PHASE II ENVIRONMENTAL SITE ASSESSMENT
VILLAGE FARM SITE
1086, 1176, 1328 SOUTH PARK AVENUE AND
11 BERTHA STREET
CITY OF BUFFALO,
ERIE COUNTY, NEW YORK

Prepared for:

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TABLE OF CONTENTS

VOLUME 1: PHASE II ENVIRONMENTAL SITE ASSESSMENT

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICS

VOLUME 2: PHASE II ENVIRONMENTAL SITE ASSESSMENT ANALYTICAL DATA USABILITY SUMMARY REPORT (CD VERSION ONLY)

1.0 INTRODUCTION AND BACKGROUND

1.1 Introduction and Purpose

The Niagara County Department of Economic Development contracted Panamerican Environmental, Inc. (PEI) to conduct a Phase II Environmental Site Assessment (ESA) at the Village Farm Site, a four parcel property, located at 1086, 1176, 1328 South Park Avenue and 11 Bertha Street within the City of Buffalo, Erie County, New York (refer to Figure 1). The four separate parcels are defined as follows:

Parcel 1 - 1086 South Park Avenue - 1.18-acres
Parcel 2 - 1176 South Park Avenue - 26.45-acres
Parcel 3 - 1328 South Park Avenue - 0.78-acres
Parcel 4 - 11 Bertha Street - 0.40-acres

The Phase II ESA program required the preparation of a Site-Specific Brownfields Sampling, Analysis and Monitoring Plan (SAMP) which was completed by PEI in October 2008. The SAMP provides details of the scope of work tasks and how each task was to be accomplished.

The overall goals of the program were:

- Build upon the findings of previous environmental investigations completed at the site;
- Complete a soil assessment across the entire site area that includes four separate parcels and
- Develop sufficient information to allow for subsequent additional investigations and/or development of remedial alternatives, if necessary, or property development

1.2 Scope

The Phase 2 ESA included the following tasks:

- Prepare of a Site-Specific Brownfields Sampling, Analysis and Monitoring Plan (SAMP) for County/EPA approval.

- Project planning to include additional research of the property history.

- Complete a surface and subsurface soil investigation of the Property that included:

  - Excavating a total of 33 test trenches across the site.
  - Performing an assessment of soil/debris piles within Parcel 1 and along

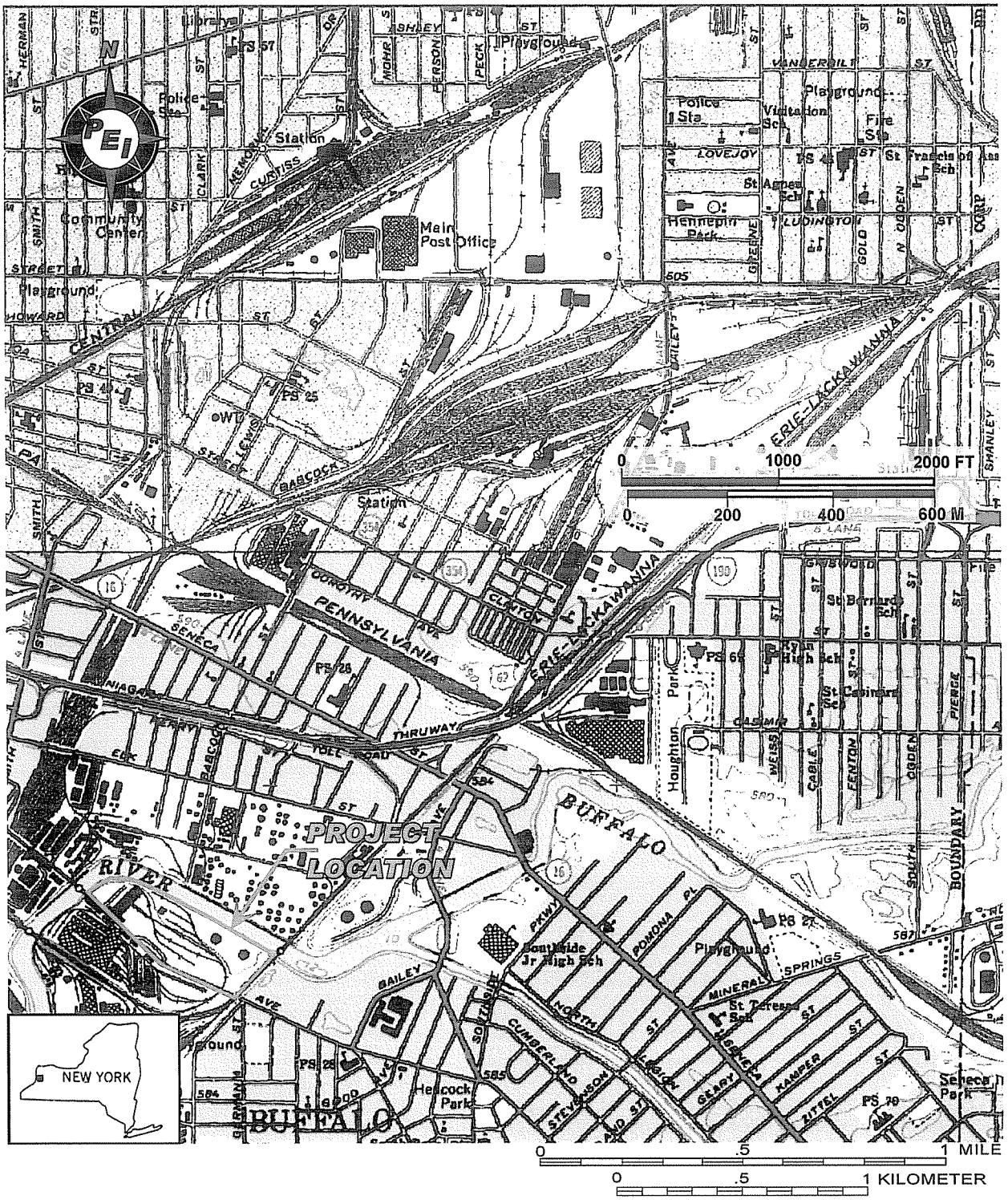


Figure 1. Location of the subject property within the City of Buffalo, Erie County, New York *(USGS 7.5' Quadrangle, Buffalo SE, NY, 1989 [1965]).*

an access road on the western side of Parcel 2. This Included excavating a total of six test trenches through soil/debris piles.
- Collect from test trenches a total of 20 surface soil samples, 20 subsurface soil samples and 5 soil/debris pile samples for laboratory analysis.

- Update an existing base map with the locations of test trenches and sample locations.

- Complete a Phase 2 report

1.3 Background

The Village Farm Site is a four parcel property located at 1086, 1176, 1328 South Park Avenue and 11 Bertha Street within the City of Buffalo, Erie County, New York. It is bounded to the north and west by the Buffalo River and includes approximately 29 acres of vacant land (refer to Figure 2).

The currently vacant site is located in a mixed commercial/industrial and residential area of Buffalo. The four parcels are defined as follows:

Parcel 1 - 1086 South Park Avenue - 1.18-acres
Parcel 2 - 1176 South Park Avenue - 26.45-acres
Parcel 3 - 1328 South Park Avenue - 0.78-acres
Parcel 4 - 11 Bertha Street - 0.40-acres

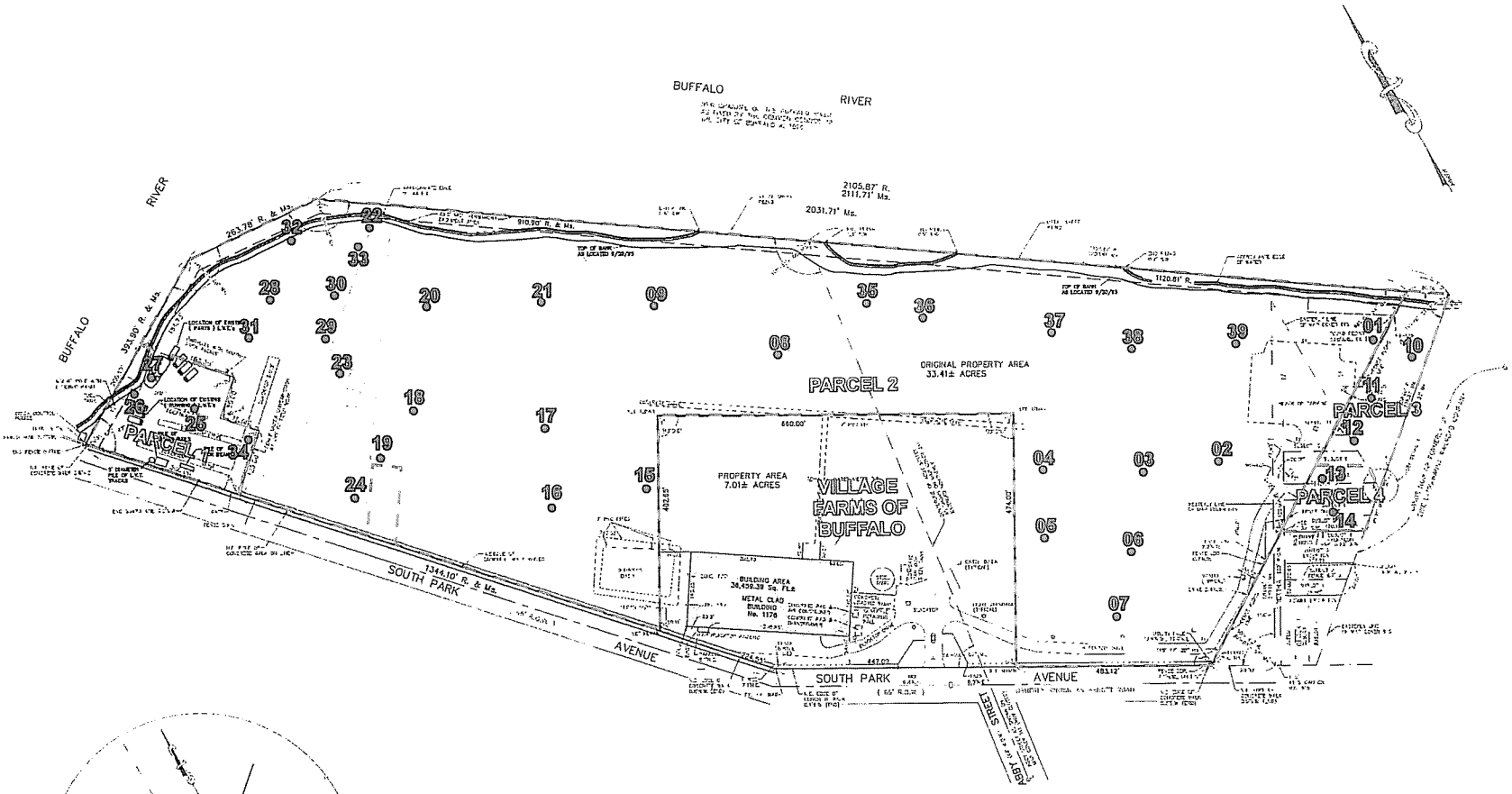
The site was historically industrial from the early 1900's to the late 1980's. Former property occupants included shipbuilding and other activities involved with building trades. From 1940's to the 1980's Republic Steel (LTV Steel) occupied the property. A filling station was located on parcel 4 in the 1940's. The city purchased the property from LTV Steel in 1991 and developed a large portion of the site as the Village Farms hydroponic tomato farm which operated from 1999 to 2003. The hydroponics operations ceased and the large greenhouse and storage areas were demolished leaving the warehouse which occupies a 7-acre parcel and is still being actively used. The remaining portion of the site has been vacant since 2003. The 7-acres and warehouse are separated from parcel 2 and is not part of the Phase II.

The following previous investigations have been completed on the property/adjacent property:

- 1984 Limited Environmental Investigation completed by Enasco, Inc.

- 1991 Phase I Assessment which identified a New York Department of Environmental Conservation (NYSDEC) registered spill of fuel oil.

