

### Phase II Environmental Site Assessment

Location:

140 Telegraph Road Middleport, New York

Prepared for:

Ms. Amy Fisk Niagara County Department of Economic Development 6311 Inducon Corporate Drive Sanborn, New York 14132

LaBella Project No. 212505

February 2014

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#### 1.0 Introduction and Background

LaBella Associates, D.P.C. ("LaBella") was retained by the Niagara County Department of Economic Development (NCDED), to conduct a Phase II Environmental Site Assessment (ESA) at the property located at 140 Telegraph Road, City of Middleport, Niagara County, New York, hereinafter referred to as the "Site" (see Figure 1).

The Site comprises approximately seven acres of land and is currently developed with the following structures constructed between 1958 and 1966:

- One single-story approximately 15,100 square foot structure (northern Site Building).
- One partial two-story approximately 30,500 square foot structure (southern Site Building).

Figure 2 shows the building locations.

A Phase I Environmental Site Assessment (ESA) was completed at the Site in September 2007. The Phase I ESA identified the following Recognized Environmental Conditions (RECs) at the Site:

- Historic use of the Site: The Site was utilized by the adjoining FMC Corporation as a Research & Development facility (manufacturing of pesticides and herbicides) from at least 1964 through 1983; Huntington Analytical (chemical analytical laboratory and environmental services) from at least 1986 through 1995; Maxim Technologies of New York (engineering and drilling services) in the late 1990s; and Dunn and Schoolcraft (vehicle and fleet maintenance and repair) from at least 2002 through the late 2000s.
- A 25,000-gallon aboveground storage tank was reportedly located on the property.
- Surrounding properties: The adjacent property to the east-northeast was identified as the FMC Corporation. This property was historically utilized for the manufacturing of pesticides and herbicides from at least the 1920s through the 1980s. Previous environmental investigations at this property have identified known contamination at the property as well as surrounding properties including the Site.

Although not considered to be RECs, the following were also noted in the Phase I ESA:

- Several containers of unknown contents ranging from aerosol cans to 55-gallon drums were noted throughout the Site buildings. No leakage or staining was identified at the time of the Site assessment.
- Potentially ACM containing materials were identified in poor condition throughout the Site buildings.
- Peeling and/or chipping paint surfaces were identified throughout the Site buildings. Such may contain lead-based paint.

Environmental investigations have included the Site since the 1970s; such consist of the following:

• In 1973, a soil boring program involving the collection of soil samples down to the top of bedrock on a 100-foot sampling grid was completed to evaluate the presence/absence of total arsenic

- In 1979-1980, a groundwater investigation of the adjoining FMC property was completed that included the installation of two groundwater monitoring wells at the Site.
- Several routine groundwater hydraulic monitoring events of the adjoining FMC property were conducted throughout the 1980s and 1990s which included at least portions of the Site.
- In 1993-1996, RCRA Facility Investigation (RFI) sampling and analysis included the collection and analysis of soil samples at the Site. The RFI also identified two Solid Waste Management Units (SWMUs) were located at the Site (an outdoor drum storage area used to store waste solvents and an indoor drum storage area used to store waste soils); such were properly decontaminated and closed in 1982.
- A 2002 sampling program included the collection and analysis of soil samples on the western portion of the Site.

FMC Corporation is currently summarizing all the existing data and creating Volume III of the RFI. However, this document has not yet been released so details regarding the procedures and results of the various sampling programs at the Dunn and Schoolcraft site are not yet available. In the absence of this information, Niagara County determined that this Phase II ESA was necessary to determine if property tax foreclosure is appropriate for this Site.

The Phase II ESA was conducted in order to identify the level of environmental impairment, if any, at the Site in order to determine feasible redevelopment options and corresponding site remediation/preparation costs. As a result, this investigation was developed for the Site which included a Subsurface Soil Investigation including Groundwater Characterization to evaluate the subsurface soil and groundwater conditions for potential impacts by contaminants resulting from historical usage of the Site and adjacent properties. Based upon the historic use of the Site, a wide variety of potential contaminants could be present. It should also be noted that arsenic, lead, chlorinated organics and ammonia contamination have been documented on the adjacent FMC property. In addition, a container and material inventory was conducted Site wide in an effort to identify the contents of the on-site containers. Furthermore, an Asbestos and Lead-Based Paint Survey was conducted on the Site buildings (this report will be provided under separate cover). Lastly, although no information has been found that suggests that radiological concerns exist at this specific property, Niagara County has also expressed concern about radiological issues at other brownfield sites in the County. Therefore, as a precaution, a screening level evaluation of the potential presence of radiation was included in this assessment.

#### 2.0 Objective

Based upon the site history and results of previous assessments, LaBella developed a Phase II ESA program for this Site as identified at the end of Section 1.0 above.

The chemical analysis of all soil, groundwater, ACM and lead-based paint samples was performed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. Quality Assurance/Quality Control (QA/QC) measures included the collection and analysis of blank samples (e.g., blind field duplicate, equipment, etc.) samples, and the laboratory conducted method-specific QA/QC procedures. Additionally, the Laboratory reported the data in a Category B deliverables package to facilitate validation of the data, and a third party validated the laboratory data and prepared a Data Usability Summary Report (DUSR).

#### 3.0 Scope of Work

The following Scope of Work was performed based upon the findings of the Phase I ESA and our discussions:

#### Surface Soil Screening & Analysis

LaBella performed surface soil screening and sampling to characterize the chemistry of this material and to ultimately determine if it presents a human health exposure threat under future use scenarios. In addition, the resulting data is being utilized to determine the need/costs for remediation and/or engineering controls (e.g., cover soil) to support the reuse of the property.

A sample grid system was established across the site. At each location, LaBella utilized an XRF to screen the soils for lead, arsenic and other metals. At the County's request, LaBella also screened the surface soil for radiation using a handheld radiation alert detector (Ludlum model 2221 Scaler/Ratemeter) capable of detecting the presence of gamma radiation. Based upon the screening results, samples were collected for laboratory analysis to characterize areas of elevated metals concentrations and to assess site-wide conditions.

Ten surface soil samples were submitted under standard chain-of-custody procedures for laboratory analyses using United States Environmental Protection Agency (USEPA) methods. The samples were analyzed for Target Compound List (TCL) semivolatile organic compounds (SVOCs), pesticides and polychlorinated biphenyls (PCBs), herbicides and Target Analyte List (TAL) metals.

#### Subsurface Soil Investigation

LaBella implemented a three-day direct-push soil test boring program to evaluate the subsurface soil conditions and install groundwater monitoring wells. This work was designed to evaluate the subsurface soil and groundwater conditions for potential impacts by contaminants resulting from the current and historical usage of the Site and adjacent properties.

LaBella completed the following tasks related to this work:

- A. LaBella retained the services of a specialized direct-push contractor (Nature's Way Environmental Services, Alden, New York) to implement the soil boring and sampling program with a truck-mounted geoprobe rig. Thirty (30) borings were installed over the course of the 3-day drilling program. Each soil boring was advanced to equipment "refusal" or into the water table, whichever was encountered first. Boring locations were chosen to target potential areas of concern based upon historical site operations, as well as to evaluate potential contaminant migration from the FMC site.
- B. A Dig Safely New York stakeout was conducted to locate subsurface utilities in the areas where the soil borings took place.
- C. The drilling equipment was decontaminated prior to use with an Alconox wash, followed by a potable water rinse. Between each soil sample, decontamination procedures were repeated.
- D. Soils from the borings were continuously assessed in the field by a project team geologist for visible impairment, olfactory indications of impairment, indication of detectable volatile organic compounds (VOCs) on a photoionization detector (PID), and/or the detection of radioactivity using a Handheld Radiation Alert Detector (Ludlum model 2221 Scaler/Ratemeter). Positive indications from any of these screening methods are collectively referred to as "evidence of impairment." Evidence of impairment that was encountered at the time of the fieldwork was used in conjunction with observed hydrogeologic conditions to assist in determining the location and depth for soil samples.

- E. LaBella supervised and documented the soil boring program, and prepared logs describing the overburden stratigraphy, PID measurements, and visual, olfactory and other pertinent observations.
- F. LaBella surveyed the soil boring locations using a Global Positioning System (GPS) GeoXT with GeoBeacon.
- G. LaBella submitted soil samples under standard chain-of-custody procedures for laboratory analyses using United States Environmental Protection Agency (USEPA) methods for the following analytical program:
  - a. 15 soil samples were collected for analysis of TCL VOCs and SVOCs plus tentatively identified compounds (TICs), TCL pesticides and PCBs, herbicides and TAL metals.
- H. Upon completion of direct-push drilling activities, all soil borings not completed as wells were backfilled with cuttings.

Soil boring logs that describe pertinent field observations are included in Appendix 1.

#### **Groundwater Characterization**

LaBella installed four shallow-overburden, two-inch diameter, groundwater monitoring wells in selected soil borings. The well locations were based on observed evidence of impairment and local hydrogeological conditions encountered during the soil characterization activities. Because the overburden materials in many areas of the Site did not appear to contain appreciable water during the soil boring program, it was not clear if the wells would contain sufficient water for sampling.

Each well was completed with up to five feet of two-inch, Schedule 40 0.010-slot well screen connected to an appropriate length of schedule 40 PVC well riser to complete the well. The borehole annulus surrounding the well screen was filled with quartz sand up to ½ foot above the screen section. The remaining annulus was bentonite-sealed to approximately one to two feet below ground surface, and then grouted to ground surface. Each well was completed with a protective casing and was located using a Global Positioning System (GPS) GeoXT with GeoBeacon.

Only one of the four wells was developed because three of the wells did not contain sufficient groundwater. Monitoring well MW-3 was developed through the removal of water from the well using a peristaltic pump. For sampling purposes, the well was purged and sampled using low flow sampling techniques. The target depth of the pump intake corresponded to the mid-point of the most permeable zone in the screened interval or at the very least was kept at least two feet above the bottom of the well to prevent disturbance and resuspension of any sediment present in the bottom of the well. Representative groundwater samples were obtained from the well for analysis for TCL VOCs, SVOCs, pesticides and PCBs, herbicides, ammonia and TAL metals.

Well construction, well purging, and groundwater sampling logs that describe pertinent field information are included in Appendix 1.

#### Material Inventorying and Sampling

LaBella conducted a Site visit and prepared a container and material inventory. This Site Visit included the interior of both Site Buildings as well as exterior areas of the Site. The inventory identified the following:

- A. Type of container (if any);
- B. Name or description of contents;

- C. Approximate volume; and
- D. Other pertinent observations.

LaBella also collected four samples to characterize the materials identified during the preparation of the inventory. Analysis included flashpoint, pH and Toxicity Characteristic Leaching Procedure (TCLP) VOCs, SVOCs, PCBs, pesticides and TAL metals. Because these samples were collected for characterization/disposal purposes only, associated QA/QC samples were not collected and the resulting laboratory data has not been validated.

#### Asbestos and Lead-Based Paint Survey

The following procedures were used during the Regulated Building Materials Assessment:

- A. Existing documentation was requested for review. However, no record drawings or documentation of previously completed surveys were made available.
- B. A visual inspection of the site was conducted to identify potential visible/accessible sources of the following regulated building materials.
  - Asbestos-containing materials
  - PCB-containing materials
  - Mercury containing materials
  - Lead-containing materials
- C. Bulk samples of the following materials were collected and submitted for laboratory analysis:
  - Suspect asbestos-containing materials
  - Suspect PCB-containing caulking compounds
  - Suspect lead-based paint
- D. Asbestos samples were submitted for laboratory analysis. Preliminary Polarized Light Microscopy analyses of non-friable, organically bound (NOB) materials were performed by LaBella Laboratories, a NYSDOH approved laboratory, to determine the presence and percentage of asbestos in each sample. Transmission electron microscopy analyses of NOB materials, if necessary, were performed by AMA Laboratories.
- E. Suspect lead-based paint was spot checked in the field using an XRF instrument and "Lead Check" color-metric swab testing procedures.
- F. Fluorescent light fixture ballasts as well as other suspect PCB-containing items were visually spot checked for the presence of PCBs. The building was visually surveyed for the presence of items that may contain mercury and lead. Items that may contain refrigerant gas and/or oil were also noted.
- G. Results of the laboratory analyses, field testing and the visual on-site survey were compiled and summarized.

Appendix 2 includes the Regulated Building Materials Assessment report.

#### 4.0 Site Geology and Hydrogeology

The Site does not appear to contain a significant amount of fill material. The only non-native soils encountered at the Site primarily included up to six inches of asphalt at the surface in select areas. Native soils at the Site consisted generally of glacial till that included gravelly silts and sands as well as clayey silts. This finding is consistent with those from the adjacent FMC Site.

Bedrock was encountered at relatively shallow depths of two to seven feet below grade. Based on work at the adjacent FMC Site, the uppermost bedrock is the Lockport Dolomite.

Also consistent with the findings at the FMC Site, the clay-rich overburden material did not contain appreciate amounts of water. Three of the four monitoring wells installed during this project contained insufficient water for sampling and the fourth contained less than two feet of water.

#### 5.0 Results

The following sections describe the various results from the Phase II ESA. For discussion purposes, the soil results were compared to the NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (SCOs) and the NYSDEC Part 375-6.8(b) Commercial Use and Industrial Use SCOs. The groundwater samples were compared to the NYSDEC Division of Water Technical and Operational Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (Class GA).

The analytical data was validated by a third party (Data Validation Services) and the results of the validation were incorporated into the respective analytical data tables. Appendix 4 includes the resulting Data Usability Summary Report (DUSR) and Attachment 1 (on compact disc) contains the full laboratory reports.

#### 5.1 Surface Soil

LaBella established a sample grid system across the site to locate ten surface soil samples. The samples were collected at the Site on August 5, 2013, and the samples were designated as SS-1 through SS-10. The sampling locations are depicted on Figure 3. The sample locations were spatially distributed to provide characterization information across the Site. The soils were assessed by a LaBella Environmental Geologist for soil type, evidence of impairment, and other pertinent observations. At each location, LaBella screened the soils for select metals and gamma radiation.

Table 1 shows the XRF metals screening results. While four metals were detected at concentrations above the Unrestricted Use SCOs in at least one sample, these concentrations only slightly exceeded the SCOs. Only arsenic was detected in the surface soil samples at concentrations above the Commercial and Industrial Use SCOs. A comparison of the screening results with the laboratory analytical results in Table 3 generally shows good correlation.

Radiological screening did not identify any readings above background in any of the soil borings conducted at the Site. Background radiological measurements were identified at 6,000 counts per minute (CPM) based on general surface readings throughout the Site. Table 2 shows the complete results.

The ten surface soil samples were also submitted for laboratory analysis for TCL SVOCs, PCBs and pesticides, herbicides, and TAL metals. Laboratory reports indicate that several SVOCs, pesticides and metals were detected in one or more of the soil samples. Analytical surface soil results are summarized in Table 3.

The following sections describe the analytes detected at concentrations that exceed one or more applicable SCOs:

#### **SVOCs**

Samples SS3, SS4 and SS5 contained up to seven SVOCs at concentrations above the Unrestricted Use SCOs.

- Dibenzo(a,h)anthracene concentrations in SS3 and SS4 exceeded the Commercial Use SCOs.
- In all three samples, benzo(a)pyrene concentrations also exceeded the Commercial and Industrial Use SCOs.

#### Pesticides

Four pesticides (4,4-DDE, alpha-chlordane, dieldrin, and 4,4-DDT) were detected in at least one sample at concentrations above the Unrestricted Use SCOs but below the Commercial Use SCOs.

#### Metals

Three metals were detected at concentrations above the SCOs, including:

- Arsenic at concentrations of 20.8, 22, 17.2 and 54.1 mg/kg in SS6, SS7, SS8 and SS9, respectively, which are above the Unrestricted Use, Commercial Use, and Industrial Use SCOs.
- Lead in SS-3 and SS-9 at concentrations above the Unrestricted Use SCO but below the Commercial Use SCO.
- Silver in SS-9 at a concentration (2.01 mg/kg), slightly above the Unrestricted Use SCO (2 mg/kg).

#### 5.2 Subsurface Soil

Fifteen soil samples were collected from the soil borings respectively, and submitted for laboratory analysis. The locations of these borings are depicted on Figure 4. The sample locations were selected based on areas of concern as well as to distribute the borings to provide characterization information across the Site. All ten samples were analyzed for TCL list VOCs, SVOCs, PCBs, pesticides, and herbicides, and TAL metals.

No evidence of impairment (viz., staining and odors) was observed in any of the soil borings conducted at the Site. In addition, elevated PID readings were not identified in any of the soil borings conducted at the Site. Lastly, radiological screening identified readings only slightly above background (6,000 Counts per Minute-CPM) in one of the soil borings conducted at the Site. The gamma radiation measurements in SB1 ranged from 6,000 to 6,300.

Laboratory reports indicate that several VOCs, SVOCs, pesticides and TAL metals were detected in the analysis of the soil samples; however, these concentrations are all below NYSDEC Part 375-6.8(a) Industrial and Commercial Use Soil Cleanup Objectives (SCOs).

Analytical results for the subsurface soil samples are summarized in Table 4. A copy of the laboratory analytical report is included in Attachment 1.

The following sections describe the analytes detected at concentrations that exceed one or more applicable SCOs:

#### **VOCs**

Sample BH4 contained acetone at a concentration slightly above the Unrestricted Use SCOs but below the Commercial and Industrial Use SCOs.

#### Pesticides

Two pesticides (4,4-DDE and 4,4-DDT) were each detected two samples at concentrations above the Unrestricted Use SCOs but below the Commercial Use SCOs.

#### Metals

Only one metal was detected at concentrations above the SCOs. Copper was detected in samples BH8 and BH27 at concentrations slightly above the Unrestricted Use SCO but below the Commercial Use SCO.

#### 5.3 Groundwater

Although four groundwater monitoring wells were installed at the Site; groundwater samples were only collected from one well (MW3) as the remaining wells did not exhibit the presence of groundwater at the time of sample collection. Figure 5 shows the locations of the wells and Table 5 summarizes the analytical results. A copy of the laboratory analytical report is included in Attachment 1.

Two VOCs and several TAL metals were detected in the analysis of the groundwater samples. Of the detected analytes, three TAL metals were identified at concentrations above NYSDEC Division of Technical and Operational Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (Class GA). These contraventions included the following:

- Iron at 11,300 ug/L (TOGS-300 ug/L);
- Magnesium at 53,200 ug/L (TOGS-35,000 ug/L); and,
- Manganese at 1,950 ug/L (TOGS-300 ug/L)

#### 6.0 Material Inventorying and Sampling Findings

On August 5, 2013, LaBella conducted a material inventorying and sampling event that included a walk-through of both Site Buildings and exterior areas of the Site. Interior observations were limited throughout the Site Buildings due to poor lighting as well as exterior observations were limited in areas of dense vegetation.

Information pertaining to the type of container, description of contents, approximate volume and other pertinent observations made throughout each of the Site Buildings is included in Appendix 3. Generally, the containers consisted of one-gallon metal cans, five-gallon plastic pails, and metal or plastic 55-gallon drums containing various waste fluids.

LaBella collected four waste characterization samples from containers containing various fluids and three were analyzed for flashpoint, pH, PCBs, and TCLP VOCs, SVOCs, pesticides and metals. Due to sample volume limitations, the other sample was analyzed only for flashpoint, pH, PCBs and SVOCs.

The laboratory results indicate the following:

- VOCs, SVOCs, and pesticides were not detected.
- Although three metals were detected the concentrations are below the applicable standards.
- The flashpoint of Waste Characterization Sample #3 was identified at 126°F which is less than the USEPA threshold of 140°F for non-hazardous waste characterization.
- pH results were not considered corrosive.

Analytical results from the waste characterization sampling are summarized in Table 6 and the laboratory analytical report is included in Attachment1.

#### 7.0 Regulated Building Materials Assessment

The following sections summarize the results of the Regulated Building Materials Assessment. A copy of the associated report is included in Appendix 2.

#### 7.1 Asbestos-Containing Materials (ACMs)

Based on laboratory analyses of bulk samples collected, the following materials were determined to contain greater than 1% asbestos:

Building 2: Large Southern Office Building

		Estimated		
Type of Material	Typical Location	Amount	Friability	Condition
Mudded Pipe Elbows	On Ceiling Mounted Piping Throughout the Building	300 SF	Friable	Good-Poor
White Tank Insulation	Around Tank in Corner of Southeast Mechanical Room	155 SF	Friable	Good
White Flue Insulation (Bricks)	Around Large Flue in Southeast Mechanical Room	255 SF	Friable	Fair
White Pipe Wrap Insulation	Around Several Ceiling-mounted Pipes in Mechanical Room	20 LF	Friable	Fair-Poor
Tan 9"x9" Vinyl Floor Tiles	Throughout Northern Portion of Building in Rooms and Hallways	14,500 SF	Non-Friable	Poor
Black Sticky Duct Caulk	On Seams of Ceiling Mounted Duct Work Throughout the Building	2,000 LF Ductwork	Non-Friable	Good
White Wire Insulation	On "Pig-Tail" Wiring Associated with Older Exterior Lights	8 LF	Friable	Good-Fair
Gray Transite Counter Tops	In Lab Spaces in North Portion of the Building	800 SF	Non-Friable	Poor
Transite Fume Hood Paneling	In Lab Spaces in North Portion of the Building	660 SF	Non-Friable	Good
Gray Pipe Sealant	On Piping Behind Fume Hoods	6 SF	Non-Friable	Good
Black Brittle Duct Caulk	On Ceiling Mounted Duct Work Throughout the Northern Hallway	325 LF of Ductwork	Non-Friable	Good
Interior Window Glazing Compounds	Around Interior Windows in West Loading Dock Area & Interior Door Windows	125 SF	Non-Friable	Good
Black "Glue Puck"	Along Lower Portion North and West Walls in Large Open Northwest Room	350 SF	Non-Friable	Good
Black Wall Caulk	In Northeast Lab Room Above Counter Top	50 LF	Non-Friable	Good
Gray Drywall Adhesive	In Drywall Portion of Central Room in Middle of Building	150 SF	Non-Friable	Good
Black Window Glazing	Around Glass Panes of Windows in South Wall of South Hall	50 SF	Non-Friable	Good
Gray Door Caulk	Around Door through North Wall in Large Open Northwest Room	18 LF	Non-Friable	Good
Black Roof Cement	Around the Base of all Roof Penetrations	375 SF	Non-Friable	Good
Black Roof Flashing	Around the Perimeter of the Lower Main Roof Field & Around Base of Penthouse	1,450 SF	Non-Friable	Good

Building 2: Small Northern Office Building

		Estimated		
Type of Material	Typical Location	Amount	Friability	Condition
Window Glazing	Around Panes on the Interior &	2,350 SF	Non-Friable	Good
Compounds	Exterior of all Windows	2,330 SF	Non-Finable	Good
	In Central South Mechanical Room			
Mudded Pipe Elbows	and in Hallways above Drop	115 SF	Friable	Fair-Poor
	Ceilings			
Tan Speckled 9"x9"	Throughout Halls, Rooms and	14,500 SF	Non-Friable	Poor
Vinyl Floor Tiles	Common Spaces	14,300 SF	Non-Finable	F001
Black Glue Puck	Behind Board on South Wall of	180 SF	Non-Friable	Good
Diack Glue Puck	Atrium Space	160 31	Non-Finable	Good
Black Brittle	On Ceiling Mounted Duct Work	250 LF of	Non-Friable	Good
Duct Caulk	Throughout the Building	Ductwork	Non-Frable	0000

#### 7.2 PCB-Containing Materials

Capacitors in Fluorescent Light Fixture Ballasts

Ceiling mounted fluorescent light fixtures were observed throughout the various sections of the building. Older vintage fluorescent light fixtures manufactured prior to 1980 typically contained a capacitor filled with PCB fluid. A representative number of light fixtures were dismantled in each area of investigation, and all had ballasts labeled "No PCBs". Because of the size of the facility and the number of ballasts present, all ballasts should still be field checked prior to disposal.

