Geovation Consultants, Inc. ● 468 Route 17A ● P.O. Box 293 ● Florida, NY ● 10921
Phone: (845) 651-4141 ● Fax: (845) 651-0040

06 December 2006

Janet Brown, PE
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 3
21 South Putt Corners Road
New Paltz, New York 12561-1696

Re: December 2006 – *Revised Site Management Plan*
New Grange Properties, Warwick, NY, Site # 336061

Dear Ms. Brown;

I have enclosed the revised December 2006 Site Management Plan that Geovation has prepared for the New Grange Properties Site in Warwick, New York. As you are aware, we wish to have the site re-classified to a Class 4 site, and the enclosed document supports this re-classification. Please review this revised document at your earliest convenience and contact me with your comments.

I may be contacted by telephone at (845) 651-4141 or by e-mail at (rzimmer@geovation.com).

Sincerely,

Robert Zimmer, PG, PE

Enclosure
cc: Rosita Gilsenan, New Grange Properties

December 2006 Revised Site Management Plan

New Grange Properties
Warwick, New York
NYSDEC Site ID# 336061

December 2006

Prepared for:

New Grange Properties
11 First Street
Warwick, NY 10990

Prepared by:

Geovation Consultants, Inc.
P.O. Box 293
468 Route 17A
Florida, NY 10921

Table of Contents

December 2006 Revised Site Management Plan
New Grange Properties, Warwick, NY, Site # 336061

1.0 Introduction (add discussion on sources of PCE/TCE)

The New Grange Properties site is located at 26 Railroad Avenue in Warwick, N.Y. (Figure 1). The property is a commercial building and courtyard located within the pedestrian shopping area of the Town of Warwick. The site has been undergoing renovation since 1998 and currently houses 4 commercial retail stores, a restaurant, a kitchen design studio, and offices occupied by an information technology vender. During site restoration activities, three heating-oil underground storage tanks (USTs) were discovered in the courtyard area along with petroleum impacted soils. In coordination with the NYSDEC, Region 3, a remedial investigation was performed and the USTs and approximately 242 tons of petroleum impacted soil were removed from the site. Post excavation soil and ground water sampling indicated that excavation activities remediated the petroleum impacts to the satisfaction of the New York State Department of Environmental Conservation (NYSDEC). However low concentrations of trichloroethene (TCE) and tetrachloroethene (PCE) remained present in the site ground water above the NYSDEC ambient ground water standards (TOGS 1.1.1). The source of these compounds in ground water was likely to have been impacted soil which was subsequently excavated and removed from the site. Soils could have become impacted during the extensive history of the site, which included various uses for automobile sales and storage, as well as other miscellaneous uses, see Section 1.1 below.

Based on the activities performed and documentation provided, in May 2002 NYSDEC Bureau of Spill Prevention and Response required no further action at the site with regards to the petroleum product contamination. However, the site was referred to the NYSDEC Bureau of Hazardous Waste Remediation due to the presence of the chlorinated compounds TCE and PCE in ground water. Site restoration activities were completed and additional ground water sampling and sub-slab soil vapor sampling were performed (Geovation February 2005 *Sub-Slab Soil Vapor Sampling Report*). Ground water sampling showed the low levels of chlorinated contaminants were naturally attenuating, and the concentration of chlorinated compounds in the sub-slab soil-vapor was within the range considered to be background by the NYSDOH. NYSDEC and NYSDOH reviewed this data and requested that a Vapor Intrusion Study (VIS) be performed to collect more detailed information on sub-slab conditions.

Geovation conducted the VIS study on 16 February 2006 (Table 1). In addition, Geovation performed another round of ground water sampling on 14 February 2006 (Table 2). The results of this testing were provided to the NYSDEC/NYSDOH in

Geovation's May 2006 *Vapor Intrusion Study and Ground Water Sampling Report*. Based on the review of this report, the NYSDEC/NYSDOH concluded that it is not expected that the low-level concentrations of volatile organic compounds detected in soil gas will affect indoor air quality and no further action is required regarding indoor air quality or sub-slab soil-vapor testing. Additional ground water sampling indicated that contaminants in ground water continue to naturally attenuate and only a single compound (cis-1,2 dichloroethene) remains in ground water at concentrations above NYSDEC ground water standards (Figure 2).

Based on this information, Monitored Natural Attenuation (MNA) is proposed as the site remedy and a request is made to the NYSDEC to reclassify the property as a Class 4 site.

This Site Management Plan includes the procedures to be implemented during the MNA program to be conducted at the site. Records will be maintained on-site in the offices of Gilsenan Designs, Inc. Monitored Natural Attenuation will not require remediation equipment to be stored or operated at the site. The majority of the courtyard area where the USTs were formerly located has been covered with concrete and planters, and runoff from precipitation is through a controlled subsurface discharge and/or the Village storm water system. Monitoring of the site ground water and maintenance of the concrete cover and stormwater control system will be performed during the implementation of the MNA program.

Limited amounts of soil impacted above the NYSDEC soil cleanup criteria (NYSDEC TAGM 4042) were located in the immediate area of the buried underground electric utilities in the courtyard area and allowed to remain in-place. In the event that these underground utilities need to be excavated, specific instructions are provided in this document.

1.1 Site History. Based on information provided to Geovation, the first building on the site was erected in the 1860s and was used as a hall/opera house with livery space on the lower floor. It operated in this capacity until the 1890s. In the early 1900s, the building was used for laundry and kitchen operations associated with the attached National Hotel (now the Demerest Hotel).

Geovation reviewed historic Sanborn fire insurance maps from 1885, 1894, 1900, 1905, 1910, 1923, 1940, and 1960. The 1885 map labels the property as the Demerest Hall and shows site uses to include a skating rink. The 1894 and 1900 maps show the property was being used in a supporting role (as a kitchen, laundry, and sleeping rooms) to the Demerest Hotel located on the adjacent property to the east. The 1923 Sanborn map indicates the property use changed to Automobile Storage. The 1940 Sanborn map indicates the property use as a hotel kitchen and laundry and a primary school, while the 1960 map indicates site use is again automobile storage.

Based on information obtained from the National Register of Historic Places, from 1920 to 1923 the building housed a school, and from 1928 to 1942 the building's uses included Village of Warwick offices and an automobile dealership.

Richard Hull (a Warwick Historian) stated that during the 1960s and 1970s the second floor was used for storage and the lower level was vacant. He described the building during this time as structurally deteriorating and in need of repair. In the course of purchasing the site, William Nathans, Esq. provided a letter to New Grange Properties in 1997 which indicated that as of July 1997, the building's tenants consisted of equipment storage for Roundtower Masonry (west side), equipment storage for Pat Dunnigan (unspecified use) and an unspecified use by C.S. Single (Springer).