- 1995 Continuing Environmental Investigation Report completed by



COMPOSITE MAP SHOWING SURVEY PREPARED FOR 7.01 ACRE PARCEL DATED4/30/07

THIS MAP IS INTENDED FOR INFORMATIONAL PURPOSES ONLY

TVGA ENGINEERING, SURVEYING, P.C.

DRAWN BY GDH SCALE 1" = 100'
CHECKED BY TJC DATE 9/29/95
ACAD FILE JOB NO 958598

Figure 2. Test Trench Location Plan

Enasco, Inc.

- 1996 Groundwater Investigation completed by Foit-Albert Associates in February 1996
- 1996 Subsurface Investigation completed by Foit-Albert Associates in May 1996
- 1996 Foit-Albert Remediation Plan in June 1996
- 1996 Revised Remedial Plan at the 1176-1184 South Park Avenue (parcel 2) former Truscon Company site - Completed by Malcolm Pirnie, September 24, 1996 (contained in Appendix C of the Phase I).
- 1996 Supplemental Soil Sampling program - assumed completed by Malcolm Pirnie in August 1996.
- 1996 Remedial report for the Truscon Property by Malcolm Pirnie December 1996.
- 1997 Surficial Soil Sampling Program at the Truscon Warehouse/Former NMPC Transformer Station located at 1025 South Park Avenue - completed by the Sear-Brown Group in June 1997.
- 2007 Phase I Environmental Site Assessment, Village Farms - prepared by GZA GeoEnvironmental in November 2007.
- Phase II ESA completed for Parcel 1 by TVGA

The Enasco and Foit-Albert reports and the Malcolm Pirnie investigation identified four areas of environmental concern as follows:

- Area A: the location of a former 5.5 million-gallon storage tank - test pits and borings indicated petroleum contamination in this area. The Malcolm Pirnie follow-up estimated 53,830 square feet of impacted soil and groundwater at 9 feet.
- Area B: located between Area A and the Buffalo River - visual and olfactory indication of petroleum contamination was reported in one location.
- Area C: located between Area A and the opening in the concrete wall along the river - soil samples and odor/visual observations indicated petroleum contamination. The Malcolm Pirnie follow-up indicated that petroleum impacts were below 5 feet and the depth increased towards the river. Residual oil was detected below the water table in what was reported as a former, deeper water table.

- Area D: located in the vicinity of two USTs - visual observations and odor indicated petroleum contamination. This area is thought to be located on the adjacent Village Farms 7-acre parcel to the south. The Malcolm Pirnie follow-up indicated that petroleum impacts were present to a depth of approximately 2.5 feet.

A separate area that appears to not be part of the subject property is the Truscon Warehouse/Former NMPC Transformer Station area. The 1997 Sear-Brown report indicated that the area formerly contained several large pad-mounted transformers which had been previously removed. Two of sixteen locations sampled were reported to contain PCBs below the NYSDEC recommended clean-up levels and no remediation was recommended or performed.

A remedial program was completed in Area A through D in late 1996 as described in the Malcolm Pirnie 1996 Remedial Report for the Truscon Property referenced above. The program involved the excavation of 16,920 cubic yards of contaminated soil from the four areas and disposing of the soil at an offsite location for bioremediation. The areas were backfilled with existing excavated soils from the areas that lacked a detectable petroleum odor or visual evidence of contamination. The report states that 9,980 cubic yards of on-site backfill was used and an additional 11,360 cubic yards of off-site fill material was also utilized to backfill excavation areas.

Of the four areas noted in the Enasco and Foit-Albert reports and the Malcolm Pirnie investigation, areas A, B and C are primarily within Parcel 2 and were assessed as part of this Phase II investigation. Area D noted in the above reports appears to be within the 7-acre warehouse parcel that is excluded from this Phase 2 investigation.

2.0 SOIL ASSESSMENT FIELD INVESTIGATION

The Phase II field investigation was completed during a 4 day field event between January 27 and January 30, 2009. All field activities were, in general, conducted in accordance with the requirements of the approved SAMP. A summary of the field investigation methodology and findings is presented below. Photographs of field activities are contained in Appendix C.

2.1 Surface/Subsurface Soils Investigation

Surface and subsurface conditions and possible soil contamination on the site were investigated by excavating a series of test trenches across the property. First, a 200ft by 200 ft grid was laid out over the entire site. Test trenches were placed within this rough grid pattern to provide information across the property. Test trenches were repositioned within grid locations in areas where historic photographs and previous environmental investigations (refer to Section 1.3 Background) indicated potential environmental concerns (refer to Figure 2). A

total of 33 test trenches were excavated across the property. Additionally, five test trenches were advanced through surface debris mounds/piles located at the western end of Parcel 2 (TP-28P, 29P, 30P, 33P and 34P) and one test trench was advanced through a surface mound/pile within Parcel 1 (TP-27P). Five of the test trenches (TP-08, 35, 36, 37 and 38) were excavated in the vicinity of Areas A, B and C where prior soil remediation occurred as discussed in the Malcolm Pirnie remediation report (refer to section 1.3 Background).

The primary purpose of the subsurface assessment was to visually inspect and describe subsurface conditions across the large area with emphasis on areas identified in previous investigations as being of environmental concern. The test trenches were advanced between 10 and 12 feet in length, 5 to 6 feet in width with depths that ranged from 5-12 feet below ground surface (bgs). Consistency of uncovered natural soil material dictated, in most cases, the depth of each trench, however, in a few cases trenching was halted with the uncovering of concrete slabs most likely related to old building foundations.

Soil from each trench was visually described and screened for volatile organic compound (VOC) concentrations using a photoionization detector (PID). Stratification of material in the trenches and observations were noted on the trench logs (refer to Appendix A–Test Pit Logs). At each test trench the following was performed and recorded:

- The depth of the cover soil/fill.
- Depth to bedrock/groundwater, if encountered, was documented.
- General soil descriptions and other observations.

Prior to conducting the subsurface investigation, all utilities were located and areas identified as noted above. Each test trench was backfilled with the same material excavated in the order in which it was removed prior to moving to the next trench in accordance with the SAMP.

Assessment of subsurface conditions and selection of sampling locations was based on visual/olfactory observations. Volatile organic screening was completed at all the test trenches. No PID readings were recorded in any of the test trenches above background levels. A total of 20 surface soil samples and 20 subsurface soil samples were collected from the test trenches along with one soil sample from each of the five surface mounds/piles. Surface soil samples were collected from the upper two inches below the sod either prior to advancing the trench or from the sides of the trench. As noted, the location of trenches and sampling points was based on field observations and an effort to gain representative samples across the property while at the same time ensuring that areas of environmental concern identified during previous investigations were examined. Dedicated equipment was used to collect each sample. The depths at which subsurface samples were collected in each trench are indicated on the test pit logs (Appendix A) and on the analytical summary Tables 1 through 6.

In general, fill material consisting of topsoil, organic material and black to brown medium to fine (m-f) sand was observed in most trenches at 1 to 1.5 feet bgs. Black and grey fill material with slag, brick, concrete, topsoil material and coarse to fine gravel and sands were observed at 1.5 to 8 feet bgs. The depth of this fill layer was greatest at the north (toward the river) and the east end of the site. Below the fill layer the soil consisted, in general, of light brown and grey, coarse to fine gravel and medium to fine sand with traces of silty clay. In each of the six surface debris mounds/piles the material consisted of black and grey fill and construction and debris (C & D) material, slag, concrete, metal, wood, plastic, topsoil material, glass and gravel and sand.

A description of soils in each test trench is contained in Test Pit Logs presented in Appendix A. The groundwater table was not encountered in any of the test trenches.

2.2 Soil Sampling Analytical Program

Soil samples were submitted to Mitkem laboratories, a New York State Department of Health Certified Laboratory. Samples were analyzed following the full Contract Laboratory Program (CLP), NYSDEC Category B analytical data package deliverables format. All samples were analyzed for Target Compound List (TCL) VOCs (subsurface samples only); TCL Semi-Volatile Organic compounds (SVOCs), TCL Pesticides, PCBs, and Target Analyte List (TAL) Metal compounds.

All analytical data was submitted to Chemworld Environmental, Inc for data validation. Chemworld provided a NYSDEC Data Usability Summary Report (DUSR) utilizing USEPA Region II and NYSDEC guidelines, as required and as stipulated in the SAMP.

3.0 ANALYTICAL RESULTS

A summary of the analytical results from the soil sampling program are provided in Tables 1- 6. The Tables provide a summary of the data and provide a comparison with the New York State Brownfields Cleanup Program Soil Cleanup Objectives (SCOs) for Restricted Residential, Commercial and Industrial classifications as presented in 6 NYCRR Part 375-6.8 regulations. The Analytical Data Usability Summary Report (DUSR) text is provided in Appendix B. The complete DUSR is provided in Volume 2 Appendix D. A detailed discussion of the analytical results is provided below.

3.1 Surface Soils

Semi-volatile Organic Compounds

Results from the surface samples indicated that a number of semi-volatile organic compounds (SVOCs) consisting primarily of polynuclear aromatic hydrocarbons (PAHs) were detected in surface soils. Only five (5) of the twenty (20) surface samples analyzed had PAH concentrations slightly exceeding the NYSDEC SCOs. Of these 5 samples that had PAHs exceeding SCOs, a total of six (6) PAH compounds were detected above SCOs as follows:

- Benzo(b)fluoranthene concentrations exceeded the restricted residential SCO (1 ppm) in five samples; 4A (2.5 ppm), 11A (4.1 ppm), 12A (2.4 ppm), 22A (4.2 ppm) and 24A (2.8 ppm).

- Benzo(a)anthracene concentrations exceeded the restricted residential SCO (1 ppm) in five samples; 4A (2.1 ppm), 11A (4.3 ppm), 12A (1.9 ppm), 22A (4.2 ppm) and 24A (2 ppm).

- Indeno(1,2,3-cd)anthracene concentrations exceeded the restricted residential SCO (0.5 ppm) in five samples; 4A (1 ppm), 11A (2 ppm), 12A (1.1 ppm), 22A (1.9 ppm) and 24A (1.4 ppm).

- Chrysene concentrations exceeded the restricted residential SCO (3.9 ppm) in two samples; 11A (4 ppm) and 22A (4 ppm).

- Dibenzo(a,h)anthracene concentrations exceeded the restricted residential SCO (0.33 ppm) in three samples; 12A (0.4 ppm), 22A (0.47 ppm) and 24A (0.33 ppm); and exceeded the commercial SCO (0.56 ppm) in one sample; 11A (0.83 ppm).

- Benzo(a)pyrene concentrations exceeded the industrial SCO (1.1 ppm) in five samples; 4A (1.6 ppm), 11A (2.9 ppm), 12A (1.6 ppm), 22A (3.2 ppm) and 24A (2 ppm).

PAHs are a group of chemicals that are formed during incomplete burning of wood, coal, gas, garbage or other organic substances and are widely distributed in the environment and particularly in older urban environments where coal, gas, and petroleum were burned for heat and other energy uses. PAH compounds are common constituents of fill material found in urban environments, and are typically associated with both fill material, coal tar and asphalt based materials or ash and slag.

In general, PAHs along with metal compounds are not very mobile in soils, in that they have low solubilities with water (these compounds are practically insoluble in water) and tend to adsorb to the soil grains. These compounds do not readily

breakdown in the environment and PAHs deposited from combustion of coal or other fuels years ago would most likely still be present today. Based on the low volatility and their association with soil, the primary concern for potential human exposure to PAHs include inhalation or ingestion of contaminated dust as well as dermal contact.

PCBs/Pesticides

Some PCB/Pesticide compounds were detected in several surface soil samples at concentrations well below NYSDEC SCOs.

Metals

Metals were detected in all surface soils analyzed. Most results were well below the NYSDEC Part 375 SCOs. Only five (5) metal compounds were detected above SCOs in some of the surface soil samples as follows:

- Arsenic concentrations exceeded the industrial SCO (16 ppm) in one sample; 22A (21 ppm).

- Chromium concentrations exceeded the restricted residential SCO (110 ppm) in two samples; 11A (210 ppm) and 22A (180 ppm); and exceeded the commercial SCO (400 ppm) in two samples; 25A (600 ppm) and 32A (620 ppm).

