

August 23, 2007

Mr. Jeffrey Dyber, P.E.
NYSDEC
Remedial Bureau A
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233-7011

Re: Off-Site Ground Water Sampling
National Heatset Printing Co.
Farmingdale, N.Y.
NYSDEC Site #1-52-140
WA #D004090-17

File: 10653/35518 #2

Dear Mr. Dyber:

O'Brien & Gere is pleased to present this letter report summarizing field activities and analytical results associated with the Off-Site Ground Water Sampling for the National Heatset Printing Co. (Site) located in Farmingdale, NY. The Site is listed as a Class 2 site on the New York State Registry of Inactive Hazardous Waste Disposal Sites (Site # 1-52-140). This sampling was conducted in accordance with the State Superfund Work Assignment # D004090-17 and the Off-Site Ground Water Sampling Scope of Work (O'Brien & Gere, May 17, 2007).

The objectives of the Off-Site Ground Water Sampling were to evaluate potential volatile organic compound (VOC) impacts to the ground water in the downgradient area south of the Site and provide 2007 distribution of off-site VOCs. The objectives also included provide recommendations regarding the installation of the proposed full-scale, off-site In-Well Stripping System and the installation of ground water monitoring wells network.

Previous Investigations

Previous off-site ground water investigation conducted downgradient of the Site in 1989 and 1990 nearby Miller Avenue found elevated levels of tetrachloroethene (PCE) just above the clay unit (70-85-ft). Between 1997 and 1999 NYSDEC conducted a RI/FS investigation and the ground water results from the downgradient portion of the Site found concentrations of total VOCs greater than 1,000 ug/L at a distance of about 4,100-ft downgradient of the Site. In 2002 the Suffolk County DOH conducted a ground water investigation downgradient of the Site. Data results from this investigation found total VOCs concentrations up to 750 ug/L west of the SCWA Albany Avenue Well Field.

Field Investigation Activities

The field investigation included the collection of samples from the ground water using direct-push sampling techniques.

The field investigation was conducted from June 11 to June 15, 2007 and consisted of the installation and sampling of eight vertical ground water profiles (OBG-VP-01 through OBG-VP-08) to 80-ft below grade (**Figure 1**). The eight vertical ground water profiles were located south of the Site and between SCWA Great Neck Well field and SCWA Albany Ave. Well Field (**Figure 1**). Three vertical ground water profiles (OBG-VP-02, OBG-VP-04 and OBG-VP-05) were co-located with historic sampling locations (NHS-1, NHS-5, and NHS-4, respectively) (**Figure 1**).

Installation of the vertical ground water profiles and the collection of ground water samples were conducted utilizing a GeoProbe™ drill rig, with a screen point sampler. GeoProbe™ sampling was performed with a clean ground water sampling probe threaded onto the leading end of the drill rods and driven to the deepest desired sampling interval. Seals on the drive head and an expendable drive point probe provided a watertight system while tools were being driven. Once the deepest sampling interval was reached (i.e. 80-ft), the drilling rods were retracted while the screen of the sampling device was held at the selected sampling depth. A depth of 80-ft was selected for the deepest sampling interval based upon historic data.

Ground water samples were collected using dedicated 0.25-inch tubing, with a check valve at the bottom for each sample interval, and a peristaltic pump at the surface. At each location ground water samples were collected utilizing a peristaltic pump at 10-ft intervals from approximately 80-ft to 20-ft below grade. At some locations (OBG-VP-03, OBG-VP-04, and OBG-VP-05) ground water was collected from 80-ft to 10-ft below grade depending on the depth of the water table.

Three to four gallons were purged from each sample depth interval before collecting the water sample in order to collect a representative sample from the specific depth and to decrease the turbidity in the ground water. A PID detector was used to monitor VOC concentrations while purging and sampling. A GPS unit was used to provide coordinates for each sample location.

At the end of each day, purged ground water was transported to the Site and staged in 55-gallon drums. A total of three drums of purged water were generated during the sampling effort. Ground water samples collected for laboratory analyses were shipped every day to Mitkem Corporation Lab in Warwick, Rhode Island, and analyzed for VOCs (US EPA Method 8260). Laboratory data sheets for the ground water samples are provided in **Attachment A**.

Field Investigation Results

The evaluation of the off-site ground water sampling data consisted of comparison of the VOC results with potentially applicable standards, criteria, and guidance values (SCGs) to screen the data for potential VOC impacts to the ground water in the downgradient area south of the Site. The potentially applicable SCGs used for comparison to the ground water samples were from the NYSDEC Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1) Class GA Ground Water Standards.

A summary of the Off-Site ground water analytical results is presented in **Table 1** and is compared with the Class GA Ground Water Standards.

