008

	TABLE 3A												
	Groundwater Elevation Data Table												
Well ID	Well ID Top of Casing Depth to Depth to Water Table Notes												
Well 1D	Elevation* ¹	LNAPL	Water *2	Elevation	110100								
MW-1	102.59	NA	8.02	94.57									
MW-2	101.48	NA	8.48	93.00	Light sheen, slight petro. odor								
MW-3	99.34	NA	7.54	91.80									
MW-4	102.80	NA	6.25	96.55									
MW-5	100.50	NA	7.77	92.73	Slight petro. odor								

Comments: All values are reported in feet.

NA - Not Available/Applicable.

- *1 Survey performed October 27, 2007
- *2 Data Obtained on May 17, 2008

								TABL	E 4									
							So	il Analytica	al Summary	1								
								Sai	mple Point									NYSDEC Soil
Analyte	DRAIN (Concrete)	SB-1 (8-9)	SB-1 (Surface)	SB-2 (8-10)	SB-2 (Surface)	SB-3 (3-6)	SB-3 (7-9)	SB-3 (Surface)	SB-4 (Surface)	SB-5 (9-10)	SB-6 (8-12)	SS-A	SS-B	SS-C	SS-D	SS-E	SS-F	Cleanup Objective
Sample Date	10/04/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	(ug/Kg)
Volatiles - EPA 8260																		
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
Methylene Chloride	ND	15	15	ND	9 (J)	8 (J)	ND	8 (J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,300
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
2-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Acetone	ND	ND	ND	15	ND	ND	19	ND	ND	22	31	ND	ND	ND	ND	ND	ND	200
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	60
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,700
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,500
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,300
m&p-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,200
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	120
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,700
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13,000
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,200
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,300
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1400
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,500
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Total Compounds	ND	15	15	15	9	8	19	8	ND	22	31	ND	ND	ND	ND	ND	ND	

All Results Reported in ug/Kg (parts per billion)

(J) = Indicates an Estimated Value Reported by the Laboratory

RED = Exceeds NYSDEC Soil Standards

ND = Not Detected above the laboratories method detection limit

N/A = Not Applicable/Not Available

	TABLE 5																	
	Soil Analytical Summary																	
	Sample Point												NYSDEC Soil					
Analyte	DRAIN (Concrete)	SB-1 (8-9)	SB-1 (Surface)	SB-2 (8-10)	SB-2 (Surface)	SB-3 (3-6)	SB-3 (7-9)	SB-3 (Surface)	SB-4 (Surface)	SB-5 (9-10)	SB-6 (8-12)	SS-A	SS-B	SS-C	SS-D	SS-E	SS-F	Cleanup Objective
Sample Date	10/04/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	(ug/Kg)
PCBs - EPA 8082																		-
Arochlor - 1016	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000/10,000*1
Arochlor - 1221	N/A	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000/10,000*1
Arochlor - 1232	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000/10,000*1
Arochlor - 1242	N/A	ND	58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000/10,000*1
Arochlor - 1248	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000/10,000*1
Arochlor - 1254	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000/10,000*1
Arochlor - 1260	N/A	ND	53	ND	42	ND	ND	25 (J)	ND	ND	ND	ND	220	28 (J)	ND	ND	600	1,000/10,000*1

All Results Reported in ug/Kg (parts per billion)

(J) = Indicates an Estimated Value Reported by the Laboratory

RED = Exceeds NYSDEC Soil Standards

ND = Not Detected above the laboratories method detection limit

N/A = Not Applicable/Not Available

Page 1 of 1

^{*&}lt;sup>1</sup> = 1,000 for Surface contamination, 10,000 for subsurface contamination

	TABLE 6																	
								Soil A	Analytical S	Summary								
								Sa	mple Point									
Analyte	DRAIN (Concrete)	SB-1 (8-9)	SB-1 (Surface)	SB-2 (8-10)	SB-2 (Surface)	SB-3 (3-6)	SB-3 (7-9)	SB-3 (Surface)	SB-4 (Surface)	SB-5 (9-10)	SB-6 (8-12)	SS-A	SS-B	SS-C	SS-D	SS-E	SS-F	TAGM 4046 Recommended Soil Cleanup Objectives
Sample Date	10/04/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/03/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	10/04/06	Cleanup Objectives
TAL Metals	-			•	•				•	•		•		•		•	•	
Aluminum	4,980	10,200	25,600	11,100	7,850	11,500	5,180	12,500	8,080	7,910	11,000	7,505	4,390	8,590	9,230	7,620	1,940	SB
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	39.3	101	ND	ND	ND	18.5	SB
Arsenic	ND	ND	ND	3.5	2.2	ND	1.4	ND	3	ND	5.4	ND	ND	8.7	3.9	1.4	2.4	7.5 or SB
Barium	76.2 (J)	86.5 (J)	1250 (J)	66.9 (J)	101 (J)	55.6 (J)	34.7 (J)	92.7 (J)	74 (J)	32.3 (J)	67.3 (J)	138 (J)	884 (J)	207 (J)	103 (J)	27.7 (J)	1,080 (J)	300 or SB
Beryllium	0.48	0.43	2.3	0.6	0.59	0.35	0.22	0.32	0.32	0.31	0.5	0.4	0.69	0.37	0.33	0.26	0.46	0.16 or SB
Cadmium	3,900 (J)	2.8 (J)	44.2 (J)	3.9 (J)	89.4 (J)	2,450 (J)	2,420 (J)	2,260 (J)	4.8 (J)	ND	152 (J)	1560 (J)	3920 (J)	3 (J)	4.3 (J)	ND	966 (J)	1 or SB
Calcium	121,000 (J)	15,000 (J)	144,000 (J)	2,820 (J)	97,000 (J)	5,610 (J)	5,530 (J)	36,800 (J)	23,200 (J)	4,860 (J)	3,750 (J)	8,930 (J)	28,800 (J)	46,200 (J)	26,200 (J)	22,900 (J)	17,500 (J)	SB
Chromium	715	18.6	17	30.3	64.2	82.2	14.6	787	21.3	14.5	353	2,830	4,400	48.9	37.9	15.3	1,220	10 or SB
Cobalt	12.3 (J)	18.2 (J)	130 (J)	15.6 (J)	16.7 (J)	13 (J)	8.1 (J)	12.2 (J)	15.2 (J)	9.5 (J)	16.1 (J)	16.3 (J)	97.2 (J)	27.5 (J)	17.2 (J)	10.4 (J)	113 (J)	30 or SB
Copper	1,910	27.3	46.7	37.3	1,380	13.2	8.4	547	135	14.6	25.2	1,840	3,770	48.9	397	22.9	2,560	25 or SB
Cyanide	0.37	0.15	0.49	0.38	25.4	17.1	10	0.57	0.28	0.16	4.2	25	10.8	0.18	0.51	0.091	65.3	SB***
Iron	25,100 (J)	18,800 (J)	16,800 (J)	18600 (J)	12,700 (J)	17,800 (J)	11,100 (J)	40,500 (J)	17,100 (J)	16,500 (J)	16,700 (J)	66,600 (J)	90,500 (J)	18,400 (J)	17,600 (J)	16,800 (J)	68,700 (J)	2,000
Lead	615 (J)	10.2 (J)	54.8 (J)	0.57 (J)	22.1 (J)	20.5 (J)	10.8 (J)	250 (J)	134 (J)	ND	ND	293 (J)	3,210 (J)	354 (J)	259 (J)	ND	1,830	SB****
Magnesium	6,150 (J)	4,240 (J)	11,300 (J)	5,220 (J)	5,640 (J)	3,580 (J)	2,720 (J)	4,790 (J)	5,510 (J)	4,250 (J)	5,690 (J)	3,770 (J)	4,290 (J)	7,490 (J)	5,960 (J)	7,950 (J)	1,410 (J)	SB
Manganese	265 (J)	593 (J)	1,970 (J)	236 (J)	386 (J)	522 (J)	268 (J)	320 (J)	377 (J)	395 (J)	409 (J)	505 (J)	685 (J)	441 (J)	497 (J)	416 (J)	265 (J)	SB
Mercury	0.14	0.048	0.045	0.89	0.13	0.097	0.051	0.16	0.1	0.034	0.06	0.17	0.35	0.21	0.21	0.046	0.53	0.1
Nickel	3,250 (J)	ND	1.2 (J)	354 (J)	1,300 (J)	82 (J)	73.1 (J)	259 (J)	ND	ND	ND	679 (J)	1,170	ND	ND	ND	1070 (J)	13 or SB
Potassium	716 (J)	1,300 (J)	3,230 (J)	1,280 (J)	801 (J)	1,350 (J)	621 (J)	1,550 (J)	1,490 (J)	873 (J)	1,370 (J)	863 (J)	850 (J)	1,530 (J)	1,480 (J)	1,440 (J)	3,330 (J)	SB or SB
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Silver	ND	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24.9	SB
Sodium	572 (J)	247 (J)	3,320 (J)	98.9 (J)	177 (J)	1,640 (J)	680 (J)	6,620 (J)	94.1 (J)	82.3 (J)	167 (J)	612 (J)	1,320 (J)	262 (J)	342 (J)	266 (J)	3,420 (J)	SB
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SB
Vanadium	2.8	17.8	15.6	11.1	41.9	14.8	6.1	10.8	12	7	11.3	ND	ND	18.6	15.6	7.9	4.2	150 or SB
Zinc	3,380 (J)	77.4 (J)	214 (J)	107 (J)	321 (J)	205 (J)	279 (J)	1,250 (J)	117 (J)	45.3 (J)	116 (J)	3,980 (J)	1,800 (J)	188 (J)	371 (J)	74.7 (J)	931 (J)	20 or SB

All Results Reported in mg/Kg (parts per million)

(J) = Indicates an Estimated Value Reported by the Laboratory

RED = Exceeds NYSDEC Soil Standards

ND = Not Detected above the laboratories method detection limit

N/A = Not Applicable/Not Available

SB = Site Background

^{*** =} Some forms of Cyanide are complex and very stable while other forms are pH dependent and hence very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objective.

