

AECOM
10 Patewood Drive, Building VI, Suite 500
Greenville, SC 29615
T 864.234.3000 F 864.234.3069

June 16, 2009

Ms. Linda Ross
New York State Department of Environmental Conservation.
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: Summary of MW-31 Analytical Data (Northeast of AVOX Plant 2)
Former Scott Aviation Site
Lancaster, New York

Dear Ms. Ross:

On behalf of Tyco Safety Products (Tyco), AECOM Technical Services, Inc. (AECOM) collected a groundwater sample from MW-31, located at the Former Scott Aviation Facility (Site) in Lancaster, New York, using low-flow sampling procedures on January 19, 2009. This groundwater sample was submitted to Test America Laboratories in Amherst, New York for volatile organic compound (VOC) analysis using USEPA SW846, Method 8260B. This sample was collected per e-mail request (dated November 7, 2008) by the New York State Department of Environmental Conservation, Region 9.

Prior to collection of the groundwater sample, AECOM performed an assessment of the condition of MW-31 on December 9, 2008. MW-31 was installed as part of Phase II Environmental Site Investigation activities on July 7, 2005. As documented on the attached Well Inspection Checklist (Attachment 1), MW-31 was considered in good condition and did not require redevelopment prior to the January 2009 sampling event.

Figure 1 depicts the location of MW-31, approximately 25 feet from the northeast corner of AVOX Plant 2. Table 1 summarizes the groundwater VOCs that were detected above their associated method detection limits. Previous groundwater analytical data results from the only other time MW-31 was sampled (July 20, 2005) is also provided on Table 1 for comparison.

Based on the groundwater anomaly observed at MW-31, AECOM on behalf of Tyco will perform a supplemental investigation (SI) around this monitoring well in an attempt to define the vertical and horizontal extent of the VOC plume and also to collect data to develop potential remedial alternatives. Please refer to Attachment 2 for details regarding the scope of work for the SI.

If you have any questions or comments regarding this correspondence, please contact me at (864) 234-3053 or Tyco Project Manager John Perkins at (561) 912-6197.

Sincerely,

AECOM



Timothy S. Renn, P.E.
Senior Environmental Engineer

Attachments

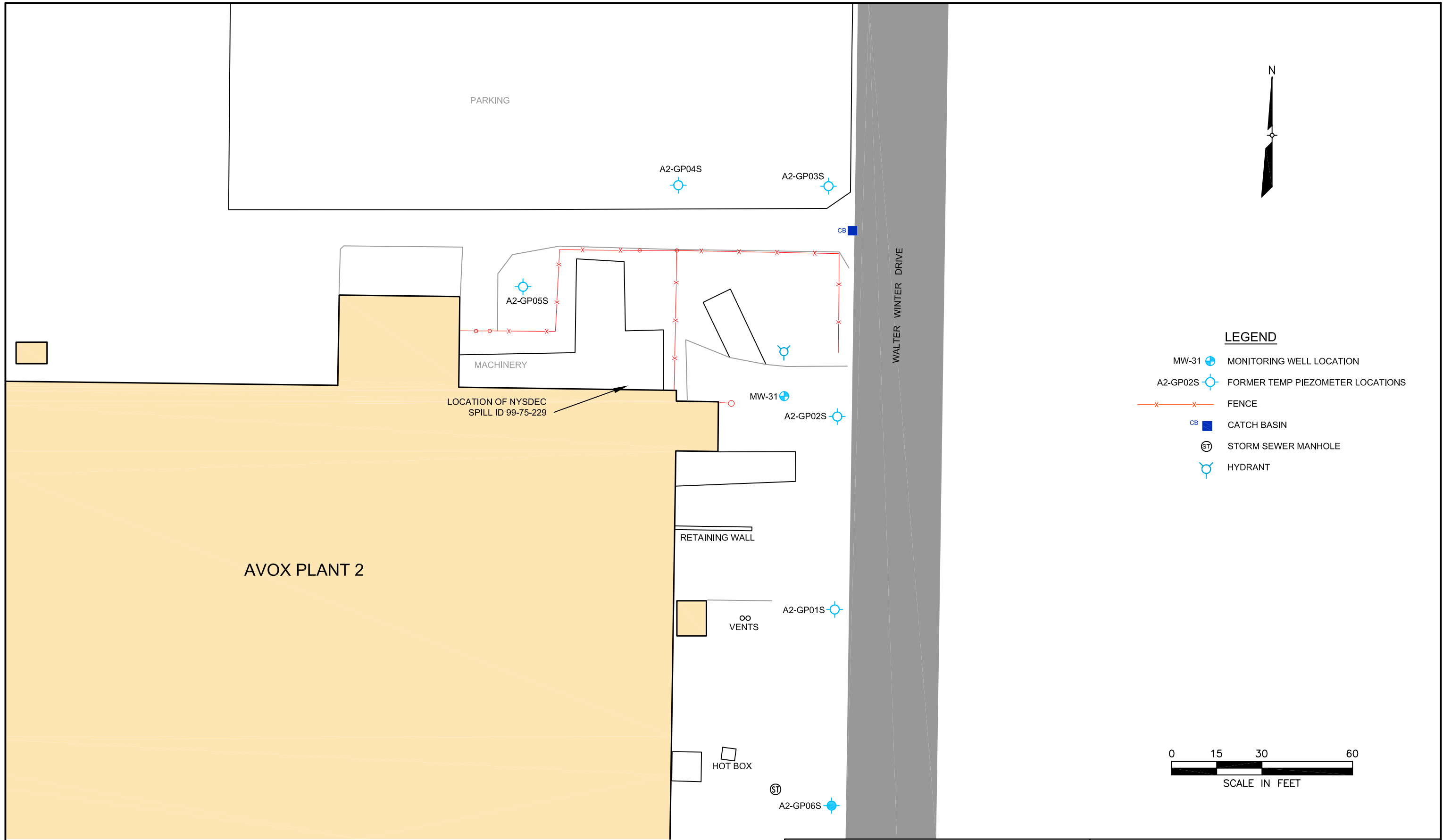
cc: Mr. John Perkins, Tyco (via e-mail)
Mr. Bill Saskowski, AVOX Systems Inc. (via e-mail)
Mr. Matt Forcucci, NYSDOH – Western Regional Office (via e-mail)
Project File – 113396

