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MINUTES FROM 6 DECEMBER 2012 RESTORATION ADVISORY BOARD MEETING NWIRP
CALVERTON NY
3/15/2013
RESOLUTION CONSULTANTS

**RESTORATION ADVISORY 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-dichloroethene (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-PZ0511; 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-PZ14911, 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-PZ13811 (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-PZ1231I, 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 R.A.B.
Dave Bragock		IT	
Jim TARR		NAVY	
LORA FLY		NAVY	
Henry Wilkie		NY DEC	Regulator
Frank Anastasi		RAB	
LARRY ROSENMAN		DEC	
Elena Vivaricu		Regulator	
Sid Bail		Wading River Civic	regular!
Bill Guether		RAB	
John ARMENTANO		PRSC	
Andrew PARIETKA		SCDHS	
* GEORGE BASTUNEK		NFEC	
Vincent Racaniello		RAB	
Roy Feldman		SCDHS	
Ajay Shah		NY DEC	

Amanda Racaniello

Community

Sen Good

Michael Spitz - Resolution

HHS

ATTACHMENT 2

DECEMBER 6, 2012 RAB MEETING AGENDA

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.

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: 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

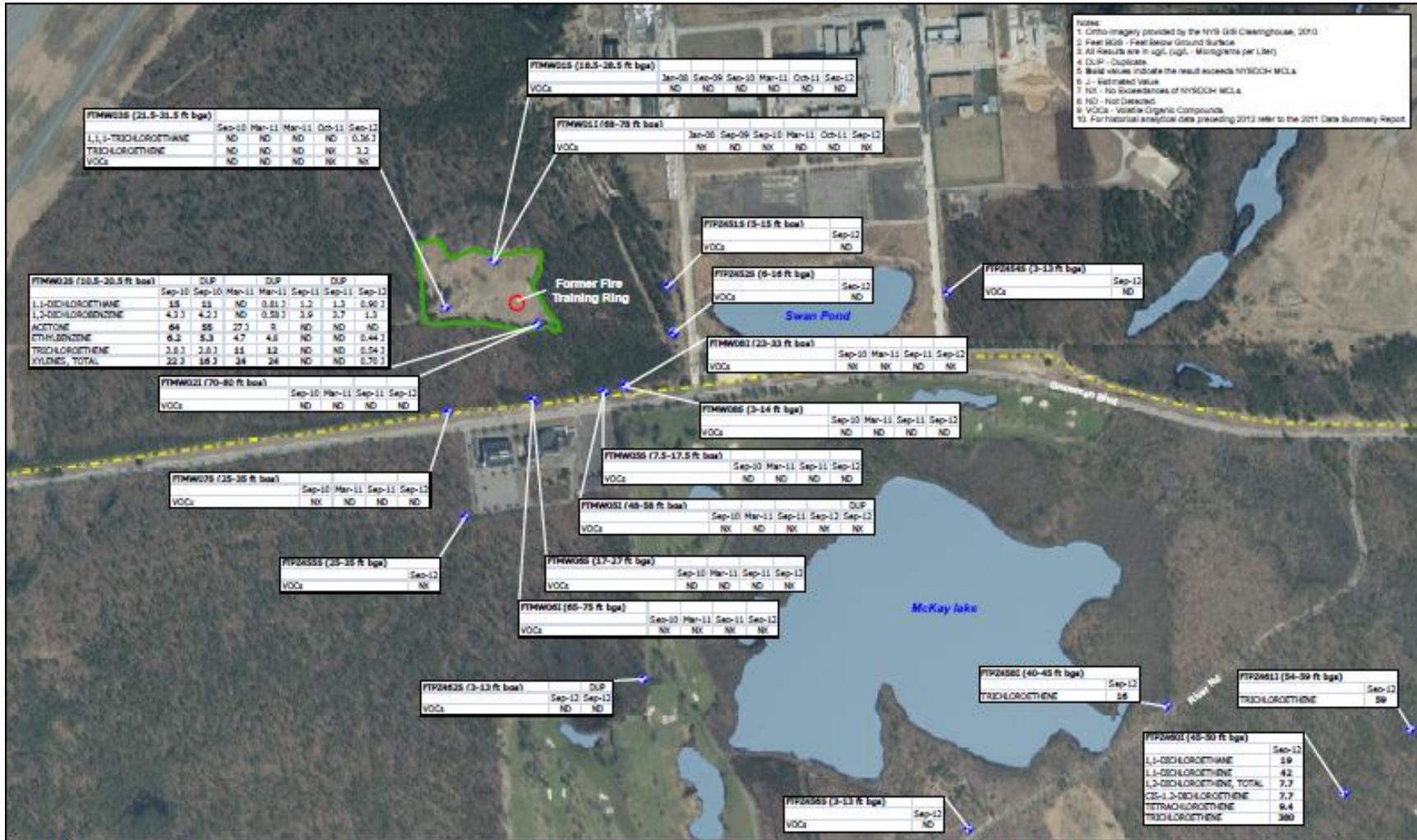


Annual Monitoring Program



- **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 Results



Groundwater Analytical Exceedances
Site 2 - Fire Training Area
NWIRP Calverton
Calverton, New York

Figure 4-1
Date: 12/06/2012
Project #: 00254459

DRAFT



Southern Area Plume Map



Ortho-imagery provided by the NYS GIS Clearinghouse, 2010.