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With the exception of OBG-VP-07, the remaining vertical ground water profiles contained detected VOCs (**Table 1**). Concentrations of VOCs were detected at different depth intervals in the seven vertical ground water profiles (OBG-VP-01 through OBG-VP-06, and OBG-VP-08).

Fourteen VOCs were detected in the ground water samples and six of them including PCE, trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride (VC), 1,2,4-trichlorobenzene, and naphthalene were detected at concentrations above ground water standards (**Table 1**).

PCE was detected above ground water standards in five vertical ground water profiles including OBG-VP-01 through OBG-VP-04 and OBG-VP-08. Additionally, OBG-VP-01 and OBG-VP-02 were the only locations where PCE was detected above ground water standards in each of the sampling depth intervals. PCE concentrations range from non-detect to 4,200 ug/L in OBG-VP-02 (70-ft interval).

TCE was detected above ground water standards in five vertical ground water profiles including OBG-VP-01 through OBG-VP-05. Additionally, OBG-VP-01 was the only locations where TCE was detected above ground water standards in each of the sampling depth intervals. TCE concentrations range from non-detect to 340 ug/L at OBG-VP-04 (50-ft interval).

Cis-1,2-DCE was detected above ground water standards in five vertical ground water profiles including OBG-VP-01 through OBG-VP-04 and OBG-VP-08. Furthermore, OBG-VP-01 was the only location where cis-1,2-DCE was detected above ground water standards in each of the sampling depth intervals. Concentrations of cis-1,2-DEC range from non detect to 870 ug/L at OBG-VP-04 (50-ft interval).

VC was detected slightly above ground water standards in one vertical ground water profile OBG-VP-02 (80-ft interval) at a concentration of 5 ug/L. 1,2,4-Trichlorobenzene was detected in one vertical ground water profile OBG-VP-03 (80-ft interval) at a concentration of 16 ug/L. Naphthalene was detected above ground water standards in one vertical ground water profile OBG-VP-03 (80-ft interval) at a concentration of 27 ug/L.

Based upon these sampling data, a VOC ground water plume extends from upgradient of OBG-VP-01 south to the vicinity of the SCWA Albany Avenue Well Field. The upgradient extent of this VOC plume is generally consistent in location and range of concentrations as documented in the Remedial Investigation Report. The 1,000 ug/L total VOC isoconcentration line is now situated at about 6,000-ft from the National Heatset Site as compared to 4,100-ft as documented in the Remedial Investigation Report. A total VOCs isoconcentration map was generated in the vicinity of the SCWA Albany Avenue Well Field where the installation of a full-scale, off-site In-Well Stripping System is proposed (**Figure 2**). The limited number of sample locations upgradient of the area prevents extending the iso concentration map upgradient of VP-04. This total VOCs isoconcentration map uses the highest total VOCs concentration detected at each sample location.

As shown in **Figure 2** a VOC plume exists in the area west of the SCWA Albany Avenue Well Field. However, the VOC plume decreases rapidly east and west of OBG-VP-04 where OBG-VP-05 and OBG-VP-06 are located. A review of the individual VOC concentrations from OBG-VP-05 and OBG-VP-06 indicates that their concentrations are below ground water standards. VOC plume extends south from vertical profile OBG-VP-04 to the vicinity of OBG-VP-08, which contains total VOCs concentration of 54 ug/L. A review of the individual VOCs concentrations from OBG-VP-08 indicates that PCE and cis-1,2-DCE concentrations (47 ug/L and 5 ug/L, respectively) are above ground water standards.

Several historic ground water sampling locations exist in the Off-Site area where the recent sampling was completed (**Figure 1**). Therefore, the current Off-Site ground water sampling results can be compare with

previous ground water sampling results. Specifically, ground water sampling results from OBG-VP-01, OBG-VP-02, OBG-VP-03, OBG-VP-04, OBG-VP-05, and OBG-VP-06 can be compared to ground water sampling results from M-7, NHS-1, M-28, NHS-5, NHS-4, and NHS-6, respectively (**Table 2** and **Figure 1**). **Table 2** summarizes and compares total VOCs concentrations between previous ground water sampling results (1999 and 2002) and the Off-Site ground water sampling result (2007).

In general higher total VOCs concentrations were observed in the Off-Site ground water sampling results from 2007 than in the ground water sampling results from 2002 and 1999. Specifically, ground water below a depth of 50-ft from vertical profiles OBG-VP-01, OBG-VP-02 and, OBG-VP-04 show an increase in total VOCs concentrations with respect to their historic pair sampling locations M-7, NHS-1, and NHS-5, respectively. On the other hand, ground water above the 50-ft depth in vertical ground water profiles OBG-VP-02 and, OBG-VP-04 show a decrease in total VOCs concentrations with respect to their sampling locations pairs NHS-1, and NHS-5, respectively.

