ENVIRONMENTAL SOIL SAMPLING REPORT
CORNING GLASS CENTER EXPANSION PROJECT
CORNING, NEW YORK

by

Haley & Aldrich of New York
Rochester, New York

for

Corning Incorporated
Corning, New York

File No. 70589-020
April 1997

23 April 1997
File No. 70589-020

Ms. Tracy Anderson Gwin
Sr. Environmental Control Engineer
Corning Incorporated
Energy, Environmental & Facility Services
HP ME 01 025 B10
Corning, New York 14831

Subject: Environmental Soil Sampling Report
Corning Glass Center Expansion Project
Corning, New York

Dear Ms. Gwin:

This report presents the results of the soil sampling program conducted by Haley & Aldrich of New York to support the construction activities associated with the expansion and modifications of the Corning Glass Center facility in Corning, New York. Our services on this project were provided in accordance with our proposal dated 12 November 1996 and Corning Purchase Order No. **CP-268225**.

This project involved a test pit excavation and soil sampling program at the Corning Incorporated Glass Center facility in Corning, New York. The purpose of this project is to assist Corning in determining the possible need for special handling of excavated soils at the site in conjunction with the construction activities for expansion of the Glass Center facility. Corning anticipates that subsurface soil and fill surrounding the Glass Center could contain non-native fills with various debris and ash associated with historical industrial activities. The specific objectives of this project were to identify whether non-native fills are present at the site and to evaluate whether such fills could contain elevated levels of certain metals at levels that could require special handling or disposal during the planned construction project.

The Corning Glass Center facility is located in the northwest corner of the intersection of Museumway and Centerway streets as shown on Figure 1. The area of interest for this project is on the east side of the facility where a new facility entrance area and ramp will be constructed. The soil sampling program involved the excavation of test pits in areas of the project site where below grade construction activities are planned. Selected samples of soil and fill were obtained from the test pits for laboratory analysis of total metals content. The following sections of this report detail the exploration program conducted and results of the analytical testing and our interpretations of the data obtained.

SOIL SAMPLING PROGRAM

The soil sampling program was conducted on December 10 and 11 1996 under the observation of a Haley & Aldrich field geologist. The program involved the excavation of a series of test pits across the site, making observations of soil conditions in the test pits and collection of soil samples for laboratory analyses. The test pit exploration services were provided by Nothnagle Drilling Incorporated of Scottsville, New York and laboratory analytical services provided by the Quanterra Environmental Services laboratories in Pittsburgh, Pennsylvania. Land surveying services were provided by Hunt Engineers of Corning, New York. The exploration program was initiated on the morning of 10 December 1996 with a utility stakeout coordinated between Haley & Aldrich, Nothnagle Drilling, the local utility companies as arranged by the UFPO and Corning Facility Services personnel.

Excavation of Test Pits

A total of 20 test pits were excavated on the site with a backhoe between 10 and 11 December 1996 at the locations shown on Figure 1. The locations and depths of the test pits were determined by Haley & Aldrich in consultation with Corning personnel and were focused in areas of the site where the planned building expansion would involve deeper soil excavations. These areas were identified to include: building column locations, the base of proposed elevator and escalator shafts, a new access roadway and adjacent sloped area in front of the building along Centerway Street. The specific objective of the exploration program was to excavate test pits to observe soil conditions in each of these areas to the same base elevation as required for the installation of the proposed new structures. The test pit locations, existing grade elevations and planned depth of cut elevations were surveyed at each location before the test pits were excavated. These elevations are shown on Figure 1. The test pits were excavated to the predetermined target depths identified which ranged from approximately 2 to 10 feet below existing grades. Observations of subsurface conditions identified during the exploration program are summarized on the Test Pit Reports in Appendix A.

Collection and Field Screening of Soil Samples

The soil sampling program involved the collection of a representative number of samples during the test pit program for analysis of selected heavy metals potentially present from past industrial activity. Soil samples were collected at 1- or 2- foot depth intervals in each test pit and at any location where debris, ash or other non-native soil material was visually apparent. The samples were collected by hand directly from the backhoe bucket or from the stockpiles placed alongside each excavation. The depths at which the soil samples were collected are identified in the Test Pit Reports in Appendix A. The samples were collected in glass samples containers provided by the analytical laboratory. Following the sampling, each test pit was backfilled with the excavated soils.

Soil samples were visually screened in the field, classified by soil type, and evaluated for volatile organic compounds (VOCs) presence a part of standard health and safety protocol. The VOC screening was performed using a Microtip photo ionization detector equipped with

a 10.6 eV light source. No VOCs were observed in any of the test pits above background levels normally observed with this equipment. Soil conditions observed are detailed on the Test Pit Reports in Appendix A.

Observation of Soil Conditions

The depth of the test excavations ranged from approximately 2 to 10 feet below the existing site grades with the deeper locations corresponding with proposed elevator and escalator shafts within the footprint of the building expansion area (refer to Figure 1). All of the test pits were excavated through fills and into native undisturbed soils except for test pit TP-19 which was terminated based on field instructions. The soil profile generally apparent from the ground surface down across the site location consisted of the following:

- **Topsoil** consisting of dark brown organic soils generally less than 0.5 foot in thickness, with selected locations more than 1 foot in thickness.

- **Fill** consisting of reworked native soils primarily containing brown to light-brown silty clay ranging in thickness from approximately 2 to 4 feet across the site.

- **Lacustrine** derived sediments consisting of brown silty clay.

- **Alluvial** deposits consisting of fine to coarse sand with cobbles which were generally encountered at the base of test pits which were excavated below elevation 922.

In addition to the above soil types, there were several test pit locations where other types of soil materials were encountered in the fill zones. The first of these included an area penetrated by test pits TP-8, 12, and 15 where 4 to 5 feet of coarse brown sand was encountered. Corning personnel on-site during the exploration program indicated this material was most likely associated with the backfilling of a former pond which existed in this area in the past. This sand appeared clean with no visual indications of intermingled debris or other non-soil material. The second type of apparent non-native fill material was a black ash-like material found in several test pits. The ash was black and readily distinguishable, some of which contained brick and glass. This material was suspected to be associated with past industrial activities and as such was the focus of the sampling and analytical program for this project. The fills identified which did not contain ash appeared clean and other than being previously disturbed had no indications of the presence of debris or industrially-related materials.

Extent and Quantity of Ash

The black ash-like material was identified in 8 of the 20 test pit locations all of which are located outside of the proposed building expansion footprint shown on Figure 1. A summary of the locations, elevations and approximate thicknesses of the ash observed during the exploration is provided on Table 1. In general, the ash appears to have been deposited in a thin layer from 0.2 to 0.6 feet thick between elevations 926 and 927 with additional deeper

pockets of ash identified in two in test pits TP-1 at the south and TP-19 at the north ends of the site. The thin layer of ash appears to be present across most or all of the construction site outside of the proposed building

Because the pattern of ash placement is neither discernable nor predictable due to the more recent redevelopment of this former industrial site, it is impossible to estimate with any degree of accuracy the amount of ash-like fill which may be encountered in the planned construction. However, based on an apparent average ash thickness of 0.5 feet covering the area encompassed by the proposed new access road and ramp (assumed to be +/- 500 feet by +/- 10 feet) and the adjoining sloped bank (assumed to be +/- 150 feet by +/- 50 feet) as shown on Figure 1, the volume of ash-like fill in this area might be in the range of 200 to 300 cubic yards.

The explorations conducted were not sufficient to determine the lateral or vertical extent of ash present in the other two areas where the thick ash pockets were encountered. One of these thick deposits was identified in test pit TP-1 where an approximate 4.5 foot layer of ash was identified between elevations 928 and 923. The second thick ash deposit was encountered in test pit TP-19 where a more than 1.5-foot thick layer of ash was identified extending from elevation 923.5 to the bottom of the test pit. This test pit was terminated as directed by Corning at elevation 922 before the ash layer was fully penetrated.