1.2 Site Hydrogeology. Ground water is present at the site, in overburden and fill materials, at a depth of approximately 3.5 feet below the ground surface. Wawayanda Creek is located approximately 700 feet to the north of the site. A sensitive receptor survey indicates that the area is served by public water and municipal or domestic wells are not located within one-half mile of the site.

Four ground water monitoring wells exist at the site (Figure 2). Based on the measured ground water elevation, the direction of ground water flow is to the north, toward Waywayanda creek (Figure 3). Grab samples of ground water collected off-site in February 2004 indicate that the extent of impacted ground water is primarily limited to on-site areas and impacted ground water extends less than 20 feet off-site (Figure 2).

The subsurface soils at the site are composed mostly of sand with lesser amounts of gravel and silt. Based on the literature (Freeze and Cherry, 1979) this type of formation typically has a conductivity in the range of 10^{-2} to 10^{-5} cm/sec. The hydraulic gradient at the site is very large (0.1 ft/ft) indicating that the conductivity is most likely to be at the lower end of this range at 10^{-5} cm/sec. Based on this hydraulic conductivity and gradient, ground water flow across the site is estimated to be on the order of five to six feet per year.

Site ground water is impacted with low concentrations of TCE, PCE and cis-1,2, dichloroethene (DCE). A summary of ground water data collected at the site is provided on Table 2. In the last round of ground water sampling, the highest concentration of TCE measured was 1.59 ug/l. The highest concentration of PCE measured was 2.92 ug/l and DCE 183 ug/l. DCE is the only VOC compound at the site remaining above NYSDEC ground water standards TOGS 1.1.1.

2.0 Site Remedial Action.

2.1 Description of the Remedial Action. As indicated earlier in this document, the concentrations of groundwater contaminants are very low and data indicates they are already naturally attenuating. In addition, sensitive receptors have not been identified near the site and sub-slab soil vapor has been determined not to be present at concentrations which would affect indoor air quality. Based on this information, New Grange Properties and Geovation intend to implement a monitored natural attenuation program at the site, consisting of two years of quarterly ground water measurements and final closure sampling. The quarterly sampling will be used to calculate the half-time of site contaminants and predict when final closure should be performed. An annual report will be prepared summarizing the quarterly sampling results. If the final sampling indicates that contaminants remain present above NYSDEC ground water standards, the MNA program will be continued and additional sampling will be performed. The half time of site contaminants will be recalculated and additional ground water sampling will be collected at the predicted time of contaminant concentration conformance to ground water standards.

2.2 Goals of the Remedial Action. Due to the low levels of contaminants present at this site and indication of ongoing natural attenuation, the remediation goals for this site are the NYSDEC ambient ground water standards established in NYSDEC TOGS 1.1.1.

3.0 Institutional and Engineering Control Plan

An deed restriction for the use of ground water has been established at this site. The deed restriction was negotiated with the NYSDEC Division of Environmental Enforcement (DEE). Engineering controls on storm water runoff and ground water recharge are already in place at the site and will be maintained as part of the *Site Management Plan*.

As previously discussed, a concrete cap covers most of the courtyard area, and storm water run-off in this area is directed to flow overland to the Village storm water system in the adjacent Village street. However, storm water captured by the building roof drain system is directed to an infiltration system located beneath the courtyard and accounts for ground water recharge from precipitation at the site. The roof drain infiltration system is required by the Village of Warwick regulations.

Until such time as no further action is approved by the NYSDEC, New Grange Properties will maintain the concrete cap in the court yard area and roof-drain infiltration system which together control the infiltration of storm water through the site. The concrete in the courtyard area will be inspected on a quarterly basis to identify cracks and breaks which may alter the amount of precipitation infiltration through the site. Identified cracks or breaks will be evaluated by a geologist to

ascertain if they would significantly impact the amount of infiltration through the site. The roof drain storm water system will be maintained in operating condition. Inspections of the system will look for indications of blockage or overland discharge from the system. If inspections indicate that either of these controls needs to be repaired, such repairs will be conducted by New Grange Properties in less than 45 days. An IC/EC certification statement will be provided in the annual report summarizing site activities.

4.0 Monitoring Plan

4.1 Ground Water Sampling. Ground water monitoring will be performed on a quarterly basis for two years to assess both the performance of the remedy and the effectiveness at restoring ground water quality. Based on the quarterly ground water monitoring data, contaminant half-lives will be calculated such that the time period to when ground water will meet the remediation goals can be predicted. Within 60 days of that predicted time, final ground water sampling will be performed to evaluate if the remediation goals have been achieved. If data shows that ground water remediation goals have been met, a request will be made for site closure. If data indicates that additional remediation is required, contaminant half-life calculations will be updated and the procedure repeated until contaminant concentrations are consistently below NYSDEC ground water standards, at which time monitoring requirements will be re-evaluated**.**

Ground water monitoring will consist of collecting data from all four existing on-site wells and ground water samples from two existing on-site monitoring wells, MW-2 and MW-3 (once annually, in the spring, monitoring wells MW-1 and MW-4 will also be sampled). Data collected will include measurements of the static ground water elevation to evaluate the direction of ground water flow, and measuring the following parameters of the ground water: temperature, pH, conductivity, turbidity (or total dissolved solids), dissolved oxygen, and redox potential. In addition, samples will be collected for microbial counting for comparison to base line values and evaluation of the MNA program.

Monitoring well MW-4 is located up gradient of the source area. Ground water monitoring well MW-2 is located in the source area and along the centerline of the ground water plume. Monitoring well MW-3 is located down gradient of the source area but within the impacted ground water. This well is in a fringe area where only a single parameter, cis 1,2-DCE, exceeds the NYSDEC TOGS 1.1.1 ambient ground water standards. Monitoring well MW-1 is located cross gradient to the ground water plume. Boring logs for these four monitoring wells are provided in Appendix A. Ground water samples will be collected from monitoring wells MW-2 and MW-3. In addition, ground water will be collected from monitoring wells MW-1 and MW-4 once per year during the spring quarterly monitoring event.

Prior to collecting ground water samples, the monitoring wells and sampling equipment will be purged using a low-flow sampling protocol based on consistent readings of ground water conductivity. Approximately one-quarter of a well volume will be removed from each well prior to monitoring ground water for conductivity. Repetitive conductivity measurements will be collected as ground water is removed from the well at a consistent low-flow rate. When three consecutive conductivity measurements are within 10% of each other, flow from the low-flow pump will be directed directly into laboratory provided glassware. Subsequently the samples will be placed into a cooler with ice and submitted to a NYSDOH ELAP certified laboratory under chain of custody documentation. Ground water samples will be analyzed via EPA Method 624 (plus tentatively identified compounds [TICS]). A trip blank will be submitted along with the ground water samples.

