October 6, 2005

Mr. Nathan Putnam
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, N.Y. 12233-7015

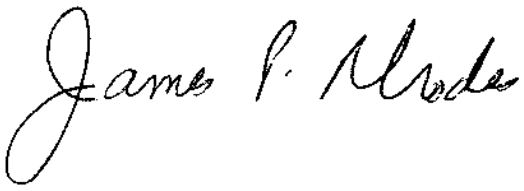
Re: Revised Groundwater/Soil Gas Investigation Report – Former Penetrex Processing, Inc. Glenwood Landing, New York Site No. 1-30-034

Dear Mr. Putnam:

P.W. Grosser Consulting, Inc. (PWGC) has prepared the following revised Groundwater/Soil Gas Investigation Report in accordance with the comments in your letter dated September 14, 2005 regarding the review of the Final Groundwater/Soil Gas Investigation Report.

Please call if you have any questions or comments.

Very truly yours,
PWGC



James P. Rhodes, C.P.G.
Vice President

J. Nealon, NYSDOH
G. Bobersky, NYSDEC
W. Parrish, NYSDEC
David Yudelson, Esq.
L. Weinberger

GROUNDWATER/SOIL GAS INVESTIGATION REPORT

FORMER PENETREX PROCESSING FACILITY
GLENWOOD LANDING, NEW YORK
SITE # 1-30-034

Prepared for:
The New York State Department of Environmental Conservation
Division of Environmental Remediation
Albany, New York

On behalf of:
Sive, Paget & Riesel, P.C.
New York, New York

Project No.: PEN0001

P.W. Grosser Consulting Engineers and Hydrogeologist, P.C.
630 Johnson Avenue, Suite 7
Bohemia, NY 11716
Phone: (631) 589-6353
Fax: (631) 589-8705
Project Manager : James P. Rhodes, C.P.G. Email: jimr@pwgrosser.com

REVISED OCTOBER 2005

FORMER PENETREX PROCESSING FACILITY
Groundwater/Soil Gas Investigation Report

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION AND OBJECTIVES

This Groundwater/Soil Gas Investigation Report has been prepared by P.W. Grosser Consulting, Inc. (PWGC) to document the groundwater investigation and soil gas sampling that was conducted at the former Penetrex Processing Inc. facility (the Site). The site is currently listed on the New York State Department of Environmental Conservation (NYSDEC) Registry as a Class II Inactive Hazardous Waste Disposal Site.

The objectives of this report are to document the findings of the groundwater investigation that was performed as part of the Remedial Investigation in response to a request by the NYSDEC to further delineate the horizontal and vertical extent of dissolved volatile organic compounds (VOCs) at the site. In addition, this report will document the findings of the soil gas sampling that was performed in response to a request by the New York State Department of Health (NYSDOH).

The Soil Boring/Underground Injection Control (UIC) Program, the Interim Groundwater Investigation, and this Final Groundwater/Soil Gas Investigation constitutes the Remedial Investigation for the site.

1.1 Site Description

The subject site consists of an approximately one-acre parcel located on the east side of Shore Road (a.k.a. Glen Cove Roslyn Shore Road), in the Hamlet of Glenwood Landing, Town of North Hempstead, Nassau County, New York. The property is identified in Nassau County Tax maps as Section 20 - Block K - Lots 10 through 12. The property is improved with a two-story brick industrial building, asphalt parking, communications tower and other ancillary improvements.

The property is bounded to the west by Glen Cove Roslyn Shore Road and to the east by West Street. The site is generally located north of Scudders Lane and is situated near and adjoining several major oil storage facilities, coastal terminals and a municipal power station near

Hempstead Harbor. Glenwood Oil Terminal Corp. is located northwest, diagonally across the property. A Site Location Map is included as Figure 1.

1.2 Site History

A former dry cleaning business, known as Penetrex Processing, Inc. (Penetrex), is reported to have operated at the site for several years prior to abandoning the facility in 1984. During its operation at the site, Penetrex is reported to have discharged dry cleaning chemicals to an on-site sanitary system and/or drywells at the property. A manufacturer of adhesive nameplates known as the Nameplate Corporation also formerly occupied the site.

In 1984, the Nassau County Department of Health (NCDOH) sampled an on-site drywell associated with the former Penetrex facility and determined that constituents of dry-cleaning solvents (e.g. trichloroethene and tetrachloroethene - a.k.a. perchloroethylene (PCE)) were present in soils at the base of the structure. The impacted drywell was subsequently remediated in 1985 under a summary abatement order, completed by K&W Associates (property owner).

Additional testing and site characterization, which included the installation of six (6) soil borings and four (4) monitoring wells, soil and groundwater sampling, and air monitoring, were performed at the property in 1989 and 1990 by Blasland and Bouck Engineers under purview of the New York State Department of Conservation (NYSDEC) as part of a PRP (potentially responsible party) Study.

In 1993, Lawler, Matusky and Skelly Engineers (LMS) installed two additional monitoring wells at the site (at the direction of the NYSDEC) and performed additional groundwater sampling at the facility in an effort to confirm the direction of groundwater flow underlying the property and the extent of dissolved VOCs in on-site groundwater. LMS had concluded in their 1993 NYSDEC Inactive Hazardous Waste Site (IHWS) report for the Penetrex Processing site that "an ongoing discharge or continued release from residual waste in the soils . . . from several contaminant source locations on the site . . . appear to remain as a continuing source of groundwater contamination."

The former Penetrex site is currently listed as a NYSDEC Class II Inactive Hazardous Waste Disposal Site facility identified as I.D. No.130034. Portions of the two-story building at the property are currently occupied by a church/religious organization and by Sunnyside Up Parties, Inc. (a party and event company).

1.3 Hydrogeologic Setting

The hydrogeologic setting of Long Island is well documented and consists of bedrock basement composed of schist and gneiss, which is overlain by a series of unconsolidated deposits. The surface of the bedrock beneath the Site occurs at an approximate depth of 475 feet below land surface (Kilburn & Krulikas, 1980). Due to its dense crystalline nature, there is little or no groundwater flow in the bedrock.

Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd aquifer confined by the Raritan Clay Member. The depth to the top of the Lloyd aquifer at the Site is approximately 350 feet below land surface (Kilburn & Krulikas, 1980). The Raritan Clay occurs at approximately 300 feet below land surface. Therefore, the corresponding thicknesses of these units are 125 feet and 50 feet, respectively. The Raritan Clay, overlying the Lloyd is an extremely effective confining unit and hydraulically isolates the Lloyd aquifer from overlying aquifers.

Typically, above the Raritan Clay lies the Magothy Aquifer. However, based on Kilburn & Krulikas, 1980, it appears that the Magothy has been removed in the vicinity of the Site through glacial scouring. Replacing the Magothy is the Port Washington aquifer and Port Washington Confining Unit. The depth to the Port Washington aquifer is approximately 150 feet below land surface and the aquifer is about 150 feet thick. The Port Washington Confining Unit, which confines the groundwater in underlying aquifers, occurs at 100 feet below land surface and is approximately 50 feet thick beneath the Site.

The Upper Glacial Aquifer overlies the Port Washington Confining Unit. The Upper Glacial Aquifer is the water table aquifer and exists from land surface to a depth of approximately 100 feet, in the vicinity of the Site. The water table ranges from 10 to 20 feet below land surface. The groundwater quality results in relation to the Site represent shallow groundwater conditions in this aquifer.

1.4 Groundwater Flow and Elevation

A review of the Nassau County Water Table Elevation Map, NCDPW, 1998, indicates that the regional direction of groundwater flow in the Upper Glacial Aquifer in the vicinity of the Penetrex site is westerly towards Hempstead Harbor. Groundwater contour mapping performed by LMS Engineers in 1992/1993, and calculations performed by PWGC in 2001, indicate that groundwater flow underlying the site is in a northwesterly direction.

A comparison of topographic and water table mapping data indicates the depth to groundwater at the Penetrex site ranges from an estimated 5± feet below grade surface (bgs) at the property's western boundary near Glen Cove Roslyn Shore Road to 15± feet bgs at the property's eastern boundary near West Street. Groundwater elevations performed by LMS Engineers confirmed groundwater elevations at the site ranged from 7.5 feet bgs near the western portion of the property to nearly 11 feet bgs at an easterly portion of the site. It is also notable in LMS reporting that groundwater elevation at the western portion of the site is tidally influenced by one (1) foot. Groundwater elevations performed by PWGC in November 2001 confirmed that the depth to groundwater ranged from six to nineteen feet bgs.

2.0 NOVEMBER 2001 - REMEDIAL INVESTIGATION

A remedial investigation was conducted at the site in November 2001 to obtain the information necessary to determine the need for a remediation at the site. The remedial investigation consisted of a file search (Town of North Hempstead Building Department), site reconnaissance, a soil boring program, the collection and analysis of soil samples, and the collection and analysis of groundwater samples from the existing on-site monitoring wells.

An underground injection control (UIC) investigation and remediation was performed in response to the results obtained from the soil boring program. The UIC investigation and remediation has been incorporated into the remedial investigation. This UIC program successfully dealt with soil issues identified during the investigation and the site has received closure regarding these UIC issues from the Nassau County Department of Health (NCDOH) and the United States Environmental Protection Agency (USEPA). Findings from the remedial investigation are presented in the Preliminary Remedial Investigation Report, PWGC, July 2002 and the September, 2003 Storm Drain and Sanitary Leaching Pool Remediation and Closure Report.