SOIL SAMPLE ANALYTICAL RESULTS

The soil sample analytical program involved the submittal of seven soil samples that were visually identified as containing ash and associated debris to the analytical laboratory for analysis of total metal content. These samples were analyzed at the Quanterra laboratories for the 8 RCRA metal parameters~~ to determine if metals were present at characteristically hazardous concentrations.~~ The samples were analyzed using standard EPA SW-846 methods. Copies of the laboratory analytical reports are provided in Appendix B. Results of the sample analytical program are summarized on Table 2.

~~Results of the sample analytical program are summarized on Table 2. These data are evaluated by comparison of the detected metal concentrations to the RCRA characteristically hazardous levels assuming the commonly used dilution factor (20x) to account for the extraction in the TCLP test method. Based on this comparison, three of the samples, those obtained from TP-1, 14 , and 20, contain metal concentrations higher than the comparison criteria. The exceeded analytes were lead in all three samples and arsenic in the TP-1 sample. The TP-1 sample had substantially higher detected concentrations than the concentrations detected in any of the other samples analyzed.~~

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings above, it appears that industrial related materials, primarily composed of ash are present in portions of the proposed construction site, but the overall vertical and horizontal distribution of these materials does not appear to be extensive relative to the

specific areas that new facilities are planned to be constructed. The specific findings of this exploration program are as follows:

- The ash identified appears to have been deposited in a relatively consistent thin layer over some portions of the site that because of its dark color was readily distinguishable from the surrounding soils

- A thin layer of ash approximately 0.2 to 0.6 feet thick was encountered in the eastern portion of the site outside the proposed building expansion foot print between the approximate elevations of 926 and 927. This ash layer appears to exist where the new access ramp is planned to be constructed, but was not evident within the footprint of the proposed building expansion. The ash is characterized as a black material with occasional zones containing brick pieces and glass shards.

- There were two thicker deposits of ash encountered in test pits TP-1 and TP-19. In TP-1 the ash observed was 4.5 thick. Explorations conducted were not sufficient to determine the vertical or horizontal extent of ash in either of these locations.

- Analysis of ash samples indicate the presence of ~~elevated total~~ lead and, to a lesser extent, arsenic in selected samples at detected concentrations that appear higher than the average levels for these elements at this location. ~~in one of the seven samples analyzed. Three other samples had lead levels only slightly higher than the comparison criteria used in this report. The extent to which any of these samples could be hazardous would require further analysis by the TCLP testing method. In general however, the total metal levels detected during this investigation do not indicate a high potential the ash would be characteristically hazardous. The 20x dilution factor used to simulate the TCLP test is, from our experience, conservative. Normally, much higher total levels than what were detected at the site are needed to exceed the TCLP thresholds.~~

- Other soil and fill material identified in test pits was light to dark brown clay. We did not observe any ash, debris, glass or other apparently industrial-related materials in this soil other than the distinct ash layers discussed above. There was one area where a sandy fill was observed that was reported to be a backfilled pond which once existed at the site. This fill appeared clean with no ash, debris or glass discernable.

Based on these findings, Haley & Aldrich recommends the following concerning soil management for the proposed Glass Center construction project:

- If construction activities in the vicinity of test pits TP-1 and TP-19 is planned, additional investigations in these areas may be warranted to further evaluate the extent of ash present.

- Corning should segregate any ash or other apparently industrial-related debris that is encountered during the construction. This material should be sampled and analyzed

to determine whether hazardous concentrations of metals or other constituents are present to allow classification and segregation for offsite disposal in a hazardous or solid waste management facility as found appropriate. If these materials are determined to be nonhazardous, there may also be options for on-site use, however, such usage would need to be conducted in accordance with applicable NYSDEC solid waste management regulation.

It has been a pleasure assisting you with this investigation. If you have questions or comments, or if you require additional information, please do not hesitate to contact us.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Edward L. Hynes
Senior Scientist

Stanley E. Walker, P.E.
Vice President

ELH:SEW:gmc
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Attachments:

Figure 1 - Project Location Map
Table 1 - Summary of Test Pits Observed to Contain Ash
Table 2 - Soil Sample Analytical Summary
Appendix A - Test Pit Reports
Appendix B - Laboratory Analytical Results and Chain-of-Custody Documentation

TABLE 1
CORNING GLASS CENTER EXPANSION PROJECT

SUMMARY OF TEST PITS OBSERVED TO CONTAIN ASH

Location	Elevation (ft.)	Approx. Thickness (ft.)
TP-1	928.1 to 923.6	4.5
TP-2	927.4 to 927.2	0.2
TP-3	926.9 to 926.4	0.5
TP-4	927.2 to 926.9	0.3
TP-5	926.2 to 926.7	0.5
TP-14	926.2 to 925.8	0.4
TP-19	926.4 to 926.2	0.2
	923.5 to 922.0	>1.5*
TP-20	926.3 to 925.7	0.6

* Ash extended to base of test pit, therefore vertical extend of ash was not confirmed and likely greater than 1.5 feet in thickness.
See Figure 2 for Test Pit locations.

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TABLE 2
CORNING GLASS CENTER PROJECT

SOIL SAMPLE ANALYTICAL SUMMARY
(TOTAL METALS IN mg/kg)

Test Pit No.	Sample Location	Sample Depth (ft.)	Material Sampled	Analytical Results (mg/kg)							
				As	Pb	Ba	Se	Cd	Cr	Ag	Hg
TP-1	S1 & S2 (comp.)	2-4	Black ash, brick, glass	**143**	**3,800**	77.2	13.4	10.3	13.6	ND	0.49
TP-3	S1 (grab)	1.5-2	Native clay with ash	12.1	**115**	133	0.80	0.80	11.1	ND	0.084
TP-4	S1 (grab)	1-1.5	Black ash with clay	10.1	83.1	91.8	1.2	0.57 B	8.2	ND	ND
TP-5	S1 (grab)	1.5-2	Native clay with ash mix	11.9	49.4	151	0.58 B	0.56 B	12.9	ND	0.043
TP-14	S1 (grab)	1.5-2	Mix of soil and ash	18.3	**259**	106	1.3	1.2	11.2	ND	0.061
TP-19	S2A (grab)	4.5	Black ash	9.2	27.8	99.2	0.86	0.39 B	9.4	ND	0.041
TP-20	S1 (grab)	1.5-2	Black ash and clay	9.8	**135**	79.4	1.2	0.31 B	7.8	ND	0.034
RCRA TCLP Characteristic Compasion Value (TCLP value/20x TCLP)				5.0/100	5.0/100	100/2000	1.0/20	1.0/20	5.0/100	5.0/100	0.2/4.0

Analytical results identified in bold type indicate reported values may exceed the RCRA TCLP comparison criteria.
Refer to text of report for detailed discussion of comparison values.

Notes:

1. Analytical results presented in mg/kg or ppm for total metals analysis.
2. Abbreviations:

   As - Arsenic
   Pb - Lead
   Ba - Barium
   Se - Selenium
   As - Arsenic
   Cd - Cadmium
   Cr - Chromium
   Ag - Silver
   Hg - Mercury
3. "B" is a laboratory qualifier indicating detected concentration below laboratory reporting limit.
   "ND" means not detected.