- Manganese concentrations exceeded the restricted residential SCO (2,000 ppm) in eight samples; 4A (2,400 ppm), 10A (4,400 ppm), 11A (8,400 ppm), 12A (5,000 ppm), 14A (3,600 ppm), 22A (3,400 ppm), 24A (3,000 ppm) and 39A (2,700 ppm); and exceeded the commercial and industrial SCO (10,000 ppm) in two samples; 25A (21,000 ppm) and 32A (16,000 ppm).
- Cadmium concentrations exceeded the restricted residential SCO (4.3 ppm) in one sample; 24A (4.4 ppm).

- Lead concentrations exceeded the restricted residential SCO (400 ppm) in one sample; 39A (440 ppm).

Most metals occur in nature and their concentrations in fill and natural soil will exhibit considerable variability both stratigraphically and spatially. This variability is related to the variable composition of the fill, natural soils' stratigraphy, weathering processes that chemically and physically modify soil, and groundwater interactions that modify the geochemistry.

3.2 Subsurface soils

Volatile Organic Compounds

Some VOCs were detected in several subsurface soil samples at concentrations well below NYSDEC SCOs.

Semi-volatile Organic Compounds

Results from the subsurface samples indicated that a number of SVOCs consisting primarily of PAHs were detected in subsurface soils. Only five (5) of the twenty (20) subsurface samples analyzed had PAH concentrations slightly exceeding the NYSDEC SCOs (please note, there does not appear to be a correlation of the 5 surface and 5 subsurface exceedances). Of these, a total of six PAH compounds were detected above SCOs:

- Benzo(b)fluoranthene concentrations exceeded the restricted residential SCO (1 ppm) in five samples; 8B (2.1 ppm), 10B (4.6 ppm), 21B (1 ppm), 32B (5.5 ppm) and 37B (2.8 ppm).

- Benzo(a)anthracene concentrations exceeded the restricted residential SCO (1 ppm) in five samples; 8B (2.6 ppm), 10B (4.4 ppm), 21B (1.6 ppm), 32B (5.1 ppm) and 37B (2.6 ppm).

- Indeno(1,2,3-cd)anthracene concentrations exceeded the restricted residential SCO (0.5 ppm) in five samples; 8B (1.2 ppm), 10B (2 ppm), 21B (1 ppm), 32B (1.8 ppm) and 37B (1.1 ppm).

- Chrysene concentrations exceeded the restricted residential SCO (3.9 ppm) in two samples; 10B (4.4 ppm) and 32B (4.2 ppm).

- Dibenzo(a,h)anthracene concentrations exceeded the commercial SCO (0.56 ppm) in two samples; 10B (0.57 ppm) and 32B (0.57 ppm).

- Benzo(a)pyrene concentrations exceeded the industrial SCO (1.1 ppm) in five samples; 8B (1.7 ppm), 10B (3.1 ppm), 21B (1.3 ppm), 32B (3.1 ppm) and 37B (1.8 ppm).

PCBs/Pesticides

Some PCB/Pesticide compounds were detected in several subsurface soil samples at concentrations well below NYSDEC SCOs.

Metals

Metals were detected in all subsurface soils analyzed. Most results were well

below the NYSDEC Part 375 SCOs. Only seven metal compounds were detected above SCOs in some of the subsurface soil samples as follows:

- Arsenic concentrations exceeded the industrial SCO (16 ppm) in nine samples; 9B (17 ppm), 10B (24 ppm), 11B (19 ppm), 12B (19 ppm), 14B (16 ppm), 19B (17 ppm), 21B (21 ppm), 22B (22 ppm) and 35B (35 ppm).

- Chromium concentrations exceeded the restricted residential SCO (110 ppm) in six samples; 9B (215 ppm), 11B (340 ppm), 21B (170 ppm), 32B (220 ppm), 35B (160 ppm) and 37B (140 ppm).

- Manganese concentrations exceeded the restricted residential SCO (2,000 ppm) in 10 samples; 2B (2,300 ppm), 8B (3,500 ppm), 9B (2,300 ppm), 11B (5,800 ppm), 14B (2,000 ppm), 21B (4,500 ppm), 22B (3,400 ppm), 32B (6,400 ppm), 35B (3,400 ppm) and 37B (6,300).

- Cadmium concentrations exceeded the restricted residential SCO (4.3 ppm) in one sample; 21B (5.5 ppm) and exceeded the commercial SCO (9.3 ppm) in two samples; 2B (9.8 ppm) and 9B (17 ppm).

- Lead concentrations exceeded the restricted residential SCO (400 ppm) in two samples; 2B (410 ppm) and 14B (420 ppm); and exceeded the commercial SCO in one sample; 9B (1,800 ppm).

- Copper concentrations exceeded the commercial SCO (270 ppm) in two samples; 9B (360 ppm) and 21B (300 ppm).

- Mercury concentrations exceeded the restricted residential SCO (0.81 ppm) in two sample; 9B (0.96 ppm) and 21B (0.89 ppm) and exceeded the commercial SCO (2.8 ppm) in one sample; 37B (3.1 ppm).

3.3 Soil/Debris Piles

Semi-volatile Organic Compounds

Results from the pile samples indicated that a number of semi-volatile organic compounds (SVOCs) consisting primarily of PAHs were detected in pile soils. Three of the five pile samples analyzed had PAH concentrations exceeding the NYSDEC SCOs. A total of nine (9) SVOC compounds were detected above SCOs in some of the pile soil samples as follows:

- Benzo(b)fluoranthene concentrations exceeded the restricted residential SCO (1 ppm) in one sample; 34P (2.5 ppm) and exceeded the industrial SCO (11 ppm) in two samples; 30P (89 ppm) and 33P (84 ppm).

- Benzo(a)anthracene concentrations exceeded the restricted residential SCO

(1 ppm) in one sample; 34P (2.2 ppm) and exceeded the industrial SCO (11 ppm) in two samples; 30P (79 ppm) and 33P (96 ppm).

- Indeno(1,2,3-cd)anthracene concentrations exceeded the restricted residential SCO (0.5 ppm) in one sample; 34P (1.1 ppm) and exceeded the industrial SCO (11 ppm) in two samples; 30P (45 ppm) and 33P (27 ppm).

- Chrysene concentrations exceeded the commercial SCO (56 ppm) in two samples; 30P (85 ppm) and 33P (84 ppm).

- Dibenzo(a,h)anthracene concentrations exceeded the restricted residential SCO (0.33 ppm) in one sample; 34P (0.46 ppm) and exceeded the industrial SCO (1.1 ppm) in two samples; 30P (13 ppm) and 33P (16 ppm).

- Benzo(a)pyrene concentrations exceeded the industrial SCO (1.1 ppm) in three samples; 30P (63 ppm), 33P (68 ppm) and 34P (1.8 ppm).

- Benzo(k)fluoranthene concentrations exceeded restricted residential SCO (3.9 ppm) in two samples; 30P (39 ppm) and 33P (18 ppm).

- Fluoranthene concentrations exceeded restricted residential SCO (100 ppm) in two samples; 30P (190 ppm) and 33P (230 ppm).

- Phenanthrene concentrations exceeded restricted residential SCO (100 ppm) in two samples; 30P (210 ppm) and 33P (240 ppm).

PCBs/Pesticides

PCB and/or Pesticide compounds were detected in all five pile samples at concentrations well below NYSDEC SCOs.

Metals

Metals were detected in all pile soils analyzed. Most results were well below the NYSDEC Part 375 SCOs. Only five metal compounds were detected above SCOs in some of the pile soil samples as follows:

- Arsenic concentrations exceeded the industrial SCO (16 ppm) in one sample; 30P (22 ppm).

- Barium concentrations exceeded the commercial SCO (400 ppm) in one sample; 30P (1,000 ppm).

- Chromium concentrations exceeded the restricted residential SCO (110

ppm) in two samples; 28P (270 ppm) and 34P (180 ppm).

- Manganese concentrations exceeded the restricted residential SCO (2,000 ppm) in five samples; 27P (2,800 ppm), 28P (8,100 ppm), 30P (2,600 ppm), 33P (2,800 ppm) and 34P (6,400 ppm).

- Cadmium concentrations exceeded the restricted residential SCO (4.3 ppm) in one sample; 34P (7.3 ppm).

4.0 CONCLUSIONS

In general, the results of this investigation suggest that soils at the site consist of a 1 to 1.5 foot layer of topsoil fill at the surface. Below the topsoil layer to depths of up to 8 feet is a fill layer consisting of black and grey fill material with slag, brick, concrete, topsoil material and coarse to fine gravel and sands. The depth of this fill layer is greatest at the north (toward the river) and the east end of the site. Below the fill layer the soil consisted, in general, of light brown and grey, coarse to fine gravel and medium to fine sand with traces of silty clay. In each of the six surface debris mounds/piles the material consisted of black and grey fill and construction and debris (C & D) material, slag, concrete, metal, wood, plastic, topsoil material, glass and gravel and sand.

There were no observations in any of the trenches of significantly impacted soil (i.e., staining, discoloring, odors, etc.) nor were any volatile organic compounds detected during PID field screening. The groundwater table was not encountered in any of the trenches. C & D debris was encountered in much of the fill material across the site and in particular the soil/debris mounds/piles investigated at the west end of Parcel 2 and in Parcel 1.

Analytical results indicate that several volatile organic compounds were detected in most of the subsurface soil samples at concentrations well below NYSDEC Part 375 restricted residential soil cleanup objectives (refer to Table 1-6). Additionally, several PCB and pesticide compounds were detected in a number of the surface and subsurface soil samples at concentrations well below NYSDEC Part 375 restricted residential soil cleanup objectives (refer to Table 1-6)

The analytical results also indicate the presence of detectable concentrations of SVOCs (primarily PAH compounds) and metals in all of the surface and subsurface soil samples. Several PAH and metal compounds were detected in surface and subsurface soil samples at concentrations that exceed NYSDEC Part 375 restricted residential soil cleanup objectives. However, only a few sample concentrations exceeded either the commercial or industrial cleanup objectives. In general, other than two of the debris pile samples (TP-30P and TP-33P) most elevated PAH and metals concentrations in the soil samples only slightly exceeded Part 375 cleanup objectives. These concentrations are typical

of suburban/urban area soils especially those previously used for commercial/industrial activity and appear similar to other areas of the City of Buffalo.

The two debris pile samples, TP-30P and TP-33P had several PAH compound concentrations that significantly exceeded Part 375 restricted residential soil cleanup objectives. For some of these compounds, the results also exceeded both commercial and industrial soil cleanup objectives. Also, three metal compounds in sample TP-30 exceeded Part 375 restricted residential (arsenic, barium and manganese). The arsenic concentration also exceeded the commercial and industrial cleanup objectives and barium exceeded the commercial cleanup objective. Remedial actions will most likely be required for some areas of the property including these specific soil piles.

PAHs are a group of chemicals that are formed during incomplete burning of wood, coal, gas, garbage or other organic substances (fossil fuels such as heating oil) and are widely distributed in the environment and particularly in older urban environments where coal, gas, and petroleum were burned for heat and other energy uses. PAH and metal compounds are common constituents of fill material found in urban/suburban environments and are commonly elevated in fill materials that contain ash or slag.

Most metals occur in nature and their concentrations in fill and natural soil will exhibit considerable variability both stratigraphically and spatially. This variability is related to the variable composition of the fill, natural soils' structure, weathering processes that chemically and physically modify soil and groundwater interactions that modify the geochemistry.

In general, PAHs and metals are not very mobile in soils, in that they have low solubilities with water (these compounds are practically insoluble in water) and tend to adsorb to the soil grains. These compounds do not readily breakdown in the environment and PAHs and metals deposited from combustion of coal or other fuels years ago would most likely still be present today. Based on the low volatility and their association with soil, the primary concern for potential human exposure to high levels of PAHs and metals include inhalation or ingestion of contaminated dust as well as dermal contact.