2.1 Groundwater Sampling

On November 11, 2001, PWGC conducted well gauging and collected groundwater from the four existing on-site monitoring wells (PX-MW-1 through PX-MW-4). Depth to water measurements and well elevations were used to calculate groundwater flow direction beneath the site.

Groundwater samples were collected using dedicated, disposable polyethylene bailers secured with polyethylene rope. Samples were submitted to Ecotest Laboratories (Ecotest), North Babylon, New York (NYSDOH ID #10320) for analysis of volatile organic compounds (VOCs) - Target Compound List (TCL) by USEPA Method 8260. Split samples were collected from MW-4 by the NYSDEC. The samples collected by the NYSDEC were analyzed for VOCs by a New York State contracted laboratory.

2.2 Analytical Results

Analytical results were compared to the NYSDEC Class GA Groundwater Standards as specified in the NYSDEC's (TOGS) 1.1.1, June 1998. Notwithstanding, the groundwater beneath the site is not used for potable purposes. Class GA Standards are designed to be protective of groundwater used as a source of drinking water. PCE was detected in each of the four groundwater samples (MW-1 through MW-4) at concentrations above the groundwater standard of 5 ug/L. PCE concentrations ranged from 11 ug/L in MW-3 to 100 ug/L in MW-1. TCE was detected in samples MW-3 (7 ug/L) and MW-4 (9 ug/L) at concentrations slightly above the groundwater standard of 5 ug/L. TCE was also detected in samples MW-1 and MW-2, but at concentrations below the groundwater standard. 1,2-DCE was detected in samples MW-2 (11 ug/L) and MW-3 (97 ug/L) at concentrations above the groundwater standard of 5 ug/L. 1,2-DCE was also detected in sample MW-4 at a concentration below the groundwater standard. Vinyl chloride was detected in sample MW-3 (5 ug/L) at a concentration slightly above the 2 ug/L groundwater standard. A summary of the analytical results, as well as copies of the laboratory data reports are included in the Preliminary Remedial Investigation Report, PWGC, July 2002.

3.0 OCTOBER 2003 – INTERIM GROUNDWATER INVESTIGATION

An additional groundwater investigation was performed at the site from October 2003 through January 2004 at the request of the NYSDEC and as part of the Remedial Investigation to delineate the horizontal and vertical extent of the dissolved VOCs and to determine if additional investigation/remediation is warranted. Based on the results of the soil boring investigation and monitoring well sampling that was performed as part of the remedial investigation, and correspondence with the NYSDEC, eight locations were chosen for groundwater sampling. These vertical profiles were also performed to confirm the location and the depths of additional permanent monitoring wells. The samples were collected in accordance with the protocol established in the Preliminary Remedial Investigation Report, PWGC, July 2002.

3.1 Groundwater Sampling

From October 2003 through January 2004, eight temporary vertical profile wells were installed. Vertical profile well locations are shown on Figure 2. Sample locations were selected to be representative of groundwater conditions up-gradient and down-gradient of the site, as well as to investigate suspected former source areas. Each sampling location and the rational are presented on the following table:

Sample ID	Location	Number of Samples Collected	Sample Collection Depths (feet below grade)
GW-1	Down-gradient and off-site to document the potential off-site migration of contaminants from the site	5	16-20, 26-30, 36-40, 46-50, 56-60
GW-2	Down-gradient of DW-2, DW-3, and the western sanitary system. Also down-gradient from the suspected location of the original fuel oil tank, as depicted on Town records	5	16-20, 26-30, 36-40, 46-50, 56-60
GW-3	Down-gradient of DW-3, potential former source area	4	12-16, 24-28, 36-40, 48-52

GW-4	Through or immediately adjacent to DW-3, which is a potential source area	4	11-14, 24-28, 42-46, 52-56
GW-5	Up-gradient of the site and MW-4 to document concentrations of VOCs migrating onto the site from up-gradient sources	4	21-25, 31-35, 41-45, 51-55
GW-6	Through or immediately adjacent to DW-5, which is a potential source area	4	21-25, 31-35, 41-45, 51-55
GW-7	Down-gradient of the area containing the highest concentration (100 ppb) of tetrachloroethene (PCE)	4	21-25, 31-35, 41-45, 51-55
GW-8	Up-gradient of the site and MW-1 to document concentrations of VOCs migrating onto the site from upgradient sources	4	36-40, 46-50, 56-60, 66-70

At each location, groundwater samples were collected in ten foot intervals from the water table to a total depth presented in the table above using a Geoprobe^{TM} direct push drilling technology. A four-foot-long slotted probe rod was driven to a depth four feet below the water table. Then, a piece of disposable polyethylene tubing with a stainless steel check valve was inserted through the probe rods into the water bearing zone and the tubing was hand oscillated to retrieve the sample. Purging was conducted to reduce turbidity prior to sampling. Non-disposable sampling equipment was cleaned using a distilled water and Alconox detergent wash and a potable water rinse prior to the collection of each sample. The samples were placed in pre-cleaned laboratory supplied glassware and stored in a cooler packed with ice for transport to the laboratory.

Groundwater samples were analyzed by Ecotest for TCL - VOCs by EPA Method 8260.

3.3 Analytical Results

Analytical results were compared to the NYSDEC Class GA Groundwater Standards as specified in the NYSDEC's (TOGS) 1.1.1, June 1998. Concentrations of 1,1-Dichloroethene, 1,2-

Dichloroethene, 1,1,1-TCA, Trichloroethene, Tetrachloroethene and Toluene were detected in at least one sample from each location. Locations GW-2, 3, 4, 5, 6 and 7 showed detections of at least one of the parameters above the NYSDEC standards. Detections above the NYSDEC standards were noted at or just below the water table at locations GW-2, 3, 4, 5, and 6. Location GW-7 had detections above the NYSDEC standards at all depths sampled.

The highest concentrations of VOCs, as high as 82,000 ug/L tetrachloroethene (PCE), were detected at GW-7 at approximately ten feet below the water table. This concentration was significantly different from the concentrations detected at other depths in the same well, and at other locations. Typically, the greatest concentrations of VOCs detected in the groundwater across the site were found at the water table. Concentrations at the water table ranged from non-detect to 300 ug/L (GW-6). A summary of the analytical results and sample locations is shown on Figure 2. Complete copies of the laboratory data reports are included in the Interim Groundwater Investigation Report, PWGC, March 2004.

4.0 OCTOBER 2004 – FINAL GROUNDWATER MONITORING

Based on the results of the October 2003 vertical profile groundwater investigation results, one additional temporary groundwater vertical profile well and three permanent groundwater monitoring wells were installed at the site. In addition, four soil gas points were installed as a result of a request by the NYSDEC to address concerns regarding soil vapor intrusion. Vertical profile, monitoring well, and soil gas sample locations are shown on Figures 3 and 4.

4.1 Temporary Groundwater Vertical Profile Well Installation

Concentrations of VOCs well above the NYSDEC standards were detected in the deepest sample collected at former groundwater sampling point GW-7. In addition, the highest VOC concentration was detected in the sample collected from ten feet below the groundwater table. Typically, the greatest concentrations of VOCs detected in the groundwater across the site were found at the water table. To further delineate the groundwater contamination at this location, and to confirm the results from the Interim Groundwater performed in October 2003-January 2004, an additional temporary vertical profile was installed and sampled in accordance with the protocol established in the Interim Groundwater Investigation Report, PWGC, March 2004.

On October 12, 2004, groundwater samples were collected at the GW-7 location in ten foot intervals from the water table to a total depth of eighty-five feet below grade using a Geoprobe™ direct push drilling technology. A four foot long slotted screen encased in a stainless steel sheath was driven to eighty-five feet below grade. The screen was then released from its sheath and water filled the temporary well. A piece of disposable polyethylene tubing with a stainless steel check valve was inserted through the probe rods into the water bearing zone and the tubing was hand oscillated to retrieve the sample. Purging was conducted to reduce turbidity prior to sampling. Once a sample was collected, the well was pulled up ten feet to collect a sample from the next interval. Approximately one gallon was purged form each interval. Purge water was contained in 55-gallon drum on-site awaiting proper disposal. NYSDEC personnel were onsite to oversee the collection of the vertical profile groundwater samples.

Non-disposable sampling equipment was cleaned using a distilled water and Alconox detergent

wash and a potable water rinse prior to the collection of each sample. The samples were placed in pre-cleaned laboratory supplied glassware and stored in a cooler packed with ice for transport to the laboratory. Samples were delivered to Environmental Testing Laboratories (ETL), Farmingdale, New York (NYSDOH ID #10969) for analysis of volatile organic compounds (VOCs) - Target Compound List (TCL) by USEPA Method 8260.

4.1.1 Vertical Profile Groundwater Sampling QA/QC

In addition to the vertical profile groundwater samples, QA/QC samples were collected and analyzed for TCL - VOCs by EPA Method 8260. One trip blank and one field blank was collected and submitted to the laboratory for analysis.

The field blank was prepared with laboratory-supplied distilled water. The water was poured through a new piece of polyethylene tubing, transferred into laboratory-prepared bottles and analyzed for TCL - VOCs. The field blank was analyzed for TCL VOCs to document the sterility of the sampling equipment. A laboratory-prepared trip blank accompanied the sample containers, from the time of shipment from the laboratory until analysis. The trip blank sample was also analyzed for TCL VOCs.