Also at previous boring location M-28, although few sampling points were collected, the total VOCs concentrations in ground water remained generally the same as in OBG-VP-03. Total VOCs concentrations in the ground water from vertical profiles OBG-VP-05 and OBG-VP-06 seem to have decreased when compared to boring locations NHS-4 and NHS-6.

Conclusions

Analytical results from the Off-Site ground water sampling indicate that the ground water in the area downgradient of the Site is impacted by VOCs. The highest VOC impacts in ground water occurred at locations OBG-VP-01, OBG-VP-02, and OBG-VP-04.

Six VOCs including PCE, TCE, cis-1,2-DCE, VC, 1,2,4-trichlorobenzene, and naphthalene, were detected above ground water standards with PCE, TCE and cis-1,2-DCE as the primary and most often detected VOCs.

A VOC ground water plume extends from upgradient of OBG-VP-01 south to the vicinity of the SCWA Albany Avenue Well Field. The upgradient extent of this VOC plume is generally consistent in location and range of concentrations as documented in the Remedial Investigation Report. The total VOC concentrations exceed 1,000 ug/L around OBG-VP-04 but decreases rapidly towards the east and west where OBG-VP-06 and OBG-VP-05 are located, respectively.

The 1,000 ug/L total VOC isoconcentration line is now situated at about 6,000-ft from the National Heatset Site as compared to 4,100-ft as documented in the Remedial Investigation Report. The southern extent of the plume, where concentrations exceed ground water standards, extends beyond the SCWA Albany Ave. Well Field.

Comparison between current Off-Site ground water data and previous ground water data indicates that total VOCs concentrations increased in the deeper portions of the aquifer, but decreased in the shallower portions of the aquifer. In general, there has been an overall increased in total VOCs over time within the deeper portions of the aquifer.

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Monitoring Well Network Recommendations

A monitoring well network is required by the Record of Decision. The objectives of this monitoring well network are to:

- Monitor and evaluate the performance of the ground water treatment system.
- Monitor the Off-Site VOC plume.

Seven monitoring well clusters (shallow, intermediate, and deep) are recommended. The proposed location of these monitoring well clusters is indicated in **Figure 3**.

Off-Site In-Well Stripping System Recommendations

As stated in the Record of Decision (ROD) dated June 1999 in the Description of Selected Remedy section Part 3, it is recommended that an In-Well Stripping system downgradient of the southern edge of the 1 ppm ground water contamination contour be installed. The installation of this system will prevent further migration of VOCs downgradient of the Site. Given the ROD description, the location/design of the Off-Site In-Well Stripping System should address the area of VOC concentrations that exceed the individual Class GA Ground Water Standards of 5ug/L. Based on this criteria, the approximate remedial area that should be considered for the design of the Off-site In-Well Stripping System is shown in Figure 4.

If you have any questions regarding the information presented herein, please contact me at (315) 437-6100.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.



Marc J. Dent, P.E.
Managing Engineer

Table 1

Summary of Off-Site Ground Water Analytical Results - VOCs

National Heatset Printing Company
 NYSDEC Site #1-52-140
 Farmingdale, NY

Chemical Name	CAS	Sample Location: Sample Depth (ft bgs)		Units	NYS Class GA Water Quality Standards and Guidance Values (µg/L)	VP-01 6/11/2007								
		Sample Date	Sample Date			30	40	50	60	70	80	30		
Volatile Organic Compounds														
Carbon disulfide	75-15-0			µg/L	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	156-59-2			µg/L	5	320 D	16	44	12	22	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	156-60-5			µg/L	NC	10	9	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	91-20-3			µg/L	10	5 U	5 U	2 JB	4 JB	3 JB	5 U	5 U	5 U	5 U
1,2,3-Trichlorobenzene	87-61-6			µg/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	120-82-1			µg/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	95-63-6			µg/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3,5-Trimethylbenzene	108-67-8			µg/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	108-88-3			µg/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	127-18-4			µg/L	5	1100 D	59	43	15	18	2 J	5 U	5 U	5 U
Trichloroethylene	79-01-6			µg/L	5	210 D	9	16	7	10	5 U	5 U	5 U	5 U
Vinyl chloride	75-01-4			µg/L	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m,p-Xylene				µg/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (Total)	1330-20-7			µg/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total VOCs						306	1640	1689	84	103	34	64	19	30

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- Notes:**
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 Farmingdale, NY