If the property continues to be developed under Brownfield guidance, the results indicate that some form of remedial action may be required for re-use based on NYSDEC Part 375 regulations. Due to the elevated levels of metals and PAHs in the site soils the regulations may likely require the implementation of engineering controls (EC) for future development (industrial, commercial or restricted residential) to mitigate human exposure of construction workers and/or site occupants to the site soils. An environmental easement and other institutional controls may also be needed.

Additional investigation and or remedial actions will be based on the planned future use. For example, based on NYSDEC Part 375-3.8, if the site is classified for industrial land use, no soil cover would likely be required and the site would essentially be shovel ready in its current state (with some possible institutional controls). Under the New York State classification for commercial use, however, a one-foot thick cover of clean soil underlain by an indicator such as a geotextile liner would likely be required. Clean soil would constitute soil that meets the Division of Environmental Remediation□s criteria for backfill (DER-10) or with NYCRR Part 375 Section 6.7. Non-vegetated areas (buildings, roadways, parking lots, etc.) would be covered by a paving system or concrete at least 6 inches thick. For restricted residential use, however, a two-foot thick cover would be required with the same details as for commercial use.

As stated, additional controls may include the preparation of a soils management plan, easements and other administrative controls as stipulated in current New York State Brownfield regulations.

Because of the indication of petroleum contamination from earlier studies, It is also recommended, as an additional investigation, that groundwater wells be installed and sampled to assess groundwater conditions at the site.

In summary, the field observations and analytical results of the site surface and subsurface soils investigation indicate that site soil conditions generally are typical of suburban/urban areas or areas previously used for commercial and industrial activity.

5.0 WARRANTS AND LIMITATIONS

This report is based on information from a limited soil sampling investigation, organic vapor screening, and visual observations of the surface and subsurface soils, as described within this report. As such, it does not represent an exhaustive assessment of subsurface conditions. Subsurface impacts may be present in site locations not assessed during this investigation. This report is intended exclusively for the purpose outlined herein at the site location and project indicated. The property and this site assessment are limited to the footprint of the lot and the areas assessed.

This report is intended for the sole use of the Niagara County Department of Purchasing, the USEPA and the City of Buffalo. The scope of services performed in this assessment may not be appropriate to satisfy the needs of other users and any use or re-use of this document or the findings, conclusions, or recommendations presented, is at the sole risk of the user.

The conclusions set forth in this report are based upon, and limited by, the analytical data and other information available to PEI. It should be noted that all surface and subsurface environmental assessments are inherently limited in the

sense that conclusions are drawn and recommendations developed from information obtained from limited data and site evaluation at a specific time. The passage of time may result in a change in environmental circumstances at this site and surrounding properties, or hazardous materials beneath the surface may be present but undetectable during this limited Phase II assessment.

Opinions and recommendations presented herein apply to the site conditions existing at the time of the subsurface assessment and those reasonably foreseeable. They cannot necessarily apply to site changes of which PEI is not aware and has not had the opportunity to evaluate.

6.0 REFERENCES

1. Remedial Report for the Truscon Property Prepared by Malcolm Pirnie for The City of Buffalo, December 1996.

2. Phase I Environmental Site Assessment Village Farms,1086, 1176, 1328 South Park Avenue & 11 Bertha Street, Buffalo New York, prepared by GZA Geoenvironmental, prepared for Niagara County Department of Economic Development, November 2007

3. Site-Specific Brownfields Sampling, Analysis and Monitoring Plan (SAMP) Revision 3, October 2008 for Village Farm Site under Niagara County, New York Brownfields Assessment Demonstration Pilot Cooperative Agreement No. BP99290801-6.

4. Generic Brownfields Quality Assurance project plan (QAPP) Brownfields Pilot Cooperative Agreement Program (No. BP99290801-6), Village Farm Site, Buffalo, New York.

5. New York State Department of Environmental Conservation (NYSDEC)-6 NYCRR Part 375 Environmental Remediation Program-Subparts 375-1 to 375-4 & 356-6, Effective December 14, 2006.

APPENDIX A

Test Trench Logs

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-01	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, topsoil, M-F (medium to fine) sand and organic material.
2			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and of M-F (medium to fine) sand
3			
4			
5			
6			
7			- Light brown and grey, M-F sand with traces of silty clay
8			
9			
10			Ended test trench @ 10.0 ft. bgs
11			
12			

COMMENTS: Size of Test Pit: 10.0'D x 6'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-02	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
0	02A		- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
1			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F (medium to fine) sand
2			
3	02B		
4			- Light brown and grey, very tight silty clay with traces of M-F sand
5			
6			Ended test trench @ 6.0 ft. bgs
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 6.0'D x 5'W x 12'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-03	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and of M-F sand. Bottom of layer was wet - apparent purched water condition. Concrete foundation was observed at bottom of test trench
3			
4			
5			Ended test trench @ 5.0 ft. bgs
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 5.0'D x 4'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-04	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	04A		- Light brown, M-F (medium to fine) sand with trace and organic material.
2			
3			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and of M-F sand.
4			
5			
6	04B		
7			- Light brown and grey, very tight silty sand with traces of clay
8			Ended test trench @ 8.0 ft. bgs
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 8.0'D x 6'W x 9'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-05	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	05A		- Light brown, topsoil, M-F (medium to fine) sand and organic material.
2			- Black and grey, fill material, slag, brick, concrete, a metal post, copper wire, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3			
4	05B		
5			- Light brown and grey, very tight silty clay with traces of M-F sand
6			Ended test trench @ 6.0 ft. bgs
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 6.0'D x 5'W x 8'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-06	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, topsoil, M-F (medium to fine) sand and organic material.
2			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and of M-F sand. A layer of limestone was directly beneath the sand.
3			
4			
5			
6			- Light brown and grey tight silty clay with traces of M-F sand, C-F gravel and concrete.
7			
8			
9			
10			Ended test trench @ 10.0 ft. bgs
11			
12			

COMMENTS: Size of Test Pit: 10.0'D x 6'W x 14'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-07	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, topsoil with trace M-F (medium to fine) sand and organic material. Layer was frozen (frost).
2			
3			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
4			
5			
6			Ended test trench @ 6.0 ft. bgs
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 6.0'D x 5'W x 5'L.
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-08	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	08A		- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			
3			- Railroad metal spur, wooden railroad tracks, railraod bedding with traces of C-F (coares to fine) gravel and M-F sand
4	08B		
5			
6			- Grey to black, very tight silty clay with traces of M-F sand. Layer had an "organic-type" odor to it.
7			
8			
9			Ended test trench @ 8.0 ft. bgs
10			
11			
12			

COMMENTS: Size of Test Pit: 8.0'D x 6'W x 11'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Large concrete pad was encountered at 2' bgs - so this test trench was moved to the north
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 27, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 27, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-09	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	09A		- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3	09B		
4			
5			
6			- Light brown and grey, C-F gravel and M-F sand with traces of silty clay. Water was present at the bottom of this layer - due to perched water conditions.
7			
8			
9			
10			
11			- Light brown and grey, very tight silty clay with traces of M-F sand
12			Ended test trench @ 11.0 ft. bgs

COMMENTS: Size of Test Pit: 11.0'D x 5'W x 12'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-10	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	10A		- Light brown,topsoil with trace amounts M-F (medium to fine) sand and organic material.
2			
3			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
4			
5			
6	10B		
7			Refusal of test trench @ 6.0 ft. bgs
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 6.0'D x 5'W x 9'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Test trench was refused further depth @ 6.0' bgs
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-11	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	11A		- Light brown, topsoil with taces of M-F (medium to fine) sand and organic material.
2			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and of M-F sand.
3			
4	11B		
5			- Light brown and grey tight silty clay with traces of M-F sand, C-F gravel and concrete. Layer had an odor of organics.
6			Ended test trench @ 6.0 ft. bgs
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 6.0'D x 5'W x 11'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-12	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	12A		- Light brown, topsoil with traces of M-F (medium to fine) sand and organic material.
2			
3			- Black and grey, fill material, slag, brick, fire brick, concrete, topsoil material with C-F (coarse to fine) gravel and of M-F sand.
4			
5			
6			
7	12B		- Light brown and grey tight silty clay with traces of M-F sand, C-F gravel and concrete. Layer had an odor of organics.
8			
9			Ended test trench @ 9.0 ft. bgs
10			
11			
12			

COMMENTS: Size of Test Pit: 9.0'D x 7'W x 13'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-13	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Lt. brown, topsoil material with M-F (medium to fine) sand.
2			
3			
4			- Light brown and grey tight silty clay with traces of M-F sand, C-F gravel. Northwestern portion of the trench contained an abundance amount of concrete and brick.
5			
6			
7			
8			
9			
10			Ended test trench @ 9.0 ft. bgs
11			
12			

COMMENTS: Size of Test Pit: 9.0'D x 6'W x 11'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-14	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	14A		- Light brown, topsoil with traces of M-F (medium to fine) sand and organic material.
2			
3			
4	14B		- Black and grey, fill material - slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel, M-F sand and trace of ash material.
5			
6			
7			
8			
9			- Light brown and grey M-F sand with C-F gravel and trace of silty clay.
10			
11			Ended test trench @ 11.0 ft. bgs
12			

COMMENTS: Size of Test Pit: 11.0'D x 8'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis
Subsurface sample was taken of the ash-like material

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-15	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	15A		- Light brown, topsoil with traces of M-F (medium to fine) sand and organic material.
2			
3			- Light brown, M-F sand with trace of C-F gravel.
4			
5			
6			
7	15B		- Light brown and grey silty clay with trace of M-F sand and C-F gravel.
8			
9			Ended test trench @ 9.0 ft. bgs
10			
11			
12			

COMMENTS: Size of Test Pit: 9.0'D x 6'W x 9'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-16	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, topsoil with traces M-F (medium to fine) sand and organic material.
2			- Light brown and grey silty clay with trace of M-F sand and C-F gravel.
3			
4			
5			Ended test trench @ 5.0 ft. bgs
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 5.0'D x 5'W x 7'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-17	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3			
4			- Light brown, M-F sand with traces of silty clay and C-F gravel
5			
6			
7			- Light brown and grey silty clay with trace of M-F sand and C-F gravel.
8			Ended test trench @ 8.0 ft. bgs
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 8.0'D x 6'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-18	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
0	18A		- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
1	18B		- Brown silty clay with trace amounts of M-F sand and C-F (coarse to fine) gravel
2			
3			- Light brown, M-F sand with traces of silty clay and C-F gravel
4			
5			
6			
7			
8			- Light brown and grey silty clay with trace of M-F sand and C-F gravel.
9			
10			
11			
12			Ended test trench @ 12.0 ft. bgs

COMMENTS: Size of Test Pit: 12.0'D x 7'W x 14'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-19	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	19A		- Light brown, M-F (medium to fine) sand trace topsoil and organic material. Possible drain tile was also observed in this layer
2			- Black and light brown silty clay with C-F (coarse to fine) gravel and M-F sand.
3	19B		
4			
5			- Light brown and grey silty clay with trace of M-F sand and C-F gravel.
6			
7			
8			Ended test trench @ 8.0 ft. bgs
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 8.0'D x 5'W x 11'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recordedSurface and
Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 28, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 28, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-20	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			- Black and grey, fill material, slag, pieces of metal, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3			
4			Refusal of test trench @ 4.0 ft. bgs - concrete pad
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 4.0'D x 4'W x 8'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 29, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 29, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-21	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	21A		- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3	21B		
4			
5			- Light brown, M-F sand and traces of C-F gravel and silty clay.
6			
7			
8			End of test trench @ 8.0 ft. bgs
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 8.0'D x 6'W x 12'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 29, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 29, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-22	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
0	22A		- Black topsoil and organic material with traces of M-F (medium to fine) sand.
1			- Black and grey, fill material, railroad bedding, railroad ties, metal tracks and slag
2			
3			- Light brown, M-F sand with traces of silty clay and C-F (course to fine) gravel
4			
5			- Light brown and black, M-F sand with slag fill also traces of silty clay and C-F gravel
6	22B		
7			- Light brown, M-F sand with traces of silty clay and C-F gravel
8			
9			Ended test trench @ 9.0 ft. bgs
10			
11			
12			