Legend			
	Property Line		Fence Line Area
	Fence Line		Offsite Low Concentration Area
	2009/2010 Excavation Area		Offsite High Concentration Area
			Peconic River Area
			Source Area
			Water

Data Source: TetraTech, 2011

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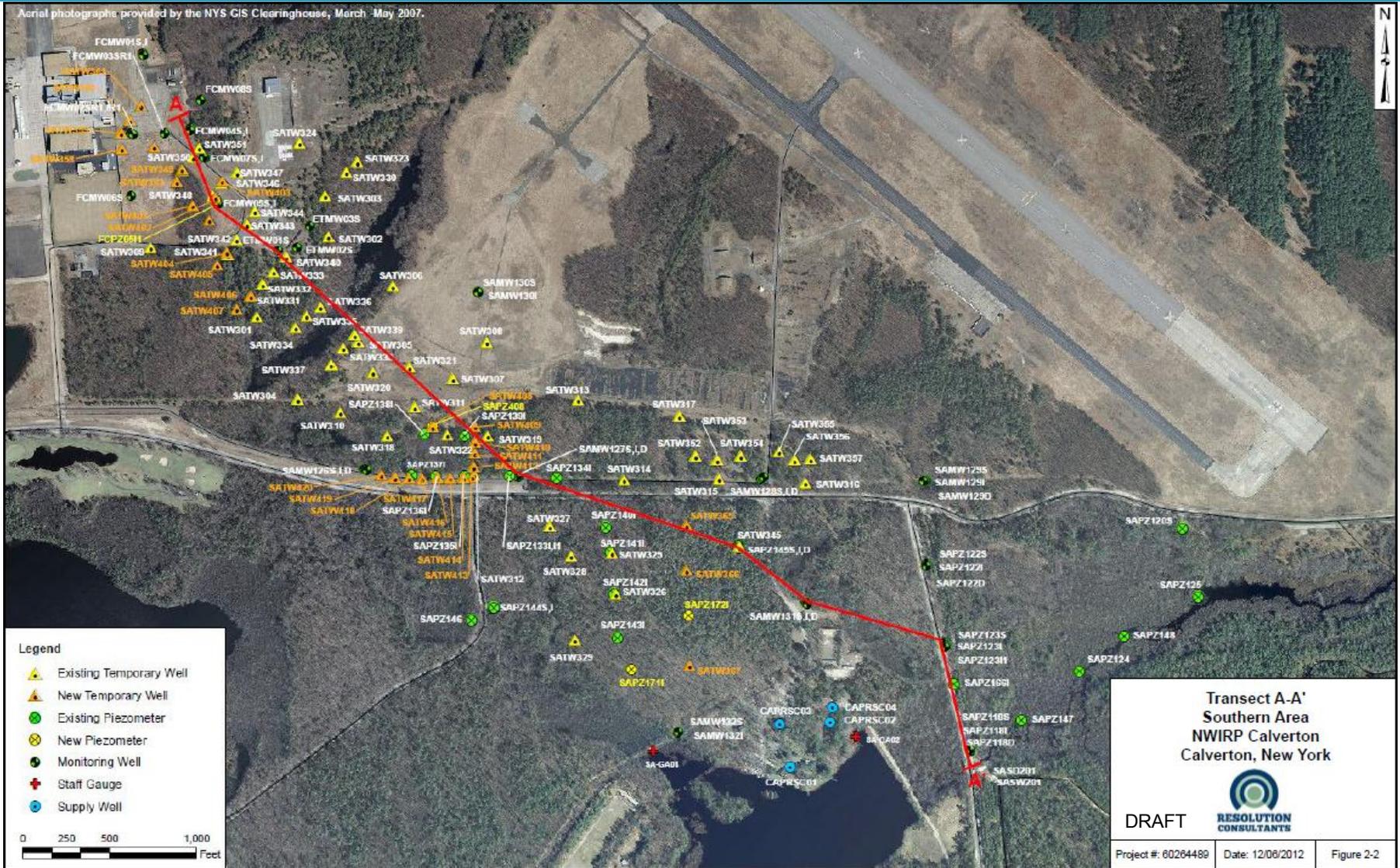


Site Layout
Site 2, Site 6A, Site 10B
and Southern Area
NWIRP Calverton
Calverton, New York



Figure 2-1
Date: 12/06/2012
Project #: 60264489

Cross-Section Location Map



Groundwater Flow (September 2011)



Aerial photographs provided by the NYS GIS Clearinghouse, March -May 2007.



Groundwater Flow (September 2012)



Ortho-imagery provided by the NYS GIS Clearinghouse, 2010.

	Monitoring Well	Fence Line	Flow Direction
	Site Boundary	Groundwater Contour (Feet MSL)	
Former Fire Training Ring	Groundwater Elevation (Feet MSL)		

