
**SITE CHARACTERIZATION REPORT
FOR THE
WALSH ROAD SITE (NYSDEC SITE # 336077)
NEW WINDSOR, ORANGE COUNTY, NEW YORK**

Prepared For:



New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7012

Prepared By:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, New York 13212

DECEMBER 2014

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ACRONYMS

1,1,1 TCA	1,1,1 trichloroethane
bgs	below ground surface
DER-10	Division of Environmental Remediation, Ch. 10
DUSR	Data Usability Summary Report
ECS	Enviro Clean Services, LLC
ELAP	Environmental Laboratory Accreditation Program
Ft.	feet/foot
IDW	investigation-derived waste
MS/MSD	matrix spike/matrix spike duplicate
NELAP	National Environmental Laboratory Approval Program
NYCRR	New York State Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	polychlorinated biphenyl
PCE	perchloroethylene (also called tetrachloroethylene)
PID	photo-ionization detector
ppb	parts per billion
PVC	polyvinyl chloride
QAPP	Quality Assurance Project Plan
QA/QC	quality assurance/quality control
SCO	site cleanup objectives
SPT	standard penetration test
SVOC	semi-volatile organic compound
TAL	Target Analyte List
TCE	trichloroethylene
TCL	Target Compound List
ug/L	micrograms per liter
ug/m	micrograms per cubic meter
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

**SITE CHARACTERIZATION REPORT
FOR THE WALSH ROAD SITE
NEW WINDSOR, NEW YORK****1.0 INTRODUCTION**

This Site Characterization Report documents result of investigation work conducted at 215 Walsh Road, New Windsor New York (Site) (Figure 1), by Parsons for the New York State Department of Environmental Conservation (NYSDEC) under contract D007623-07. Sampling and analyses were conducted pursuant to a work scope accepted in advance by the NYSDEC dated March 21, 2013 and as part of Parsons' standby engineering services contract with NYSDEC. Data obtained during the investigation have been compiled, evaluated, and summarized as presented in this report.

2.0 PROJECT BACKGROUND

The site is approximately 1.2 acres in area and currently contains one 18,000-square foot building centrally located on the property. This facility manufactured electronic components between the 1940's and the 1970's. The electronic parts were reportedly cleaned with solvents which were stored on-site in a shed that was located on the north side of the building. The exact location of the former shed is unknown. The site is currently used as storage for restaurant equipment.

The building is surrounded by pavement on the north, west, and south sides and by dense vegetation and trees on the eastern side. Land surface across the site slopes gently from south to north and drops off rapidly along the northern boundary. The property rises steeply along the northeastern side of the building in an eastward direction. Drainage is northward towards the Quassaick Creek, which is located 1,000 feet (ft.) to the north of the site. Commercial properties and residential dwellings are located to the south and east of the site. An industrial warehouse is located north of the site, and an industrial facility is located to the west (Figure 2).

Site geology consists of a mixture of silt, sand, and gravel from the surface down to 10 ft. below grade and glacial till from 10 ft. to the bottom of the borings at 31 ft. deep.

Prior investigations conducted at the site include a voluntary Cleanup Supplemental Investigation Work Plan for the site (Chazen, 1998), a Phase I Environmental Site Assessment (1995), Phase II Assessment (1995), and a subsurface investigation (1996). Subsequent to those investigations, a preliminary site characterization was completed in 2009 by Enviro Clean Services LLC (ECS).

The ECS investigation consisted of indoor air sampling and collection of groundwater samples from two site monitoring wells as detailed in the report for the investigation (ECS, 2009). Results from the indoor air sampling in 2009 indicated the presence of m- & p-xylenes at concentrations of 8.4 ug/m³ and toluene at concentrations of 9.2 ug/m³ in the western portion of the on-site building but the 2009 indoor air sampling did not detect any chlorinated volatile organic compounds (VOCs). Groundwater results from the ECS investigation indicate the

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presence of the chlorinated VOCs 1,1,1 trichloroethane (1,1,1 TCA) at 5 parts per billion (ppb) and trichloroethylene (TCE) at 10 ppb at WR-MW-03 (Figure 3). TCE detection results exceed the NYSDEC Ambient Water Quality Class GA Standard/Guidance Criteria of 5 ppb. The summary memo (Enviro Clean Services LLC, 1998) also indicated that the detected groundwater concentrations were similar to concentrations observed during prior investigations. A summary of the data from the 2009 ECS sampling event is provided as Tables 1 and 2.

3.0 SITE CHARACTERIZATION SCOPE AND RESULTS

Parsons' findings from the 2013 site characterization are described in the following sections. Each portion of the site characterization work followed NYSDEC guidance outlined in the Division of Environmental Remediation Ch. 10 (DER-10). The investigation consisted of:

1. Monitoring well installation, subsurface soil sampling, and groundwater sampling
2. Surface soil sampling
3. Sub-slab and soil vapor sampling

Field activities were conducted in accordance with the Quality Assurance Project Plan (Parsons and OBG, 2011a) and the Health and Safety Plan (Parsons and OBG, 2011b) prepared and approved for Parsons' standby engineering services contract with NYSDEC. Site-specific elements and specific job safety analyses for soil and water sampling, were added to the Health and Safety Plan. A map of sample locations is provided as Figure 2.

Investigation-derived waste (IDW), including excess soils, decontamination rinsates, well development water, and purge water was placed in Department of Transportation-approved 55-gallon 17-H type drums. The IDW was evaluated and determined to be non-hazardous based on characterization results and was suitably disposed of in accordance with applicable NYSDEC regulations.

Results of the 2013 site characterization indicate the following:

1. Surface soil samples showed no exceedences of the New York State Codes, Rules and Regulations 6 (NYCRR) Part 375 Soil Cleanup Objectives (SCO) for commercial or unrestricted use for VOC compounds.
2. Surface soils from four locations showed results exceeding up to five 6 NYCRR Part 375 SCOs for commercial use for semi-volatile organic compounds (SVOCs). The compound benzo(a,h)anthracene occurs at concentrations above the commercial use standard of 1 ppm at each of the four locations which display exceedences, including WR-SS-01, WR-SS-03, WR-SS-05, and WR-SS-06.
3. Surface soil results for metals show concentrations below Part 375 commercial use SCOs, except at one location (WR-SS-02 (0-2)) which has an exceedence for arsenic 3.1 mg/kg higher than the standard (16 mg/kg).
4. Results for overburden groundwater samples that were analyzed exceeded NYS Ambient Water Quality Class GA standard for TCE at one location (WR-MW-05), and exceeded the Class GA standard for 1,1,1 TCA and tetrachloroethylene (PCE) at another location (WR-MW-08), The Class GA standard for TCE, 1,1,1-TCA and

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PCE is 5 ug/l. Exceedences of Class GA standard for iron (standard is 300 ug/l) and sodium (standard is 20,000 ug/l) were observed at each monitoring well location, with other compounds such as antimony (standard is 3 ug/l), magnesium (guidance value is 35,000 ug/l), and manganese (standard is 300 ug/l) showing exceedences less frequently in groundwater from the sampled wells.

5. 1,1,1 TCA, PCE and TCE were detected in the majority of soil vapor and sub-slab soil vapor samples. Degradation compounds of PCE and TCE such as 1,1 dichloroethane {1,1-DCA} and 1,1 dichloroethene {1,1-DCE} were detected in some soil vapor and sub-slab soil vapor samples. Concentrations of TCE at each soil vapor and sub-slab soil vapor location exceeded the NYSDOH Guidance for Evaluating Soil Vapor Intrusion value of 5 ug/m³, with the largest exceedence at SV-2, reporting a concentration of 16,000 ug/m³. Additionally, concentrations of PCE at all locations (excluding SV-1 with a result of 62 ug/m³) exceeded the New York State Department of Health (NYSDOH) Guidance value of 100 ug/m³, with the largest result reported at SV-2 also, with a concentration of 63,000 ug/m³.

3.1 Analytical Services and Data Validation

Analytical services for 2013 water, soil, and soil vapor samples were provided by ALS Environmental of Rochester, New York. ALS Environmental is accredited under the National Environmental Laboratory Approval Program (NELAP) and Department of Defense Environmental Laboratory Accreditation Program (ELAP), and is a NYSDOH-ELAP certified laboratory (Lab ID 10145). A United States Environmental Protection Agency (USEPA) Level IV data validation was conducted on 10 percent of the chemical samples (i.e., full data validation) and a USEPA Level III data validation was conducted on the remaining 90 percent of the samples, as described in the Data Usability Summary Report (DUSR), which is provided in Appendix A. The Category B data package is also included as a CD in Appendix A.