COMMENTS: Size of Test Pit: 9.0'D x 9'W x 12'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 29, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 29, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-23	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Black topsoil and organic material and traces of M-F (medium to fine) sand.
2			- Black and grey, fill material, railroad bedding, railroad ties, metal tracks and slag
3			
4			
5			- Light brown, M-F sandy loam with traces of C-F (course to fine) gravel
6			
7			
8			Ended test trench @ 8.0 ft. bgs
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 8.0'D x 6'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 29, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 29, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-24	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
0	24A		- Light brown, M-F (medium to fine) sand traces topsoil and organic material.
1			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
2			- Light brown, M-F sand with traces of silty clay and C-F gravel
3			
4	24B		
5			- Light brown and grey silty clay with trace of M-F sand and C-F gravel.
6			
7			Ended test trench @ 7.0 ft. bgs
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 7.0'D x 5'W x 11'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 29, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 29, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-25	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	25A		- Light brown, topsoil with traces of M-F (medium to fine) sand and organic material.
2	25B		
3			- Light brown and grey M-F sandy loam with trace of C-F gravel.
4			
5			Ended test trench @ 5.0 ft. bgs
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 5.0'D x 5'W x 8'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-26	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, topsoil with taces of M-F (medium to fine) sand and organic material.
2			- Black and grey, fill material - slag, brick, concrete, metal rebar, topsoil material, C-F gravel and M-F sand.
3			
4			- Light brown and grey, M-F sandy loam with trace of C-F gravel
5			
6			
7			Ended test trench @ 7.0 ft. bgs
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 7.0'D x 8'W x 12'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-27P	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			
2	27P		- Black and grey, fill and C&D material, slag, brick, concrete, metal, wood, plastic, topsoil material with C-F gravel and M-F sand.
3			
4			
5			Ended test trench @ 5.0 ft. bgs
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 5.0'D x 4'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
"Test Trench" was dug through a mounded pile of debris
Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-28P	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			
2	28P		- Black and grey, fill and C&D material, slag, brick, concrete, metal, wood, plastic, topsoil material with C-F gravel and M-F sand.
3			
4			
5			Ended test trench @ 5.0 ft. bgs
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 5.0'D x 4'W x 8'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
"Test Trench" was dug through a mounded pile of debris
Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-29P	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Black and grey, fill and C&D material, slag, brick, concrete, metal, wood, plastic, topsoil material with C-F gravel and M-F sand.
2			
3			Ended test trench @ 3.0 ft. bgs
4			
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 3.0'D x 4'W x 8'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
"Test Trench" was dug through a mounded pile of debris

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-30P	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			
2	30P		- Black and grey, fill and C&D material, slag, brick, concrete, metal, wood, plastic, topsoil material with C-F gravel and M-F sand.
3			
4			
5			Ended test trench @ 5.0 ft. bgs
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 5.0'D x 5'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
"Test Trench" was dug through a mounded pile of debris
Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-31	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
0			- Black and grey, fill and C&D material, slag, concrete and topsoil material.
1			Refusal of test trench @ 1.0 ft. bgs - concrete pad
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 1.0'D x 5'W x 7'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-32	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
0	32A		- Light brown, topsoil with taces of M-F (medium to fine) sand and organic material.
1	32B		- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
2			
3			
4			- Light brown and grey M-F sandy loam with traces of C-F gravel
5			
6			
7			Ended test trench @ 7.0 ft. bgs
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 7.0'D x 6'W x 14'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-33P	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			
2	33P		- Black and grey, fill and C&D material, metal, rebar, brick, concrete, glass, wood, plastic, topsoil material with C-F gravel and M-F sand. Concrete pad @ the bottom of excavation.
3			
4			
5			Refusal of test trench @ 5.0 ft. bgs - concrete pad
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 5.0'D x 5'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
"Test Trench" was dug through a mounded pile of debris
Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-34P	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			
2	34P		- Black and grey, fill - possible bedding for roads, brick, M-F sand, C-F gravel, metal, rebar and other debris
3			
4			End test trench @ 4.0 ft. bgs - concrete pad
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 4.0'D x 5'W x 8'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
"Test Trench" was dug through a mounded pile of debris
Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-35	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	35A		- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			
3			- Black and grey, fill material - slag, brick, concrete, metal, topsoil material with C-F (coarse to fine) gravel and of M-F sand. A large, rivited piece of metal was observed at 3 feet bgs.
4	35B		
5			Refusal of test trench @ 5.0 ft. bgs - concrete pad
6			
7			
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 5.0'D x 7'W x 11'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-36	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, M-F (medium to fine) sand and organic material.
2			- Black and grey, fill material, slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3			
4			
5			- Light brown, M-F sandy loam with traces of C-F gravel
6			
7			Ended test trench @ 7.0 ft. bgs
8			
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 7.0'D x 7'W x 14'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-37	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	37A		- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			- Black and grey, fill material - slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3			
4	37B		
5			
6			- Light brown, M-F sandy loam with traces of C-F gravel
7			
8			Ended test trench @ 8.0 ft. bgs
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 8.0'D x 7'W x 14'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-38	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			- Light brown, M-F (medium to fine) sand with trace topsoil and organic material.
2			- Black and grey, fill material - slag, brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3			
4			
5			
6			
7			- Light brown, M-F sand and C-F gravel mix
8			
9			
10			Ended test trench @ 10.0 ft. bgs
11			
12			

COMMENTS: Size of Test Pit: 10.0'D x 7'W x 12'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded

TEST PIT LOG

PROJECT: Village Farms Site - South Park Street - City of Buffalo, NY		SHEET: 1 OF 1
CLIENT: Niagara County / City of Buffalo	JOB NUMBER: E8006	
CONTRACTOR: Ridgeway Environmental	LOCATION: South Park Avenue	
DATE STARTED: January 30, 2009	GROUND ELEVATION: N/A	
DATE COMPLETED: January 30, 2009	OPERATOR: Robert Broomfield	
PIT NUMBER: VF-TP-39	GEOLOGIST: J. Ryszkiewicz	
	GROUND WATER: N/A	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	39A		- Light brown, topsoil with trace M-F (medium to fine) sand and organic material.
2			- Black and grey, fill material, slag - brick, concrete, topsoil material with C-F (coarse to fine) gravel and M-F sand.
3	39B		
4			- Light brown, silty clay with M-F sand and trace of C-F gravel mix
5			
6			- Light brown, rounded C-F gravel and M-F sand
7			
8			Ended test trench @ 8.0 ft. bgs
9			
10			
11			
12			

COMMENTS: Size of Test Pit: 8.0'D x 6'W x 10'L
Photoionization readings were taken with a Mini-Rae 2000
No other readings other than background were recorded
Surface and Suburface Soil samples were taken at this location
TAL Metals, TCL Semi-Volatiles, PCBs and TCL Volatiles (not Surface) were the analysis

APPENDIX B

Analytical Data Usability Summary Report Text

ChemWorld Environmental, Inc. 14 Orchard Way North, Rockville, MD 20854
301-294-6144 Phone and Fax

May 12, 2009

Mr. John Berry
Panamerican Environmental, Inc.
2390 Clinton Street
Buffalo, New York 14227

RE: **Data Usability Summary Report (DUSR) #1**
Village Farms Project
Mitkem Laboratories, Warwick, RI
Lab Project ID No. H0130
Soil / Solid Samples
Analyses for Volatile Organics, Semi-Volatile Organics (Base/Neutral and Acid Extractables), Pesticides, Polychlorinated Biphenyls (PCBs), Inorganics (Metals) and Cyanide

Dear Mr. Berry:

Data Usability Summary Report (DUSR) technical services were performed by ChemWorld Environmental, Inc. for the Village Farms Project for the soil / solid sampling event of January 27 - 28, 2009. The DUSR review was performed in accordance with United States Environmental Protection Agency (USEPA) Region II data validation guidelines and New York State Department of Environmental Conservation (NYSDEC) Analytical Service Protocols (ASP) requirements, where applicable.

The analytical data from Lab Project ID No. H0130 was reviewed (screened) for the parameters noted. The data screening consisted of a review of the Quality Control (QC) Summary Forms and a brief review of various chromatograms and quantitation reports. The QC Forms were reviewed to determine whether any data required qualification based upon QC deviations noted on the Forms. The associated Analytical Data Result Forms are included as Attachment A. These Forms include data qualifiers as described within this letter report. Unless otherwise noted, all results included on the Forms are considered usable, based upon the DUSR review items noted below. Attachment B includes copies of the associated Case Narratives and the Chain-of-Custody forms.

The DUSR review items include the following, as method appropriate:

- Completeness of Data Package
- Chain-of-Custody Review
- Holding Times from Collection
- Surrogate Recovery
- GC/MS Instrument Performance Check
- Initial and Continuing Calibration
- Matrix Spike / Matrix Spike Duplicates (MS/MSD)
- Matrix Spike Blanks (MSB)
- Internal Standards
- Tentatively Identified Compounds (TICs)
- Method and Field Blanks
- CRDL Standards for ICP
- Laboratory Duplicate Samples
- Laboratory Control Samples (LCS)
- ICP Interference Check
- ICP Serial Dilution

The QC Summary Forms included various deviations based upon the acceptable limits for quality control. The following should be noted regarding qualification of the data set for the review items above.

Volatiles – Soil / Solid, Lab Project ID No. H0130

Surrogate Recovery: Sample VF-TP-11B generated low recovery for Dibromofluoromethane at 44% (Limit 65-132). This sample was qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for Volatiles. In addition, the following samples generated high surrogate recovery for either 1,2-Dichloroethane-d4 or Toluene-d8. The samples include: VF-TP-09BRX, -05B, -08B, -09B, -10B, -14B, -15B, -05BRX, -08BRX, -09BRX, -10BRX, -14BRX and -15BRX. The recoveries ranged from 118% to 138% (Range Limit 65-128). These samples were qualified as 'J', estimated, for the positive results, only, due to high surrogate recovery.

Internal Standards: Low to very low (<25% of the lower limit) internal standard reported area counts were generated for many of the samples. Sample VF-TP-09B generated very low reported area counts for 2 of the 3 internal standards and a low reported area count for the third. This sample was qualified as 'J', estimated, for the positive results, and 'R', unusable, for the non-detectable results for the compounds associated with the Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4 internal standards, only. The non-detectable results associated with the Fluorobenzene internal standard were qualified as 'UJ', estimated. It should be noted that the re-analysis of this sample, VF-TP-09BRX, generated usable results for all of the Volatile compounds.

In addition, the following samples generated low reported area counts for either or both of the 1,4-Dichlorobenzene-d4 and Chlorobenzene-d5 internal standards. They include: VF-TP-05B, -08B, -10B, -14B, -15B, -05BRX, -08BRX, -09BRX, -10BRX, -14BRX and -15BRX. These samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for the compounds associated with the particular internal standard affected.

Continuing Calibration: One continuing calibration analyzed on 01/30/09 at 12:50 generated Percent Difference (%D) of greater than the 25% limit for Chloromethane, Chloroethane and 1,1-Dichloroethene in the range of 29.0% to 48.0%. The associated samples were qualified as 'UJ', estimated, for the non-detectable results for these compounds. Positive results were not detected for the compounds affected.

Method Blanks: Two soil method blanks were analyzed for the associated samples. Naphthalene was detected in both Method Blanks at 1.2 ug/Kg and 1.4 ug/Kg. A limit of five times the higher result was used for review and qualification of the associated soil samples. Sample results found to be less than the method blank limit and reported at less than the Contract Required Quantitation Limit (CRQL), were qualified as 'U', not detected, at the CRQL. Sample results reported over the CRQL but less than the Method Blank limit were qualified as 'U', not detected.

Semi-Volatiles – Soil / Solid, Lab Project ID No. H0130

LCS / LCS Duplicate: The LCS and LCS Duplicate generated high recovery for 2-Methylnaphthalene, Benzo(a)anthracene and Chrysene in the range of 107% to 119% (Range Limit 45-110). The associated samples were qualified as 'J', estimated, for the positive results, only, for these compounds. Additional qualification was not required.