Laboratories utilized will follow the quality assurance/ quality control procedures specified in the analytical method. Category B data deliverables and a data usability report (DUSR) will be provided for the final sampling. Other sampling events will have category A data deliverables. Copies of original laboratory data sheets will be included as appendices to each report.

Evaluation of the quarterly data will be performed by a qualified person who is conducting the MNA. An annual site management report will be prepared which summarizes the data and evaluates the effectiveness of the MNA program.

4.2 Well Decommissioning. At the completion of the project, when it has been determined that no further action is required, the four wells will be removed from the site following NYSDEC ground water monitoring well decommissioning procedures.

5.0 Operation and Maintenance Plan

No mechanical ground water treatment equipment are proposed to be utilized in the remediation of this site. In addition, the placement of drums or other containers which may be vulnerable to damage, spill, rupture, weather or vandalism is not proposed. Based on the MNA program proposed at this site, an operation and maintenance plan is not required.

5.1 Buried Electric Utility Excavation Plan. In the event that excavation is required in the area where soils in the courtyard were allowed to remain with contaminant concentrations above the NYSDEC soil clean-up criteria, the specific requirements outlined below will be followed. Excavation will be performed by operators who have current HAZWOPER training as described in 29CFR1910.120. Either one of two excavation strategies will be employed. If the excavation is small, such as in the case of a limited repair to the utility, small volumes of impacted soil

will be excavated, the repair will be performed and the materials will be returned to the excavation and the overlying cap repaired. In the event that a relatively large amount of soils will be excavated, such as in replacing the utility, impacted soils will be excavated and stockpiled on-site. Post-excavation sampling will be performed at fifteen-foot intervals along each sidewall of the excavation, and after the utility work is completed, the excavation will be backfilled with clean fill and the cap repaired. Post-excavation samples will be analyzed for volatile and semi-volatile organic compounds by a NYSDOH certified laboratory, and the results of this sampling will be included in the annual site management report prepared for the site. Stockpiled soils will be placed on and covered by plastic sheeting until waste characteristic testing is completed and the soils are properly disposed off-site.

After excavation activities have been completed and before the excavation is backfilled, site safety personnel with current HAZWOPER training, as described in 29CFR1910.120, will monitor ambient air quality with hand-held instruments to screen for volatile organic compounds (VOCs). If VOCs are not detected, utility repair will be completed by standard utility contractors under the oversight of site safety personnel. If VOCs are measured in the ambient air, utility repair will be performed by contractors with current HAZWOPER training.

6.0 Site Management Plan Implementation and Report

Site inspections will be performed quarterly, during the first eight quarters of the project and annually thereafter, if required. In addition, site inspections will be performed in the event of major erosion events, flooding or other events which may affect the concrete cap or roof-drain infiltration system at the site. Inspections will be documented with a form developed for the site, a copy of which is provided in Appendix B. The inspection will compile sufficient information to evaluate the condition of the concrete cap and roof-drain infiltration system, as well as the monitoring wells and monitoring well surface water infiltration seals. In addition, the site inspection will evaluate if site records are up to date.

The results of the inspection and site monitoring will be evaluated to confirm that engineering controls are in-place and performing properly, the monitoring plan is being implemented, and the remedy continues to be protective of public health and the environment.

A *Site Management Report* will be prepared annually. The report will summarize the results of the monitoring plan, inspections and the project evaluation discussed above. The report will be submitted within 45 days of the date of the end of the certification period and include: the IC/EC certification required for the site, an evaluation of the compliance and effectiveness of the remedy with remediation goals, copies of inspection forms, new conclusions of observations regarding site contamination, recommendations for necessary changes to the remedy and/or

monitoring plan, a figure showing sampling and well locations and significant analytical values at the sampling locations, and a cumulative data summary table of the contaminants of concern. The report will include a copy of the original laboratory data report for each round of ground water sampling detailed in the report. The report will be submitted to the NYSDEC and NYSDOH in hard copy and Adobe .PDF format.

REFERENCES

Freeze, R.A., and Cherry, J.A., 1979. *Groundwater*. Prentice-Hall, Inc., Englewood, NJ. pp. 16, 29.

TABLES

Table 1

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Sub-Slab, Indoor and Outdoor Air Sampling Results

Sampling Date: 2/16/2006

New Granage Properties, Warwick, NY - Site No. 336061

Geovation Consultants, Inc.

Parameter Detected Description	Sub-Slab-2-16-06		Indoor-2-16-06		Outdoor-2-16-06	
	Rpt. Limit (uG/m3)	Amount (uG/m3)	Rpt. Limit (uG/m3)	Amount (uG/m3)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Sample Collection Time	10:40 - 13:00		10:50 - 13:30		10:57 - 13:06	
Sampling Device	Summa-Canister		Summa-Canister		Summa-Canister	
Purge Volume	One Liter		---		---	
Sample Volume	Six Liters		Six Liters		Six Liters	
Vacuum Reading (before/after)	30 inchs/7 inches		30 inchs/9 inches		30 inchs/7 inches	
Chloromethane	0.33	ND	0.38	1.50	0.35	1.30
Methlylene Chloride	1.10	1.10	1.30	1.60	1.20	ND
Benzene	0.51	ND	0.58	2.40	0.54	2.00
Toluene	0.61	ND	0.69	5.90	0.63	2.90
Trichoroethene	0.86	ND	0.98	ND	0.90	ND
Tetrachloroethene	1.10	11.00	1.20	ND	1.10	ND
cis-1,2-Dichloroethene	0.64	ND	0.72	ND	0.67	ND
Ethylbenzene	0.70	ND	0.79	1.20	0.73	1.40
m,p-Xylene	0.70	ND	0.79	2.90	0.73	ND
o-Xylene	0.70	ND	0.79	1.20	0.73	ND
Freon 12	0.80	3.00	0.90	3.00	0.83	3.00
Freon 11	0.90	1.50	1.00	1.80	0.94	1.70
Ethanol	1.50	1.90	1.70	160 E	1.60	9.40
Acetone	1.90	6.10	2.20	49.00	2.00	7.70
2-Propanol	2.00	ND	2.20	190 E	2.10	2.10
1,2,4-Trimethylbenzene	0.79	ND	0.90	1.30	0.82	ND

Notes:

ND Not detected above the method detection limits.