3.2 Surface Soil Samples

A total of six locations were selected for collection of surface soil samples. Sample locations were discussed in the field with the NYSDEC Project Manager prior to collection. Surface soil samples were collected using a hand auger to a depth of 2 inches at all locations, and from 2 inches to 12 inches at locations WR-SS-02, WR-SS-03, and WR-SS-06. Samples were visually examined in the field and physical characteristics were described using the Unified Soil Classification System (USCS). Sample logs and soil descriptions can be found in Appendix B of this report. The sampling locations were surveyed using portable global positioning equipment.

Samples were shipped to the analytical laboratory following chain of custody procedures and analyzed for USEPA Method 8260 for Target Compound List (TCL) VOCs, USEPA Method 8270C for SVOCs, USEPA Method 8082 for polychlorinated biphenyls (PCBs), USEPA 6010/7471/7196 series for Target Analyte List (TAL) metals, USEPA Method 8081/8151 for pesticides/herbicides, USEPA 9012 for total cyanide, and total solids using USEPA Method 160.3. Analytical results were compared to 6 NYCRR Part 375 soil cleanup objectives for unrestricted and commercial land use. A detected compound summary of the validated soil sample results from the site is included in Table 3. Surface soil analytical results indicated:

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- There are no exceedences of either commercial or unrestricted 6 NYCRR Part 375 SCO for VOCs.
- There were no exceedences of the 6 NYCRR Part 375 commercial use SCOs for either pesticides or PCBs. Two locations (WR-SS-01 and WR-SS-03) exceeded the unrestricted use objective of 0.0033 mg/kg for the pesticide P,P'-DDT (results 0.027 mg/kg and 0.031 mg/kg respectively) in the top 2 inches of soil.
- There were several unrestricted use and commercial use SCO exceedences for SVOCs in the top 2 inches of surface soil at locations WR-SS-01, WR-SS-03, and WR-SS-05. Similarly, there are several exceedences of the unrestricted and commercial use SCOs for several SVOCs from 2 inches to 12 inches at WR-SS-03 and WR-SS-06.
- There were several unrestricted use exceedences for metals across the surface soil sample locations. One soil sample location (WR-SS-02 (0-2)) exceeds the commercial use standard for arsenic of 16 mg/kg with a result concentration of 19.1 mg/kg.

Figure 4 depicts exceedences of 6 NYCRR Part 375 commercial use SCOs. The analytical program utilized the data quality objectives and quality assurance objectives as described in Section 3.1. Complete validated surface soil sample results and data usability are presented in the DUSR, provided in Appendix A.

3.3 Groundwater Investigation

A two-step groundwater investigation was completed in 2013 as part of the site investigation. The initial investigation (Step I) was completed to determine existing site conditions and the presence and distribution of contaminants at the site. The Phase II investigation included the installation and sampling of groundwater from additional monitoring wells to supplement existing site data to further assess the horizontal extent of groundwater contamination.

3.3.1 Phase I Groundwater Investigation

The purpose of the Phase I groundwater investigation was to identify the extent of groundwater contamination based on samples of groundwater from existing site monitoring wells. Well locations are depicted on Figure 2. During a site visit on November 20, 2012, only two of the existing six monitoring wells (WR-MW-01 and WR-MW-02) could be located. An attempt to locate the other existing monitoring wells (WR-MW-03 through WR-MW-06) was completed on May 9, 2013, but no additional monitoring wells were found.

The two wells that were located (WR-MW-01 and WR-MW-02) were redeveloped on May 9, 2013 to remove fines that accumulated within the wells due to the length of time that had passed since they were last sampled. Redevelopment logs can be found in Appendix C of this report.

Groundwater samples were collected from WR-MW-01 and WR-MW-02 on May 10, 2013 and submitted for chemical analysis. Groundwater sample logs are presented in Appendix D of this report. Groundwater samples were analyzed by USEPA Method 8260 for TCL, VOCs, USEPA Method 8270C for SVOCs, USEPA Method 8082 for PCBs, and USEPA 6010/7470

series for TAL metals. For Quality Assurance/Quality Control (QA/QC) purposes, one field duplicate sample and one matrix spike/matrix spike duplicate (MS/MSD) were collected and analyzed.

Results from the May 2013 groundwater sampling were compared to NYSDEC Class GA Ambient Water Quality Standards/Guidance Criteria. No exceedences of Class GA standards for VOCs, SVOCs, or PCBs were recorded. Each of the samples exceeded State of New York water quality standards for both iron (standard is 300 ug/l) and sodium (standard is 20,000 ug/l), with the largest exceedences occurring at location WR-MW-01 with results of 1,050 ug/l and 228,000 ug/l, respectively. Results from the WR-MW-01 sample also exceeded the Class GA standard for manganese (standard- 300 ug/l) with a reported concentration of 498 ug/l. All other detected compounds were below the NYSDEC criteria. A summary of validated results for detected compounds in groundwater is included in Table 4. Validated data and the DUSR are presented in Appendix A.

3.3.2 Phase II Groundwater Investigation

Following a review of the Step I data results, the Step II groundwater investigation was completed in August 2013 to further assess site conditions. As shown on Figure 2, two new overburden monitoring wells (WR-MW-07 and WR-MW-08) were installed to assess the potential for northerly (down gradient) migration of contaminants.

Borings for the two new monitoring wells were advanced using hollow stem auger methods to the top of the glacial till (21 ft. and 23 ft., respectively). Continuous Standard Penetration Test (SPT) samples were collected to terminal depths at 2 ft. intervals using a lined split spoon sampler. Soil from each sample was evaluated for lithology and field headspace was screened using a photo-ionization detector (PID). Samples were examined visually in the field and physically described using the USCS.

The two new monitoring wells were constructed of 2-inch polyvinyl chloride (PVC) casing with 10-ft. long, 10-slot PVC screen. The well screen for each well was set between approximately 10 and 20 ft. below ground surface (bgs) for WR-MW-07, and between 8 ft. and 18 ft. for WR-MW-08. Field screening results, observations, and well construction logs are included in the boring logs provided in Appendix E.

Following installation, the new monitoring wells were each developed to remove material which may have settled in and around the well screen. Development consisted of the removal of ten well volumes. Development water was temporarily contained using drums and transferred to a central waste accumulation area on-site prior to being properly managed and disposed off-site. Well development logs are included in Appendix C.

One subsurface soil sample from each monitoring well boring was sent for laboratory chemical analysis. The soil depth interval for chemical analysis was selected based on PID results (WR-MW-08), or visual identification of potential contamination (WR-MW-07). For QA/QC purposes, one field duplicate soil sample was also collected at WR-MW-08 and analyzed. There was insufficient sample volume from the parent sample (9 ft. to 11 ft.) to completely fill the duplicate sample jar and material from the next sample interval (11 ft. to

13 ft.) was added to the duplicate jar to supplement the sample volume. A review of the analytical results from both samples indicate that both results are similar and no lack of precision was noted in the DUSR.

Well boring soil samples at WR-SB-07 and WR-SB-08 were analyzed for TCL VOCs and compared to the 6 NYCRR Part 375 unrestricted and commercial use SCOs. No exceedences of unrestricted or commercial use SCOs were reported at these locations. As shown on Table 5, PCE was the only compound detected at WR-SB-08. Tables presenting soil analysis results are included in the DUSR in Appendix A.

Prior to the installation of the two new wells, a geophysical survey was completed at the site to attempt to locate the existing wells that were not located during the Step I investigation (WR-MW-03 through WR-MW-06). The geophysical surveyor was able to locate WR-MW-03 and WR-MW-05 (Figure 2). These wells were redeveloped on July 24, 2013 utilizing methods employed for developing the other existing wells on-site. Redevelopment logs for WR-MW-03 and WR-MW-05 can be found in Appendix C of this report.

Once the two new monitoring wells were installed and developed along with the redevelopment of WR-MW-03 and WR-MW-05, groundwater samples were collected from these four wells and analyzed for the same compounds that were analyzed as part of the Phase I investigation. The analytical program utilized the data quality objectives and quality assurance objectives as described in Section 3.1. Validated data and the DUSR are presented in Appendix A.