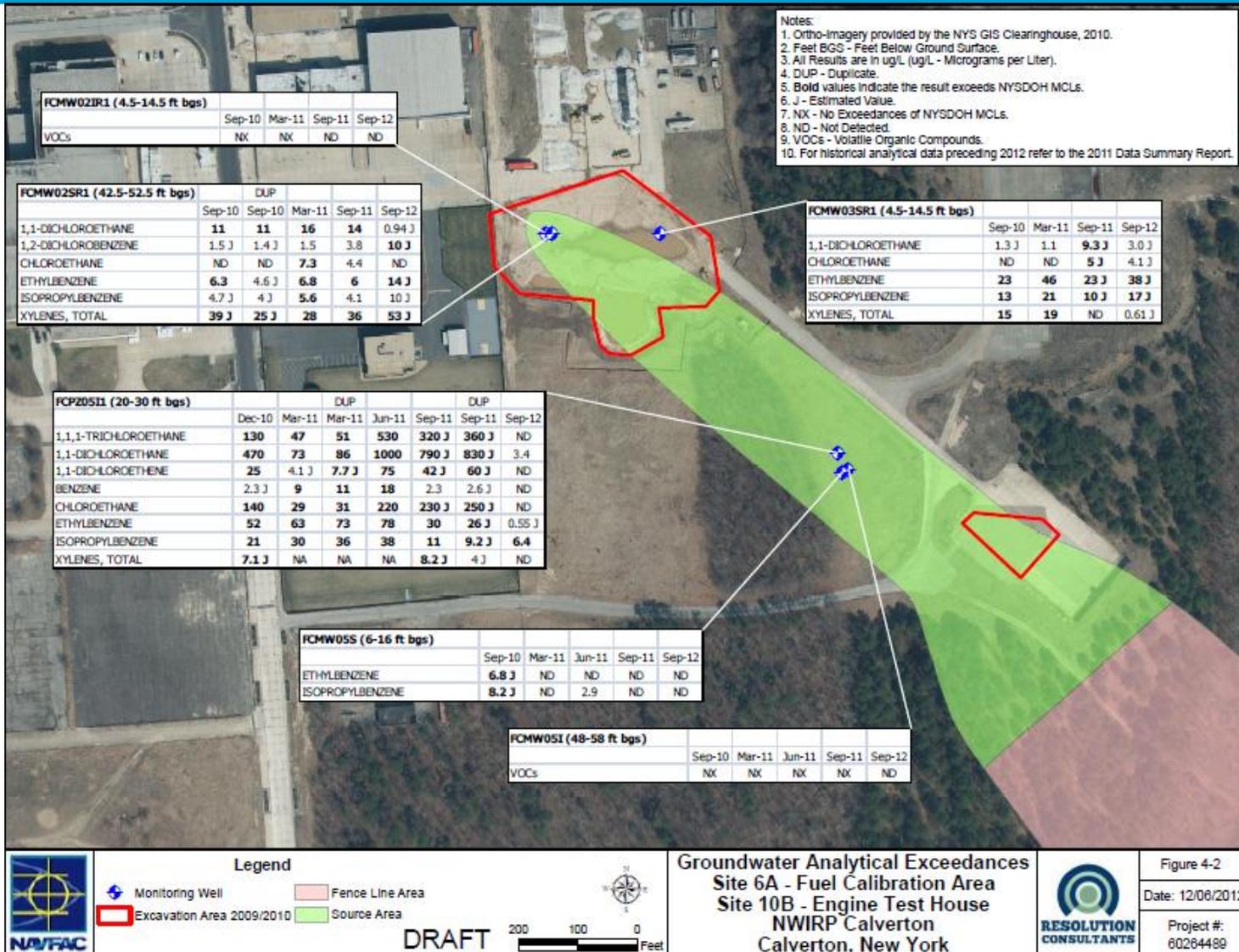
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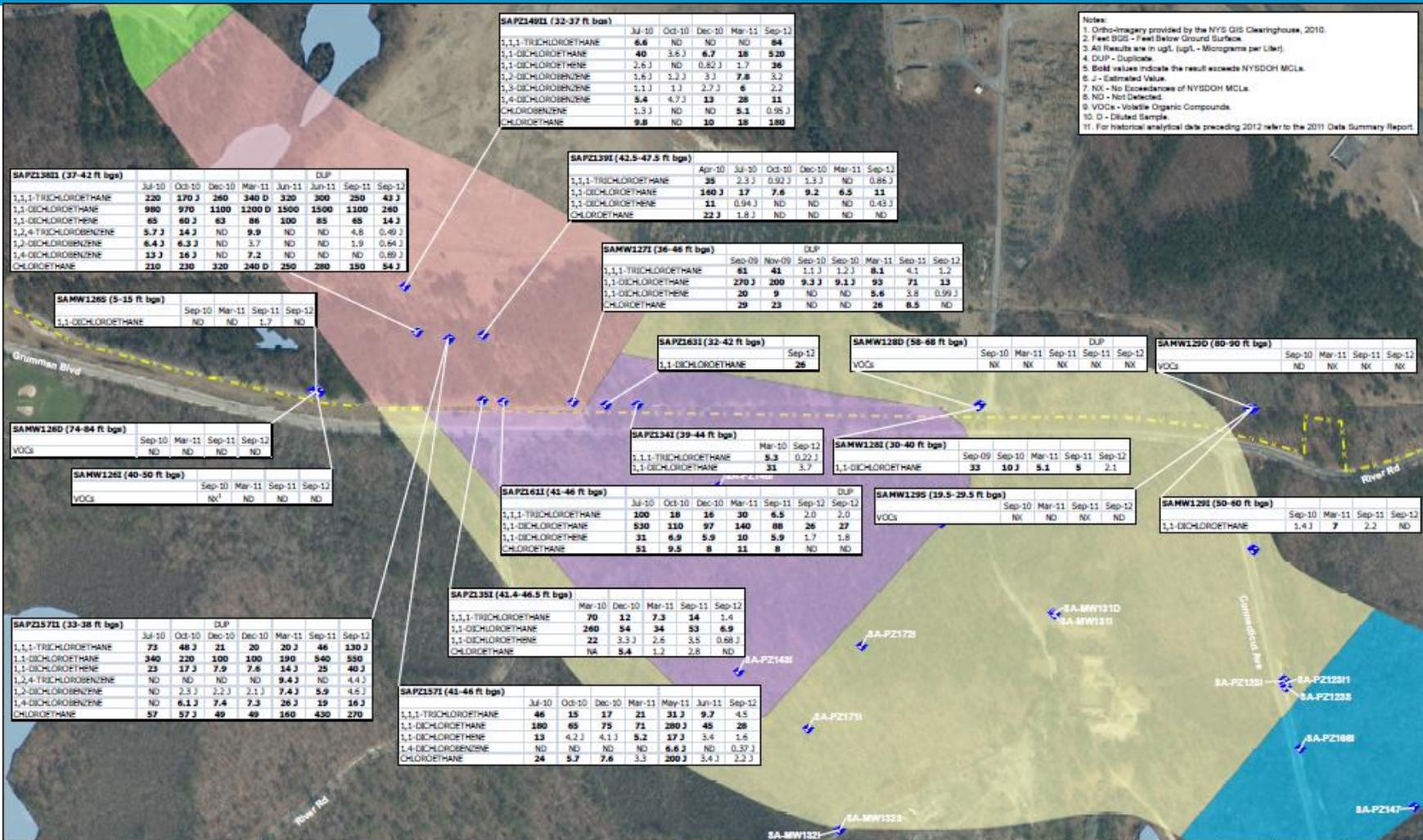
Groundwater Contours
September 14, 2012
Site 6A, 10B and Southern Area
NWIRP Calverton
Calverton, New York