APPENDIX A

Test Pit Reports

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 1 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.4
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	Brown CLAY, trace sand, wet.	EL. 928.4
2	S1	2.0		Black ASH, with brick and glass, moist.	
4	S2	4.0		-FILL-	
			4.8	Brown silty CLAY, moist.	
6	S3	6.4		-LACUSTRINE-	El. 922.0
				Bottom of Excavation at 6.4 ft.	
8				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH:	6.4
JAR SAMPLES:	3
BAG SAMPLES:	--
WATER LEVEL:	NE
TEST PIT NO.	1

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 2 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.3
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.9	-TOPSOIL-	El. 928.3
			1.1	Black ASH, moist. -FILL-	
2	S1	2.0		Brown silty CLAY, moist.	
4	S2	4.0		-LACUSTRINE-	
			5.6	Fine to coarse SAND, with cobbles, moist. -ALLUVIAL DEPOSIT-	
6	S3	6.2	6.2	Bottom of Excavation at 6.2 ft.	El. 922.0
8				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH:	6.2
JAR SAMPLES:	3
BAG SAMPLES:	--
WATER LEVEL:	NE
TEST PIT NO.	2

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 3 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.2
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Brown CLAY, trace sand, moist. -FILL-	El. 928.2
			1.3		
		1.5 to		Black ASH with glass and brick, moist. -FILL-	
2	S1	2.0	1.8		
				Brown silty CLAY, moist.	
4	S2	4.0			
6				-LACUSTRINE-	
	S3	6.2	6.2		El. 922.0
				Bottom of Excavation at 6.2 ft.	
8					
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH:	6.2
JAR SAMPLES:	3
BAG SAMPLES:	--
WATER LEVEL:	NE
TEST PIT NO.	3

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 4 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED CONTRACTOR: NOTHAGLE DRILLING INC. EQUIPMENT USED: BACKHOE	LOCATION: SEE MAP ELEVATION: 928.0 EXPLORATION DATE: 12/11/96 H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.2	-TOPSOIL-	El. 928.0
	S1	1.0	0.8 1.1	Light brown CLAY, trace sand, damp. -FILL- Black ASH, damp. -FILL-	
2			2.0	Brown silty CLAY, moist. Bottom of Excavation at 2.0 ft.	El. 926.0
4				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
6					
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 5.0 feet WIDTH 2.0 feet	DEPTH: 2
				JAR SAMPLES: 1
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 4

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 5 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 927.5
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	-TOPSOIL-	El. 927.5
				Brown CLAY, trace sand, moist. -FILL-	
			1.3		
	S1	1.5 to 2.0	1.8	Black ASH with glass and brick, moist. -FILL-	
2				Brown silty CLAY, moist.	
4				-LACUSTRINE-	
	S2	4.5	4.5	Bottom of Excavation at 4.5 ft.	El. 923.0
6				Observed Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 5.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 4.5
JAR SAMPLES: 2
BAG SAMPLES: --
WATER LEVEL: NE

TEST PIT NO. 5

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 6 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.4
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
					928.4
	S1		0.8	Dark brown TOPSOIL	
2	S2			Brown CLAY, trace sand, damp.	
	S3				
4	S4		4.0	-FILL-	
			4.5	Gray silty CLAY, damp. -LACUSTRINE-	
	S5			Brown CLAY, trace sand, moist.	
6	S6			-LACUSTRINE-	
	S7		6.8	Brown fine to medium SAND, wet.	
8	S8			-ALLUVIAL DEPOSIT-	
			8.4	Bottom of Excavation at 8.4 ft.	920.0
10				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 7.0 feet WIDTH 2.0 feet	DEPTH: 8.4
				JAR SAMPLES: 8
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 6

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 7 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.4
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Dark brown TOPSOIL	928.4
			0.8		
	S1	1.0		Light brown CLAY, trace sand with organic material, damp.	
2	S2	2.0		-FILL-	
	S3	3.0			
			3.5	Gray silty CLAY, with gravel, damp.	
4	S4	4.0	4.0	-LACUSTRINE-	
	S5	5.0		Light brown CLAY, moist.	
6	S6	6.0		-LACUSTRINE-	
	S7	7.0	7.0	Brown fine to medium SAND, moist.	
8	S8	8.0		-ALLUVIAL DEPOSIT-	
			8.4	Bottom of Excavation at 8.4 ft.	920.0
10				Observed Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 8.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 8.4
JAR SAMPLES: 8
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 7

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 8 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.4
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.2	Dark brown organic material.	929.6
	S1	1.0		Brown SAND, common cobbles, moist.	0.2 to 4.0 ft. back-filled area of former pond (as per Corning personel on-site)
2	S2	2.0			
	S3	3.0		-FILL-	
4	S4	4.0	4.0	Gray silty CLAY, moist.	
	S5	5.0	5.0		
6	S6	6.0		Brown silty CLAY, moist.	
	S7	7.0			
	S8	7.6	7.6	-LACUSTRINE-	El. 922.0
8				Bottom of Excavation at 7.6 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 7.6
JAR SAMPLES: 8
BAG SAMPLES: --
WATER LEVEL: NE

TEST PIT NO. 8

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 9 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.3
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Dark brown TOPSOIL	El. 928.3
	S1	1.0		Light brown silty CLAY, damp.	
2	S2	2.0			
	S3	3.0		-FILL-	
			3.5	Gray silty CLAY, with gravel, moist.	
4	S4	4.0		-LACUSTRINE-	
			4.5	Light brown silty CLAY, moist.	
	S5	5.0			
6	S6	6.0		Brown silty CLAY, moist.	
	S7	7.0		-LACUSTRINE-	
			7.4	Brown fine to medium SAND, moist.	El. 922.0
8	S8	8.0			
	S9	9.0	9.0	Same, except wet.	
	S10	9.7	9.7	-ALLUVIAL DEPOSIT-	El. 918.6
10				Bottom of Excavation at 9.7 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 7.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 9.7
JAR SAMPLES: 9
BAG SAMPLES: --
WATER LEVEL: NE

TEST PIT NO. 9

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 10/11 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.0
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
	S1	1.0		Dark brown TOPSOIL -FILL-	El. 928.0
2	S2	2.0	2.0		
	S3	3.0		Light brown CLAY, trace sand, damp.	
4	S4	4.0			
	S5	5.0			
6	S6	6.0			
	S7	7.0			
8	S8	8.0			
	S9	9.0		-FILL-	
10	S10	9.8	9.8	Bottom of Excavation at 9.8 ft.	El. 918.2
12				This test pit excavated in fills along foundation of existing building. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 7.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 9.8
JAR SAMPLES: 10
BAG SAMPLES: --
WATER LEVEL: NE

TEST PIT NO. 10/11

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 12 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 929.8
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.4	Dark brown CLAY, trace organic material. -TOPSOIL-	El. 929.8
				Brown SAND, common cobbles, moist.	0.4 to 4.0 ft. backfill of former pond area.
2	S1	2.0			
				-FILL-	
4	S2	4.0	4.0	Gray silty CLAY, moist.	
				-LACUSTRINE-	
			4.8	Brown silty CLAY, trace sand, common cobbles, moist.	
6	S3	6.0			
8	S4	8.0			
				-LACUSTRINE-	
10	S5	9.8	9.8	Bottom of Excavation at 9.8 ft.	El. 920.0
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.5 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 9.8
JAR SAMPLES: 5
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 12

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 13 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.3
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.2	Organic material.	El. 928.3
				Brown CLAY, trace sand, moist. -FILL-	
2	S1	2.0	2.0	Dark gray silty CLAY, moist. -LACUSTRINE-	
			2.8		
4	S2	4.0		Brown CLAY, very few cobbles, moist. -LACUSTRINE-	
			5.8		
6	S3	6.3	6.3	Brown medium to fine SAND, moist. -ALLUVIAL DEPOSIT-	El. 922.0
				Bottom of Excavation at 6.3 ft.	
8				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 5.5 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.3
JAR SAMPLES: 3
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 13

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 14 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 927.5
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	-TOPSOIL-	El. 927.5
				Brown CLAY, trace sand, moist. -FILL-	
			1.3		
	S1	1.5 to 2.0	1.7	Black ASH with brick, moist. -FILL-	
2				Brown CLAY, trace sand moist. -LACUSTRINE-	
			2.5	Bottom of Excavation at 2.5 ft.	El. 925.0
4				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
6					
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 4.5 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 2.5
JAR SAMPLES: 1
BAG SAMPLES: --
WATER LEVEL: NE

TEST PIT NO. 14

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 15 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 930.2
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Dark brown CLAY, trace organic material. -TOPSOIL-	El. 930.2
2	S1	2.0		Brown SAND, common cobbles, moist.	0.5 to 5.0 ft. backfill of former pond area.
4	S2	4.0		-FILL-	
			5.0	Gray silty CLAY, moist.	
6	S3	6.0		-LACUSTRINE-	
			6.3	Brown silty CLAY, trace sand, moist.	
8	S4	8.0			
10	S5	10.2	10.2	-LACUSTRINE-	El. 920.0
				Bottom of Excavation at 10.2 ft.	
12				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 7.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 10.2
JAR SAMPLES: 5
BAG SAMPLES: --
WATER LEVEL: NE