Groundwater samples (WR-MW-03, WR-MW-05, WR-MW-07, and WR-MW-08) from July 2013 were analyzed for TCL VOCs, TCL SVOCs, pesticides, PCBs, and TAL metals. Analysis of the groundwater samples from the WR-MW-03, WR-MW-05, WR-MW-07, and WR-MW-08 monitoring wells showed exceedences of the NYSDEC Ambient Water Quality Standards/Guidance Criteria Class GA standards as follows:

- Two Phase II groundwater samples exceeded Class GA standards for three chlorinated VOCs. The Class GA standard for TCE of 5 micrograms per liter (ug/l) was exceeded in groundwater collected from WR-MW-03 (7.9 ug/l). The 5 ug/l standard for 1,1,1 TCA and PCE was exceeded in groundwater collected from WR-MW-08 (6.1 ug/l and 60 ug/l, respectively).
- Similar to results observed during the Phase I investigation, two exceedences of Class GA standards for metals (iron and sodium) were observed across all samples during Phase II. Additionally, sample location WR-MW-08 results show the standard for antimony of 3 ug/l was exceeded by 0.2 ug/l, as well as the standard for manganese of 300 ug/l which was exceeded with a result of 1,570 ug/l at this location. Location WR-MW-05 showed additional compound exceedences as well, with a reported value of 41,200 ug/l for magnesium (standard- 35,000 ug/l) and 1,970 ug/l for manganese (standard- 300 ug/l).

All other detected compound results were below NYSDEC Water Quality Standards/Guidance Criteria Class GA standard. A summary of validated results for detected

compounds in groundwater is included in Table 4. Complete groundwater results from Phase II sampling are included in Appendix A as part of the DUSR report.

Compiled 2009 and 2013 sampled well locations, including summarized analytical results for chlorinated VOCs with highlighted NYSDEC standard exceedences, are depicted in Figure 3.

3.4 Soil Vapor Sampling

3.4.1 Exterior Soil Vapor

Three locations were selected for collection of exterior soil vapor samples (sample locations SV-1, SV-2 and SV-3) as shown on Figure 2. Sample locations were located outside along the northern portion of the on-site building, and were discussed in the field with NYSDEC prior to collection. Soil vapor samples were collected on July 25, 2013 through temporary soil vapor points installed at a depth of 3 to 5 ft. below grade. Soil vapor samples were installed in accordance with the NYSDOH Guidance. Temporary soil vapor points were installed using manual installation techniques. Helium tracer gas was used to verify the integrity of the sample point seals prior to sample collection.

Soil vapor samples were collected over a 4-hour sample period using 6-liter batch-certified SUMMA[®] canisters, and delivered under routine chain of custody procedures to ALS Environmental of Rochester, New York for analysis via USEPA Method TO-15. Per the approved sampling work plan/Quality Assurance Project Plan (QAPP)/etc, duplicate and trip or equipment blanks were not collected as part of this sampling event.

Detected compound results for the soil vapor sample analysis are presented in Table 6. Results are presented in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The following summarizes detected contaminants of concern for chlorinated VOCs:

- 1,1,1 TCA was detected in SV1 and SV3 above its respective reporting limit at 5,900 $\mu\text{g}/\text{m}^3$ and 69 $\mu\text{g}/\text{m}^3$, respectively. 1,1 DCA was detected in SV1 and SV3 above its respective reporting limit at 960 $\mu\text{g}/\text{m}^3$ and 0.41J $\mu\text{g}/\text{m}^3$, respectively.
- 1,1 DCE was detected in SV1 above its reporting limit at 3,600 $\mu\text{g}/\text{m}^3$.
- PCE was detected in each soil vapor sample at concentrations ranging from 62 $\mu\text{g}/\text{m}^3$ to 63,000 $\mu\text{g}/\text{m}^3$.
- TCE was detected in each soil vapor sample at concentrations ranging from 6.6 $\mu\text{g}/\text{m}^3$ to 16,000 $\mu\text{g}/\text{m}^3$.

Complete results of the validated data are included in the DUSR report, provided in Appendix A. A summary of chlorinated VOC results for soil vapor is included on Figure 5.

3.4.2 Sub-Slab Soil Vapor

As shown on Figure 2, three sub-slab soil vapor samples were collected within the on-site building (sample locations WR-SS-1, WR-SS-2 and WR-SS-3). Sample locations were discussed in the field with Paul Patel of NYSDEC prior to collection. Locations WR-SS-1 and WR-SS-3 were collected from slab-on-grade portions of the on-site building. WR-SS-2 was collected from

the concrete slab in the boiler room; the boiler room is an approximate 225 square foot room that sits 6 ft. below the slab-on-grade portions of the building.

Sub-slab samples were collected on July 25, 2013 through temporary sub-slab soil vapor sample points installed at a depth of 1 to 2 inches below the base of the concrete slabs. Temporary sub-slab soil vapor sample points were installed using a rotary hammer drill. A helium tracer gas was not used for the sub-slab soil vapor samples.

Sub-slab soil vapor samples were collected over a 4-hour sample period using 6-liter batch-certified SUMMA[®] canisters, and delivered under routine chain of custody procedures to ALS Environmental of Rochester, New York for analysis via USEPA Method TO-15. Field duplicates, trip blanks, and equipment blanks were not collected as part of this sampling event.

Detected compound results for the sub-slab soil vapor sample analysis are presented in Table 7. Results are presented in $\mu\text{g}/\text{m}^3$. Complete results of the validated data are included in the DUSR report, provided in Appendix A. The following summarizes detected contaminants of concern (chlorinated VOCs):

- 1,1,1 TCA was detected in each sub-slab soil vapor sample at concentrations ranging from $5.4 \mu\text{g}/\text{m}^3$ to $760 \mu\text{g}/\text{m}^3$.
- 1,1-DCE was detected at location WR-SS-1 only, with a concentration of $0.53 \mu\text{g}/\text{m}^3$.
- PCE was detected in each sub-slab soil vapor sample at concentrations ranging from $320 \mu\text{g}/\text{m}^3$ to $4,500 \mu\text{g}/\text{m}^3$.
- TCE was detected in each sub-slab soil vapor sample at concentrations ranging from $27 \mu\text{g}/\text{m}^3$ to $4,000 \mu\text{g}/\text{m}^3$.

A summary of sub-slab analytical results for chlorinated VOCs are depicted on Figure 5:

4.0 REFERENCES

- Enviro Clean Services, L.L.C., 2009. Memo regarding Walsh Holdings Property (tax Map 13-5-58.2) 251 Walsh Road New Windsor, NY. Prepared for York State Department of Environmental Conservation Division of Environmental Remediation - Region 3. New Paltz, NY. November 2009.
- Parsons and OBG. 2011a. *Generic Quality Assurance Project Plan*. Prepared for the New York State Department of Environmental Conservation, Albany, NY. May 2011.
- Parsons and OBG. 2011b. *Generic/Site-Specific Health and Safety Plan*. Prepared for the New York State Department of Environmental Conservation, Albany, NY. May 2011.
- New York State Department of Health. *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*. Prepared for the New York State Department of Health, Troy, NY. October 2006.
- The Chazen Companies, 1998. *Voluntary Cleanup Agreement Supplemental Investigation Work Plan*. Prepared for Walsh Avenue Properties, Inc, New Windsor, NY. April 1998.

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**SITE CHARACTERIZATION REPORT
FOR THE WALSH ROAD SITE
NEW WINDSOR, NEW YORK**