TABLE 2

SUMMARY OF GROUND WATER SAMPLING DATA

New Grange Properties - Railroad Avenue Site

Prepared by: Geovation Consultants, Inc.

September 14, 2006

Sample Date	2-28-00	5-02-01	5-16-02	12-19-02	10-30-03	14-Feb-06	28-Feb-00	02-May-01	16-May-02	19-Dec-02	30-Oct-03	14-Feb-06	**NYSDEC TOGS**
Sample Location	**MW-1**	**MW-1**	**MW-1**	**MW-1**	**MW-1**	**MW-1**	**MW-2**	**MW-2**	**MW-2**	**MW-2**	**MW-2**	**MW-2**	**Standards***
Parameter 624 (ug/L)													
Chloromethane	ND	3.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**NGV**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	0.96	0.02	ND	ND	**1**
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	0.32	ND	ND	ND	**5**
Ethylbenzene	ND	ND	ND	ND	ND	ND	3.36	2.75	2.33	0.6	ND	0.68	**5**
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Trichloroethene	ND	ND	ND	ND	ND	ND	*6.17*	*15.8*	*8.95*	3.1	0.837	1.3	**5**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	*379*	*220*	*76.1*	*11.2*	*13*	2.92	**5**
trans 1,2-dichlorethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3	ND	ND	**5**
cis-1,2-dichlorethene	—	ND	ND	ND	ND	ND	—	*43*	*47.5*	*321*	*55.7*	*183*	**5**
Total VOCs	ND	3.27	ND	ND	ND	ND	393.02	281.55	136.16	336.22	69.537	187.9	

Sample Date	28-Feb-00	02-May-01	16-May-02	19-Dec-02	30-Oct-03	14-Feb-06	2-28-00	5-02-01	5-16-02	12-19-02	30-Oct-03	14-Feb-06	**NYSDEC TOGS**
Sample Location	**MW-3**	**MW-3**	**MW-3**	**MW-3**	**MW-3**	**MW-3**	**MW-4**	**MW-4**	**MW-4**	**MW-4**	**MW-4**	**MW-4**	**Standards***
Parameter 624 (ug/L)													
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**NGV**
Benzene	0.91	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	**1**
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Ethylbenzene	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Total Xylenes	3.69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Trichloroethene	3.58	9.46	ND	1.4	ND	1.59	ND	ND	ND	ND	ND	ND	**5**
Tetrachloroethene	*0.56*	46.6	0.89	*6.13*	0.482	1.48	ND	ND	ND	ND	ND	ND	**5**
trans 1,2-dichlorethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
cis-1,2-dichlorethene	—	ND	ND	*424*	*135*	*127*	—	ND	ND	ND	ND	ND	**5**
Total VOCs	19.51	56.06	0.89	431.83	135.482	130.07	ND	ND	ND	ND	ND	ND	

Notes:

ND Parameter not detected above minimum detection level

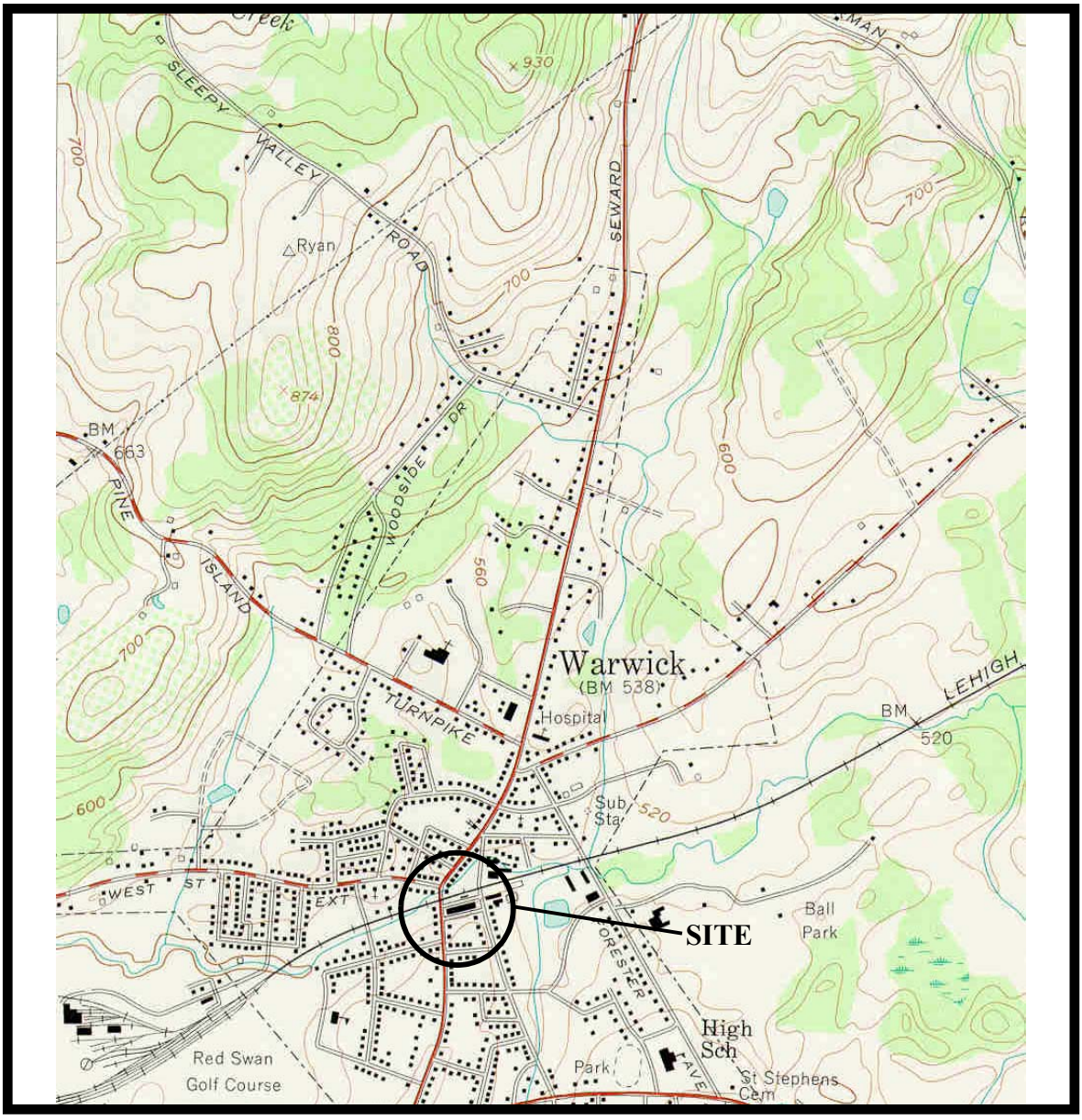
** Data shown in italic font and bold outline exceed the applicable NYSDEC standards or guidance values shown

