



SITE CLOSURE REPORT

FINAL

NOVEMBER 2017

Atlas S-4
FUDS Property # C02NY0209
92 Creative Way
Willsboro, New York

Prepared for:



U.S. Army Corps of Engineers
New England District
Concord, Massachusetts

Contract # W912WJ-16-C-0024

Prepared by:

A handwritten signature in black ink, appearing to read "Ryan Bilgrav".

Ryan Bilgrav
Staff Scientist

Reviewed by:

A handwritten signature in black ink, appearing to read "Kelly Giles".

Kelly Giles
Project Manager

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LIST OF ACRONYMS

bgs	below ground surface
GPR	Ground Penetrating Radar
ICBM	Intercontinental Ballistic Missile
QA/QC	Quality Assurance / Quality Control
USACE	United States Army Corps of Engineers

1.0 INTRODUCTION

Renova Environmental Services, LLC (Renova) has prepared this Site Closure Report to document activities performed at the Atlas S-4 site, located at 92 Creative Way, Willsboro, Essex County, New York (hereafter referred to as the "Site"). All work within this report has been performed under United States Army Corps of Engineers (USACE) Contract # W912WJ-16-C-0024.

2.0 SITE IDENTIFICATION

The Atlas S-4 site, identified as FUDS property number C02NY0209, is located at 92 Creative Way, approximately 1,800 feet from Lake Shore Road in the town of Willsboro, New York. It is approximately 2.1 miles west of the border shared with Vermont. The site was constructed in the early 1960's and was formerly used as a silo for the Series F Atlas missile, a missile type operationally utilized by the United States in the Intercontinental Ballistic Missile (ICBM) role between September of 1962 and April of 1966. The Atlas S-4 site was one (1) of twelve (12) missile complexes located throughout New York and Vermont assigned to the 556th SMS at Plattsburgh AFB in Plattsburgh, New York. The site is estimated to have been deactivated in 1964.

The site surface consists of two large prefabricated corrugated steel sheds, various small structures and sheds including the entrance to the Launch Control Center (LCC), and a large central entrance to the underground missile silo. The site is surrounded by perimeter fencing with an access gate at the entrance from Creative Way. There is a large grassy area at the surface of the site that was identified for a Ground Penetrating Radar (GPR) investigation, approximately 50 feet southeast of the missile silo opening.

Not visible from the surface are the LCC, a two-story underground structure approximately forty (40) feet in diameter, the underground missile silo, approximately fifty (50) feet in diameter and 185 feet deep, and an approximately forty (40) foot long underground tunnel connecting the silo and the LCC.

The overall site location is illustrated on **Figure 1** and general site features are illustrated on **Figure 2**.

3.0 SCOPE OF WORK

Documentation provided to Renova by USACE indicated that the property is currently privately owned by Mr. Anthony L'Esperance. Photographs and other documentation of the area provided by USACE is included as **Appendix A**. The scope of work included the following tasks:

- Perform geophysical investigation using GPR at area of suspected 10,000-gallon diesel tank, approximately 100 feet by 2000 feet; and,

- Perform test pit(s) as needed at the suspected UST area to verify if the tank remains in the ground.

4.0 PREPARATORY SITE MEETING

On June 19, 2017, Mr. Mikhail Gutchigian, the project Quality Assurance / Quality Control (QA/QC) Manager, held a preparatory phase meeting. Renova reviewed the scope of the project and ensured all preparatory work had been completed.

5.0 SITE WORK

Prior to commencement of site activities, Renova notified New York 811 to perform an underground utility markout at the Site. A confirmation for the markout is included as **Appendix B**.

Renova mobilized to the Site along with Subterra Locating Services (Subterra) of Colchester, Vermont on June 21, 2017 to perform a geophysical investigation at the location of the suspected UST.

The area to be investigated was scanned with a GPR device and magnetometer. Due to vegetation and tree cover, the use of the GPR was limited in the investigation area. No targets consistent with the size or shape of a UST were identified during the GPR investigation. Renova advanced four (4) test pits in the area of investigation (TP-1 through TP-4). A 4" pipe of unknown origin was discovered in TP-1. A linear anomaly approximately three (3) feet bgs was identified during the investigation; TP-3 was advanced in the area of the anomaly, where a bundle of abandoned electric cables was unearthed. A metal object was identified with the use of a magnetometer; TP-4 was advanced in the area of the object, where buried concrete was exposed.

Site photographs are included as **Appendix C**. A copy of Subterra's GPR Survey Report is included as **Appendix D**.

6.0 CONCLUSION

As part of USACE Contract # W912WJ-16-C-0024, Renova performed a geophysical investigation at the Atlas S-4 site, located at 92 Creative Way, Willsboro, New York. Based upon the investigation and subsequent test pits, Renova did not find evidence of a UST and it is concluded that the UST has been removed at a previous date.