	Figure 2-6
	Date: 12/05/2012
	Project #: 60264489

Site 6A Source Area Results



Fence Line Area Results



Notes:
 1. Ortho-imagery provided by the NYS GIS Clearinghouse, 2010.
 2. Feet BGS - Feet Below Ground Surface.
 3. All Results are in ug/L (ug/L - Micrograms per Liter).
 4. DUP - Duplicate.
 5. Bold values indicate the result exceeds NYSDOH MCLs.
 6. J - Estimated Value.
 7. NX - No Exceedance of NYSDOH MCLs.
 8. ND - Not Detected.
 9. VOCs - Volatile Organic Compounds.
 10. D - Diluted Sample.
 11. For historical analytical data preceding 2012 refer to the 2011 Data Summary Report.



Legend

- Monitoring Well
- Offsite High Concentration Area
- Peconic River Area
- Water
- Fence Line Area
- Offsite Low Concentration Area
- Source Area
- Fence Line

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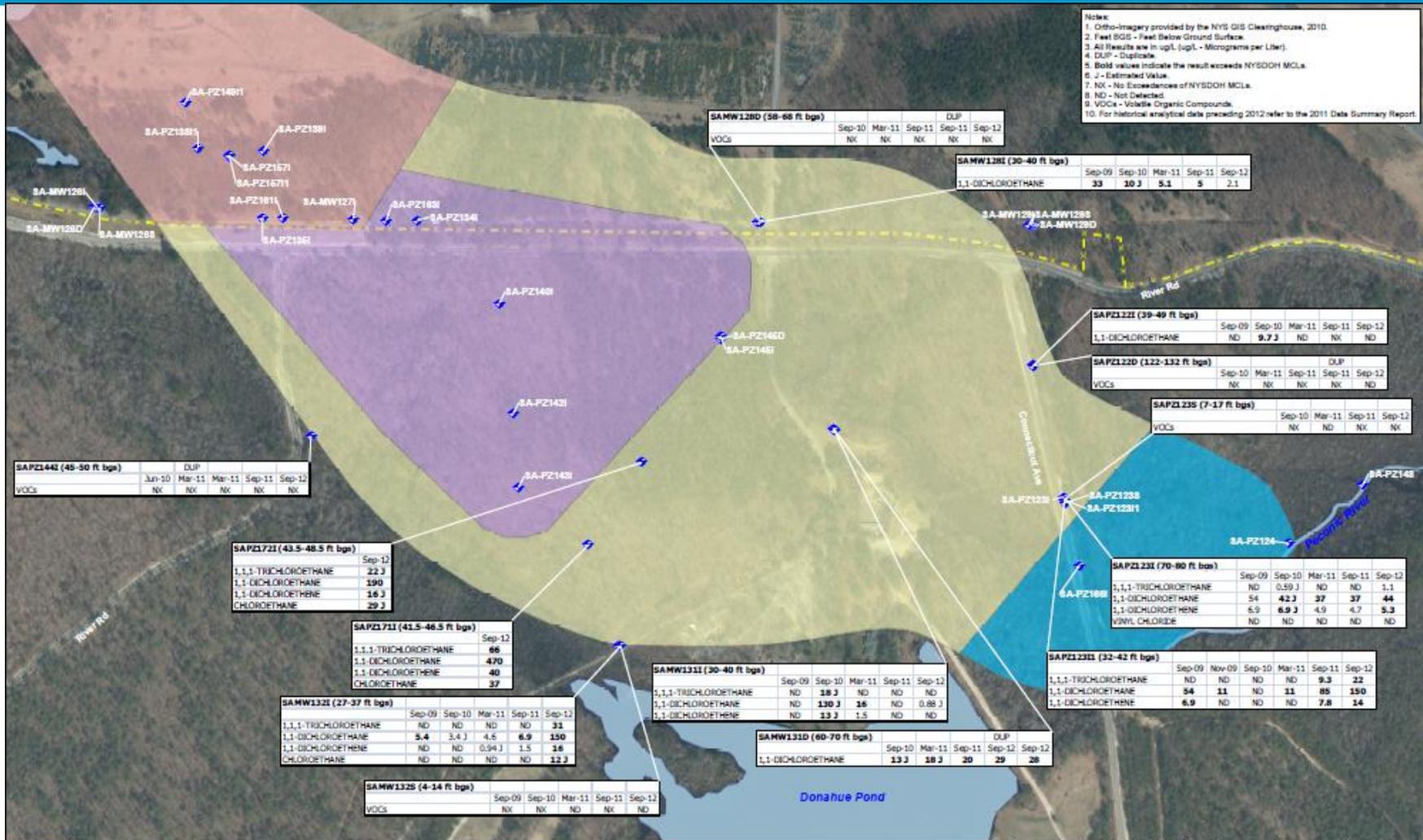


