MINUTES FROM THE 6 DECEMBER 2012 RESTORATION ADVISORY BOARD MEETING
NWIRP CALVERTON NY
12/6/2012
TETRA TECH

RESTORATION ADIVSORY BOARD MEETING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), CALVERTON
CALVERTON COMMUNITY CENTER, CALVERTON, NEW YORK
THURSDAY, DECEMBER 6, 2012

The thirty-seventh meeting of the Restoration Advisory Board (RAB) was held at the Calverton Community Center. Meeting attendees included representatives from the Navy (Lora Fly and James Tarr), New York State Department of Environmental Conservation (NYSDEC) (Larry Rosenmann, Henry Wilkie and Ajay Shah), RAB Community Members (John Armentano, Sidney Bail, Lou Cork, Bill Gunther, Vincent Racaniello), Suffolk County Department of Health Services (Andrew Rapiejko and Doug Feldman), Resolution Consultants (Robert Forstner, Michael Spera, Eleanor Vivaudou), Tetra Tech (David Brayack), H&S Environmental (Jen Good and John Hudacek), and SCA Associates (Frank Anastasi). There were two guests at the meeting. The sign-in sheet is included as Attachment 1.

WELCOME AND AGENDA REVIEW

The Navy representative, Ms. Lora Fly, welcomed everyone to the RAB meeting and introduced the meeting agenda. She stated that this would be her last Calverton RAB meeting and introduced Mr. James Tarr as her replacement. The agenda for the meeting is included as Attachment 2. The Navy presentations are included in Attachment 3.

DISTRIBUTION AND APPROVAL OF MINUTES

Ms. Fly asked whether the RAB members received the April 2012 RAB minutes, which were distributed in July 2012. Ms. Fly asked whether there were questions or comments on the minutes. There were no questions or comments, and the minutes for the April 2012 RAB meeting were approved.

COMMUNITY UPDATE

Mr. Gunther asked Lou Cork and Sidney Bail to summarize recent news regarding a potential water park that has been proposed. The water park for jet-skiing use is to be built on a sand mine, and there may be potential groundwater flow issues. Because of varying water levels at different times, pumping might be required and it's not clear how that might affect the site. Mr. David Brayack (Tetra Tech) noted that the park was originally proposed 10 years ago. Tetra Tech provided environmental documents that were requested at that time. The project sponsors were apparently selling sand from the site and talked about the jet-ski park once the sand was removed down to groundwater, but nothing happened for 6-7 years after that.

TECHNICAL PROGRESS – GENERAL OVERVIEW OF INSTALLATION RESTORATION SITES AND STATUS OF SITE 2 REMOVAL ACTION

Ms. Jen Good, H & S Environmental, provided a brief status update on the Site 7 treatment system, noting that the groundwater treatment system to address Freon contamination continues to be operated seasonally. The system was sampled the day of the RAB meeting and would be shut down for the winter the following day.

Mr. Tarr then provided a presentation updating the status of unexploded ordnance (UXO) removal actions at Site 2. The presentation is included in Attachment 3. Several 20 mm fragments were found at the property, which triggered the current response action. Because of this discovery, the site is being reclassified from an Installation Restoration (IR) site to a Munitions Response Program (MRP) site. During the munitions response, a Navy contractor (AGVIQ/CH2M Hill) excavated site soils to a depth of 18 inches below ground surface and screened for presence of 20 mm shells. However, constant recovery of metallic debris (rebar, pipe, etc.) proved to be a challenge in clearing the site. Portions of the site were cleared by post-excavation surveys, but some areas could not be cleared due to remaining geophysical anomalies. Shells that were recovered were destroyed by detonation on-site using C4 explosive, and the fire department was notified prior to all detonation events. The site was then covered with clean fill to reduce the risk of exposure to UXO while walking on-site. A portion of the excavated soils were found to be petroleum-contaminated.

Based on observations during the removal action, there are concerns that UXO impacts extend beyond the previously-delineated area. In particular, the berms surrounding the clearing are of concern. A work plan is being prepared for a geophysical survey over the mounds to a distance 200 feet north, south, east and west of the clearing.

There was discussion of the composition of the rounds and whether radioactive materials might be present, of where the UXO originated, whether the site is currently safe, and if Site 2 would eventually be released for reuse. Ms. Fly noted that nothing radioactive has been recovered; much of the steel recovered was of World War II vintage. The UXO at the site is the result of the transfer of other materials to Site 2; F-14 plane cannon testing occurred off-site at the Gun Butt area, where planes were tied down and the cannons test-fired into berms. The berm material was then transported to Site 2. Regarding the safety of Site 2, Mr. Tarr noted that the concern is mainly precautionary. The concern was with trespassers; however, with the placement of clean fill, it is now safe for people to be on site. Regarding the potential release of the site, Ms. Fly noted that it cannot be released unless the Navy is convinced the site is completely cleared of UXO. As a result it is possible that the Navy will need to retain ownership of the property, but whether this will be necessary or if other restrictions on site use will be needed is not known yet.

TECHNICAL PROGRESS – 2012 GROUNDWATER INVESTIGATION SUMMARY

Mr. Robert Forstner (Resolution Consultants) provided a presentation on the status of the 2012 groundwater investigation, and preliminary results from that investigation. It was noted that the 2012 data are preliminary; although all data have been validated, all figures and tables are still draft and interpretation of the data to date is limited. The presentation is included in Attachment 3.

Sampling in 2012 was a continuation of the general program conducted in 2011, and included surface water, sediment and groundwater sampling at four locations along the Peconic River in May and September, and a full round of groundwater sampling at 65 locations (including the 4 Peconic River piezometers) in September. Groundwater samples were collected from locations at Site 2 (14 locations on-property and 7 locations off-property), Site 6A/10B (6 locations) and the Southern Area (20 locations on-property and 22 locations off-property, including 7 off-property locations in the Peconic River area).

All samples (groundwater, surface water and sediment) were analyzed for volatile organic compounds (VOCs); three groundwater samples were also analyzed for iron, manganese and arsenic. For the results maps shown in the presentation and the accompanying detail maps, the abbreviation “ND” was employed to indicate that a given compound (or VOCs as group) was not detected, and the abbreviation “NX” was used to indicate that at least one VOC was detected but that no single VOC exceeded its New York State Department of Health (NYSDOH) maximum contaminant level (MCL) for groundwater, NYSDEC surface water quality standard for surface waters, Oak Ridge National Laboratory chronic toxicological value for sediment, or NYSDEC Technical Guidance for Screening Contaminated Sediments value for sediment.

Mr. Forstner first reviewed figures showing the flow of groundwater and analytical results for Site 2. Generalized groundwater flow data for Site 2 indicate flow is to the southeast, consistent with previous observations. The groundwater elevation in September 2012 was found to be approximately one foot lower than that observed in September 2011. The 2012 groundwater chemistry data were generally consistent with 2011 results. No MCLs were exceeded at the on-property locations and most off-property locations. To the south and east of Swan Pond, however, trichloroethene (TCE) exceeded its MCL at three locations, and of particular note was FT-PZ460I, where a concentration of 380 µg/L was found. Several other VOCs also exceeded MCLs at this location, including 1,1-dichloroethane (DCA), 1,1-dichlorothene (DCE), 1,2-dichloroethene and tetrachloroethene. Although not shown on this map, when initially sampled after installation by Tetra Tech, a similarly high concentration (440 µg/L) was detected. (It was noted that the prior data were not included on the draft figure due to a technical issue related to database coordination, but that all data will be included in future versions of these figures.)

Mr. Forstner then moved on to figures showing results at Sites 6A/10B and the Southern Area. First, several figures summarizing the overall arrangement of the various sites and the contaminant plume extending from Sites 6A/10B were shown for orientation purposes. Similar to the groundwater flow data for Site 2, groundwater at Sites 6A/10B and the Southern Area generally flows to the southeast, and was

also found to be approximately one foot lower in elevation in 2012 than in 2011. The review of the groundwater chemistry data then proceeded by subareas:

- **Source Area (Sites 6A and 10B):** Groundwater chemistry results in this area are generally consistent with previous samples, with the exception of a notable change in VOC concentrations at location FC-PZ05I1; in September 2011 six different VOCs had exceeded MCLs, including 1,1,1-trichloroethane, DCA and DCE, and three VOCs were found at levels 50 times the MCL or greater. In September 2012, only isopropylbenzene was found to exceed an MCL, and 1,1,1-trichloroethane and DCE were not detected.
- **Fence Line Area:** At most locations in this area, VOC concentrations in September 2012 were consistent with those observed in September 2011. Significant deviations were noted at SA-PZ149I1, where DCA increased from 18 to 520 µg/L, DCE increased from 1.7 to 36 µg/L and 1,1,1-trichloroethane, which was not detected in 2011, was found at 84 µg/L. A notable decrease in VOC concentrations was observed at SA-PZ138I1 (where 1,1,1-trichloroethane decreased from 250 to 43 µg/L, DCA went from 1,100 to 260 µg/L and DCE fell from 65 to 14 µg/L). Other notable decreases in VOC concentrations were observed at SA-PZ135I, SA-PZ157I, SA-PZ135I and SA-MW127I.
- **Offsite Low Concentration Area:** The most notable change identified in this area was an increase in VOC concentrations at SA-MW132I, located at the edge of the delineated plume; 1,1,1-trichloroethane was not detected in September 2011 but found at 31 µg/L in September 2012, while in the same period DCA increased from 6.9 to 150 µg/L, DCE increased from 1.5 to 16 µg/L, and chloroethane (not detected in September 2011) was found at 12 µg/L. This is the first time levels of this order of magnitude were observed at this location, and may not be indicative of a trend. An increase was also observed at SA-PZ123I1, where levels of 1,1,1-trichloroethane, DCA and DCE all roughly doubled between September 2011 and September 2012.
- **Offsite High Concentration Area:** Concentrations of several VOCs at SAPZ-142I increased roughly by a factor of three as compared to September 2011 levels, with DCA increasing from 100 to 290 µg/L. Concentrations of DCA and DCE were otherwise stable or decreased in this area (in particular, DCA decreased from 31 to 3.7 µg/L at SA-PZ134I, from 69 to 33 µg/L at SA-PZ140I, and from 62 to 42 µg/L at SA-PZ145I).
- **Peconic River Area:** Increases in DCA concentrations were observed at SA-PZ147 (along the banks of the Peconic River), which increased from 0.77 to 12 µg/L between September 2011 and September 2012 and at SA-PZ118S, which increased from 3.5 to 21 µg/L in the same period. 1,1,1-Trichloroethane, DCA and DCE concentrations at SA-PZ124, also located on the banks of the Peconic River, were consistent with those found in September 2011. Peconic River surface sediment samples were collected at four locations in both May and September 2012, and no VOCs were detected above project action limits in seven of the samples (September 2012

sediment chemistry results for location SA-SD125 were rejected because of an insufficient solids content in the sample); however, DCA was detected at 20 µg/kg at SA-SD124 during the May 2012 sampling event. Peconic River surface water samples were also collected from four locations in both May and September 2012, and no surface water quality standards were exceeded; however, DCA was detected at SA-SW124 in both May and September 2012, and at SA-SW204 in September 2012.