TABLES

Table 1
NYSDEC - Walsh Rd
2009 Air Data

NYSDEC-Walsh Rd 2009 Site Investigation Air Data		NYSDOH Air Guideline Values	Location ID: Sample ID: Lab Sample Id:	AA_WEST AA_WESTy02 09091054-01	AA_MID AA_MIDs10 09091054-02	AA_EAST AA_EASTy51 09091054-03
			Source: SDG: Matrix: Sampled:	YORKLAB 9091054 AIR 9/29/2009	YORKLAB 9091054 AIR 9/29/2009	YORKLAB 9091054 AIR 9/29/2009
CAS NO.	COMPOUND		UNITS:			
	VOLATILES					
71-55-6	1,1,1-TRICHLOROETHANE	NS	ug/m3	5.4 U	5.4 U	5.4 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	NS	ug/m3	6.81 U	6.81 U	6.81 U
79-00-5	1,1,2-TRICHLOROETHANE	NS	ug/m3	5.4 U	5.4 U	5.4 U
75-34-3	1,1-DICHLOROETHANE	NS	ug/m3	4.02 U	4.02 U	4.02 U
75-35-4	1,1-DICHLOROETHENE	NS	ug/m3	3.94 U	3.94 U	3.94 U
120-82-1	1,2,4-TRICHLOROBENZENE	NS	ug/m3	7.35 U	7.35 U	7.35 U
95-63-6	1,2,4-TRIMETHYLBENZENE	NS	ug/m3	4.88 U	4.88 U	4.88 U
106-93-4	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	NS	ug/m3	7.62 U	7.62 U	7.62 U
95-50-1	1,2-DICHLOROBENZENE	NS	ug/m3	5.97 U	5.97 U	5.97 U
107-06-2	1,2-DICHLOROETHANE	NS	ug/m3	4.02 U	4.02 U	4.02 U
78-87-5	1,2-DICHLOROPROPANE	NS	ug/m3	4.58 U	4.58 U	4.58 U
76-14-2	1,2-DICHLOROTETRAFLUOROETHANE	NS	ug/m3	6.92 U	6.92 U	6.92 U
108-67-8	1,3,5-TRIMETHYLBENZENE	NS	ug/m3	4.88 U	4.88 U	4.88 U
541-73-1	1,3-DICHLOROBENZENE	NS	ug/m3	5.97 U	5.97 U	5.97 U
106-46-7	1,4-DICHLOROBENZENE	NS	ug/m3	5.97 U	5.97 U	5.97 U
107-05-1	3-CHLOROPROPENE	NS	ug/m3	3.1 U	3.1 U	3.1 U
622-96-8	4-ETHYLTOLUENE	NS	ug/m3	4.88 U	4.88 U	4.88 U
71-43-2	BENZENE	NS	ug/m3	3.16 U	3.16 U	3.16 U
100-44-7	BENZYL CHLORIDE	NS	ug/m3	5.13 U	5.13 U	5.13 U
74-83-9	BROMOMETHANE	NS	ug/m3	3.84 U	3.84 U	3.84 U
56-23-5	CARBON TETRACHLORIDE	NS	ug/m3	6.24 U	6.24 U	6.24 U
108-90-7	CHLOROBENZENE	NS	ug/m3	4.56 U	4.56 U	4.56 U
75-00-3	CHLOROETHANE	NS	ug/m3	2.61 U	2.61 U	2.61 U
67-66-3	CHLOROFORM	NS	ug/m3	4.84 U	4.84 U	4.84 U
74-87-3	CHLOROMETHANE	NS	ug/m3	2.05 U	2.05 U	2.05 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	NS	ug/m3	3.94 U	3.94 U	3.94 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	NS	ug/m3	4.5 U	4.5 U	4.5 U
75-71-8	DICHLORODIFLUOROMETHANE	NS	ug/m3	4.89 U	4.89 U	4.89 U
100-41-4	ETHYLBENZENE	NS	ug/m3	4.31 U	4.31 U	4.31 U
73-13-1	FREON-113	NS	ug/m3	7.61 U	7.61 U	7.61 U
87-68-3	HEXACHLORO-1,3-BUTADIENE	NS	ug/m3	10.6 U	10.6 U	10.6 U
75-09-2	METHYLENE CHLORIDE	60	ug/m3	3.45 U	3.45 U	3.45 U
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	NS	ug/m3	4.31 U	4.31 U	4.31 U
136777-61-2	M,P-XYLENES	NS	ug/m3	8.4	4.31 U	4.31 U
100-42-5	STYRENE	NS	ug/m3	4.21 U	4.21 U	4.21 U
127-18-4	TETRACHLOROETHYLENE(PCE)	100	ug/m3	6.73 U	6.73 U	6.73 U
108-88-3	TOLUENE	NS	ug/m3	9.2	3.74 U	3.74 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	NS	ug/m3	4.5 U	4.5 U	4.5 U
79-01-6	TRICHLOROETHYLENE (TCE)	5	ug/m3	5.32 U	5.32 U	5.32 U
75-69-4	TRICHLOROFLUOROMETHANE	NS	ug/m3	5.58 U	5.58 U	5.58 U
75-01-4	VINYL CHLORIDE	NS	ug/m3	2.54 U	2.54 U	2.54 U

Notes:

Shaded results indicate an exceedence of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion (October 2006)

NS-No Standard

U-Not Detected

Table 2
NYSDEC - Walsh Rd
2009 Groundwater Data

NYSDEC-Walsh Rd 2009 Site Investigation Groundwater Data		NYSDEC Class GA Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: UNITS:	WR-MW-03 WR-MW-03_101209 09100663-01 YORKLAB 9100663 WATER 10/12/2009	WR-MW-05 WR-MW-05_101209 09100663-02 YORKLAB 9100663 WATER 10/12/2009
CAS NO	COMPOUND				
	VOLATILES				
630-20-6	1,1,1,2-TETRACHLOROETHANE	5	ug/l	5 U	5 U
71-55-6	1,1,1-TRICHLOROETHANE	5	ug/l	5	5 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5	ug/l	5 U	5 U
79-00-5	1,1,2-TRICHLOROETHANE	1	ug/l	5 U	5 U
75-34-3	1,1-DICHLOROETHANE	5	ug/l	5 U	5 U
75-35-4	1,1-DICHLOROETHENE	5	ug/l	5 U	5 U
563-58-6	1,1-DICHLOROPROPYLENE	5	ug/l	5 U	5 U
87-61-6	1,2,3-TRICHLOROBENZENE	5	ug/l	5 U	5 U
96-18-4	1,2,3-TRICHLOROPROPANE	0.04	ug/l	5 U	5 U
120-82-1	1,2,4-TRICHLOROBENZENE	5	ug/l	5 U	5 U
95-63-6	1,2,4-TRIMETHYLBENZENE	5	ug/l	5 U	5 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	0.04	ug/l	5 U	5 U
106-93-4	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	ug/l	5 U	5 U
95-50-1	1,2-DICHLOROBENZENE	3	ug/l	5 U	5 U
107-06-2	1,2-DICHLOROETHANE	0.6	ug/l	5 U	5 U
78-87-5	1,2-DICHLOROPROPANE	1	ug/l	5 U	5 U
108-67-8	1,3,5-TRIMETHYLBENZENE	5	ug/l	5 U	5 U
541-73-1	1,3-DICHLOROBENZENE	3	ug/l	5 U	5 U
142-28-9	1,3-DICHLOROPROPANE	5	ug/l	5 U	5 U
106-46-7	1,4-DICHLOROBENZENE	3	ug/l	5 U	5 U
594-20-7	2,2-DICHLOROPROPANE	5	ug/l	5 U	5 U
95-49-8	2-CHLOROTOLUENE	5	ug/l	5 U	5 U
106-43-4	4-CHLOROTOLUENE	5	ug/l	5 U	5 U
71-43-2	BENZENE	1	ug/l	5 U	5 U
108-86-1	BROMOBENZENE	5	ug/l	5 U	5 U
74-97-5	BROMOCHLOROMETHANE	5	ug/l	5 U	5 U
75-27-4	BROMODICHLOROMETHANE	50 (G)	ug/l	5 U	5 U
75-25-2	BROMOFORM	50 (G)	ug/l	5 U	5 U
74-83-9	BROMOMETHANE	5	ug/l	5 U	5 U
56-23-5	CARBON TETRACHLORIDE	5	ug/l	5 U	5 U
108-90-7	CHLOROETHANE	5	ug/l	5 U	5 U
75-00-3	CHLOROETHANE	5	ug/l	5 U	5 U
67-66-3	CHLOROFORM	7	ug/l	5 U	5 U
74-87-3	CHLOROMETHANE	5	ug/l	5 U	5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	5	ug/l	5 U	5 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	0.4	ug/l	5 U	5 U
124-48-1	DIBROMOCHLOROMETHANE	50 (G)	ug/l	5 U	5 U
74-95-3	DIBROMOMETHANE	5	ug/l	5 U	5 U
75-71-8	DICHLORODIFLUOROMETHANE	5	ug/l	5 U	5 U
100-41-4	ETHYLBENZENE	5	ug/l	5 U	5 U
87-68-3	HEXACHLOROBUTADIENE	0.5	ug/l	5 U	5 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	5	ug/l	5 U	5 U
75-09-2	METHYLENE CHLORIDE	5	ug/l	5 U	5 U
1634-04-4	TERT-BUTYL METHYL ETHER	10 (G)	ug/l	5 U	5 U
91-20-3	NAPHTHALENE	10 (G)	ug/l	5 U	5 U
104-51-8	N-BUTYLBENZENE	5	ug/l	5 U	5 U
103-65-1	N-PROPYLBENZENE	5	ug/l	5 U	5 U
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	5	ug/l	5 U	5 U
136777-61-2	M,P-XYLENES	5	ug/l	5 U	5 U
99-87-6	P-ISOPROPYLTOLUENE	5	ug/l	5 U	5 U
135-98-8	SEC-BUTYLBENZENE	5	ug/l	5 U	5 U
100-42-5	STYRENE	5	ug/l	5 U	5 U
98-06-6	TERT-BUTYLBENZENE	5	ug/l	5 U	5 U
127-18-4	TETRACHLOROETHYLENE(PCE)	5	ug/l	5 U	5 U
108-88-3	TOLUENE	5	ug/l	5 U	5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	5	ug/l	5 U	5 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	0.4	ug/l	5 U	5 U
79-01-6	TRICHLOROETHYLENE (TCE)	5	ug/l	10	5 U
75-69-4	TRICHLOROFLUOROMETHANE	5	ug/l	5 U	5 U
75-01-4	VINYL CHLORIDE	2	ug/l	5 U	5 U