FIGURES

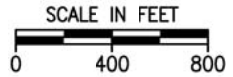
- Figure 1 – Site Overview
- Figure 2 – Detailed Site Plan



RENOVA
environmental services
3417 SUNSET AVENUE
OCEAN TOWNSHIP, NJ 07712
PHONE: (732) 659-1000
www.renovaviro.com

LEGEND:

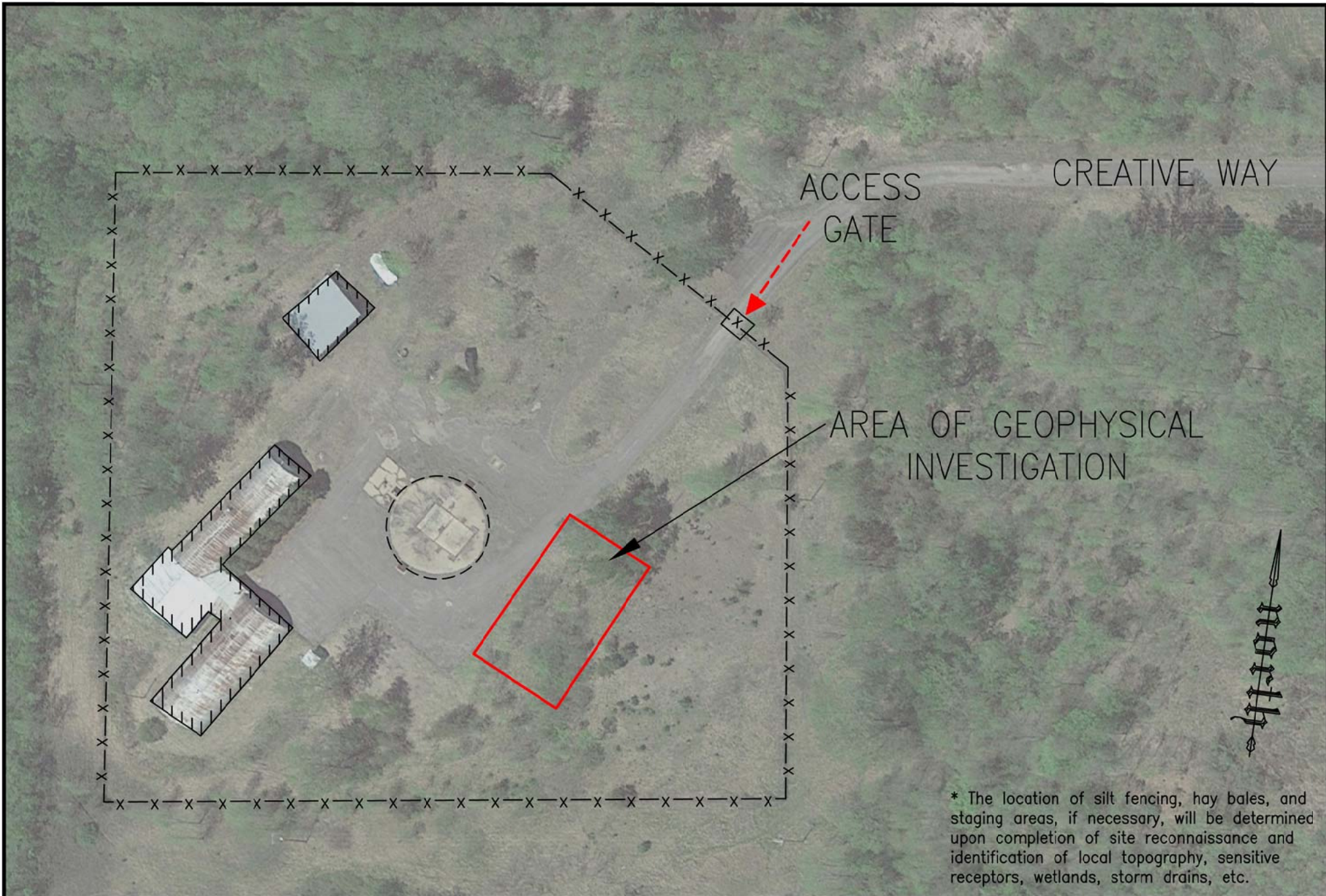
 SITE LOCATION



ATLAS S-4: WILLSBORO, NY
SITE OVERVIEW
U.S. ARMY CORPS OF ENGINEERS FY16 FUDS NY/NJ
CONTRACT #W912WJ-16-C-0024

DATE: 10/10/17

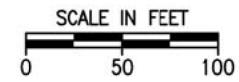
FIGURE # 1



* The location of silt fencing, hay bales, and staging areas, if necessary, will be determined upon completion of site reconnaissance and identification of local topography, sensitive receptors, wetlands, storm drains, etc.