^{**** =} Background levels for lead vary widely. Average levels in undeveloped, rural areas range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

Former C F Plating 406 North Pearl St., Albany, NY

Limited Subsurface Investigation Report, March 2007

		,	TABLE 7			
		Groundwater	Analytical Sum	nmary		
			Sample Point			NYS DEC
Analyte	MW-1	MW-2	MW-3	MW-4	MW-5	Groundwater Standards (ug/L)
Volatiles - EPA 8260	•	•	•	•	•	•
2-Chlorophenol	ND	ND	ND	ND	2 (J)	5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	5
Methylene Chloride	ND	ND	ND	ND	ND	5
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	5
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	5
2-Isopropyltoluene	ND	ND	ND	ND	ND	5
Acetone	ND	ND	ND	ND	ND	5
Benzene	ND	ND	ND	ND	ND	0.7
Chlorobenzene	ND	ND	ND	ND	ND	5
Ethylbenzene	ND	ND	ND	ND	ND	5
Isopropylbenzene	ND	ND	ND	ND	ND	5
m&p-Xylene	ND	ND	ND	ND	ND	5
MTBE	ND	ND	ND	ND	ND	10
n-Butylbenzene	ND	ND	ND	ND	ND	5
n-Propylbenzene	ND	ND	ND	ND	ND	5
Naphthalene	ND	ND	ND	ND	ND	10
o-Xylene	ND	ND	ND	ND	ND	5
p-Isopropyltoluene	ND	ND	ND	ND	ND	5
sec-Butylbenzene	ND	ND	ND	ND	ND	5
tert-Butylbenzene	ND	ND	ND	ND	ND	5
Tetrachloroethene	ND	ND	ND	ND	ND	5
Toluene	ND	ND	ND	ND	ND	5
Trichloroethene	ND	ND	ND	ND	ND	5
Vinyl Chloride	ND	ND	ND	ND	ND	2
BTEX	ND	ND	ND	ND	ND	
Total Compounds	ND	ND	ND	ND	2	

All Results Reported in ug/L (parts per billion)

(J) = Indicates an Estimated Value Reported by the Laboratory

RED = Exceeds NYSDEC Groundwater Standards

ND = Not Detected

N/A = Not Applicable/Not Available

BTEX = Benzene, Toluene, Ethylbenzene & Xylene Compounds

Samples obtained on October 27, 2007

Former C F Plating 406 North Pearl St., Albany, NY Limited Subsurface Investigation Report, March 2007

	TABLE 8											
		Groundwater	Analytical Sum	ımary								
			Sample Point			NYS DEC						
Analyte	MW-1	MW-2	MW-3	MW-4	MW-5	Groundwater Standards (ug/L)						
Semi Volatiles - EPA 8270												
Napthalene	ND	ND	ND	ND	ND	10						
2-Chlorophenol	ND	ND	ND	ND	2 (J)	N/A						
2-Methylnapthalene	ND	ND	ND	ND	ND	N/A						
Acenapthene	ND	ND	ND	ND	ND	20						
Dibenzofuran	ND	ND	ND	ND	ND	N/A						
Fluorene	ND	ND	ND	ND	ND	50						
Phenanthrene	ND	ND	ND	ND	ND	50						
Anthracene	ND	ND	ND	ND	ND	50						
Carbazole	ND	ND	ND	ND	ND	N/A						
Fluoranthene	ND	ND	ND	ND	ND	50						
Pyrene	ND	ND	ND	ND	ND	50						
Benzo(a)anthracene	ND	ND	ND	ND	ND	0.002						
Chrysene	ND	ND	ND	ND	ND	0.002						
bis (2-Ethylhexyl) phthalate	ND	ND	ND	ND	ND	N/A						
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	0.002						
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	0.002						
Benzo(a)pyrene	ND	ND	ND	ND	ND	0.002						
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	0.002						
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	50						
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	5						
Total Compounds	ND	ND	ND	ND	2							

All Results Reported in ug/L (parts per billion)

(J) = Indicates an Estimated Value Reported by the Laboratory

RED = Exceeds NYSDEC Groundwater Standards

ND = Not Detected

N/A = Not Applicable/Not Available

Samples obtained on October 27, 2006

	TABLE 9											
Groundwater Analytical Summary												
		Sample Point										
Analyte	MW-1	MW-2	MW-3	MW-4	MW-5	Groundwater Standard						
Sample Date	10/27/06	10/27/06	10/27/06	10/27/06	10/27/06	(ug/L)						
PCBs - EPA 8082												
Arochlor - 1016	ND	ND	ND	ND	ND	0.1						
Arochlor - 1221	ND	ND	ND	ND	ND	0.1						
Arochlor - 1232	ND	ND	ND	ND	ND	0.1						
Arochlor - 1242	ND	ND	ND	ND	ND	0.1						
Arochlor - 1248	ND	ND	ND	ND	ND	0.1						
Arochlor - 1254	ND	ND	ND	ND	ND	0.1						
Arochlor - 1260	ND	ND	ND	ND	ND	0.1						

All Results Reported in ug/L (parts per billion)

(J) = Indicates an Estimated Value Reported by the Laboratory

RED = Exceeds NYSDEC Soil Standards

ND = Not Detected above the laboratories method detection limit

N/A = Not Applicable/Not Available

Page 1 of 1

		TA	BLE 10				
	G	roundwater A	nalytical Sum	mary			
			Sample Point			NYSDEC	
Analyte	MW-1	MW-2	MW-3	MW-4	MW-5	Groundwater Standard	
Sample Date	10/27/06	10/27/06	10/27/06	10/27/06	10/27/06	(ug/L)* ¹	
TAL Metals							
Aluminum	48,800 (J)	128,000 (J)	212,000 (J)	38,200 (J)	36,700 (J)	N/A	
Antimony	51.50	56.30	168	61.80	87.50	3	
Arsenic	ND	ND	ND	30.50	ND	25	
Barium	581	1,380	3,000	691	665	1,000	
Beryllium	3.10 (J)	8.10 (J)	18.80 (J)	2.60 (J)	2.1 (J)	N/A* ²	
Cadmium	1.60	479	21,000	69.60	11,700	5	
Calcium	191,000	206,000	363,000	269,000	114,000	N/A	
Chromium	98.80	3,100	3,360	92	3,960	50	
Cobalt	106	282	483	102	83.80	5	
Copper	163	5,480	7,400	143	344	200	
Iron	161,000 (J)	394,000 (J)	584,000 (J)	131,000 (J)	89,400 (J)	300	
Lead	29.70 (J)	158 (J)	2,200 (J)	22.7 (J)	86.50 (J)	25	
Magnesium	57,700	89,700	156,000	43,200	30,400	35,000	
Manganese	2,420 (J)	4,490 (J)	8,030 (J)	1,640 (J)	3,290 (J)	300	
Mercury	0.21	0.83	1.70	0.22	1.10	0.7	
Nickel	14.40 (J)	9,290 (J)	3,510 (J)	43.40 (J)	407 (J)	100	
Potassium	13,200 (J)	22,600 (J)	32,700 (J)	18,000 (J)	11,100 (J)	N/A	
Selenium	ND	ND	ND	ND	ND	10	
Silver	ND	ND	ND	ND	ND	50	
Sodium	46,300 (J)	34,200 (J)	112,000 (J)	142,000 (J)	90,500 (J)	20,000	
Thallium	ND	ND	ND	ND	4.90	N/A	
Vanadium	82	183	365	68.50	51.80	N/A	
Zinc	384 (J)	2,990 (J)	7,120 (J)	366 (J)	6,930 (J)	N/A	