There was some discussion regarding the sediment and surface sample results, in particular about whether the 2012 data were validated in regard to detections of acetone. It was explained that the data have been validated; however, in the absence of any reason to expect it as a contaminant of concern, acetone detections in laboratory reports are generally considered to be laboratory artifacts, even if they are not dismissed during the validation process. Unless acetone results are rejected during validation, they will continue to be maintained in the database and shown on data tables where they occur. However, on maps such as those in this presentation, acetone results may be omitted for clarity if they are reasonably considered to be laboratory artifacts. There was also some discussion of the rationale behind the "NX" abbreviation, and the consensus is to individually report site contaminants of concern (such as DCA) where they are detected but do not exceed a relevant standard.

TECHNICAL PROGRESS – SITE 2 ACTIVITIES AND SITE 6A – SOUTHERN AREA DESIGN

Mr. Brayack provided a presentation of the current status of Site 2 and Site 6A – Southern Area activities. Site 2 is the subject of a Supplemental RCRA Facility Investigation (RFI). A free-product recovery system was operated by Grumman from the 1980s through 1996 to target most contaminated areas. An air sparging/soil vapor extraction system also operated at the site from 1995 through 2000, mainly in the eastern portion of the clearing area, near the former burn pit, where a layer of free product up to one foot in thickness existed. The site was also subject to removal actions for contaminated soil in 2008 and 2009, with some areas excavated to as much as five feet below the ground surface.

Additional soil and groundwater investigations were conducted in 2011 and 2012 to determine whether any additional source area removal actions were needed, and to determine the quality of groundwater both on- and off-property. Soil samples were collected through the clearing, as well as to the southeast of the former burn pit. A Munitions and Explosives of Concern (MEC) technician was part of the soil sampling team since this work occurred prior to the UXO removal action, clearing paths for sampling personnel throughout the site. New piezometers and staff gauges were also installed in and around Swan Pond to evaluate how the pond, McKay Lake and Donahue Pond affect groundwater flow. A TCE concentration of 460 µg/L was identified at one of these new piezometers, FT-PZ460I, but it is not clear what the source of this material is.

There is some uncertainty regarding flow around Swan Pond and whether groundwater is flowing north into a tributary to the Peconic River near FT-PZ460I. Groundwater flow from Site 6A-Southern Area may

be flowing into the same tributary, causing variation in flow. There was some discussion that if the tributary is not always flowing, that a shallow monitoring well may be warranted to investigate water quality in this area.

Data from the soil sampling program where greater than one foot of product might have existed may be cause for concern. Xylene was found in the soil at a concentration of 260 µg/kg near the burn pit. Groundwater concentrations of xylene at FT-MW02S have been in the range of 15 to 25 µg/L; this is the same well that periodically has seen concentrations of 2,500 µg/L after excavation. If needed, remedial actions might include use of an oxygen-release compound (ORC) or biosparging.

There was some discussion of the concept that there should only be minor sources of contamination (e.g., recently recovered drums) remaining in the areas previously investigated following the previous removal actions, and so the possibility of a source farther downgradient should not be discounted. Mr. Anastasi noted that he had previously provided a report to the Navy indicating that there may be some source material in downgradient areas.

Mr. Brayack continued with his presentation of Site 2 activities, showing the location of some new permanent piezometers and temporary well locations in the area southeast of Swan Pond. The new piezometer FT-PZ406I had the highest concentration of TCE amongst these locations, with a concentration of 440 µg/L – the highest concentration otherwise seen in this area was 50 µg/L. The Peconic River flows north in this area, while water from Swan Pond flows due south. Cranberry bogs are also located in this area. The investigation in this area was originally planned only to complete the water level profile through this area. A phased approach is proposed to identify the source of the TCE; the Navy has talked to the Peconic River Sportsmen Club and the Suffolk County Parks Department about ways to minimize impact but as yet the Parks Department has not concurred. It was originally planned to get this investigation started in 2012, but the Parks Department wants to minimize impacts to the park and not conduct the work during the hunting season, which runs into April.

Regarding Site 6A-Southern Area, Mr. Brayack noted that a Record of Decision was signed in May 2012 for the Fence-Line Treatment System, and the construction contract was awarded to H & S Environmental in August. Construction began in October, but the impacts of Super Storm Sandy drove two concrete subcontractors out of business. A new contractor has been brought on board that will be bringing key components from south Florida. Groundbreaking was expected before Christmas, and startup of the system is planned for spring 2013. The selected remedy that is being constructed will install two extraction wells with a total pumping capacity of 100 gallons per minute; and an air-stripper will be used to remove VOCs from the water before it is re-injected to groundwater.

Mr. Brayack continued with a discussion of trigger value design. Some of the contaminants of concern do not have established NYSDEC surface water quality standards, so trigger values will be developed on an

area-specific basis to identify when (based on VOC concentrations and mass flux) additional response actions must be considered.

Mr. Brayack also described a supplemental offsite groundwater investigation that is being planned for the area south of the eastern runway. This investigation was of low priority and had been delayed for several years. The purpose is to install a series of profile borings to better define the interaction between regional groundwater and the Peconic River. The proposed borings are located on former Navy property, and require only notification prior to installation.

GENERAL DISCUSSION

The question of how the community can become involved in the development of trigger values was raised. Mr. Brayack indicated that they are being negotiated with state ecological experts, and the project team will be generating toxicity profiles to provide to the NYSDEC to see if they agree with the methodology. It is expected that initial drafts of the trigger values may be available by April 2013. There was a follow-up conversation as to what to consider as trigger values. For example, toxicity may not be the only concern; contaminants might also drive a reduction in the dissolved oxygen of the Peconic River that in turn may impact fish. Mr. Larry Rosenmann from the NYSDEC noted that experts from the Division of Water are involved in the discussion, and will consider all relevant parameters.

There was discussion about storm-damaged vehicles being stored on the runways and other areas within the installation. Mr. Tarr responded that the Navy is aware of the operation and the potential for contamination, and will be considering means of monitoring potential contaminants from the salvage operation.

CLOSING REMARKS

As a final note, Ms. Fly informed the RAB of the completed installation of municipal water service to the Peconic River Sportsman's Club in June, and that they have been transitioned off of well water. Ms. Fly and Mr. Tarr also suggested that the next RAB meeting was anticipated for April 4, 2013, pending confirmation. The meeting was then adjourned.

ATTACHMENT 1

DECEMBER 6, 2012 RAB MEETING SIGN-IN SHEET

38th RAB Meeting for NWIRP Calverton
December 6, 2012
Sign-in List

Name (Print)	Address and/or email if interested in being on mailing list	Affiliation	How did you hear about the meeting?
Lou Cork			Riverhead RAB.
Dave Brajack		IT	
Jim Tarr		Navy	
Lora Fly		Navy	
Henry Wilkie		NY SDEC	Regulator
Frank Mastesi		RAB	
Larry Rosenmann		DEC	
Elegard Vivaldi		Resident	
Sid Bail		Wading River Civic	regular!
Bill Gunther		RAB	
John Armentano		PRSC	
Andrew Pasietka		SCDHS	
* George Bartunek		NFEC	
Vincent Racaniello		RAB	
Ray Jackson		SCDHS	
Ajay Sharma		NYSDEC	
Amanda Racaniello		Community	
Jen Good		HHS	
Michael Spera		Resident	

ATTACHMENT 2

DECEMBER 6, 2012 RAB MEETING AGENDA

Resolution Consultants
A Joint Venture of AECOM & EnSafe
1500 Wells Fargo Building
440 Monticello Avenue
Norfolk, Virginia 23510

Agenda for Restoration Advisory Board

Naval Weapons Industrial Reserve Plant Calverton

Date: December 6, 2012
Time: 7:00 PM
Location: Calverton Community Center – Calverton, NY

Welcome and Agenda Review
Lora Fly, NAVFAC Mid-Atlantic

Distribution of Minutes
All Members

Community Update
Bill Gunther, RAB Co-chair

Technical Progress

General Overview of ER Sites
Lora Fly, NAVFAC Mid-Atlantic

Site 2 Activities
James Tarr, NAVFAC Mid-Atlantic

2012 Groundwater Investigation Summary
Robert Forstner, Resolution Consultants

OU-3 ROD Remedial Design and Construction
Dave Brayack, Tetra Tech

Closing Remarks
Lora Fly

Presenters will be available after the program for questions.

RESOLUTION CONSULTANTS

ATTACHMENT 3

NAVY PRESENTATIONS – DECEMBER 6, 2012 RAB MEETING

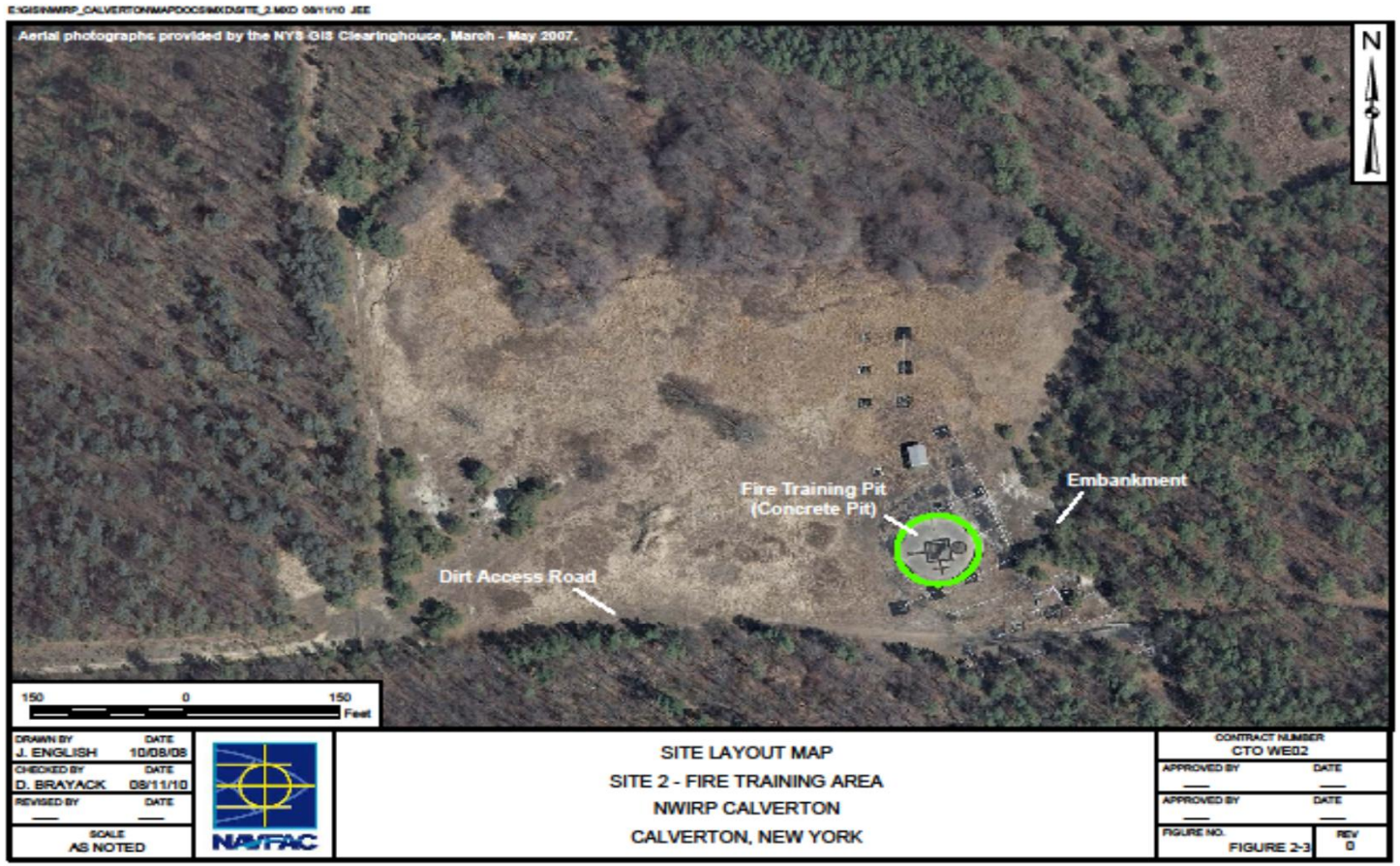
Restoration Advisory Board (RAB) Meeting