LEGEND:

-  PERIMETER FENCING
-  FORMER MISSILE SILO
-  AREA OF GEOPHYSICAL INVESTIGATION
-  ENTRY POINT



APPENDIX A

USACE Site Photographs



US Army Corps
of Engineers

ATLAS S-4 WILLSBORO, NEW YORK FORMERLY USED DEFENSE SITES (FUDS) PROGRAM ATTACHMENT 8 - LOCATION OF PROJECT SITE



APPENDIX B

Markout Confirmation

Fwd: Response to Dig Safely New York One Call ticket 05267-184-012

1 message

Kelly Giles <kelly@renovaenviro.com>
To: Ryan Bilgrav <ryan@renovaenviro.com>

Wed, Oct 11, 2017 at 10:05 AM

Kelly Giles | Project Manager

Main: 732.659.1000 | Direct: 732.945.5133 | Fax: 732.659.1034 | kelly@renovaenviro.com

Renova Environmental Services

3417 Sunset Ave. | Ocean Twp., NJ 07712 | www.renovaenviro.com

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----- Forwarded message -----

From: <sadasupport@ufpo.org>
Date: Fri, Jun 2, 2017 at 11:21 AM
Subject: Response to Dig Safely New York One Call ticket 05267-184-012
To: kelly@renovaenviro.com

This is a message from Dig Safely New York's Automated Positive Response System (APR). Below is the response status from the facility operators associated with

Ticket # 05267-184-012

Town: WILLSBORO Address: CREATIVE WAY

TOWN OF WILLSBORO

MARKED, THE APPROXIMATE HORIZONTAL LOCATION OF UNDERGROUND FACILITIES WITHIN 15 FT OF THE EXCAVATOR DEFINED WORK AREA HAVE BEEN MARKED
Comment - No Comment

VERIZON / EAST

CLEAR, NO FACILITIES WITHIN 15 FT OF THE EXCAVATOR DEFINED WORK AREA
Comment - No Comment

NYSEG PLATTSBURGH ELECTRIC

CLEAR, NO FACILITIES WITHIN 15 FT OF THE EXCAVATOR DEFINED WORK AREA
Comment - Completed by Heath. Overhead electric.

For the most up-to-date response status please visit www.digsafelynewyork.com or call 888-DIGGERS(344-4377).

For location requests which provide the legal 2 full working days' notice, facility operators have until the stated commencement date and time to provide a response status.

APPENDIX C

Site Photographs



Photo 1: Area of geophysical investigation



Photo 2: Area of geophysical investigation



Photo 3: Monitoring well observed in investigation area

APPENDIX D

Subterra Locating Services: GPR Survey Report



GPR Survey Report

Site:

Atlas S-4 Site
92 Creative Way
Willsboro, New York 12996

Prepared For:

Mikhail Gutchigan
Renova Environmental Services
3417 Sunset Avenue
Ocean Township, New Jersey 07712

Prepared By:

Chris Ingram
Subterra Locating Services
77 Vermont Avenue
Colchester, Vermont 05446
802.557.8354
Chris@SubterraVT.com

July 7, 2017

Subterra Locating Services (Subterra) was contracted by Renova Environmental Services (Client) to perform a ground penetrating radar (GPR) survey at 92 Creative Way in Willsboro, New York to investigate a potential underground storage tank (UST). The area of interest, as located and defined by the Client, was east of the former missile silo. This inspection was performed on June 21, 2017 with both Subterra and Client personnel on-site. Subterra utilized the Utility Scan GPR unit manufactured by Geophysical Survey Systems, Incorporated (GSSI) to perform the survey.

*Disclaimer – GPR interpretation is subject to the information provided by the Client and site personnel, plans and maps, general site observations, and limiting and restrictive conditions. The following report is an overview of our best evaluation of the collected radar images based on the above conditions. If more details are discovered, our conclusions may be subject to modification.

Site Location Map



Report Findings:

- The study area was found to be covered in trees and vegetation, limiting the ability to use the GPR in this area;
- A groundwater monitoring well was discovered in the area of interest approximately 60 feet east of the former silo; several trees were cleared in this area to allow for GPR scanning;
- The Client utilized an excavator and advanced two exploratory test pits (TP-1 & T-2) to the west of the monitoring well; TP-1 was dug approximately 12' west of the monitoring well to a depth of approximately 7 feet at which point a 4" pipe of unknown origin was encountered; TP-2 was dug approximately 21 feet west of the monitoring well to a depth of approximately 6 feet at which point groundwater was encountered; the excavated material in TP-1 and TP-2 consisted of approximately 2 feet of bank run gravel followed by fine grained, well sorted sand to the bottom of the excavation; no evidence of an existing UST was found in either test pit;
- Subterra performed a series of 2-dimensional line scans throughout the study area (see Map above); however, no targets consistent with USTs were identified during the investigation;
- A linear feature was identified at a depth of approximately 3 feet below grade trending west to east from the silo towards the monitoring well; Test Pit 3 was advanced to identify the target where a bundle of abandoned electric cables was exposed;
- A magnetometer was used across the search area to identify any buried metal objects; a metal target was found approximately 44 feet east of the silo; Test Pit 4 (TP-4) was dug with the excavator to identify the target; however, the excavation revealed only pieces of concrete in the ground. No other metallic anomalies were identified in the search area.

Conclusions:

- Based on the information collected during field work (exploratory test pits, magnetic and GPR surveys, and the presence of a groundwater monitoring well), it is our opinion that the UST was removed from the Site at an earlier date.