No guidance value

* NYSDEC/NYSDOH TOGS 1.1.1 Class Ga Ground-Water Standards

** cis-1,2-dichloreoethene as reported in tentatively identified compounds (TICs)

Figures



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

W E

S

Source: USGS 7.5 Minute
Series Topographic Map
Warwick, NY 1957

GEOVATION CONSULTANTS, Inc.
Innovative Solutions to Environmental Problems
FLORIDA, NEW YORK

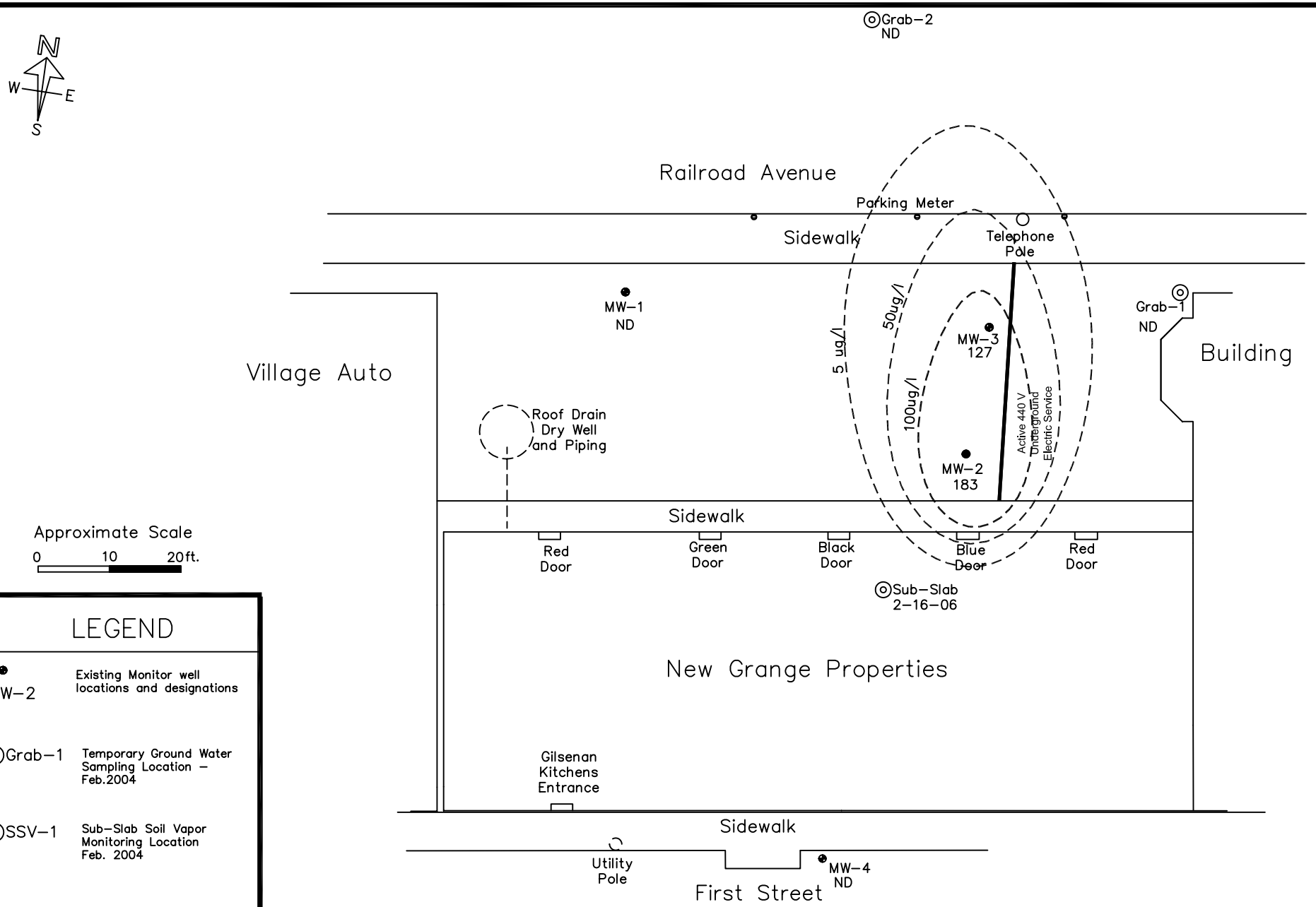
Site Location Map

New Grange Properties, Inc.