Site 2 Munitions Response
(Fire Training Center)

Naval Weapons Industrial Reserve Plant
(NWIRP) Calverton, New York

December 6, 2012

Site 2 Location



Site 2: Munitions Response Operation

- **Background**
  - **During sampling operations in April 2010, several (5) 20 mm fragments were found in the auger bucket of the hand auger**
  - **Remedial operations have been on hold since April 2010**
- **Response/Removal Action Status**
  - **Digital Geophysical mapping Survey completed in 2010**
    - Identified Saturated (Polygon Areas) over ~2,400 subsurface anomalies
  - **Explosive Safety Submission submitted in April 2011**
    - Approved in May 2011
  - **Completed Remedial/Response Action Work Plan (February 2012)**
    - Currently under review
    - Responding to comments
- **Munitions Response (Type of MPPEH) (Munitions Presenting a Potential Explosive Hazard)**
  - **Approximately 7.18 acres to be investigated/response/removal action**
  - **20-mm M97 HEI projectile 664**
  - **20-mm M56A4 HE projectile 535**

Site 2: Munitions Response Operation/Remedial Action

- **Munitions Response Activity (Site 2)**
  - **Mechanical Low Input Soil Screening**
    - Approximately 3.78 acres contained saturated responses
    - Field Operations included the screening and processing of ~12,500 CYD of soil at Site 2
    - Approximately 9,900 anomalies were located and verified
    - 17,006 projectiles recovered and a total of 8,296 anomalies destroyed
    - An estimated 34,000 pounds of metal was recovered and recycled
    - Completed 4 demolition events with explosives to render MMPEH safe for disposal

- **Remedial Action (Site 2)**
  - **Excavation of ~800 CYD of petroleum contaminated soil**
  - **Excavation was screened for the presence of Munitions with Explosive Concern (MEC) to a depth of 18 in BGS; report pending**

Current Project Schedule

- **Project Status**
  - **Mobilization May 2012 (Completed)**
  - **Mechanical Soil Screening (July 2012 – November 2012) (Completed)**
  - **Site Restoration (November 2012) (Limited completion)**
  - **Demobilize (November 2012) (Completed)**
  - **Additional Site Restoration as determined based on funding (December 2012) (Ongoing)**
  - **Brief Project Close Out and limited After Action Report (January 2013) (Ongoing)**

Restoration Advisory Board (RAB) Meeting

2012 Groundwater Investigation Summary

Naval Weapons Industrial Reserve Plant (NWIRP) Calverton, New York

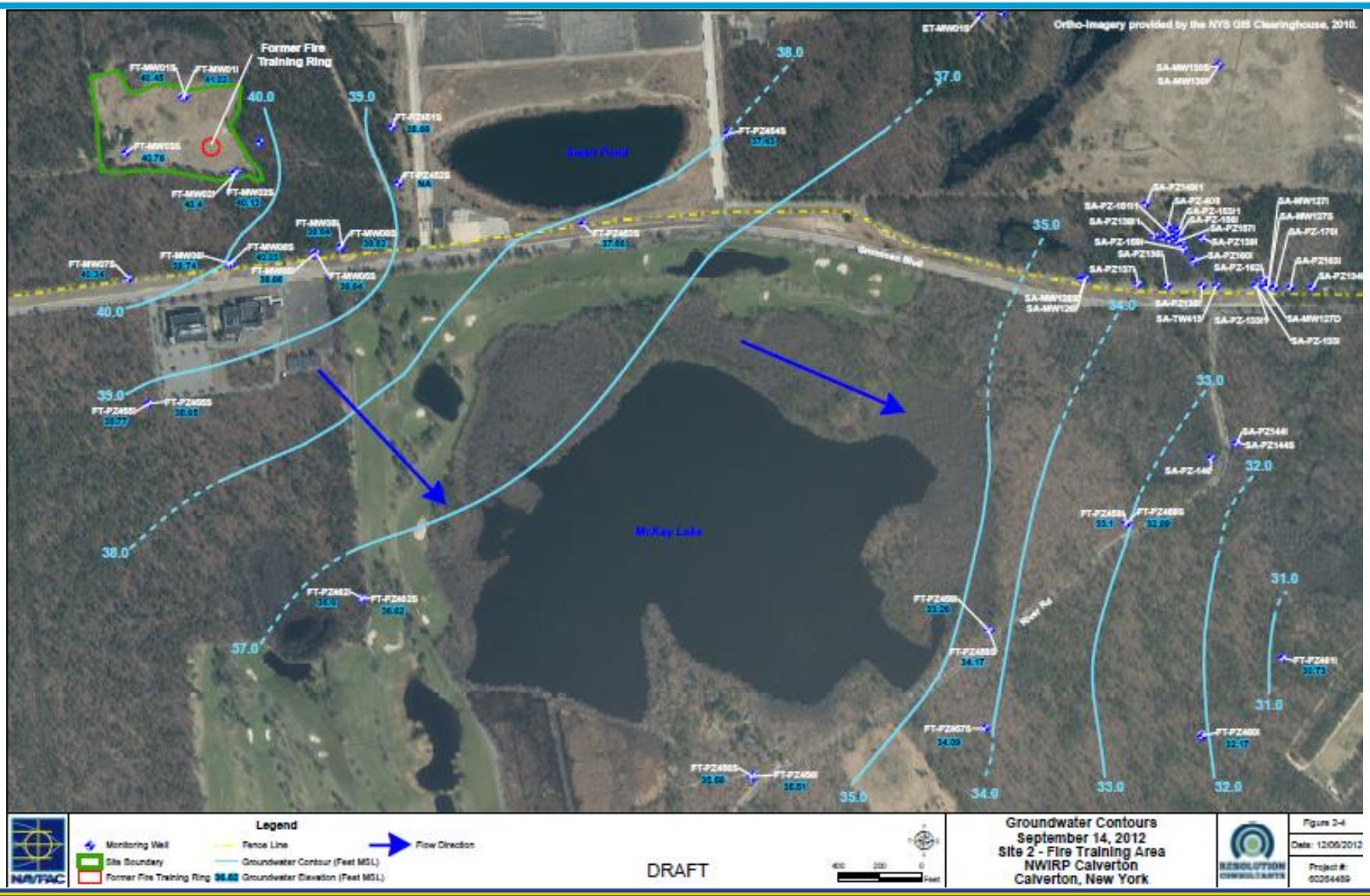
December 6, 2012

Facility Map

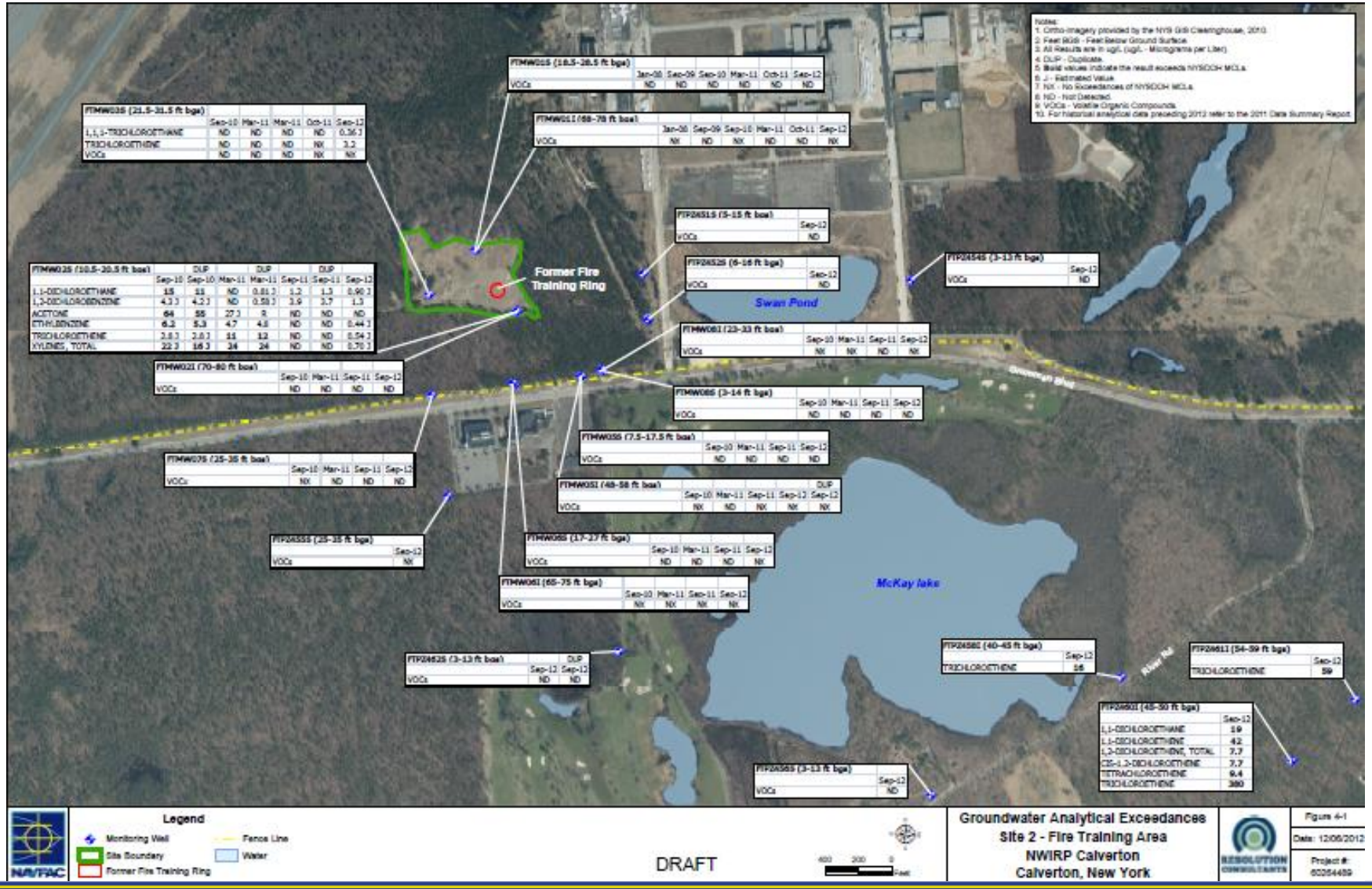
Annual Monitoring Program

- **Well & Piezometer Sampling**
  - **65 locations, all sampled in September 2012**
  - **Site 2 (Fire Training Area)**
    - On-property – 14 locations
    - Off-property – 7 locations
  - **Sites 6A (Fuel Calibration Area) / 10B (Engine Test House)**
    - 6 locations
  - **Southern Area**
    - On-site – 20 locations
    - Off-site – 15 locations
    - Peconic River area – 7 locations
- **Surface Water and Sediment**
  - **4 locations, all sampled in May and September 2012**
    - Co-located surface water & sediment samples
- **Groundwater Gauging**
  - **94 wells/piezometers and 7 staff gauges**