#### Caulk

Several of the caulks sampled from both buildings were found to be PCB-containing (greater than 50 ppm). These materials are further described below:

Building #1: - Gray caulk around all exterior door frames

- Silver caulk around exterior of all window frames on perimeter walls (typically ~ 23 linear feet per window)
- Exterior gray caulk in vertical seams of perimeter wall (observed at east end at the edge of the overhead door)

Building #2: - Brittle gray caulk around the lower rectangular window frames associated with the skylight along the east side (gray caulk on west side; EXT2-7A non-PCB)

When removed, these caulks are to be disposed of as PCB-containing hazardous waste in accordance with EPA regulations 40 CFR 761.

#### Liquid-Filled Transformers

Older vintage liquid-filled transformers manufactured prior to 1980 typically contained PCB oil. No liquid-filled transformers were identified in the inspected areas.

#### 7.3 Mercury-Containing Materials

Ceiling mounted fluorescent light fixtures were observed throughout each of the buildings. These fixtures have light bulbs that contain varying amounts of mercury vapor. Fluorescent light fixtures were observed throughout the building. To prevent breakage and the release of mercury, bulbs should be removed and sent to a mercury recycling facility prior to any renovation or demolition activities.

Several mercury containing thermostats were observed in various locations throughout both buildings. These should also be removed and sent to a mercury recycling facility prior to any renovation or demolition activities.

#### 7.4 Lead - Based Paint

Several representative interior and exterior painted surfaces such as door frames, piping, etc. were tested for the presence of lead-based paint using color-metric lead swab testing procedures. The following components were found to be positive for the presence of lead-based paint:

- Exterior Doors on Building #1
- Painted Structural Steel in Building #1
- Ceramic Wall Tiles in Bathroom Spaces in Building #2

#### 8.0 Discussion of Findings

Based on the results of the investigation, the following was observed for the characterized media:

#### **8.1 Site Conditions**

- The Site does not contain a significant amount of fill material.
- The fine-grained overburden material does not contain a significant amount of groundwater.
- The overburden is shallow and bedrock was encountered at seven feet below grade or shallower.
- Gamma radiation levels at the Site appear to be at background levels.

#### 8.2 Media

As discussed below, a number of analytes were detected at concentrations above the Unrestricted Use SCOs and, in some cases, the Commercial and Industrial Use SCOs.

#### Surface Soil

Seven SVOCs, two pesticides, and three metals were detected in at least one of the surface soils at concentrations above the Unrestricted Use, Commercial Use, and sometime Industrial Use SCOs. Due to their presence in the surface soils and the uncontrolled nature of the Site, the potential for exposure to these contaminants exists.

#### Subsurface Soil

The subsurface soils significantly reduced impacts when compared to the surface soils. However, one VOC, two pesticides, and two metals were detected at concentrations above the Unrestricted Use SCOs. These concentrations did not exceed the Commercial Use SCOs. The presence of these contaminants in subsurface soils does not suggest a potential exposure route unless excavation occurs during future development activities. Groundwater quality does not appear to be impacted by the presence of these

contaminants in the subsurface soil: however, the groundwater data is limited.

#### Groundwater

Due to the lack of groundwater in the overburden material, only one groundwater sample was collected from the Site. Three metals (iron, magnesium, and manganese) were detected at concentrations above the standards, although this list does not include any of the metals detected at elevated concentrations in the surface and subsurface soil samples (arsenic, copper, lead, and silver). Therefore, it does not appear that groundwater is being significantly impacted by contaminants in the soil.

#### **8.3 Material Containers**

A significant number of containers are located on the Site. These containers primarily consisted of one-gallon metal cans, five-gallon plastic pails, and metal or plastic 55-gallon drums containing various waste fluids. One of the stored materials was found to have ignitable waste characteristics.

#### **8.4 Regulated Building Materials**

The two on-site structures contain a significant amount of Regulated Building Materials including asbestos in a variety of sources, PCBs in caulk, mercury in bulbs and thermostats, and lead in paint. Although, due to their condition and/or interior location, these materials do not appear to pose an immediate threat to human health or the environment, these materials will need to be properly addressed (encapsulated or removed and disposed off-site) prior to demolition or site redevelopment.

#### 9.0 Conclusions

LaBella conducted a Phase II ESA at the property located at 140 Telegraph Road, City of Middleport, Niagara County, New York. The ESA consisted of the collection of ten surface soil samples, the advancement of 30 soil borings, installation of four groundwater monitoring wells, a container and material inventorying, an asbestos and lead-based paint survey, and laboratory analysis of soil, groundwater, ACM, lead-based paint, and waste characterization samples.

Based upon the site history and results of previous assessments, LaBella developed a Phase II ESA program for this site to evaluate the surface soil, subsurface soil and groundwater conditions for potential impacts by contaminants resulting from the current and historical usage of the Site and adjacent properties. In addition, the container and material inventory was conducted Site wide in an effort to identify the contents of the on-site containers. Furthermore, an Asbestos and Lead-Based Paint Survey was conducted on both of the Site buildings (the report related to this portion of the investigation has been prepared under separate cover). Lastly, as Niagara County expressed concern about radiological issues at other brownfield sites in the County, a screening level evaluation of the potential presence of radiation was included in this assessment.

The characterization information obtained during this Phase II ESA suggests that the Site would require remediation of soil prior to development. Primarily, elevated concentrations of contaminants were detected in the surface soil samples, suggesting a potential exposure route for those access this uncontrolled property.

Prior to redevelopment, one potential method to address the contaminants detected at the Site includes the

placement of a cover system over the Site. The cover system would likely include a combination of asphalt or concrete pavement and clean soil. Assuming that only a soil cover is selected, the costs to place the cover would likely range from \$500,000 to \$700,000. The use of asphalt and concrete as part of the cover would increase the costs but would be necessary for the redevelopment project. This approach would require the development and filing of an environmental easement and annual inspections. A Soil Management Plan would also be required for any future work that impacts the cover system.

An alternative to the placement of a soil cover is the removal of the impacted material. Because the intent of the Phase II ESA was not to delineate the contamination, the extent of removal and the associated costs cannot be estimated at this time.

Prior to redevelopment, the waste material containers should be removed from the Site. This work would require repackaging the waste materials and additional characterization prior to off-site disposal. The costs for such work will depend on the transportation and landfill requirements, and the estimated costs for this work are \$10,000 to \$15,000. The duration of the work is estimated at one to two months.

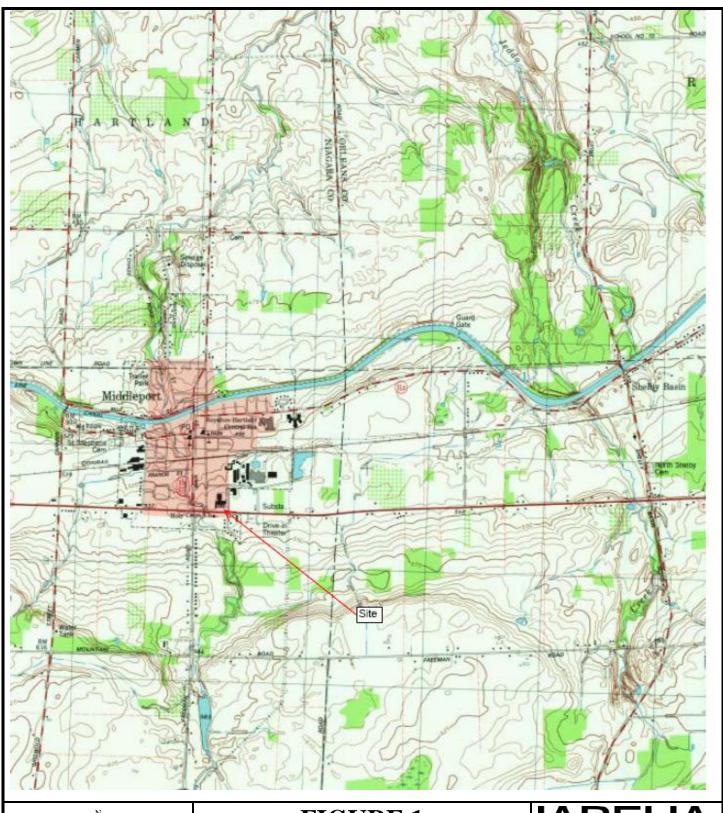
Additionally, the Regulated Building Materials should be addressed before demolition or redevelopment of the on-site structures. The estimated costs associated with abatement are \$150,000 to \$200,000. The duration of the work is estimated at two to three months.

LaBella understands that the Site has also been the subject of additional investigation, the results of which were not made available at the time of this Phase II ESA. These results may have significant different findings than those of this assessment and indicate that remediation of various media at the Site is required. Such findings could have serious cost implications for future redevelopment of the Site. Prior to making a final determination regarding the purchase or foreclosure of this property, Niagara County should obtain and carefully review the findings of the other studies at the Site.

J:\NIAGARA COUNTY DEPT. OF ECONOMIC DEVELOPMENT\212505 - 3 PHASE II ESAS\REPORTS\DUNN AND SCHOOLCRAFT SITE\PHASE II-DUNN.SCHOOLCRAFT SITE\FINAL DUNN.SCHOOLCRAFT PHASE II REPORT.DOC



# Figures and Tables

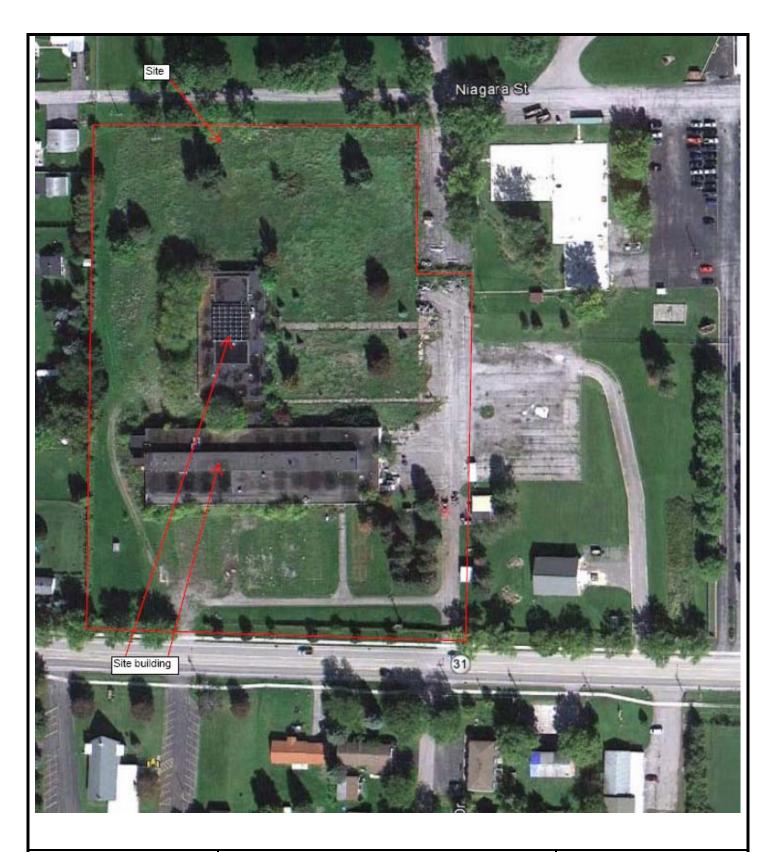




### FIGURE 1 SITE LOCATION MAP

Dunn/Schoolcraft Site 140 Telegraph Road Middleport, New York

# **LABELLA**

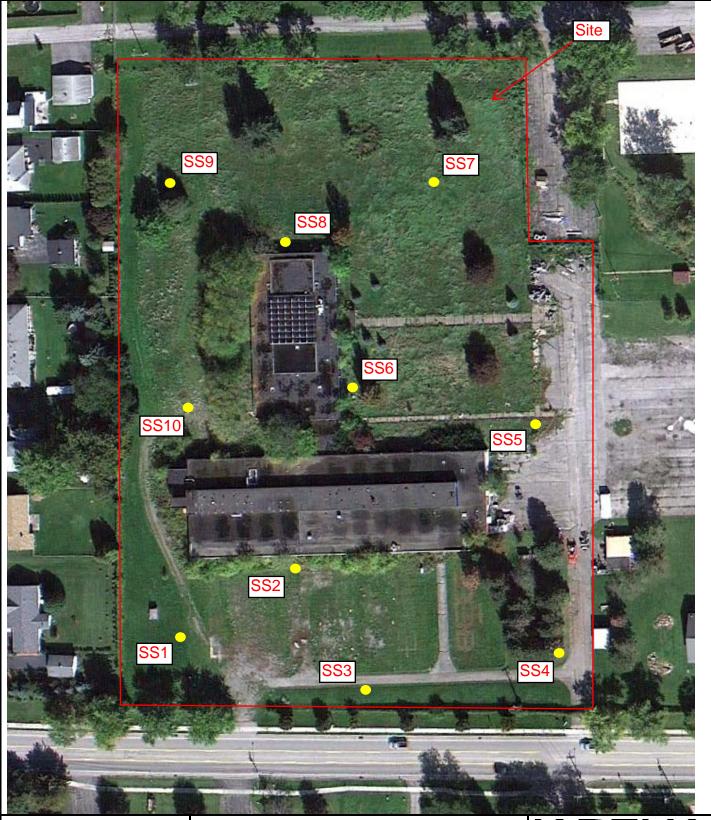




# FIGURE 2 DETAILED SITE MAP

Dunn/Schoolcraft Site 140 Telegraph Road Middleport, New York

# **LABELLA**





# FIGURE 3 SURFACE SOIL SAMPLING LOCATIONS

Dunn/Schoolcraft Site 140 Telegraph Road Middleport, New York

### **LABELLA**





# FIGURE 4 SOIL BORING LOCATIONS

Dunn/Schoolcraft Site 140 Telegraph Road Middleport, New York

### $\mathsf{L}\mathsf{NBELL}\mathsf{L}$





# FIGURE 5 GROUNDWATER WELL LOCATIONS

Dunn/Schoolcraft Site 140 Telegraph Road Middleport, New York

## ИВЕLLA

Table 1

Dunn/Schoolcraft Site, 140 Telegraph Road, Middleport, New York

Phase II Environmental Site Assessment

Summary of Surface Soil Screening Results - Metals

Sample ID											Part 375 Unrestricted Use	Part 375 Commercial Soil	Part 375 Industrial Soil
·	SS1	SS2	*SS3	SS4	SS5	SS6	SS7	SS8	SS9	SS10	Soil Cleanup	Cleanup	Cleanup
Sample Date	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	Objectives	Objectives	Objectives
TAL Metals (mg/kg)													
Arsenic	8	ND	12	17	17	3	<u>26</u>	<u>20</u>	<u>68</u>	11	13	16	16
Cadmium	ND	ND	ND	ND	2.5	9.3	60						
Chromium	ND	ND	ND	ND	30	1,500	6,800						
Copper	22	ND	ND	36	54	86	36	ND	90	59	50	270	10,000
Lead	26	17	61	82	47	3	56	47	121	37	63	1,000	3,900
Mercury	ND	ND	ND	ND	0.18	2.8	5.7						
Nickel	ND	ND	ND	ND	30	310	10,000						
Zinc	89	61	136	136	77	102	78	67	96	82	109	10,000	10,000

NYSDEC Part 375 Industrial and Commercial Soil Cleanup Objectives (December 2006)

ND=Not detected

Shaded=Analyte detected above Part 375 Unrestricted Use SCOs.

Bold=Analyte detected above Part 375 Commercial SCOs.

Underline=Analyte detected above Part 375 Industrial SCOs.

Table 2

# Dunn/Schoolcraft Site, 140 Telegraph Road, Middleport, New York Phase II Environmental Site Assessment Summary of Soil Screening Results - Radiological Scans

**Surface Soil Results** 

Sample ID	SS1	SS2	*SS3	SS4	SS5	SS6	SS7	SS8	SS9	SS10
Sample Date	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13	8/5/13
Gamma Counts (kC/m)	1,350	1,200	3,400	4,440	5,100	4,750	5,200	5,450	5,100	5,300

#### **Subsurface Soil Results**

Sample ID	BH1	BH2	внз	ВН4	вн5	вн6	вн7	вн8	вн9	BH10
Sample Date	8/1/13	8/1/13	8/1/13	8/1/13	8/1/13	8/1/13	8/1/13	8/1/13	8/1/13	8/1/13
Gamma Counts (kC/m)/interval										
0-2 feet	6,300	5,400	5,400	5,100	5,100	5,100	4,800	4,900	3,900	5,000
2-4 feet	6,100		5,200	5,200	4,000	5,200	4,950		3,900	
4-6 feet	6,000		5,200	5,100	5,200	5,000	4,850		4,100	
6-8 feet			5,100			4,900				
8-10 feet			5,200							
10-12 feet			5,100							

Sample ID	BH11	BH12	BH13	BH14	BH15	BH16	BH17	BH18	BH19	BH20
Sample Date	8/1/13	8/1/13	8/2/13	8/2/13	8/2/13	8/2/13	8/2/13	8/2/13	8/2/13	8/6/13
Gamma Counts (kC/m)/interval										
0-2 feet		4,800	4,700	4,100	4,300	3,900	4,800	5,500	4,400	5,150
2-4 feet		5,100	4,700	4,100	4,300	4,800	4,950	5,400	4,600	5,000
4-6 feet		5,000	4,800	4,000			5,150	5,500		5,250

Sample ID	BH21	BH22	BH23	BH24	BH25	BH26	BH27	BH28	BH29	BH30
Sample Date	8/6/13	8/6/13	8/6/13	8/6/13	8/6/13	8/6/13	8/6/13	8/6/13	8/6/13	8/6/13
Gamma Counts (kC/m)/interval										
0-2 feet	5,000	5,400	5,050	4,800	5,050	4,900	4,950	5,100	4,800	4,650
2-4 feet	5,150	5,000		4,800	4,850	5,400	5,300	5,150	4,650	5,100
4-6 feet	5,100	5,100		4,950	5,000	5,200	5,350		4,900	
6-8 feet	5,050	5,200								

Notes:

All measurements in kilocounts per minute (kC/m)

Background measured at 6,000 kC/m

Blank space indicates interval not screened

#### Table 3

#### Dunn/Schoolcraft Site, 140 Telegraph Road, Middleport, New York Phase II Environmental Site Assessment

#### **Summary of Surface Soil Analytical Results**

(Detected Compounds Only)

				1		-	etected Com						
Sample ID	SS1	SS2	SS3	SS4	SS5	SS6	SS7	SS8	SS9	SS10		Part 375 Commercial Soil	
Sample Date	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	Soil Cleanup Objectives	Cleanup Objectives	Cleanup Objectives
Semi-Volatile Organic Comp	ounds (ug/kg)												
Bis(2-ethylexyl)phthalate	<41.4	<37.4	660 J	82.3 NJ	<41.3	<39.4	<41.4	<41.1	<42.9	390 J	NL	NL	NL
Di-n-butylphthalate	<41.4	<37.4	<190	<40.4	<41.3	<39.4	<41.4	<41.1	<42.9	2100 J	NL	NL	NL
Fluoranthene	<41.4	<37.4	5,300	5,200 E	2,400	170 J	<41.4	<41.1	<42.9	210 J	100,000	500,000	1,000,000
Fluorene	<41.4	<37.4	<190	160 J	<41.3	<39.4	<41.4	<41.1	<42.9	<43.6	30,000	500,000	1,000,000
Phenanthrene	<41.4	<37.4	3,000	2,600	1,200	<39.4	<41.4	<41.1	<42.9	120 J	100,000	500,000	1,000,000
Anthracene	<41.4	<37.4	500 J	490	180 J	<39.4	<41.4	<41.1	<42.9	<43.6	100,000	500,000	1,000,000
Acenapthene	<41.4	<37.4	<190	160 J	<41.3	<39.4	<41.4	<41.1	<42.9	<43.6	20,000	500,000	1,000,000
Pyrene	<41.4	<37.4	3,900	4,000 E	2,200	<39.4	<41.4	<41.1	<42.9	140 J	100,000	500,000	1,000,000
Butylbenzylphthalate	<41.4	<37.4	<190	<40.4	98.7 J	<39.4	<41.4	<41.1	<42.9	50,500 E	NL	NL	NL
Carbazole	<41.4	<37.4	<190	510	210 J	<39.4	<41.4	<41.1	<42.9	<43.6	NL	NL	NL
Chrysene	<41.4	<37.4	2,300	3,200	1,500	<39.4	<41.4	<41.1	<42.9	92 J	1,000	56,000	110,000
Benzo(a)pyrene	<41.4	<37.4	<u>2,300</u>	<u>2,500</u>	<u>1,300</u>	<39.4	<41.4	<41.1	<42.9	<43.6	1,000	1,000	1,100
Benzo(a)anthracene	<41.4	<37.4	2,100	2,700	1,400	<39.4	<41.4	<41.1	<42.9	<43.6	1,000	5,600	11,000
Benzo(b)fluoranthene	<41.4	<37.4	3,200	3,100	1,500	<39.4	<41.4	<41.1	<42.9	87.2 J	1,000	5,600	11,000
Benzo(k)fluoranthene	<41.4	<37.4	1,100 J	1,700	890	<39.4	<41.4	<41.1	<42.9	<43.6	800	56,000	110,000
Benzo(g,h,i)perylene	<41.4	<37.4	1,400 J	1,800	820	<39.4	<41.4	<41.1	<42.9	<43.6	100,000	500,000	1,000,000
Dibenzo(a,h)anthracene	<41.4	<37.4	580 NJ	760 NJ	220 J	<39.4	<41.4	<41.1	<42.9	<43.6	330	560	1,100
Indeno(1,2,3-cd)pyrene	<41.4	<37.4	1,300 J	1,800	860	<39.4	<41.4	<41.1	<42.9	<43.6	500	5,600	11,000
Dimethylphthalate	310 J	460	<190	340 J	560	380 J	480	360 J	530	530	NL	NL	NL
Pesticides (ug/kg)													
4,4-DDE	3.4	< 0.37	19.6 J-	6 NJ	4.7P	55 J	17.8	8.6	31.6	5.4	3.3	62,000	120,000
4,4-DDD	<0.41	< 0.37	2.4P	< 0.39	< 0.41	< 0.39	< 0.41	<0.41	<0.42	< 0.43	3.3	92,000	180,000
alpha-chlordane	<0.41	< 0.37	< 0.39	< 0.39	< 0.41	220 EP	< 0.41	<0.41	<0.42	< 0.43	94	24,000	47,000
gamma-chlordane	<0.41	< 0.37	< 0.39	< 0.39	<0.41	200 EP	<0.41	<0.41	<0.42	<0.43	NL	NL	NL
Heptachlor Epoxide	<0.41	< 0.37	<0.39	< 0.39	<0.41	18.3 NJ	1.5 J	<0.41	5.6	< 0.43	NL	NL	NL
Dieldrin	2.3	<0.37	<0.39	< 0.39	3P	25.1	3.1 NJ	2.3P	7.4	< 0.43	5	1,400	2,800
4,4-DDT	2.2 J-	< 0.37	25.9 J-	10.1	6.3 NJ	19.3	7.5	5.1	8.7	< 0.43	3.3	47,000	94,000
TAL Metals (mg/kg)				•			•	•			•		
Aluminum	5,580	3,490	1820 J-	2,240	7,600	6,010	7,040	6,200	6,550	6,720	NL	NL	NL
Antimony	< 0.655	<0.59	1.37	<0.625	0.34 J-	< 0.635	<0.665	0.3 J-	0.5 J-	<0.715	NL	NL	NL
Arsenic	11.9	3.05	7.29	8.89	13	20.8	22	17.2	54.1	14.6	13	16	16
Barium	60.4 J-	18.4 J-	22.6 J-	19.5 J-	54.3 J-	48.5 J-	58.6 J-	48.1 J-	52.7 J-	57 J-	350	400	10,000
Beryllium	0.26	0.16	0.13 J	0.13 J	0.28	0.24	0.3	0.27	0.31	0.29	7.2	590	2,700
Cadmium	0.81	0.5	0.73	0.52	0.91	0.72	0.84	0.71	1.03	0.9	2.5	9.3	60
Calcium	6620 J-	53000 J-	87200 J-	66800 J-	2560 J-	4920 J-	2740 J-	2640 J-	2120 J-	22200 J-	NL	NL	NL
Chromium	7.9 J-	4.6 J-	3.54 J-	7.4 J-	11.6 J-	9.84 J-	9.87 J-	8.93 J-	8.63 J-	9.92 J-	30	1,500	6,800
Cobalt	6.63	3.01	2.35	2.33	7.98	5.63	7.56	6.33	11.7	6.79	NL	NL	, NL
Copper	21.2 J-	5.38 J-	9 J-	11.9 J-	15.5 J-	16 J-	22 J-	17.1 J-	38 J-	24.9 J-	50	270	10,000
Iron	17,500	9,610	7,160	6,250	19,700	14,400	19,300	15,800	20,000	17,100	NL	NL	NL NL
Lead	33.6	12.5	97.3	50	47.2	43.6	52.6	42.7	129	41.3	63	1,000	3,900
Magnesium	2750 J-	32300 J-	49700 J-	40400 J-	2680 J-	3380 J-	2150 J-	2010 J-	1390 J-	11700 J-	NL NL	NL NL	NL NL
Manganese	871 J-	313 J-	596 J-	345 J-	433 J-	588 J-	866 J-	656 J-	1270 J-	489 J-	1,600	10,000	10,000
Mercury	0.036	0.011	0.031	0.055	0.053	0.05	0.05	0.042	0.078	0.042	0.18	2.8	5.7
Nickel	13.1	6.54	5.15	5.86	18.6	11.2	15.1	12.6	15.2	13.8	30	310	10,000
Potassium	706 J-	494 J-	398 J-	433 J-	674 J-	567 J-	851 J-	566 J-	771 J-	797 J-	NL NL	NL NL	NL NL
Selenium	0.79	<0.235	<0.25	<0.25	0.76	0.44 J	0.84	0.63	1.18	0.5 J	3.9	1,500	6,800
Silver	1.57	0.74	0.63	0.49	1.67	1.18	1.71	1.33	2.01	1.41	2	1,500	6,800
Sodium	40.8 J	83	125	106	36.8 J	40.3 J	32.2 J	36.2 J	27.6 J	57.8	NL NL	NL	0,800 NL
Thallium	0.96 J	<0.47	0.56 J	0.23 J	<0.53	0.34 J	0.79 J	0.35 J	1.87	<0.57	NL NL	NL NL	NL NL
Vanadium	30.4 J-	13.8 J-	17.1 J-	12.4 J-	23.5 J-	25.6 J-	32.5 J-	26.9 J-	40.2 J-	23.6 J-	NL NL	NL NL	NL NL
Zinc	82 J	33.7 J	82.8 J	84.4 J	74.1 J	60 J	76.3 J	66.9 J	92 J	76.2 J	109	10,000	10,000
NYSDEC Part 375 Unrestricted Use, Indi					/4.1 J	00.1	/U.3 J	00.91	32 J	/U.Z J	E=Indicates the analyte's concentration		•