TEST PIT NO. 15

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 16 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.5
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Dark brown TOPSOIL.	El. 928.5
			1.3		
2	S1	2.0		Brown CLAY, trace sand, moist.	
4	S2	4.0		-FILL-	
			4.5	Gray silty CLAY, moist. -LACUSTRINE-	
			5.1		
6	S3	6.0		Brown silty CLAY, trace organic material, moist.	
				-LACUSTRINE-	
8	S4	8.0			
			8.5	Bottom of Excavation at 8.5 ft.	El. 920.0
10				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 7.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 8.5
JAR SAMPLES: 4
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 16

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 17 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.0
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.6	-TOPSOIL-	El. 928.0
				Brown silty CLAY, trace root material, moist.	
				-FILL-	
2	S1	2.0	2.0	Gray silty CLAY, moist. -LACUSTRINE-	
			2.5		
				Brown silty CLAY, moist.	
4	S2	4.0			
6	S3	6.0		-LACUSTRINE-	
8	S4	8.0	8.0	Bottom of Excavation at 8.0 ft.	El. 920.0
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 7.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 8.0
JAR SAMPLES: 4
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 17

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 18 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.0
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Dark brown TOPSOIL.	El. 928.0
			0.7	Brown silty CLAY, moist.	
2	S1	2.0		-FILL-	
			2.5	Gray to dark brown silty CLAY, moist.	
4	S2	4.0			
				-LACUSTRINE-	
6	S3	6.0	6.0	Bottom of Excavation at 6.0 ft.	El. 922.0
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.0
JAR SAMPLES: 3
BAG SAMPLES: --
WATER LEVEL: NE

TEST PIT NO. 18

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 19 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 927.5
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	-TOPSOIL-	El. 927.5
				Brown SAND and GRAVEL, moist. -FILL-	
			1.1		
			1.3	Black ASH, moist. -FILL-	
2	S1	2.0		Brown CLAY, trace sand, moist.	
				-FILL-	
4	S2	4.0	4.0		
	S2a	4.5		Black ASH, moist.	
				-FILL-	
	S3	5.5	5.5		El. 922.0
6				Bottom of Exploration at 5.5 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 5.5
JAR SAMPLES: 3
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 19

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 20 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 927.6
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.4	-TOPSOIL-	El. 927.6
				Light brown CLAY, trace sand, moist. -FILL-	
			1.3		
		1.5 to 2.0	1.9	Black ASH, moist. -FILL-	
2	S1			Brown silty CLAY, moist.	
4	S2	4.0			
	S3	5.6	5.6	-LACUSTRINE-	El. 922.0
6				Bottom of Excavation at 5.6 ft.	
8				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

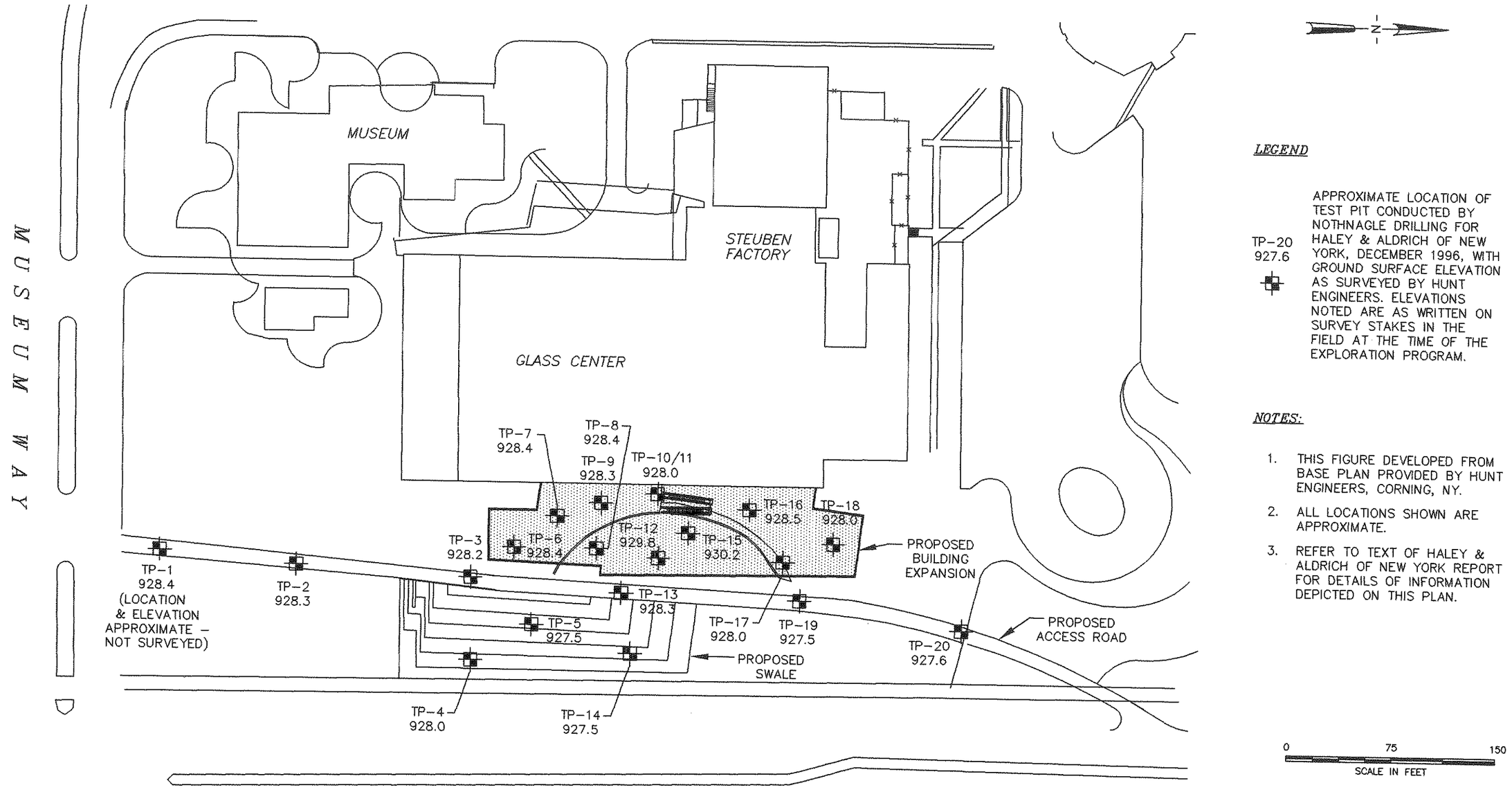
BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 5.6
JAR SAMPLES: 3
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 20



LEGEND

TP-20
927.6

APPROXIMATE LOCATION OF TEST PIT CONDUCTED BY NOTHNAGLE DRILLING FOR HALEY & ALDRICH OF NEW YORK, DECEMBER 1996, WITH GROUND SURFACE ELEVATION AS SURVEYED BY HUNT ENGINEERS. ELEVATIONS NOTED ARE AS WRITTEN ON SURVEY STAKES IN THE FIELD AT THE TIME OF THE EXPLORATION PROGRAM.

NOTES:

1. THIS FIGURE DEVELOPED FROM BASE PLAN PROVIDED BY HUNT ENGINEERS, CORNING, NY.
2. ALL LOCATIONS SHOWN ARE APPROXIMATE.
3. REFER TO TEXT OF HALEY & ALDRICH OF NEW YORK REPORT FOR DETAILS OF INFORMATION DEPICTED ON THIS PLAN.