4.1.2 Analytical Results

Analytical results were compared to the NYSDEC Class GA Groundwater Standards as specified in the NYSDEC's (TOGS) 1.1.1, June 1998. VOCs were not detected above the laboratory detection limits in the seven samples collected, with two exceptions. Freon 113 was detected at a concentration of 3 ug/L in the sample collected from the 31'-35' interval. In addition, tetrachloroethene was detected at a concentration of 7 ug/L in the sample collected from the 21'-25' interval. Tetrachloroethene was detected above the NYSDEC Groundwater Standard of 5 ug/L. Vertical profile analytical data is summarized on Table 1 and complete laboratory data packages are contained in Appendix B.

4.2 Permanent Groundwater Monitoring Well Installation and Development

Three permanent monitoring wells were constructed on December 28, 2004, to monitor the contamination detected in the groundwater beneath the site. The wells were installed at the

following NYSDEC approved locations:

Monitoring Well ID	Location	Screen Interval (depth in feet below grade)
PX MW-05	Up-gradient of the site, at the location of former groundwater sampling point GW-5 (water table).	5-20
PX MW-06	Down-gradient location on the northwest portion of the property (water table).	5-20
PX MW-07	At the location of former groundwater sampling point GW-7, where the highest concentrations of VOCs is detected in the re-sample event.	14-29

Monitoring well locations are illustrated on Figure 3.

The wells were constructed of two-inch diameter 0.010-inch slot PVC screens threaded to two-inch diameter PVC risers. The well screens were gravel packed with #1 Morie sand, from one foot below the bottom of the well to approximately 2 feet above the top of the well screen, as the augers are being removed from the borehole. The gravel pack was covered with a two foot hydrated bentonite. Remaining annular space was filled with a cement/bentonite grout to within two feet of existing grade. Each well was finished at grade with a flush mount manhole, a mounded cement pad and a well cap with a lock. Well construction logs are contained in Appendix A.

On December 30, 2004 the wells were developed using a two-inch submersible pump to pump and surge each of the wells. During development field parameters (pH, conductivity and temperature) were measured and recorded after each successive well volume was removed. Approximately 20 gallons were purged from each well during development and containerized in 55-gallon drums.

4.3 Monitoring Well Sampling

Following installation and development, sampling of the new and existing wells was performed. Groundwater sampling was performed on January 19, 2005. Prior to sampling a round of water levels were collected from each well. In addition, depth to bottom measurements were collected. It should be noted that the well cover on MW-3 was broken at the time of sampling.

After depth to water and depth to bottom measurements were collected, a minimum of three casing volumes were removed from each well using submersible pump to ensure representative samples from the formation surrounding the wells were obtained and to eliminate standing water in the wells. Once purging was completed, samples were obtained from the wells using a dedicated polyethylene bailer and rope. Samples were placed in laboratory-supplied glassware and packed in a cooler with ice for transport to the laboratory. Samples were delivered to Environmental Testing Laboratories (ETL), Farmingdale, New York (NYSDOH ID #10969) for analysis of volatile organic compounds (VOCs) - Target Compound List (TCL) by USEPA Method 8260.

4.3.1 Monitoring Well Groundwater Sampling QA/QC

In addition to the monitoring well groundwater samples, QA/QC samples were collected and analyzed for TCL - VOCs by EPA Method 8260. One trip blank and one field blank was collected and submitted to the laboratory for analysis.

The field blank was prepared with laboratory-supplied distilled water. The water was poured through a new polyethylene bailer, transferred into laboratory-prepared bottles and analyzed for TCL - VOCs. The field blank was analyzed for TCL VOCs to document the sterility of the sampling equipment. A laboratory-prepared trip blank accompanied the sample containers, from the time of shipment from the laboratory until analysis. The trip blank sample was also analyzed for TCL VOCs.

4.3.2 Analytical Results

Analytical results were compared to the NYSDEC Class GA Groundwater Standards as specified in the NYSDEC's (TOGS) 1.1.1, June 1998. VOCs were detected above the NYSDEC Groundwater Standards in each of the samples collected with one exception. The sample collected from monitoring well MW-6 contained concentrations of toluene (4.93 ug/L) and tetrachloroethene (2.07 ug/L) below the NYSDEC Groundwater Standard of 5 ug/L.

Tetrachloroethene was detected above the NYSDEC Groundwater Standards in the samples collected from MW-1 (82.8 ug/L), MW-2 (13.8 ug/L), MW-5 (10.7 ug/L), and MW-7 (267 ug/L). Trichloroethene was detected at concentrations above the NYSDEC Groundwater Standard in the samples collected from MW-5 (6.46 ug/L) and MW-7 (16.5 ug/L). Trichloroethene was also detected in the sample collected from well MW-1 (2.11 ug/L), but at concentrations below the Groundwater standard of 5 ug/L.

The sample collected from well MW-3 on January 19, 2005 contained concentrations of toluene (11,000 ug/L), ethylbenzene (79.1 ug/L), 1,2 dichloroethene (14.96 ug/L), tetrachloroethene (2.13 ug/L), trichloroethene (0.67 ug/L), and acetone (42.6 ug/L). The highest concentrations of VOC (toluene and ethylbenzene) are commonly associated with petroleum products, specifically gasoline. As these compounds were not detected during previous sampling events, PWGC recommended that this well be repaired and re-sampled. As described above, MW-3 contained a broken cover at the time of sampling. In addition, this well is located in a topographically low area of the parking lot.

MW-3 was repaired and re-sampled on February 11, 2005. Analytical results indicated a significant decrease in toluene and ethylbenze. The sample collected from MW-3 contained concentrations of toluene (2,310 ug/L), xylene (180.7 ug/L), ethylbenzene (26.7 ug/L), and acetone (15 ug/L). Based on this data, it is likely that the elevated concentrations of toluene, ethlybenzene, and xylene are a result of parking lot runoff impacting the well. Since the well has been repaired a decreasing trend in VOC concentrations should be observed.

Groundwater sample analytical data is summarized on Table 2 and complete laboratory data packages are contained in Appendix B.

4.3.3 Data Usability

PWGC reviewed the Laboratory QC Summary Package for the sample batch(s) in which the project samples are included, so that an appropriate data usability summary could be prepared.

This usability section pertains to the analytical results, submitted by Environmental Testing Laboratories, for the monitoring well sampling conducted by PWGC at the former Penetrex Processing, Inc. site. The analytical results submitted by Environmental Testing Laboratories were reviewed and the analytical results assessed against the project data quality objectives (DQOs) in the preparation of this report. Overall, the data submitted by Environmental Testing Laboratories met the project DQOs and are usable to determine the presence, absence, and magnitude of environmental contamination in the samples collected from the site. The Laboratory QC Package is included as Appendix B.

A total of seven groundwater samples and four aqueous samples (one field blank, one trip blank, and a matrix spike/matrix spike duplicate) were collected and analyzed for VOCs by EPA Method 8260. All of the analyses were conducted in accordance with the most recent version of the SW-846 methodologies. In addition, the absence of VOCs in the field blank and trip blank samples indicate that cross contamination of the samples related to improper equipment decontamination and/or handling did not occur.

5.0 OCTOBER 2004 – SOIL GAS SAMPLING/CHEMICAL INVENTORY

To address the NYSDEC's concerns regarding soil vapor intrusion into the adjacent buildings, PWGC conducted soil gas sampling at the following locations:

- SG-1 - 10 feet from the former Nameplate building;
- SG-2 - 10 feet from the former Penetrex building and to the north of GW-7;
- SG-3 - conducted at the property boundary between GW7 and the residence to the south;
- SG-4 - 10 feet from the residence.

Soil gas sampling points were conducted 10 feet away from the buildings to reduce the effects of the building foundations. Soil gas sampling locations are shown on Figure 4.

5.1 Chemical Inventory

Prior to conducting soil gas sampling, a chemical inventory of the existing buildings was conducted. A chemical inventory of the residential building was not conducted. The chemical inventory was conducted by Mr. Zeb Youngman of PWGC on October 12, 2004 and overseen by NYSDEC personnel.

The first floor of the northeast portion of the main building was under construction at the time of the inventory. The entire first floor interior was demolished and contained no stored chemicals. The second floor was being utilized by a church/religious organization and contained a small amount of chemical material such as paint brush cleaner, acetone, and Drylock masonary sealer.

The northwest portion of the building was utilized as office space and as a warehouse for the storage of non-chemical materials. However, this portion of the building did contain a small amount of chemicals, such as adhesives and Goofoff hand cleaner.

At the time of inspection, the southwest portion of the building was being utilized by a

telephone/communications equipment manufacturer. This portion of the building contained many chemicals, mainly resins and adhesives. Approximately 150 gallons of stored chemicals were observed and were mainly composed of compounds such as: methylethylketone; diethyltoluenediamine; naphtha, toluene, and methylene chloride. A complete chemical inventory is included on Table 3.

5.2 Soil Gas Sampling

Prior to installing the soil gas sampling points test pit excavations were conducted adjacent to the buildings to determine the depth of the footings. This was necessary since the soil gas points were to be installed approximately one foot below the footing of the building. The building footing was encountered at a depth of 4 feet below grade at the SG-1 location, 9 feet below grade at the SG-2 location and 9.5 feet at the SG-4 location. Since the SG-3 location was not in close proximity to a building, the sample was collected at 6.5'-7.5' below grade.