Groundwater Analytical Exceedances
Fence Line Area
and Southern Area
NWIRP Calverton
Calverton, New York



Figure 4-3
 Date: 12/05/2012
 Project #: 60264489

Off-Site Low Concentration Area Results



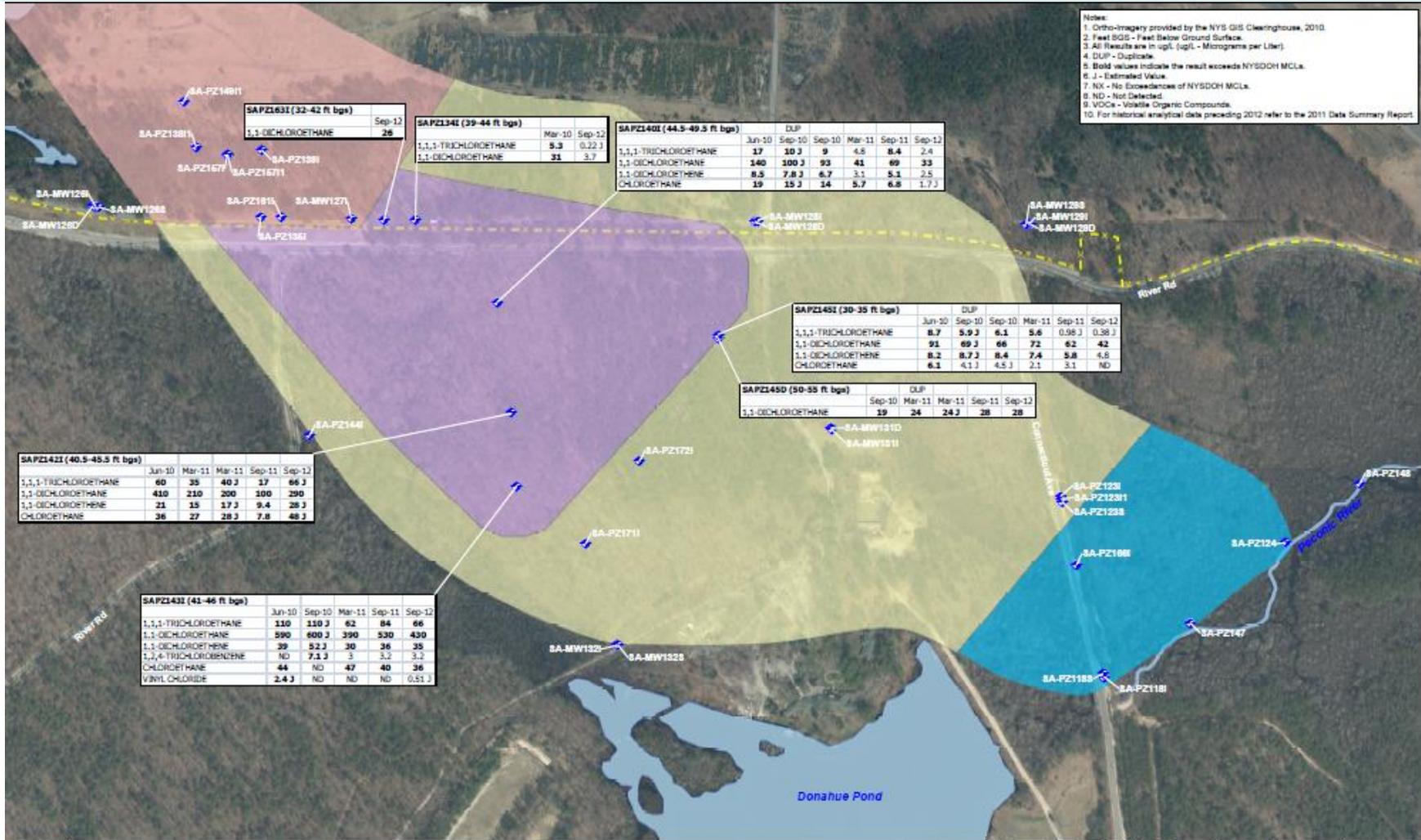
Groundwater Analytical Exceedance Offsite Low Concentration Area (5-500 ug/L) and Southern Area NWIRP Calverton Calverton, New York

Figure 4-6
Date: 12/06/2012
Project #: 60264489

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Off-Site High Concentration Area Results