0 75 150
SCALE IN FEET

70589-020

HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

GLASS CENTER EXPANSION PROJECT
CORNING, NEW YORK

LOCATION PLAN

SCALE: AS SHOWN

MARCH 1997

APPENDIX A

Test Pit Reports

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 1 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.4
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	Brown CLAY, trace sand, wet.	EL. 928.4
2	S1	2.0		Black ASH, with brick and glass, moist.	
4	S2	4.0		-FILL-	
			4.8	Brown silty CLAY, moist.	
6	S3	6.4		-LACUSTRINE-	
				Bottom of Excavation at 6.4 ft.	El. 922.0
8				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.4
JAR SAMPLES: 3
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 1

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 2 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED CONTRACTOR: NOTHAGLE DRILLING INC. EQUIPMENT USED: BACKHOE	LOCATION: SEE MAP ELEVATION: 928.3 EXPLORATION DATE: 12/11/96 H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.9	-TOPSOIL-	El. 928.3
			1.1	Black ASH, moist. -FILL-	
2	S1	2.0		Brown silty CLAY, moist.	
4	S2	4.0		-LACUSTRINE-	
			5.6	Fine to coarse SAND, with cobbles, moist.	
6	S3	6.2	6.2	-ALLUVIAL DEPOSIT-	El. 922.0
				Bottom of Excavation at 6.2 ft.	
8				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 6.0 feet WIDTH 2.0 feet	DEPTH: 6.2
				JAR SAMPLES: 3
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 2

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 3 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.2
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Brown CLAY, trace sand, moist.	El. 928.2
			1.3	-FILL-	
		1.5 to 2.0	1.8	Black ASH with glass and brick, moist. -FILL-	
2	S1				
				Brown silty CLAY, moist.	
4	S2	4.0			
6				-LACUSTRINE-	
	S3	6.2	6.2	Bottom of Excavation at 6.2 ft.	El. 922.0
8				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 6.0 feet WIDTH 2.0 feet	DEPTH: 6.2
				JAR SAMPLES: 3
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 3

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 4 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED CONTRACTOR: NOTHAGLE DRILLING INC. EQUIPMENT USED: BACKHOE	LOCATION: SEE MAP ELEVATION: 928.0 EXPLORATION DATE: 12/11/96 H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.2	-TOPSOIL-	El. 928.0
	S1	1.0	0.8	Light brown CLAY, trace sand, damp. -FILL-	
			1.1	Black ASH, damp. -FILL-	
2			2.0	Brown silty CLAY, moist.	El. 926.0
				Bottom of Excavation at 2.0 ft.	
4				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
6					
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 5.0 feet WIDTH 2.0 feet	DEPTH: 2
				JAR SAMPLES: 1
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 4

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 5 PILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 927.5
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	-TOPSOIL-	El. 927.5
				Brown CLAY, trace sand, moist.	
				-FILL-	
			1.3		
	S1	1.5 to 2.0	1.8	Black ASH with glass and brick, moist. -FILL-	
2				Brown silty CLAY, moist.	
4				-LACUSTRINE-	
	S2	4.5	4.5		El. 923.0
				Bottom of Excavation at 4.5 ft.	
6				Observed Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT
* Hrs after completed		

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 5.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 4.5
JAR SAMPLES: 2
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 5

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 6 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.4
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
					928.4
	S1		0.8	Dark brown TOPSOIL	
2	S2			Brown CLAY, trace sand, damp.	
	S3				
				-FILL-	
4	S4		4.0	Gray silty CLAY, damp. -LACUSTRINE-	
			4.5		
	S5			Brown CLAY, trace sand, moist.	
6	S6				
				-LACUSTRINE-	
	S7		6.8	Brown fine to medium SAND, wet.	
8	S8				
				-ALLUVIAL DEPOSIT-	
			8.4		920.0
				Bottom of Excavation at 8.4 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 7.0 feet WIDTH 2.0 feet	DEPTH: 8.4
				JAR SAMPLES: 8
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 6

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 7 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.4
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Dark brown TOPSOIL	928.4
			0.8		
	S1	1.0		Light brown CLAY, trace sand with organic material, damp.	
2	S2	2.0		-FILL-	
	S3	3.0			
			3.5	Gray silty CLAY, with gravel, damp.	
4	S4	4.0	4.0	-LACUSTRINE-	
	S5	5.0		Light brown CLAY, moist.	
6	S6	6.0		-LACUSTRINE-	
	S7	7.0	7.0	Brown fine to medium SAND, moist.	
8	S8	8.0		-ALLUVIAL DEPOSIT-	
			8.4	Bottom of Excavation at 8.4 ft.	920.0
10				Observed Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 8.0 feet WIDTH 2.0 feet	DEPTH: 8.4
				JAR SAMPLES: 8
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 7

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 8 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.4
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.2	Dark brown organic material.	929.6
	S1	1.0		Brown SAND, common cobbles, moist.	0.2 to 4.0 ft. back-filled area of former pond (as per Corning personel on-site)
2	S2	2.0			
	S3	3.0		-FILL-	
4	S4	4.0	4.0	Gray silty CLAY, moist.	
	S5	5.0	5.0		
6	S6	6.0		Brown silty CLAY, moist.	
	S7	7.0		-LACUSTRINE-	
	S8	7.6	7.6		El. 922.0
8				Bottom of Excavation at 7.6 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 7.6
JAR SAMPLES: 8
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 8

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 9 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.3
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Dark brown TOPSOIL	El. 928.3
	S1	1.0		Light brown silty CLAY, damp.	
2	S2	2.0			
	S3	3.0		-FILL-	
			3.5	Gray silty CLAY, with gravel, moist.	
4	S4	4.0		-LACUSTRINE-	
			4.5	Light brown silty CLAY, moist.	
	S5	5.0			
6	S6	6.0		Brown silty CLAY, moist.	
	S7	7.0		-LACUSTRINE-	
			7.4	Brown fine to medium SAND, moist.	El. 922.0
8	S8	8.0			
	S9	9.0	9.0	Same, except wet.	
	S10	9.7	9.7	-ALLUVIAL DEPOSIT-	El. 918.6
10				Bottom of Excavation at 9.7 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 7.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 9.7
JAR SAMPLES: 9
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 9

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 10/11 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.0
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
	S1	1.0		Dark brown TOPSOIL -FILL-	El. 928.0
2	S2	2.0	2.0		
	S3	3.0		Light brown CLAY, trace sand, damp.	
4	S4	4.0			
	S5	5.0			
6	S6	6.0			
	S7	7.0			
8	S8	8.0			
	S9	9.0		-FILL-	
10	S10	9.8	9.8	Bottom of Excavation at 9.8 ft.	El. 918.2
12				This test pit excavated in fills along foundation of existing building. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 7.0 feet WIDTH 2.0 feet	DEPTH: 9.8
				JAR SAMPLES: 10
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 10/11

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 12 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 929.8
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.4	Dark brown CLAY, trace organic material. -TOPSOIL-	El. 929.8
				Brown SAND, common cobbles, moist.	0.4 to 4.0 ft. backfill of former pond area.
2	S1	2.0		-FILL-	
4	S2	4.0	4.0	Gray silty CLAY, moist. -LACUSTRINE-	
			4.8	Brown silty CLAY, trace sand, common cobbles, moist.	
6	S3	6.0			
8	S4	8.0		-LACUSTRINE-	
10	S5	9.8	9.8	Bottom of Excavation at 9.8 ft.	El. 920.0
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.5 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 9.8
JAR SAMPLES: 5
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 12

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 13 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.3
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.2	Organic material.	El. 928.3
				Brown CLAY, trace sand, moist. -FILL-	
2	S1	2.0	2.0	Dark gray silty CLAY, moist. -LACUSTRINE-	
			2.8		
4	S2	4.0		Brown CLAY, very few cobbles, moist. -LACUSTRINE-	
			5.8		
6	S3	6.3	6.3	Brown medium to fine SAND, moist. -ALLUVIAL DEPOSIT-	El. 922.0
				Bottom of Excavation at 6.3 ft.	
8				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 5.5 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.3
JAR SAMPLES: 3
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 13

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 14 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 927.5
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	-TOPSOIL-	El. 927.5
				Brown CLAY, trace sand, moist. -FILL-	
			1.3		
	S1	1.5 to 2.0		Black ASH with brick, moist. -FILL-	
2			1.7	Brown CLAY, trace sand moist. -LACUSTRINE-	
			2.5	Bottom of Excavation at 2.5 ft.	El. 925.0
4				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
6					
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 4.5 feet WIDTH 2.0 feet	DEPTH: 2.5
				JAR SAMPLES: 1
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 14