Continuing Calibration: One continuing calibration analyzed on 02/02/09 at 11:28 generated a %D of 29.9% for Pentachlorophenol (Limit 25%). The associated samples were qualified as 'UJ', estimated, for the non-detectable results for Pentachlorophenol. Positive results were not detected for the compound affected.

Pesticides – Soil / Solid, Lab Project ID No. H0130

Surrogate Recovery: Samples VF-TP-08B, -10B, -11A, -11B, -12A and -14B generated both low and high recovery in the range of 40% to 621% for surrogate compounds TCX and DCB (Advisory Limit

60-150). These samples were qualified as 'J', estimated, for all positive results. The samples were qualified as 'UJ', estimated, for the non-detectable results for Pesticides, where low surrogate recovery was generated.

Continuing Calibration: One continuing calibration analyzed on 12/12/09 at 10:29 generated a %D of greater than the 15% limit for beta-BHC at 20%. The associated samples were qualified as 'UJ', estimated, for the non-detectable results for beta-BHC. Positive results were not detected for this compound.

Percent Difference Between Two GC Columns: Eight soil samples generated %Ds which exceeded the 25% limit for various Pesticides, comparing results between the two GC columns. The samples affected include the following: VF-TP-04A, -08B, -09B, -10B, -11A, -11B, -12B and -14B. The compounds affected include Endosulfan Sulfate, 4,4'-DDT, Endrin Ketone, alpha-Chlordane, gamma-Chlordane, 4,4'-DDE and 4,4'-DDD. These samples were qualified as 'J', estimated, where the %D was generated from 26% to 70%. The samples were qualified as 'JN', presumptively present at an approximated quantity, where the %D exceeds 70%. The range of %D's generated include 30.9% to 658%.

PCBs – Soil / Solid, Lab Project ID No. H0130

Surrogate Recovery: Samples VF-TP-05B, -08A, -08B, -10B, -11A, -11B and -14B generated both low and high recovery in the range of 34% to 419% for surrogate compounds TCX and DCB (Advisory Limit 60-150). These samples were qualified as 'J', estimated, for all positive results. The samples were qualified as 'UJ', estimated, for the non-detectable results for PCBs, where low surrogate recovery was generated.

Continuing Calibrations: Three continuing calibrations analyzed on 12/12/09 at 09:39, 12/12/09 at 11:49 and 12/12/09 at 11:33 generated %Ds of greater than the 15% limit for various PCBs. Aroclor-1248, Aroclor-1254, Aroclor-1016 and Aroclor-1260 generated %D's in the range of 16.9% to 20.5%. The associated samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for the PCBs affected.

Percent Difference Between Two GC Columns: Sample VF-TP-02B generated a %D of 42.4% for Aroclor-1254 which exceeded the 25% limit, comparing results between the two GC columns. This sample was qualified as 'J', estimated, for Aroclor-1254.

Inorganics and Cyanide – Soil / Solid, Lab Project ID No. H0130

Preparation Blanks: One preparation blank was analyzed for the soil / solid samples. The following inorganics were detected in the preparation blank.

(Soil / Solid Preparation Blank)

Antimony	0.366 mg/Kg
Copper	1.003 mg/Kg
Iron	4.472 mg/Kg
Silver	0.154 mg/Kg
Zinc	0.675 mg/Kg

Limits of ten times the inorganic results above were used for review and qualification of the associated soil / solid samples. Sample results which were found to be less than the respective preparation blank limit were qualified as 'U', not detected. Sample results that exceed the respective blank limit do not require qualification.

Matrix Spike (MS): The site-specific MS for sample VF-TP-15B generated low recovery for Antimony at 16% and high recovery for Copper, Lead and Zinc in the range of 132% to 184% (Limit 75-125). The soil samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-

detectable results for Antimony. However, the positive results only, for Copper, Lead and Zinc were qualified as 'J', estimated, due to high recovery of the Matrix Spike.

ICP Serial Dilution: The following inorganics generated %D's of greater than 10% for Serial Dilution:

Barium	14%
Chromium	11%
Cobalt	15%
Lead	15%
Magnesium	14%
Manganese	14%
Nickel	16%
Vanadium	12%
Zinc	16%

The associated sample results for the inorganics noted above were qualified as 'J', estimated, for the positive results, where the sample result exceeds 50 times the respective Instrument Detection Limit (IDL).

Please contact me by telephone or Fax at 301-294-6144, should you require additional information or clarification regarding this Letter Report.

Sincerely,

Andrea P. Schuessler aps

Andrea P. Schuessler, CHMM
ChemWorld Environmental, Inc.

c: PA-2009.1 file

ChemWorld Environmental, Inc. 14 Orchard Way North, Rockville, MD 20854
301-294-6144 Phone and Fax

May 13, 2009

Mr. John Berry
Panamerican Environmental, Inc.
2390 Clinton Street
Buffalo, New York 14227

RE: **Data Usability Summary Report (DUSR) #2**
Village Farms Project
Mitkem Laboratories, Warwick, RI
Lab Project ID Nos. H0131 and H0146
Soil / Solid Samples
Analyses for Volatile Organics, Semi-Volatile Organics (Base/Neutral and Acid Extractables), Pesticides, Polychlorinated Biphenyls (PCBs), Inorganics (Metals) and Cyanide

Dear Mr. Berry:

Data Usability Summary Report (DUSR) technical services were performed by ChemWorld Environmental, Inc. for the Village Farms Project for the soil / solid sampling events of January 28 - 30, 2009. The DUSR review was performed in accordance with United States Environmental Protection Agency (USEPA) Region II data validation guidelines and New York State Department of Environmental Conservation (NYSDEC) Analytical Service Protocols (ASP) requirements, where applicable.

The analytical data from Lab Project ID Nos. H0131 and H0146 was reviewed (screened) for the parameters noted. The data screening consisted of a review of the Quality Control (QC) Summary Forms and a brief review of various chromatograms and quantitation reports. The QC Forms were reviewed to determine whether any data required qualification based upon QC deviations noted on the Forms. The associated Analytical Data Result Forms are included as Attachment A. These Forms include data qualifiers as described within this letter report. Unless otherwise noted, all results included on the Forms are considered usable, based upon the DUSR review items noted below. Attachment B includes copies of the associated Case Narratives and the Chain-of-Custody forms.

The DUSR review items include the following, as method appropriate:

- Completeness of Data Package
- Chain-of-Custody Review
- Holding Times from Collection
- Surrogate Recovery
- GC/MS Instrument Performance Check
- Initial and Continuing Calibration
- Matrix Spike / Matrix Spike Duplicates (MS/MSD)
- Matrix Spike Blanks (MSB)
- Internal Standards
- Tentatively Identified Compounds (TICs)
- Method and Field Blanks
- CRDL Standards for ICP
- Laboratory Duplicate Samples
- Laboratory Control Samples (LCS)
- ICP Interference Check
- ICP Serial Dilution

The QC Summary Forms included various deviations based upon the acceptable limits for quality control. The following should be noted regarding qualification of the data set for the review items above.

Volatiles – Soil / Solid, Lab Project ID No. H0131

Surrogate Recovery: Various samples generated both high and low recovery for 1 to 4 of the surrogate compounds. The samples include: VF-TP-18B, -25B, -21B, -22B, -18BRE, -21BRE and -22BRE. The recoveries generated ranged from 60% to 170% (Range Limit 65-132). These samples were qualified as 'J', estimated, for all of the positive results. The samples were qualified as 'UJ', estimated, for the non-detectable results for Volatiles where low surrogate recovery was generated.

Internal Standards: Low to very low (<25% of the lower limit) internal standard reported area counts were generated for various samples. Sample VF-TP-21BRE generated very low reported area counts for 3 of the 3 internal standards and sample VF-TP-22BRE generated very low reported area counts for 1 of the 3 internal standards. These two samples were qualified as 'J', estimated, for the positive results, and 'R', unusable, for the non-detectable results associated with the internal standards affected. It should be noted that the original analysis of both of these samples, VF-TP-21B and VF-TP-22B, while generating low reported area counts, did however generate usable results for all of the Volatile compounds.

In addition, the following samples generated low reported area counts for either or both of the 1,4-Dichlorobenzene-d4 and Chlorobenzene-d5 internal standards. They include: VF-TP-18B, -25B, -21B, -22B and -18BRE. These samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for the compounds associated with the particular internal standard affected.

Continuing Calibration: One continuing calibration analyzed on 01/30/09 at 12:50 generated Percent Difference (%D) of greater than the 25% limit for Chloromethane, Chloroethane and 1,1-Dichloroethene in the range of 29.0% to 48.0%. The associated samples were qualified as 'UJ', estimated, for the non-detectable results for these compounds. Positive results were not detected for the compounds affected.

Method Blanks: Three soil method blanks were analyzed for the associated samples. Naphthalene was detected in all of the Method Blanks in the range of 1.2 ug/Kg to 2.1 ug/Kg. A limit of five times the highest result was used for review and qualification of the associated soil samples. Sample results found to be less than the Method Blank limit and reported at less than the Contract Required Quantitation Limit (CRQL), were qualified as 'U', not detected, at the CRQL. Sample results reported over the CRQL but less than the Method Blank limit were qualified as 'U', not detected.

Volatiles – Soil / Solid, Lab Project ID No. H0146

Qualification of the data set for Volatiles was not required. The associated quality control information was found to be generated within acceptable limits.

Semi-Volatiles – Soil / Solid, Lab Project ID No. H0131

MS/MSD: The site-specific MS and MSD for sample VF-TP-25A generated 0% recovery for 2,4-Dinitrophenol (Limit 15-130). However, there appears to be a possible matrix interference, due to the fact that site-specific MS/MSD for VF-TP-25B and the LCS generated acceptable recovery for this compound. Sample VF-TP-25A was qualified as 'UJ', estimated, for the non-detectable result for 2,4-Dinitrophenol.

Continuing Calibration: Two continuing calibrations analyzed on 02/20/09 at 12:45 and 02/21/09 at 17:32 generated a %D's of 42.5% for 2,4-Dinitrophenol and 29.7% for 3,3'-Dichlorobenzidine (Limit 25%). The associated samples were qualified as 'UJ', estimated, for the non-detectable results for both of these Semi-Volatile compounds. Positive results were not detected for the compounds affected.

Internal Standards: A slightly high internal standard reported area count was generated for Acenaphthene-d10 for sample VF-TP-32B. Sample VF-TP32B was qualified as 'J', estimated, for the positive results only, for the compounds associated with the Acenaphthene-d10 internal standard.

Semi-Volatiles – Soil / Solid, Lab Project ID No. H0146

LCS: The LCS generated low recovery at 24% for 2,4-Dimethylphenol (Limit 30-105). The soil samples were qualified as 'UJ', estimated, for the non-detectable results for 2,4-Dimethylphenol. Positive results were not detected for this compound.

Internal Standards: A slightly high internal standard reported area count was generated for Perylene-d12 for sample VF-TP-33P. Sample VF-TP33P was qualified as 'J', estimated, for the positive results only, for the compounds associated with the Perylene-d12 internal standard.

Continuing Calibration: One continuing calibration analyzed on 02/11/09 at 13:32 generated a %D of 30.6% for 4-Nitrophenol (Limit 25%). The associated samples were qualified as 'UJ', estimated, for the non-detectable results for 4-Nitrophenol. Positive results were not detected for this compound.

Pesticides – Soil / Solid, Lab Project ID No. H0131

Surrogate Recovery: Sample VF-TP-18A generated low recovery in the range of 32% to 54% for surrogate compounds TCX and DCB (Advisory Limit 60-150). This sample was qualified as 'UJ', estimated, for the non-detectable results for Pesticides.

MS/MSD: The site-specific MS and MSD for sample VF-TP-25B generated low recovery for gamma-Chlordane at 54% and 63% (Limit 65-125). In addition, the site-specific MS and MSD for sample VF-TP-25A generated high recovery for Endosulfan Sulfate at 40% and 16% (Limit 60-135). Sample VF-TP-25A was qualified as 'J', estimated, for the positive result for Endosulfan Sulfate. Sample VF-TP-25B was qualified as 'UJ', estimated, for the non-detectable result for gamma-Chlordane.