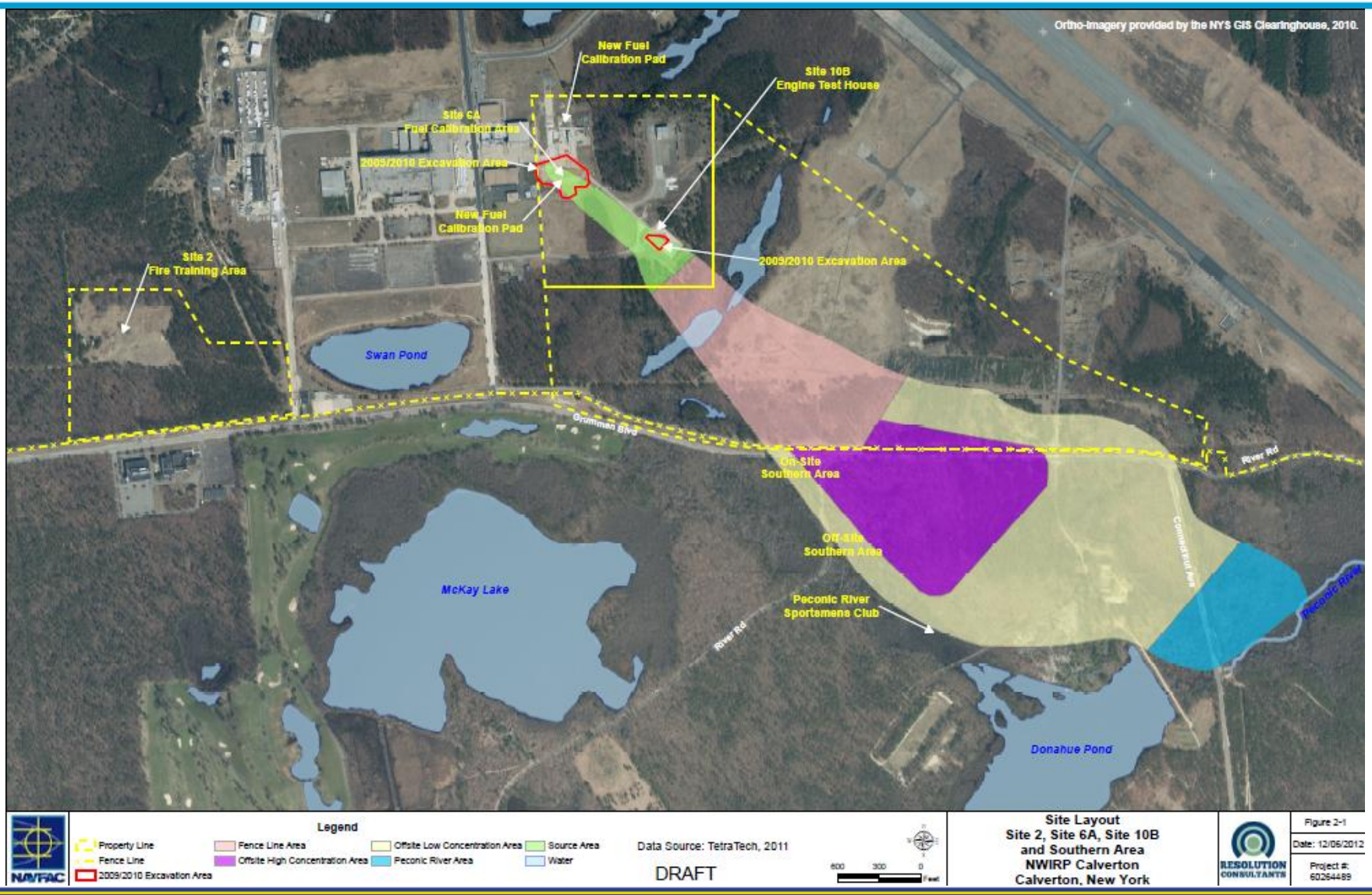
Site 2 Groundwater Flow (September 2012)