Chemical Name	Sample Location Sample Depth (ft bgs)	NYS Class GA Water Quality Standards and Guidance Values (µg/L)	BDUP-01 (VP-02 FD) 30 6/12/2007											
			VP-02 40 6/11/2007	VP-02 50 6/11/2007	VP-02 60 6/11/2007	VP-02 70 6/11/2007	VP-02 80 6/11/2007	VP-03 10 6/12/2007	VP-03 20 6/12/2007	VP-03 30 6/12/2007	VP-03 40 6/11/2007	VP-03 50 6/11/2007	VP-03 60 6/11/2007	VP-03 70 6/11/2007
	CAS	Units												
Volatile Organic Compounds														
Carbon disulfide	75-15-0	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
cis-1,2-Dichloroethene	156-59-2	µg/L	6	1 J	6	130	5 U	5 U	5 U	1 J	1 J	3 J	5 U	
trans-1,2-Dichloroethene	156-60-5	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Naphthalene	91-20-3	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
1,2,3-Trichlorobenzene	87-61-6	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
1,2,4-Trichlorobenzene	120-82-1	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
1,2,4-Trimethylbenzene	95-63-6	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
1,3,5-Trimethylbenzene	108-67-8	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Toluene	108-88-3	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Tetrachloroethene	127-18-4	µg/L	22	140	1200 D	4200 D	180	5 U	5 U	5 U	5 U	5 U	5 U	
Trichloroethylene	79-01-6	µg/L	3 J	2 J	7	46	190	5 U	5 U	5 U	5 U	5 U	5 U	
Vinyl chloride	75-01-4	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
m,p-Xylene		µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Xylene (Total)	1330-20-7	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Total VOCs			31	142	1208	4252	507	1	1	3	2	4	16	277

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Chemical Name	CAS	Sample Location Sample Depth (ft bgs) Sample Date	Units	NYS Class GA Water Quality Standards and Guidance Values (µg/L)		VP-03 80 6/11/2007	VP-04 10 6/12/2007	VP-04 20 6/12/2007	BDUP-02 (VP-04 FD) 20 6/12/2007	VP-04 30 6/12/2007	VP-04 40 6/12/2007	VP-04 50 6/12/2007	VP-04 60 6/12/2007	VP-04 70 6/12/2007	VP-04 80 6/12/2007	VP-05 10 6/12/2007	VP-05 20 6/12/2007	VP-05 30 6/12/2007
				µg/L	µg/L													
Volatile Organic Compounds																		
Carbon disulfide	75-15-0		µg/L		NC	40 U	5 U	5 U	5 U	5 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
dis-1,2-Dichloroethene	156-59-2		µg/L		5	530	5 U	5 U	1 J	5 U	870	720	300	5 U	5 U	5 U	5 U	
trans-1,2-Dichloroethene	156-60-5		µg/L		NC	40 U	5 U	5 U	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
Naphthalene	91-20-3		µg/L		10	27 J	5 U	4 JB	5 U	15 U	100 U	75 U	15 JB	25 U	5 U	5 U	5 U	
1,2,3-Trichlorobenzene	87-61-6		µg/L		5	40 U	5 U	2 J	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
1,2,4-Trichlorobenzene	120-82-1		µg/L		5	16 J	5 U	1 J	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
1,2,4-Trimethylbenzene	95-63-6		µg/L		5	40 U	5 U	5 U	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
1,3,5-Trimethylbenzene	108-67-8		µg/L		5	40 U	5 U	5 U	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
Toluene	108-88-3		µg/L		5	40 U	5 U	5 U	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
Tetrachloroethene	127-18-4		µg/L		5	44	5 U	3 J	2 J	190	1400	800	700	5 U	5 U	5 U	5 U	
Trichloroethylene	79-01-6		µg/L		2	9 J	5 U	5 U	5 U	55	340	260	110	5 U	5 U	5 U	5 U	
Vinyl chloride	75-01-4		µg/L		5	40 U	5 U	5 U	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
m,p-Xylene			µg/L		5	40 U	5 U	5 U	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
Xylene (Total)	1330-20-7		µg/L		5	40 U	5 U	5 U	5 U	15 U	100 U	75 U	25 U	25 U	5 U	5 U	5 U	
Total VOCs						626	5U	3	6	4	385	2610	1430	1445	1110	5U	5U	5U