J=The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.

J-=The analyte was positively identified; the associated numberical value is an estimated quantity that may be biased low.

NJ=The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value. Underline=Analyte detected above Part 375 Industrial SCOs.

P=There is less than 25% difference for detected concentrations between the two gas chromatography columns.

No detectable compounds were identified during PCB and Herbicide analysis.

Shaded=Analyte detected above Part 375 Unrestricted Use SCOs.

Bold=Analyte detected above Part 375 Commercial SCOs.

Table 4 Dunn/Schoolcraft Site, 140 Telegraph Road, Middleoport, New York Phase II Environmental Site Assessment Summary of Subsurface Soil Analytical Results
(Detected Compounds Only)

								(Detecte	d Compound	is Only)								
Sample ID	BH1	BH3	BH4	BH7	BH8	вн9	BH11	BH14	BH15	BH18	BH20	BH22	BH24	BH27	BH30			
Depth	3-5 ft. bgs	3-5 ft. bgs	3-5 ft. bgs	4-6 ft. bgs	0-2 ft. bgs	3-5 ft. bgs	4-6 ft. bgs	4-6 ft. bgs	0-2 ft. bgs	2-4 ft. bgs	2-4 ft. bgs	6-8 ft. bgs	2-4 ft. bgs	4-6 ft. bgs	4-6 ft. bgs	Part 375 Unrestricted Use	Part 375 Commercial Soil	Part 375 Industrial Soil
Sample Date	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/2/2013	8/2/2013	8/2/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	Soil Cleanup Objectives	Cleanup Objectives	Cleanup Objectives
Volatile Organic Compounds (ug,	/kg)																	
Acetone	<1.7	29.5	80.9	30.5 J	<3	<2.6	39.4 J	22.4	16.6	<1.6	18.4 J	<1.1	<3.4	<3	<1.6	50	500,000	1,000,000
Carbon Disulfide	< 0.35	< 0.36	3 J	< 0.93	<0.6	< 0.52	< 0.59	< 0.33	< 0.29	< 0.33	< 0.35	<0.23	< 0.67	< 0.61	< 0.32	NL	NL	NL
4-Methyl-2-Pentanone	<1.7	<1.8	<2.7	<4.6	<3	<2.6	<2.9	<1.6	<1.4	<1.6	<1.8	<1.1	<3.4	< 0.61	<1.6	NL	NL	NL
Methyl Acetate	< 0.69	4.5	25.4	4.7 J	<1.2	<1	<1.2	< 0.65	< 0.57	< 0.65	< 0.7	< 0.45	<1.3	<1.2	< 0.64	NL	NL	NL
m,p-Xylenes	< 0.69	< 0.73	<1.1	<1.9	<1.2	<1	<1.2	< 0.65	< 0.57	< 0.65	<.07	< 0.45	<1.3	1.6 J	< 0.64	260	500,000	1,000,000
Tetrachloroethene	< 0.35	< 0.36	< 0.54	< 0.93	<0.6	< 0.52	< 0.59	< 0.33	< 0.29	< 0.33	3.8	< 0.23	< 0.67	4.7 J	3.7	1,300	150,000	300,000
Toluene	< 0.35	0.74 J	< 0.54	< 0.93	<0.6	< 0.52	< 0.59	< 0.33	< 0.29	< 0.33	< 0.35	< 0.23	< 0.67	< 0.61	< 0.32	700	500,000	1,000,000
Semi-Volatile Organic Compound	ls (ug/kg)	•																
Phenanthrene	<38	<38.3	<37.7	<37.7	160 J	<37.4	<38.5	<36.5	<36.6	<41.8	<39	<38.5	<40.3	<40.3	<40.7	100,000	500,000	1,000,000
Fluoranthene	<38	<38.3	<37.7	<37.7	300 J	<37.4	<38.5	<36.5	<36.6	<41.8	<39	<38.5	<40.3	<40.3	<40.7	100,000	500,000	1,000,000
Pyrene	<38	<38.3	<37.7	<37.7	210 J	<37.4	<38.5	<36.5	<36.6	<41.8	<39	<38.5	<40.3	<40.3	<40.7	100,000	500,000	1,000,000
Benzo(a)fluoranthene	<38	<38.3	<37.7	<37.7	170 J	<37.4	<38.5	<36.5	<36.6	<41.8	<39	<38.5	<40.3	<40.3	<40.7	1.000	56.000	110.000
Dimethylphthalate	410	380	500	500 J	610	300 J	1,100	870	440	540	340 J	360 J	500 J	430	380 J	NL	NL	NL
Pesticides (ug/kg)																		
4,4-DDE	< 0.376	< 0.379	< 0.374	< 0.373	150 E	< 0.37	< 0.38	< 0.362	49.7 E	< 0.414	< 0.386	< 0.38	< 0.399	< 0.399	< 0.403	3.3	62,000	120,000
Dieldrin	< 0.376	< 0.379	< 0.374	< 0.373	< 0.375	< 0.37	< 0.38	< 0.362	1.6 J	< 0.414	< 0.386	<0.38	< 0.399	< 0.399	< 0.403	5	1.400	2,800
4.4-DDT	< 0.376	< 0.379	< 0.374	< 0.373	34.7	< 0.37	< 0.38	< 0.362	18.2	< 0.414	< 0.386	<0.38	< 0.399	< 0.399	< 0.403	3.3	47.000	94.000
TAL Metals (mg/kg)																	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Aluminum	7730 J-	2760 J-	4520 J-	2470 J-	6700 J-	3060 J-	4550 J-	3070 J-	6850 J-	4580 J-	6,840	4,920	4,620	3,240	10,00	NL	NL	NL
Antimony	<0.6	< 0.645	<0.585	<0.59	0.48 J	<0.58	<0.6	< 0.615	<0.595	< 0.675	<0.645	<0.635	<0.615	<0.655	<0.655	NL	NL	NL NL
Arsenic	4.86 J	2.89 J	2.95 J	2.71 J	24.2 J	3.23 J	4.08 J	2.1 J	5.28 J	6.44 J	3.59	10.1	8.09	2.89	7.73	13	16	16
Barium	51.4 J-	21.1 J-	53.4 J-	20.1 J-	68.5 J-	17.1 J-	22.2 J-	14.2 J-	38.3 J-	30.8 J-	45.7 J-	33.1 J-	27.4 J-	20.4 J-	74.3 J-	350	400	10,000
Beryllium	0.26	0.11 J	0.23	0.13 J	0.28	0.12 J	0.15	0.13 J	0.3	0.21	0.24	0.25	0.39	0.25	0.4	7.2	590	2,700
Cadmium	0.31	0.18	0.2	0.32	0.87	0.22 J	0.18	0.27	0.68	0.61	0.68	0.83	1.23	0.72	0.74	2.5	9.3	60
Calcium	2790 J-	36600 J-	5890 J-	62200 J-	3130 J-	25300 J-	2670 J-	15700 J-	1360 J-	1110 J-	2260 J-	52300 J-	112000 J-	58100 J-	2150 J-	NL	NL	NL
Chromium	9.71 J	3.69 J	5.31 J	3.21 J	8.57 J	5.27 J	5.41 J	4 J	8.61 J	4.89 J	9.44 J-	6.13 J-	7.77 J-	4.98 J-	11 J-	30	1.500	6.800
Cobalt	8.74	3.28	6.73	3.65	10.3	4.56	5.39	3.48	8.13	6.21	8.86	7.27	10.7	4.8	9.21	NL	NL NL	NL
Copper	12 J	16.6 J	28.3 J	33.7 J	52.3 J	28.4 J	21 J	8.01 J	8.97 J	26.9 J	11.2 J-	46.5 J-	24.6 J-	70.9 J-	13.2 J-	50	270	10.000
Iron	20.600	8.950	12.600	8.680	29.200	10.500	13.800	9.140	19.600	17.700	20,700	17.200	20.900	16.100	19.200	NL NL	NI.	NL NL
Lead	3.87	3.23	3,48	2.16	56.9	3.48	3.67	2.93	6.76	6.14	4.43	13.7	15.4	2.96	13.1	63	1.000	3,900
Magnesium	2770 J-	5530 J-	2060 J-	6180 J-	2130 J-	4770 J-	1740 J-	3040 J-	2160 J-	1200 J-	2700 J-	14200 J-	23000 J-	22200 J-	2300 J-	NL NL	NL NL	NL NL
Manganese	473 J-	384 J-	464 J-	568 J-	1020 J-	353 J-	415 J-	302 J-	622 J-	908 J-	469 J-	951 J-	1320 J-	1040 J-	1240 J-	1.600	10,000	10,000
Mercury	0.01	<0.006	0.007 J	<0.005	0.067	<0.006	0.012	0.006 J	0.019	0.025	0.011	0.013	0.006 J	0.005 J	0.047	0.18	2.8	5.7
Nickel	17.4	6.23	13.3	7.18	19.3	8.71	11.3	6.96	15.2	11.5	18.7	13.9	16.7	10.7	14.2	30	310	10,000
Potassium	515 J-	319 J-	430 J-	410 J-	502 J-	319 J-	299 J-	288 J-	379 J-	299 I-	559 J-	666 J-	1190 J-	784 J-	546 J-	NL NL	NL NL	10,000 NL
Selenium	0.73 J	<0.255	0.35 J	<0.235	1.69 J	0.26 J	0.55 J	<0.245	<0.93 J	0.96 J	0.63	0.42 J	<0.245	<0.26	0.64	3.9	1,500	6.800
Silver	0.73 J	<0.13	0.33 J	0.12 J	1.09 J	0.20 J	0.29 J	0.73 J	1.71 J	1.69 J	1.73	1.58	1.92	1.39	1.7	2	1,500	6.800
Sodium	109 J-	121 J-	84.7 J-	139 J-	77.7 J-	98.1 J-	87.9 J-	125 J-	71.7 J-	67.4 J-	80.2	59.6	79.3	68.7	38.3 J	NL NL	1,500 NL	0,800 NL
Thallium	<0.48	<0.515	<0.47	0.18 J	1	<0.465	<0.48	<0.49	0.23 J	1.09	<0.515	1.27	1.85	1.19	1.08	NL NL	NL NL	NL NL
Vanadium	<0.48 26	<0.515 15.2	17.3	17.8	36.1	<0.465 15.3	17.8	13.9	26.4	28.2	<0.515 25.3 J-	30.5 J-	1.85 42.6 J-	35.9 J-	45.1 J-	NL NL	NL NL	NL NL
Zinc	41.7 J	29.6 J	41.7 J	42.4 J	91.2 J	29.1 J	30.9 J	21 J	34.1 J	40.2 J	46.8 J	48.9 J	63.1 J	30.5 J	45.1 J-	109	10,000	10.000
ZINC	41./J	29.0 J	41./ J	42.4 J	91.23	29.1 J	30.91	21.1	34.1 J	40.2 J	40.6 J	46.91	05.11	3U.3 J	1 0.60	103	10,000	10,000

NYSDEC Part 375 Unrestricted Use, Industrial and Commercial Soil Cleanup Objectives (December 2006)

E=Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.

J=The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.

J-= The analyte was positively identified; the associated numberical value is an estimated quantity that may be biased low.

NJ=The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.

No detectable compounds were identified during PCB and Herbicide analysis. Shaded=Analyte detected above Part 375 Unrestricted Use SCOs. Bold=Analyte detected above Part 375 Commercial SCOs. Underline=Analyte detected above Part 375 Industrial SCOs.

# Table 5 Dunn/Schoolcraft Site 140 Telegraph Road, Middleport, New York Phase II Environmental Site Assessment Summary of Groundwater Analytical Results

(Detected Compounds Only)

Sample ID	MW3	
Sample Date	8/29/2013	TOGS*
<b>Volatile Organic Compounds (</b>	ug/L)	
Acetone	24.8 J	50
2-Butanone	4.6 J	NL
TAL Metals (ug/L)		
Aluminum	6880 J-	NL
Arsenic	7.16	25
Barium	58.9	1,000
Beryllium	0.6 J	3
Cadmium	0.34 J	5
Calcium	147,000	NL
Chromium	11.7	50
Cobalt	8.06	NL
Copper	41.1	200
Iron	11,300	300
Lead	15.3	25
Magnesium	53,200	35,000
Manganese	1,950	300
Nickel	18.5	100
Potassium	10,600	NL
Sodium	11,700	20,000
Vanadium	56	NL
Zinc	318	5,000

<sup>\*</sup>Division of Technical and Operational Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (Class GA)

No detectable compounds were identified during SVOCs, Pesticides, PCBs or Herbicides analysis.

NL=Not listed

J=The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.

J-=The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

Analyte detected above NYSDEC Groundwater Standards

#### Table 6

#### Dunn/Schoolcraft Site, 140 Telegraph Road, Middleport, New York

#### Phase II Environmental Site Assessment

#### **Summary of Waste Characterization Analytical Results**

(Detected Compounds Only)

Sample ID	Dunn-Schoolcraft 1	Dunn-Schoolcraft 2	Dunn-Schoolcraft 3	Dunn-Schoolcraft 4	Maximum Concentration/
Sample Date	8/5/2013	8/5/2013	8/5/2013	8/5/2013	Characteristic
TCLP Metals (ug/L)					
Barium	774	NA	389 J	557	100,000
Lead	<30	NA	39 J	<30	5,000
Chromium	<25	NA	<25	32 J	5,000
Flashpoint (°F)					
Flashpoint	<212	<212	126	145	<140
рН					
pH	6.28 H	7.13 H	5.93 H	5.72 H	2 <ph>12</ph>

Maximum Concentration/Characteristic from Title 40 Part 261

NL=Not listed

NA=Not Analyzed

No detectable compounds were identified during VOC, SVOC, Pesticide or PCB analysis.

J=The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.

H=Sample analysis out of hold time.

Results in bold indicate contraventions of standards



# Appendix 1 Field Logs

	IAF	7	1 1/	Λ.	TE	ST BORING LOG	BORING:	甘し		
	<b>IVE</b>			_	Dunn/S	choolcraft Site	SHEET JOB: 212	1_0F 2505		
	ATE STREET, RO	OCHESTER,			Middlep	ort, NY	CHKD BY:	CK		
CONTRACTOR: Nature's Way GROUND SURFACE ELEVATION:							TIME: \$1	ОР8 от о€		
	DRILLER: NATURES VALVE GROUND SURFACE ELEVATION:  LABELLA REPRESENTATIVE: START DATE: \$-1-13 END DATE: \$-1-13									
TYPE AUGE OVER	TYPE OF DRILL RIG:  AUGER SIZE AND TYPES EAPPORE  OVERBURDEN SAMPLING METHOD: Direct Push  DRIVE SAMPLER TYPE:  INSIDE DIAMETER: ~1.8-Inch  OTHER:									
D E P		SAMPLE					PID FIELD SCREEN	RAD(CAM		
T H	SAMPLE NO AND DEPTH R		STRATA CHANGE		VISUAL CL	ASSIFICATION	(PPM)	KENARA		
2		24"		BRU	ngray sitt	4 grael (1,0)	0	6,300		
4		24"		Brun	genelly s	14 (p.n)	0	6,100		
56	,	12,		**	SAA		9	6,000		
_8_										
10										
12										
14										
16										
				-attery	sted bate	refersal @ 51				
18				-mued	5' vesto					
				-refus	10,55	on and attempt	f			
DATE	VATER LEVEL D	ATA ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	NOTES:	7 740	(351)		
GE	NERAL NOTE	e		-FL	ATC BOUNDARY SETIME			(1)		
	STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.     WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER									
	3) Abbreviation	n <b>s</b>	and = 35 to some = 20 t little = 10 to	o 35%	c = coarse m = medium f = fine	BGS = Below the Ground Surface NA = Not Applicable				
			urac - in ra	LV /0	y Hersa	· · · · · · · · · · · · · · · · · · ·	BORING	: 14		

RAD BoxHysund ~ 6,000 CPM

	IAI	DE	11/	1	1	EST BORING L	OG	BORING	#2		
<b>LABELLA</b>					Dunn/	Schoolcraft S	Site	JOB: 21	2505	.4	
		Ass	ocietes,	P.C.		eport, NY		СНКО ВҮ:			
ENVIR	ATE STREET, I ONMENTAL EN	IGINEERING (	CONSULTANT	\$				TIME: 75	16		
CONTRACTOR: Nature's Way GROUND SURFACE ELEVATION:									0 TO 425		
DRILLER: NATURE'S VVAY GROUND SURFACE ELEVATION: LABELLA REPRESENTATIVE: START DATE: 7-13 END DATE: 8-1-13											
	TYPE OF DRILL RIG:  ALIGER SIZE AND TYPE: OCONOC INSIDE DIAMETER: ~1.8-Inch										
	AUGER SIZE AND TYPE: OCO OVE OVERBURDEN SAMPLING METHOD: Direct Push OTHER:										
D		SAMPLE						PID FIELD	RADER	W	
E P			CTOATA		VICTIAL	CLASSIFICATION		SCREEN (PPM)	REMARKS		
T H	SAMPLE NO AND DEPTH	RECOVERY	STRATA CHANGE		VISUAL	CLASSIFICATION		(1141)	-G		
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18					1 01 0	H	l lane	1 4 0			
				-LGPAX	alat 21 a	ind attem	17 CAISOTE	501 10 2°			
	WATER LEVEL	DATA	воттом ог	BOTTOMOF	GROUNDWATE	Notes:	<u>al</u>		l	1	
DATE	TIME	ELAPSED	CASING	BORING	ENCOUNTERED	TOTAL STATE				1	
		TIME		-FI,							
GE	NERAL NOT	ES ICATION I IN	IES REPRES	ENT APPROXIM	ATE BOUNDARY BETV	VEEN SOIL TYPES. TR	RANSITIONS MAY E	BE GRADUAL.			
l	2) WATER I	LEVEL READ	DINGS HAVE	BEEN MADE AT	TIMES AND UNDER C	ONDITIONS STATED,	FLUCTUATIONS O	F GROUNDWATER	1		
1	3) Abbrevlatt		and = 35 to 8	50 %	c = coarse m = medium		the Ground Surface				
			little = 10 to		f = fine	NA = Not App		BORING	C#.		
	trace = 1 to 10% vf = very fine										

	1 / 1	DE	11/	1		TEST BORING L	.OG		BORING:	±3	
LABELL Associates,				PC PC	Dun	n/Schoolcraft	Site		энеет <b>J</b> ов: 212	2505	1
	ATE STREET, I	ROCHESTER,	NY		Midd	dleport, NY			CHKD BY:	IL	
	TRACTOR:		Mari	BORING LOCAT	TION: #3				TIME: 91	30 TO 1070	
	LLA REPRES			START DATE:	ACE ELEVATION:	END DATE:	8-1-1	}	DATUM: 3	1-13	
AUGE	TYPE OF DRILL RIG:  AUGER SIZE AND TYPE:  OVERBURDEN SAMPLING METHOD: Direct Push  DRIVE SAMPLER TYPE:  INSIDE DIAMETER: ~1.8-Inch  OTHER:										
	SAMPLE NO		STRATA		VISU	IAL CLASSIFICATION			PID FIELD SCREEN (PPM)	CAD CP	7
<u>н</u> 0	AND DEPTH	24"	CHANGE	Brun	gravelle	y sandy s	H (lp	(m)	0	5,400	
2		24"			SA	A			O	5,20	
55 M		12"		Bra	n silty	sand (n.	4,1,n		0	5,200	
_8_			-								1
10	<b>%</b> o										
12										Δ.	ł
14											
16			-								
18											
				- rew	sal @ s	5,51, 2nd	atte	ubs cou	fusal	25.5	
DATE	VATER LEVEL	ELAPSED	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWA ENCOUNTE		- 1000	10	(A) =	6=11	1
GE	NERAL NOT	TIME		-F1		$=$ $-\infty$	ryle	a W	non	(3-2)	-
GE	1) STRATIF 2) WATER I	ICATION LIN LEVEL READ	INGS HAVE	BEEN MADE AT	TIMES AND UNDER	ETWEEN SOIL TYPES, T R CONDITIONS STATED,					
	3) Abbreviations and = 35 to 50 % c = coarse some = 20 to 35% m = medium BGS = Below the Ground Surface little = 10 to 20% f = fine NA = Not Applicable										

trace = 1 to 10%

vf = very fine

L	BE	LLΛ
	Ass	ociates, P.C.