Legend

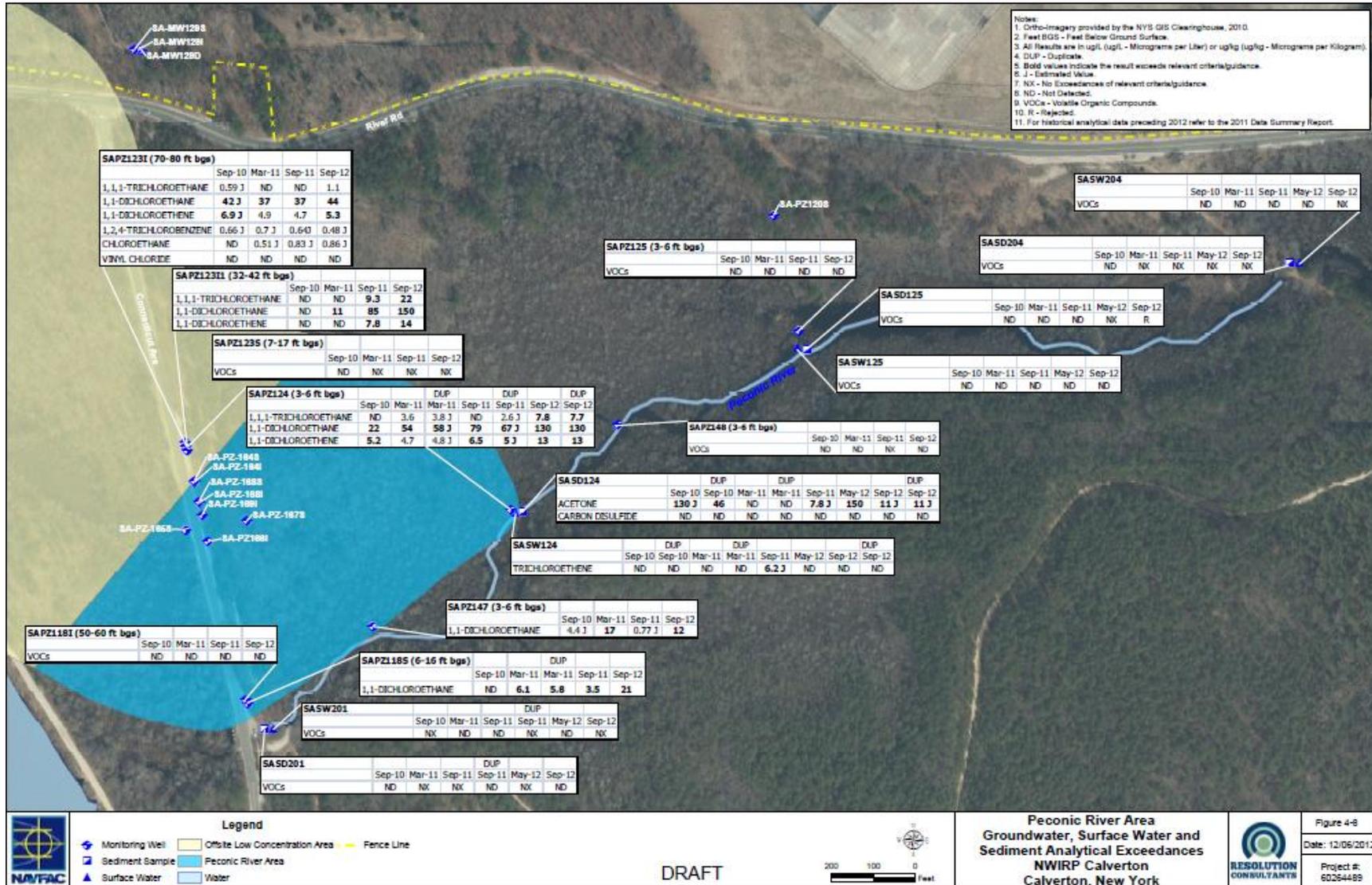
- Monitoring Well
- Fence Line Area
- Offsite Low Concentration Area
- Offsite High Concentration Area
- Water
- Peconic River Area
- Fence Line

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**Groundwater Analytical Exceedance
Offsite High Concentration Area
(>500 ug/L) and Southern Area
NWIRP Calverton
Calverton, New York**

Figure 4-7
Date: 12/05/2012
Project #: 60264489

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?