All Results Reported in ug/L (parts per billion)

(J) = Indicates an Estimated Value Reported by the Laboratory

RED = Exceeds NYSDEC Soil Standards

ND = Not Detected above the laboratories method detection limit

N/A = Not Applicable/Not Available

^{*1 =} Pursuant to 6 NYCRR Part 703 Surface Water & Groundwater Quality Standards

^{*&}lt;sup>2</sup> = Standard depends on Hardness

		TAE	BLE 10A				
	G	roundwater A	nalytical Sum	mary			
			Sample Point			NYSDEC	
Analyte	MW-1	MW-2	MW-3	MW-4	MW-5	Groundwater Standard	
Sample Date	05/17/07	05/17/07	05/17/07	05/17/07	05/17/07	(ug/L)* ¹	
Turbidity	26	6.5	5.8	20.1	0.0	N/A	
TAL Metals							
Aluminum	122 (B)	70.2 (B)	91.6 (B)	58.1 (B)	40.7 (B)	N/A	
Antimony	61.5	ND	ND	ND	ND	3	
Arsenic	6.5 (B)	ND	6.1 (B)	ND	ND	25	
Barium	124 (B)	93.8 (B)	254	91.6 (B)	69.2 (B)	1,000	
Beryllium	0.14 (B)	ND	.13 (B)	ND	ND	N/A* ²	
Cadmium	ND	34.1	728	25	29.1	5	
Calcium	133,000 (E)	97,500 (E)	201,000 (E)	208,000 (E)	84,700 (E)	N/A	
Chromium	ND	68.8	ND	ND	30.9	50	
Cobalt	ND	ND	ND	ND	ND	5	
Copper	5.8 (B)	36.7	5.2 (B)	4.3 (B)	5.7 (B)	200	
Iron	3,050	86.4 (B)	3,920	324	70.9 (B)	300	
Lead	ND	ND	ND	ND	ND	25	
Magnesium	37,500 (E)	11,300 (E)	38,400 (E)	33,800 (E)	14,300 (E)	35,000	
Manganese	718	92.7	1,660	24.2	43	300	
Mercury	.09 (B)	ND	.08 (B)	ND	ND	0.7	
Nickel	ND	157	336	2.2 (B)	5.8 (B)	100	
Potassium	4,080 (B)	3,710 (B)	6,200 (E)	10,800 (E)	4,320 (B)	N/A	
Selenium	10.3	ND	ND	ND	ND	10	
Silver	ND	ND	ND	ND	ND	50	
Sodium	43,500	53,800	128,000	172,000	83,000	20,000	
Thallium	12.20	9.3 (B)	12.6	9.3 (B)	7.6 (B)	N/A	
Vanadium	ND	ND	ND	ND	7 (B)	N/A	
Zinc	11.6 (B)	24.7	177	16 (B)	14.7 (B)	N/A	

All Results Reported in ug/L (parts per billion)

(E) = Indicates the reported value is estimated because of the presence of interference

RED = Exceeds NYSDEC Groundwater Standards

ND = Not Detected above the laboratories method detection limit

N/A = Not Applicable/Not Available

^{*1 =} Pursuant to 6 NYCRR Part 703 Surface Water & Groundwater Quality Standards

^{*2 =} Standard depends on Hardness

⁽B) = Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit

TABLE 11					
F	Patroon Creek S	Sediment Ar	nalytical Sum	mary	
	Sample Point				
Analyte	Background	C&F East	C&F West	Patroon Mouth North	Patroon Mouth South
Sample Date	10/27/06	10/27/06	10/27/06	10/27/06	10/27/06
Volatiles - EPA 8260					
1,1,1-Trichloroethane	ND	ND	ND	ND	ND
Methylene Chloride	9 (J)	ND	5 (J)	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND
2-Isopropyltoluene	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	19	12 (J)
Benzene	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND
Isopropylbenzene	ND	ND	ND	ND	ND
m&p-Xylene	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	ND	ND	ND
n-Propylbenzene	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND
p-Isopropyltoluene	ND	ND	ND	ND	ND
sec-Butylbenzene	ND	ND	ND	ND	ND
tert-Butylbenzene	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND
Total Compounds	9	ND	5	19	12

All Results Reported in ug/Kg (parts per billion)

⁽J) = Indicates an Estimated Value Reported by the Laboratory

ND = Not Detected above the laboratories method detection limit

	TABLE 12				
Pa	troon Creek Se	ediment Ana	lytical Sumn	nary	
Sample Point					
Analyte	Background	C&F East	C&F West	Patroon Mouth North	Patroon Mouth South
Sample Date	10/27/06	10/27/06	10/27/06	10/27/06	10/27/06
Semi Volatiles - EPA 8270					
Napthalene	ND	ND	ND	ND	ND
2-Methylnapthalene	ND	ND	ND	ND	ND
Acenapthene	ND	ND	ND	ND	ND
Dibenzofuran	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND
Phenanthrene	650	630	110 (J)	1,000	150 (J)
Anthracene	220 (J)	130 (J)	ND	430 (J)	ND
Carbazole	120 (J)	120 (J)	ND	160 (J)	ND
Fluoranthene	910	1,800	250 (J)	2,300	410 (J)
Pyrene	730	1,400	220 (J)	1,600	480
Benzo(a)anthracene	320 (J)	860	120 (J)	860	190 (J)
Chrysene	400	950	150 (J)	980	200 (J)
bis (2-Ethylhexyl) phthalate	160 (J)	140 (J)	130 (J)	420 (J)	150 (J)
Benzo(b)fluoranthene	350 (J)	790	140 (J)	820	130 (J)
Benzo(k)fluoranthene	320 (J)	620	140 (J)	670	110 (J)
Benzo(a)pyrene	300 (J)	200 (J)	120 (J)	740	150 (J)
Indeno(1,2,3-cd)pyrene	190 (J)	450	ND	450 (J)	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	200(J)	430	ND	430 (J)	ND
Total Compounds	4,870	8,520	1,380	10,860	1,970

All Results Reported in ug/Kg (parts per billion)

⁽J) = Indicates an Estimated Value Reported by the Laboratory

ND = Not Detected above the laboratories method detection limit

N/A = Not Applicable/Not Available

TABLE 13						
	Patroon Creek Sediment Analytical Summary					
		Sample Point				
Analyte	Background C&F East C&F West Patroon Mouth North South					
Sample Date	10/27/06	10/27/06	10/27/06	10/27/06	10/27/06	
PCBs - EPA 8082						
Arochlor - 1016	ND	ND	ND	ND	ND	
Arochlor - 1221	ND	ND	ND	ND	ND	
Arochlor - 1232	ND	ND	ND	ND	ND	
Arochlor - 1242	ND	ND	ND	93	150	
Arochlor - 1248	ND	ND	ND	ND	ND	
Arochlor - 1254	ND	ND	ND	ND	ND	
Arochlor - 1260	ND	40 (J)	ND	ND	ND	

All Results Reported in ug/Kg (parts per billion)

(J) = Indicates an Estimated Value Reported by the Laboratory

ND = Not Detected above the laboratories method detection limit

N/A = Not Applicable/Not Available

Page 1 of 1

TABLE 14					
	Patroon Creek	Sediment A	nalytical Su	mmary	
			Sample P	oint	
Analyte	Background	C&F East	C&F West	Patroon Mouth North	Patroon Mouth South
Sample Date	10/27/06	10/27/06	10/27/06	10/27/06	10/27/06
TAL Metals					
Aluminum	5,770	4,530	7,340	3,480	7,560
Antimony	9.70	22.30	13.20	ND	ND
Arsenic	ND	ND	ND	ND	ND
Barium	45.60	38.80	54.10	28.80	38.70
Beryllium	0.41	0.44	0.54	0.28	0.45
Cadmium	ND	0.43	ND	ND	ND
Calcium	21,400	3,270	18,100	12,400	39,500
Chromium	12	13.20	13.50	9.80	24.30
Cobalt	10.70	9.40	13	4.60	6.70
Copper	24.30	40.20	28.80	16.60	16.50
Cyanide	0.35	ND	ND	ND	ND
Iron	17,100 (J)	15,100 (J)	18,600 (J)	11,400 (J)	20,000 (J)
Lead	37.30 (J)	62.10 (J)	49.70 (J)	63.50 (J)	129 (J)
Magnesium	5,960	2,930	5,140	2,980	9,700
Manganese	721	364	654	268	416
Mercury	0.05	0.15	0.055	0.17	0.13
Nickel	0.54	8	6.30	6	3.60
Potassium	363	380	509	247	476
Selenium	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND
Sodium	133	148	170	107	149
Thallium	ND	ND	ND	ND	ND
Vanadium	8.10	8.50	13.40	5	9.20
Zinc	93.50 (J)	136 (J)	133 (J)	94.40 (J)	112 (J)