Notes:

Shaded results indicate an exceedence of the NYSDEC Ambient Water Quality Class GA Standards/Guidance Criteria

NS-No Standard

(G) = Guidance criteria

U-Not Detected

Table 3
NYSDEC - Walsh Rd
Surface Soil Detected Compound Summary

NYSDEC-Walsh Rd 2013 Site Investigation Validated Soil Data Detected Compound Summary		6 NYCRR Part 375 Unrestricted Cleanup Objective (ppm) NS = not specified	6 NYCRR Part 375 Commercial Cleanup Objective (ppm) NS = not specified	Location ID: Sample ID: Lab Sample ID Source: SDF: Matrix: Sampled: Validated:	WR-SS-01 (0-2) R1303350-001 CASROCH R1303350 SOIL 5/10/2013 7/1/2013	WR-SS-02 (0-2) R1303350-002 CASROCH R1303350 SOIL 5/10/2013 7/1/2013	WR-SS-02 (2-12) R1303350-003 CASROCH R1303350 SOIL 5/10/2013 7/1/2013	WR-SS-03 (0-2) R1303350-004 CASROCH R1303350 SOIL 5/10/2013 7/1/2013	WR-SS-03 (2-12) R1303350-005 CASROCH R1303350 SOIL 5/10/2013 7/1/2013	WR-SS-04 (0-2) R1303350-006 CASROCH R1303350 SOIL 5/10/2013 7/1/2013	WR-SS-05 (0-2) R1303350-007 CASROCH R1303350 SOIL 5/10/2013 7/1/2013	WR-SS-06 (0-2) R1303350-008 CASROCH R1303350 SOIL 5/10/2013 7/1/2013	WR-SS-06 (2-12) R1303350-009 CASROCH R1303350 SOIL 5/10/2013 7/1/2013
CAS NO.	COMPOUND			UNITS:									
75-09-2	VOLEATILES	0.05	500	mg/kg	ND	ND	ND	0.00075 J	0.00089 J	ND	ND	0.0042 J	0.0056 J
	METHYLENE CHLORIDE				ND	ND	ND	ND	ND	ND	ND	ND	ND
	SEMI-VOLEATILES				ND	ND	ND	ND	ND	ND	ND	ND	ND
83-32-9	ACENAPHTHENE	20	500	mg/kg	ND	ND	ND	ND	ND	ND	4.2 J	ND	1.1 J
208-96-8	ACENAPHTHYLENE	100	500	mg/kg	0.54 J	ND	ND	ND	0.31 J	ND	ND	ND	ND
120-12-7	ANTHRACENE	100	500	mg/kg	0.49 J	ND	ND	ND	ND	ND	11	ND	3.3 J
56-55-3	BENZ(a)ANTHRACENE	1	5.6	mg/kg	2.5	0.74 J	0.14 J	2.5	1.2 J	ND	29	ND	8.2
50-32-8	BENZ(a)PYRENE	1	1	mg/kg	2.7	0.68 J	0.13 J	1.2 J	1.3 J	ND	25	ND	7.2
205-99-2	BENZ(b)FLUORANTHENE	1	5.6	mg/kg	2.5	0.61 J	0.13 J	1.2 J	1.2 J	ND	22	ND	6.2
191-24-2	BENZ(k)FLUORANTHENE	100	500	mg/kg	2.5	0.65 J	0.13 J	1.1 J	1.3 J	ND	15	0.72 J	4.7 J
207-08-9	BENZ(k)FLUORANTHENE	0.8	56	mg/kg	2.5	0.65 J	0.12 J	1.1 J	1.2 J	ND	21	ND	6.4
85-68-7	BENZYL BUTYL PHTHALATE	NS	NS	mg/kg	ND	1.1 J	0.54	ND	ND	ND	ND	ND	ND
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	NS	mg/kg	ND	0.68 J	0.15 J	ND	ND	ND	ND	0.68 J	1.1 J
86-74-8	CARBAZOLE	NS	NS	mg/kg	0.18 J	ND	ND	ND	ND	ND	4 J	ND	0.8 J
218-01-9	CHRYSENE	1	56	mg/kg	3	0.78 J	0.16 J	1.3 J	1.5 J	ND	28	0.54 J	7.8
53-70-3	DIBENZ(a,h)ANTHRACENE	0.33	0.56	mg/kg	0.73	ND	ND	ND	ND	ND	55.9	ND	1.6 J
132-64-9	DIBENZOFURAN	7	350	mg/kg	ND	ND	ND	ND	ND	ND	1.8 J	ND	ND
206-44-0	FLUORANTHENE	100	500	mg/kg	5	1.8 J	0.34 J	2.6	2.4	2 J	70	1.3 J	20
86-73-7	FLUORENE	30	500	mg/kg	ND	ND	ND	ND	ND	ND	4.9 J	ND	1.3 J
193-39-5	INDENO(1,2,3-c,d)PYRENE	0.5	5.6	mg/kg	0.52	0.11 J	0.11 J	0.52	0.52	ND	15	ND	4.2 J
85-01-8	PHENANTHRENE	100	500	mg/kg	1.9	0.88 J	0.16 J	0.98 J	0.98 J	ND	40	0.62 J	11
129-00-0	PYRENE	100	500	mg/kg	4.4	1.4 J	0.27 J	2	1.8 J	ND	44	0.77 J	12
	PESTICIDES												
50-29-3	P,P'-DDT	0.0033	47	mg/kg	0.022 J	ND	ND	0.03	ND	ND	ND	ND	ND
	PCB												
11096-82-5	PCB-1260 (AROCOR 1260)	0.1*	1	mg/kg	ND	0.094	0.056	ND	ND	ND	ND	ND	ND
	METALS												
7429-90-5	ALUMINUM	NS	NS	mg/kg	9930	12900	15000	10400	11500	7700	7930	8750	11300
7440-36-0	ANTIMONY	NS	NS	mg/kg	0.519 J	0.834 J	0.308 J	1.9 J	1.9 J	1.4 J	2 J	0.404 J	0.741 J
7440-38-2	ARSENIC	13	16	mg/kg	3.7 J	19.1 J	2.4 J	7 J	6.9 J	3.7 J	5.4 J	3.2 J	4.9 J
7440-39-3	BARIUM	350	400	mg/kg	51.8 J	70.7 J	56.8 J	65.2 J	56.9 J	50.9 J	39.2 J	86.3 J	54.5 J
7440-41-7	BERYLLIUM	7.2	590	mg/kg	0.484 J	0.608	0.59	0.569	0.552 J	0.393 J	0.377 J	0.569	0.754
7440-43-9	CADMIUM	2.5	9.3	mg/kg	0.439 J	2.2	0.44 J	0.311 J	0.33 J	0.672	0.357 J	0.671	1.1
16065-83-1	CHROMIUM III	30	1500	mg/kg	14.6 J	19.1 J	22.1 J	17 J	16.3 J	26.2 J	13.9 J	33.8 J	35 J
18540-29-9	CHROMIUM, HEXAVALENT	1	400	mg/kg	ND	0.74 J	5.32	0.5 J	ND	0.64 J	ND	7.78 J	2.9 J
7440-70-2	CALCIUM	NS	NS	mg/kg	2370 J	10800 J	2340 J	20500 J	15600 J	49200 J	59900 J	42500 J	33200 J
7440-47-3	CHROMIUM, TOTAL	NS	NS	mg/kg	14.2	18.3	16.8	16.5	15.9	25.5	13.6	26	32.5
7440-48-4	COBALT	NS	NS	mg/kg	7.4 J	10.1 J	9.3 J	8.5 J	6.9 J	6.3 J	6.2 J	10.1 J	10.1 J
7440-50-8	COPPER	50	270	mg/kg	180	46	31.3	37.1	39	22.9	44.7	32.2	38.5
7439-89-6	IRON	NS	NS	mg/kg	21900	30000	27300	23100	23800	23400	18100	24900	35100
7439-02-1	LEAD	63	1000	mg/kg	60.4 J	212 J	130 J	55.8 J	62 J	107 J	36.7 J	78 J	60.2 J
7439-05-4	MAGNESIUM	NS	NS	mg/kg	4910 J	8370 J	5930 J	6700 J	9180 J	22500 J	29600 J	17500 J	17200 J
7439-06-5	MANGANESE	1600	10000	mg/kg	517 J	807 J	734 J	679 J	574 J	365 J	540 J	438 J	538 J
7439-07-6	MERCURY	0.18	2.8	mg/kg	0.043	0.174	0.171	0.1	0.276	0.231	0.202	0.114	0.203
7440-02-0	NICKEL	30	310	mg/kg	20.8 J	29 J	23.5 J	20.3 J	22.6 J	18.1 J	19 J	17.2 J	20.2 J
9777440	POTASSIUM	NS	NS	mg/kg	847	1270	999	904	958	754	923	986	1360
7782-49-2	SELENIUM	3.9	1500	mg/kg	ND	ND	ND	0.603 J	0.44 J	ND	0.417 J	ND	ND
7440-23-5	SODIUM	NS	NS	mg/kg	807 J	169 J	206 J	144 J	216 J	208 J	153 J	129 J	132 J
7440-62-2	VANADIUM	NS	NS	mg/kg	22.9 J	27.4 J	21.7 J	22.6 J	26.2 J	36.3 J	24.6 J	23 J	29.8 J
7440-66-6	ZINC	109	10000	mg/kg	86.1	216	109	95.8	105	154	158	190	152
	OTHER												
TSO	SOLIDS, PERCENT	NS	NS	percent	91.7	88.3	90.2	91	89.2	89	86.7	88.7	87.8