Railroad Avenue Site, Warwick, NY

FIGURE

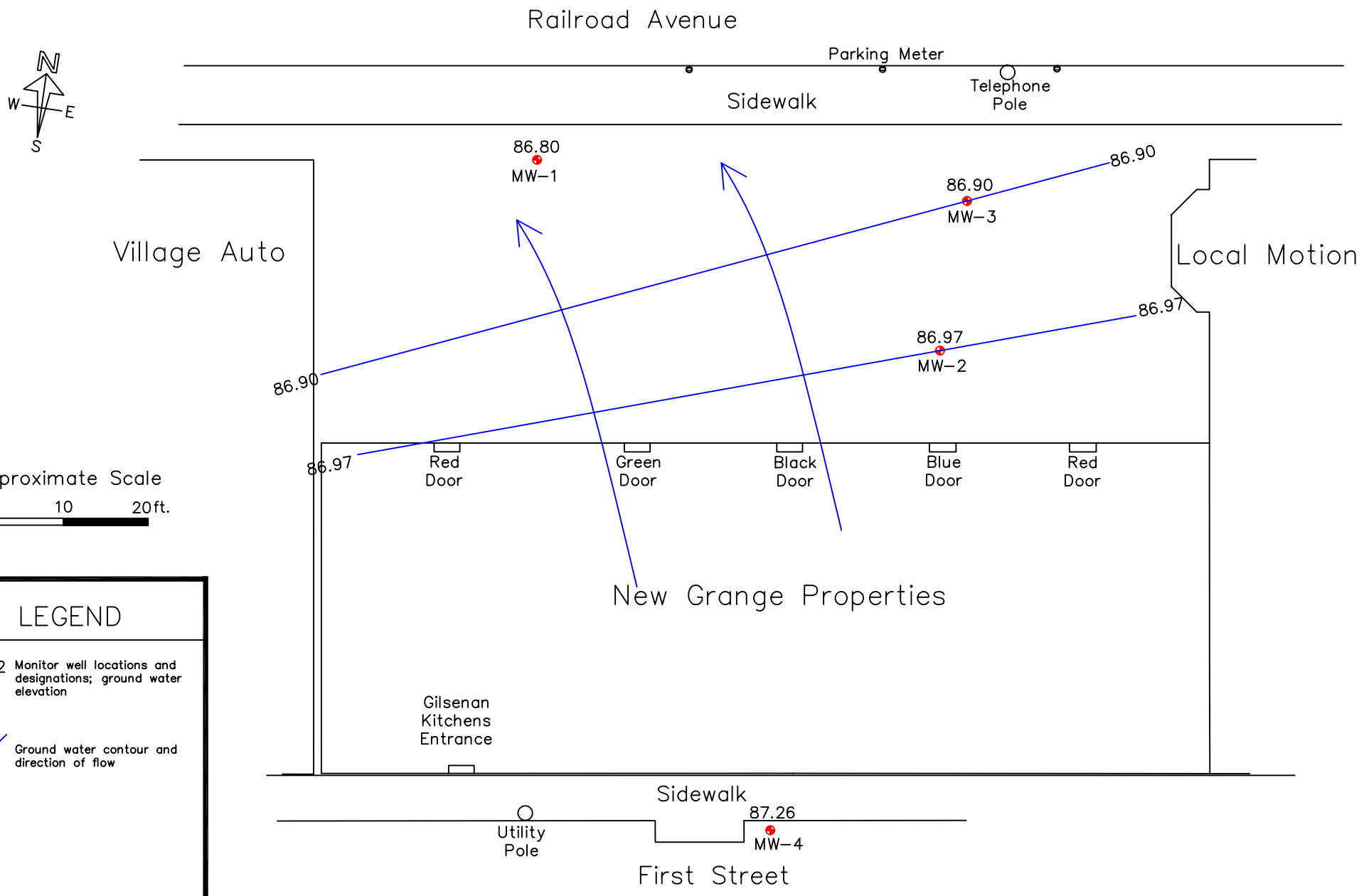
1



GEOVATION CONSULTANTS, Inc.
Innovative Solutions to Environmental Problems
FLORIDA, NEW YORK

cis–1,2–dichloroethene in Ground Water
Compilation of Feb.'04 & Feb.'06 Data
New Grange Properties
Railroad Avenue, Warwick, NY

Figure
2



GEOVATION CONSULTANTS, Inc.
Innovative Solutions to Environmental Problems
FLORIDA, NEW YORK

Ground Water Contour Diagram
New Grange Properties
Railroad Avenue Site, Warwick, NY

Figure
3

ADDENDIX A

SITEHog®

MW-1

00004-11

Compiled for: Geovation Consultants, Inc.
468 Route 17a
P.O. Box 293
Florida, NY 10921

Project location: 18 Railroad Ave.
Warwick, NY

Date: February 1, 2000

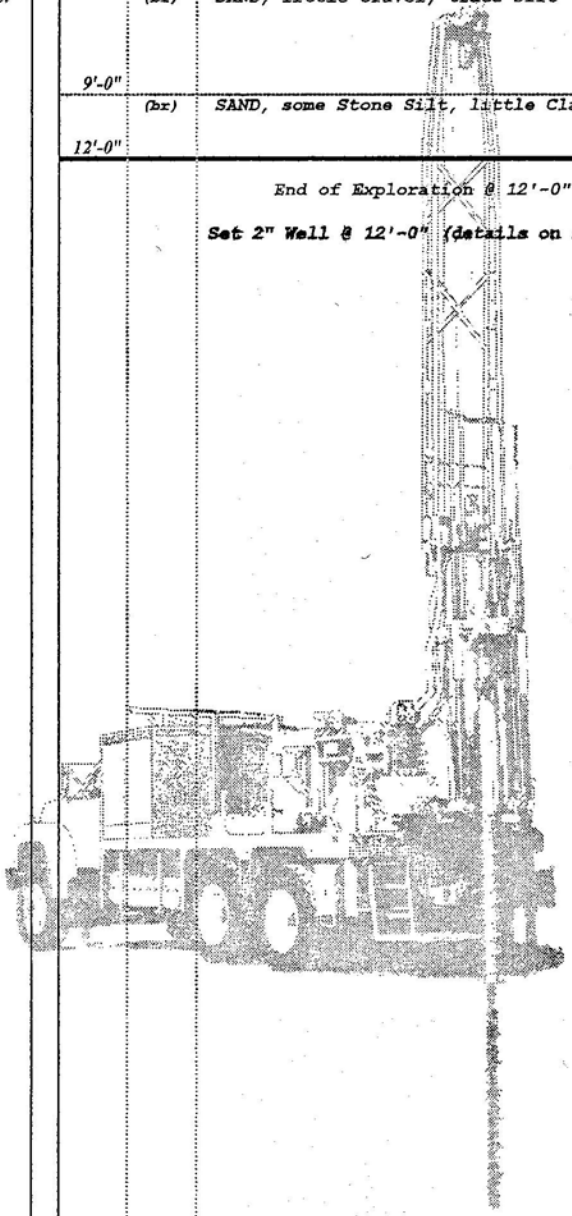
ORIGINAL DOCUMENT

Water: 4'-4"

Sample Depth	Blows Counts per 6"				Moisture	Changes	Color	DESCRIPTION OF FINDINGS	General	No.	Pen.	Rec.	Graph
1' to 3'	25	31	11	4	Damp	3"	(gy)	SAND & STONE (Processed Mix)	FILL	1	24"	20"	
						9"	(bl)	SAND, little Silt, Stone					
3' to 5'	10	15	16	8	Moist	2'-6"	d. (br)	TOPSOIL	TOPSOIL	2	24"	13"	
							(gy)	SAND, some Gravel, little Silt - Odor	OUTWASH				
5' to 7'	5	5	4	5	Wet	▼	(br)	SAND, little Gravel, trace Silt		3	24"	19"	
						9'-0"							
							(br)	SAND, some Stone Silt, little Clay	TILL				
						12'-0"							

End of Exploration @ 12'-0"

Set 2" Well @ 12'-0" (details on right)



Well Details

Curb Box / Concrete
Riser 0' to 2'
Bentonite 1' to 2'
Screen 2' to 12'
Slot 0.01
#0 Sand 2' to 12'
Threaded Plug

Symbols

Organic
Fill
Subsoil
Silt
Clay
Gravel
Sand
Till
Rock
Water ▼
SPT
Curb Box
Riser
Bentonite
Screen