All Results Reported in mg/Kg (parts per million)
(J) = Indicates an Estimated Value Reported by the Laboratory

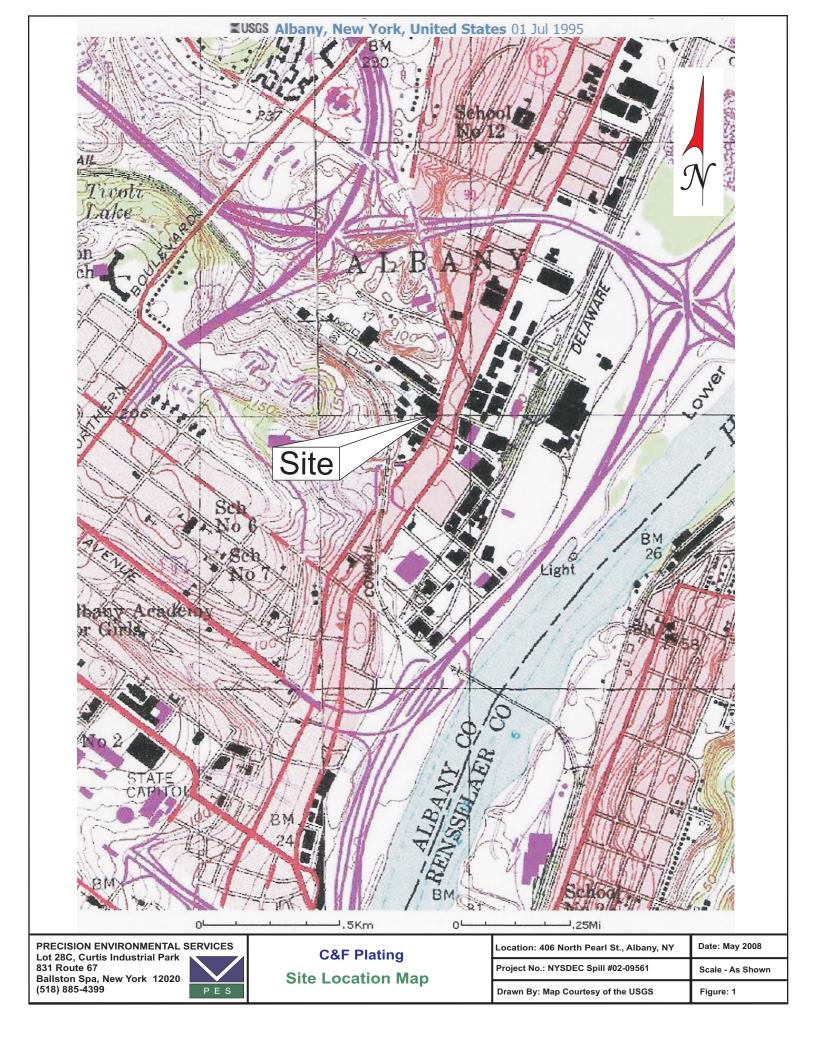
ND = Not Detected above the laboratories method detection limit

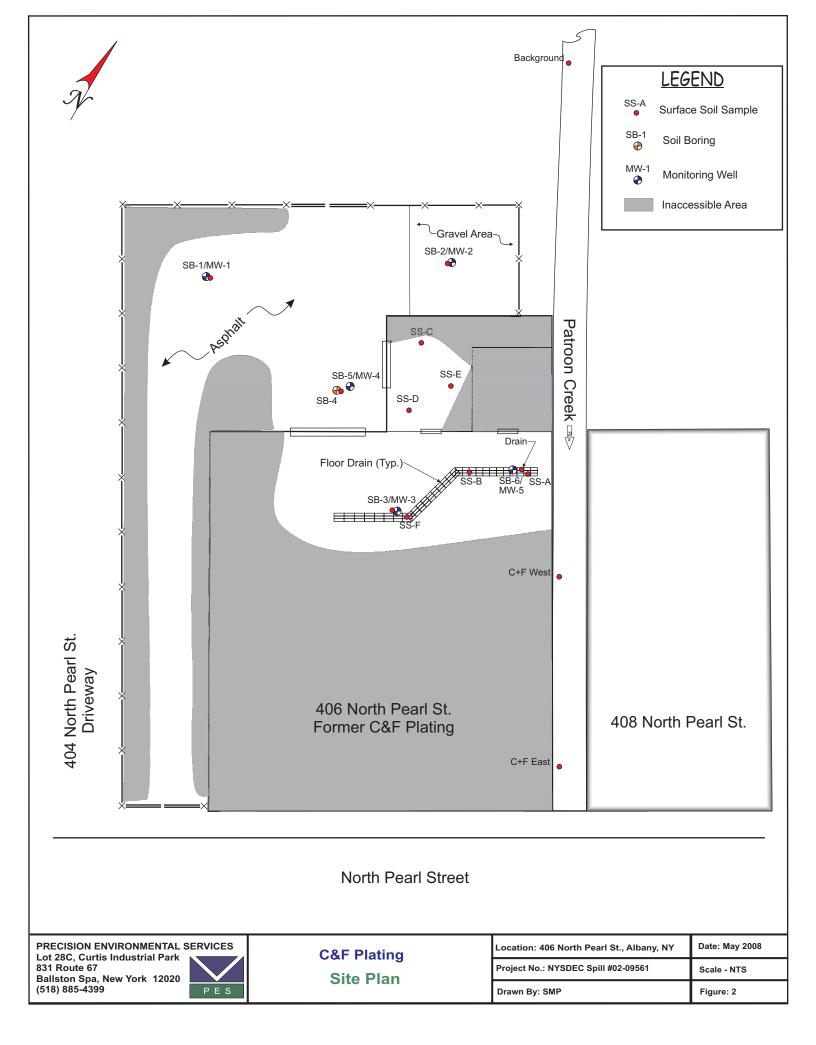
Former C & F Plating, Albany, NY Revised *Limited* Subsurface investigation Report, May 2008 NYSDEC Spill No.: 02-09561