Notes:
Shaded results indicate an exceedance of the 6 NYCRR Part 375 Unrestricted Use cleanup objective.
Shaded and bold results indicate an exceedance of the 6 NYCRR Part 375 Commercial Use cleanup objective.
* Total PCBs unrestricted value
Abbreviations:
J = Estimated Value
ND = Not detected
NS = No standard

Table 4
NYSDEC - Walsh Rd
Groundwater Detected Compound Summary

NYSDEC-Walsh Rd 2013 Site Investigation Validated Groundwater Data Detected Compound Summary		NYSDEC Class GA Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	WR-MW-01	WR-MW-02	Dup of WR-MW-02	WR-MW-03	WR-MW-05	WR-MW-07	WR-MW-08
CAS NO.	COMPOUND			WR-MW-01 R1303349-001 CASROCH R1303349 WATER 5/10/2013 10:17 7/1/2013	WR-MW-02 R1303349-002 CASROCH R1303349 WATER 5/10/2013 11:20 7/1/2013	WR-MW-02 WR-MW-02FD R1303349-003 CASROCH R1303349 WATER 5/10/2013 11:34 7/1/2013	WR-MW-03 WR-MW-03 R1305445-004 CASROCH R1305445 WATER 7/25/2013 9:30 9/20/2013	WR-MW-05 WR-MW-05 R1305445-003 CASROCH R1305445 WATER 7/25/2013 7:55 9/20/2013	WR-MW-07 WR-MW-07 R1305445-005 CASROCH R1305445 WATER 7/25/2013 10:38 9/20/2013	WR-MW-08 WR-MW-08 R1305445-007 CASROCH R1305445 WATER 7/25/2013 13:45 9/20/2013
UNITS:										
VOLATILES										
71-55-6	1,1,1-TRICHLOROETHANE	5	ug/l	ND	ND	ND	3.6	ND	0.81 J	6 J
75-34-3	1,1-DICHLOROETHANE	5	ug/l	ND	ND	ND	0.47 J	ND	ND	0.27 J
75-35-4	1,1-DICHLOROETHENE	5	ug/l	ND	ND	ND	0.97 J	ND	ND	ND
67-64-1	ACETONE	50 (G)	ug/l	ND	ND	ND	ND	ND	ND	1.4 J
56-23-5	CARBON TETRACHLORIDE	5	ug/l	ND	ND	ND	0.76 J	ND	ND	ND
67-66-3	CHLOROFORM	7	ug/l	ND	0.37 J	0.39 J	0.95 J	ND	ND	0.46 J
156-59-2	CIS-1,2-DICHLOROETHYLENE	5	ug/l	ND	ND	ND	0.38 J	ND	ND	1.1
127-18-4	TETRACHLOROETHYLENE(PCE)	5	ug/l	ND	ND	ND	ND	ND	1.4	60
79-01-6	TRICHLOROETHYLENE (TCE)	5	ug/l	ND	ND	ND	7.9	ND	ND	2.3
26523-64-8	TRICHLOROTRIFLUOROETHANE	NS	ug/l	ND	ND	ND	0.75 J	ND	ND	0.47 J
METALS										
7429-90-5	ALUMINUM	NS	ug/l	735 J	862 J	169 J	1730	19.2 J	4230	15800
7440-36-0	ANTIMONY	3	ug/l	2.1 J	ND	ND	1.9 J	2.9 J	2.4 J	3.2 J
7440-38-2	ARSENIC	25	ug/l	ND	ND	ND	ND	ND	ND	7.7 J
7440-39-3	BARIUM	1000	ug/l	74.4	28.5	25.3	78.6	264	125	139
7440-41-7	BERYLLIUM	3 (G)	ug/l	ND	0.171 J	0.191 J	ND	ND	ND	0.467 J
7440-70-2	CALCIUM	NS	ug/l	75800	90100	98400	119000	232000	118000	109000
7440-47-3	CHROMIUM, TOTAL	50	ug/l	ND	ND	ND	ND	8 J	7.2 J	18.2
7440-48-4	COBALT	NS	ug/l	0.956 J	ND	ND	ND	ND	2.4 J	12.6 J
7440-50-8	COPPER	200	ug/l	2.3 J	3 J	ND	7.3 J	14.4 J	11.3 J	35.5
7439-89-6	IRON	300	ug/l	1050	911 J	240 J	2120	476	5570	21200
7439-92-1	LEAD	25	ug/l	1.2 J	2.1 J	ND	ND	ND	1.8 J	12.2 J
7439-95-4	MAGNESIUM	35000 (G)	ug/l	14100	14600	15300	28200	41200	24300	23800
7439-96-5	MANGANESE	300	ug/l	498 J	100 J	26.9 J	259	1970	232	1570
7440-02-0	NICKEL	100	ug/l	ND	ND	ND	ND	5.4 J	6 J	19.5 J
9177440	POTASSIUM	NS	ug/l	2090	2070	1900 J	2230	3330	4210	7380
7782-49-2	SELENIUM	10	ug/l	9.5 J	ND	4.8 J	ND	ND	ND	ND
7440-23-5	SODIUM	20000	ug/l	228000	122000	121000	96300	537000	91100	126000
7440-62-2	VANADIUM	NS	ug/l	1.8 J	4 J	2.5 J	2.5 J	ND	7.3 J	24 J
7440-66-6	ZINC	2000 (G)	ug/l	3.8 J	7.1 J	2.9 J	8.8 J	6.7 J	18.7 J	68.8

Notes:

Shaded results indicate an exceedence of the NYSDEC Ambient Water Quality Class GA Standards/Guidance Criteria

Abbreviations:

(G) = Guidance criteria

J = Estimated value

JN = Estimated value based on presumptive evidence

ND = Not detected

NS = No standard

Table 5
NYSDEC - Walsh Rd
Monitoring Well Installation - Soil Detected Compound Summary

NYSDEC-Walsh Rd 2013 Site Investigation Validated Soil Data Detected Compound Summary		6 NYCRR Part 375 Unrestricted Cleanup Objective (ppm) NS = not specified	6 NYCRR Part 375 Commercial Cleanup Objective (ppm) NS = not specified	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	WR-SB-07 WR-SB-07 (9-11) R1305445-001 CASROCH R1305445 SOIL 7/24/2013 15:30 9/20/2013	WR-SB-08 WR-SB-08 (9-11) R1305445-002 CASROCH R1305445 SO 7/24/2013 18:35 9/20/2013	WR-SB-08 WR-SB-08FD (11-13) R1305445-006 CASROCH R1305445 SOIL 7/24/2013 18:45 9/20/2013
CAS NO.	COMPOUND			UNITS:			
127-18-4	VOLATILES TETRACHLOROETHYLENE(PCE)	1.3	150	mg/kg	ND	0.0093 J	0.012
TSO	OTHER SOLIDS, PERCENT	NS	NS	percent	84.5	87.5	84.6