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Chemical Name	CAS	Sample Location Sample Depth (ft bgs) Sample Date	NYS Class GA Water Quality Standards and Guidance Values (µg/L)		VP-05 40 6/13/2007	VP-05 50 6/13/2007	VP-05 60 6/13/2007	VP-05 70 6/12/2007	VP-05 80 6/12/2007	VP-06 20 6/13/2007	VP-06 30 6/13/2007	VP-06 40 6/13/2007	VP-06 50 6/13/2007	VP-06 60 6/13/2007	VP-06 70 6/13/2007	VP-06 80 6/13/2007	VP-07 20 6/13/2007
			Units	µg/L													
Volatile Organic Compounds																	
Carbon disulfide	75-15-0	µg/L	NC		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
cis-1,2-Dichloroethene	156-58-2	µg/L	5		2J	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
trans-1,2-Dichloroethene	156-60-5	µg/L	NC		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Naphthalene	91-20-3	µg/L	10		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichlorobenzene	87-61-6	µg/L	5		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
1,2,4-Trichlorobenzene	120-82-1	µg/L	5		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
1,2,4-Trimethylbenzene	95-63-6	µg/L	5		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
1,3,5-Trimethylbenzene	108-67-8	µg/L	5		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Toluene	108-88-3	µg/L	5		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Tetrachloroethene	127-18-4	µg/L	5		4J	4J	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Trichloroethylene	79-01-6	µg/L	5		3J	1J	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Vinyl chloride	75-01-4	µg/L	2		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
m,p-Xylene		µg/L	5		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Xylene (Total)	1330-20-7	µg/L	5		5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Total VOCs					9	5	3	5U	5	5U	5U	5U	5U	5U	5U	1	5U

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 NYSDEC Site #1-52-140
 Farmingdale, NY

Chemical Name	CAS	Sample Location		NYS Class GA Water Quality Standards and Guidance Values (µg/L)	VP-07 30 6/13/2007	VP-07 40 6/13/2007	VP-07 50 6/13/2007	VP-07 60 6/15/2007	VP-07 70 6/15/2007	VP-07 80 6/15/2007	VP-08 20 6/15/2007	VP-08 30 6/15/2007	VP-08 40 6/15/2007	VP-08 50 6/15/2007	VP-08 60 6/15/2007	VP-08 70 6/15/2007	VP-08 80 6/15/2007	
		Sample Depth (ft bgs)	Sample Date															
Units	Units																	
Volatle Organic Compounds																		
Carbon disulfide	75-15-0			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
cis-1,2-Dichloroethene	156-59-2			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
trans-1,2-Dichloroethene	156-60-5			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Naphthalene	91-20-3			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichlorobenzene	87-61-6			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
1,2,4-Trichlorobenzene	120-82-1			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
1,2,4-Trimethylbenzene	95-63-6			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
1,3,5-Trimethylbenzene	108-67-8			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Toluene	108-88-3			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Tetrachloroethene	127-18-4			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Trichloroethylene	79-01-6			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Vinyl chloride	75-01-4			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
m,p-Xylene				µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Xylene (Total)	1330-20-7			µg/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Total VOCs					5U	5U	5U	5U	5U	5U	5U	5U	2	14	24	54	53	

O'BRIEN & GERE

- Notes:
- bgs - Below ground surface
 - FD - Field duplicate
 - U - Analyte not detected at or above reporting limit
 - J - Analyte detected below reporting limit
 - D - Reanalyzed at a higher dilution factor
 - B - Analyte detected in the associated Method Blank
 - NC - No criteria
 - Bold - Exceeds Ground Water Criteria

**Table 2
Ground Water Analytical Results - VOCs**

National Heatset Printing Company
NYSDEC Site #1-52-140
Farmingdale, NY

Boring Location Date	Total VOCs											
	VP-01* 2007	M-7** 1999	VP-02* 2007	NHS-1*** 2002	VP-03* 2007	M-28** 1999	VP-04* 2007	NHS-5*** 2002	VP-05* 2007	NHS-4*** 2002	VP-06* 2007	NHS-6*** 2002
Depth (ft)												
10	NA	NA	NA	NA	1	NA	NA	NA	NA	NA	ND	NA
20	306	NA	19	192	6	NA	3	30.7	1	ND	ND	ND
30	1640	NA	30	600	9	NA	4	185	5.7	ND	ND	0.6
40	1689	NA	37	NA	2	NA	385	NA	NA	ND	ND	8.6
50	84	9.3	142	761	4	9.7	2610	750	25.7	ND	ND	NA
60	105	NA	1208	132	16	NA	1780	637	NA	ND	ND	1.9
70	38	8.9	4252	NA	277	360.6	1445	NA	NA	ND	ND	5.7
80	67	3.2	509	17	626	744.6	1110	279	NA	1	NA	NA



Notes:

Total VOCs - ug/L

ND - not detected

NA - Not Analyzed

* - 2007 Off Site Ground Water Sampling (OBG)