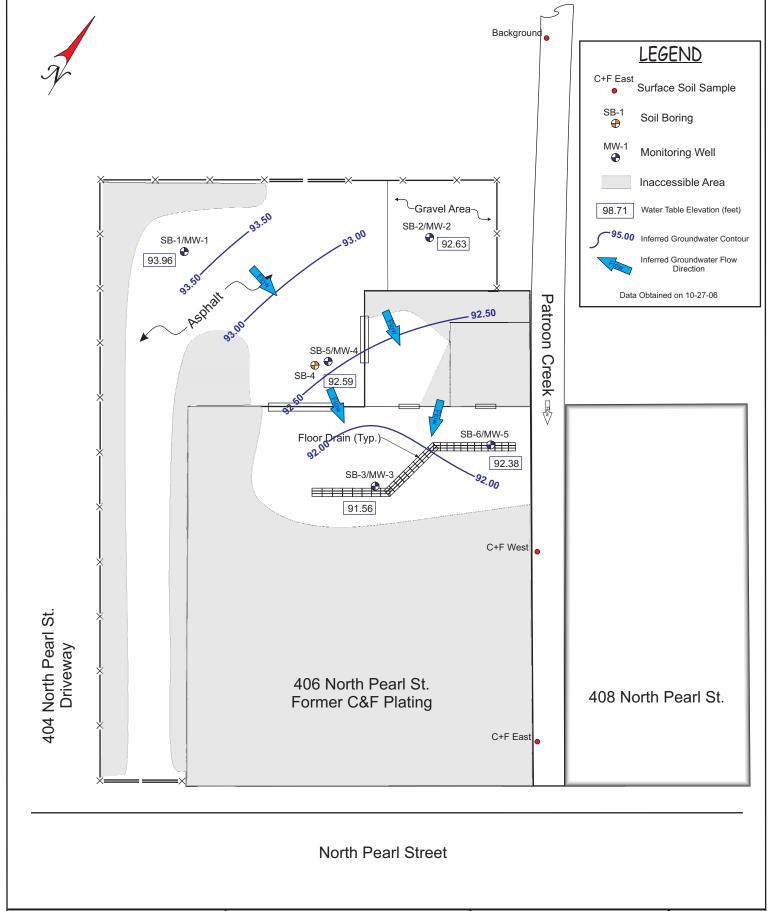
Attachment B

FIGURES



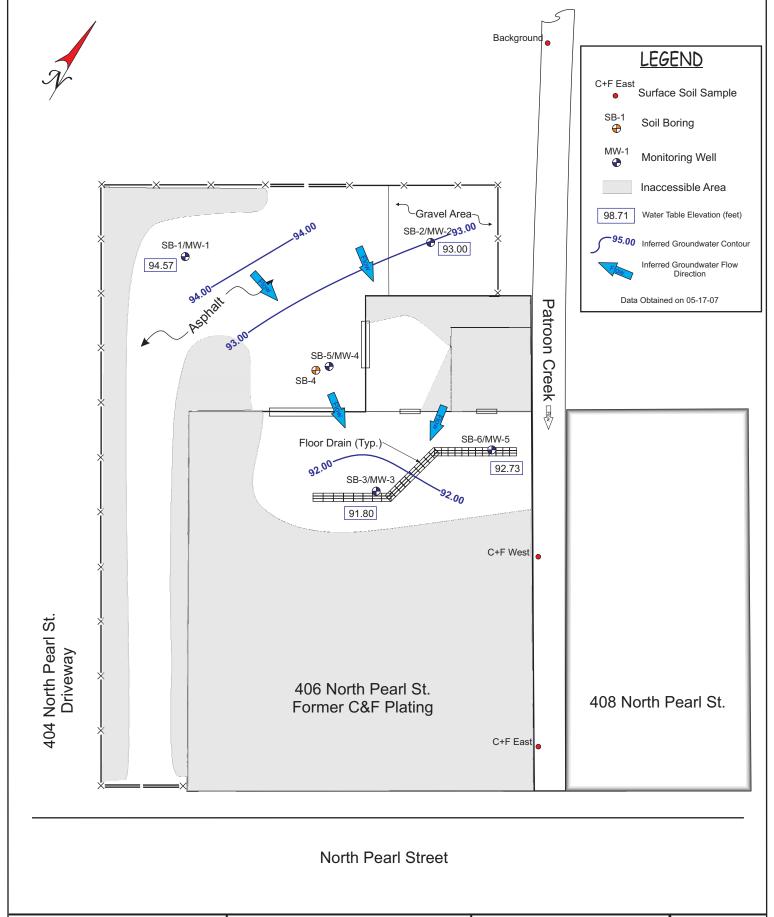






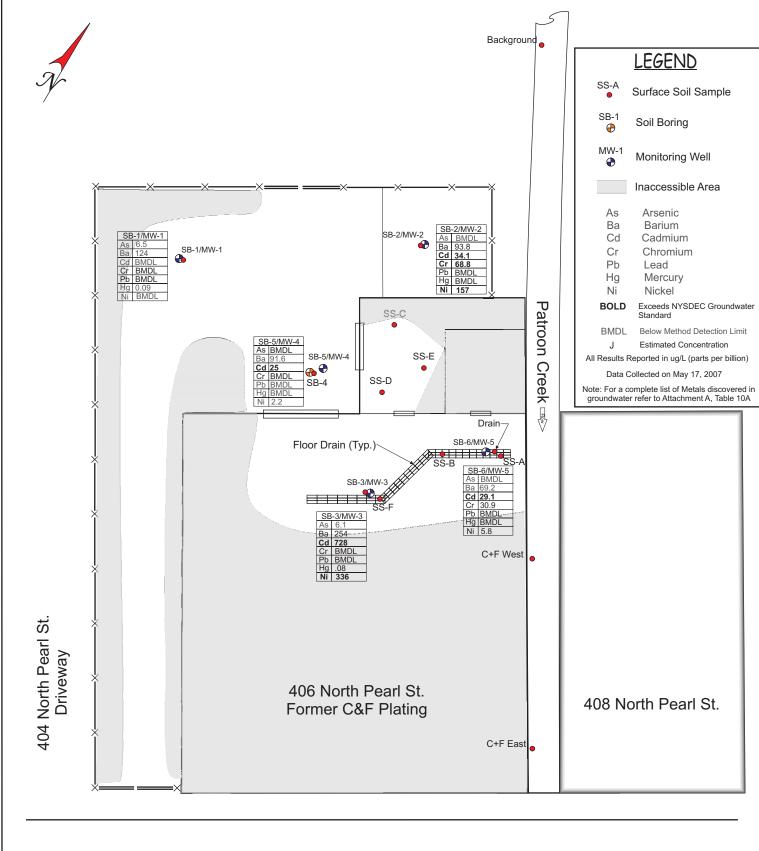
C&F Plating
Groundwater Contour Map
10-27-06

Location: 406 North Pearl St., Albany, NY	Date: May 2008
Project No.: NYSDEC Spill #02-09561	Scale - NTS
Drawn By: SMP	Figure: 3



C&F Plating Groundwater Contour Map 05-17-07

Location: 406 North Pearl St., Albany, NY	Date: May 2008
Project No.: NYSDEC Spill #02-09561	Scale - NTS
Drawn By: SMP	Figure: 3a



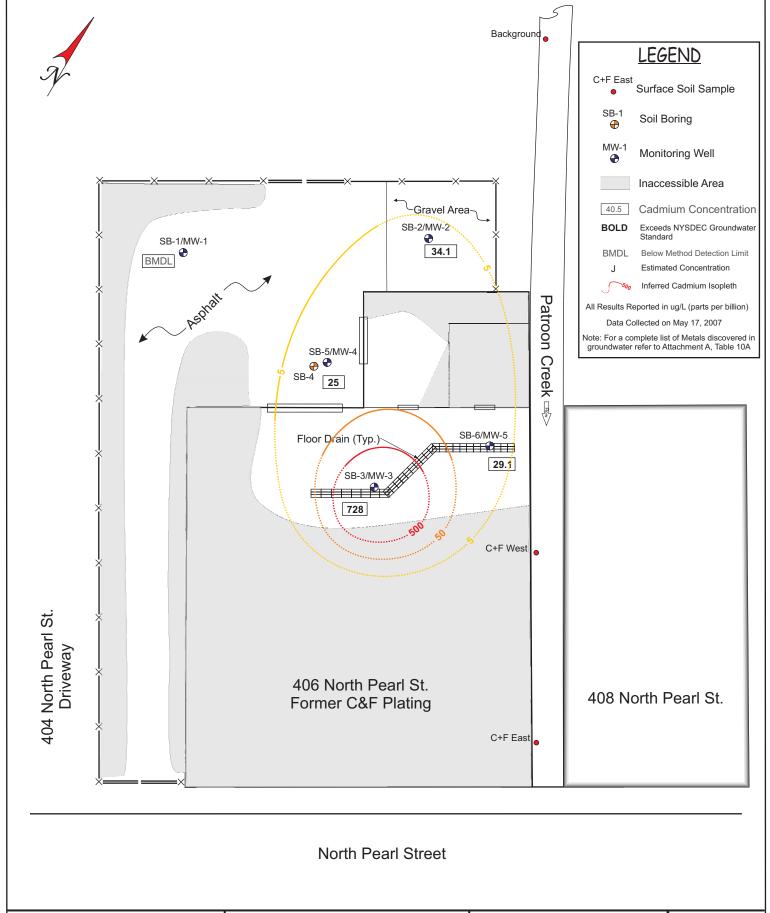
North Pearl Street

PRECISION ENVIRONMENTAL SERVICES
Lot 28C, Curtis Industrial Park
831 Route 67
Ballston Spa, New York 12020
(518) 885-4399

PES

C&F Plating
Metals in Groundwater

Location: 406 North Pearl St., Albany, NY	Date: May 2008
Project No.: NYSDEC Spill #02-09561	Scale - NTS
Drawn By: SMP	Figure: 4