General

Oper: J. DeAngelis
Drill: CME45 ATV
140# Auto-Hammer
Sampler: 2" O.D.
Casing: 4-1/4" HSA

SITElog®

MW-2

00004-12

Compiled for: Geovation Consultants, Inc.
468 Route 17a
P.O. Box 293
Florida, NY 10921

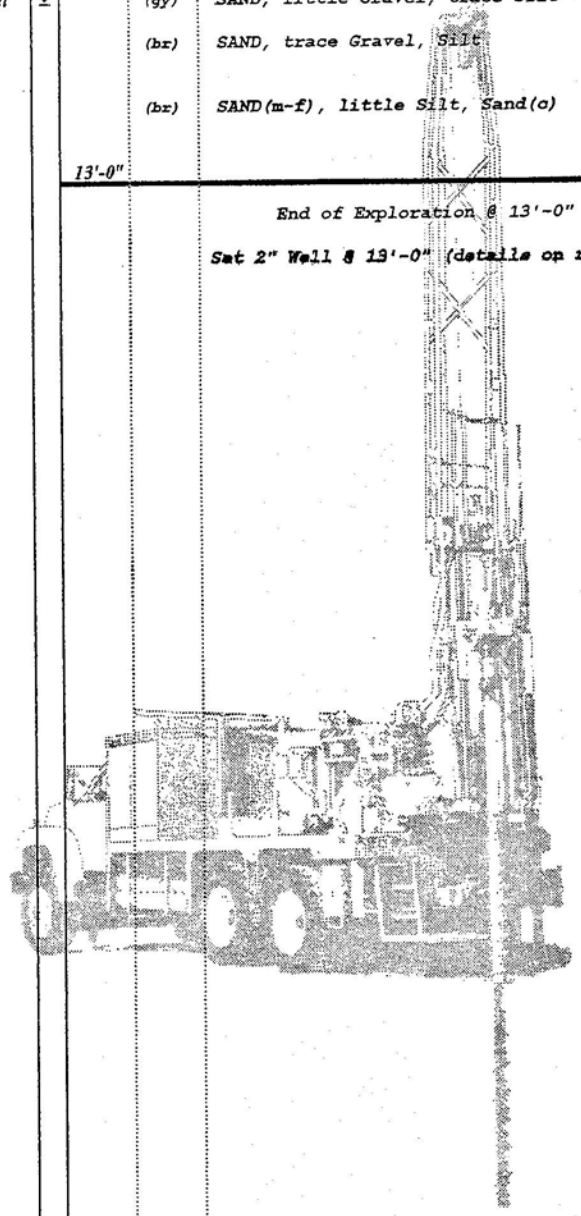
Project location: 18 Railroad Ave.
Warwick, NY

Date: February 1, 2000

Water: 4'-10"

ORIGINAL DOCUMENT

Sample Depth	Blows Counts per 6"				Moisture	Changes	Color	DESCRIPTION OF FINDINGS	General	No.	Pen.	Rec.	Graph
1' to 3'	38	40	25	8	Damp	10"	(gy)	SAND & STONE (Processed Mix)	FILL	1	24"	24"	
							(br)	SAND, little Stone, Silt, trace Brick fragments					
3' to 5'	9	6	3	3	Moist	4'-0"				2	24"	6"	
5' to 7'	2	3	4	4	Wet ▼		(gy)	SAND, little Gravel, trace Silt - Odor	OIL/ASH	3	24"	10"	
							(br)	SAND, trace Gravel, Silt					
							(br)	SAND(m-f), little Silt, Sand(c)					
						13'-0"							
								End of Exploration @ 13'-0"					
								Set 2" Well @ 13'-0" (details on right)					



Well Details

- Curb Box / Concrete
- Riser 0' to 3'
- Bentonite 2' to 3'
- Screen 3' to 13'
- Slot 0.01
- #0 Sand 3' to 13'
- Threaded Plug

Symbols

Organic, Fill, Subsoil, Silt, Clay, Gravel, Sand, Till, Rock, Water ▼, SPT, Curb Box, Riser, Bentonite, Screen

General

Oper: J. DeAngelis

Drill: CME45 ATV

140# Auto-Hammer

Sampler: 2" O.D.

Casing: 4-1" HSA

SITElog®

MW-3

00004-13

Compiled for: Geovation Consultants, Inc.
468 Route 17a
P.O. Box 293
Florida, NY 10921

Project location: 18 Railroad Ave.
Warwick, NY

Date: February 1, 2000

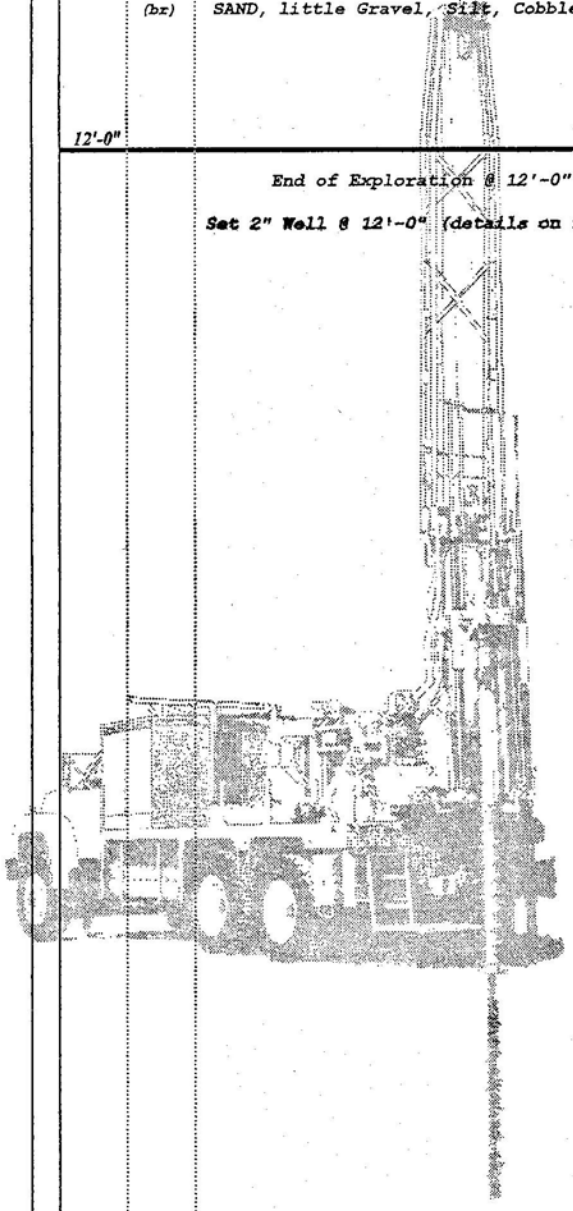
ORIGINAL DOCUMENT

Water: 4'-6"