** - 1999 RI/FS (H2M Group)

*** - 2002 Hydropunch Ground Water Sampling (Suffolk DOH)

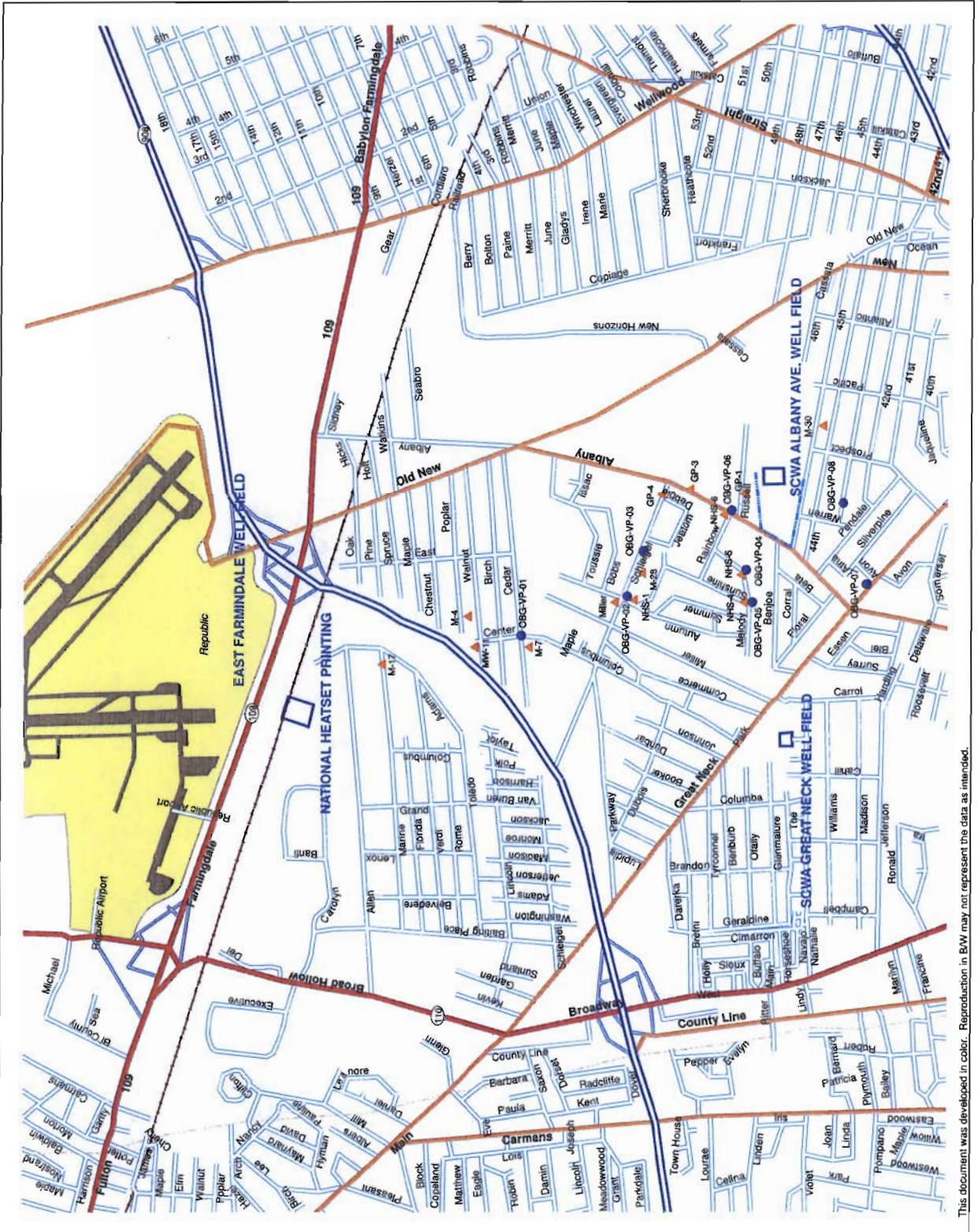


FIGURE 1

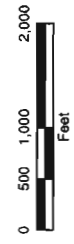


Legend

- ▲ Historic sampling Locations (1999 and 2002)
- Vertical Profile Locations (2007)
- Total Depth: 80 FT
GW Sample at 10-ft intervals
- SCWA Property Line (approximate)

NYSDEC
 NATIONAL HEATSET
 PRINTING CO.
 (Site # 1-52-140)

**VERTICAL GROUND
 WATER PROFILE
 LOCATIONS**






JULY 2007



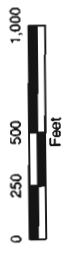
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FIGURE 2