Continuing Calibration: Various continuing calibrations analyzed on 02/26/09 and 02/27/09 generated %D's of greater than the 15% limit for 4,4'-DDT, Methoxychlor, Heptachlor, Endrin Ketone, Endosulfan II, Endosulfan Sulfate, 4,4'-DDT, Endrin Aldehyde, alpha-Chlordane and gamma-Chlordane. The %D's generated were in the range of 17.3% to 34.0%. The associated samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for the Pesticide compounds noted.

Percent Difference Between Two GC Columns: Eleven soil samples generated %Ds which exceeded the 25% limit for various Pesticides, comparing results between the two GC columns. The samples affected include the following: VF-TP-21B, -22A, -22B, -24A, -24B, -25A, -28P, -30P, -32A, -32AD, and -32B. The compounds affected include Endosulfan Sulfate, 4,4'-DDT, Endrin Ketone, alpha-Chlordane, gamma-Chlordane, 4,4'-DDE, 4,4'-DDD, beta-BHC, delta-BHC, gamma-BHC, Heptachlor Epoxide, Dieldrin, Endosulfan II and Endrin Aldehyde. These samples were qualified as 'J', estimated, where the %D was generated from 26% to 70%. The samples were qualified as 'JN', presumptively present at an approximated quantity, where the %D exceeds 70%. The range of %D's generated include 31.3% to 999%.

Pesticides – Soil / Solid, Lab Project ID No. H0146

Surrogate Recovery: Samples VF-TP-37A, -33P and -34P generated both low and high recovery in the range of 29% to 394% for surrogate compounds TCX and DCB (Advisory Limit 60-150). These samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for Pesticides.

Continuing Calibration: Two continuing calibrations analyzed on 02/20/09 at 19:41 and 02/21/09 at 11:26 generated %D's of greater than the 15% limit for Heptachlor Epoxide and Endrin Ketone, The

%D's generated were in the range of 16.5% to 17.4%. The associated samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for the Pesticide compounds noted.

Percent Difference Between Two GC Columns: Four soil samples generated %Ds which exceeded the 25% limit for various Pesticides, comparing results between the two GC columns. The samples affected include the following: VF-TP-33P, -34P, -37B and -39A. The compounds affected include Endosulfan Sulfate, 4,4'-DDT, Endrin Ketone, alpha-Chlordane, 4,4'-DDD, delta-BHC, Heptachlor Epoxide and Endosulfan I. These samples were qualified as 'J', estimated, where the %D was generated from 26% to 70%. The samples were qualified as 'JN', presumptively present at an approximated quantity, where the %D exceeds 70%. The range of %D's generated include 43.9% to 999%.

PCBs – Soil / Solid, Lab Project ID No. H0131

Surrogate Recovery: Various samples generated both low and high recovery in the range of 37% to 608% for surrogate compounds TCX and DCB (Advisory Limit 60-150). The samples included: VF-TP-19B, -22A, -22B, -24A, -24B, -27PD, -28P, -30P, -32A, -32AD and -32B. These samples were qualified as 'J', estimated, for all positive results. The samples were qualified as 'UJ', estimated, for the non-detectable results for PCBs, where low surrogate recovery was generated.

Continuing Calibrations: One continuing calibration analyzed on 02/19/09 at 13:52 generated %D's of greater than the 15% limit for Aroclor-1254 at 19.0% and 25.7%. The associated samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for Aroclor-1254.

Percent Difference Between Two GC Columns: Samples VF-TP-22A, -24A, -25A and -30P generated %D's in the range of 27.7% to 129.6% for Aroclor-1248 and Aroclor-1254. These exceeded the 25% limit, comparing results between the two GC columns. The samples noted were qualified as 'J', estimated, where the %D was generated from 26% to 70%. The samples were qualified as 'JN', presumptively present at an approximated quantity, where the %D exceeds 70%.

PCBs – Soil / Solid, Lab Project ID No. H0146

Surrogate Recovery: Various samples generated low recovery in the range of 31% to 56% for surrogate compounds TCX and DCB (Advisory Limit 60-150). The samples included: VF-TP-32BD, -33P, -37A, -37B and -39B. These samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for PCBs.

Percent Difference Between Two GC Columns: Samples VF-TP-33P and VF-TP-34P generated %D at 29.7% and 37.6% for Aroclor-1248. These exceeded the 25% limit, comparing results between the two GC columns. The samples noted were qualified as 'J', estimated.

Inorganics and Cyanide – Soil / Solid, Lab Project ID No. H0131

Preparation Blanks: One preparation blank was analyzed for the soil / solid samples. The following inorganics were detected in the preparation blank.

(Soil / Solid Preparation Blank)

Mercury	0.029 mg/Kg
Cyanide	0.128 mg/Kg
Aluminum	1.951 mg/Kg
Antimony	0.209 mg/Kg
Iron	10.063 mg/Kg

Limits of ten times the inorganic results above were used for review and qualification of the associated soil / solid samples. Sample results which were found to be less than the respective Preparation Blank Limit were qualified as 'U', not detected. Sample results that exceed the respective Preparation Blank Limit do not require qualification.

Matrix Spike (MS): Two site-specific MS samples for VF-TP-25A and VF-TP-28P were analyzed for the soil samples. Low spike recovery for was generated for sample VF-TP-25A for Antimony, Arsenic, Beryllium, Cadmium, Cobalt, Copper, Nickel, Selenium, Thallium and Cyanide in the range of 15% to 73% (Limit 75-125). In addition, low and high spike recovery for was generated for sample VF-TP-28P for Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Copper, Nickel, Thallium, Zinc and Cyanide in the range of 23% to 71%. The respective soil samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results, as required. However, all of the soil samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Copper, Nickel, Thallium and Cyanide.

Laboratory Duplicates: Two samples, VF-TP-25A and VF-TP-28PD, were used as the laboratory duplicate samples. Sample VF-TP-25A generated poor precision for Copper, Magnesium and Selenium in the range of 37.2% to 200% for Relative Percent Difference (RPD). Sample VF-TP-28PD generated poor precision for Magnesium, Nickel and Selenium in the range of 45.7% to 200%. The respective soil samples were qualified as 'J', estimated, for the positive results, as required. However, all of the soil samples were qualified as 'J', estimated, for the positive results for Magnesium and Selenium.

ICP Serial Dilution: Three samples were used for ICP Serial Dilution. They include: VF-TP-25A, VF-TP-28P and VF-TP-25B. The following inorganics generated %D's of greater than 10% for Serial Dilution:

VF-TP-25A

Aluminum	22%
Arsenic	29%
Barium	34%
Beryllium	36%
Chromium	36%
Copper	15%
Lead	46%
Manganese	15%
Nickel	43%
Vanadium	30%
Zinc	52%

VF-TP-28P

Aluminum	15%
Barium	23%
Beryllium	19%
Chromium	23%
Cobalt	25%
Lead	31%
Nickel	30%
Vanadium	21%
Zinc	33%

VF-TP-25B

Chromium	12%
Cobalt	12%
Lead	13%
Nickel	13%
Zinc	13%

The associated sample results for the inorganics noted above were qualified as 'J', estimated, for the positive results, where the sample result exceeds 50 times the respective Instrument Detection Limit (IDL).

Inorganics and Cyanide – Soil / Solid, Lab Project ID No. H0146

Preparation Blanks: One preparation blank was analyzed for the soil / solid samples. The following inorganics were detected in the preparation blank.

(Soil / Solid Preparation Blank)

Cyanide	0.128 mg/Kg
Antimony	0.195 mg/Kg
Copper	0.799 mg/Kg
Silver	0.159 mg/Kg

Limits of ten times the inorganic results above were used for review and qualification of the associated soil / solid samples. Sample results which were found to be less than the respective Preparation Blank Limit were qualified as 'U', not detected. Sample results that exceed the respective Preparation Blank Limit do not require qualification.

Matrix Spike (MS): Two site-specific MS samples for VF-TP-35A and VF-TP-35B were analyzed for the soil samples. Low spike recovery for was generated for sample VF-TP-35A for Antimony and Zinc at 49% to 55%, respectively (Limit 75-125). In addition, low spike recovery for was generated for sample VF-TP-35B for Antimony, Arsenic, Barium, Cadmium, Chromium, Copper, Nickel, Selenium, Thallium and Zinc in the range of 21% to 72%. The respective soil samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results, as required. However, all of the soil samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for Antimony and Zinc.

ICP Serial Dilution: Two samples were used for ICP Serial Dilution. They include: VF-TP-35A and VF-TP-35B. The following inorganics generated %D's of greater than 10% for Serial Dilution:

VF-TP-35A

Aluminum	13%
Iron	29%
Magnesium	24%
Manganese	24%

VF-TP-35B

Chromium	21%
Lead	31%
Magnesium	24%

The associated sample results for the inorganics noted above were qualified as 'J', estimated, for the positive results, where the sample result exceeds 50 times the respective IDL.

Please contact me by telephone or Fax at 301-294-6144, should you require additional information or clarification regarding this Letter Report.

Sincerely,

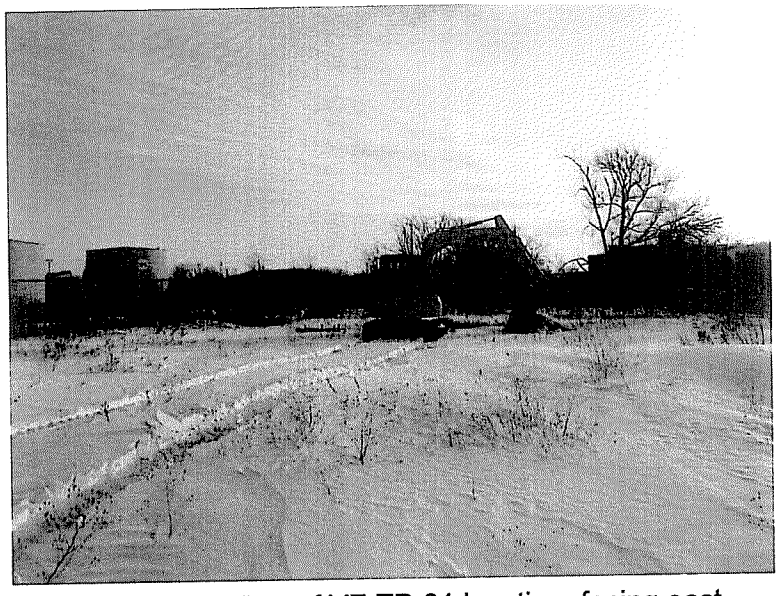
Andrea P. Schuessler aps

Andrea P. Schuessler, CHMM
ChemWorld Environmental, Inc.