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 15 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 930.2
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Dark brown CLAY, trace organic material. -TOPSOIL-	El. 930.2
2	S1	2.0		Brown SAND, common cobbles, moist.	0.5 to 5.0 ft. backfill of former pond area.
4	S2	4.0		-FILL-	
			5.0	Gray silty CLAY, moist.	
6	S3	6.0		-LACUSTRINE-	
			6.3	Brown silty CLAY, trace sand, moist.	
8	S4	8.0			
10	S5	10.2	10.2	-LACUSTRINE-	El. 920.0
				Bottom of Excavation at 10.2 ft.	
12				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	

WATER LEVEL		
DATE	TIME*	DEPTH FT
* Hrs after completed		

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 7.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 10.2
JAR SAMPLES: 5
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 15

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 16 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.5
EXPLORATION DATE: 12/10/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
					El. 928.5
				Dark brown TOPSOIL.	
			1.3		
2	S1	2.0		Brown CLAY, trace sand, moist.	
4	S2	4.0		-FILL-	
			4.5		
				Gray silty CLAY, moist. -LACUSTRINE-	
			5.1		
				Brown silty CLAY, trace organic material, moist.	
6	S3	6.0			
				-LACUSTRINE-	
8	S4	8.0			
			8.5		El. 920.0
				Bottom of Excavation at 8.5 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 7.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 8.5
JAR SAMPLES: 4
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 16

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 17 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.0
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.6	-TOPSOIL-	El. 928.0
				Brown silty CLAY, trace root material, moist.	
				-FILL-	
2	S1	2.0	2.0	Gray silty CLAY, moist. -LACUSTRINE-	
			2.5	Brown silty CLAY, moist.	
4	S2	4.0			
6	S3	6.0		-LACUSTRINE-	
8	S4	8.0	8.0	Bottom of Excavation at 8.0 ft.	El. 920.0
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 7.0 feet WIDTH 2.0 feet	DEPTH: 8.0
				JAR SAMPLES: 4
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 17

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 18 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 928.0
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Dark brown TOPSOIL.	El. 928.0
			0.7		
				Brown silty CLAY, moist.	
2	S1	2.0		-FILL-	
			2.5		
				Gray to dark brown silty CLAY, moist.	
4	S2	4.0			
				-LACUSTRINE-	
6	S3	6.0	6.0		El. 922.0
				Bottom of Excavation at 6.0 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT
* Hrs after completed		

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.0
JAR SAMPLES: 3
BAG SAMPLES: --
WATER LEVEL: NE
TEST PIT NO. 18

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 19 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 927.5
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	-TOPSOIL-	El. 927.5
				Brown SAND and GRAVEL, moist. -FILL-	
			1.1		
			1.3	Black ASH, moist. -FILL-	
2	S1	2.0		Brown CLAY, trace sand, moist.	
				-FILL-	
4	S2	4.0	4.0		
	S2a	4.5		Black ASH, moist.	
				-FILL-	
	S3	5.5	5.5		El. 922.0
6				Bottom of Exploration at 5.5 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6.0 feet WIDTH 2.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 5.5
JAR SAMPLES: 3
BAG SAMPLES: --
WATER LEVEL: NE

TEST PIT NO. 19

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. 20 FILE NO. 70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.
EQUIPMENT USED: BACKHOE

LOCATION: SEE MAP
ELEVATION: 927.6
EXPLORATION DATE: 12/11/96
H&A REP.: J. MARSCHNER

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.4	-TOPSOIL-	El. 927.6
				Light brown CLAY, trace sand, moist. -FILL-	
			1.3		
		1.5 to 2.0	1.9	Black ASH, moist. -FILL-	
2	S1			Brown silty CLAY, moist.	
4	S2	4.0			
	S3	5.6	5.6	-LACUSTRINE-	El. 922.0
6				Bottom of Excavation at 5.6 ft.	
				Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.	
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 6.0 feet WIDTH 2.0 feet	DEPTH: 5.6
				JAR SAMPLES: 3
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 20

APPENDIX B

Laboratory Analytical Results and Chain-of-Custody Documentation

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, Pennsylvania 15238

412 820-8380 Telephone
412 820-2080 Fax

Quanterra
Environmental Services

ANALYTICAL REPORT

PROJECT NO. HALEY & ALDRICH

HALEY & ALDRICH

Lot #: C6L180120

ED HYNES

Haley & Aldrich

QUANTERRA INCORPORATED

Carrie L. Gamber
Project Manager

January 13, 1997

Quanterra

Environmental Services

CASE NARRATIVE

PROJECT: CORNING GLASS

PROJECT NUMBER: 70589-020

LOT NUMBER: C6L180120

NOTE: The analyses for mercury and silver were performed at our Quanterra laboratory in Denver, Colorado. These results are enclosed.

METALS: The following metals were detected in the blank at values less than the reporting limit but greater than the method detection limit: lead, barium, and cadmium These results are flagged with a "B" qualifier on the blank sheet.

The following metals had percent recoveries in the matrix spike and/or matrix spike duplicate outside QC limits: lead, cadmium, and chromium The RPD for lead and chromium was also outside QC limits.

METHODS SUMMARY

Quanterra Environmental Services

C6L180120

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010A	SW846 3050
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010A	SW846 3050

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

Quanterra Environmental Services

C6L180120

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
C7DRH	001	TES PIT 1 (COMPOSITE OF S1,S2)	12/11/96	12:00
C7DRM	002	TEST PIT3 S1	12/11/96	11:02
C7DRQ	003	TEST PIT4 S1	12/11/96	12:28
C7DRT	004	TEST PIT5 S1	12/11/96	12:50
C7DRW	005	TEST PIT14 S1	12/11/96	13:10
C7DT0	006	TEST PIT19 S2A	12/11/96	10:10
C7DT1	007	TEST PIT20 S1	12/11/96	09:21

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HALEY & ALDRICH

Quanterra Environmental Services

Client Sample ID: TES PIT 1 (COMPOSITE OF S1,S2)

TOTAL Metals

Lot-Sample #...: C6L180120-001 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6362143						
Arsenic	143	1.2 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRH102
Lead	3800	3.5 Dilution Factor: 10 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRH103
Barium	77.2	23.2 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRH106
Selenium	13.4	0.58 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRH104
Cadmium	10.3	0.58 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRH107
Chromium	13.6	1.2 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRH108

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

HALEY & ALDRICH

Quanterra Environmental Services

Client Sample ID: TES PIT 1 (COMPOSITE OF S1,S2)

General Chemistry

Lot-Sample #...: C6L180120-001 Work Order #...: C7DRH Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.3		%	MCAWW 160.3 MOD	12/19/96	6354143

Dilution Factor: 1
MS Run #.....: 6354030

HALEY & ALDRICH

Quanterra Environmental Services

Client Sample ID: TEST PIT3 S1

TOTAL Metals

Lot-Sample #...: C6L180120-002 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6362143						
Arsenic	12.1	1.1 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRM102
Lead	115	0.33 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRM103
Barium	133	21.8 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRM106
Selenium	0.80	0.54 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRM104
Cadmium	0.80	0.54 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRM107
Chromium	11.1	1.1 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRM108

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra
Environmental Services

HALEY & ALDRICH

Client Sample ID: TEST PIT3 S1

General Chemistry

Lot-Sample #...: C6L180120-002 Work Order #...: C7DRM Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	91.8		%	MCAWW 160.3 MOD	12/19/96	6354143