Abbreviations:

J = Estimated value

JN = Estimated value based on presumptive evidence

ND = Not detected

NS = Not specified

ppm = parts per million

Table 6
NYSDEC - Walsh Rd
Soil Vapor Detected Compound Summary

NYSDEC-Walsh Rd 2013 Site Investigation Validated Soil Vapor Data Detected Compound Summary		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	SV1 SV1-072513 R1305473-001 CASROCH R1305473 AS 7/25/2013 11:42 9/27/2013	SV2 SV2-072513 R1305473-002 CASROCH R1305473 AS 7/25/2013 11:49 9/27/2013	SV3 SV3-072513 R1305473-003 CASROCH R1305473 AS 7/25/2013 11:55 9/27/2013
CAS NO.	COMPOUND	UNITS:			
	VOLATILES				
71-55-6	1,1,1-TRICHLOROETHANE	ug/m3	5900	ND	69
75-34-3	1,1-DICHLOROETHANE	ug/m3	960	ND	0.41 J
75-35-4	1,1-DICHLOROETHENE	ug/m3	3600	ND	ND
591-78-6	2-HEXANONE	ug/m3	ND	ND	0.25 J
67-64-1	ACETONE	ug/m3	190 J	290 J	13 J
71-43-2	BENZENE	ug/m3	7.9 J	ND	0.69 J
75-15-0	CARBON DISULFIDE	ug/m3	27 J	ND	2.9
56-23-5	CARBON TETRACHLORIDE	ug/m3	1800	ND	1.7
67-66-3	CHLOROFORM	ug/m3	1300	ND	20
74-87-3	CHLOROMETHANE	ug/m3	5.4 J	ND	ND
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/m3	86	620 J	ND
100-41-4	ETHYLBENZENE	ug/m3	6.3 J	ND	0.41 J
136777-61-2	M,P-XYLENES	ug/m3	25 J	ND	1.6 J
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/m3	120	34 J	1.2 J
108-10-1	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ug/m3	32 J	ND	ND
75-09-2	METHYLENE CHLORIDE	ug/m3	ND	ND	7.2
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/m3	8.1 J	ND	0.51 J
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/m3	62	63000	130
108-88-3	TOLUENE	ug/m3	45 J	47 J	2.6
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/m3	6.7 J	120 J	ND
79-01-6	TRICHLOROETHYLENE (TCE)	ug/m3	2500	16000	6.6
26523-64-8	TRICHLOROTRIFLUOROETHANE	ug/m3	2300	ND	ND
75-69-4	TRICHLOROFLUOROMETHANE	ug/m3	ND	ND	3.1

J = Estimated value
 ND = Not detected

Table 7
NYSDEC - Walsh Rd
Sub-Slab Soil Vapor Sampling Detected Compound Summary

NYSDEC-Walsh Rd 2013 Site Investigation Validated Sub-Slab Soil Vapor Data Detected Compound Summary		Location ID: Sample ID: Lab Sample Id Source: SDG: Matrix: Sampled: Validated:	SS1 SS1-072513 R1305473-004 CASROCH R1305473 AI 7/25/2013 12:27 9/27/2013	SS2 SS2-072513 R1305473-005 CASROCH R1305473 AI 7/25/2013 12:32 9/27/2013	SS3 SS3-072513 R1305473-006 CASROCH R1305473 AI 7/25/2013 12:38 9/27/2013
CAS NO.	COMPOUND	UNITS:			
	VOLATILES				
71-55-6	1,1,1-TRICHLOROETHANE	ug/m3	760	5.4	78
75-35-4	1,1-DICHLOROETHENE	ug/m3	0.53 J	ND	ND
78-87-5	1,2-DICHLOROPROPANE	ug/m3	ND	0.084 J	ND
106-46-7	1,4-DICHLOROBENZENE	ug/m3	0.24 J	ND	ND
591-78-6	2-HEXANONE	ug/m3	0.71 J	0.43 J	ND
67-64-1	ACETONE	ug/m3	75	96	72 J
71-43-2	BENZENE	ug/m3	3.2 J	1.4	2.2 J
75-27-4	BROMODICHLOROMETHANE	ug/m3	ND	0.46 J	ND
75-15-0	CARBON DISULFIDE	ug/m3	1.1 J	0.55 J	ND
56-23-5	CARBON TETRACHLORIDE	ug/m3	68	1.9	28
67-66-3	CHLOROFORM	ug/m3	2.1 J	25	30 J
74-87-3	CHLOROMETHANE	ug/m3	ND	0.28 J	ND
100-41-4	ETHYLBENZENE	ug/m3	3.6 J	4.6	2.8 J
136777-61-2	M,P-XYLENES	ug/m3	15 J	19	8.5 J
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/m3	4.3 J	2.4	4.3 J
108-10-1	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ug/m3	ND	0.22 J	ND
75-09-2	METHYLENE CHLORIDE	ug/m3	1.1 J	7.9	ND
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/m3	7.8 J	5.2	1.5 J
1634-04-4	TERT-BUTYL METHYL ETHER	ug/m3	1.1 J	ND	ND
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/m3	690	320	4500
108-88-3	TOLUENE	ug/m3	9.2	14	6.2 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/m3	320	27	4000
26523-64-8	TRICHLOROTRIFLUOROETHANE	ug/m3	190	0.96	ND
75-69-4	TRICHLOROFLUOROMETHANE	ug/m3	46	2.6	67

J = Estimated value

ND = Not detected

NYSDEC

**SITE CHARACTERIZATION REPORT
FOR THE WALSH ROAD SITE
NEW WINDSOR, NEW YORK**

FIGURES



5,000 2,500 0 5,000 10,000



SCALE: 1"=5,000'

FIGURE 1



NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION







SITE LOCATION MAP
Walsh Road
New Windsor, New York

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560



LEGEND:

-  BORING LOCATIONS
-  2013 SOIL VAPOR LOCATIONS
-  2013 SUB-SLAB SOIL VAPOR LOCATIONS
-  2009 AND 2013 GROUNDWATER LOCATIONS
-  2009 INDOOR AIR LOCATIONS
-  APPROXIMATE SITE BOUNDARY

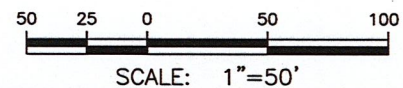
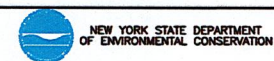


FIGURE 2



SAMPLE LOCATIONS
Walsh Road
New Windsor, New York

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560



LEGEND:

- ⊕ WELL LOCATIONS
- APPROXIMATE SITE BOUNDARY
- ND NON-DETECT

NOTES:

1. SHADED RESULTS INDICATE AN EXCEEDANCE OF THE NYSDEC AMBIENT WATER QUALITY CLASS GA STANDARDS/GUIDANCE CRITERIA.
2. RESULTS SHOWN IN ug/l

NYSDEC Class GA Ambient Water Quality Standards/Guidance Criteria	
	ug/l
1,1,1-TRICHLOROETHANE	5
1,1-DICHLOROETHENE (1,1-DCE)	5
1,1-DICHLOROETHANE (1,1-DCA)	5
TETRACHLOROETHYLENE (PCE)	5
TRICHLOROETHYLENE (TCE)	5



SCALE: 1"=50'