Soil gas sampling points were installed on December 20, 2004 in accordance with procedures described in the Revised Addendum to the March 2004 Interim Groundwater Investigation Report prepared by PWGC and approved by the NYSDEC. At each location, a Geoprobe unit was used to drive the probe rods to the required depth and the drive point was knocked out. A one-foot stainless steel screen fitted to the tubing riser was lowered through the rods. The screen depths varied at each location (as described above) to correspond with the building's footing. The Geoprobe rods were then removed and a bentonite seal was installed around the tubing to prevent the short circuiting of air.

Prior to sampling, each soil gas point was purged to evacuate between one and two probe volumes to ensure the collection of a representative sample. Purging was completed using a hand-held SKC sampling pump calibrated at 0.2 liters/minute. Following purging, soil gas samples were collected directly into six liter, laboratory supplied Summa canisters attached to the riser using ¼ inch disposable tubing. The samples were collected using one hour flow regulators at a rate of between 0.1 and 0.2 liters/minute. A laboratory-prepared trip blank accompanied the Summa canisters, from the time of shipment from the laboratory until analysis.

Samples were delivered via FedEx to Severn Trent Laboratories (STL), Burlington, Vermont for analysis of volatile organic compounds (VOCs) USEPA Method TO-15. The trip blank sample was also analyzed for VOCs by EPA Method TO-15.

5.2.1 Analytical Results

Analytical results were compared to the USEPA Target Shallow Soil Gas Concentrations as specified in the USEPA's Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils. VOCs were detected above the USEPA Target Soil Gas Concentrations in each of the samples collected. Tetrachloroethene was detected at a concentration of 4,400 ppbv in the sample collected from SG-1, 970 ppbv in the sample collected from SG-2, 8,600 ppbv in the sample collected from SG-3, and 1,200 in the sample collected from SG-4, which is above the USEPA Target Soil Gas Concentration of 12 ppbv. In addition, tricholoroethene was detected in the sample collected from SG-1 at a concentration of 1,100 ppbv and in the sample collected from SG-3 at a concentration of 150 ppv, which is above the USEPA Target Soil Gas Concentration of 41 ppv. Several other VOCs were detected in the soil gas samples, but at concentrations below the USEPA Target Shallow Soil Gas Concentrations. Soil gas analytical data is summarized on Table 4 and complete laboratory data are contained in Appendix B.

5.2.2 Data Usability

PWGC reviewed the Laboratory QC Summary Package for the sample batch(es) in which the project samples are included, so that an appropriate data usability summary could be prepared.

This usability section pertains to the analytical results, submitted by Severn Trent Laboratories, for the soil gas sampling conducted by PWGC at the former Penetrex Processing, Inc. site. The analytical results submitted by Severn Trent Laboratories were reviewed and the analytical results assessed against the project data quality objectives (DQOs) in the preparation of this report. Overall the data submitted by Severn Trent Laboratories met the project DQOs and are usable, to determine the presence, absence, and magnitude of environmental contamination in the samples collected from the site. The Laboratory QC Package is included as Appendix B.

A total of four soil gas samples were collected and analyzed for VOCs by EPA Method 8260. All of the analyses were conducted in accordance with the most recent version of the SW-846 methodologies. In addition, the absence of VOCs in the trip blank sample indicate that cross contamination of the samples related to improper equipment decontamination and/or handling did not occur.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The Remedial Investigation for the site began in 2001 with a soil boring program, which was designed to identify potential source areas of contamination at the site. During this sampling event, groundwater samples were also collected from the on-site monitoring wells. In 2003 an Interim Groundwater investigation was performed. The purpose of this investigation was to delineate the vertical and horizontal extent of dissolved VOCs at the site. In addition, data obtained from this investigation was used to determine the location and depths of additional temporary and permanent wells at the site. The Final Groundwater/Soil Gas Investigation was completed in January 2005. This investigation involved the installation of a temporary vertical profile well in the GW-7 location, the installation and sampling of three permanent monitoring wells and the collection of shallow soil gas samples. Together, these three investigations make up the Remedial Investigation for the site.

Soil borings conducted in 2001 indicated that sub-surface soils in the suspected source areas were within the NYSDEC Recommended Soil Cleanup Objectives (RSCOs). However, xylene was detected in the sanitary system on the west side of the building. As a result, this system was properly cleaned out in 2001.

In general, chlorinated VOCs detected in groundwater have decreased in concentration since the 2001 sampling event across the site. The maximum concentrations of tetracholoethene (267 ug/L) and trichloroethene (16.5 ug/L) were detected in monitoring well installed in the former vertical profile well GW-7. Groundwater data indicate natural degradation of PCE is occurring and will continue to occur downgradient of the site (northwest direction), where documented petroleum contamination (Glenwood Terminal Corp. Site), will provide an additional carbon source that will enhance the degradation of PCE and breakdown products. In addition, the sample collected from the downgradient, offsite monitoring well (MW-6) contained low concentrations of VOCs, which were within the NYSDEC Groundwater Standards.

In October 2004, four soil gas samples were collected at the site. Analytical results indicated concentrations of tetrachloroethene and trichloroethene above the USEPA's Target Shallow Soil

Gas Concentrations. It should be noted that the highest VOC concentrations in the soil gas were detected in the sample collected from SG-3, which was performed in the vicinity of DW-5. Since these samples were collected at a minimum of 10 feet from the buildings, it is unclear whether soil vapors have impacted the buildings. As a result, a more comprehensive sub-slab soil gas and indoor air quality investigation will be performed, as requested by the NYSDEC. Procedures will be detailed in a Work Plan which will be submitted to NYSDEC for approval.

PWGC believes the site should initially be downgraded to a Class IV Inactive Hazardous Waste Disposal Site. The sub-slab soil gas and indoor air quality investigation can then be performed. If analytical results indicate that sub-slab vapor and the indoor air quality is within the NYSDOH guidance values specified in the NYSDOH Draft Guidance for Evaluating Soil Vapor Intrusion the site may continue with the delisting process. However, if analytical results indicate that sub-slab vapor and the indoor air quality is above the NYSDOH guidance values mitigation/remedial measures will be recommended. These measures may include the installation of sub-slab depressurization system to removed VOC vapors that may accumulate beneath the slab or treatment of residual soil and groundwater contamination in the area of the former sanitary system (DW-5) using chemical oxidation.

ONE SHORE ROAD
GLENWOOD LANDING, NEW YORK

TABLE 1

GROUNDWATER ANALYTICAL RESULTS
VOCs - EPA METHOD 8260

Compound	NYSDEC GROUNDWATER STANDARDS (1)	GW-7						
		(21' - 25') 10/12/2004	(31' - 35') 10/12/2004	(41' - 45') 10/12/2004	(51' - 55') 10/12/2004	(61' - 65') 10/12/2004	(71' - 85') 10/12/2004	(81' - 85') 10/12/2004
1,1,1,2-Tetrachloroethane	5	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetracloroethane	5	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	5	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	5	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	0.04	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-Tetramethylbenzene	5	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	5	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	5	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	0.04	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromoethane	5	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	3	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.6	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	5	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	3	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	5	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	3	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	5	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	5	<1	<1	<1	<1	<1	<1	<1
4-Chlorotoulene	5	<1	<1	<1	<1	<1	<1	<1
4-Isoproplytoluene	5	<1	<1	<1	<1	<1	<1	<1
Acetone	50	<10	<10	<10	<10	<10	<10	<10
Benzene	1	<1	<1	<1	<1	<1	<1	<1
Bromobenzene	5	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	5	<1	<1	<1	<1	<1	<1	<1
Bromoform	NS	<1	<1	<1	<1	<1	<1	<1
Bromomethane	5	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	5	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	5	<1	<1	<1	<1	<1	<1	<1
Chlorodibromomethane	NS	<1	<1	<1	<1	<1	<1	<1
Chloroethane	5	<1	<1	<1	<1	<1	<1	<1
Chloroform	7	<1	<1	<1	<1	<1	<1	<1
Chloromethane	NS	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	5	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	0.04	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	NS	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	5	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	5	<1	<1	<1	<1	<1	<1	<1
Diisopropyl ether	NS	<1	<1	<1	<1	<1	<1	<1
Ethanol	NS	<1	<1	<1	<1	<1	<1	<1
Ethyl acetate	NS	<1	<1	<1	<1	<1	<1	<1
Ethyl Benzene	5	<1	<1	<1	<1	<1	<1	<1
Freon 113	NS	<1	3	<1	<1	<1	<1	<1
Hexachlorobutadiene	0.5	<1	<1	<1	<1	<1	<1	<1
Isopropyl acetate	NS	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	5	<1	<1	<1	<1	<1	<1	<1
m + p Xylene	10	<2	<2	<2	<2	<2	<2	<2
Methyl Tertiary Butyl Ether	10	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1
Naphthalene	10	<1	<1	<1	<1	<1	<1	<1
n-Butyl acetate	NS	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	5	<1	<1	<1	<1	<1	<1	<1
n-Propyl acetate	NS	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	5	<1	<1	<1	<1	<1	<1	<1
o Xylene	5	<1	<1	<1	<1	<1	<1	<1
p-Diethylbenzene	NS	<1	<1	<1	<1	<1	<1	<1
p-Ethyltoluene	NS	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	5	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	5	<1	<1	<1	<1	<1	<1	<1
Styrene	5	<1	<1	<1	<1	<1	<1	<1
t-butyl alcohol	NS	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	5	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	**7**	<1	<1	<1	<1	<1	<1
Toluene	5	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	5	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dicholorpropene	0.04	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	5	<1	<1	<1	<1	<1	<1	<1
Vinyl acetate	NS	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	2	<1	<1	<1	<1	<1	<1	<1

Notes:
1 - NYSDEC Class GA Groundwater Standards, TOGS 1.1.1, June 1998
ND - Not Detected
NS - Not specified
Bold text denotes concentrations exceeding the Groundwater Standards.
All units are ug/L.