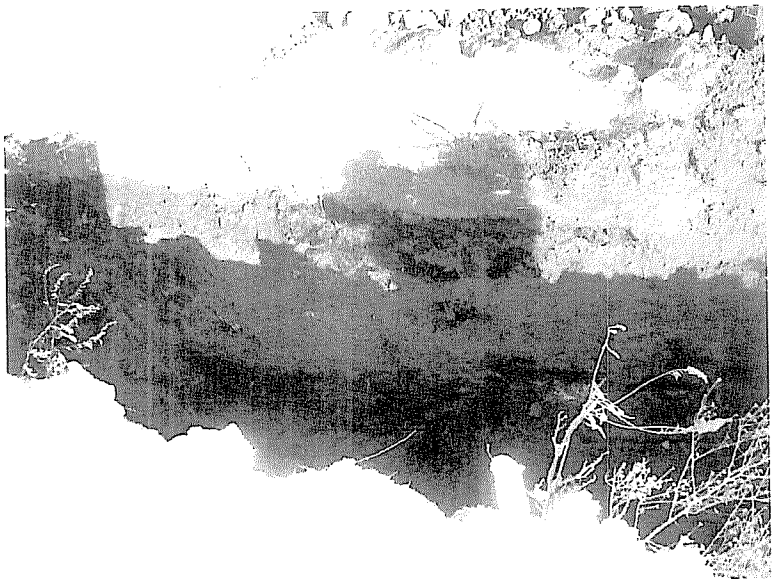
c: PA-2009.2 file

APPENDIX C

Photographs

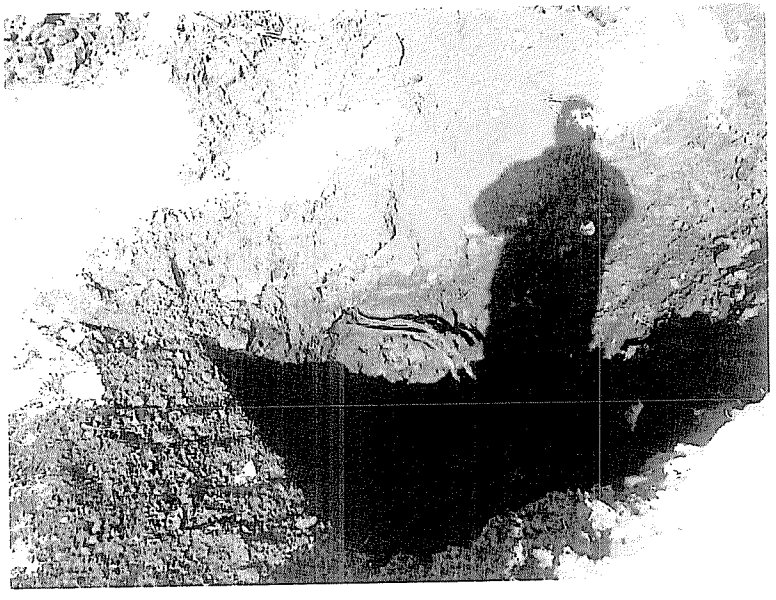


Photograph 1. View of VF-TP-01 location, facing east

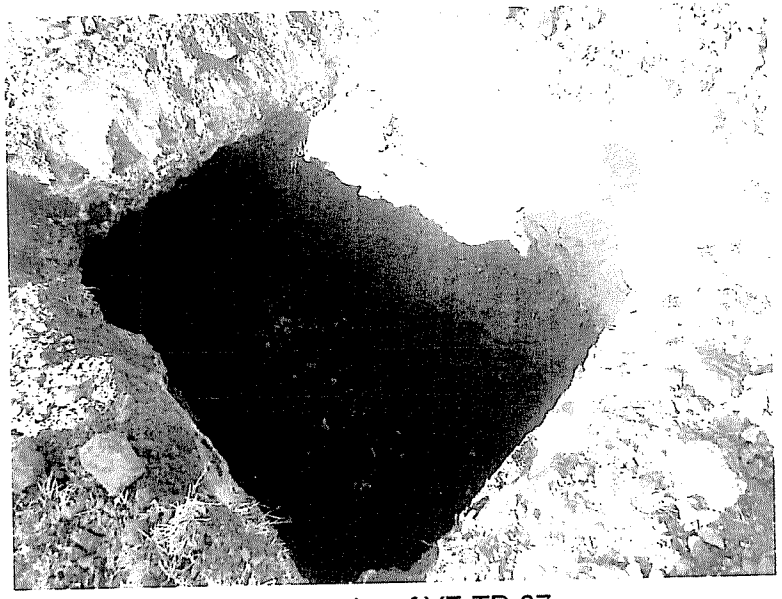


Photograph 2. Stratigraphy of VF-TP-02

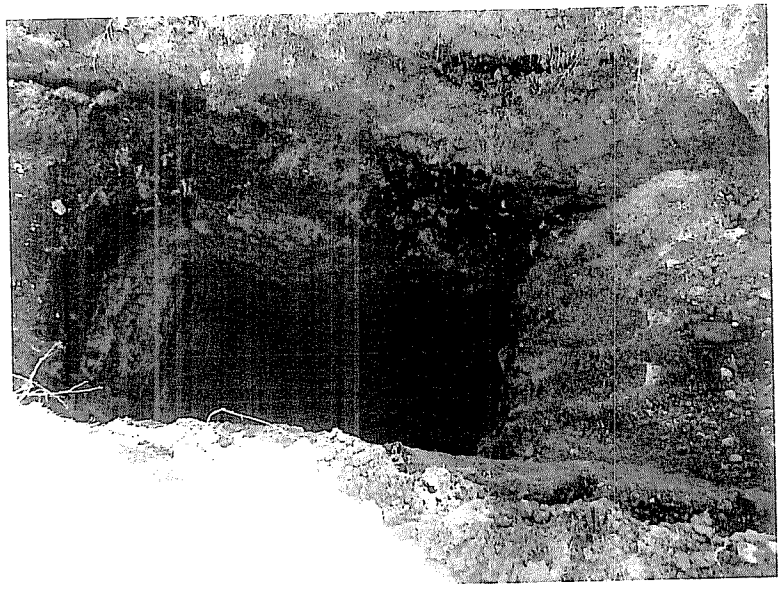
Photograph 3. View of VF-TP-04, facing west



Photograph 4. Stratigraphy of VF-TP-05

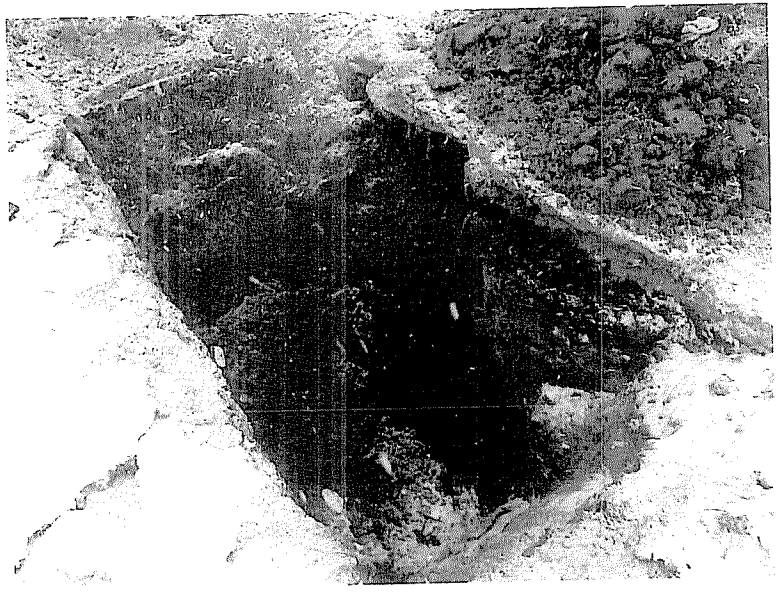


Photograph 5. Stratigraphy of VF-TP-07



Photograph 6. Stratigraphy of VF-TP-09

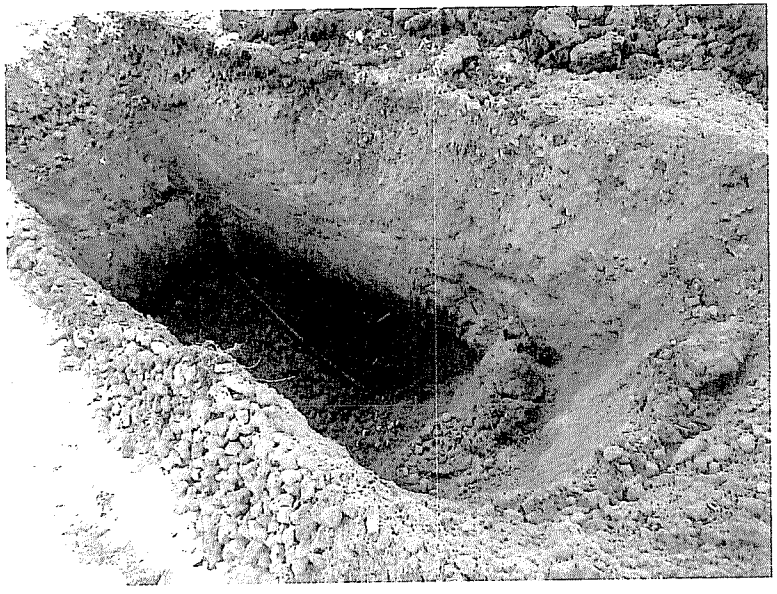
Photograph 7. Stratigraphy of VF-TP-11



Photograph 8. Stratigraphy of VF-TP-15

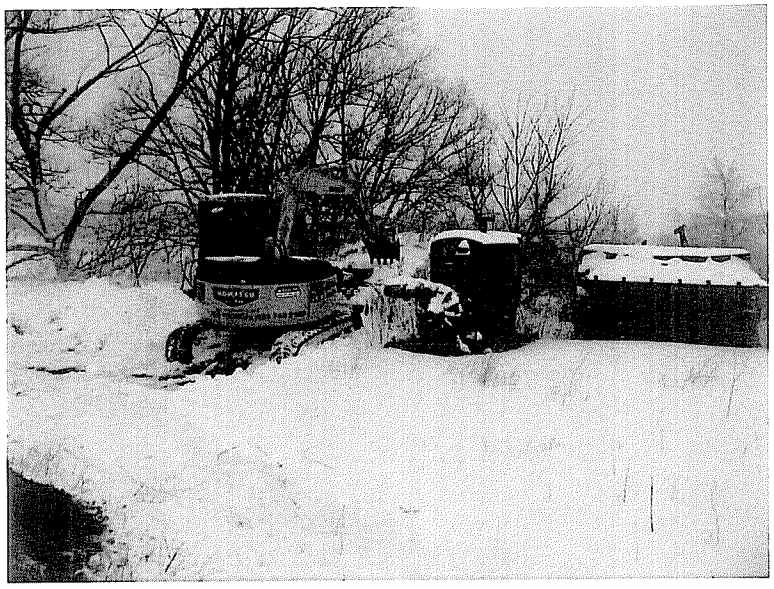
Photograph 9. View of VF-TP-16, facing southwest

Photograph 10. View of VF-TP-24, facing southwest



Photograph 11. Stratigraphy of VF-TP-24

Photograph 12. View of VF-TP-26 location, facing northwest



Photograph 13. View of VF-TP-27, facing north

Photograph 14. View of VF-TP-28, facing northwest

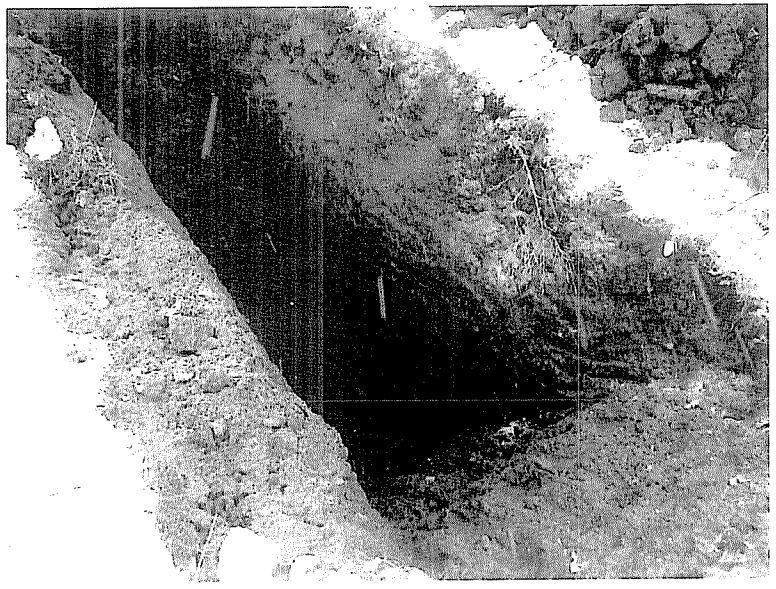
Photograph 15. View of VF-TP-29, facing east

Photograph 16. Stratigraphy within VF-TP-30

Photograph 17. View of VF-TP-33, facing northeast

Photograph 18. View of VF-TP-34, facing west

Photograph 19. View of VF-TP-38, facing southeast



Photograph 20. Stratigraphy within VF-TP-39