ATTACHMENT 1
WELL INSPECTION CHECKLIST

Attachment 1
Well Inspection Checklist

Site: <u>Scott Aviation – East of Plant 2</u>		Date: <u>December 9, 2008</u>
Type: <u>Stickup</u>		
Riser Height: <u>-0.43 ft</u>		Well Number: <u>MW-31</u>
Stickup Height: <u>not applicable</u>		
As-Built Well Depth: <u>18 ft bgs</u>		
Stickup Material: <u>PVC</u> <input type="checkbox"/> <u>Stainless steel</u> <input type="checkbox"/> <u>Other</u> <input type="checkbox"/>		
Riser Diameter: <u>2 in</u>		Stickup Diameter: <u>not applicable</u>
Riser Material: <u>PVC</u>		
Riser Appearance: <u>good</u>		Inspector: <u>Dino Zack</u>
CONDITION		
Signs of Vandalism: <u>NO</u>		
Cannot Locate: <u>N/A</u>		
Locked / No Lock: <u>YES</u> Lock Replaced: <u>NO</u>		
Inner Cap: <u>YES</u>		
Protective Casing Loose: <u>NO</u>		
Concrete Pad: <u>NO ISSUES</u>		
Soil Erosion: <u>NO</u>		
Ponded Water: <u>NO</u>		
Well Marked: <u>MARKER</u>		
Cannot Identify: <u>N/A</u>		
Depth to water from riser: <u>5.55 ft</u>		
Depth to bottom from riser: <u>17.2 ft (17.65 ft bgs)</u>		
Does well appear: <u>HARD BOTTOM</u>		
Obstruction in well: <u>NO</u>		
PID reading: <u>0.0 ppm</u>		
Active pump in well: <u>NO</u>		
Comments: <u>Re-development of monitoring well not recommended (~3% screen is submerged in silt).</u>		

FIGURE 1
LOCATION OF MW-31 AREA 2



LEGEND

- MW-31 MONITORING WELL LOCATION
- A2-GP02S FORMER TEMP PIEZOMETER LOCATIONS
- FENCE
- CB CATCH BASIN
- ST STORM SEWER MANHOLE
- HYDRANT

AECOM

**FIGURE 1
LOCATION OF MW-31
AREA 2**

FORMER SCOTT AVIATION, INC.
LANCASTER, NEW YORK

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY – MW-31

Table 1
Groundwater Analytical Data Summary - MW-31
Former Scott Aviation Facility
Lancaster, New York