Dilution Factor: 1
MS Run #.....: 6354030

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

HALEY & ALDRICH

Quanterra Environmental Services

Client Sample ID: TEST PIT4 S1

TOTAL Metals

Lot-Sample #...: C6L180120-003 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6362143						
Arsenic	10.1	1.2	mg/kg	SW846 6010A	12/27-01/06/97	C7DRQ102
		Dilution Factor: 1				
		MS Run #.....: 6362027				
Lead	83.1	0.36	mg/kg	SW846 6010A	12/27-01/06/97	C7DRQ103
		Dilution Factor: 1				
		MS Run #.....: 6362027				
Barium	91.8	24.1	mg/kg	SW846 6010A	12/27-01/06/97	C7DRQ106
		Dilution Factor: 1				
		MS Run #.....: 6362027				
Selenium	1.2	0.60	mg/kg	SW846 6010A	12/27-01/06/97	C7DRQ104
		Dilution Factor: 1				
		MS Run #.....: 6362027				
Cadmium	0.57 B	0.60	mg/kg	SW846 6010A	12/27-01/06/97	C7DRQ107
		Dilution Factor: 1				
		MS Run #.....: 6362027				
Chromium	8.2	1.2	mg/kg	SW846 6010A	12/27-01/06/97	C7DRQ108
		Dilution Factor: 1				
		MS Run #.....: 6362027				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Quanterra
Environmental Services

HALEY & ALDRICH

Client Sample ID: TEST PIT4 S1

General Chemistry

Lot-Sample #...: C6L180120-003 Work Order #...: C7DRQ Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	82.9		%	MCAWW 160.3 MOD	12/19/96	6354143

Dilution Factor: 1
MS Run #.....: 6354030

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

HALEY & ALDRICH

Quanterra Environmental Services

Client Sample ID: TEST PIT5 S1

TOTAL Metals

Lot-Sample #...: C6L180120-004 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6362143						
Arsenic	11.9	1.3 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRT102
Lead	49.4	0.39 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRT103
Barium	151	26.2 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRT106
Selenium	0.58 B	0.66 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRT104
Cadmium	0.56 B	0.66 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRT107
Chromium	12.9	1.3 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRT108

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Quanterra
Environmental Services

HALEY & ALDRICH

Client Sample ID: TEST PIT5 S1

General Chemistry

Lot-Sample #...: C6L180120-004 Work Order #...: C7DRT Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	76.2		%	MCAWW 160.3 MOD	12/19/96	6354143

Dilution Factor: 1
MS Run #.....: 6354030

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

HALEY & ALDRICH

Quanterra Environmental Services

Client Sample ID: TEST PIT14 S1

TOTAL Metals

Lot-Sample #...: C6L180120-005 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6362143						
Arsenic	18.3	1.1 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRW102
Lead	259	0.34 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRW103
Barium	106	22.5 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRW106
Selenium	1.3	0.56 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRW104
Cadmium	1.2	0.56 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRW107
Chromium	11.2	1.1 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DRW108

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Quanterra
Environmental Services

HALEY & ALDRICH

Client Sample ID: TEST PIT14 S1

General Chemistry

Lot-Sample #...: C6L180120-005 Work Order #...: C7DRW Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	88.9		%	MCAWW 160.3 MOD	12/19/96	6354143

Dilution Factor: 1
MS Run #.....: 6354030

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

HALEY & ALDRICH

Quanterra Environmental Services

Client Sample ID: TEST PIT19 S2A

TOTAL Metals

Lot-Sample #...: C6L180120-006 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6362143						
Arsenic	9.2	1.2 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT0102
Lead	27.8	0.35 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT0103
Barium	99.2	23.6 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT0106
Selenium	0.86	0.59 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT0104
Cadmium	0.39 B	0.59 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT0107
Chromium	9.4	1.2 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT0108

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Quanterra
Environmental Services

HALEY & ALDRICH

Client Sample ID: TEST PIT19 S2A

General Chemistry

Lot-Sample #...: C6L180120-006 Work Order #...: C7DT0 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.9		%	MCAWW 160.3 MOD	12/19/96	6354143

Dilution Factor: 1
MS Run #.....: 6354030

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

HALEY & ALDRICH

Quanterra Environmental Services

Client Sample ID: TEST PIT20 S1

TOTAL Metals

Lot-Sample #...: C6L180120-007 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6362143						
Arsenic	9.8	1.2 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT1102
Lead	135	0.36 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT1103
Barium	79.4	24.1 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT1106
Selenium	1.2	0.60 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT1104
Cadmium	0.31 B	0.60 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT1107
Chromium	7.8	1.2 Dilution Factor: 1 MS Run #.....: 6362027	mg/kg	SW846 6010A	12/27-01/06/97	C7DT1108

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Quanterra
Environmental Services

HALEY & ALDRICH

Client Sample ID: TEST PIT20 S1

General Chemistry

Lot-Sample #...: C6L180120-007 Work Order #...: C7DT1 Matrix.....: SOLID
Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	83.1		%	MCAWW 160.3 MOD	12/19/96	6354143

Dilution Factor: 1
MS Run #.....: 6354030

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

Quanterra
Environmental
Services

QUALITY CONTROL SECTION

Quanterra Environmental Services

QUALITY ASSURANCE/QUALITY CONTROL PROGRAM SUMMARY

Quanterra Incorporated considers continuous analytical performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

SURROGATE SPIKE RECOVERY EVALUATIONS

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compounds analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recoveries calculated from the subsequent spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten percent (10%) each. For Pesticides, one (1) of two (2) surrogates meeting performance criteria is acceptable.

LABORATORY ANALYTICAL METHOD BLANK EVALUATIONS

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.) substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule, provided they are not present at a greater than five times the detection limit.

Volatiles
Methylene chloride
2-Butanone
Acetone

Semi-volatiles
Dimethyl phthalate
Diethyl phthalate
Di-n-butyl phthalate
Butyl benzyl phthalate
Bis (2-ethylhexyl) phthalate

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

QUALITY ASSURANCE/QUALITY CONTROL PROGRAM SUMMARY (CONT)

LABORATORY ANALYTICAL METHOD CHECK SAMPLE EVALUATIONS

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved. All compounds must meet laboratory recovery criteria. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

MATRIX SPIKE(MS)/MATRIX SPIKE DUPLICATE(MSD) RECOVERY EVALUATION

Known concentration of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Actual percent recovery data is displayed alongside the acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

EXAMPLE

COMPOUND	SAMPLE CONCENTRATION	MS % RECOVERY	MSD % RECOVERY	QC LIMITS[1] RECOVERY
4-4'-DDT	0	95	112	(66-119)
Benzene	10	86	93	(39-150)
compound name	sample result	1st % recovery	2nd % recovery	acceptable method limits

[1]QC limits are statistically derived from historical laboratory data. Where insufficient data exists to statistically derive these limits, they will be labelled "advisory". In this case, they are based on the best available technical information.

For metals analyses, the recoveries of the MS/MSD must be within the range of 80-120%. If they do not meet this criteria, but the RPD of the two results is <20% **OR** the absolute difference is less than 10% when the recoveries are below 50%, no corrective action is required. If these criteria are not met, the sample with its MS/MSD is reprepared and reanalyzed once more.

Quanterra
Environmental Services

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C6L180120 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C6L270000-143 **Prep Batch #...:** 6362143						
Arsenic	ND	1.0 Dilution Factor: 1	mg/kg	SW846 6010A	12/27-01/06/97	C7H71101
Lead	**0.21 B**	**0.30** Dilution Factor: 1	**mg/kg**	**SW846 6010A**	**12/27-01/06/97**	**C7H71102**
Barium	**0.056 B**	**20.0** Dilution Factor: 1	**mg/kg**	**SW846 6010A**	**12/27-01/06/97**	**C7H71105**
Selenium	ND	0.50 Dilution Factor: 1	mg/kg	SW846 6010A	12/27-01/06/97	C7H71103
Cadmium	**0.22 B**	**0.50** Dilution Factor: 1	**mg/kg**	**SW846 6010A**	**12/27-01/06/97**	**C7H71106**
Chromium	ND	1.0 Dilution Factor: 1	mg/kg	SW846 6010A	12/27-01/06/97	C7H71107

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C6L180120 **Matrix.....:** SOLID