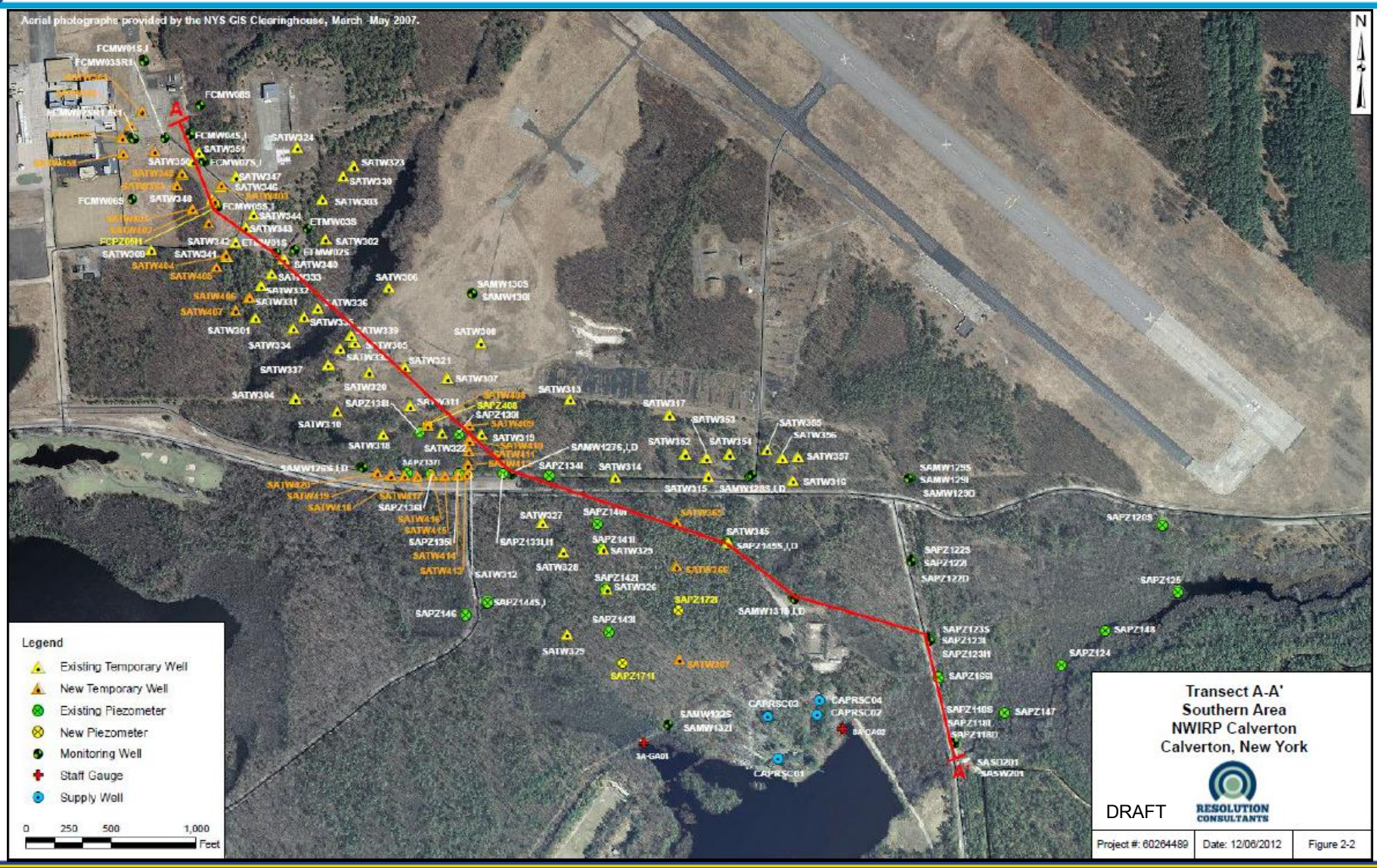
Site 2 Results



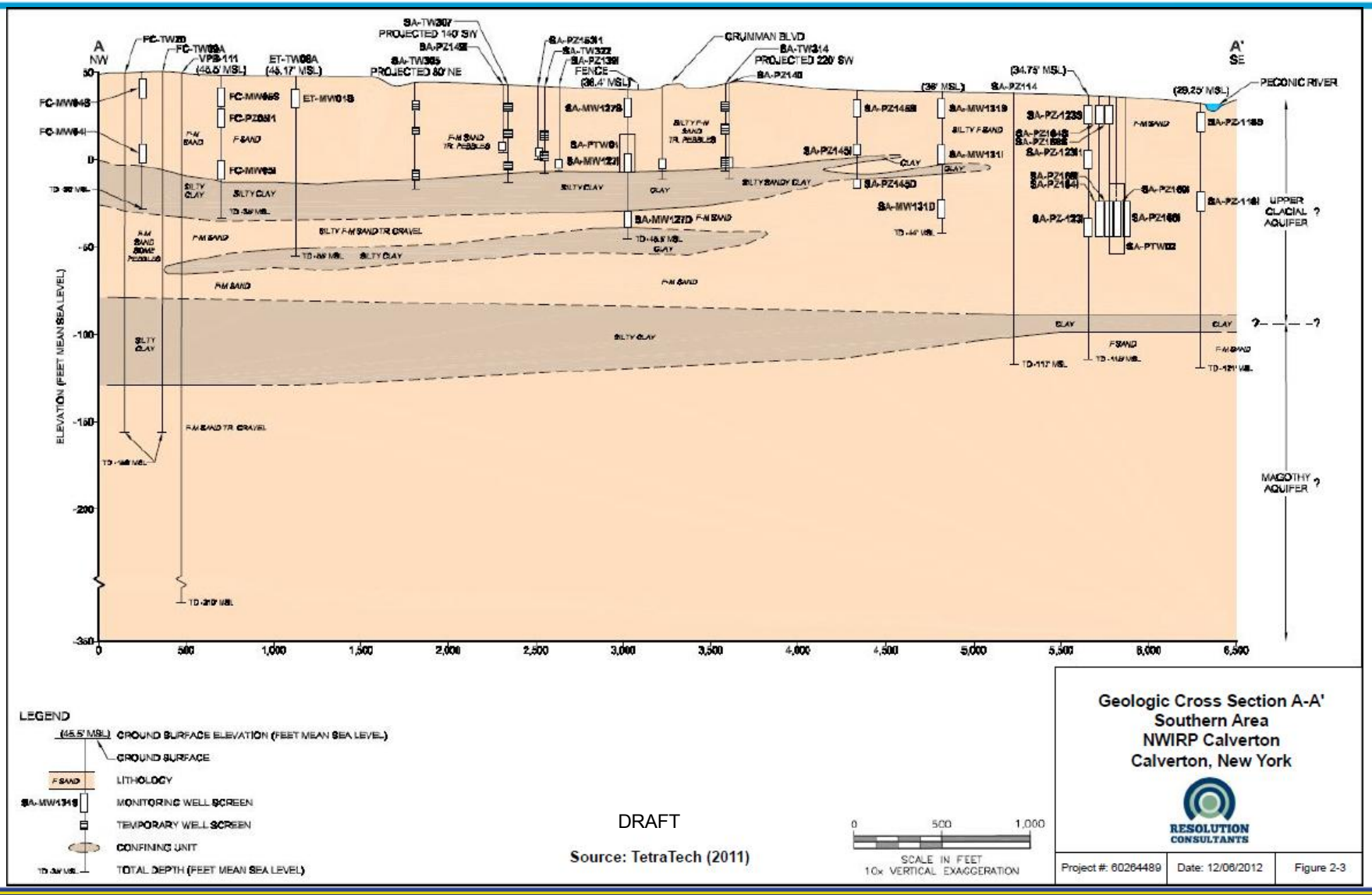
Southern Area Plume Map



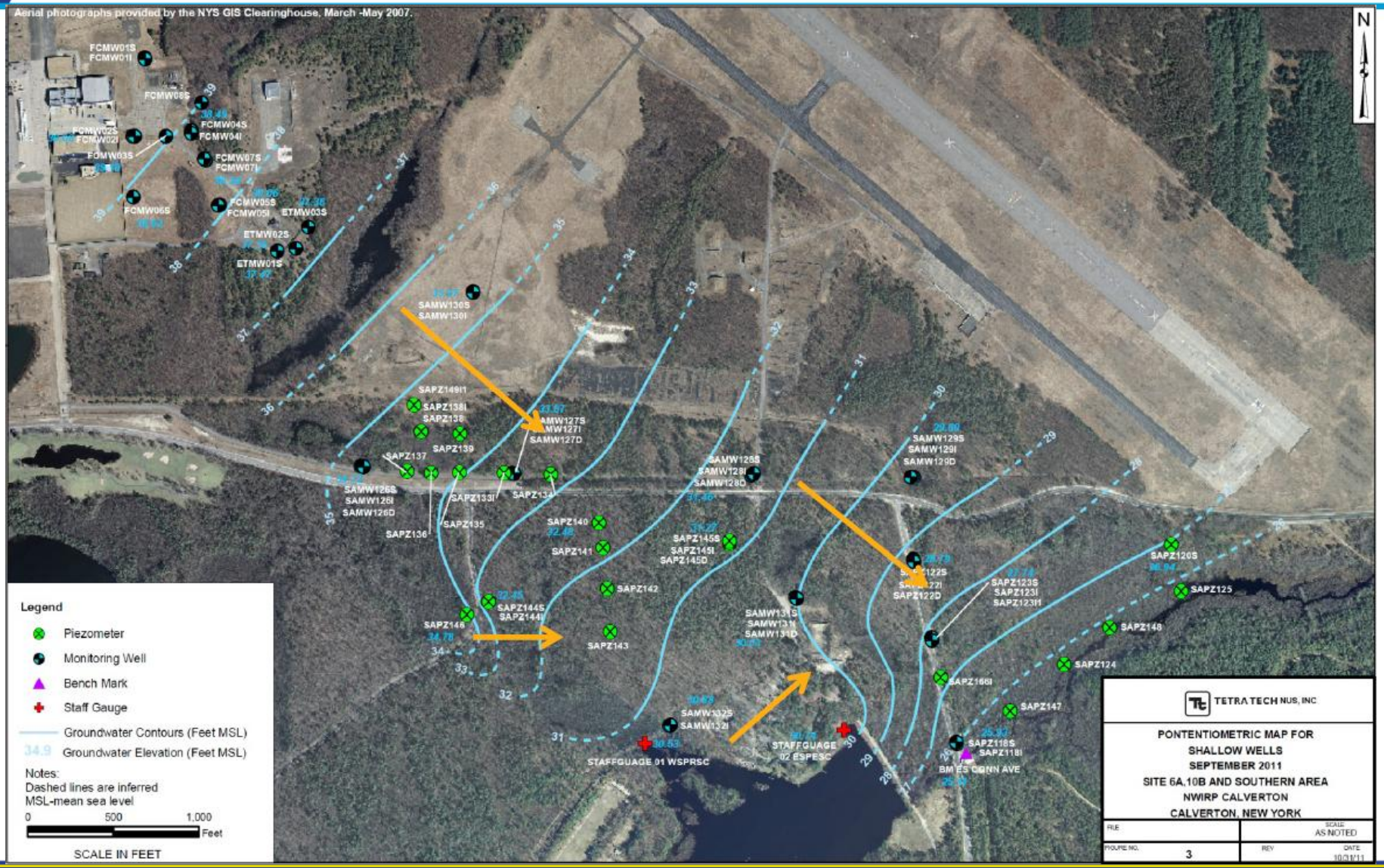
Cross-Section Location Map



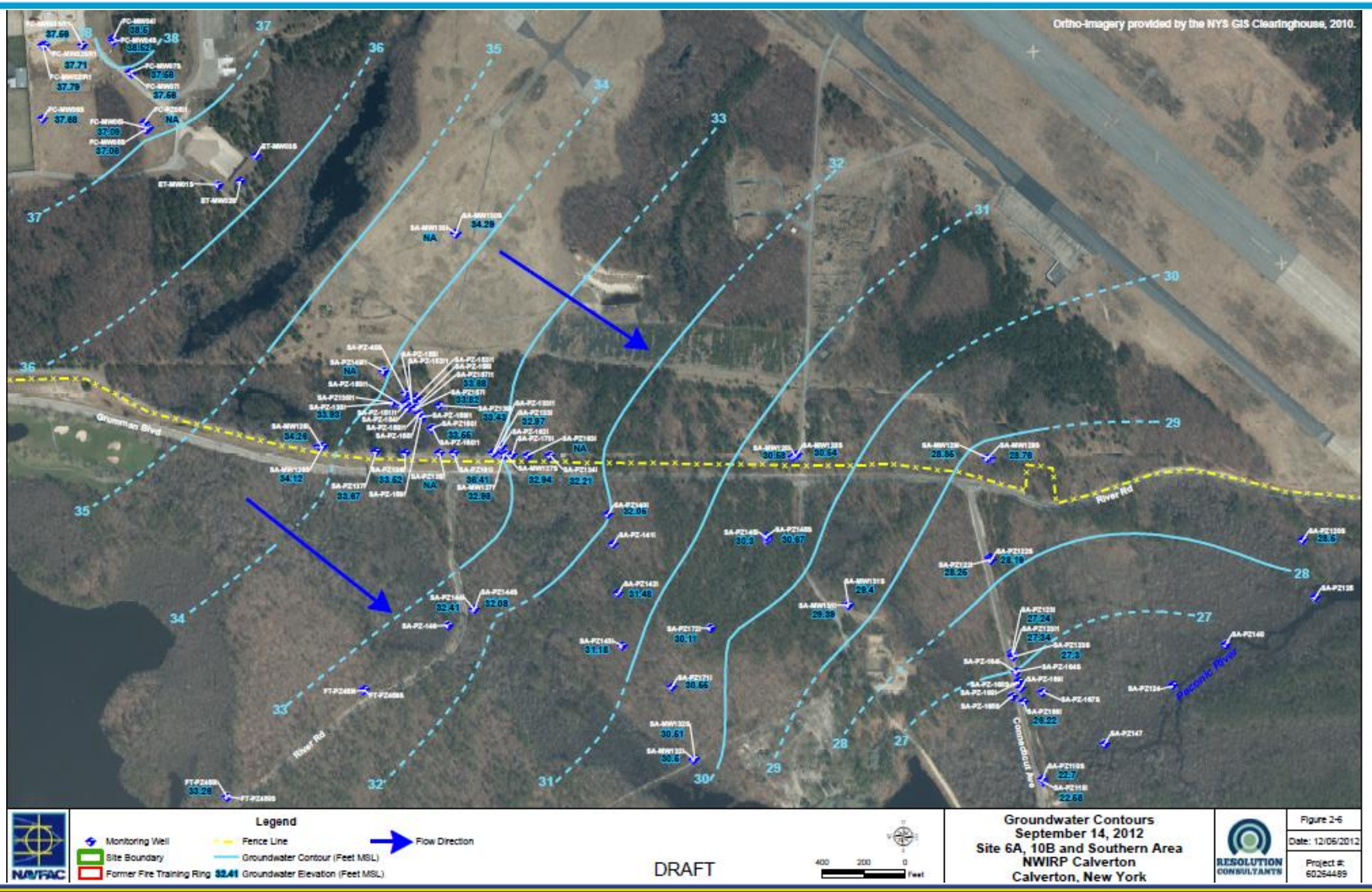
Geologic Cross Section



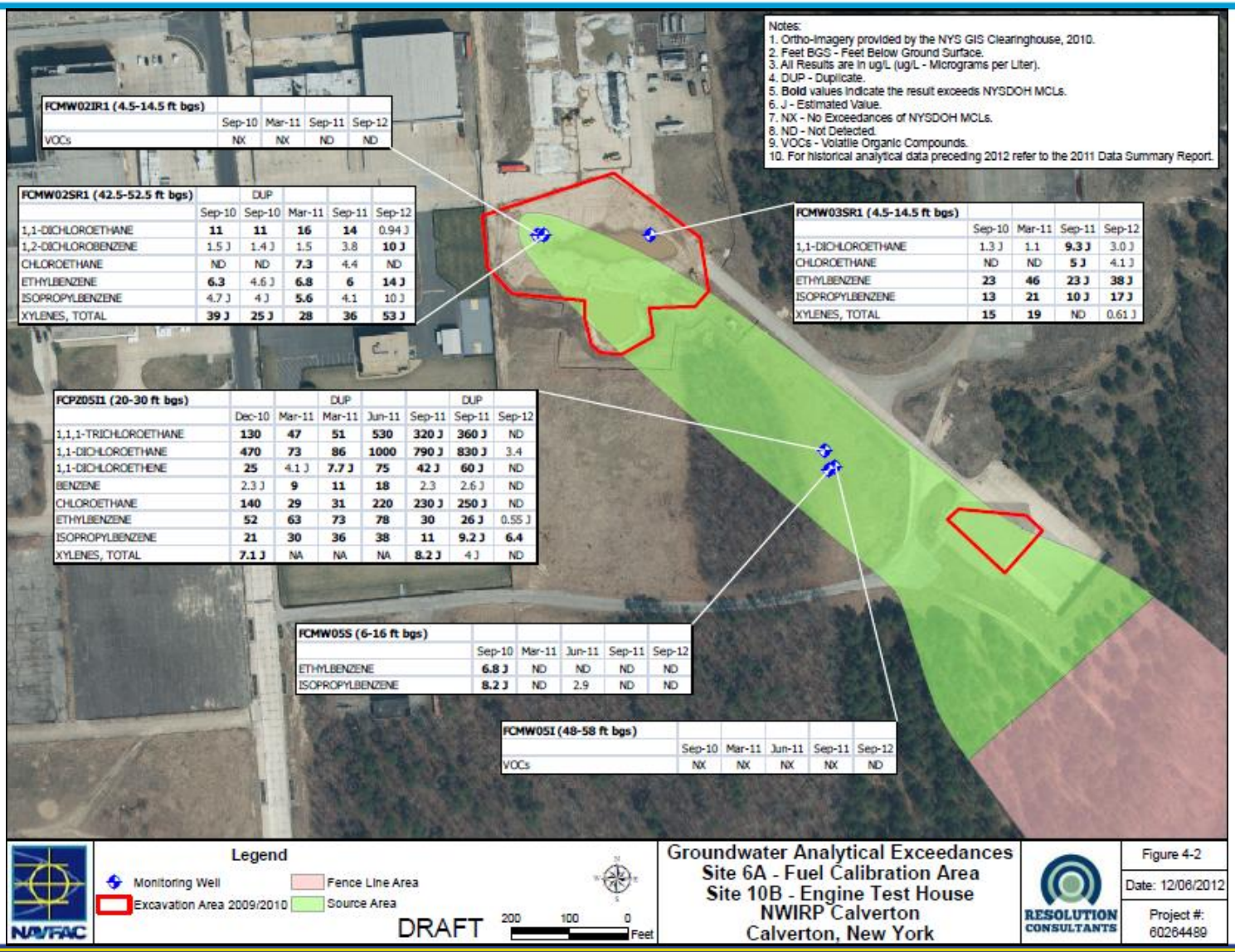
Groundwater Flow (September 2011)