VOCs - USEPA SW-846, Method 8260B (µg/L)			
Parameters	NYCRR Guidance Criteria	7/20/2005	1/19/2009
Vinyl Chloride	2	14	120 D
Chloroethane	5	25	31
Acetone	50	9.3	ND (25)
1,1-Dichloroethene	5	7.9	44
1,1-Dichloroethane	5	500 D	1,900 D
2-Butanone	50	ND (5)	ND (25)
trans-1,2-Dichloroethene	5	5.1	26
cis-1,2-Dichloroethene	5	180 D	1,100 D
Carbon Disulfide	NS	1.8	ND (5)
Toluene	5	2.2	0.78 J
1,1,1-Trichloroethane	5	26	71
Trichloroethene	5	1,200 D	4,800 D

NOTES:

D - Compound identified in an analysis at a secondary dilution factor.

J - Indicates estimated value. Used when data indicates the presence of an analyte above the MDL but lower than the reporting limit.

MDL - Method Detection Limit.

ND (5) - Not detected above the associated reporting limit (shown in parenthesis).

NS - No Standard established.

NYCRR - New York Code of Rules and Regulations.

µg/L - micrograms per liter.

ATTACHMENT 2

SCOPE OF WORK FOR SUPPLEMENTAL INVESTIGATION

Scope of Work for Supplemental Investigation

Former Scott Aviation Facility (Northeast of AVOX Plant 2) Erie County, Lancaster, New York

Introduction: This attachment presents the scope of work to complete supplemental investigation (SI) activities in the vicinity of MW-31 (northeast of AVOX Plant 2), Former Scott Aviation Facility (site) located in Lancaster, New York. Based on groundwater sampling results obtained at MW-31 in January 2009, an SI will be conducted in the vicinity of MW-31 to further characterize this groundwater anomaly.

The SI will include a Membrane Interface Probe (MIP) study and the collection of groundwater samples and a soil sample from select boring locations. The MIP technology provides semi-quantitative data on a real-time basis that can be used to identify and delineate the horizontal and vertical extent of high concentration (greater than 100 parts per billion) volatile organic compound (VOC) source areas. Relative to other site characterization methods, a large number of MIP borings can be quickly performed and the subsequent data rapidly integrated to provide an overall understanding of VOC distribution within the vicinity of MW-31.

The objectives of the SI for this site include the following:

- Delineation of the spatial distribution of VOCs in the vicinity of MW-31;
- Collection of groundwater samples from two MIP borings (one from the source area near MW-31 and one from the perimeter of the VOC distribution) to correlate the collected MIP data with quantitative analytical laboratory results; and
- Collection and analysis of a soil sample to determine soil characteristics (e.g., density, fraction organic carbon, etc.).

Scope of Work: The scope of work for the SI at Area 2 will include a two-day MIP study of up to 14 boring locations that will be installed down to a depth where VOCs are no longer detected or to refusal (bedrock is located approximately 24 feet below ground surface [ft-bgs], whichever comes first). The proposed MIP boring locations are shown on Figure 1.

The MIP survey will provide real-time detection of VOCs in the vadose and saturated zones. The MIP fits onto conventional direct push technology (DPT) equipment and is inserted into the target investigation zone in a manner similar to a standard DPT sampling device. The tool tip has a membrane that is permeable to VOCs and has a built-in heating element that causes VOCs near the MIP to volatilize from soil or groundwater. The volatilized VOCs pass through the membrane, where a carrier gas transports the VOCs through sealed tubing to the aboveground detection equipment, which will include at a minimum a Flame Ionization Detector and an Electron Capture Detector. The detectors measure total VOCs in the carrier gas and provide this information in real-time as an instrument response. The detectors do not provide a quantitative concentration of VOCs in the groundwater or soil; however, the response level from the detector corresponds to the amount of VOCs present in the carrier gas, which is proportional to the amount of VOCs in the soil or groundwater at the MIP location being investigated. A greater response from the detector indicates greater VOC concentrations in the subsurface.

VOC measurements will be recorded throughout each MIP boring. For purposes of this SI, discrete VOC measurements will be collected at a maximum of 1-foot intervals down to a maximum depth of 24 ft-bgs.