Restoration Advisory Board

Site 2 Activities and Site 6A - Southern Area Design

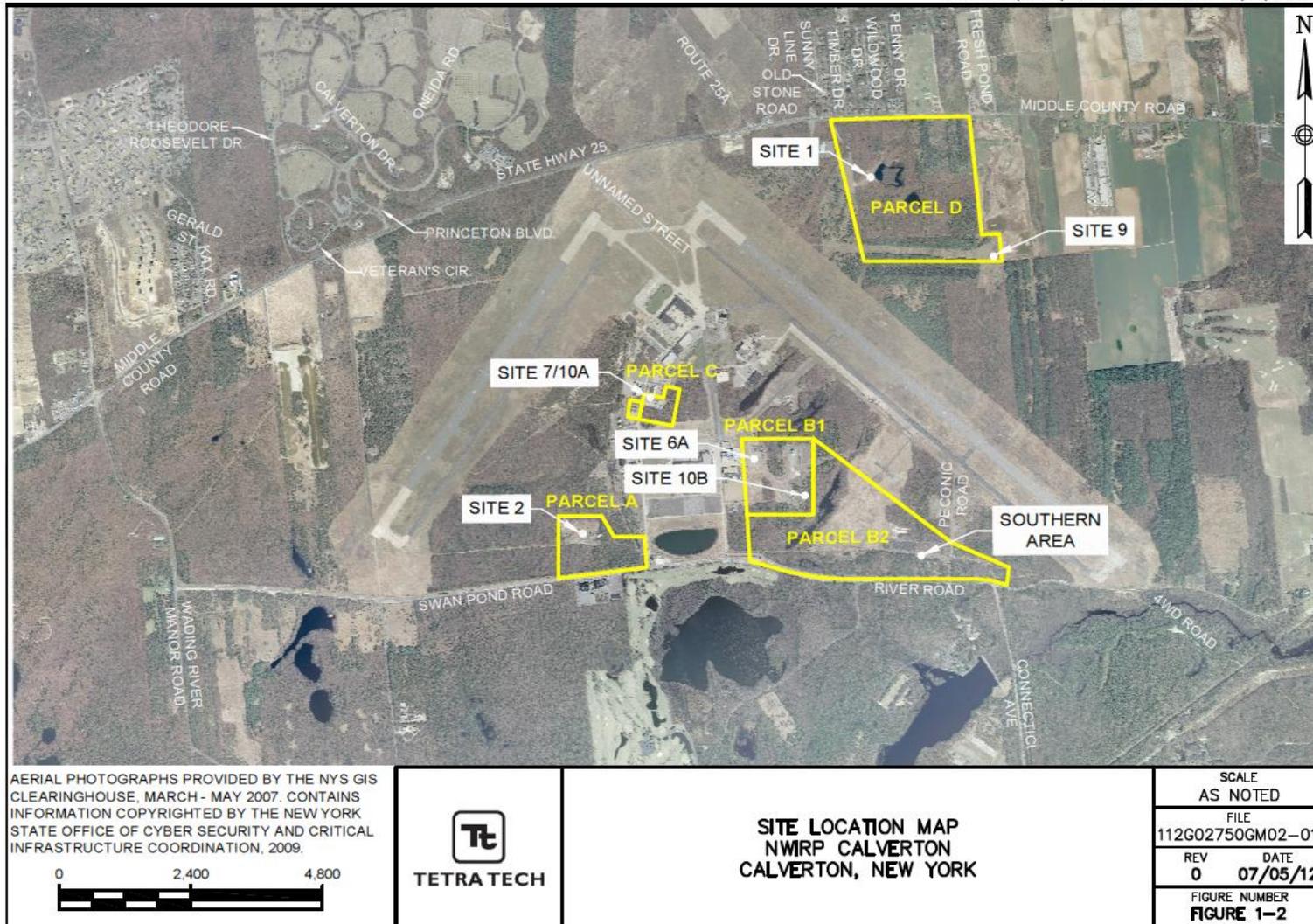
Naval Weapons Industrial Reserve
Plant (NWIRP) Calverton, New York
December 6, 2012