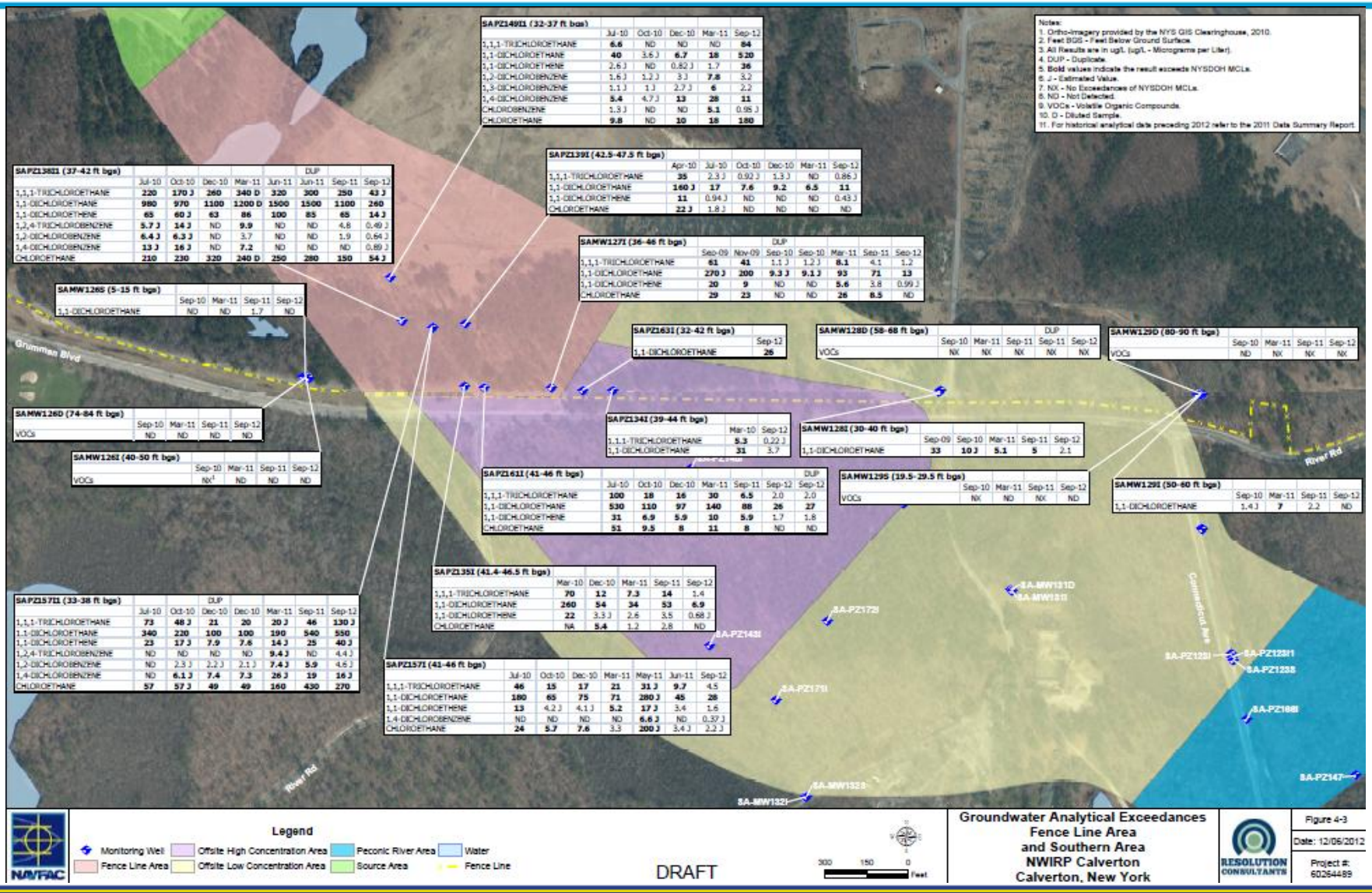
Groundwater Flow (September 2012)



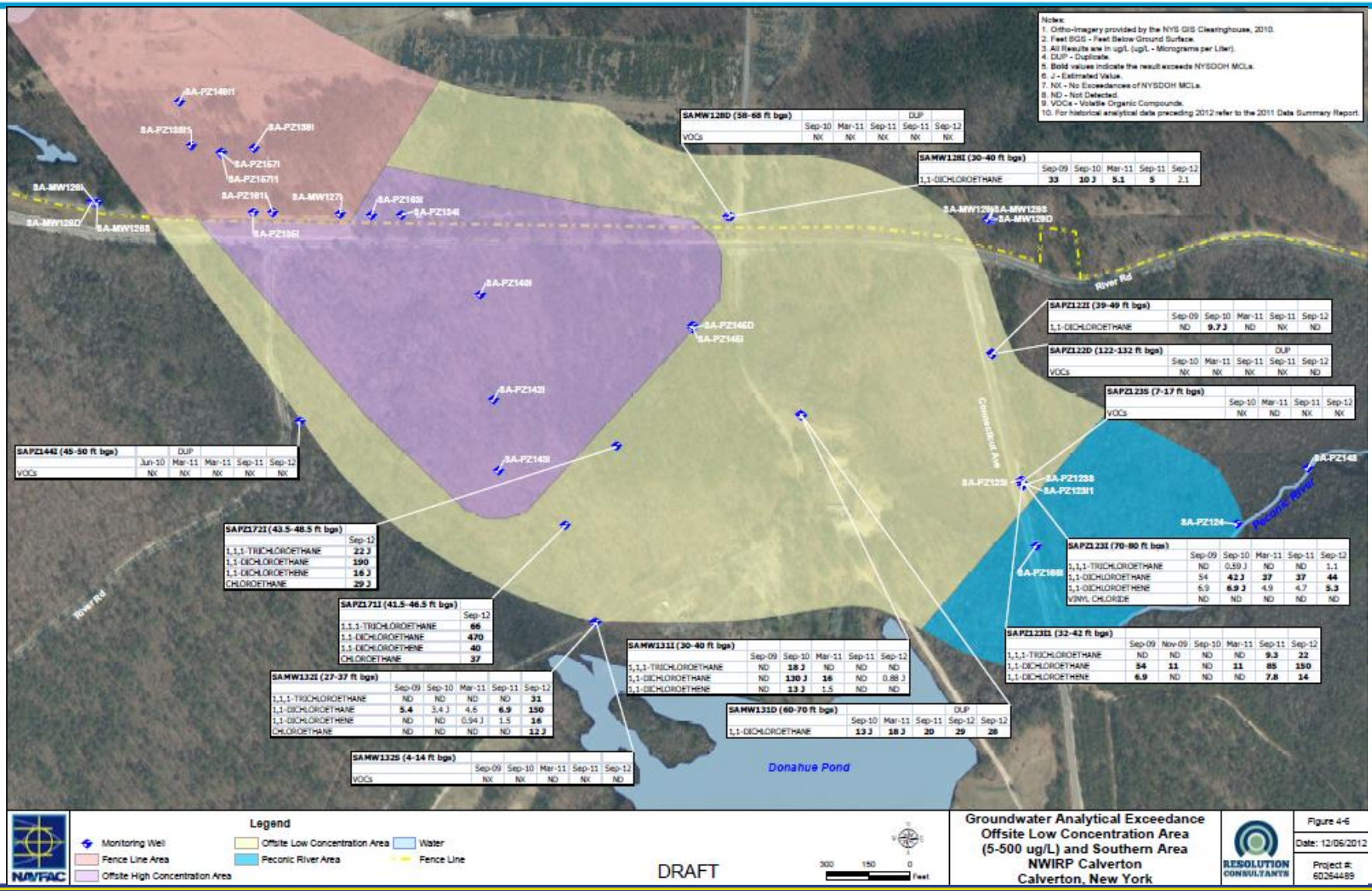
Site 6A Source Area Results



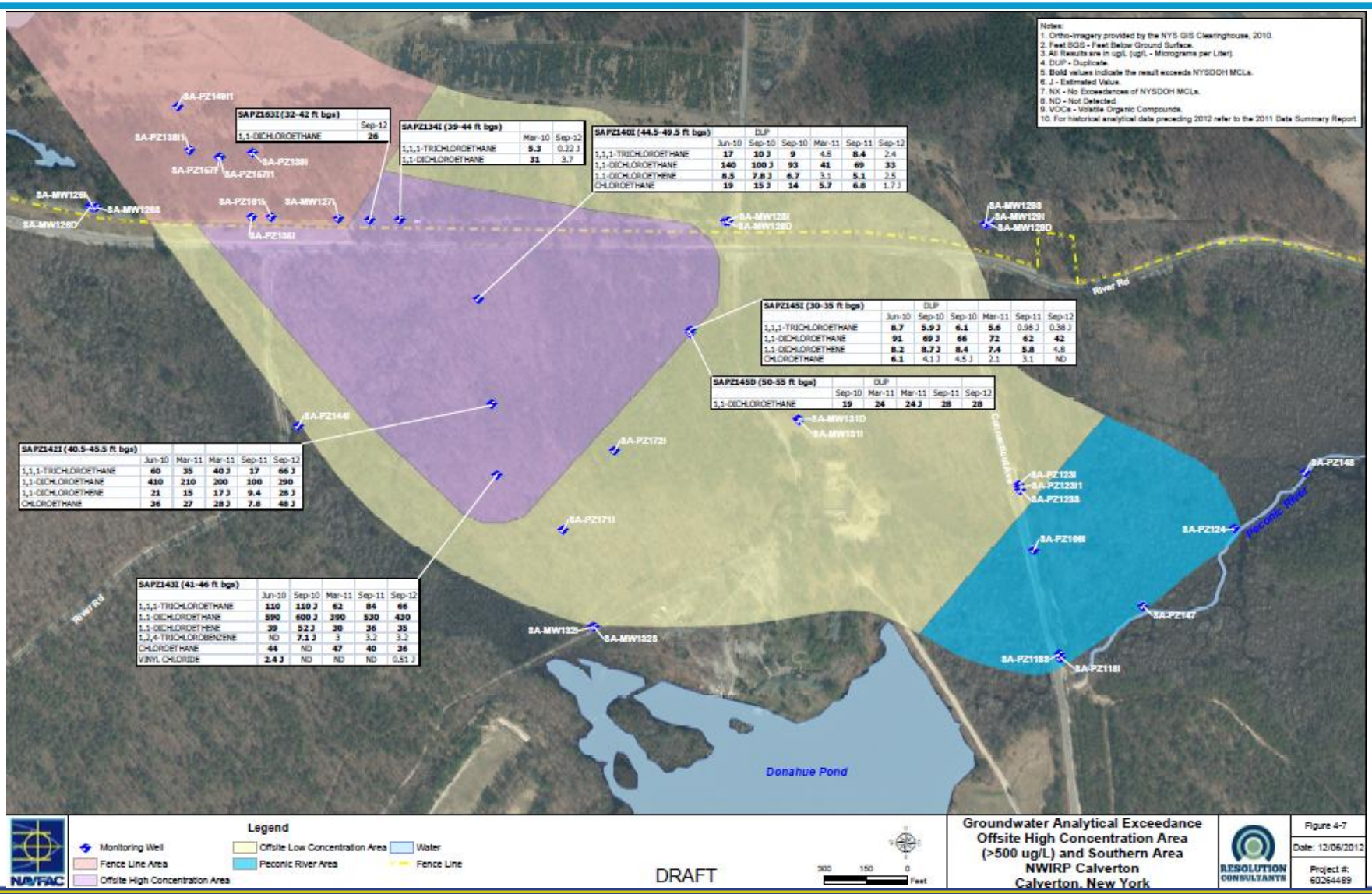
Fence Line Area Results



Off-Site Low Concentration Area Results



Off-Site High Concentration Area Results



SA-PZ163I (32-42 ft bgs)