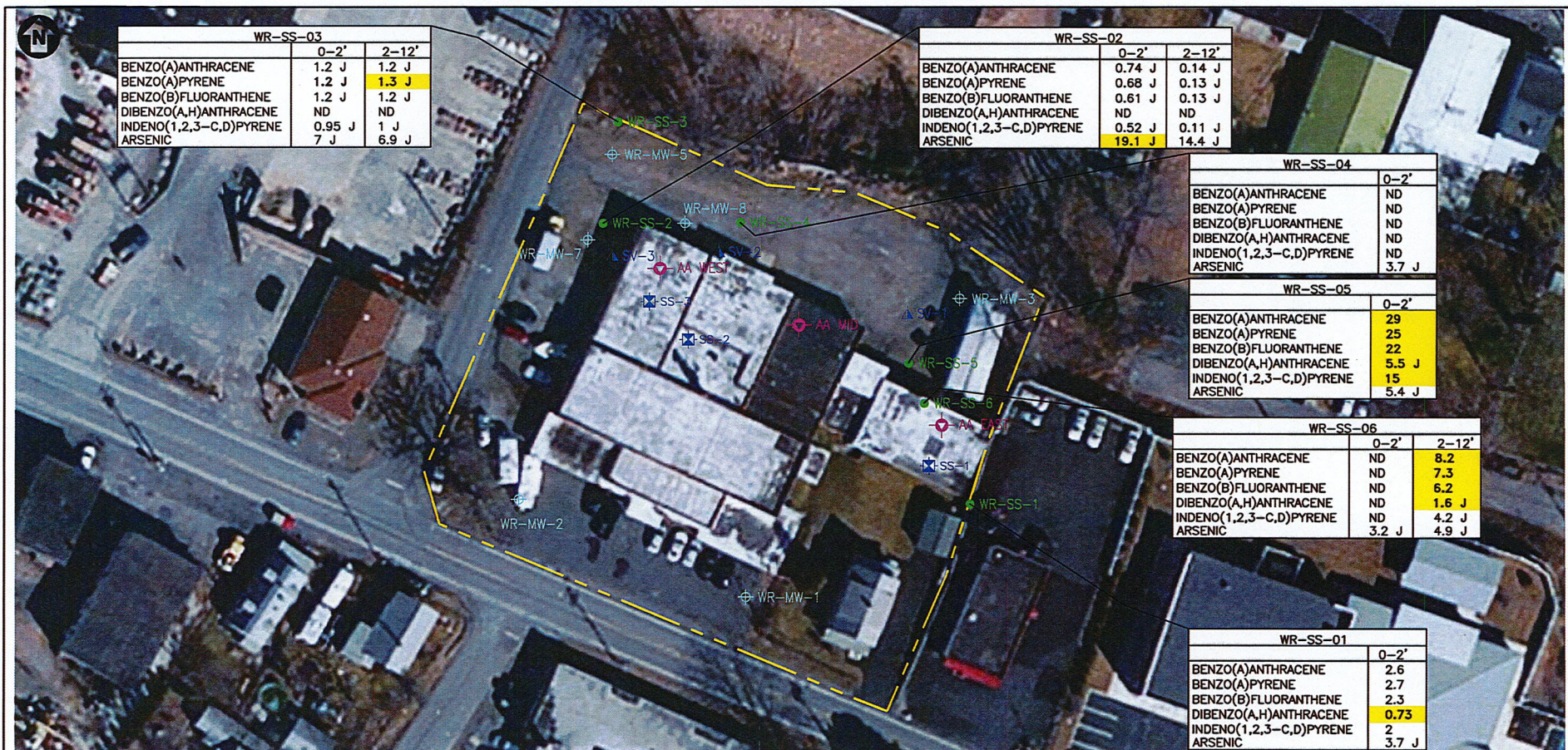
FIGURE 3



**GROUNDWATER CHLORINATED
VOC RESULTS**
Walsh Road
New Windsor, New York

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560



LEGEND:

- BORING LOCATIONS
- 2013 SOIL VAPOR LOCATIONS
- 2013 SUB-SLAB SOIL VAPOR LOCATIONS
- 2009 AND 2013 GROUNDWATER LOCATIONS
- 2009 INDOOR AIR LOCATIONS
- APPROXIMATE SITE BOUNDARY

NOTE:

HIGHLIGHTED RESULTS INDICATE AN EXCEEDANCE OF THE 6 NYCRR PART 375 COMMERCIAL USE CLEANUP OBJECTIVE.

6 NYCRR Part 375 Commercial Cleanup Objective (ppm)	mg/kg
BENZO(A)ANTHRACENE	5.6
BENZO(A)PYRENE	1
BENZO(B)FLUORANTHENE	5.6
DIBENZO(A,H)ANTHRACENE	0.56
INDENO(1,2,3-C,D)PYRENE	5.6
ARSENIC	16

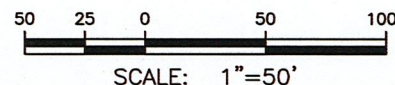


FIGURE 4

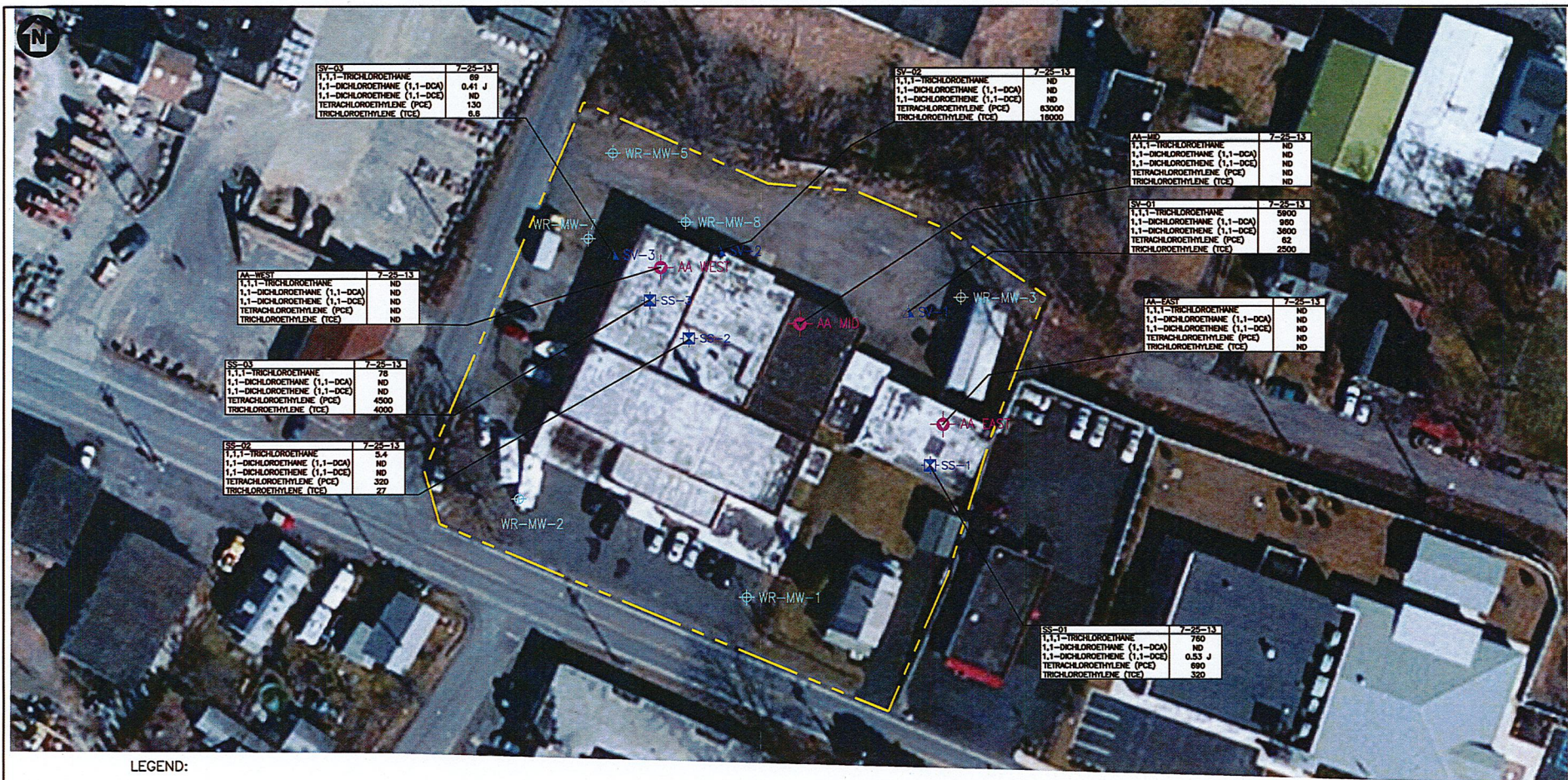


NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

**SURFACE SOIL EXCEEDANCES OF NYCRR
PART 375 COMMERCIAL USE SCO's
Walsh Road
New Windsor, New York**

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560



LEGEND:

- ⊕ WELL LOCATIONS
- ▲ 2013 SOIL VAPOR LOCATIONS
- ⊗ 2013 SUB-SLAB SOIL VAPOR LOCATIONS
- ⊙ 2009 INDOOR AIR LOCATIONS
- APPROXIMATE SITE BOUNDARY
- ND NON-DETECT

NOTES:

1. RESULTS SHOWN IN ug/m3



SCALE: 1"=50'

FIGURE 5



NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

AIR CHLORINATED VOC RESULTS
Walsh Road
New Windsor, New York

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560