1 SHORE ROAD
GLENWOOD LANDING, NEW YORK

TABLE 2

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
BY EPA METHOD 8260

Compound	NYSDEC GROUNDWATER STANDARDS (1)	PX-MW-1	PX-MW-2	PX-MW-3	PX-MW-3	PX-MW-4	PX-MW-5	PX-MW-6	PX-MW-7
		1/19/2005	1/19/2005	1/19/2005	2/11/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND	3.34
1,1,2,2-Tetracloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND	2.87
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	NS	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	NS	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NS	ND	ND	ND	107	ND	ND	ND	ND
Acetone	50	ND	ND	42.6	15.0	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NS	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	1.43	ND	**14**	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.04	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	5	ND	ND	**79.1**	**26.7**	ND	ND	ND	ND
m + p Xylene	10	ND	ND	ND	**124**	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND	ND	ND
o Xylene	5	ND	ND	ND	**56.7**	ND	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	**82.8**	**13.8**	2.13	ND	ND	**10.7**	2.07	**267**
Toluene	5	ND	ND	**11,000**	**2,310**	**11.4**	ND	4.93	ND
trans-1,2-Dichloroethene	5	ND	ND	0.96	ND	ND	ND	ND	ND
trans-1,3-Dicholorpropene	0.04	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	2.11	ND	0.67	ND	ND	**6.46**	ND	**16.5**
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
1-NYSDEC Class GA Groundwater Quality Standards, TOGS 1.1.1, June 1998
ND - Not Detected
NS - Not specified
All units are ug/L

ONE SHORE ROAD
GLENWOOD LANDING, NEW YORK

TABLE 3

CHEMICAL INVENTORY

Southwest Portion of Building				
Product	**Ingredient**	**Quantity**	**Units**	**Website/MSDS**
ABS Cement	Methylethylketone	8	oz	http://www.genovaproducts.com/MSDS/ABSCEMENT.pdf
DuoSeal Pump Oil		2	gal	
Smooth-on Epoxy Resin Cement	Bisphenol A, epichlorohydrin	15	gal	http://www.smooth-on.com/liqrubr.htm
Smooth-on Rubber Mold Compound	Diethyltouenediamine	10	gal	http://www.smooth-on.com/liqrubr.htm
Fast Oranger Hand Cleaner		1	gal	http://www.permatex.com/MSDS_data/msds_pdf/35013.pdf
Isopropanol	2-propanol	2	gal	
Novus Plastic Shine		24	oz	http://www.modernplastics.com/novisplasticpolish.html
SEM Self Etching Primer	toluene, acetone, methylethyl ketone, xylenes	1	gal	
KleenMaster - Brillianize		8	oz	http://www.brillianize.com/Reports.htm
Dap Wellwood Spray Adhesive		8	oz	http://www.dap.com/msds/118.pdf
Novus Fine and Heavy Scratch Remover		24	oz	http://www.modernplastics.com/novisplasticpolish.html
Naptha	Naphtha	6	gal	
Formica Glue	Naphtha, MEK, toluene, hexane, cyclohexane	5	gal	
Liquid Nails		10	tubes	http://www.liquidnails.com/productlist.html
Xylene	Xylene	1	quart	
PVC primer and cement		1	quart	
3M Super Duty Rubbing Solution		1	quart	http://multimedia.mmm.com/mws/
3m Swirl Mark Remover		1	quart	http://multimedia.mmm.com/mws/
Smooth-on Reoflux 30 urethane compound	Diethyltouenediamine	100	gal	http://www.smooth-on.com/liqrubr.htm
Resin Bond	methylene chloride	1	gal	

Northwest Warehouse Portion of Building				
Product	**Ingredient**	**Quantity**	**Units**	**Website/MSDS**
Goof Off		1	gal	http://www.valspar.com/val/resident/goof-off.jsp
3M Photo Mount Adhesive		16	oz	

Northeast Portion of Building (upstairs, church/daycare)				
Product	**Ingredient**	**Quantity**	**Units**	**Website/MSDS**
Drylock Oil Base Masonary Sealer				
Acetone	Acetone	1	quart	
KleenStrip Roller and Brush Kleener		1	quart	http://www.kleanstrip.com/paintprep.htm

1 SHORE ROAD
GLENWOOD LANDING, NEW YORK

TABLE 4

SOIL GAS ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
METHOD TO-15

Compound	Target Soil Gas Concentrations (1)	SG-1 (4'-5')	SG-2 (9'-10')	SG-3 (6.5'-7.5')	SG-4 (9.5'-10.5')
		12/20/2004	12/20/2004	12/20/2004	12/28/2004
Dichlorodifluoromethane	400	<100	<25	<200	<20
Chloromethane	120	<100	<25	<200	<20
Vinyl Chloride	11	<40	<10	<80	<8.0
Bromomethane	13	<40	<10	<80	<8.0
Chloroethane	38,000	<40	17	<80	<8.0
Trichlorofluoromethane	1,200	<40	<10	<80	<8.0
Freon TF	39,000	180	50	<80	<8.0
1,1-Dichloroethene	500	<40	<10	<80	<8.0
Methylene Chloride	150	<100	<25	<200	<20
1,1-Dichloroethane	1,200	<40	14	<80	<8.0
cis-1,2-Dichloroethene	88	72	32	<80	<8.0
Chloroform	2.2	<40	<10	<80	<8.0
1,1,1-Trichloroethane	4,000	180	<10	<80	<8.0
Carbon Tetrachloride	2.6	<40	<10	<80	<8.0
Benzene	9.8	<40	<10	<80	<8.0
1,2-Dichloroethane	2.3	<40	<10	<80	<8.0
Trichloroethene	41	**1,100**	32	**150**	<8.0
1,2-Dichloropropane	8.7	<40	<10	<80	<8.0
cis-1,3-Dichloropropene	6.5	<40	<10	<80	<8.0
Toluene	1,100	60	25	<80	26
trans-1,3-Dichloropropene	6.5	<40	<10	<80	<8.0
1,1,2-Trichloroethane	2.8	<40	<10	<80	<8.0
Tetrachloroethene	12	**4,400**	**970**	**8,600**	**1,200**
Chlorobenzene	130	<40	<10	<80	<8.0
Ethylbenzene	51	<40	<10	<80	<8.0
Xylene (m,p)	32,000	<40	<10	<80	10
Styrene	2,300	<40	<10	<80	<8.0
Xylene (o)	16,000	<40	<10	<80	<8.0
1,1,2,2-Tetrachloroethane	61	<40	<10	<80	<8.0
1,3-Dichlorobenzene	170	<40	<10	<80	<8.0
1,4-Dichlorobenzene	1,300	<40	<10	<80	<8.0
1,2-Dichlorobenzene	330	<40	<10	<80	<8.0
1,2,4-Trichlorobenzene	270	<100	<25	<200	<20
Hexachlorobutadiene	1.0	<40	<10	<80	<8.0
1,3,5-Trimethylbenzene	12	<40	<10	<80	<8.0
1,2,4-Trimethylbenzene	12	<40	<10	<80	<8.0
1,2-Dichlorotetrafluoroethane	NS	<40	<10	<80	<8.0
1,2-Dibromoethane	14	<40	<10	<80	<8.0
1,3-Butadiene	39	<40	<10	<80	<8.0
Carbon Disulfide	2,200	140	<25	270	27
Acetone	1,500	<1,000	<250	<2,000	<200
Isopropyl Alcohol	NS	<1,000	<250	3,100	<200
Methyl tert-Butyl Ether	8,300	<100	<25	<200	<20
Cyclohexane	NS	58	<10	<80	<8.0