	Sep-12
1,1-DICHLOROETHANE	26

SA-PZ134I (39-44 ft bgs)

	Mar-10	Sep-12
1,1,1-TRICHLOROETHANE	5.3	0.22 J
1,1-DICHLOROETHANE	31	3.7

SA-PZ140I (44.5-49.5 ft bgs)

	Jun-10	Sep-10 DUP	Sep-10	Mar-11	Sep-11	Sep-12
1,1,1-TRICHLOROETHANE	17	10 J	9	4.6	8.4	2.4
1,1-DICHLOROETHANE	140	100 J	93	41	69	33
1,1-DICHLOROETHENE	8.5	7.8 J	6.7	3.1	5.1	2.5
CHLOROETHANE	19	15 J	14	5.7	6.8	1.7 J

SA-PZ145I (30-35 ft bgs)

	Jun-10	Sep-10 DUP	Sep-10	Mar-11	Sep-11	Sep-12
1,1,1-TRICHLOROETHANE	8.7	5.9 J	6.1	5.6	0.98 J	0.38 J
1,1-DICHLOROETHANE	91	69 J	66	72	62	42
1,1-DICHLOROETHENE	8.2	8.7 J	8.4	7.4	5.8	4.8
CHLOROETHANE	6.1	4.1 J	4.5 J	2.1	3.1	ND

SA-PZ145D (50-55 ft bgs)

	Sep-10 DUP	Mar-11	Mar-11	Sep-11	Sep-12
1,1-DICHLOROETHANE	19	24	24 J	28	28

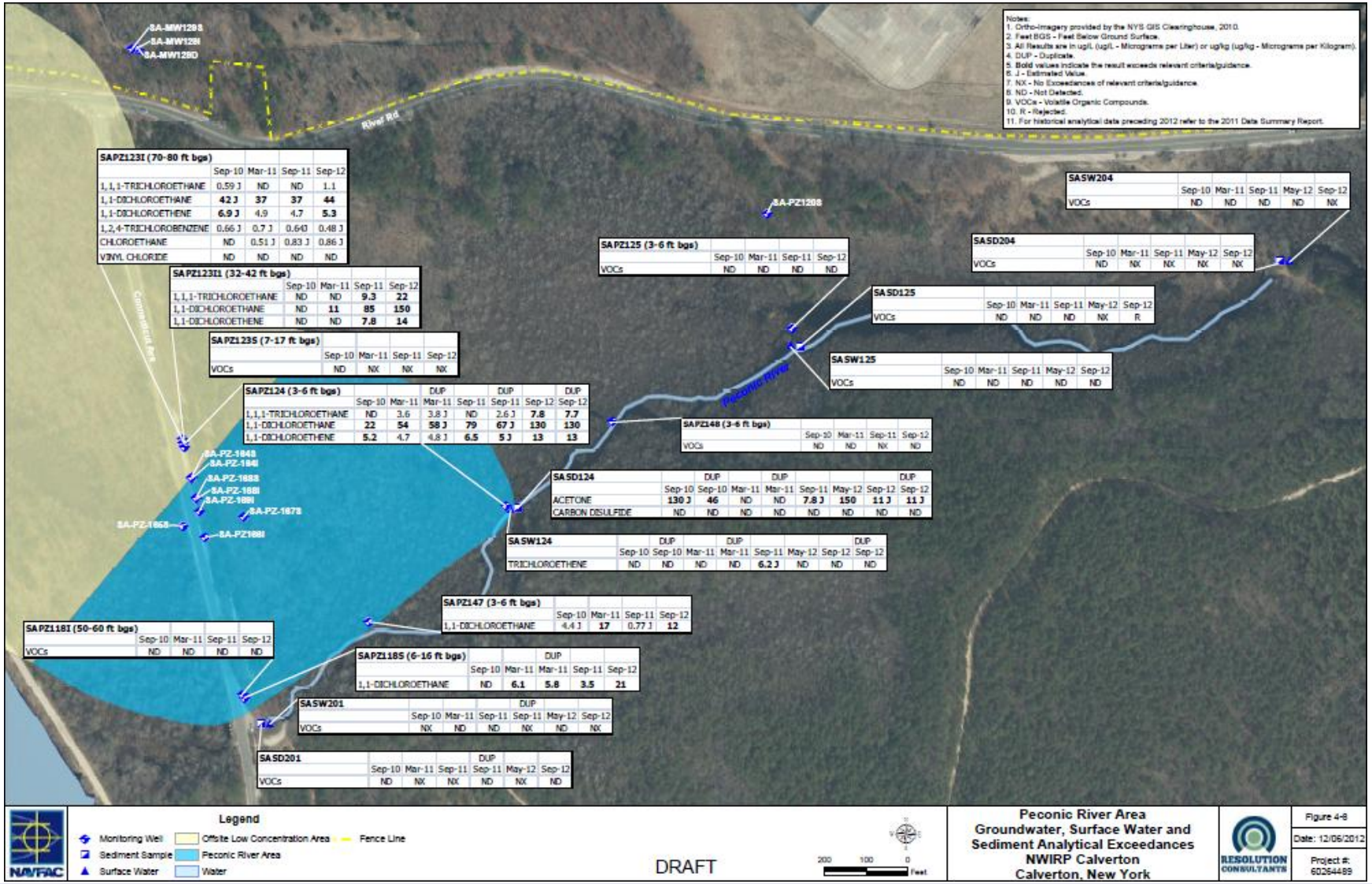
SA-PZ142I (40.5-45.5 ft bgs)

	Jun-10	Mar-11	Mar-11	Sep-11	Sep-12
1,1,1-TRICHLOROETHANE	60	35	40 J	17	66 J
1,1-DICHLOROETHANE	410	210	200	100	290
1,1-DICHLOROETHENE	21	15	17 J	9.4	28 J
CHLOROETHANE	36	27	28 J	7.8	48 J

SA-PZ143I (41-46 ft bgs)

	Jun-10	Sep-10	Mar-11	Sep-11	Sep-12
1,1,1-TRICHLOROETHANE	110	110 J	62	84	66
1,1-DICHLOROETHANE	590	600 J	390	530	430
1,1-DICHLOROETHENE	39	52 J	30	36	35
1,2,4-TRICHLOROBENZENE	ND	7.1 J	3	3.2	3.2
CHLOROETHANE	44	ND	47	40	36
VINYL CHLORIDE	2.4 J	ND	ND	ND	0.51 J

Peconic River Area Results



Summary – September 2012

- **Groundwater**
  - **Site 2 (Fire Training Area)**
    - No MCL exceedances on-site
    - Off-site exceedances include trichloroethene at 3 locations, and 1,1-DCA, 1,1-DCE, 1,2-DCE, and PCE at 1 location; source not established
  - **Sites 6A (Fuel Calibration Area) /10B (Engine Test House)**
    - Results at most locations consistent with previous round of samples
    - Concentrations at FC-PZ05I1 fell considerably, but no pattern yet established
  - **Southern Area**
    - Results at most locations consistent with previous round of samples
    - Increases at SAMW-132I, SAPZ-118S, SAPZ-142 and SAPZ-149I1, but no pattern yet established
    - Decreases at SAMW-127I, SAPZ-135I and SAPZ-138I1, but no pattern yet established

Summary (cont'd)

- **Peconic River**
  - **Sediment**
    - Except for acetone (likely lab artifact), all 2012 results are non-detect or no criteria exceedance
    - Data for one sample (SASD-125) rejected during validation (percent solids too low)
    - Results consistent with prior data
    - Only non-acetone VOC criteria exceedance to date occurred in 2010
  - **Surface Water**
    - All 2012 results are non-detect or no criteria exceedance
    - Results consistent with prior data
    - Only criteria exceedance to date was for trichloroethene in September 2011

Questions?

NAVFAC
Naval Facilities Engineering Command
NAVFAC MID-ATLANTIC

Restoration Advisory Board

Site 2 Activities and Site 6A - Southern Area Design

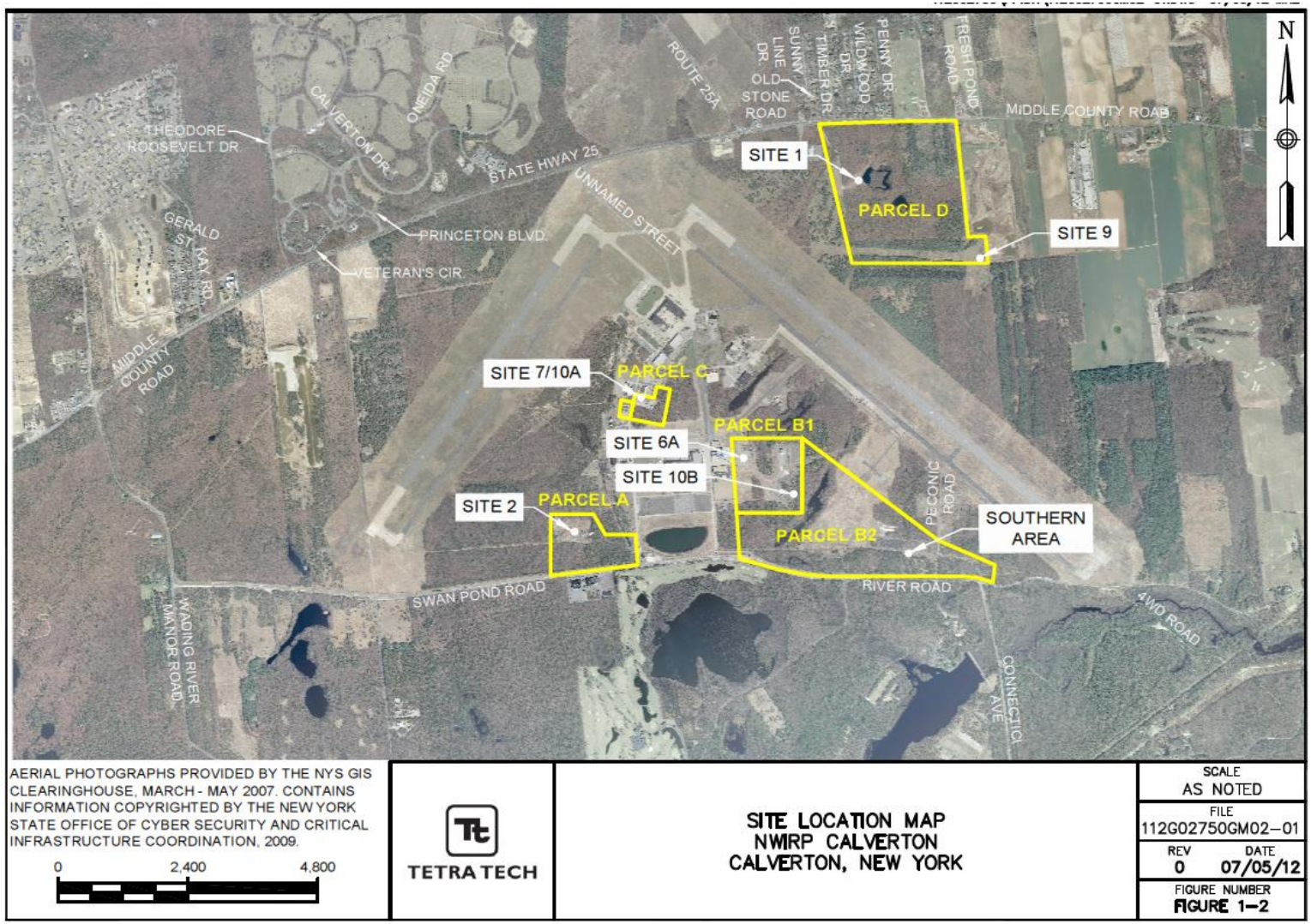
Naval Weapons Industrial Reserve Plant (NWIRP) Calverton, New York