C&F Plating
Cadmium in Groundwater

Location: 406 North Pearl St., Albany, NY

Project No.: NYSDEC Spill #02-09561

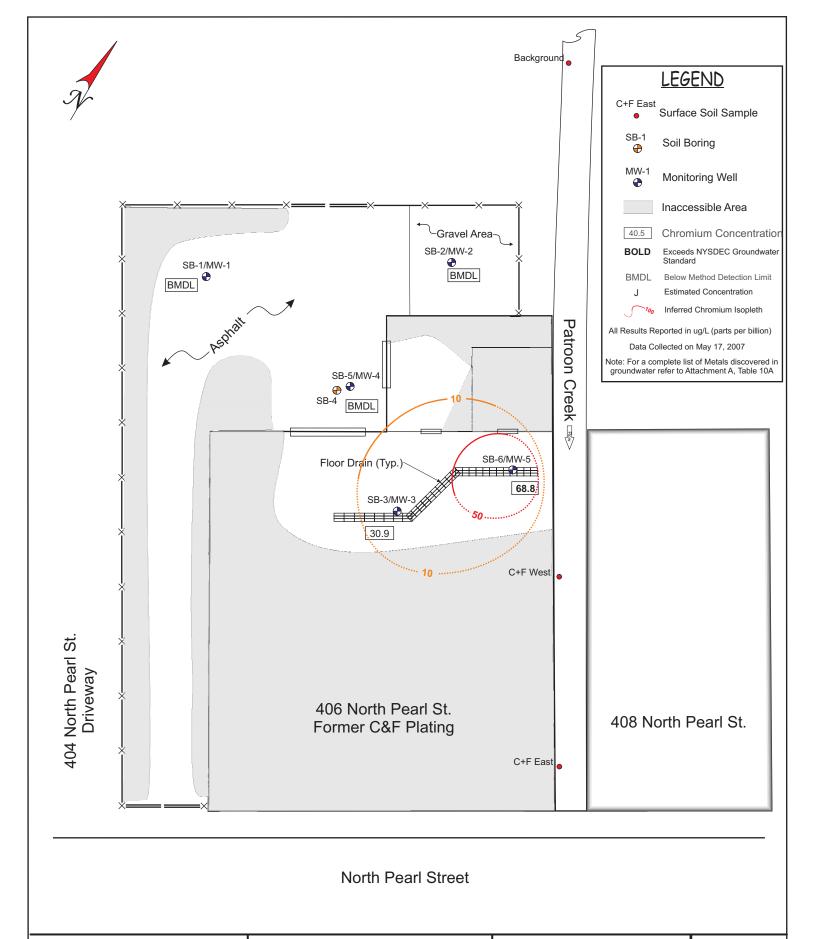
Drawn By: SMP

Drawn By: SMP

Date: May 2008

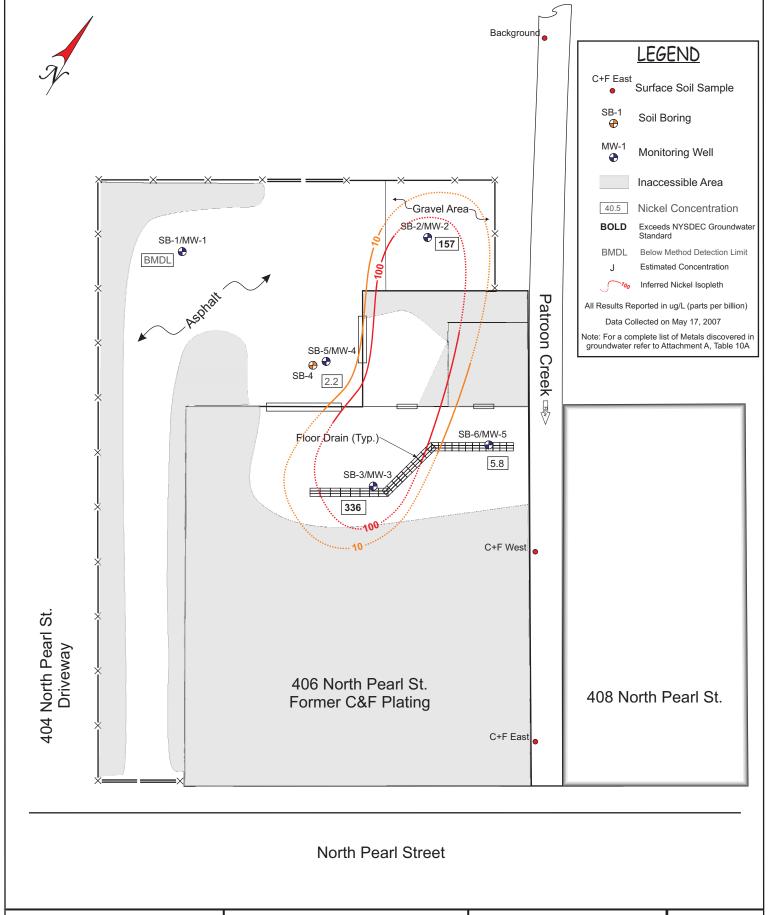
Scale - NTS

Figure: 4a



C&F Plating
Chromium in Groundwater

Ŀ	ocation: 406 North Pearl St., Albany, NY	Date: May 2008
P	Project No.: NYSDEC Spill #02-09561	Scale - NTS
Ŀ	Drawn By: SMP	Figure: 4b