#### **TEST BORING LOG**

Dunn/Schoolcraft Site Middleport, NY

В	DRING	:#	4
SH	ЕЕТ В: 21	250	ог 5 Т
СН	KD BY:	6	_

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: Nature's Way DRILLER:

BORING LOCATION: U GROUND SURFACE ELEVATION: START DATE:

END DATE:

TO[0] 20 DATUM

TYPE OF DRILL RIG:

AUGER SIZE AND TYPE:

LABELLA REPRESENTATIVE:

OVERBURDEN SAMPLING METHOD: Direct Push

DRIVE SAMPLER TYPE: INSIDE DIAMETER: ~1.8-Inch

OTHER:

					DAD LO
D E	SAMPLE		F	PID	rad car
	SAMPLE NO SAMPLE	STRATA		PPM)	REMARKS
0 2	AND DEPTH RECOVERY	CHANGE	0100012 3111 (1711)	0	51W
4	2411			0	5,200
55	1811		Brown sandy silt (Ipin)	0	5,W
8					
-					
10					
12					
14					
16					
18					
			- Tervical 255 2nd attempt same reason	al	
	VATER LEVEL DATA	BOTTOM OF	BOTTOM OF GROUNDWATER NOTES:		(-11
DATE	TIME ELAPSED	CASING	BOTTOM OF GROUNDWATER NOTES:  BORING ENCOUNTERED - Sampled 6 10	:25	(3.5)
GF	NERAL NOTES				

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.

2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

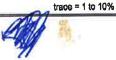
and = 35 to 50 % some = 20 to 35% c = coarse m = medlum

BGS = Below the Ground Surface

little = 10 to 20%

f = fine vf = very fine NA = Not Applicable

BORING:



ABBOCIATES, P.C.  300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS					N		T BORING LOG hoolcraft Site ort, NY		BORING: SHEET JOB: 212 CHKD BY:	2505
TYPE AUG	CONTRACTOR: Nature's Way  DRILLER: LABELLA REPRESENTATIVE:  TYPE OF DRILL RIG: AUGER SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: Direct Push  BORING LOCATION: GROUND SURFACE ELEVATION: END DATE:  DATUM DAT									
D E P T H	SAMPLE NO		STRATA CHANGE		,	VISUAL CLA	SSIFICATION		PID FIELD SCREEN (PPM)	RAD CPM
0		24"		Gro	Graybrun gravelysith (Ip.M)				0	5,100
4		24"		Bron	Brown sandy SiH (mp,m)				9	4.800
5		8"					6,8,1,~		0	5,200
8										4,5.
10										

- (Chisal @ 3.5', 2nd attempt, 18 WATER LEVEL DATA
TIME ELAPSED GROUNDWATER NOTES: BOTTOM OF BOTTOM OF ENCOUNTERED DATE CASING BORING TIME

12

14

16

- GENERAL NOTES

  1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
  - 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

and = 35 to 50 % some = 20 to 35% c = coarse m = medlum

BGS = Below the Ground Surface

little = 10 to 20% trace = 1 to 10%

f = fine vf = very fine NA = Not Applicable

BORING: 🕇

	L	3E		\		ST BORING LOG		BORING:	1 OF
	ATE STREET, F	ROCHESTER,			Middlep	choolcraft Site ort, NY	=	JOB: 212 CHKD BY:	2505
CONT	RACTOR:	Nature's	Way	BORING LOCATI	ACE ELEVATION:	END DATE:	21-B	TIME: 11	20 TO (150 -1-13
AUGE	OF DRILL RI ER SIZE AND RBURDEN SA	TYPE: 💙	THOD Direc			DRIVE SAMPLER INSIDE DIAMETEI OTHER:			9
D E P T H	SAMPLE NO		STRATA CHANGE		VISUAL CL	ASSIFICATION		PID FIELD SCREEN (PPM)	RAN CAY
0		24		Gray	gewel 6	(6,1,m)		0	5,100
4		24"		Gayl	ben siltz	Sand (m	6,1,m)	O	5,20
6		24"		(1)	SAA			6	5,W
₽/		12"		\	SAA	_		0	4,900
10									
12									
14									
16									
18				-refuse	1107				
DATE	VATER LEVEL TIME	DATA ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	NOTES:			l
GE		ICATION LIN LEVEL READ		BEEN MADE AT 50 %	ATE BOUNDARY BETWEI TIMES AND UNDER CON c = coarse m = medium		CTUATIONS OF GRO		

NA = Not Applicable

BORING:

little = 10 to 20%

trace = 1 to 10%

f = fine

vf = very fine

#### **TEST BORING LOG** BORING: SHEET Dunn/Schoolcraft Site JOB: 212505 Associates, P.C. Middleport, NY CHKD BY: 300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS BORING LOCATION: TIME: CONTRACTOR: 12(1) TO Nature's Way GROUND SURFACE ELEVATION: START DATE: 213 DATUM: DRILLER: END DATE: X-1-13 LABELLA REPRESENTATIVE: TYPE OF DRILL RIG: DRIVE SAMPLER TYPE: AUGER SIZE AND TYPE: INSIDE DIAMETER: ~1.8-Inch OVERBURDEN SAMPLING METHOD: Direct Push OTHER: D SAMPLE PID KAO CP FIELD E **SCREEN** REMARKS SAMPLE NO SAMPLE STRATA AND DEPTH RECOVERY CHANGE VISUAL CLASSIFICATION (PPM) 0 2 0 6 8 10 12 14 16 18 -refusal 0,6

GENERAL NOTES

TIME

DATE

WATER LEVEL DATA

ELAPSED

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

GROUNDWATER

ENCOUNTERED

3) Abbreviations

and = 35 to 50 %

BOTTOM OF

CASING

BOTTOM OF

BORING

-FL

c = coarse m = medium

BGS = Below the Ground Surface

NOTES:

some = 20 to 35% little = 10 to 20%

f = fine

NA = Not Applicable

trace = 1 to 10%

vf = very fine

					·				A
	M	ZE			TE	EST BORING LOG		BORING:	1 05
	<b>止八</b>		ociates,	_	Dunn/S	Schoolcraft Site		JOB: 212	2505
3በበ ፍጉ	ATE STREET.		-	r.u.	Middle	oort, NY		CHKD BY	K
ENVIRO	ONMENTAL EN	GINEERING (	CONSULTANT	S BORING LOCAT	FIONI			TIME: 12	25 TO 129
	CONTRACTOR SECTION			GROUND SURF	ACE ELEVATION:	[¥]	12	DATUM:	2
LABE	LLA REPRES	/		START DATE:	0-1-13	END DATE:	12	0-1-	)
	OF DRILL RI	IG:	eapro	obe		DRIVE SAMPLER TYP			
OVER	RBURDEN SA	MPLING ME	THOD! Direc	t Push		OTHER:			
D		SAMPLE						PID	RADIO
E P				,	\#0\*** <b>0</b>	ACCIFICATION		SCREEN	DEMONE.
	SAMPLE NO AND DEPTH		STRATA CHANGE		VISUAL C	LASSIFICATION		(PPM)	NEWARRS
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40									
18				- Istati	ernt 6"	0-1 110	. 20		,
					attempt 6"	-3rd attemp	7-2		
	VATER LEVEL	DATA	BOTTOM OF	BOTTOM OF	GROUNDWATER	NOTES:	. 10	1	
DATE	TIME	TIME	CASING	BORING -Ft	ENCOUNTERED	- XSum	ded la	1 13	50 6-3
GE	NERAL NOTI	ES ICATION I IN	ES REPRES		ATE BOUNDARY BETWE	EN SOIL TYPES, TRANSITION	ONS MAY BE GRA	DUAL.	
	2) WATER I	EVEL READ	INGS HAVE	BEEN MADE AT	TIMES AND UNDER CO	NDITIONS STATED, FLUCTU			
	3) Abbreviati	ons	and = 35 to 5 some = 20 to		c = coarse m = medium	BGS = Below the Grou	and Surface		
			little = 10 to :	20%	f = fine	NA = Not Applicable		BORING:	7

	LA	2F	11/		TE	ST BORING LOG		BORING:	9
	区以		sociates.	P.C.		choolcraft Site		юв: 212	2505
	ATE STREET,	ROCHESTER	, NY		Middlep	oort, NY	_   '	CHKD BY:	
CON	TRACTOR:	Nature's	Wav	BORING LOCAT				IME:   (	D TO/13
	LER: [			START DATE:	ACE ELEVATION:	END DATE:	3	SMUTAC	-1-13
AUG	E OF DRILL R ER SIZE AND RBURDEN SA	TYPE: 🔱	THOD: Direc	TOPE t Push		DRIVE SAMPLER TYPE: INSIDE DIAMETER: ~1.8 OTHER:			
D E P	SAMPLE NO	SAMPLE	STRATA		VISUAL CL	ASSIFICATION	-	PID FIELD SCREEN (PPM)	RADCM
О									
2	5	18"		Bro	ungrave	Mysit (p.	<u>^)</u>	0	3,900
4		18"			SAA			0	3,900
5		101"			"SAA			$\bigcirc$	4,100
					100.1				
8									
10									
12									
								×	
14									
16									
18									
				-ref	15al (0) 5				
·	NATER LEVEL		BOTTOM OF		GROUNDWATER	NOTES:			11
DATE	TIME	ELAPSED TIME	CASING	BORING -FL	ENCOUNTERED	- Sampad	@ 112	5 (	3.5)
GE	NERAL NOT	ES ICATION LIN	IES DEDDES		ATE BOUNDARY RETWE	EN SOIL TYPES, TRANSITION			
	2) WATER	LEVEL READ	DINGS HAVE	BEEN MADE AT	TIMES AND UNDER CON	IDITIONS STATED, FLUCTUAT			
	3) Abbreviati	ons	and = 35 to some = 20 to		c = coarse m = medium	BGS = Below the Ground	Surface		
			little = 10 to		f = fine	NA = Not Applicable		BORING:	Q

- Field Applicate @ 1:25

		BE				TEST BORING LOG		BORING:	10	
	LV	DE	LĽ		Dunn	/Schoolcraft Site		JOB: 212	1 OF 2505	8
		Ass	ociates,	P.C.		eport, NY		CHKD BY	7/	
ENVIR	ONMENTAL E	, ROCHESTER,	CONSULTANT	<b>s</b>					15	
CON	TRACTOR:	Nature's	Way	BORING LOCAT	ION: 10		_	TIME: [	30 to 1/42	į
		SENTATIVE:		START DATE:	2-1-13	END DATE: 8-1-13	3	8	7-13	
TYPI	E OF DRILL F	RIG:	Dance	ho		DRIVE SAMPLER TYPE:				
	ER SIZE AND	TYPE: (	THOD! Direc	t Push		INSIDE DIAMETER: ~1.8-In OTHER:	ich			
	T	ANN ENTO ME	111007 0110						0 ./	
P		SAMPLE						PID FIELD	PADO	PM
P T	SAMPLE NO	SAMPLE	STRATA		VISUAL	CLASSIFICATION		SCREEN (PPM)	REMARKS	
Н	AND DEPT	HRECOVERY	CHANGE	45	a	. ( ) .				
ľ				0-0	6-1750r	WIT .			C 610	
				01-	a Ros	0000011	(man)		15,000	
2		<u> </u>		0,60	X - DIOLY	ralt 1 gewelly silt	1.64.			
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		1								
6	<u> </u>									
8	1									
-	<del></del>	<b>-</b>								
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12		<b> </b>								
14										
16		1								
18						001				
			, i	- 1st at	tempt ref	1501 @ 2.5°				
				-and	at tomotic	treal (a)			l	
DATE	WATER LEVE	ELAPSED	BOTTOM OF CASING	BOTTOM OF BORING	GRQUNDWATE ENCOUNTERE					
	1	TIME		-FI.						
G	ENERAL NO	TES FICATION LIN	ES REPRES	ENT APPROXIM	ATE BOUNDARY BET	WEEN SOIL TYPES, TRANSITIONS	MAY BE GRA	DUAL.		
	2) WATER	LEVEL READ	INGS HAVE	BEEN MADE AT	TIMES AND UNDER O	CONDITIONS STATED, FLUCTUATION				
	3) Abbrevia	nons	and = 35 to some = 20 to		m = medium	BGS = Below the Ground S	urface			
			little = 10 to trace = 1 to		f = fine vf = very fine	NA = Not Applicable		BORING	18	

	IAI	7	11/	1		TEST BORING LOG		BORING:	#[[
	LΛE	ゴヒ	LĽ	1	Dunn	/Schoolcraft Site	7	SHEET	1 OF
		Ass	ociates,	P.C.		leport, NY		CHKD BY:	.505
	ATE STREET, I			•	Iviida	leport, IVI			
CONT	RACTOR:	Mature's	Way	BORING LOCAT				TIME: 21	<b>10</b> то 230
· · · · · · · · · · · · · · · · · · ·	ER: [		vvay	GROUND SURF START DATE:	ACE ELEVATION:	END DATE:	[2]	DATUM	-13
		-				4110 071161			
AUGE	OF DRILL RI R SIZE AND	IG:	9050	L .		DRIVE SAMPLER TYPE INSIDE DIAMETER: ~1.			- 1
OVER	RBURDEN SA	MPLING ME	THOD: Direc	t Push		OTHER:			2
_		SAMPLE						PID	For DA
D E		SAMPLE						FIELD SCREEN	CI JI KIII
P	SAMPLE NO		STRATA		VISUA	L CLASSIFICATION		(PPM)	REMARKS
<u>Н</u> 0	AND DEPTH	RECOVERY	CHANGE			1			
ŭ		100		Ω	w 51%	L/10m)			
		12		DR	W1 511	T ( 10/07 )		0	
2		, ,							
				0		10			
		19.1		Bra	n 500	rl (f.l.ml			1
4		1q		Uiv	2 · Jan	of (film)			
		- 17		B	2-111.	controfic	1	2	
		24"		Dran	151Mg -	sara finitifi	`)		
66									
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18		-			_	0.1		1	
				- Tek	Roll (W)				I
	MATERIES/E	DATA	BOTTOM OF	. 000	GROUNDWAT	ER NOTES:	2	1	-
DATE	VATER LEVEL TIME	ELAPSED	CASING	BORING	ENCOUNTER	A CONTRACTOR OF THE PARTY OF TH	10	71.20	14-61
		TIME		-F1			or W	2100	70
GE	NERAL NOT	ES ICATION I IN	IES REPRES	ENT APPROXIM	IATE BOUNDARY BET	TWEEN SOIL TYPES, TRANSITION	NS MAY BE GRA	ADUAL.	
						CONDITIONS STATED, FLUCTUA			1
	3) Abbreviati		and = 35 to	50 %	c = coarse m = medium	BGS = Below the Groun			
			some = 20 to		m = mealum f = fine	NA = Not Applicable	- Guille	BORING:	) U
			trace = 1 to	10%	vf = very fine			DOMING:	T)

ms/msda 230

	ΙΛΙ	3F	11/	1	TEST BORIN	IG LOG	BORING:	12
	<b>Ľ</b> 【[				Dunn/Schoolcra	aft Site	SHEEТ ЈОВ: 212	2505
300 ST/	ATE STREET, I		ociates, ny	H.C.	Middleport, NY		CHKO BY:	14
ENVIRO	RACTOR:	GINEERING C	ONSULTANT	BORING LOCAT			TIME:	10 TO 315
	ER:		vvay	GROUND SURF START DATE:	SCE ELEVATION: END DA	TE: 8-1-1)	DATUM:	-1-13
AUGE	OF DRILL RI ER SIZE AND RBURDEN SA	TYPE:	COPTO THOD: Direc			SAMPLER TYPE: DIAMETER: ~1.8-Inch :		
D E		SAMPLE					PID FIELD	
P T H	SAMPLE NO AND DEPTH	SAMPLE	STRATA CHANGE		VISUAL CLASSIFICATIO	N	SCREEN (PPM)	REMARKS
0		()		^		( >		100
2		24		Broi	ngravellys	silt (pin)	Ö	4,800
4		24		Bruo	in sit (mpi	$\gamma$	0	51W
5		12"		\ \ \	SAR		O	5000
_8_								
10								
12								
-14								
14								
16								
_18_								
				1	0			

TIME

DATE

WATER LEVEL DATA

ELAPSED TIME

- GENERAL NOTES

  1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
  - 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

GROUNDWATER

ENCOUNTERED

3) Abbreviations

and = 35 to 50 % some = 20 to 35%

BOTTOM OF

CASING

**BOTTOM OF** 

BORING

-FL

c = coarse m = medium

BGS = Below the Ground Surface

little = 10 to 20% trace = 1 to 10%

f = fine vf = very fine NA = Not Applicable

NOTES:

	ΙΛΓ	7		Λ	TEST	BORING LOG	BOR	RING:	2
1	LAE	江	LĽ		Dunn/Coh	a cloreft Cite	SHEE		T OF
1		Ass	ociates,	P.C.	Middlepor	oolcraft Site	JOB:	212	505
	ATE STREET, RO			•	Ivildaleboi	t, in t	John M.	24	0
CON	TRACTOR: N	aturo'e	MONSULTAN	BORING LOCAT			TIME		тоак
	LER:		vvay	GROUND SURF START DATE:	ACE ELEVATION:	END DATE: 8-2-13	DATU	JM: 8-1	2-13
	OF DRILL RIG:	,	( 0.		0 10 10	DRIVE SAMPLER TYPE:	Vi		7
AUG	ER SIZE AND T	YPE:		proble		INSIDE DIAMETER: ~1.8-Ind	h		
OVE	RBURDEN SAM	PLING ME	THOD: Direc	t Push		OTHER:			/
D		SAMPLE					Р	ID (	DADCOM
E P							SCF	ELD REEN	INDELLI
T H	SAMPLE NO S		STRATA CHANGE		VISUAL CLASS	SIFICATION	(Pi	PM)	REMARKS
0		M							( ( ) m
l		Ni		2-		1. 💉		- 1'	4, 1W
2		7		DIAM	gewely silt	(1p,m)	$\mathcal{O}$		•
		_			0		7		112.
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113		8"			SAA		6	ノ	1,000
(B)								$\neg$	
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40									
10								一十	
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14	-							_	
16								_	
,,									
18		-		-15+ C. H.	emot UELTOKK	(A)		$\neg$	
			,	-Day 16	enpt 45' reas	KA			
W	VATER LEVEL DA		BOTTOM OF	BOTTOM OF	GROUNDWATER	NOTES:			
DATE	TIME	LAPSED TIME	CASING	BORING	ENCOUNTERED	4			
GE	NERAL NOTES			-Ft					
						OIL TYPES, TRANSITIONS M ONS STATED, FLUCTUATION			
	3) Abbreviations		and = 35 to 5	0 %	c = coarse			******	
			some = 20 to little = 10 to 2		m = medium f = fine	BGS = Below the Ground Sur NA = Not Applicable		INC. 1	7
		1	race = 1 to 1	0%	vf = very fine		IROH	RING:	5

## Associates, P.C.

#### **TEST BORING LOG**

**Dunn/Schoolcraft Site** Middleport, NY

	BOR	ING: 14
	SHEE	T 1 0
	JOB:	212505
Ì	CHKD	BY:

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

LABELLA REPRESENTATIVE:

3) Abbreviations

and = 35 to 50 %

some = 20 to 35%

little = 10 to 20%

trace = 1 to 10%

CONTRACTOR: Nature's Way

BORING LOCATION:

GROUND SURFACE ELEVATION: START DATE:

END DATE:

DATUM:

TYPE OF DRILL RIG: AUGER SIZE AND TYPE:

**DRILLER:** 

OVERBURDEN SAMPLING METHOD: Direct Push

DRIVE SAMPLER TYPE: INSIDE DIAMETER: ~1.8-Inch

OTHER:

D E P	8	SAMPLE			PID FIELD SCREEN	RAD(CAM)
Т	SAMPLE NO S	SAMPLE ECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	BEMARKS
0				Brown 5/1/ (pin)-0-1 Brown sand (mfilin) -1-2 Brown clayey sand (mfilin)  "SAA	0	4,100
4				Brown clayey sand (nf.1,n)	0	4,160 (100)
6				'SAA	0	400
8						
10						
12						
14						
16						
18						
V	VATER LEVEL D/	ATA	BOTTOM OF	BOTTOM OF GROUNDWATER NOTES:	1	
DATE		ELAPSED TIME	CASING	BORING ENCOUNTERED - Sumpled 691	15 (L	161

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

BGS = Below the Ground Surface

BORING: 14

NA = Not Applicable

c = coarse

f = fine

m = medlum

vf = very fine

	MBE		Λ		TEST	BORING LOG		BORING:	15
ſ					)unn/Scho	olcraft Site	=	JOB: 212	1 OF 2505
	Ass	sociates,	,P.C.	II III	/liddleport			CHKD BY:	CV
ENVIR	ATE STREET, ROCHESTER ONMENTAL ENGINEERING	CONSULTAN		100	- C			\\	
CONT	RACTOR: Nature's	s Way	GROUND SURF	ION:	S.		~	DATUM:	10 TO 10:35
	LLA REPRESENTATIVE:		START DATE:	8-2-13		END DATE:		DATUM:	2-13
TYPE	OF DRILL RIG:	DOME	Noe			DRIVE SAMPLER TYPE			
AUGE OVER	ER SIZE AND TYPE:	THOD: Dire	ct Push			INSIDE DIAMETER: ~1. OTHER:	8-Inch		
-	r	3.0	1					818	000 cm
D E	SAMPLE							PID FIELD SCREEN	KLINCH
P T H	SAMPLE NO SAMPLE AND DEPTHRECOVER'	STRATA			VISUAL CLASSII	FICATION		(PPM)	RÉMARKS-
0	AND DEPTHIRECOVER	CHANGE				,			
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Box	A 0.00	، بالم	211 / A	<b>\</b>	0	430
١.			Dia	an gre	velly.	silt (Ipin			1,000
2	<b></b>	<del> </del>							
29	4"			115/	AA			Ó	430
iAn	1			וכ	V 1				1100
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6									
8									
10									1)
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12									<u> </u>
14									
									2
16		-						-	
18									
			- later	Herot	2.7 refu	sal			
			-200	atteno'	129 TE	260501			
DATE	TIME ELAPSED	BOTTOM OF CASING	BOTTOM OF BORING	D 27753 14	NDWATER UNTERED	NOTES:	O~	11	11 - 1
	TIME	Origina	-FL	Littoot		- Sumpled	@ 103	) (	72)
GE	NERAL NOTES  1) STRATIFICATION LIN	IES REPRES	ENT APPROXIMA	ATE BOUNDAF	RY BETWEEN SO	DIL TYPES, TRANSITION	S MAY BE GRA	DUAL.	
1	2) WATER LEVEL READ	DINGS HAVE	BEEN MADE AT	TIMES AND U					
l	3) Abbreviations	and = 35 to some = 20 t	o 35%	c = coarse m = medium		BGS = Below the Ground	Surface		
		little = 10 to trace = 1 to		f = fine vf = very fine		NA = Not Applicable		BORING:	K