December 6, 2012

PRESENTATION OUTLINE

- Site 2 Activities
  - –Supplemental RCRA Facility Investigation (RFI)
  - –Corrective Measures Study
- Site 6A – Southern Area Design
  - –Fence Line Treatment System Construction
  - –Trigger Value Design
- Supplemental Investigations

SITE LAYOUT


N
SITE 1
PARCEL D
SITE 9
SITE 7/10A
PARCEL C
SITE 6A
PARCEL B1
SITE 10B
SITE 2
PARCEL A
PARCEL B2
SOUTHERN AREA
THEODORE ROOSEVELT DR
CALVERTON DR
ONEIDA RD
STATE HWAY 25
ROUTE 25A
UNNAMED STREET
PRINCETON BLVD
VETERAN'S CIR
GERALD ST
KAY RD
MIDDLE COUNTY ROAD
SUNNY LINE DR
OLD STONE ROAD
TIMBER DR
WILDWOOD DR
PENNY DR
FRESH POND ROAD
MIDDLE COUNTY ROAD
PECONIC ROAD
SWAN POND ROAD
RIVER ROAD
4WD ROAD
WADING RIVER MANOR ROAD
CONNECTICUT AVE
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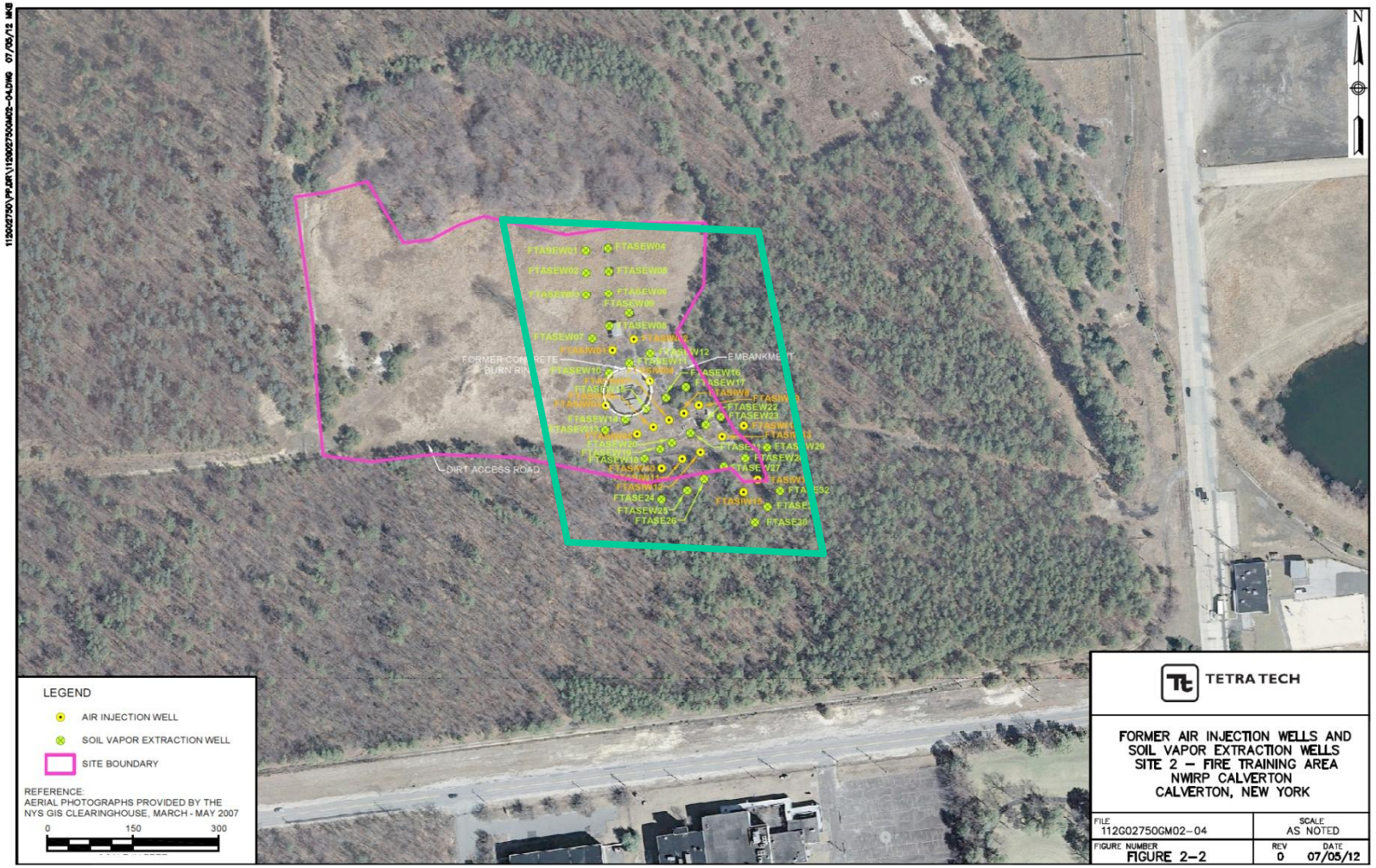
0
2,400
4,800
TETRA TECH
SITE LOCATION MAP
NWIRP CALVERTON
CALVERTON, NEW YORK
SCALE
AS NOTED
FILE
112G02750GM02-01
REV
0
DATE
07/05/12
FIGURE NUMBER
FIGURE 1-2

SITE 2 ACTIVITIES

- Site 2 – Fire Training Area, used through the mid-1990s for training
- Previous interim remedial activities consisted of:
  - Free product recovery from 1980's to 1996
  - Air sparging/soil vapor extraction from 1995 to 2000
  - Soil removal in 2008 and 2009
  - MEC Removal 2012
- Soil and groundwater investigations conducted in 2011 and 2012
- The objective was to determine whether any additional source area (soil) activities were required to determine the on- and off-property quality of groundwater
- The groundwater investigation was anticipated to be conducted in phases
- Supplemental RFI Report issued in October 2012 for review

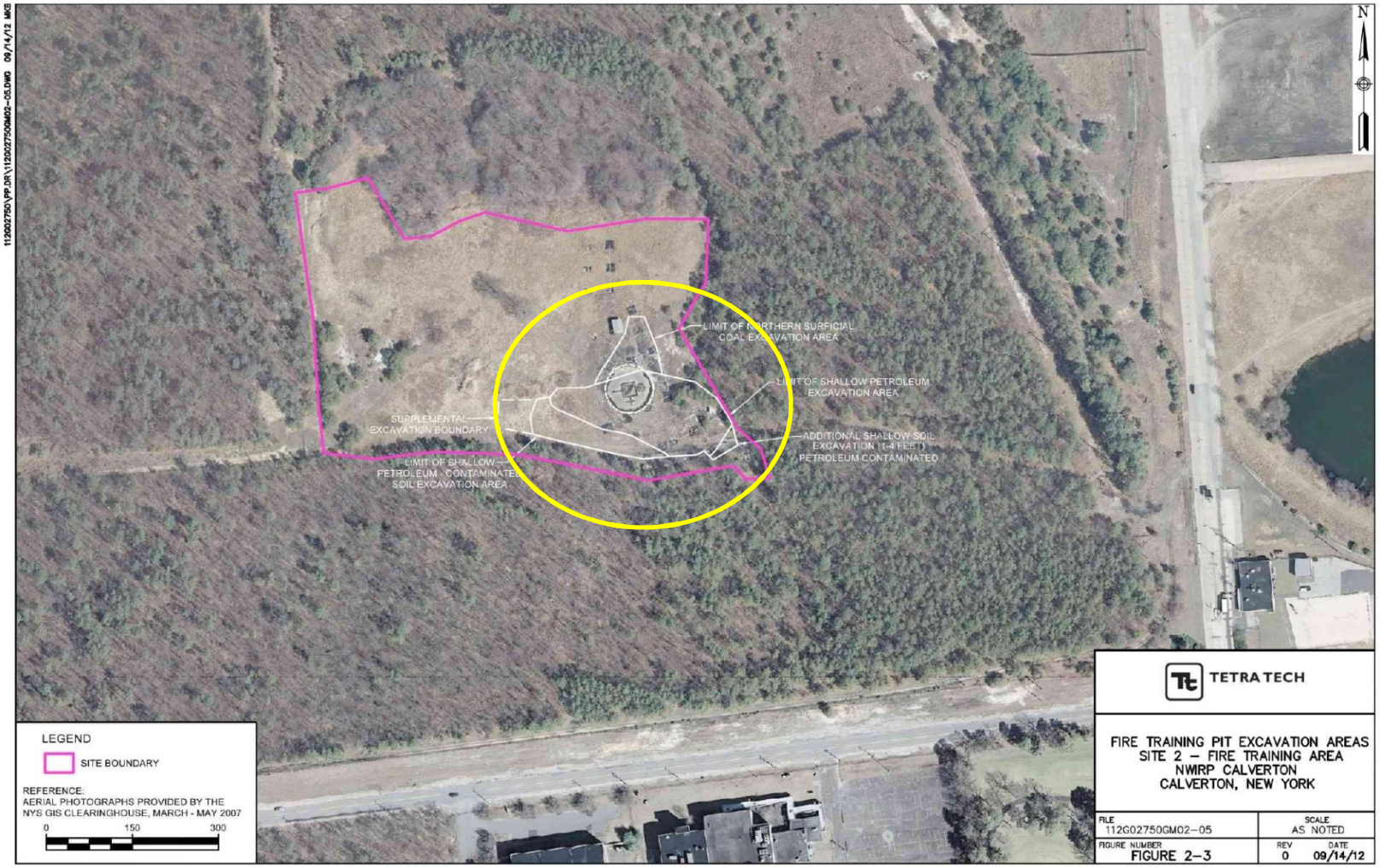
SITE 2 ACTIVITIES

Site 2 Air Sparging/Soil Vapor Extraction System



SITE 2 ACTIVITIES

Site 2 Soil Removal Activities



SITE 2 ACTIVITIES

Site 2 - 2012 Soil Sampling Activities