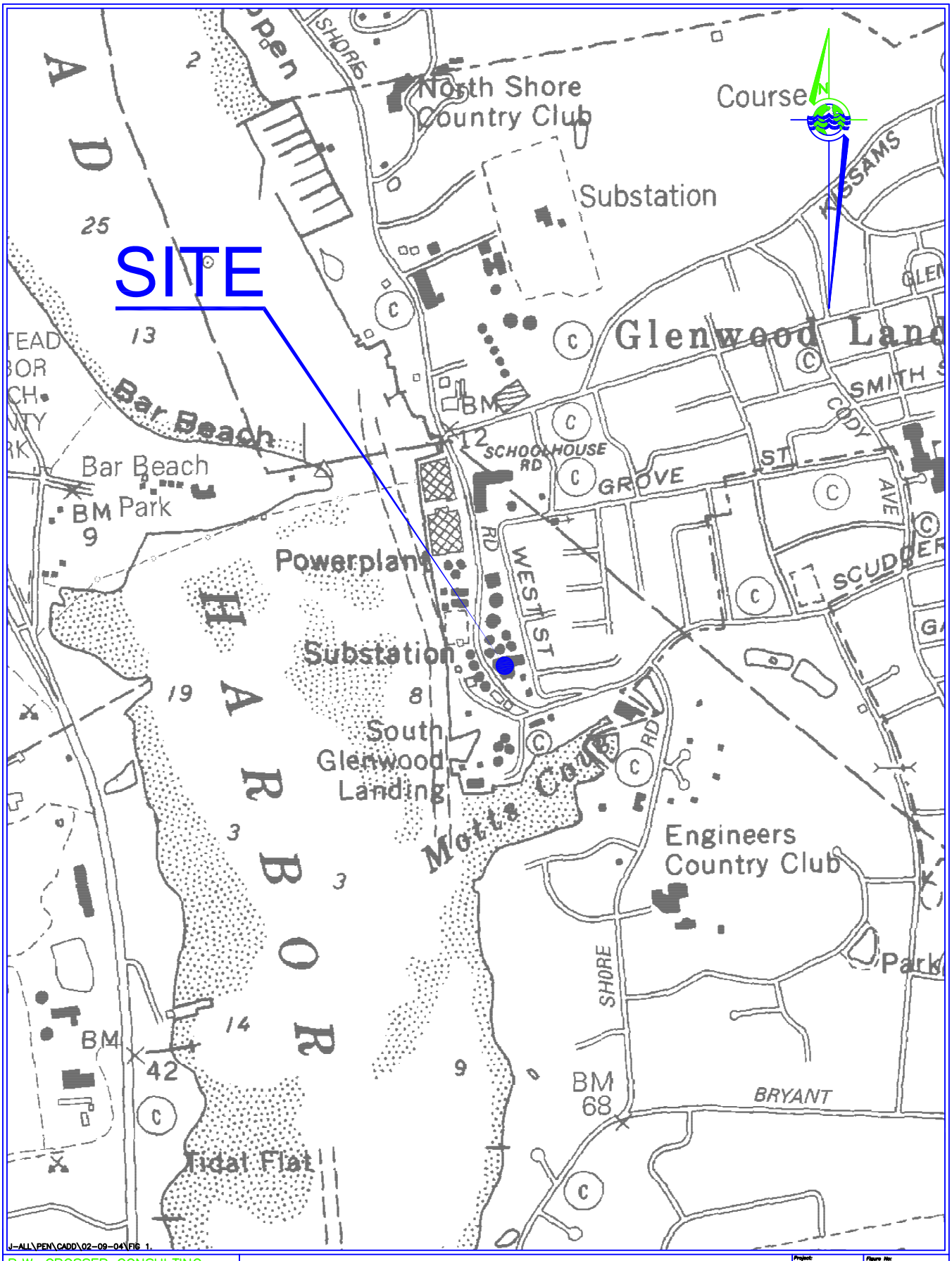
1 SHORE ROAD
GLENWOOD LANDING, NEW YORK

TABLE 4

SOIL GAS ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
METHOD TO-15

Compound	Target Soil Gas Concentrations (1)	SG-1 (4'-5')	SG-2 (9'-10')	SG-3 (6.5'-7.5')	SG-4 (9.5'-10.5')
		12/20/2004	12/20/2004	12/20/2004	12/28/2004
Dibromochloromethane	1.2	<40	<10	<80	<8.0
Methyl Ethyl Ketone	3,400	<100	<25	<200	<20
1,4-Dioxane	NS	<1,000	<250	<2,000	<200
Methyl Isobutyl Ketone	200	<100	<25	<200	<20
Methyl Butyl Ketone	NS	<100	<25	<200	<20
Bromoform	21	<40	<10	<80	<8.0
Bromodichloromethane	2.1	<40	<10	<80	<8.0
trans-1,2-Dichloroethene	180	<40	<10	<80	<8.0
4-Ethyltoluene	NS	<40	<10	<80	<8.0
3-Chloropropene	NS	<40	<10	<80	<8.0
2,2,4-Trimethylpentane	NS	<40	<10	<80	<8.0
Bromoethene	NS	<40	<10	<80	<8.0
2-Chlorotoluene	NS	<40	<10	<80	<8.0
n-Hexane	570	190	13	<80	16
Tetrahydrofuran	NS	<1,000	<250	<2,000	<200
n-Heptane	NS	47	<10	<80	<8.0
1,2-Dichloroethene (total)	268	72	32	<80	<8.0
Xylene (total)	48,000	<40	<10	<80	10
tert-Butyl Alcohol	NS	<1,000	<250	<2,000	<200

Notes:
USEPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil (Subsurface Vapor Intrusion Guidance) Table 2b Risk = 1×10^{-5}
NS - No Standard
All units are ppbv
Bold text denotes exceedance of standard

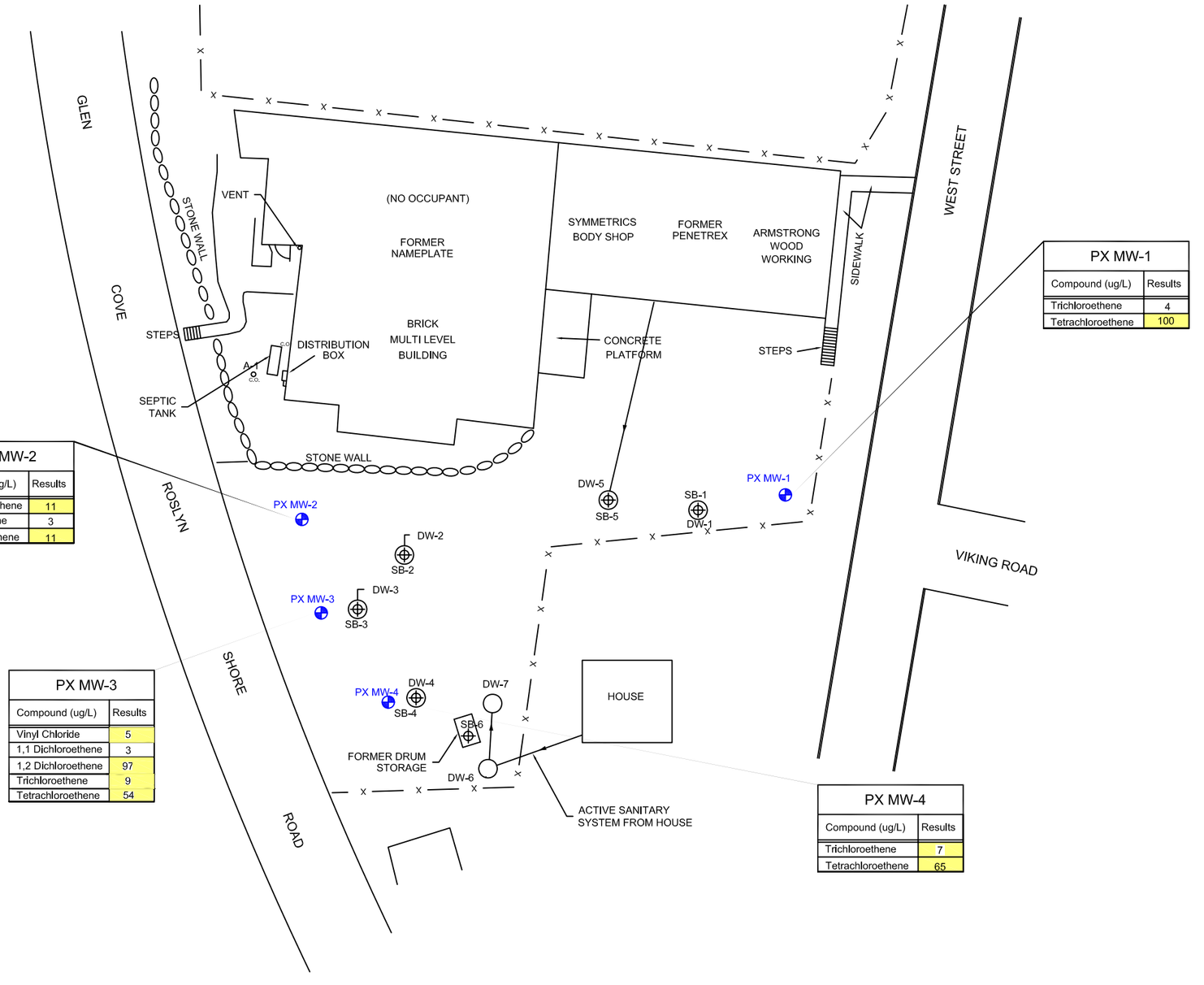


J-ALL\PEN\CADD\02-09-04\FIG 1.