C&F Plating
Nickel in Groundwater

Location: 406 North Pearl St., Albany, NY

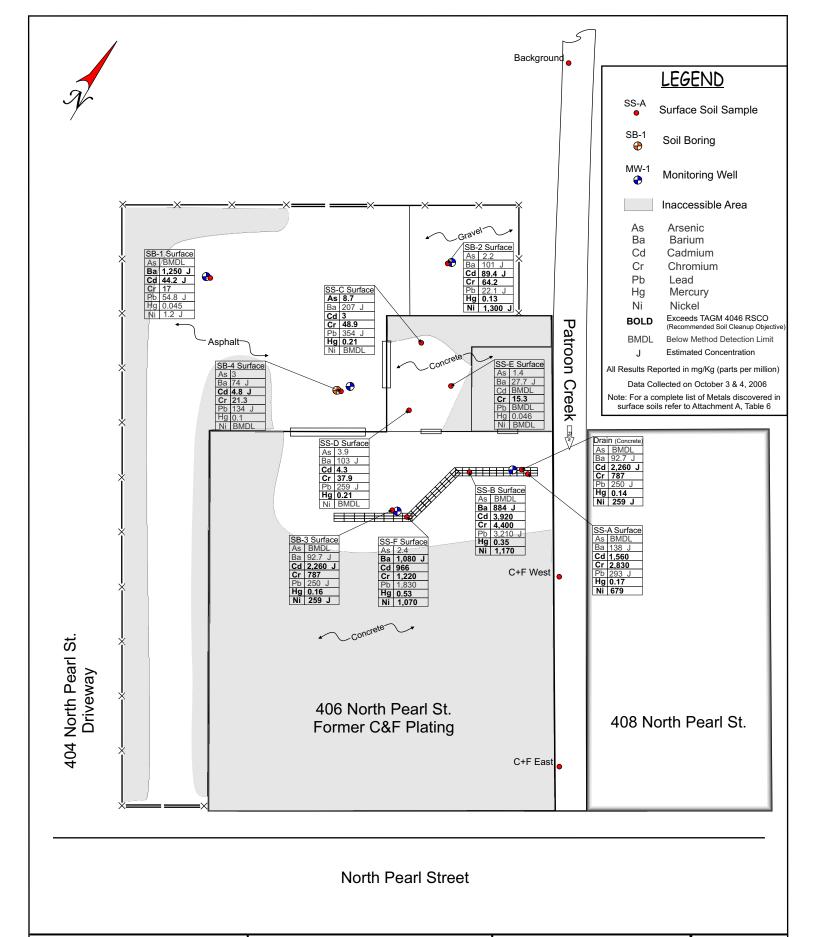
Project No.: NYSDEC Spill #02-09561

Drawn By: SMP

Date: May 2008

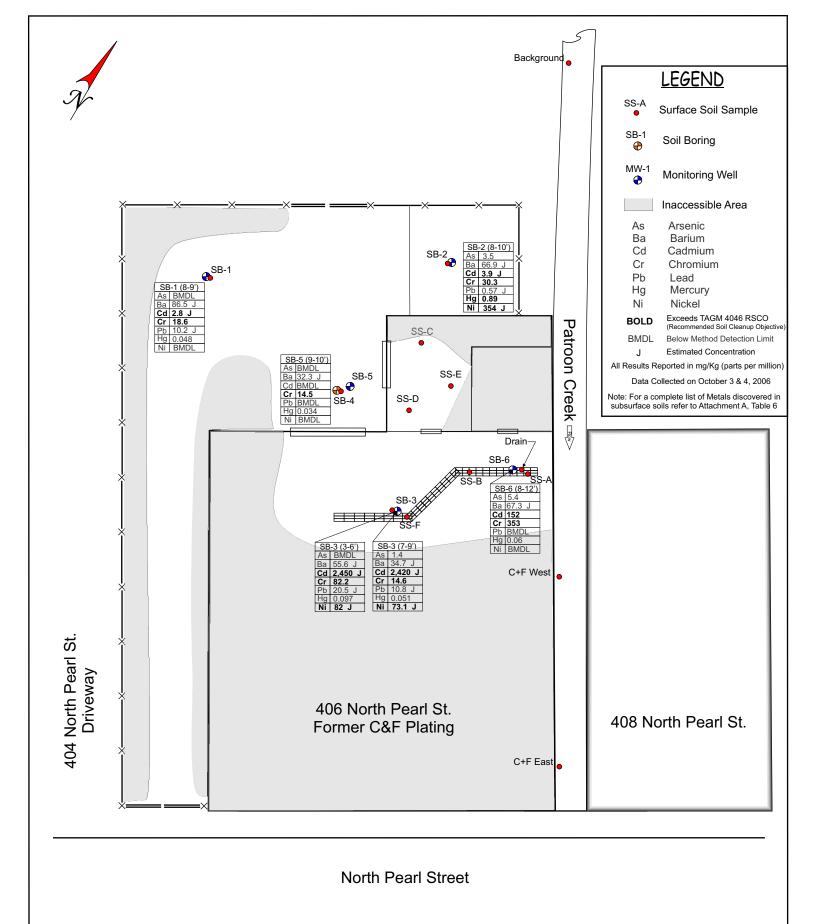
Scale - NTS

Figure: 4c



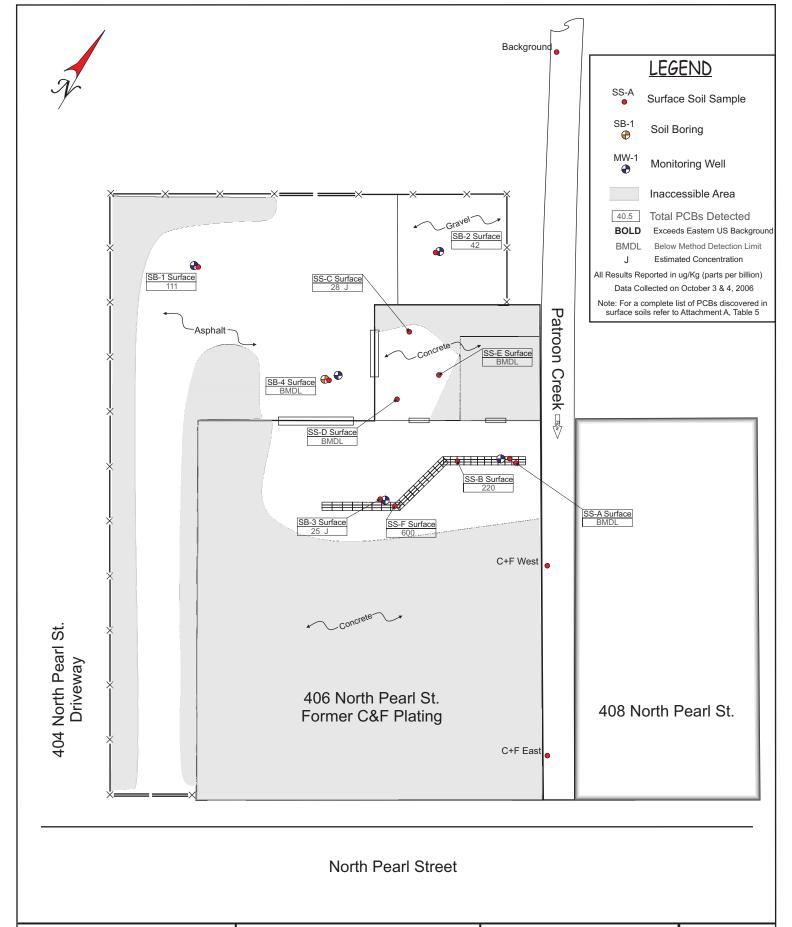
C&F Plating
Metals in Surface Soils

Location: 406 North Pearl St., Albany, NY	Date: May 2008
Project No.: NYSDEC Spill #02-09561	Scale - NTS
Drawn By: SMP	Figure: 5



C&F Plating
Metals in Subsurface Soils

Location: 406 North Pearl St., Albany, NY	Date: May 2008
Project No.: NYSDEC Spill #02-09561	Scale - NTS
Drawn By: SMP	Figure: 6



C&F Plating
PCBs in Surface Soils

Location: 406 North Pearl St., Albany, NY	Date: May 2008
Project No.: NYSDEC Spill #02-09561	Scale - NTS
Drawn By: SMP	Figure: 7



C&F Plating
Sediment Sampling Detail

Location: 406 North Pearl St., Albany, NY	Date: February 2007
Project No.: NYSDEC Spill #02-09561	Scale - NTS
Drawn By: Map Courtesy of the USGS	Figure: 8

Former C & F Plating, Albany, NY Revised *Limited* Subsurface investigation Report, May 2008 NYSDEC Spill No.: 02-09561

Attachment C

BORING LOGS



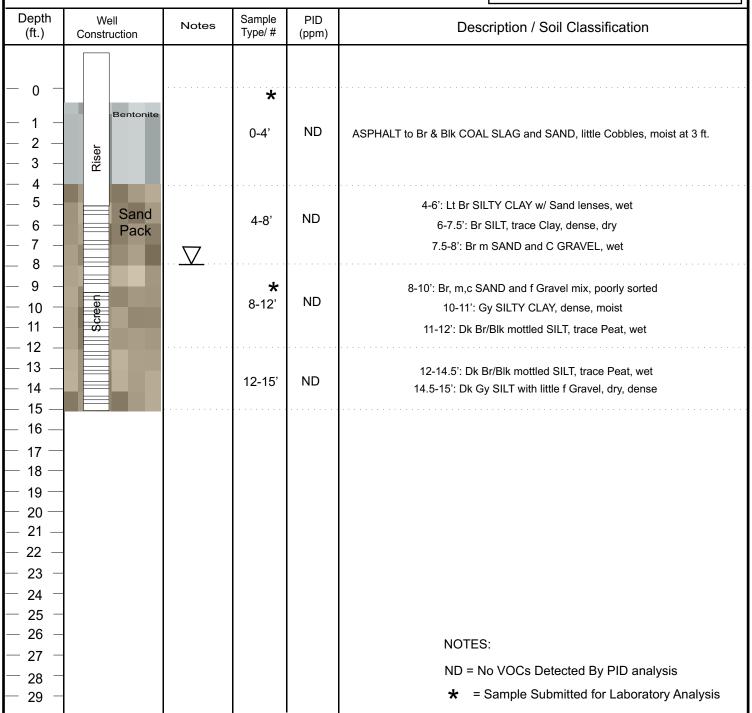
PRECISION PES Environmental Services, Inc.

Lot 28C, Curtis Industrial Park 831 Route 67 Ballston Spa, NY 12020 TEL: 518 885-4399 FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SB-1/MW-1

Project: Former C&F Plating	Client: NYSDEC Region 4	
Project No:	Location: 406 North Pearl St., Albany, NY	
Driller: Mike D.	Logged by: Stephen Phelps	
Drilling Contractor: PES	Drilling Method: Direct Push	
Date Drilled: 10-3-06	Date Developed:N/A	See Site Map
TOC Elevation:	Total Depth of Hole:15'	
Boring Diameter: 2.25" S	Screen Diameter: Length:	
Slot Size: F	Riser Diameter: Length:	
Type:	Sand Pack: Bentonite Seal:	
Protective Casing: None		



Lot 28C, Curtis Industrial Park 831 Route 67 Ballston Spa, NY 12020 TEL: 518 885-4399 FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SB-2/MW-2

Former C&F Plating NYSDEC Region 4 Client: Project:_ Location: 406 North Pearl St., Albany, NY Project No:_ Mike D. Driller: Logged by:___ Stephen Phelps Direct Push Drilling Contractor:_ **PES** Drilling Method:_ 10-3-06 N/A See Site Map Date Drilled: Date Developed:_ 16' TOC Elevation:_ Total Depth of Hole:__ 2.25" Boring Diameter:___ Screen Diameter:___ Length: Slot Size: _ Riser Diameter: Length: Type:_ Sand Pack: Bentonite Seal:

Protectiv	re Casing: None				
Depth (ft.)	Well Construction	Notes	Sample Type/#	PID (ppm)	Description / Soil Classification
- 0 - - 1 - - 2 - - 3 -	Bentonite		*	ND	ASPHALT to Br & Blk m & c SAND
- 4 - - 5 - - 6 - - 7 - - 8 -	Sand Pack	∇	4-8'	ND	4-7': Br CLAY moist, plastic 7-8': Br SILTY CLAY, moist
- 9 - - 10 - - 11 - - 12 -	U S S		* 8-12'	14	Br, m & c SAND and f Gravel mix, little Silty Clay, saturated, slight petro odor
— 13 — — 14 — — 15 —			12-16'	ND	12-15': Br m & c SAND, little f Gravel, saturated 15-16': Dk Gy SILT with f Gravel, dense, dry
- 16 17 - 18 - 19 - 20 21 - 22 - 24 - 25 - 26 - 27 - 28 - 29 - 29 10 - 10 - 10 - 10 - 10 - 10 - 10 -					NOTES: ND = No VOCs Detected By PID analysis ★ = Sample Submitted for Laboratory Analysis

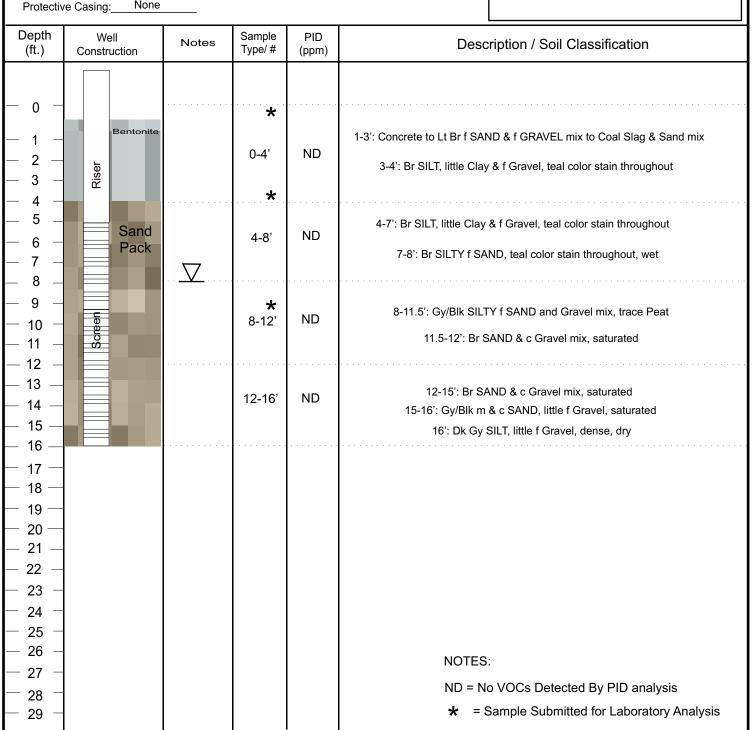
P R E C I S I O N PES Environmental Services, Inc.