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



SITE 2 ACTIVITIES

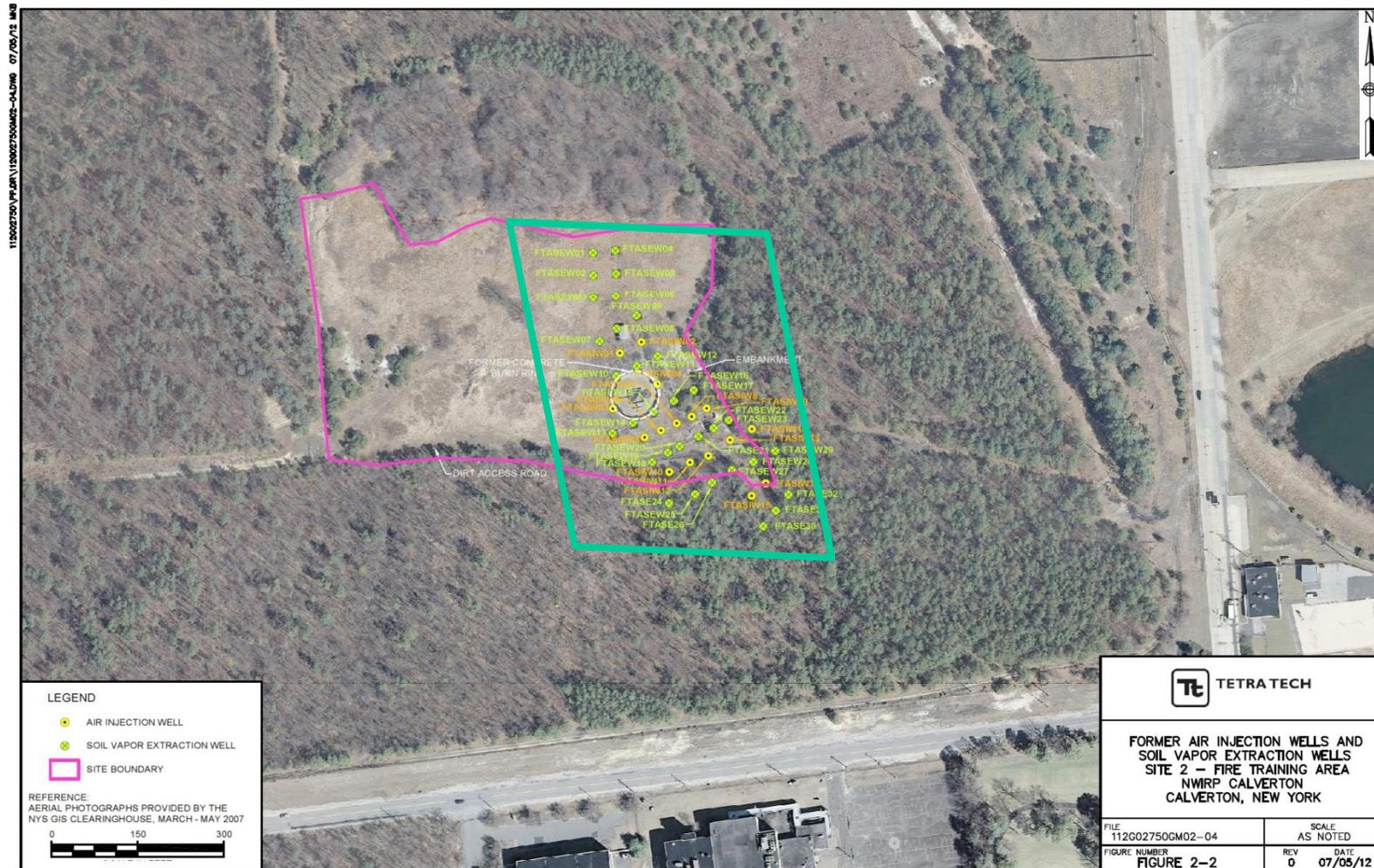


- Site 2 – Fire Training Area, used through the mid-1990s for training
- Previous interim remedial activities consisted of:
 - Free product recovery from 1980's to 1996
 - Air sparging/soil vapor extraction from 1995 to 2000
 - Soil removal in 2008 and 2009
 - MEC Removal 2012
- Soil and groundwater 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



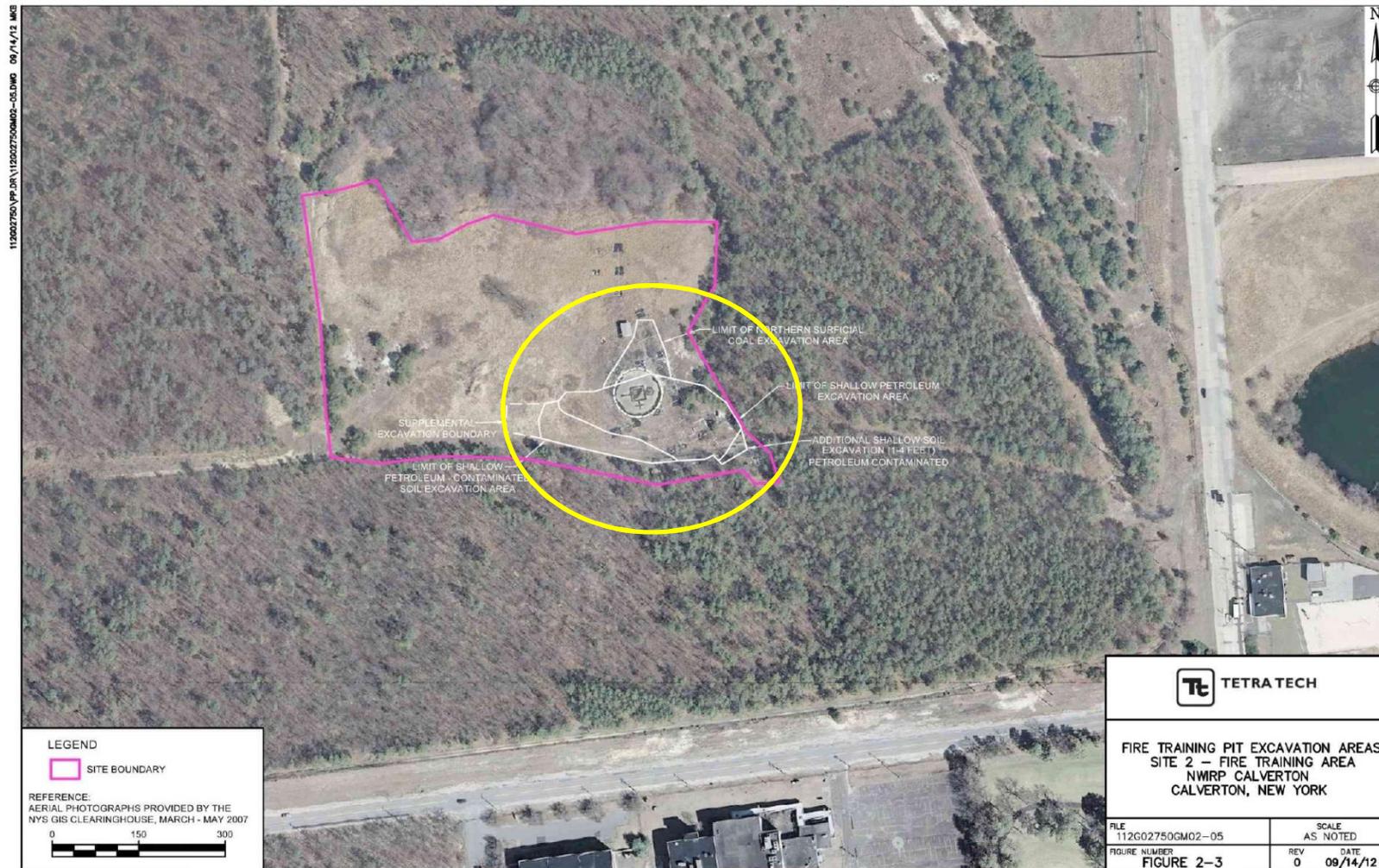
Site 2 Air Sparging/Soil Vapor Extraction System



SITE 2 ACTIVITIES



Site 2 Soil Removal Activities



SITE 2 ACTIVITIES



Site 2 - 2012 Soil Sampling Activities