- LEGEND**
-  VERTICAL GROUND WATER PROFILES
 -  SCWA PROPERTY LINE (APPROXIMATE)
 -  TOTAL VOC CONCENTRATIONS (ug/L)
CONTOURS ARE BASED ON HIGHEST VOC RESULTS FROM EACH PROFILE
 - (52) TOTAL VOC CONCENTRATION JUNE 11, 2007 (ug/L)
 - (70') VERTICAL PROFILE DEPTH (FT)

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**VERTICAL
GROUND WATER
PROFILE RESULTS
JUNE 2007**



JULY 2007



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FIGURE 3

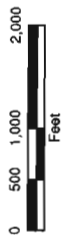


Legend

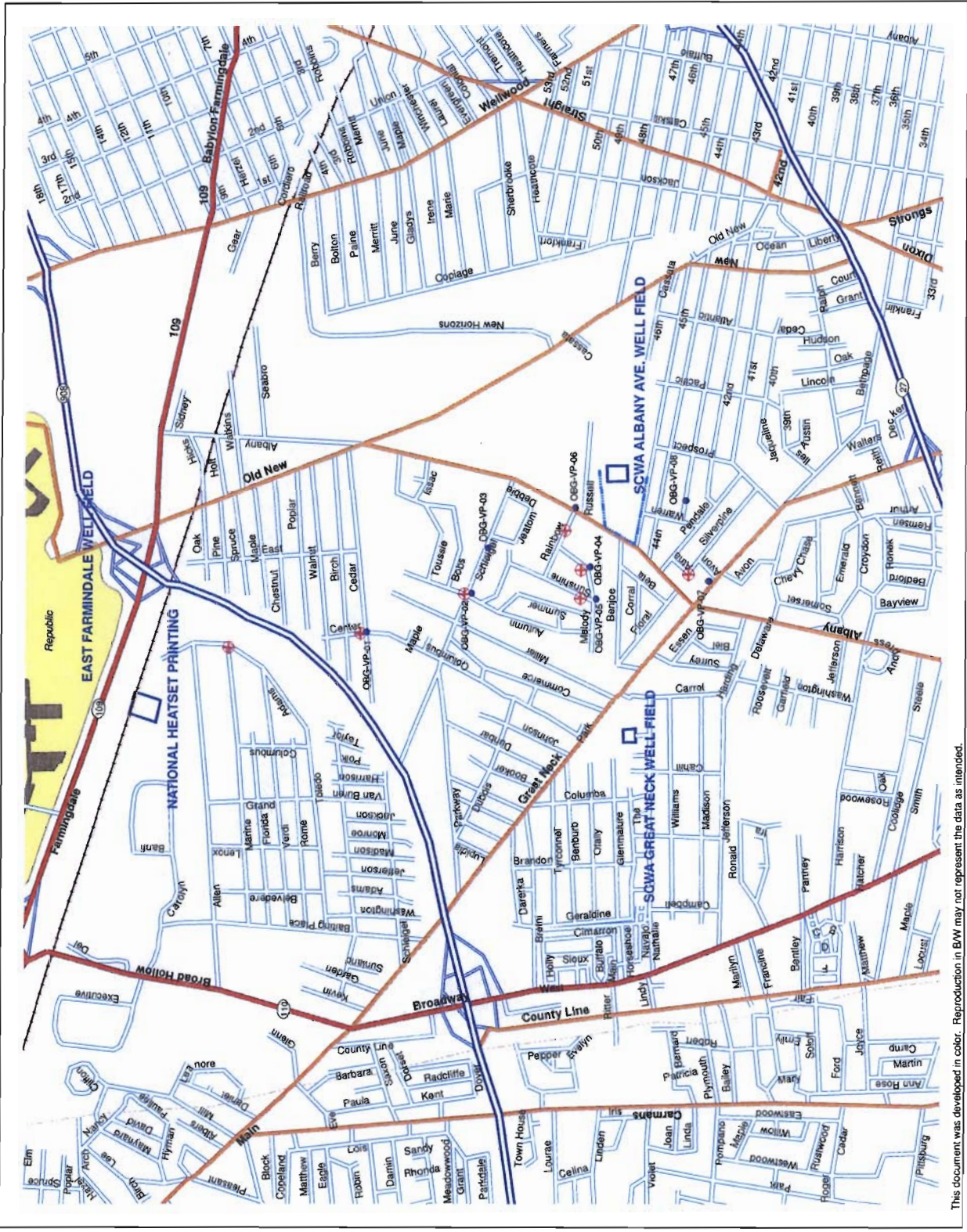
- + Proposed_MW Network
Each location as monitoring well cluster (shallow, intermediate, deep)
- Vertical Profile Locations (2007)
- Total Depth: 80 FT
GW Sample at 10-ft intervals
- SCWA Property Line (approximate)

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NATIONAL HEATSET
PRINTING CO.
(Site # 1-52-140)