P.W. GROSSER CONSULTING
ENGINEER & HYDROGEOLOGIST, P.C.
630 Johnson Ave. Suite 7
Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705
E-mail: www.pwgrosser.com

Site Location Map

Project:	Figure No:
PEN0001	1
Designed by: JPR	
Approved by: JPR	
Drawn by: KF	Date: 02\09\04



PX MW-1	
Compound (ug/L)	Results
Trichloroethene	4
Tetrachloroethene	100

PX MW-2	
Compound (ug/L)	Results
1,2 Dichloroethene	11
Trichloroethene	3
Tetrachloroethene	11

PX MW-3	
Compound (ug/L)	Results
Vinyl Chloride	5
1,1 Dichloroethene	3
1,2 Dichloroethene	97
Trichloroethene	9
Tetrachloroethene	54

PX MW-4	
Compound (ug/L)	Results
Trichloroethene	7
Tetrachloroethene	65

LEGEND

- MONITORING WELL
- DRY WELL / LEACHING STRUCTURE
- SB-1 SOIL BORING LOCATION
- 65 EXCEEDING GROUNDWATER STANDARD

0 40 80

SCALE: 1" = 40'

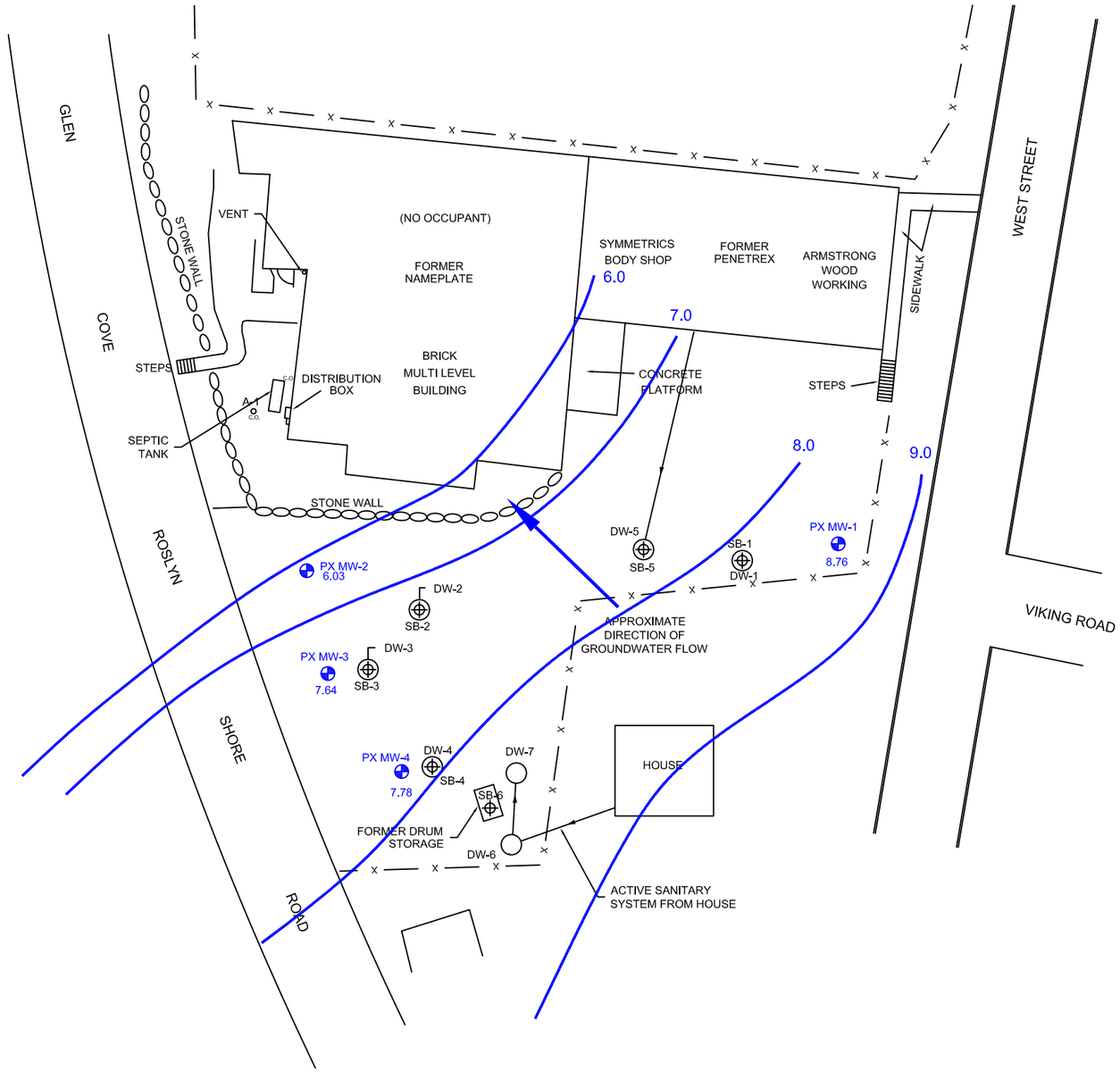
SOURCE: YEC, INC., SURVEY MAP 10, JULY 1992

GROUNDWATER ANALYTICAL RESULTS
FORMER PENETREX PROCESSING
NYSDEC I.D. No. 130034

P.W. GROSSER CONSULTING
ENGINEER & HYDROGEOLOGIST, P.C.
630 Johnson Ave. Suite 7
Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705
E-mail: www.pwgrosser.com

Project:	Designed By:	Figure No:
PEN0001	JPR	3
CADD Operator: TC	Approved By: JPR	Date: 05/16/02

J:\all_projects\PEN\CADD\FIG1AND2.DWG



MONITORING WELL

DRY WELL / LEACHING STRUCTURE

SB-1 SOIL BORING LOCATION

7.78 GROUNDWATER ELEVATION

GROUNDWATER CONTOUR (IN FEET)

NOTE: GROUNDWATER ELEVATIONS ARE MEASURED TO AN ARBITRARY DATAM

0 40 80

SCALE: 1" = 40'

SOURCE: YEC, INC., SURVEY MAP 10, JULY 1992

GROUNDWATER FLOW MAP
FORMER PENETREX PROCESSING
NYSDEC I.D. No. 130034

P.W. GROSSER CONSULTING
ENGINEER & HYDROGEOLOGIST, P.C.
630 Johnson Ave. Suite 7
Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705
E-mail: www.pwgrosser.com

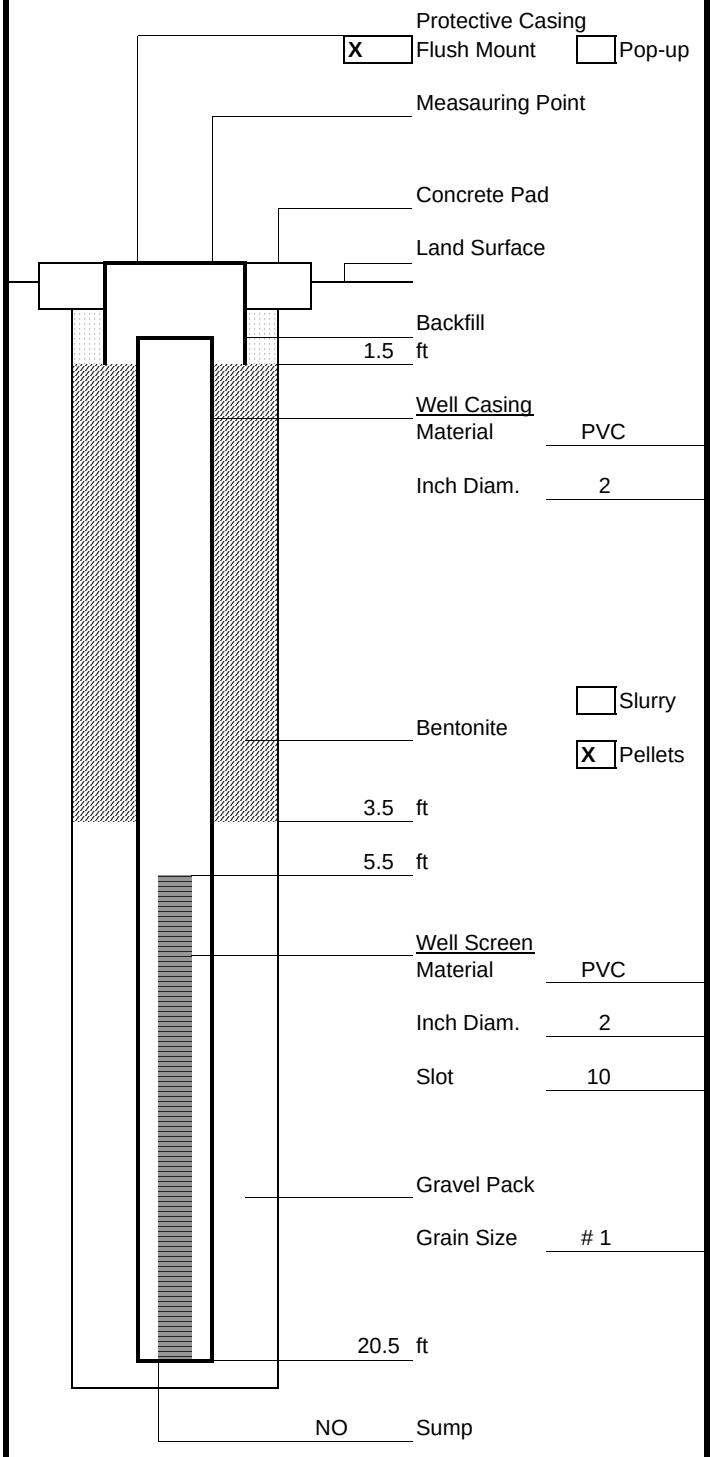
Project:	Designed By:	Figure No:
PEN0001	JPR	4
CADD Operator: TC	Approved By: JPR	Date: 05/16/02

J:\all_projects\PEN\CADD\FIG1AND2.DWG

GROUNDWATER MONITORING WELL

CONSTRUCTION LOG

P. W. GROSSER CONSULTING



Note: Drawing is not to scale.
Depths are given in feet below land surface.