Lot 28C, Curtis Industrial Park 831 Route 67 Ballston Spa, NY 12020 TEL: 518 885-4399 FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SB-3/MW-3

Project: Former C&F Plating	Client: NYSDEC Region 4	
Project No:	Location: 406 North Pearl St., Albany, NY	
Driller:Mike D.	Logged by: Stephen Phelps	
Drilling Contractor: PES	Drilling Method:	
Date Drilled: 10-3-06	Date Developed: N/A See Site Map	
TOC Elevation:	Total Depth of Hole:	
Boring Diameter: 2.25" Sc	creen Diameter: Length:	
Slot Size: Ris	iser Diameter: Length:	
Type: Sa	and Pack: Bentonite Seal:	
Protective Casing: None		





Lot 28C, Curtis Industrial Park 831 Route 67 Ballston Spa, NY 12020 TEL: 518 885-4399 FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SB-4

Project:Former C&F Plating	Client: NYSDEC Region 4	
Project No:	Location: 406 North Pearl St., Albany, NY	
Driller: Mike D.	Logged by: Stephen Phelps	
Drilling Contractor: PES	Drilling Method: Direct Push	
Date Drilled: 10-3-06	Date Developed:	See Site Map
TOC Elevation:	Total Depth of Hole:8'	
Boring Diameter: 2.25" So	creen Diameter: Length:	
Slot Size: Ris	ser Diameter: Length:	
Type: Sa	and Pack: Bentonite Seal:	
Protective Casing: None		

Depth (ft.)	Well Construction	Notes	Sample Type/#	PID (ppm)	Description / Soil Classification
— o —			*		
- 1 - - 2 - - 3 -			0-4'	ND	1-2': Asphalt to Concrete to br/blk SILT & f & m SAND, poorly sorted 2-3': Br SILTY SAND to Br SILT, trace Clay, dense 3-4': Lt Br SILT & f SAND
_ 4 _ _ 5 _ _ 6 _ _ 7 _			4-8'	ND	4-7': Lt Br SILTY f SAND w/ f Gravel mix 7-8': Blk/Ol Gn SILTY f SAND w/ f Gravel mix, wet at 7.5' 8': Blk SILTY f SAND & f Gravel mix, wet
 8 - 9 - 10 - 11 - 12 - 					8': Refusal
— 13 — — 14 — — 15 — — 16 — — 17 —					
18 19 20 21 22					
 23 24 25 26 27 					NOTES:
- 28 - - 29 -					ND = No VOCs Detected By PID analysis ★ = Sample Submitted for Laboratory Analysis

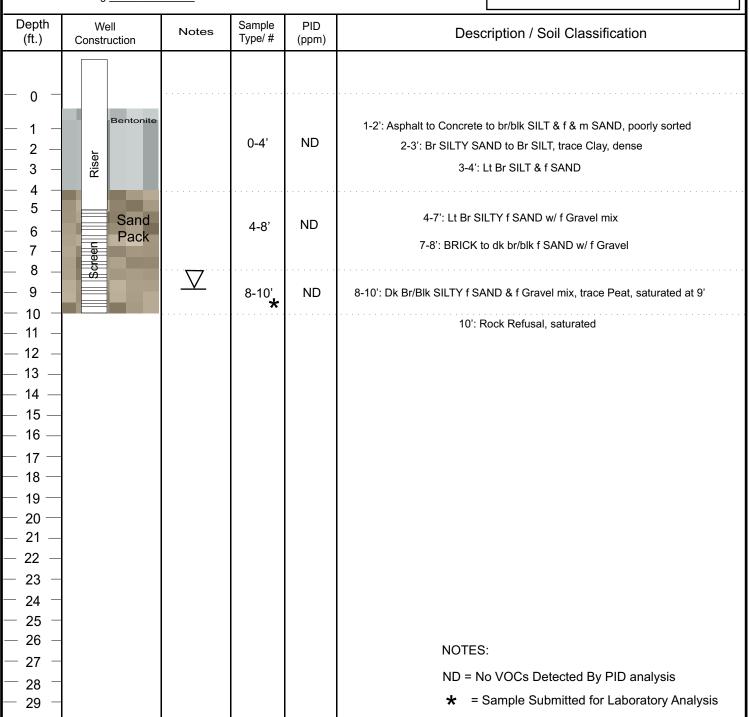
P R E C I S I O N PES Environmental Services, Inc.

Lot 28C, Curtis Industrial Park 831 Route 67 Ballston Spa, NY 12020 TEL: 518 885-4399 FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SB-5/MW-4

Project: Former C&F Plating	Client: NYSDEC Region 4	
Project No:	Location: 406 North Pearl St., Albany, NY	
Driller: Mike D.	Logged by: Stephen Phelps	
Drilling Contractor: PES	Drilling Method: Direct Push	
Date Drilled: 10-3-06	Date Developed:N/A	See Site Map
TOC Elevation:	Total Depth of Hole:10'	
Boring Diameter: 2.25" S	creen Diameter: Length:	
Slot Size: R	iser Diameter: Length:	
Type: S	Sand Pack: Bentonite Seal:	
Protective Casing: None		

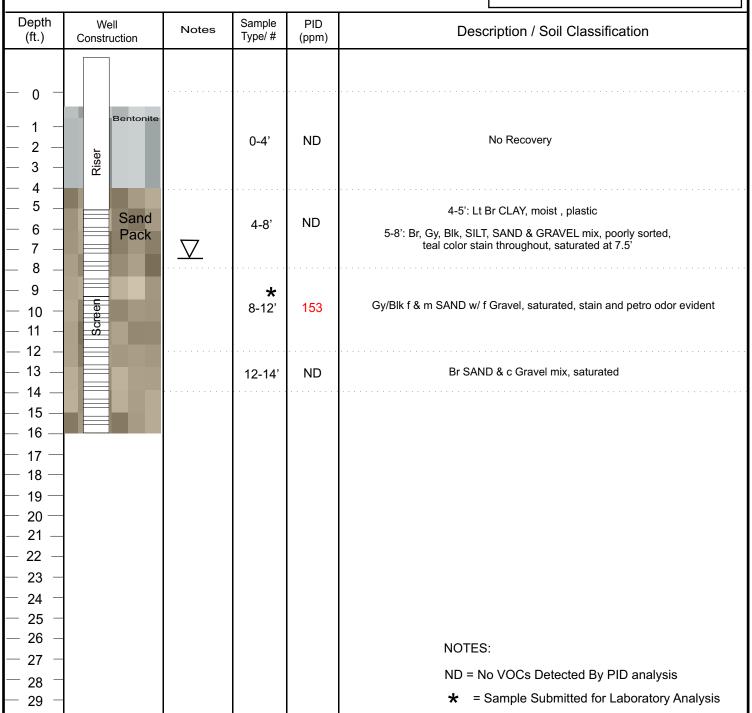


Lot 28C, Curtis Industrial Park 831 Route 67 Ballston Spa, NY 12020 TEL: 518 885-4399 FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SB-6/MW-5

Project: Former C&F Plating	Client: NYSDEC Region 4	<u> </u>
Project No:	Location: 406 North Pearl St., Albany, NY	
Driller: Mike D.	Logged by: Stephen Phelps	
Drilling Contractor: PES	Drilling Method: Direct Push	
Date Drilled: 10-3-06	_ Date Developed:N/A	See Site Map
TOC Elevation:	_ Total Depth of Hole:	
Boring Diameter: 2.25" Sc	reen Diameter: Length:	
Slot Size: Ris	ser Diameter: Length:	
Type: Sa	and Pack: Bentonite Seal:	
Protective Casing: None		



Former C & F Plating, Albany, NY Revised *Limited* Subsurface investigation Report, May 2008 NYSDEC Spill No.: 02-09561

Attachment D

DATA USABILITY SUMMARY REPORT