LΛB	FI I/	\		BORING LOG	BORING:	1 OF
300 STATE STREET, ROCHE	ASBOCIATOS, ESTER, NY ERING CONSULTANT	P.C.	Dunn/Sch Middlepor	oolcraft Site t, NY	<b>ЈОВ:</b> 212 СНКО ВУ:	505
CONTRACTOR: Natu	ıre's Way	BORING LOCAT	ION: 6	END DATE: 8-2-13	TIME: DI	2-13 2-13
TYPE OF DRILL RIG: AUGER SIZE AND TYPE OVERBURDEN SAMPLIN	The second second second second	ma 2 200 / 1 2 may 2 / 1		DRIVE SAMPLER TYPE: INSIDE DIAMETER: ~1.8-Inch OTHER:		
D SAM E P T SAMPLE NO SAM H AND DEPTH RECO	IPLE STRATA		VISUAL CLASS	BIFICATION	PID FIELD SCREEN (PPM)	RADOR
2	J"	B	noun silt	(pin)	0	39W
12	(A)		SAA		0	480
6						
8						
10						
12						
14						
16		A 1	1,506	(2)21		
18		and a	tenct refusa Herpt refusa	1631		
	BOTTOM OF PSED CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	NOTES:		
		BEEN MADE AT		SOIL TYPES, TRANSITIONS MAIONS STATED, FLUCTUATIONS  BGS = Below the Ground Surfa	OF GROUNDWATER	
	little = 10 to 2		f = fine vf = verv fine	NA = Not Applicable	BORING:	

Equipment Blank @ 3pn

300 ST	ATE STREET, ROCHIONMENTAL ENGINEE	ASSOCIA	etes, F	P.C.	Mic		bolcraft Site , NY		BORING: SHEET JOB: 212 CHKD BY:	<u>-</u> -0
LABE	TRACTOR: Nature Ler:  ELLA REPRESENTATION  OF DRILL RIG: ER SIZE AND TYPE	(SOO)	ay	GROUND SURFA	ACE ELEVATION:		DRIVE SAMPLER TO	)-13] (PE:	DATUM	13
D E P T	SAMPLE NO SAM	MPLE   ST	RATA	t Push	VIS	UAL CLASSI	OTHER:		PID FIELD SCREEN (PPM)	RAD CAM
0 2	AND DEPTH RECO	VERY CH	JANGE	Brow	n gsave	elly 3	wilt (Ipin)		0	4,860
4_	2	4"		\(\	SAA				0	4950
6	18	15			"3A A				Oil	5,150
_8_										
10										
12										
14										
16										
_18				re6xx	106	_				
DATE		COEO	TOM OF ASING	BOTTOM OF BORING -Ft	GROUNDW ENCOUNT		NOTES:			
GE							OIL TYPES, TRANSI ONS STATED, FLUC			

\* major T-Storm withous of lightning @ Iran, had to Stop operations for autile

BGS = Below the Ground Surface

BORING:

NA = Not Applicable

3) Abbreviations

and = 35 to 50 %

some = 20 to 35%

little = 10 to 20%

trace = 1 to 10%

c = coarse

f = fine

m = medlum

vf = very fine

		<b>—</b>			1	EST BORING LOG		BORING:	18
	IΛI	3E						SHEET	1 OF
			ociates,			Schoolcraft Site		JOB: 212	2505
		ROCHESTER			Middle	port, NY		CHKD B1:	
		Nature's		BORING LOCAT				TIME: 12	10 TO 1220
DRILI	LER: [			GROUND SURE START DATE:	FACE ELEVATION:	END DATE:	-2-13	DATUM:	2-13
	OF DRILL R	-		١ =		DRIVE SAMPLER T			
AUG	R SIZE AND	TYPE:	THOD: Direct			INSIDE DIAMETER: OTHER:	~1.8-Inch		
D		SAMPLE						PID	RAD CA
E P					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	OL A COURTON		SCREEN	
T H	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA		VISUAL	CLASSIFICATION		(PPM)	REMARKS
0		2014		Box	on acque	1 . Eil+ 10.	$\sim$	0	5,5W
2		24"			of the	lysit (pir	)		
Ť		2.11							21/15
4		24"			115AA			0	3,900
5		5"			/AA			()	5500)
in		,			· SAA				3/300
8_									
10									
12		1.50							
14									
16									
18									
				cel	mal A 4	5 cm 1st a	Herpt		
				- repl	501 (C) 31	o' an and	laterat		
	VATER LEVEL	DATA ELAPSED	BOTTOM OF	BOTTOM OF	GROUNDWATER ENCOUNTERED				6
DATE	TIME	TIME	CASING	BORING -Ft.	ENCOUNTERED	-5an	pledle	1220	) (2-4)
GE	NERAL NOT	ES ICATION UN	ES REPRES	-	MATE BOI INDARY RET	/EEN SOIL TYPES, TRANSI	TIONS MAY BE GRA	ADUAL.	
	2) WATER	LEVEL READ	INGS HAVE	BEEN MADE AT		ONDITIONS STATED, FLUC			
	3) Abbreviat	lons	and = 35 to 8		c = coarse m = medium	BGS = Below the G	round Surface		
			little = 10 to trace = 1 to	20%	f = fine vf = very fine	NA = Not Applicable	1	BORING:	18
			MENOR - I IO	IW /V	er serjinie				

							<u></u>
1 /	DF		Λ.	Т	EST BORING LOG	BORING:	19
	BE	LĽ	. \	D	Schoolaroff Site	SHEET	1 OF
_	Ass	sociates,	P.C.	1	Schoolcraft Site	JOB: 212 CHKD BY:	2505
	EET, ROCHESTER			Middle	port, NY	CHKD BT:	I
CONTRACTO	AL ENGINEERING	CONSULTANT	BORING LOCAT	TON: G		TIME:	30 то 1255
DRILLER:	Nature's	s Way	<b>GROUND SURF</b>	ACE ELEVATION:	917	DATUM:	2-18
LABELLA REI	PRESENTATIVE:		START DATE:	8-2-13	END DATE: 8-2-13	85	275
TYPE OF DRI	LL RIG:	0000	sho		DRIVE SAMPLER TYPE:		1
AUGER SIZE		TUOD			INSIDE DIAMETER: ~1.8-Inch OTHER:		- 1
OVERBURDE	N SAMPLING ME	THOU: Direc	z Puen		OTHEN.		
D	SAMPLE					PID	RADICA
E P			]			FIELD SCREEN	1100011
T SAMPLI H AND DE	NO SAMPLE	STRATA		VISUAL C	CLASSIFICATION	(PPM)	- ASSESSMENT
0							
	200		0		L VI VI	1/2	Cum
	124		DRU	M arano	llu sit (lo.m)	6	1,700
2			The second	7000	lly silt ([p,m)		
							11100
3	12"			USAA		Oal	7,6W
Ä				2111	1		
							l 1
							l l
6							
8							
				>@0;			l t
40							1
10							
							1
12							
<u> </u>							
14							
16							
18					160		
			-15t c	tempt ref	15×1(0) 31		
			-and	Hendy ret	W SULL DV		
	EVEL DATA E ELAPSED	воттом ог		GROUNDWATER			
DATE TIM	E ELAPSED	CASING	BORING	ENCOUNTERED			
GENERAL	NOTES		-Ft.				
1) STR	ATIFICATION LIN				EEN SOIL TYPES, TRANSITIONS MA		
	TER LEVEL READ eviations	DINGS HAVE and = 35 to		TIMES AND UNDER CO	ONDITIONS STATED, FLUCTUATIONS	S OF GROUNDWATER	
0) 7000	OTIGUOTIS	some = 20 t	o 35%	m = medium	BGS = Below the Ground Surfa	ace	
		little = 10 to trace = 1 to		f = fine yf = very fine	NA = Not Applicable	BORING:	19
		u 200 - 1 (0	TW /0	TI YOU TIME			

## Associates, P.C. 300 STATE STREET, ROCHESTER, NY **ENVIRONMENTAL ENGINEERING CONSULTANTS**

**TEST BORING LOG** 

**Dunn/Schoolcraft Site** Middleport, NY

	BOR	ING: 20
	SHEE	1 0
Ì	JOB:	212505
1	CHKD	BY:

CONTRACTOR: Nature's Way

BORING LOCATION:

GROUND SURFACE ELEVATION START DATE: START DATE:

END DATE:

TYPE OF DRILL RIG:

AUGER SIZE AND TYPE:

LABELLA REPRESENTATIVE:

OVERBURDEN SAMPLING METHOD: Direct Push

DRIVE SAMPLER TYPE: INSIDE DIAMETER: ~1.8-Inch OTHER:

D E P	SAMPLE			PID FIELD SCREEN	RADCPM
T	SAMPLE NO SAMPLE AND DEPTH RECOVER'	STRATA	VISUAL CLASSIFICATION	(PPM)	HEDNEYS)
2	241"		Brangsavely silt (1pm)	Ö	5/150
_4_	24"		Braun Silty oby (mp.nd.n) 1'SAA	0	5,000
UK .	4"		"SAA	0.1	5,250
8					
10					
12					
14					
16			8		
18					
			-reside 45'		
DATE	ATER LEVEL DATA TIME ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF GROUNDWATER NOTES:  BORING ENCOUNTERED  -FL		(2-41)

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations

and = 35 to 50 % some = 20 to 35%

c = coarse m = medlum

BGS = Below the Ground Surface

ltttle = 10 to 20% trace = 1 to 10%

f = fine vf = very fine NA = Not Applicable

		5E			TES	T BORING LOG	BORING:	21
	$L\!$	3E			) <u> </u>		SHEET	1 OF
			sociates,			hoolcraft Site	JOB: 212	2505
		ROCHESTER	, NY CONSULTANT		Middlepo	ort, in t	1000 110 250 155 100	
CON	TRACTOR:	Nature's	Maril	BORING LOCAT	TION: O		TIME: W	OCP OT W
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#### **TEST BORING LOG**

Dunn/Schoolcraft Site Middleport, NY

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JOB:	212505
CHKD	BY:

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: Nature's Way

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END DATE:

TIME: (

TYPE OF DRILL RIG:

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- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

and = 35 to 50 % some = 20 to 35%

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c = coarse m = medium f = fine

BGS = Below the Ground Surface

little = 10 to 20% trace = 1 to 10%

vf = very fine

NA = Not Applicable

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vf = very fine

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- GENERAL NOTES

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  - 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
  - 3) Abbreviations

and = 35 to 50 % some = 20 to 35% c = coarse m = medlum

BGS = Below the Ground Surface

little = 10 to 20%

f = fine

NA = Not Applicable

trace = 1 to 10%

vf = very fine

# Associates, P.C.

#### **TEST BORING LOG**

Dunn/Schoolcraft Site Middleport, NY

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JOB:	212505						
CHKD	BY:						

300 STATE STREET, ROCHESTER, NY

**ENVIRONMENTAL ENGINEERING CONSULTANTS** CONTRACTOR:

Nature's Way

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- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

and = 35 to 50 %

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c = coarse m = medium

BGS = Below the Ground Surface

some = 20 to 35% little = 10 to 20% trace = 1 to 10%

f = fine vf = very fine NA = Not Applicable

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little = 10 to 20%

trace = 1 to 10%

m = medium

vf = very fine

f = fine

BGS = Below the Ground Surface

BORING:

NA = Not Applicable



# Appendix 2 Regulated Building Materials Inspection Report



### Regulated Building Materials Inspection

Location:

Former Dunn & Schoolcraft Site 140 Telegraph Street Middleport, NY 14105

Prepared for:

Niagara County Department of Economic Development Buffalo, NY

LaBella Project No. 212505/Phase 3.2

August 2013

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III.	Survey Limitations	2
IV.	Survey Results	2
	Asbestos-Containing Materials PCB-Containing Materials Mercury-Containing Materials Lead-Containing Materials	2 7 7 7
v.	Observations & Cautionary Statements	7
App	endix A – Asbestos Survey Fact Sheet	
App	endix B – Building Location & Identification	
App	endix C – Asbestos Licenses and Certifications	
App	endix D – Laboratory Analytical Reports	

#### I. Project Description

In accordance with current regulations, LaBella Associates, P.C. conducted a Regulated Building Materials (RBM) Inspection of the two (2) conjoined structures comprising the former Dunn & Schoolcraft Site located in Middleport, New York. The objective was to identify common building materials, such as asbestos-containing materials, lead-based paint, PCB caulk and other RBMs that must be abated or removed before or during renovation or demolition due to applicable regulations.

These structures formerly housed various manufacturing, office, and laboratory operations. The buildings on the Site are currently vacant and in a state of disrepair. Both structures on the Site were identified and inspected as a separate homogenous area. Refer to Appendix B for the Site Plan which identifies the subject structures numerically.

#### II. Survey Procedures

The following procedures were used to obtain the data for this Report:

- A. Existing documentation was requested for review. No record drawings or documentation of previously completed surveys were made available.
- B. A visual inspection of the site was conducted to identify potential visible/accessible sources of the following regulated building materials.
  - Asbestos-containing materials
  - PCB-containing materials
  - Mercury containing materials
  - Lead-containing materials
- C. Bulk samples of the following materials were collected and submitted for laboratory analysis:
  - Suspect asbestos-containing materials
  - Suspect PCB-containing caulking compounds
  - Suspect lead-based paint
- D. Asbestos samples were submitted for laboratory analysis. Preliminary Polarized Light Microscopy analyses of non-friable, organically bound (NOB) materials were performed by LaBella Laboratories, a NYSDOH approved laboratory, to determine the presence and percentage of asbestos in each sample. Transmission electron microscopy analyses of NOB materials, if necessary, were performed by AMA Laboratories.
- E. Suspect lead-based paint was spot checked in the field using an XRF instrument and "Lead Check" color-metric swab testing procedures.
- F. Fluorescent light fixture ballasts as well as other suspect PCB-containing items were visually spot checked for the presence of PCBs. The building was visually surveyed for the presence of items that may contain mercury and lead. Items that may contain refrigerant gas and/or oil were also noted.
- G. Results of the laboratory analyses, field testing and the visual on-site survey were compiled and summarized.

#### **III.** Survey Limitations

This survey was conducted in accordance with generally accepted environmental engineering practices for this region. Collection of bulk samples of suspect ACMs was limited to those materials readily accessible using hand tools or hand-held power tools. Homogeneous materials were identified and located based on visual observation from readily accessible points. The data derived from representative samples of any given homogeneous material represent conditions that apply only at that particular location. Inspection protocol and methodology requires that sample data be used to draw conclusions about the entire homogeneous area, but such conclusions may not necessarily apply to the general Site as a whole.

No sub-surface investigations were performed to determine the possible presence of regulated materials on or in the immediate vicinity of the Site. No record drawings of the building were available for review as part of this investigation.

LaBella Associates, P.C., makes no other warranty or representation, either expressed or implied, nor is one intended to be included as part of its services, proposals, contracts or reports. No asbestos inspection can wholly eliminate the uncertainty regarding the potential for undiscovered asbestos-containing materials. The Work performed by LaBella is intended to reduce, but not eliminate, uncertainty regarding the potential for asbestos-containing materials at the Site.

This asbestos survey report is not intended to be a bid document for an abatement scope of work. This report is intended to satisfy the requirements of NYS Code Rule 56-5 for asbestos surveys. Abatement project design can only be performed by a certified Project Designer.

#### IV. Survey Results

#### **Asbestos-Containing Materials (ACMs)**

Based on laboratory analyses of bulk samples collected, the following materials were determined to contain greater than 1% asbestos (refer to Appendix B for a specific building location and identification):

#### **Building 1: Large Southern Building**

Type of Material	Typical Location <sup>1</sup>	Estimated Amount <sup>2</sup>	Friability	Condition
Mudded Pipe Elbows	On Ceiling Mounted Piping Throughout the Building	300 SF	Friable	Good-Poor
Type of Material	Typical Location <sup>3</sup>	Estimated Amount <sup>4</sup>	Friability	Condition

<sup>&</sup>lt;sup>1</sup> Typical Location may not be inclusive of all material locations present at the subject structure.

<sup>&</sup>lt;sup>3</sup> Typical Location may not be inclusive of all material locations present at the subject structure.



For general reference only: Estimated amounts of confirmed ACMs listed above were obtained through field observations made during site visits. Quantities are approximations and LaBella assumes no responsibility if used for bidding.

White Tank Insulation	Around Tank in Corner of Southeast Mechanical Room	155 SF	Friable	Good
White Flue Insulation (Bricks)	Around Large Flue in Southeast Mechanical Room	255 SF	Friable	Fair
White Pipe Wrap Insulation	Around Several Ceiling-mounted Pipes in Mechanical Room	20 LF	Friable	Fair-Poor
Tan 9"x9" Vinyl Floor Tiles	Throughout Northern Portion of Building in Rooms and Hallways	14,500 SF	Non-Friable	Poor
Black Sticky Duct Caulk	On Seams of Ceiling Mounted Duct Work Throughout the Building	2,000 LF Ductwork	Non-Friable	Good
White Wire Insulation	On "Pig-Tail" Wiring Associated with Older Exterior Lights	8 LF	Friable	Good-Fair
Gray Transite Counter Tops	In Lab Spaces in North Portion of the Building	800 SF	Non-Friable	Poor
Transite Fume Hood Paneling	In Lab Spaces in North Portion of the Building	660 SF	Non-Friable	Good
Gray Pipe Sealant	On Piping Behind Fume Hoods	6 SF	Non-Friable	Good
Black Brittle Duct Caulk	On Ceiling Mounted Duct Work Throughout the Northern Hallway	325 LF of Ductwork	Non-Friable	Good
Interior Window Glazing Compounds	Around Interior Windows in West Loading Dock Area & Interior Door Windows	125 SF	Non-Friable	Good
Black "Glue Puck"	Along Lower Portion North and West Walls in Large Open Northwest Room	350 SF	Non-Friable	Good
Black Wall Caulk	In Northeast Lab Room Above Counter Top	50 LF	Non-Friable	Good
Gray Drywall Adhesive	In Drywall Portion of Central Room in Middle of Building	150 SF	Non-Friable	Good
Black Window Glazing	Around Glass Panes of Windows in South Wall of South Hall	50 SF	Non-Friable	Good
Gray Door Caulk	Around Door through North Wall in Large Open Northwest Room	18 LF	Non-Friable	Good
Black Roof Cement	Around the Base of all Roof Penetrations	375 SF	Non-Friable	Good
Black Roof Flashing	Around the Perimeter of the Lower Main Roof Field & Around Base of Penthouse	1,450 SF	Non-Friable	Good

#### **Mudded Pipe Elbows**

Asbestos-containing mudded pipe elbows are located on piping throughout the building. Elbows were observed in the southeast Mechanical Room, the 2<sup>nd</sup> floor penthouse as well as above the dropped ceilings

<sup>&</sup>lt;sup>4</sup> For general reference only: Estimated amounts of confirmed ACMs listed above were obtained through field observations made during site visits. Quantities are approximations and LaBella assumes no responsibility if used for bidding.

in all of the hallways and many of the individual rooms. The condition of the elbows varies, but the majority is in poor condition and have caused contamination of the spaces surrounding them. Because of the limited scope of this survey, the quantity given is estimated and only includes those readily visible to the inspector.

#### White Tank Insulation

Asbestos-containing white tank insulation is located around the elevated tank in the southwest corner of the southeast Mechanical Room.

#### White Flue Insulation

Asbestos-containing white flue insulation bricks are located beneath the jacket of the large flue in the middle of the southeast Mechanical Room. This material appears damaged at one end and has added to the gross contamination of the Mechanical Room.

#### Tan 9"x 9" Vinyl Floor Tile

Asbestos-containing tan 9"x 9" vinyl floor tile is located throughout the northern portion of the building. It is observed in the entire northern hallway, as well as in the majority of individual lab and other room spaces in the northern half of the building. The majority of tiles are badly damaged and no longer adhered to the floor. The black mastic associated with these tiles was analyzed and determined to be non-ACM.

#### **Black Sticky Duct Caulk**

Asbestos-containing sticky black duct caulk is located in sporadic applications on the junctions of the larger ducts above the dropped ceiling throughout the building. This material was observed on the large duct in the eastern entrance area, and the extent of its application is difficult to estimate without completely disassembling the duct throughout out the building. It should be assumed that this material is present on all duct work.

#### White "Pig-Tail" Wire Insulation

Asbestos-containing white "pig-tail" wire insulation is associated with the older circular exterior lights that penetrate the perimeter wall. A total of four (4) of these exterior lights were observed during inspection.

#### **Transite Counter Tops**

Asbestos-containing gray transite counter tops are located along the walls and in the center of many of the former lab spaces in the northeastern portion of the building. In many rooms the counter tops have been removed from their mounts and are badly damaged or shattered on the floor of the lab rooms.

#### **Transite Fume Hood Paneling**

Asbestos-containing transite panels are located around each of the fume hood units located in the northeastern lab rooms. A total of (6) fume hoods were observed. The panels include all of the interior sections and a single panel on the back of each fume hood.

#### **Gray Pipe Sealant**

Asbestos-containing sticky gray pipe sealant is located on portions of the piping behind each fume hood unit. It appears to be a minor application and is not present on all pipe junctions.

#### **Black Brittle Duct Caulk**

Asbestos-containing brittle black duct caulk is located on the smaller duct above the dropped ceiling throughout the building. This material was observed primarily on lengths of ductwork in the hallways, but likely branches off into individual rooms.

#### **Interior Window Glazing Compounds (Various Colors)**

Asbestos-containing window glazing compound is located around the panes of the interior windows associated with the office space in the west loading dock area, as well as any windows set in interior doors.

#### Black "Glue Pucks"

Asbestos-containing black "glue pucks" are located along the lower portion of the north and west walls of the large northwest corner space. They were only observed on the bottom four foot portion of these walls.

#### **Black Wall Caulk**

Asbestos-containing black wall caulk is located along the walls above the counter tops in the former lab spaces in the northeast portion of the building. It appears this caulk was associated with a mirror or another wall-mounted object which is no longer present.

#### **Gray Drywall Adhesive**

Asbestos-containing gray drywall adhesive is located between drywall panels in the small connector room near the center of the building (only room with wainscoting). This material was only observed in this location, and appears to be between two layers of drywall along the west wall of the room.

#### **Black Window Glazing Compound**

Asbestos-containing sticky black window glazing compound is located around the inside panes of the windows along the south wall of the southern hallway.

#### **Gray Door Caulk**

Asbestos-containing residual gray door caulk was observed around the door through the north wall in the large northwest corner room. This material appeared to be from a previous door frame location.

#### **Black Roofing Cement**

Asbestos-containing black roofing cement is located around the base and partially up the sides of all roof penetrations on the lower main roof field as well as on the upper penthouse roof.

#### **Black Roof Flashing**

Asbestos-containing black roof flashing is located around the perimeter of the lower main roof field (including small north west corner roof) as well as along the inside edge where the elevated penthouse meets the lower roof. It is estimated that this material is approximately 1 SF wide around both edges.