Initially, the MIP survey will be conducted on an approximate 10-foot grid around MW-31. This grid will be adjusted in the field based on the initial MIP boring results. If possible, at all locations, the MIP will be advanced until significant VOC contamination is no longer observed. Ultimately, the MIP data collected will be used to provide qualitative information on the distribution of VOC contamination both laterally and vertically in the vicinity of MW-31. Ideally, the MIP will identify the peripheral limits of contamination.

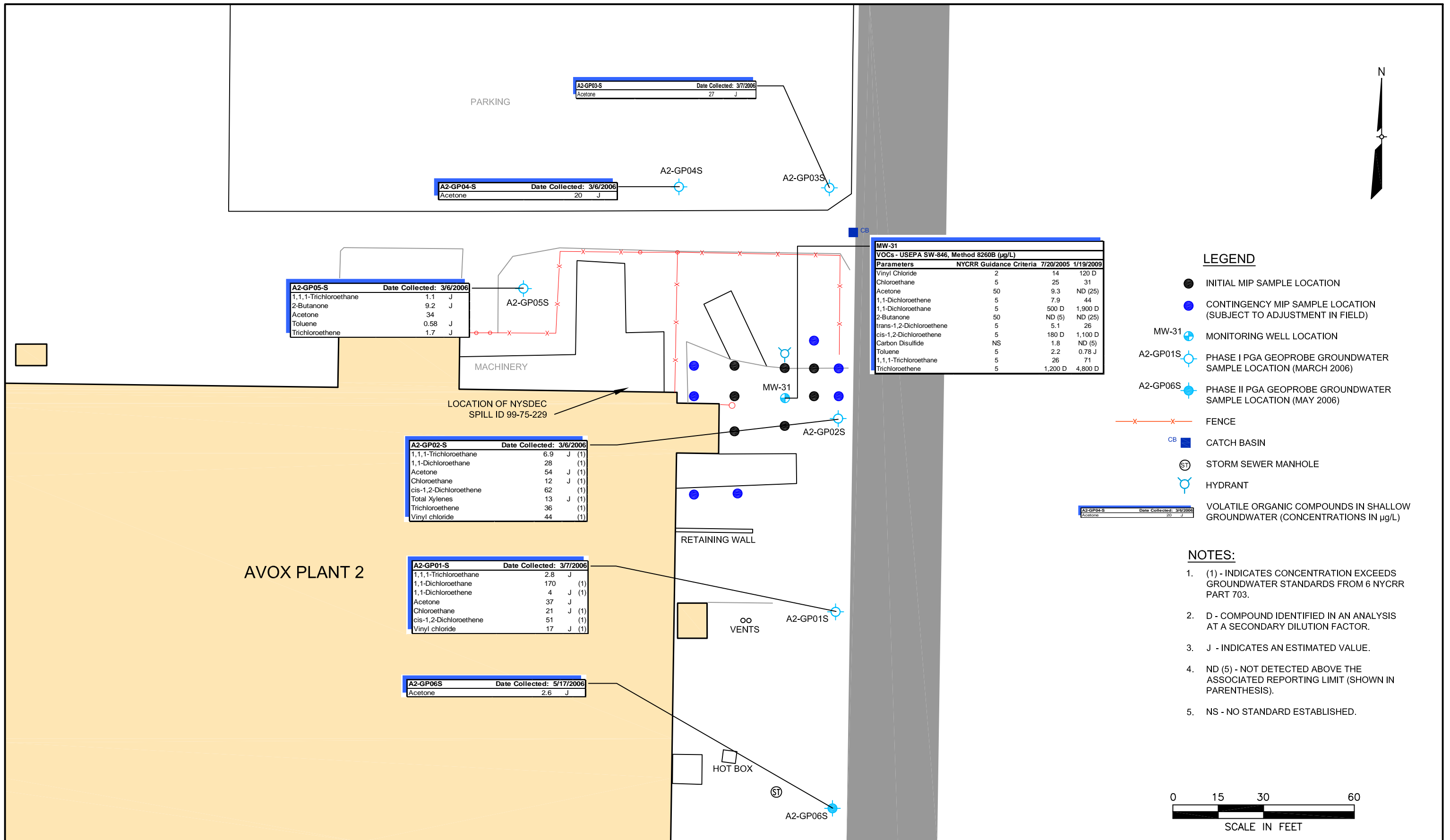
In addition to the collection of MIP data, two (2) groundwater samples will be collected using an SP-15 sampler (i.e., hydro-punch sample) and submitted to an offsite laboratory. One (1) of the samples will be collected from the hottest part of the identified groundwater plume near MW-31, and 1 sample will be collected from the edge of the plume in order to establish a relationship between the MIP data and the quantitative analytical laboratory results. The 2 aqueous samples and a trip blank will be submitted to Test America Laboratories, Inc., Amherst, New York, for analysis of VOCs via EPA Method SW846 8260B. In addition, the source area aqueous sample will be analyzed for Natural Attenuation Parameters (NAPs) including nitrate, nitrite, ammonia, sulfate, sulfide, alkalinity, dissolved gases (methane, ethane, ethane), and total organic carbon. NAP results will be used to assist with the development of potentially applicable future remedial alternatives. Table 1 provides a summary of the groundwater analytical parameters to be analyzed.