Well No. **PX MW-5**

NYSDEC Permit No. NA

Project **Pentrex - One Shore Road**

Surveyor NA

Land Surface Elevation NA

Measuring Point Elevation NA

Installation Date 12/28/2004

Drilling Contractor Associated Environmental Services

Drilling Method Hollow Stem Auger

Drilling Fluid None

Development Technique (s) and Date (s)

Submersible Pump and Surge
12/30/2004

Fluid Loss During Drilling None Gallons

Water Removed During Development 20 Gallons

Static Depth to Water 10.9

Pumping Depth to Water NA

Pumping Duration

Yield NA GPM

Specific Capacity NA GPM/Ft

Well Purpose monitoring well

Hydrogeologist Fred Barilla

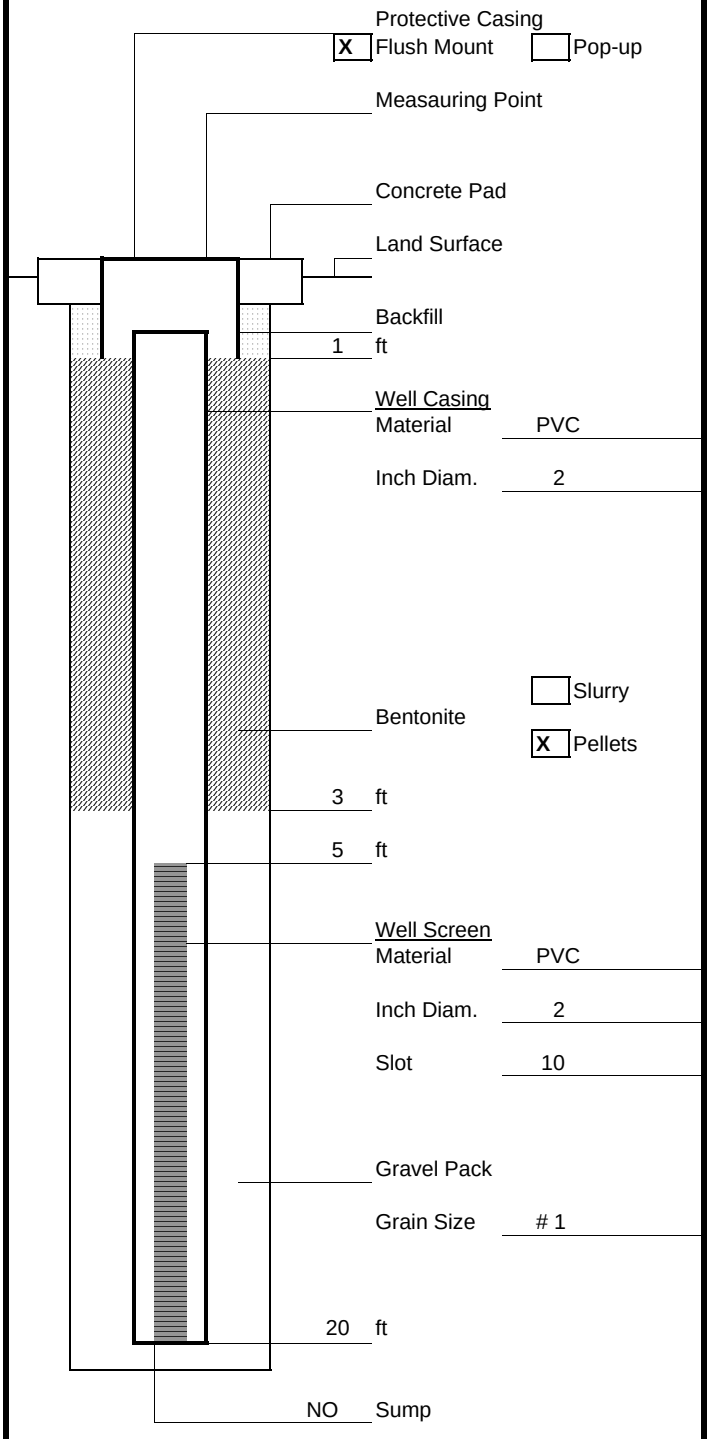
Company Name P.W. Grosser Consulting

Notes

GROUNDWATER MONITORING WELL

CONSTRUCTION LOG

P. W. GROSSER CONSULTING



Note: Drawing is not to scale.
Depths are given in feet below land surface.

Well No. **PX MW-6**

NYSDEC Permit No. NA

Project **Pentrex - One Shore Road**

Surveyor NA

Land Surface Elevation NA

Measuring Point Elevation NA

Installation Date 12/28/2004

Drilling Contractor Associated Environmental Services

Drilling Method Hollow Stem Auger

Drilling Fluid Potable water

Development Technique (s) and Date (s)

Submersible Pump and Surge
12/30/2004

Fluid Loss During Drilling Gallons

Water Removed During Development 20 Gallons

Static Depth to Water 13.3

Pumping Depth to Water NA

Pumping Duration 5 minutes

Yield NA GPM

Specific Capacity NA GPM/Ft

Well Purpose monitoring well

Hydrogeologist Fred Barilla

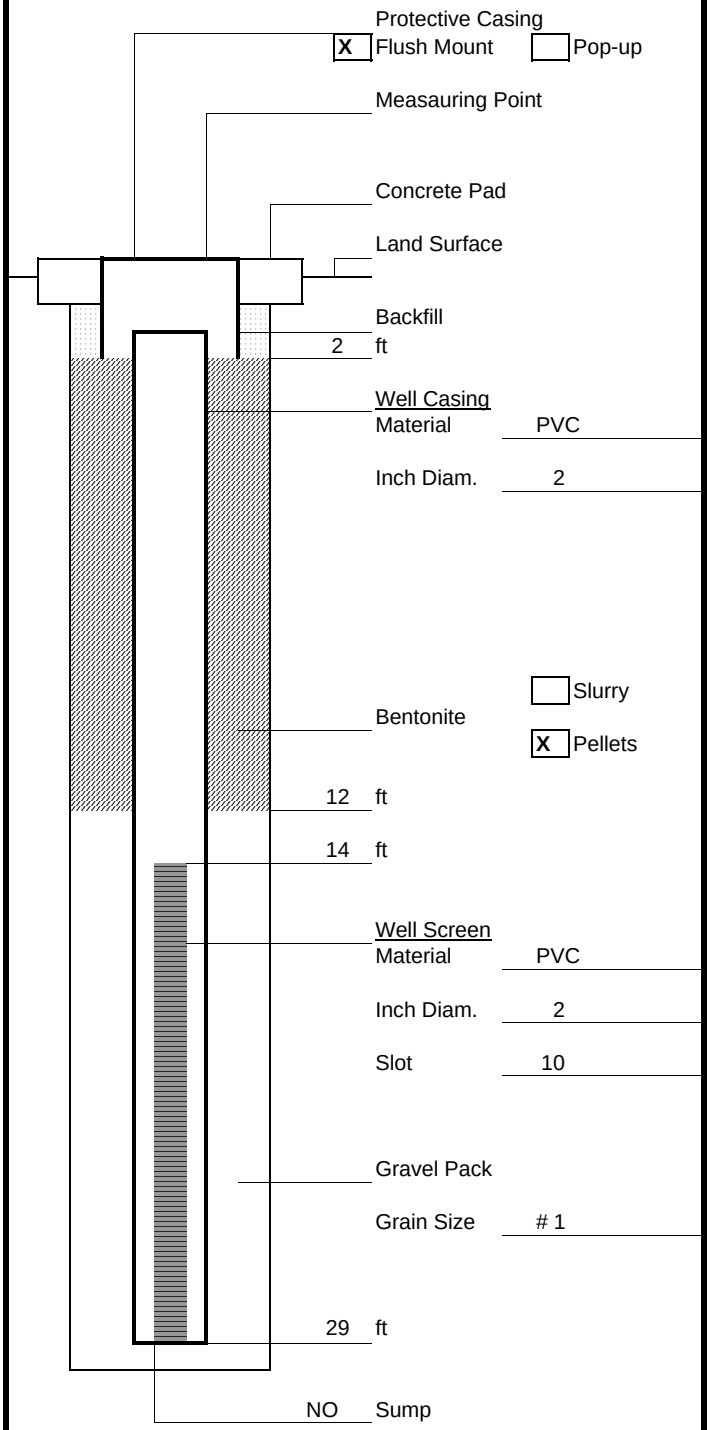
Company Name P.W. Grosser Consulting

Notes

GROUNDWATER MONITORING WELL

CONSTRUCTION LOG

P. W. GROSSER CONSULTING



Note: Drawing is not to scale.
Depths are given in feet below land surface.

Well No. **PW MW-7**

NYSDEC Permit No. NA

Project **Pentrex - One Shore Road**

Surveyor NA

Land Surface Elevation NA

Measuring Point Elevation NA

Installation Date 12/28/2004

Drilling Contractor Associated Environmental Services

Drilling Method Hollow Stem Auger

Drilling Fluid None

Development Technique (s) and Date (s)

Submersible Pump and Surge
12/30/2004

Fluid Loss During Drilling None Gallons

Water Removed During Development 20 Gallons

Static Depth to Water 19.03

Pumping Depth to Water NA

Pumping Duration

Yield NA GPM

Specific Capacity NA GPM/Ft

Well Purpose monitoring well

Hydrogeologist Fred Barilla

Company Name P.W. Grosser Consulting

Notes