**PROPOSED MONITORING
WELL NETWORK
LOCATIONS**



JULY 2007



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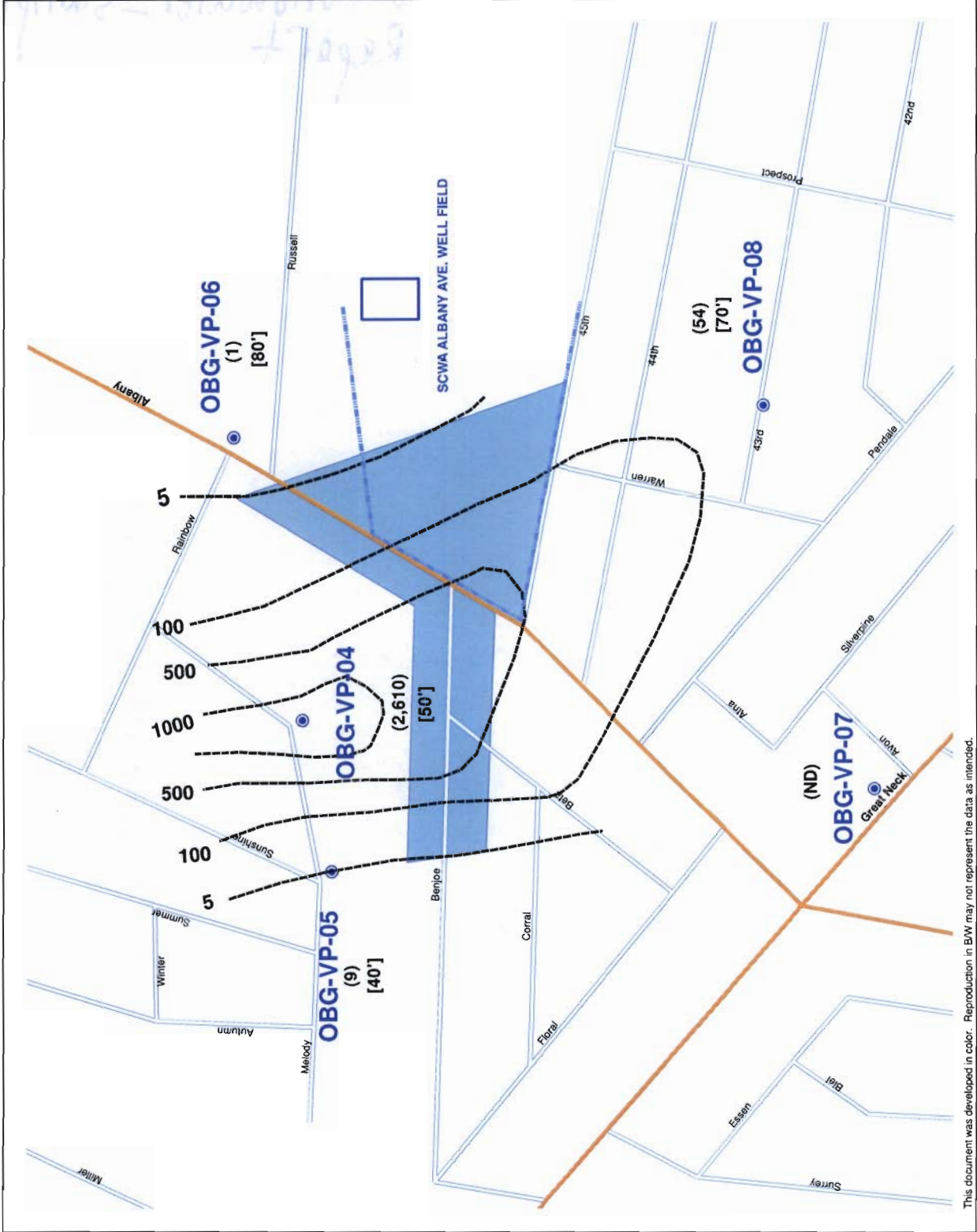


FIGURE 4

LEGEND

- VERTICAL GROUND WATER PROFILES
- SCWA PROPERTY LINE (APPROXIMATE)
- Approximate Remedial Area
- TOTAL VOC CONCENTRATIONS (ug/L)
- CONTOURS ARE BASED ON HIGHEST VOC RESULTS FROM EACH PROFILE

(52) TOTAL VOC CONCENTRATION
JUNE 11, 2007 (ug/L)

[70'] VERTICAL PROFILE DEPTH (FT)

NYSDEC
NATIONAL HEATSET
PRINTING CO.
(Site # 1-52-140)

**OFF SITE IN-WELL
STRIPPING SYSTEM
AREA**



JULY 2007



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