One (1) soil sample will also be collected during SI activities and analyzed for soil characterization parameters including in-place density, specific gravity, moisture content, and fraction organic carbon. Soil characterization parameters will be used to assist with the development of potentially applicable future remedial alternatives. Table 1 provides a summary of the soil characterization parameters to be analyzed.

Report: Upon receipt and review of the final MIP data package and the final analytical laboratory data packages, a brief summary letter report that presents the MIP data and analytical laboratory results will be prepared and submitted to the New York State Department of Environmental Conservation (NYSDEC). The report will include data summary tabulations, figures, logs plotting MIP data as a function of depth below ground surface, conclusions, and recommendations. Analytical results will be compared to the relevant NYSDEC guidance values.

Schedule: Currently, AECOM plans to complete this work on behalf of Tyco in mid- to late-July 2009. It is anticipated that field activities can be completed in two days. Offsite data analyses can be completed within 2 weeks of submittal to the analytical laboratory, and data processing, evaluating and reporting can be completed within 1 month of receipt of the final analytical results from the laboratory.

FIGURE 1
PROPOSED MIP SAMPLE LOCATION – AREA 2



AECOM

**FIGURE 1
PROPOSED MIP SAMPLE LOCATION - AREA 2**

FORMER SCOTT AVIATION, INC.
LANCASTER, NEW YORK

TABLE 1

**ANALYTICAL LABORATORY TESTING PROGRAM SUMMARY
SUPPLEMENTAL INVESTIGATION IN THE VICINITY OF MW-31**

Table 1
Proposed Analytical Laboratory Testing Program Summary
Supplemental Investigation in the Vicinity of MW-31
Former Scott Aviation Facility
Lancaster, New York

Location	Matrix	Soil Characteristic Parameters ⁽¹⁾						Groundwater Parameters								
		VOCs (8260B)	In Place Density (ASTM)	Grain Size (ASTM)	Specific Gravity (ASTM D854)	Moisture Content	foc (ASTM D2974-87)	VOCs ⁽²⁾ (8260B)	Sulfate (D-516-90)	Sulfide (4500-Si D)	Nitrogen, Nitrate-Nitrite	Nitrogen, Ammonia	Alkalinity (310.2)	Dissolved Gases - Methane,	TOC (5310b)	
Groundwater Sampling																
Samples	aqueous	0	0	0	0	0	0	2	1	1	1	1	1	1	1	
Duplicate	aqueous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rinsate Blank	aqueous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Trip Blank	aqueous	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
Per Event		0	0	0	0	0	0	3	1	1	1	1	1	1	1	
Subtotal (1 event)		0	0	0	0	0	0	3	1	1	1	1	1	1	1	
Soil Sampling																
Samples	soil	0	1	0	1	1	1	0	0	0	0	0	0	0	0	
Duplicate	soil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Per Event		0	1	0	1	1	1	0	0	0	0	0	0	0	0	
Subtotal (1 event)		0	1	0	1	1	1	0	0	0	0	0	0	0	0	
Total		0	1	0	1	1	1	3	1	1	1	1	1	1	1	

NOTES;

ASTM - American Society for Testing and Materials

foc - fraction of organic carbon

GC - gas chromatograph

TOC - total organic carbon

VOC - volatile organic compound

(1) - Soil characteristic sample collected to assist with development of potential remedial alternatives.

(2) - VOC aqueous samples collected to develop correlation with MIP boring results (One aqueous sample collected in source area and one aqueous sample collected at the perimeter).

VOC soil samples not needed; concentrations will be determined through MIP study (~MDL >200ppb)