#### **Building 2: Smaller Northern Office Building**

		Estimated		
Type of Material	Typical Location	Amount	Friability	Condition

Window Glazing Compounds	Around Panes on the Interior & Exterior of all Windows	2,350 SF	Non-Friable	Good
Mudded Pipe Elbows	In Central South Mechanical Room and in Hallways above Drop Ceilings	115 SF	Friable	Fair-Poor
Tan Speckled 9"x9" Vinyl Floor Tiles	Throughout Halls, Rooms and Common Spaces	14,500 SF	Non-Friable	Poor
Black Glue Puck	Behind Board on South Wall of Atrium Space	180 SF	Non-Friable	Good
Black Brittle Duct Caulk	On Ceiling Mounted Duct Work Throughout the Building	250 LF of Ductwork	Non-Friable	Good

#### Window Glazing Compounds (White & Gray)

Asbestos-containing window glazing compound is located around each pane of glass on all windows throughout the building. This includes windows associated with interior office doors but does not include any skylight windows.

#### **Mudded Pipe Elbows**

Asbestos-containing mudded pipe elbows are located on piping throughout the building. Elbows were observed in the central southern Mechanical/HVAC Room as well as above the dropped ceilings in all of the hallways and many of the individual rooms. The condition of the elbows varies, but the majority is in poor condition and has caused contamination of the spaces surrounding them. Because of the limited scope of this survey, the quantity given is estimated and only includes those readily visible to the inspector.

#### Tan Speckled 9"x 9" Vinyl Floor Tile

Asbestos-containing tan speckled 9"x 9" vinyl floor tile is located throughout the entire building. It is observed in the hallways, large common spaces as well as in the majority of individual room spaces throughout the building. The majority of tiles are badly damaged and no longer adhered to the floor. The mastic associated with these tiles was analyzed and determined to be non-ACM.

#### Black "Glue Pucks"

Asbestos-containing black "glue pucks" were observed on the southern wall of the large atrium space. They appeared to be associated with the wall panels surrounding the chalk board, which remains mounted on the wall.

#### **Black Brittle Duct Caulk**

Asbestos-containing brittle black duct caulk is located on the smaller duct above the dropped ceiling throughout the building. This material was observed primarily on lengths of ductwork in the hallways, but likely branches off into individual rooms. Please note this ACM was observed to continue over from duct work associated with Building #1 via the connector hallway, and was not sampled again.

#### **PCB-Containing Materials**

#### **Capacitors in Fluorescent Light Fixture Ballasts**

Ceiling mounted fluorescent light fixtures were observed throughout the various sections of the building. Older vintage fluorescent light fixtures manufactured prior to 1980 typically contained a capacitor filled with PCB fluid. A representative number of light fixtures were dismantled in each area of investigation,

and all had ballasts labeled "No PCBs". Because of the size of the facility and the number of ballasts present, all ballasts should still be field checked prior to disposal.

#### Caulk

Several of the caulks sampled from both buildings were found to be PCB-containing (greater than 50 ppm). These materials are further described below:

Building #1: - Gray caulk around all exterior door frames

- Silver caulk around exterior of all window frames on perimeter walls (typically ~ 23 linear feet per window)
- Exterior gray caulk in vertical seams of perimeter wall (observed at east end at the edge of the overhead door)

Building #2: - Brittle gray caulk around the lower rectangular window frames associated with the skylight along the east side (gray caulk on west side; EXT2-7A non-PCB)

When removed, these caulks are to be disposed of as PCB-containing hazardous waste in accordance with EPA regulations 40 CFR 761.

#### **Liquid-Filled Transformers**

Older vintage liquid-filled transformers manufactured prior to 1980 typically contained PCB oil. No liquid-filled transformers were identified in the inspected areas.

#### **Mercury-Containing Materials**

Ceiling mounted fluorescent light fixtures were observed throughout each of the buildings. These fixtures have light bulbs that contain varying amounts of mercury vapor. Fluorescent light fixtures were observed throughout the building. To prevent breakage and the release of mercury, bulbs should be removed and sent to a mercury recycling facility prior to any renovation or demolition activities.

Several mercury containing thermostats were observed in various locations throughout both buildings. These should also be removed and sent to a mercury recycling facility prior to any renovation or demolition activities.

#### Lead - Based Paint

Several representative interior and exterior painted surfaces such as door frames, piping, etc. were tested for the presence of lead-based paint using color-metric lead swab testing procedures. The following components were found to be positive for the presence of lead-based paint:

- Exterior Doors on Building #1
- Painted Structural Steel in Building #1
- Ceramic Wall Tiles in Bathroom Spaces in Building #2

#### V. Observations and Cautionary Statements

At the time of the site visit, disturbed ACM was observed extensively throughout both buildings. The primary source of contamination is a result of damaged floor tiles throughout the northern portion of Building #1 and the majority of Building #2. The northern lab spaces in Building #1 also have extensive contamination from shattered transite paneling and counter tops. In addition, the mechanical rooms in both buildings as well as the 2<sup>nd</sup> floor penthouse in Building #1 have been severely contaminated by damaged TSI.

New York State Regulations currently considers this condition to represent an "Incidental Asbestos Disturbance". According to these regulations, personnel access to the areas affected shall be restricted until such time as the material is cleaned up by a licensed asbestos abatement contractor. The clean-up of this material shall take place as soon as possible. For contamination cleanup scenarios, the notifiable quantity is the square footage of potentially contaminated surfaces. In addition, any cleanup scenario over a minor size (10 sq, ft), requires a site-specific variance. The extent of contamination shall be determined by a certified inspector, working with a project designer. These certified individuals shall use visual debris/contamination identification and assessment, static (ambient) air sampling of the potentially contaminated area, and adequate bulk sampling/analysis of the remaining debris/residue to define the limits of the contamination that must be cleaned up. The extent of contamination assessment is to be completed prior to submission of the variance petition, necessary for small and large size clean-up projects.

Based on the observed quantity and various locations of mudded pipe fittings, the potential does exist for additional fittings to be hidden inside wall and ceiling chases. The quantity of any additional hidden fittings should be agreed upon the owner and the abatement contractor prior to complete removal.

Visual observations made at the time of the site visit revealed that the roofs of Building #2 consist of a single-ply membrane Ethylene Propylene Diene Monomer (EPDM). This type of roof is not considered to be suspect ACM. However, the potential does exist for asbestos-containing built-up roofing materials to be located beneath the membrane roof. Penetration of the membrane roofs to explore this possibility was not done on Building #2, due to the excellent condition the roof and the possibility of voiding the manufacture's/contractor's roof warranty. The insulation material beneath the EPDM roof on the small connecting hallway was able to be sampled from a location with existing damage. This underlying material was determined to be non-ACM by lab analysis.

Prior to any renovation/ demolition activities that may disturb roofing materials, additional investigation, including bulk sampling/analysis of suspect built-up roofing materials (if any are discovered) should be conducted.

J:\Niagara County Dept. of Economic Development\212505 - 3 Phase II ESAs\RBM - Phase 3.2\Reports\Dunn & Schoolcraft\Dunn & Schoolcraft\RBM Report.doc

## Appendix A Asbestos Survey Fact Sheet

### **Asbestos Survey Fact Sheet**

Name and Address of Building/Structure
Former Dunn & Schoolcraft Facility
140 Telegraph Street
Middleport, New York
Name and Address of Building/Structure Owner
Niagara County Department of Economic Development
Middleport, NY
Name and Address of Owner's Agent
LaBella Associates, P.C.
300 State Street, Suite 201
Rochester, NY 14614
Name of the Firm & Person Conducting the Survey
LaBella Associates, P.C.
Alexander L. Reed (NYSDOL Cert. #09-11508)
Date(s) the Survey Was Conducted
July & August 2013

### **Asbestos Survey Fact Sheet** (continued)

List of Homogeneous Areas Former Dunn & Schoolcraft Site – Building #1 Middleport, NY (Items in Bold are Confirmed ACM)

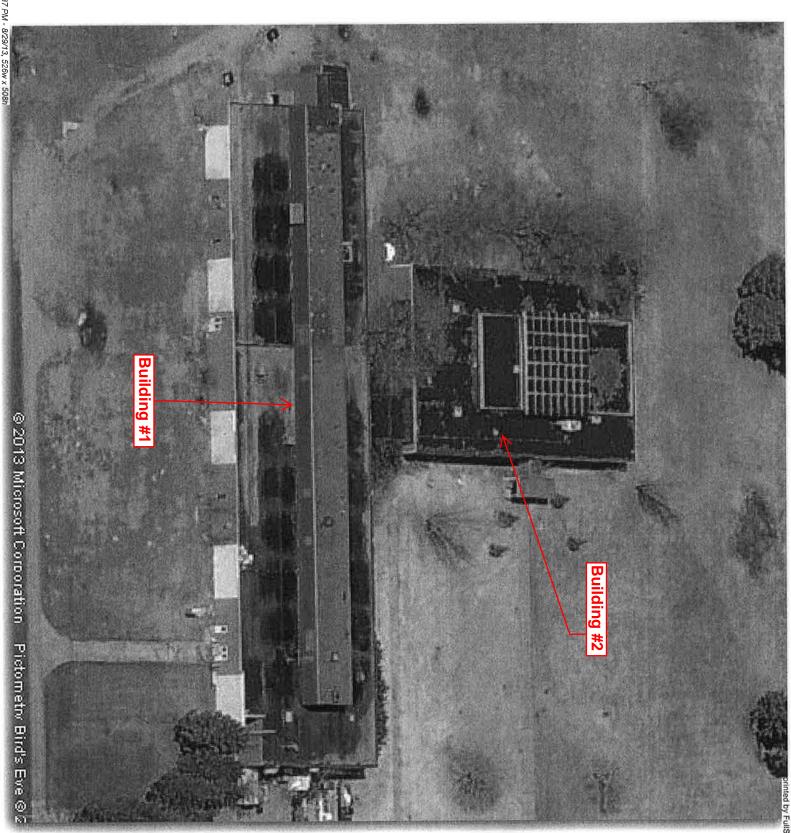
Mudded Pipe Elbow	Black Brittle Duct Caulk
White Tank Insulation	White Sticky Window Caulk
White Duct Insulation	Gray Sticky Window Glazing Compound
White Ceiling Tile	White Door Window Glazing Compound
White Drywall	Silver Window Caulk (Exterior)
White Joint Compound	Black Glue Puck
Tan 12"x12" Vinyl Floor Tiles	White Duct Caulk
Tan Floor Tile Mastic	Black Wall Caulk
Tan 9"x9" Vinyl Floor Tiles	Black Sticky Window Glazing Compound
Black Floor Tile Mastic	Tan 12"x12" Vinyl Floor Tile & Black Mastic
Black Sticky Duct Caulk	Gray Door Caulk
Black Bond Breaker	Roofing Tar (Penthouse - under Membrane)
Tan Cove Base Adhesive	Roof Flashing (Penthouse)
White "Pig Tail" Wire Insulation	Black Roofing Cement (All Roofs)
Gray Sticky Door Caulk (Exterior)	Roof Flashing (Lower Main Field)
Panel Board Backing	Built-up Roofing Material (Lower Main Field)
Transite Counter Top	Gray Seam Caulk (Exterior)
Transite Fume Hood Paneling	
Gray Pipe Sealant	
Dark Brown Cove Base Adhesive	
Orange Wall Panel Adhesive	
Gray Drywall Adhesive	

### **Asbestos Survey Fact Sheet** (continued)

List of Homogeneous Areas Former Dunn & Schoolcraft Site – Building #2 Middleport, NY (Items in Bold are Confirmed ACM)

White Drywall	Gray Caulk
White Plaster Top Coat	White Caulk
Gray Plaster Scratch Coat	Light Gray Caulk
Ceramic Wall Tile Grout	Brittle Gray Caulk
Ceramic Wall Tile Set Bed	
Bond Breaker	
White 1'x1' Ceiling Tile	
Gray Sticky Window Glazing Compound	
Mudded Pipe Elbow	
Tan Speckled 9"x9" Vinyl Floor Tile	
Black Floor Tile Mastic	
White Window Glazing Compound (Interior)	
White Joint Compound	
Black Glue Puck	
Gray Plaster Over-spray	
Light Tan Patterned 9"x9" Vinyl Floor Tile	
Roofing Insulation (Lower Connector Roof)	
Black Flashing Tar (Lower Connector Roof)	
Shiny Black Roof Flashing (Main Roof)	
Black Sticky Tar	
Gray Window Glazing Compound	
Silver Tar (Skylight)	

# Appendix B Building Location & Identification



printed by FullShot at 1:04:42 PM on 8/29/13

# **Appendix C Licenses and Certifications**

### New York State - Department of Labor

Division of Safety and Health License and Certificate Unit State Campus, Building 12 Albany, NY 12240

#### **ASBESTOS HANDLING LICENSE**

La Bella Associates PC Suite 200 300 State Street

Rochester, NY 14614

FILE NUMBER: 99-1172 LICENSE NUMBER: 29278

LICENSE CLASS: RESTRICTED DATE OF ISSUE: 02/07/2013 EXPIRATION DATE: 02/28/2014

Duly Authorized Representative - Richard Rote:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

SH 432 (8/12)

Eileen M. Franko, Acting Director For the Commissioner of Labor

### NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER



Expires 12:01 AM April 01, 2014 Issued April 01, 2013

#### CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. RICHARD K. ROTE LABELLA ASSOCIATES 300 STATE STREET SUITE 200 ROCHESTER, NY 14614 NY Lab Id No: 11184

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE All approved subcategories and/or analytes are listed below:

#### Miscellaneous

Asbestos in Friable Material

EPA 600/M4/82/020

Asbestos in Non-Friable Material-PLM

Item 198.6 of Manual (NOB by PLM)

Serial No.: 48548

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

### NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER



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#### **CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE**

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MR. RICHARD K. ROTE LABELLA ASSOCIATES 300 STATE STREET SUITE 200 ROCHESTER, NY 14614 NY Lab Id No: 11184

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved subcategories and/or analytes are listed below:

Miscellaneous Air

**Fibers** 

NIOSH 7400 A RULES

Serial No.: 48549

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

# Appendix D Laboratory Analytical Reports

# XRF Lead Sampling Summary Table August 2. 2013 Former Dunn & Schoolcraft Site – Building #1 LaBella Project No. 212505 Phase 3.2

Reading No.	Location (Room)	Wall / Structure	Substrate	Color	XRF Result (mg/cm²)
1	Calibration Check	-	-	-	PASS
2	Main East Entrance	Door	Metal	Green	1.0 EST
3	Main East Entrance	Door Frame	Metal	Green	0.1
4	Main East Entrance	East Wall	CMU	White	0.0
5	Main East Entrance	I-Beam	Metal	White	INS DATA
6	Main East Entrance	I-Beam	Metal	White	0.1
7	Main East Entrance, West Wall	Door Frame	Metal	Green	0.1
8	Main East Entrance, North Wall	Cove Base	Vinyl	Gray	0.0
9	Room North of Main East Entrance	Door Frame	Metal	Tan	0.1
10	North East Section	Door Frame	Metal	Tan/Green	0.0
11	North East Section	Window Frame	Wood	Tan	0.0
12	North East Section	Window Sill	Stone	White	0.0
13	North Hall	Structural Steel	Metal	Red/Gray	0.5
14	North East Section, North Room	West Wall	CMU	Tan	0.0
15	Central Rooms	Floor	Concrete	Pink	0.0
16	Central Rooms, in Area with Drywall	Door Frame	Wood	Tan	0.0
17	Central Rooms	Radiator	Metal	White	0.0

# XRF Lead Sampling Summary Table August 2. 2013 Former Dunn & Schoolcraft Site – Building #1 LaBella Project No. 212505 Phase 3.2

Reading No.	Location (Room)	Wall / Structure	Substrate	Color	XRF Result (mg/cm²)
18	South Hall, South Wall	Door	Metal	Tan	0.0
19	South West Corner, Overhead Door Room	Structural I-Beam	Metal	White	1.0 EST
20	Central West Room	Door on North Site	Metal	Blue	0.0
21	North Hall, West End	Fire Extinguisher Case	Metal	White	0.1
22	North Hall, West End	South Wall	CMU	White	0.0
23	North Hall, West End	Structural Steel	Metal	Gray	0.1
24	North Hall, West End	Piping	Metal	Red	0.0
25	West Stairwell	Railing	Metal	Green	0.6
26	West Stairwell	Door	Metal	Green	0.0
27	North West Section, North Room	Fume Hood Vent	Metal	Green	0.0
28	Central Rooms	HVAC Duct	Metal	White	0.0
29	North East Section	Ceiling Vent	Metal	White	0.0
30	North East Section, Cooler Room	Door	Metal	Tan	0.0

# XRF Lead Sampling Summary Table August 2. 2013 Former Dunn & Schoolcraft Site – Building #2 LaBella Project No. 212505 Phase 3.2

Reading No.	Location (Room)	Wall / Structure	Substrate	Color	XRF Result (mg/cm²)
1	Women's Bathroom	Door Frame	Metal	Tan	0.1
2	Women's Bathroom	Door	Metal	Tan	0.1
3	Women's Bathroom	South Wall	Plaster	Gray	0.0
4	Women's Bathroom	Door Frame	Metal	Green/Gray	0.0
5	Women's Bathroom	Door	Metal	Green/Gray	0.1
6	Women's Bathroom	Wall Tile	Ceramic	Yellow	5.0
7	Women's Bathroom	Bathroom Stall	Metal	Green/Gray	0.0
8	Central South Room	Wall	CMU	White	0.0
9	Central South Room	Door Frame	Metal	Tan	0.1
10	West Hall	Door Frame	Metal	Tan/Green	0.1
11	South End of West Hall	Door	Metal	Black	0.0
12	West Hall	Plaster Supports	Metal	Black	0.0
13	West Hall	I-Beam	Metal	Gray	0.1
14	Atrium	Vertical Posts	Metal	Yellow	0.1
15	West Hall, West Room	North Wall	Plaster	Gray	0.0
16	West Hall, West Room	Window Frame	Metal	Black	0.0
17	Atrium, North East Office	Door Frame	Metal	Tan	0.1
18	Atrium, North East Office	Interior Window Frame	Metal	Tan	0.0

### XRF LEAD SAMPLING SURVEY FIELD LOG

Location: Middleport NY	
	Client:
Job No.: 212505 3.2	Rates:
Date: 8/2/13	Samples Shot by: Alex Reed

Reading No.	Location (Room)	Wall (A, B, C D) & Structure	Substrate	Color	XRF Result
78	CAL CHECK	a a			PASS
2	Main E. contrance	Doov	Metal	Green	(.0 EST
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7	W. well	Dool Frame	Kachel	Green	0.1
8	llan 4	(ove Buse	Vinge	Gray	0.0
9	Rm. Noct William	Door France	Metal	Tark	0
10	NE Cection	(K)* (K)*	Taraf Metal	Tou Green	6 0
l1	261 252	Window Frame	ا موس	Tan	6.0
12		Sill	Serve	whote	60
13	N, Mull	Street Steel	Metal	Red/Crey	6.3
ίς	ME section, N. Room	les wall	CMO	tan)	<b>0.0</b>
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16		Door France (:1 ) Was	Word	Tur	0.0
17	IN SECULOR	Radiator	Metal	_ White	ن. ن ن
18	5 Hall S. wall	Down	Metal	Tan	0.0
19	SW come overhead dear Rm.	STRICTUREN I Beam	11	white	1.0 EST
20	Central W. room	Door on N Side	Mutal	Blue	6.0
71	N. Hall W. and	Fire Exting. Cash	**	Write	0.1
72	Cl . i u -	S. wall	CMU	t.	6.0
13	1 m 6 m	6-truct. Steel	Metal	Gray	0-1
24		Piping (Sprinkler)	833	Red	0.0
25	W. Stady well	Railing	54	Green	0,6
26	73 74 75	Doo-			0. •
27	NW section, N. P.	"Hood" Vint Unit	4.5	* "	0,0
28	Central Roy Centre Bilg	HVAC Det	u	White	0.0
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### XRF LEAD SAMPLING SURVEY FIELD LOG

Duan ! Schoolewaft - Area #2

Location: M:Idupart, NY Client:

Job No.: 212505 3.2 Rates:

Date: 8 2 13 Samples Shot by: Alex Reed

Reading No.	Location (Room)	Wall (A, B, C D) & Structure	Substrate	Color	XRF Result
3 1	Women's fun	Door France	Metal	tun	0-9
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33	£*	Wall (9.)	Plaster	Gray	6.5
34	TIE M	Day France	pretal	Green 6 my	6.0
35	u v	DOOV	L+	_ = 1 4 7	0.1
34	· · · · · · · · · · · · · · · · · · ·	Ceranic Vall Tile	Caramic	Lellow	5.0
37	N LI	Beth. Smll	Metal	Green/Gray	O
39	Cantral S. Rm.	Wall	CMU		0.0
39		Door Frame	Metal	Tan	(6)
40	W. HWI	Door Frame		Tan Green	0.1
41	W. Hall, S END	Door	£4	Black	
42	v. Hil	Plaster Supports	N.	Black	0.8
	G CE	IBeam	E	Gray	0 (
	Atrium	Vzist. losts		برو۱۱۵سک	0.1
45	w, doall w room	Wall (N)	Plaster	Gray	00
Ч6	21 A	Window	Metal	Black	a a 6.0
47	Atrium, NE office	Dor From		Tan	0.1
	7	Int. window Frame		- "	9,0
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LABELLA ASSOCIATES, P. C. ANALYTICAL LABORATORY 300 STATE STREET ROCHESTER, NY 14614 (585) 454-6110 FAX(585) 454-3066

LBL JOB #

106113

ELAP # 11184 TEM ELAP # 10920 PLM Methods 198.1, 198.4, 198.6 & EPA 600/M4/82/020

LABELLA PROJECT # 212505/3.2

CLIENT: LaBella Associates, PC

SAMPLE TYPE: PLM Bulk

ADDRESS: 300 State Street

SAMPLE DATE: 07/31/2013

PROJECT LOCATION: Dunn & Schoolcraft, Area #1, Middleport, NY

Rochester, NY 14614

FIELD ID	LBL ID	method	ASBESTOS TYPE	%	OTHER FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
DUN-1A	106113-1	P	CHRYSOTILE	7	CELLULOSE	18	MINERAL	75	GRAY MUDDED ELBOW
DUN-2A	106113-2	P	CHRYSOTILE	9	ND		MINERAL	91	WHITE TANK INSULATION
DUN-3A	106113-3	Р	ND		CELLULOSE	50	BINDER	50	WHITE DUCT INSULATION
DUN-4A	106113-4	Т	ND		CELL/GLASS	100	ND		WHITE CEILING TILE
DUN-4B	106113-5	Т	ND		CELL/GLASS	100	ND		WHITE CEILING TILE
DUN-5A	106113-6	P	ND		ND		MINERAL	100	WHITE DRYWALL
DUN-5B	106113-7	P	ND		ND		MINERAL	100	WHITE DRYWALL
DUN-6A	106113-8	P	ND		ND		MINERAL	100	WHITE JOINT COMPOUND
DUN-6B	106113-9	P	ND		ND		MINERAL	100	WHITE JOINT COMPOUND
DUN-7A	106113-10	Т	ND		ND	2	MIN/VINYL	100	TAN FLOOR TILE
DUN-8A	106113-11	G	ND		ND		MIN/BINDER	100	TAN ADHESIVE
DUN-9A	106113-12	N	CHRYSOTILE	14	ND		MIN/VINYL	86	TAN FLOOR TILE
DUN-10A	106113-13	G	ND		ND		MASTIC	100	BLACK MASTIC
DUN-11A	106113-14	N	CHRYSOTILE	17	ND		MIN/BINDER	83	BLACK CAULK
DUN-12A	106113-15	G	ND		CELLULOSE	74	TAR	26	BLACK BOND BREAKER
DUN-13A	106113-16	Т	ND		ND		MIN/BINDER	100	TAN ADHESIVE
DUN-14A	106113-17	Р	CHRYSOTILE	80	ND		BINDER	20	WHITE WIRE INSULATION
DUN-15A	106113-18	Т	ND		ND		MIN/BINDER	100	GRAY CAULK
DUN-16A	106113-19	G	ND		CELLULOSE	66	BINDER	34	BROWN PANEL BOARD BACKING
DUN-17A	106113-20	Р	CHRYSOTILE	33	ND		MIN/BINDER	67	GRAY TRANSITE
DUN-18A	106113-21	N	CHRYSOTILE	31	ND		MIN/BINDER	69	GRAY COUNTER TOP

Lab Supervisor: \_\_\_\_\_

ND - None Detected CELL-Cellulose JC - Joint Compound MIN - Mineral GLASS - Fiberglass <1 = Trace PLAS - Plaster P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result IN - Inconclusive

G - Gravimetric Matrix Reduction; Sample residue weight <1% of original sample weight, TEM not required. Vermiculite: Vermiculite is reported as an asbestos-containing mineral in accordance with NYSDOH determinations. See NYSDOH guidance, available upon request.