Sample Depth	Blows Counts per 6"				Moisture	Changes	Color	DESCRIPTION OF FINDINGS	General	No.	Pen.	Rec.	Graph
1' to 3'	22	44	28	20	Damp	3"	(gy)	SAND & STONE (Processed Mix)	FILL	1	24"	21"	
						6"	d. (br)	TOPSOIL	TOPSOIL				
3' to 5'	10	8	4	4	Wet	1'-0"	(ro)	SILT, little Sand	SUBSOIL	2	24"	20"	
							(br)	SAND, little Silt, Gravel	OUTWASH				
							d. (gy)	SAND, little Gravel, Silt - Odor					
							(br)	SAND, little Gravel, Silt, Cobbles					
						12'-0"							

End of Exploration @ 12'-0"

Set 2" Well @ 12'-0" (details on right)



Well Details

Curb Box / Concrete
Riser 0' to 2'
Bentonite 1' to 2'
Screen 2' to 12'
Slot 0.01
#0 Sand 2' to 12'
Threaded Plug

Symbols

Organic
Fill
Subsoil
Silt
Clay
Gravel
Sand
Till
Rock
Water
SPT
Curb Box
Riser
Bentonite
Screen

General

Oper: J. DeAngelis
Drill: CME45 ATV
140# Auto-Hammer
Sampler: 2" O.D.
Casing: 4-1/4" HSA

SITElog®

MW-4

00004-14

Compiled for: Geovation Consultants, Inc.
468 Route 17a
P.O. Box 293
Florida, NY 10921

Project location: First Street
Warwick, NY

Date: February 1, 2000

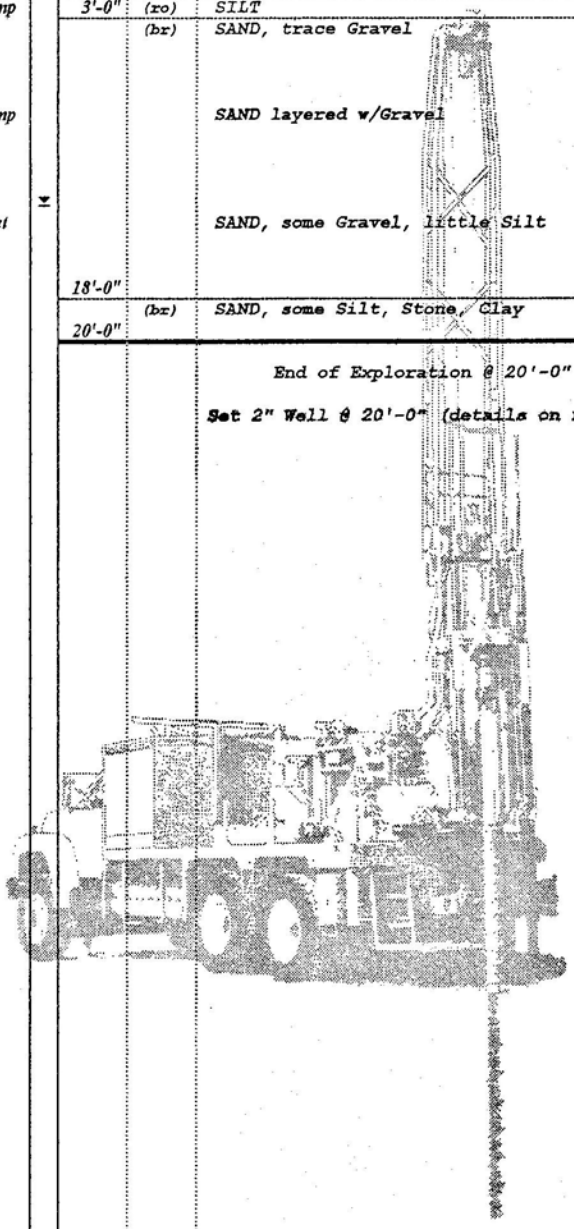
ORIGINAL DOCUMENT

Water: 13'-6"

Sample Depth	Blows Counts per 6"				Moisture	Changes	Color	DESCRIPTION OF FINDINGS	General	No.	Pen.	Rec.	Graph
						2"	(bl)	ASPHALT (First St.)	FILL				
						4"	(gy)	STONE					
						1'-6"	(br)	SAND, little Gravel, Silt					
						2'-3"	d. (br)	TOPSOIL	TOPSOIL				
5' to 7'	3	3	2	3	Damp	3'-0"	(ro)	SILT	SUBSOIL	1	24"	18"	
							(br)	SAND, trace Gravel	OUTWASH				
10' to 12'	2	3	3	4	Damp			SAND layered w/Gravel		2	24"	16"	
15' to 17'	4	4	5	6	Wet			SAND, some Gravel, little Silt		3	24"	21"	
						18'-0"							
						20'-0"	(br)	SAND, some Silt, Stone, Clay	TILL				

End of Exploration @ 20'-0"

Set 2" Well @ 20'-0" (details on right)



Well Details

Curb Box / Concrete Riser 0' to 10'

Bentonite 9' to 10'

Screen 10' to 20'
Slot 0.01

#0 Sand 10' to 20'

Threaded Plug

Symbols

Organic
Fill
Subsoil
Silt
Clay
Gravel
Sand
Till
Rock
Water
SPT
Curb Box
Riser
Bentonite
Screen

General

Oper: J. DeAngelis

Drill: CME45 ATV

140# Auto-Hammer

Sampler: 2" O.D.

Casing: 4-1/4" HSA

APPENDIX B

Site Inspection Form

Site: New Grange Properties
26 Railroad Avenue, Warwick, NY
Site ID# 336061

Date:_____
Time:_____

Reason for Inspection: (e.g. quarterly, flood, erosion event, etc.):_____

Concrete in Courtyard provides effective control of surface runoff:_____
Roof Drain Infiltration System is Operational:_____
Monitoring Wells are functional for collection of Ground water samples:_____
Monitoring Well Covers prevent excessive surface water infiltration:_____

Site Management Plan maintained on site:_____
Annual Reports maintained on-site:_____

I hereby certify that the Institutional controls and engineering controls (IC/EC) set forth in the approved *Site Management Plan* remain in place and are effective in implementing the goals of the *Site Management Plan*.

Name:_____

Date:_____

Signature:_____

Title:_____