LCS Lot-Sample#: C6L270000-143 **Prep Batch #...:** 6362143

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	87	(70 - 129)	SW846 6010A Dilution Factor: 1	12/27-01/06/97	C7H71108
Lead	86	(74 - 127)	SW846 6010A Dilution Factor: 1	12/27-01/06/97	C7H71109
Selenium	83	(71 - 129)	SW846 6010A Dilution Factor: 1	12/27-01/06/97	C7H7110A
Barium	105	(73 - 127)	SW846 6010A Dilution Factor: 1	12/27-01/06/97	C7H7110D
Cadmium	85	(73 - 128)	SW846 6010A Dilution Factor: 1	12/27-01/06/97	C7H7110E
Chromium	100	(76 - 124)	SW846 6010A Dilution Factor: 1	12/27-01/06/97	C7H7110F

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C6L180120 **Matrix.....:** SOLID
Date Sampled...: 12/11/96 **Date Received..:** 12/18/96

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C6L180120-001 **Prep Batch #...:** 6362143							
Arsenic	83	(80 - 120)			SW846 6010A	12/27-01/06/97	C7DRH10C
	83	(80 - 120)	0.35	(0-20)	SW846 6010A	12/27-01/06/97	C7DRH10D
		Dilution Factor: 1					
		MS Run #.....: 6362027					
Lead	423 N	(80 - 120)			SW846 6010A	12/27-01/06/97	C7DRH10E
	0.0 N,*	(80 - 120)	200	(0-20)	SW846 6010A	12/27-01/06/97	C7DRH10F
		Dilution Factor: 10					
		MS Run #.....: 6362027					
Barium	98	(80 - 120)			SW846 6010A	12/27-01/06/97	C7DRH10L
	103	(80 - 120)	3.8	(0-20)	SW846 6010A	12/27-01/06/97	C7DRH10M
		Dilution Factor: 1					
		MS Run #.....: 6362027					
Selenium	92	(80 - 120)			SW846 6010A	12/27-01/06/97	C7DRH10G
	92	(80 - 120)	0.10	(0-20)	SW846 6010A	12/27-01/06/97	C7DRH10H
		Dilution Factor: 1					
		MS Run #.....: 6362027					
Cadmium	3.0 N	(80 - 120)			SW846 6010A	12/27-01/06/97	C7DRH10N
	5.3 N	(80 - 120)	1.3	(0-20)	SW846 6010A	12/27-01/06/97	C7DRH10P
		Dilution Factor: 1					
		MS Run #.....: 6362027					
Chromium	105	(80 - 120)			SW846 6010A	12/27-01/06/97	C7DRH10Q
	69 N,*	(80 - 120)	25	(0-20)	SW846 6010A	12/27-01/06/97	C7DRH10R
		Dilution Factor: 1					
		MS Run #.....: 6362027					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

Quanterra
Environmental Services

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C6L180120 **Work Order #...:** C7DRH-SMP C7DRH-DUP **Matrix.....:** SOLID

Date Sampled...: 12/11/96 **Date Received..:** 12/18/96

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: C6L180120-001		
	86.3	85.3	%	1.2	(0-20)	MCAWW 160.3 MOD	12/19/96	6354143

Dilution Factor: 1

Prep Date.....: 6354030 Analysis Date..: Prep Batch #...:

H & A OF NEW YORK
189 North Water Street
Rochester, New York 14604
(716) 232-7386

ANALYSIS REQUEST FORM AND CHAIN-OF-CUSTODY RECORD

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Delivery Date: 12/18/96 SHIPPED VIA FEDEX

Project Name: CORNING GLASS	Laboratory: QUANTERRA	Project Manager: ED HYNES
H & A File No. 70589 - 020	Address: 450 WILLIAM PITT WAY	Final Report Due Date: -
H & A REP. JIM MARSCHNER	PITTSBURGH PA 15238	Turnaround Time: 2-3 ~~days~~ WEEKS
WORK ORDER No.	Client Rep.:	

Sample Information

H & A Sample ID.	Laboratory ID.	Sample Date	Sample Time	Sample Depth	Sample Matrix
1. TEST PIT 1 S1		12/11/96	1200	2-4'	SOIL
2. TEST PIT 1 S2		12/11/96	1205	18-4'	SOIL
3. TEST PIT 3 S1		12/11/96	1102	1-2.0'	SOIL
4. TEST PIT 4 S1		12/11/96	1228	1-1.5'	SOIL
5. TEST PIT 5 S1		12/11/96	1250	1.5-2'	SOIL
6. TEST PIT 14 S1		12/11/96	1310	4.5'	SOIL
7. TEST PIT 19 S2A		12/11/96	1010	1-2'	SOIL
8. TEST PIT 20 S1		12/11/96	0921	1.5-2	SOIL
9.					
10.					
11.					
12.					
13.					
14.					
15.					

Analysis Requested

RCRA 8 METALS	TOTAL
8S2	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1

Preservative

pH < 2.0			pH > 10	pH 7.0
HNO3 (N)	HCl (C)	H_2SO_4 (S)	NaOH/ZA (Z)	4 C (T)
				X
				X
				X
				X
				X
				X
				X
				X

Sampler Comments/Site Observations

Sample Conditions		Broken Containers
Custody Seal:	Intact:	List Type / Sample No.
Cooler Temp.:	C	
Any Broken Containers ?		

Preservation

No. Of Samples:	(N)	(C)	(S)	(Z)	(T)

(List all pH measurements outside criteria in the Comments Section by H & A No. / Cont. / pres.)

Sampled and Relinquished By: JIM MARSCHNER	Samples Received By: FED EX
Signature:	Signature: 247754966 4
Company Name: HALEY & ALDRICH	Company Name:
Date: 12/17/96 Time: 0915	Date: Time:
Samples Relinquished By:	Samples Received By:
Signature:	Signature:
Company Name:	Company Name:
Date: Time:	Date: 12/17/96 Time: 1000
Samples Relinquished By:	Samples Received By:
Signature:	Signature:
Company Name:	Company Name:
Date: Time:	Date: Time:

Comments:

- COMPOSITE SAMPLE S1 & S2 FOR TEST PIT #1
- RETAIN SAMPLES AFTER ANALYSIS FOR POTENTIAL TCLP WORK
- RCRA 8 METALS ON ALL SAMPLES

Cooler Receipt Form

Quanterra Environmental Services Pittsburgh

Client: H:A of N.Y Project: _____ Quote: _____

Cooler Rec'd & Opened for Temp. Check on: 12/18/96

Coolers Opened and Unpacked on: 12/19/96 By: _____ (Signature)

Quanterra Lot Number: CL180120

		Yes	No
1.	Were custody seals on the outside of the cooler?	✓	
	If YES, how many and where? Quantity __ Location Front		
	Were signatures and date correct?	✓	
2.	Were custody papers included inside the cooler?	✓	
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓	
4.	Did you sign the custody papers in the appropriate place?	✓	
5.	Was shippers packing slip attached to this form?	✓	
6.	Were packing materials used?	✓	
	If YES, what type? Bubble Wrap Box		
7.	Were the samples chilled? (Record temperatures on reverse side.)	✓	
8.	Were the samples appropriately preserved?	NA	
9.	Were all bottles sealed in separate plastic bags?		✓
10.	Did all bottles arrive in good condition (unbroken)?	✓	
11.	Were all bottle labels complete (date, signed, analysis, preservatives)?	✓	
12.	Did all bottle labels and tags agree with custody papers?	✓	
13.	Were correct bottles used for tests indicated?	✓	
14.	Were all VOA vials checked for the presence of air bubbles?	NA	
15.	Was a sufficient amount of sample sent in each bottle?	✓	

16. Samples received by: FEDEX UPS CLIENT DROP-OFF OTHER

Explain any discrepancies: _____

Was contacted on _____ by _____ to resolve discrepancies.

Cooler Receipt Form

Quanterra Environmental Services Pittsburgh

P: Preserved
UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT PH<2	CN PH=>12	OG TPHC PH<2	PHEN PH<2	SULF PH=>12	TOC PH<2	TOX PH<2	VOA P/UP				

Comments: _____

Cooler Number	Temperature	Bottle Type	Lot Number*
R W	4°	807	FC116010

* Please use an asterisk if bottle lot number was covered by the label.