<sup>\*</sup> Please note: Due to interference from sample matrix components, results reported via PLM methods EPA 600/M4/82/020 and ELAP 198.1 as negative or Trace (<1%) may be inaccurate and reported as a False Negative. It is recommended that additional analytical techniques such as gravimetric reduction, TEM and others be used to reduce obscuring effects of matrix components yielding more accurate results.

<sup>1 &</sup>quot;Polarized-light microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative 1 "Polarized-light microscopy (PLM) is not consistently reliable in detecting assesses in most coverings and considered to be non-assestos containing." transmission electron microscopy (TEM) is currently the only method that can be used to determine if this material can be considered to be non-assestos containing." Page 1 of

	L,			
LBL JOB	#	1	061	13

PLM Methods 198.1, 198.4, 198.6 & EPA 600/M4/82/020

		Po	ASBESTOS		OTHER		E1 /1 000/14/102/020						
FIELD ID	LBL ID	method	ТҮРЕ	%	FIBERS	%	MATRIX	%	COLOR / DESCRIPTION				
DUN-19A	106113-22	N	CHRYSOTILE	36	ND		MIN/BINDER	64	GRAY PIPE SEALANT				
DUN-20A	106113-23	Т	ND		ND		MIN/BINDER	100	BROWN ADHESIVE				
DUN-20B	106113-24	Т	ND		ND		MIN/BINDER	100	BROWN ADHESIVE				
DUN-21A	106113-25	Т	ND		ND		MIN/BINDER	100	ORANGE ADHESIVE				
DUN-22A	106113-26	Т	ND		ND		MIN/BINDER	100	TAN ADHESIVE				
DUN-23A	106113-27	N	CHRYSOTILE	9	ND		TAR	91	BLACK DUCT CAULK				
DUN-24A	106113-28	Т	ND		ND		MIN/BINDER	100	WHITE WINDOW CAULK				
DUN-25A	106113-29	N	CHRYSOTILE	8	ND		MIN/BINDER	100	GRAY WINDOW GLAZING				
DUN-26A	106113-30	N	CHRYSOTILE	3	ND		MIN/BINDER	100	WHITE WINDOW GLAZING				
DUN-27A	106113-31	Т	ND		ND		MIN/BINDER	100	SILVER WINDOW CAULK				
DUN-28A	106113-32	N	CHRYSOTILE	15	ND		MIN/BINDER	85	BLACK GLUE PUCK				
						-							
						-							
		12,8%											
			P										
		-				-							
					-								

Lab Supervisor: Matt Smith

Date: 8/

ND - None Detected CELL-Cellulose JC - Joint Compound MIN - Mineral GLASS - Fiberglass <1 = Trace PLAS - Plaster

P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result IN - Inconclusive'

G - Gravimetric Matrix Reduction; Sample residue weight <1% of original sample weight, TEM not required. Vermiculite: Vermiculite is reported as an asbestos-containing mineral in accordance with NYSDOH determinations. See NYSDOH guidance, available upon request.

\* Please note: Due to interference from sample matrix components, results reported via PLM methods EPA 600/M4/82/020 and ELAP 198.1 as negative or Trace (<1%) may be inaccurate and reported as a False Negative. It is recommended that additional analytical techniques such as gravimetric reduction, TEM and others be used to reduce obscuring effects of matrix components yielding more accurate results.

1 "Polarized-light microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can be used to determine if this material can be considered to be non-asbestos containing."

Page 2 of 2

LABELLA ASSOCIATES, P. C. ANALYTICAL LABORATORY 300 STATE STREET ROCHESTER, NY 14614 (585) 454-6110 FAX(585) 454-3066

107713 LBL JOB #

ELAP # 11184 TEM ELAP # 10920 PLM Methods 198.1, 198.4, 198.6 & EPA 600/M4/82/020

LABELLA PROJECT # 212505/3.2

CLIENT: LaBella Associates, PC

SAMPLE TYPE: PLM Bulk

ADDRESS: 300 State Street

Rochester, NY 14614

SAMPLE DATE: 08/02/2013

PROJECT LOCATION: Dunn & Schoolcraft, Area #1, Middleport, NY

FIELD ID	LBL ID	method	ASBESTOS TYPE	%	OTHER FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
DUN-29A	107713-1	Т	ND		ND		MIN/BINDER	100	WHITE DUCT CAULK
DUN-30A	107713-2	N	CHRYSOTILE	13	ND		MIN/BINDER	87	BLACK CAULK
DUN-5C	107713-3	P	ND		FIBERGLASS	5	MINERAL	95	WHITE DRYWALLL
DUN-6C	107713-4	P	ND		ND		MINERAL	100	WHITE JOINT COMPOUND
DUN-7B	107713-5	Т	ND		ND		MIN/VINYL	100	TAN FLOOR TILE
DUN-8B	107713-6	G	ND		ND		MINERAL	100	TAN MASTIC
DUN-12B	107713-7	G	ND		CELLULOSE	75	TAR	25	BLACK BOND BREAKER
DUN-16B	107713-8	G	ND		CELLULOSE	68	BINDER	32	BROWN PANEL BOARD BACKING
DUN-3B	107713-9	P	ND		CELLULOSE	100	ND		WHITE DUCT INSULATION
DUN-27B	107713-10	Т	ND		ND		MIN/BINDER	100	SILVER WINDOW CAULK
DUN-10B	107713-11	G	ND		ND		MASTIC	100	BLACK MASTIC
DUN-21B	107713-12	Т	ND		ND		MIN/BINDER	100	TAN ADHESIVE
DUN-22B	107713-13	N	CHRYSOTILE	18	ND		MIN/BINDER	82	GRAY DRYWALL ADHESIVE
DUN-24B	107713-14	Т	ND		ND		MIN/BINDER	100	WHITE WINDOW CAULK
DUN-31A	107713-15	N	CHRYSOTILE	8	ND		MIN/BINDER	92	BLACK WINDOW CAULK
DUN-15B	107713-16	Т	ND		ND		MIN/BINDER	100	GRAY DOOR CAULK
DUN-32A	107713-17	Т	ND		ND		MIN/VINYL	100	TAN FLOOR TILE
DUN-32B	107713-18	T	ND		ND		MIN/VINYL	100	TAN FLOOR TILE
DUN-33A	107713-19	G	ND		ND		MASTIC	100	BLACK MASTIC
DUN-33B	107713-20	G	ND		ND		MASTIC	100	BLACK MASTIC
DUN-34A	107713-21	N	CHRYSOTILE	10	ND		MIN/BINDER	90	GRAY DOOR CAULK

Lab Supervisor:

ND - None Detected CELL-Cellulose JC - Joint Compound MIN - Mineral GLASS - Fiberglass <1 = Trace PLAS - Plaster P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result IN - Inconclusive

G - Gravimetric Matrix Reduction; Sample residue weight <1% of original sample weight, TEM not required. Vermiculite: Vermiculite is reported as an asbestos-containing mineral in accordance with NYSDOH determinations. See NYSDOH guidance, available upon request.

<sup>\*</sup> Please note: Due to interference from sample matrix components, results reported via PLM methods EPA 600/M4/82/020 and ELAP 198.1 as negative or Trace (<1%) may be inaccurate and reported as a False Negative. It is recommended that additional analytical techniques such as gravimetric reduction, TEM and others be used to reduce obscuring effects of matrix components yielding more accurate results.

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LABELLA ASSOCIATES, P. C. ANALYTICAL LABORATORY 300 STATE STREET ROCHESTER, NY 14614 (585) 454-6110 FAX(585) 454-3066

CLIENT: LaBella Associates, PC

Rochester, NY 14614

ADDRESS: 300 State Street

LBL JOB # 1062 13

ELAP # 11184 TEM ELAP # 10920 PLM Methods 198.1, 198.4, 198.6 & EPA 600/M4/82/020

SAMPLE TYPE: PLM Bulk	LABELLA PROJECT #	212505/3.2	
74	SAMPLE TYPE	PLM Bulk	7

SAMPLE DATE: 07/31/2013

PROJECT LOCATION: Dunn & Schoolcraft, Area #2, Middleport, NY

FIELD ID	LBL ID	method	ASBESTOS TYPE	%	OTHER FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
DUN2-1A	106213-1	P	ND		ND		MINERAL	100	WHITE DRYWALL
DUN2-1B	106213-2	P	ND		ND		MINERAL	100	WHITE DRYWALL
DUN2-2A	106213-3	P	ND		ND		MINERAL	100	WHITE PLASTER
DUN2-2B	106213-4	P	ND		ND		MINERAL	100	WHITE PLASTER
DUN2-3A	106213-5	Р	ND		ND		MINERAL	100	GRAY PLASTER
DUN2-3B	106213-6	P	ND		ND		MINERAL	100	GRAY PLASTER
DUN2-4A	106213-7	Р	ND		ND		MINERAL	100	WHITE GROUT
DUN2-4B	106213-8	P	ND		ND		MINERAL	100	WHITE GROUT
DUN2-5A	106213-9	P	ND		ND		MINERAL	100	GRAY SETBED
DUN2-5B	106213-10	P	ND		ND		MINERAL	100	GRAY SETBED
DUN2-6A	106213-11	G	ND		CELLULOSE	70	TAR	30	BLACK BOUND BREAKER
DUN2-7A	106213-12	Т	ND		CELL/GLASS	100	ND	100	WHITE CEILING TILE
DUN2-7B	106213-13	Т	ND		CELL/GLASS	100	ND	100	WHITE CEILING TILE
DUN2-8A	106213-14	N	CHRYSOTILE	27	ND		MIN/BINDER	73	GRAY WINDOW GLAZING
DUN2-9A	106213-15	P	CHRYSOTILE	6	FIBERGLASS	27	MINERAL	67	WHITE MUDDED ELBOW
DUN2-10A	106213-16	N	CHRYSOTILE	14	ND		MIN/VINYL	86	TAN FLOOR TILE
DUN2-11A	106213-17	G	ND		ND		MASTIC	100	BLACK MASTIC
DUN2-12A	106213-18	N	CHRYSOTILE	3	ND		MIN/BINDER	97	WHITE WINDOW GLAZING
									1

Lab Supervisor: \_

1 att Smith

Date.

8/2/13

ND - None Detected CELL-Cellulose JC - Joint Compound MIN - Mineral GLASS - Fiberglass <1 = Trace PLAS - Plaster

P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result IN - Inconclusive

G - Gravimetric Matrix Reduction; Sample residue weight <1% of original sample weight, TEM not required. Vermiculite: Vermiculite is reported as an asbestos-containing mineral in accordance with NYSDOH determinations. See NYSDOH guidance, available upon request.

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Page 1 of

LABELLA ASSOCIATES, P. C. ANALYTICAL LABORATORY 300 STATE STREET ROCHESTER, NY 14614 (585) 454-6110 FAX(585) 454-3066

107813 LBL JOB #

ELAP # 11184 TEM ELAP # 10920 PLM Methods 198.1, 198.4, 198.6 & EPA 600/M4/82/020

LABELLA PROJECT # 212505/3.2

CLIENT: LaBella Associates, PC

SAMPLE TYPE: PLM Bulk

ADDRESS: 300 State Street

SAMPLE DATE: 08/02/2013

Rochester, NY 14614

PROJECT LOCATION: Dunn & Schoolcraft, Area #2, Middleport, NY

FIELD ID	LBL ID	method	ASBESTOS TYPE	%	OTHER FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
DUN2-2C	107813-1	P	ND		ND		MINERAL	100	WHITE PLASTER
DUN2-2D	107813-2	Р	ND		ND		MINERAL	100	WHITE PLASTER
DUN2-2E	107813-3	Р	ND		ND		MINERAL	100	WHITE PLASTER
DUN2-3C	107813-4	P	ND		ND		MINERAL	100	GRAY PLASTER
DUN2-3D	107813-5	Р	ND		ND		MINERAL	100	GRAY PLASTER
DUN2-3E	107813-6	P	ND		ND		MINERAL	100	GRAY PLASTER
DUN2-1C	107813-7	P	ND		ND		MINERAL	001	WHITE DRYWALL
DUN2-13A	107813-8	Р	ND		ND		MINERAL	100	WHITE JOINT COMPOUND
DUN2-13B	107813-9	P	ND		ND		MINERAL	100	WHITE JOINT COMPOUND
DUN2-14A	107813-10	N	CHRYSOTILE	19	ND		MASTIC	81	BLACK GLUE PUCK
DUN2-15A	107813-11	P	ND		ND		MINERAL	100	GRAY PLASTER
DUN2-15B	107813-12	P	ND		ND		MINERAL	100	GRAY PLASTER
DUN2-15C	107813-13	P	ND		ND		MINERAL	100	GRAY PLASTER
DUN2-11B	107813-14	G	ND		ND		MASTIC	100	BLACK MASTIC
DUN2-11C	107813-15	G	ND		ND		MASTIC	100	BLACK MASTIC
DUN2-16A	107813-16	Т	ND		ND		MIN/VINYL	100	TAN FLOOR TILE
DUN2-16B	107813-17	Т	ND		ND		MIN/VINYL	100	TAN FLOOR TILE

Lab Supervisor:

ND - None Detected CELL-Cellulose JC - Joint Compound MIN - Mineral GLASS - Fiberglass <1 = Trace PLAS - Plaster

P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result IN - Inconclusive

G - Gravimetric Matrix Reduction; Sample residue weight <1% of original sample weight, TEM not required. Vermiculite: Vermiculite is reported as an asbestos-containing mineral in accordance with NYSDOH determinations. See NYSDOH guidance, available upon request.

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LABELLA ASSOCIATES, P. C. ANALYTICAL LABORATORY 300 STATE STREET ROCHESTER, NY 14614 (585) 454-6110 FAX(585) 454-3066

CLIENT: LaBella Associates, PC

Rochester, NY 14614

ADDRESS: 300 State Street

LBL JOB # 107613

ELAP # 11184 TEM ELAP # 10920 PLM Methods 198.1, 198.4, 198.6 & EPA 600/M4/82/020

LABELLA PROJECT #	212505/3.2
SAMPLE TYPE:	PLM Bulk
SAMPLE DATE:	08/02/2013

PROJECT LOCATION: Dunn & Schoolcraft, Area #1, Middleport, NY - Roof

FIELD ID	LBL ID	method	ASBESTOS TYPE	%	OTHER FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
EXTI-1A	107613-1	G	ND		CELLULOSE	13	TAR	87	BLACK ROOFING TAR
EXT1-1B	107613-2	G	ND		CELLULOSE	11	TAR	89	BLACK ROOFING TAR
EXT1-2A	107613-3	G	ND		CELLULOSE	40	TAR	60	BLACK ROOF FLASHING
EXT1-2B	107613-4	G	ND		CELLULOSE	40	TAR	60	BLACK ROOF FLASHING
EXT1-3A	107613-5	G	ND		ND		TAR	100	BLACK ROOFING CEMENT
EXT1-3B	107613-6	N	CHRYSOTILE	14	ND		TAR	86	BLACK ROOFING CEMENT
		-						1	
					111				

Lab Supervisor: /att Smit

Date:

ND - None Detected CELL-Cellulose JC - Joint Compound MIN - Mineral GLASS - Fiberglass <1 = Trace PLAS - Plaster

P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result IN - Inconclusive G - Gravimetric Matrix Reduction; Sample residue weight <1% of original sample weight, TEM not required. Vermiculite: Vermiculite is reported as an asbestos-containing mineral in accordance with NYSDOH determinations. See NYSDOH guidance, available upon request.

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<sup>\*</sup> Please note: Due to interference from sample matrix components, results reported via PLM methods EPA 600/M4/82/020 and ELAP 198.1 as negative or Trace (<1%) may be inaccurate and reported as a False Negative. It is recommended that additional analytical techniques such as gravimetric reduction, TEM and others be used to reduce obscuring effects of matrix components yielding more accurate results.

### ASBEST OS SAMPLING SURVEY BULK SAMPLE LOG AND CHAIN OF CUSTODY

Location: Middle pert, Ny Area & Roofs	Client:
Job No.: 212505 3.2	Rates: \$
PIN/ BIN:	Sampled by: A. Reed
Date: 8 2 13	Relinquished by: A. Reed
LaBella Lab No.: 107613	Received by: Matt Smith
Positive Stop Protocol: Yes No No	Number of Samples:

	rotocoi: 1es 7 140	Number of Samples.		
Field ID #	Sample Location	Type of Suspect ACM to be Analyzed	Approx. Amount	Condition
EXT1 - IA	Central E.	Roofing Ter (under wher)		8
EXT1 - 1B	Contral W.	. /4 <b>(</b>		
EXT 1 - 21	NW sly @ N. silv	Roof Flashing	2	S
EXT1-2B	Center of Penthaus Essen	c* "		
EXT1-3A	We end of persistence & vool per.	Black Com		
EXT1-38	E,	74.5	2	
			<del></del>	
	4500			

### ASBESTUS SAMPLING SURVEY BULK SAMPLE LOG AND CHAIN OF CUSTODY

Dunn i Schoolcraft Area # |

Location: Norco Site, Middleport, NY Client:

Location: Norco Site, Middleport, NY	Client:
Job No.: 212505 Phase 3.2	Rates:_\$
PIN/ BIN:	Sampled by: A. Reed
Date: 6/6/2013 7 31 13	Relinquished by: A. Reed
LaBella Lab No.: 106 13	Received by: Matt Smith
	114

	Positive Stop P	rotocol: Yes 🔽 No 🔙		14	
	Field ID #	Sample Location	Type of Suspect ACM to be Analyzed	Approx. Amount	Condition
\ \	DUN-1A	SE" Much Rm. (by main Wend in Stairwell	Milled Elber		
2	As-HUT	DE Corner Mech. Rn.	while Tank In.	10'×4'(p)	
3	DUN-3A	E. Corner Frech. Am.	white Dut Ix.		
4 5	DON- AV	SE come Roan (estry point)  NW, Aven, Central Rn on N-side	White Ceiling Tile		
64	DUN-5A DUN-58	SE Section Duhall (int.) Willing in small rm., NE area	White DW		
8	DUN-6A	SE Section Wall (in) NE section, author know lampy and	White J.C.	- 110 - 110	
10	DUN - 17A	SE Section Hall	Tan 12×12 VFT		
11	DUN 8A	SE Section Mail	Tax Mastre		
13	DUN-9A DUN-10A DUN-10A	Central E. entry Foger  Central E. entry Foger	Black Martic		

### ASBEST OS SAMPLING SURVEY BULK SAMPLE LOG AND CHAIN OF CUSTODY

Number of Samples:\_

19		SAVE CAULKS FO			
ν.	Field ID #	Sample Location	Type of Suspect ACM to be Analyzed	Approx. Amount	Condition
14	DUN - 11A	Control E- entry foyer	Black Sticky Duct Carik		
15	DVN-17A	NE corner scene (w) overhand her	Bluck Bond Breaker		
16	DUN-13A	Central E. entry Pager	Ton Cove Base Adherive		
17	DUN-IUA	Central E. Entry Fayer	White Wire In.		
18	DUN-15A	Cinaral E. Door	Gray Stickly Door Coulk (	ext.)	
19	DUN-16A	N. Hallway	Panel Board Breiting		
20	DUN, ITA	No Room in DEerra	Trustie? Line is "Houd"	(2.5 ky) x2 hack (4.5) v2 +(4.5') (25.25) ×2	
21	DUN - 180	Room in NE Aren	Coracy Counter Top	transite?	
22	DUN- 19A	Room in NE Area	Gray Eter. Geologit	n 158 pe hand	JAVE PCB S
23 24	DUN-20A	NE Section, Central Rm.  NW wide open room	Dark Brown Care Base Adh.		

Positive Stop Protocol: Yes

### ASBESTUS SAMPLING SURVEY **BULK SAMPLE LOG** AND CHAIN OF CUSTODY

	Job No.: 213 PIN/BIN: Date: LaBella Lab No		Client:				
	Field ID #	Sample Location	Type of Suspect ACM to be Analyzed	Approx. Amount	Condition		
25	DUN-21A	Nt Section, Crutal Ros	Ovary Well Panel Adh.				
26	DUN-22A	NE Section, Central RM	Ton DW Adhesive				
27	DUN- 23A	NE Section, N. Soon reckt to connective	Black Brittle Det Cul				
28		S. Hall, center of bldg.	Louise Strcky Window Cnik	on inside tootside	5'3" ± 2'4"		
29	DUN-25A	SW section, overhead door Rm. Interior window in office space	Grey Sticky Int. Windo Gloving Corpol	₩ 6'×3"			
30 <b>V</b>	DUN-26B	Sentral/Main E- Entrance Door	White Dorwinday be				
31	DVN- 27A	NW section, No wall freing the	Silver window Coulk (ext)	5.5' × 6' (2 perc)			
32	DUN-28A	NW section, open Rm., N. war	Black Glas Puck				

### ASBEST OS SAMPLING SUKVEY BULK SAMPLE LOG AND CHAIN OF CUSTODY

Location: Dran i Schoolcraft Area #1	Client:
Job No.: 217505/3.2	Rates: \$
PIN/ BIN:	Sampled by: A. Reed
Date: 8/2/13	Relinquished by: A. Reed
LaBella Lab No.: 107713	Received by: Matt Smith
Positive Stop Protocol: Yes No No	Number of Samples: 22

	Field ID#	Sample Location	Type of Suspect ACM to be Analyzed	Approx. Amount	Condition
1	DUN- 29A	Central Rm. NE Avec	White Duck Coulk		
2	DUN -30A	NE Lub vocins On wall @ forms wall-mant mino?	Black Mirror Coulk	8'K3' beady	
3456	DUN-51 DUN-61 DUN-78 DUN-8B	Central Rm @ Small wall hatch Central Rm, Center of Bloky	D.W. White J.C. Ten 12x12 VFT Ten Mustic		
7 8 9	DUN-12B DUN-12B	NE corner Am. (Galy sect cbs.) Near large open For in NW near	Black Bond Breaking Penel Board Braking White Duct Ins		
۵۱ اد	DUN- 278	NE. xchon Vw	Silver Exe. window curll Black FT Massis	(vula 448)	
12	DUN-218	Central, Center Con.	Dan land Adh.  Try wall Adherive		
14 15	DUN-248	S. Hall, W. onl 3. Hall, S. wall	white Sticky wind. coulk Black Sticky W.d. G.L.		
16	DVN ~ 15B	N. wall of S. Hall (western)	Gray Sticky Door Caulh		
V1781980	DUN - 138 DUN - 32A DUN - 326 DUN - 33A DUN - 338	SW corner in overhand Low room	Tan Cove Bise Adh. Ton 12x12 VFT  Black Mastic	OPLY PATCH of Brack Mastric 17' x 6'	
21			Gray Door Coulk		

### ASBESTUS SAMPLING SURVEY BULK SAMPLE LOG AND CHAIN OF CUSTODY

Unn & Schoolcratt Area#2	
Location: Middleport, NY	Client:
Job No.: 212505/3.2	Rates: \$
PIN/ BIN:	Sampled by: A. Reed
Date: 7 31 13	Relinquished by: A. Reed
LaBella Lab No.: 106213	Received by: Matt Smith
Positive Stop Protocol: Yes V No	Number of Samples: 19

_	SAVE CAULKS						
	Field ID #	Sample Location	Type of Suspect ACM to be Analyzed	Approx. Amount	Condition		
1	DUN2- 1A DUN2 - 1B	Near Hily, connection, W. Bath. above to Lets (ceiling) W. hall inner wall, behind planter	D.W. (w) clips, No.3.c.)				
3 4	DUNZ - 28	Connector Hall Wall No come Rom eget, val	Plaster Top Cont				
5	JUN2 - 3A JUN2 - 3B	NW conver Roy, cxt. well	Gray Plaster Seritch Cost				
78	DN2-4A DN2-4B	5W- Bath (M)	Ceramic Well Tile Great				
9 10	DUN2-5A  DUN2-5B	SW BATL (M) (W)	Caranic wall tile Set-bed				
11	JUNZ 6A	SW comer Room	Bond Breaker				
12	DUNZ-MA DVNZ-79	NW corner coon	White Citing Tile (121')				
14 V	DUN2-8A DUN2 - 8B	E. wall of room on E. side Niv corner Room, W. vall	Gray Sticky window G.C.				
15	DUNZ. 9A	5, and sentral on of HVAC	Middel Elbon				
16	DUN2-10A DUN2-11A	Atrium	Tour speckhol 9x9 VFT Black Mastre				
18	DUNZ-12A	Office vandow @ NE side of atrive	m Whate Int. Landon G.C.				

### ASBESTUS SAMPLING SURVEY BULK SAMPLE LOG AND CHAIN OF CUSTODY

Location: Middle fort, NY	Client:
Job No.: 212505 3.2	Rates:\$
PIN/ BIN:	Sampled by: A. Reed
Date: 8/2/13	Relinquished by: A. Reed
LaBella Lab No.: 107813	Received by: Matt Smith
Positive Stop Protocol: Yes No No	Number of Samples: 18

	Positive Stop Protocol: Yes No Number of Samples:						
	Field ID #	Sample Location	Type of Suspect ACM to be Analyzed	Approx. Amount	Condition		
123450	DUN2-20 DUN2-20 DUN2-2E DUN2-30 DUN2-30 DUN2-3E	Women's Rm. Ceiling  E. Rm, N. wall  W. Hell, Int. Wall  Women's Rm. Ceiling  E. Rm. N. wall  W. Hall, Int. wall	Coray Plaster				
7 89 10 5	DUNZ - 13A DUNZ - 13B DUNZ - 14A DUNZ - 14A	Ceiling around world dak  Cilling around "  Base of curved desk (atrium)  S. would of atrium  near chalk bound	D.W. White J.C. Black Give Rick	ohly sport			
11 233 4	DUNZ-15A DUNZ-15B DUNZ-15C	S. Hall above Act, Wester B. S. S. D. N. and of S. Hall W. Hayll, value curgus	Grey Pluster Over-spray				
15 17	DUN2-16A DUN2-16A	NE Office Space in Atrium  NE Office Space in Atrium	Ten Specked 9 Kg VFT	different from 10A			



### Appendix 3 Waste Inventory

North Bilding

Î .		Dunn/Schoole	craft Site	
		140 Telegraph Road, Mic		
Date	Type of Container	Name/Description of contents	Approximate Volume	Other pertinent observations
85-13	DOSTIC	Antifreeze Coolant	Icalus	
		(0.10)		
	Steel dran	empty	55-gallons	
-	Account to 1)	2207	5 (10)-05	
	Organe tanks	entry	5-gatins	1
	- was pile of L	whe tires inside from	Sot building /severa	
	- plustil pules	empty	Scallons	Several throughout
			0	1
				· · · · · · · · · · · · · · · · · · ·
				-

Suh Bilding

		Dunn/Schoole		
	<u> </u>	140 Telegraph Road, Mid	dleport, New York	
Date	Type of Container	Name/Description of contents	Approximate Volume	Other pertinent observations
85-13	2 empty plas	tic 55gallon drums		
	- Scieral Sopalu	n plastic pales at bailer c	henicals	
Ψ ,	- several logilon	cans of paint, very rustec	15 leathing	
	Acrisot 1	- 1, /		
-	- 60000 Librie til	es in select overs 11	Righat ()	
	Sweet gen la	with postic pales on the	main contents	LS## 5#2
_	Steel den er	ory formerly attingoil		
	several empty	5 genton plastic pale	5	
	1) Schallens	dring a carius mo	or length coils (no	tempty
	0000	7 6 Va A Valva		
	array wea	of Dutin Building		
	(2.126)			
	-scueral Igal	kn or less point duts	1	
	E 2200		(C	2001 - 1011
	1 2 arpay 523	film due postic dans	Comuci alla-c	I a tell as well (sected)
	07-11/00	00000		
	2 salica locas	tic pares of bleach		
	10,000	11-00		
	several whose	171165		1 1/1/1
د خ	several Sopallar	steel dans, unlina	npty, some who	orn contents (Co., 2)
-5	everal 55 gallon	1 steel drong unlima	1 contents LC	5#4
	()			·

Exterior

		Dunn/Schoole	raft Site	
		140 Telegraph Road, Mid		
Date	Type of Container	Name/Description of contents	Approximate Volume	Other pertinent observations
	- a few empty	blue 55 cycles plastict	otes	
	1 2 2 4 2 2 2 2 2			
-	- Seresil employ	5 gallon Plastic pales		
	(1000)	5601100 1-0		
	- lempty Steel	Sogilla dien		
-	1 1	0		
-				



# Appendix 4 Data Usability Summary Report

### **Data Validation Services**

120 Cobble Creek Road P.O. Box 208 North Creek, NY 12853

Phone 518-251-4429 harry@frontiernet.net

November 29, 2013

Daniel Riker LaBella Associates P.C. 300 State St Suite 201 Rochester, NY 14614

RE: Validation of the Dunn Schoolcraft Site Analytical Data

Data Usability Summary Report (DUSR)

Chemtech SDG Nos. E3187, E3230, and E3526

Dear Mr. Riker:

Review has been completed for the data packages noted above, generated by Chemtech, that pertain to the samples collected between 08/01/13 and 08/29/13 at the Dunn Schoolcraft site. Fifteen soil samples, one aqueous sample, and a soil field duplicate were processed for TCL volatiles, TCL semivolatiles, TCL PCBs, TCL Pesticides, Herbicides, and TAL metals. The aqueous sample was also processed for ammonia. Ten other soil samples and a field duplicate were processed for TCL semivolatiles, TCL PCBs, Herbicides, and TAL metals. Equipment blanks were also processed, and Tentatively Identified Compounds (TICs) were also reported. The analytical methodologies are those of the USEPA SW846.

Full data validation was performed in accordance with the project Quality Assurance Project Plan (QAPP) Revision 2 dated April 2, 2013, with guidance from the USEPA Region II Data Validation SOPs HW-2, HW-17, HW-33, HW-35, HW-36, and HW-37, and with consideration for the specific requirements of the analytical methodologies. The following items were reviewed:

- \* Data Completeness
- \* Case Narrative
- \* Custody Documentation
- \* Holding Times
- \* Surrogate and Internal Standard Recoveries
- \* Blank Contamination
- \* Matrix Spike Recoveries/Duplicate Correlations
- \* Field Duplicate Correlations
- \* Laboratory Control Samples (LCS)
- \* Instrument Performance
- \* Initial and Continuing Calibration Standards
- \* ICP Serial Dilution Evaluation
- \* Method Compliance
- \* Sample Result Verification

The data review includes evaluation of the specific items noted in The NYS DER-10 Appendix B section 2.0 (c). The items listed above that show deficiencies are discussed within the text of this narrative. The laboratory QC forms illustrating the excursions can be found within the laboratory data packages. Parameters relating to field activities are not evaluated in this report.

**In summary,** most of the sample results are usable either as reported, or with minor qualification. However, the following exceptions are noted:

- Results for one volatile analyte in all samples are rejected due to inherent low processing responses
- o The results for one herbicide in two samples are rejected due to apparent matrix effects
- O Due to apparent matrix effects that affect accuracy and precision, most of the metals results in the soils are qualified as estimated in value.

Data completeness exceeds the QAPP requirements, and analytical method comparability is acceptable. Accuracy determinations of spiked analyses show acceptable recoveries for the organic analytes in soil, and soil precision is acceptable. Accuracy and precision of the aqueous sample matrix has not been determined.

Copies of the client sample identifications are attached to this text, and should be reviewed in conjunction with this report. Also included with the submission are the qualified client Equis or excel deliverables. TIC data were not entered onto the Equis EDDs, and the recommendations for edit made in this report are therefore not reflected on those tables.

### **Chain-of-Custody**

The field duplicates were not entered onto the custody forms, but each was labeled as Field Duplicate. When contacted by the laboratory for clarification, the identifications of the parent sample locations were identified.

The equipment blank submitted with samples reported in SDG E3230 was not entered onto the custody form.

These issues should have been documented in the laboratory case narrative.

### General

The laboratory should have reported the non-detection organic reporting limit values (on the data package sample report forms) using the LOQ/CRQL concentrations, not those shown.

### **Field Duplicate Correlations**

Field duplicates were collected at locations BH9(3-5') and SS9. Correlations fall within the QAPP guidelines, with the following exceptions, results for which are qualified as estimated in the parent sample and its respective duplicate: barium (83%RPD) and cadmium (>2X±CRDL) in BH9(3-5').

#### **Volatile Analyses by EPA 8260C**

The detected result for methyl t-butyl ether in BH27(4-6) has been edited to reflect non-detection due to poor mass spectral quality.

Matrix spike recoveries and duplicate correlations of BH11(4-6) are within validation action limits, with the exception of the recoveries for acetone (both 31% and 38%). The result for that compound in the parent sample has been qualified as estimated in value.

Results for trichlorofluoroethane in the soil samples reported in SDG E3187 have been qualified as estimated due to outlying low recoveries (70% and 71%) in the associated LCSs.

Results for 1,4-dioxane in the samples are rejected due to poor calibration standard instrument response (RRF<0.01) that is inherent in the methodology. Other calibration standards (ICV/CCVs) show acceptable responses, with the following exceptions, results for which are to be qualified as estimated in the indicated associated samples (unless otherwise rejected): acetone and cyclohexane (26%D and 24%D) in the Equipment Blank reported in SDG E3187

Tentatively Identified Compounds (TICs) that are identified (reported with a CAS number) should have been flagged as "N" to indicate tentative identification.

### TCL Semivolatiles by EPA 8270D

BH7(4-6) was extracted 5 days beyond the QAPP required holding time of 7 days from collection. Results for that sample have therefore been qualified as estimated, with a possible low bias. The laboratory case narrative erroneously states that holding times were met.

Results for analytes flagged by the laboratory with "E" (indicating response above the linear range of the instrument) are derived from the dilution analyses of the samples.

Due to poor mass spectral quality, the following results are qualified as tentative in identification and estimated in value:

- o dibenz(a,h)anthracene in SS3 and SS4
- o bis(2-ethylhexyl)phthalate in SS4
- o butylbenzylpthtalate in SS5

Matrix spike recoveries and duplicate correlations of BH11(4-6) and SS10 are within validation action limits, with the exception of the recoveries for di-n-butylphthalate in SS10. The result for that compound in the parent sample has been qualified as estimated in value.

The result for atrazine in the Equipment Blank reported in SDG E3230 has been qualified as estimated due to outlying low recoveries (45%) in the associated LCS.

Calibration standards show acceptable responses, with the following exceptions, results for which are qualified as estimated in the indicated samples:

- o 2,4-dinitrophenol (low RRF) in samples BH1(3-5), BH3(3-5), BH4(3-5), and BH9(3-5)
- o pentachlorophenol (low RRF) in soil boring samples ("BH-") reported in SDG E3230

Tentatively Identified Compounds (TICs) that are identified (reported with a CAS number) should have been flagged as "N" to indicate tentative identification.

The TIC identified as "Xenon" in MW3 should be edited to "Unknown"; the spectral match was not correct.

TICs reported with the "A" and/or "B" flag are extraction artifacts that are to be removed from consideration as sample components. Additionally, TICs reported at about 5.45' in the samples reported in E3230 can be similarly considered. These artifacts typically contribute a large proportion of the total TIC concentrations.

### Aroclor PCBs, TCL Pesticides, and Herbicides by EPA methods 8081B, 8082, and 8151

Most of the reported pesticide detections exhibit elevated dual column quantitative correlations (>25%D), indicating matrix interferences that may result in false positives or elevated quantitative values. Those results have been qualified estimated in value, as tentative in identification and estimated in value (NJ), or edited to non-detection, depending on the degree of variance and subsequent lack of confidence in those identifications. The laboratory properly reported the detections per the analytical protocol, but upon validation it is determined that the majority of the reported detections show variances that led to edit to non-detection.

The detections of a-chlordane and g-chlordane in SS6 show highly elevated dual column correlations in both the initial and dilution analyses, and are therefore edited to non-detection, at significantly elevated reporting limits.

Results for analytes flagged by the laboratory with "E" (indicating response above the linear range of the instrument) are derived from the dilution analyses of the samples.

SS4, SS5, SS7, SS8, SS9, SS10, and Field Duplicate exhibit low surrogate standard DCB recoveries on both analytical columns used for the PCB analyses, likely due to matrix effect. Therefore, results for the PCB Aroclor mixes in those samples have been qualified as estimated in value, and may have a low bias.

2,4-DB failed to recover from the matrix spikes of SS10 ad BH11(4-6), likely due to matrix effects. Therefore, the results for that compound in those two parent samples have been rejected. The results for that analyte in all soil samples should be regarded with caution.

The pesticide and Aroclor 1016/1260 matrix spikes of B11(4-6) and SS10 show recoveries and duplicate correlations that are within validation action limits.

Initial and continuing calibration standard instrument responses fall within validation guidelines.

The herbicide chromatograms provided in the raw data are not scaled properly, and independent verification of instrument response (or lack thereof) is not possible.

The acceptance ranges used for the pesticide surrogate recoveries for the aqueous sample and equipment blank are overly generous, at 10% to 172% and 10% to 192%.

The acceptance ranges used for recoveries of six of the seven herbicide soil matrix spike analytes are overly generous, with lower limits between 10% and 15%, and upper limits between 147% and 224%. The herbicide surrogate acceptance range is also overly generous at 12% to 189%.

The raw data should state the analytical columns used in the analyses.

### TAL Metals Analyses by EPA 6010C, 7470A, and 7471A

The following matrix spikes/duplicates show recoveries outside the recommended limits, indicating a matrix effect on analyte recovery from the samples, and results for the listed elements are qualified as estimated in the samples reported in the indicated SDGs:

Parent Sample	Element	%Recoveries	Affected Samples
B11(4-6)	Antimony	37 and 37	SDG E3187
	Arsenic	73 and 72	
	Chromium	63 and 63	
	Copper	48 and 51	
	Selenium	72 and 70	
	Silver	73 and 74	
	Zinc	55 and 77	
SS10	Antimony	40 and 41	SDG E3230

The laboratory did not utilize the QAPP accuracy and precision ranges/limits for the MS/MSD/DUP evaluation. The correct criteria were used during the validation evaluation.

No matrix spikes were processed for the aqueous matrix, of which there was one field sample. The batch QC reported with this sample shows recoveries and correlations within QAPP requirements.

The following ICP serial dilution evaluations show elevated correlations, and therefore detected results for samples reported in the indicated SDGs have been qualified as estimated in value. A matrix effect that suppresses analyte response is indicated:

Parent Sample	Element	<u>%D</u>	Associated Samples
BH11(4-6)	Aluminum	24	Those with "BH-"
	Barium	35	prefix
	Calcium	44	
	Chromium	30	
	Copper	48	
	Magnesium	40	
	Manganese	41	
	Potassium	38	
	Sodium	34	
SS10	Barium	12	Those with "SS-"
	Calcium	14	prefix
	Chromium	13	
	Copper	24	
	Magnesium	12	
	Manganese	20	
	Potassium	11	
	Vanadium	15	

The ICP serial dilution evaluation of the batch QC associated with MW-3 shows an elevated correlation for aluminum (19%D). The detected result for that element in the sampleis therefore qualified as estimated in value, and may have a low bias.

The QC summary Forms 1 and 8 were not properly flagged by the laboratory for the serial dilution outliers, and the laboratory case narrative comments on this evaluation were incorrect.

The blanks show no contamination affecting sample reported results.

### Ammonia as Nitrogen by Standard Method SM4500

Review was conducted for method compliance, holding time, transcription, calculations, standard and blank acceptability, accuracy, and batch QC precision, etc., as applicable to each procedure. All were found to be acceptable.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Att: Validation Qualifier Definitions

Client and Laboratory Sample Identifications

### **VALIDATION DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
- J The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- J- The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
- J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
- UJ The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
- NJ The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
- EMPC The results do not meet all criteria for a confirmed identification.

  The quantitative value represents the Estimated Maximum Possible

  Concentration of the analyte in the sample.

### **CLIENT and LABORATORY SAMPLE IDs**

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
BH1(3-5)	E3187-01	8260C	8270D		8081B, 8082A, 8151A	6010B, 7471A	Chemtech -SOP
BH3(3-5)	E3187-02	8260C	8270D		8081B, 8082A, 8151A	6010B, 7471A	Chemtech -SOP
BH4(3-5)	E3187-03	8260C	8270D		8081B, 8082A, 8151A	6010B, 7471A	Chemtech -SOP
BH7(4-6)	E318 <b>7</b> -04	8260C	8270D		8081B, 8082A, 8151A	6010B, 7471A	Chemtech -SOP
BH8(0-2)	E3187-05	8260C	8270D		8081B, 8082A, 8151A	6010B, 7471A	Chemtech -SOP
BH9(3-5)	E3187-06	8260C	8270D		8081B, 8082A, 8151A	6010B, 7471A	Chemtech -SOP
BH11(4-6)	E3187-07	8260C	8270D		8081B, 8082A, 8151A	6010B, 7471A	Chemtech -SOP
BH14(4-6)	E3187-10	8260C	8270D		ALIX / A	6010B, 7471A	Chemtech -SOP
BH15(0-2)	E31 <b>87</b> -11	8260C	8270D		8081B, 8082A, 8151A	6010B, 7471A	Chemtech -SOP
BH18(2-4)	E3187-12	8260C	8270D		XIIX/A	6010B, 7471A	Chemtech -SOP
EQUIPMENTBLANK	E3187-13	8260C	8270D		8081B, 8082A, 8151A	6010B, 7470A	

FIELDDUPLICATE	E3187-14	8260C	8270D	I IXIIX/A	1 ′	Chemtech -SOP
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### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I

### SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample	Laboratory Sampl	VOA GC/MS	BNA GC/MS	VOA GC	Pest PCBs	Metals	Other
ID/Code	ID/Code	(Method #)	(Method #)	(Method #)	(Method #)	(Method #)	(Method #)
SS1	E3230-01	(	8270D		8081B,	6010B.	Chemtech -SOP
			02.00	ļ	8082A,	7471A	One media
					8151A	74716	
SS2	E3230-02	ŀ	8270D		1	00400	Chemtech -SOP
002	L3230-02		02700	i	8081B,	6010B,	Chemiedi-SOP
		_1			8082A,	7471A	
SS3	F0000 00		00700		8151A		
	E3230-03		8270D	ļ	8081B,	6010B,	Chemtech -SOP
				<u> </u>	8082A,	7471A	
					8151A		
SS4	E3230-04		8270D		8081B,	6010B,	Chemtech -SOP
				ŀ	8082A,	7471A	
		1			8151A		
SS5	E3230-05		8270D	1	8081B,	6010B,	Chemtech -SOP
					8082A,	7471A	
<b>*</b> · · · · ·				<u> </u>	8151A		
SS6	E3230-06		8270D		8081B,	6010B,	Chemtech -SOP
					8082A,	7471A	
			<del></del>		8151A	+	
SS7	E3230-07		8270D		8081B,	6010B,	Chemtech -SOP
					8082A,	7471A	
		<b>_</b>			8151A	7471A	
SS8	E3230-08		8270D			6040D	Chemtech -SOP
000	20200-00	ł	02700		8081B,	6010B,	Chemiech -30F
					8082A,	7471A	
SS9	E2220 00	1	00700		8151A		Sharetark BOD
	E3230-09		8270D		8081B,	6010B,	Chemtech -SOP
					8082A,	7471A	
	50000 40				8151A		
SS10	E3230-10		8270D		8081B,	6010B,	Chemtech -SOP
				. [	8082A,	7471A	
BH20(2-4)					8151A		
	E3230-11	8260C	8270D		8081B,	6010B,	Chemtech -SOP
					8082A,	7471A	
			7		8151A		
BH22(6-8)  BH24(2-4)	E3230-12	8260C	8270D		8081B,	6010B,	Chemtech -SOP
					8082A,	7471A	
	<u> </u>				8151A	<del>-</del>	
	E3230-13	8260C	8270D	İ	8081B,	6010B,	Chemtech -SOP
					8082A,	7471A	
			-		8151A	+	
BH27(4-6)	E3230-14	8260C	8270D	I	8081B,	6010B,	Chemtech -SOP
				1	8082A,	7471A	
		<del>                                     </del>			8151A	+,	
BH30(4-6)	E3230-15	8260C	8270D	- 1	8081B,	6010B,	Chemtech -SOP
51100(4-0)					8082A,	7471A	
				<del></del>	1	1711/	
FIELDDUPLICATE	E3230-16	8260C	8270D	- 1	8151A	60100	Chemtech -SOP
	LU200-10	02000	02/00		8081B,	6010B,	Greineur-SOF
					8082A,	7471A	
EQUIPMENTBLANK	E2220 40	8260C	92700		8151A		Chambala GGS
	E3230-19	8260C	8270D	- [	8081B,	6010B,	Chemtech -SOP
		1			8082A,	7471A,	
		•			8151A	7470A	-



### **Cover Page**

Order ID:

E3526

**Project ID:** 

Dunn/Schoolcraft Site

Client:

LaBella Associates P.C.

**Lab Sample Number** 

**Client Sample Number** 

E3526-01

MW3

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following Mildred V. Reyes, QA/QC Supervisor 2013.09.16 11:36:15 -05'00' signature.

Signature:

Date:

9/10/2013

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012