

# **RECORD OF CONSENSUS AGREEMENT NO ACTION DECISION**

**Site 06: Abandoned Rifle Range No. 1  
NAS JRB WILLOW GROVE  
HORSHAM, PENNSYLVANIA**



**Naval Facilities Engineering Command  
Mid-Atlantic**

**Contract Number N62472-03-D-0057**

**Contract Task Order 003**

**December 2007**



**TETRA TECH NUS, INC.**

10/25/07

**Naval Air Station Joint Reserve Base  
(NAS JRB) Willow Grove  
Installation Restoration Program  
Site Screening Process  
Record of Consensus Agreement  
No Action Decision for Site 6 –  
Abandoned Rifle Range No. 1**

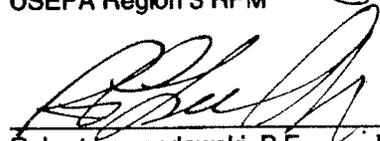
**AGREEMENT SUMMARY:**

Based on the results of the Site Screening Process (SSP) performed in accordance with the Federal Facilities Agreement (FFA) among EPA, PADEP and the Navy for the Installation Restoration (IR) program at NAS JRB Willow Grove, Horsham Township, Pennsylvania, the undersigned have reached consensus agreement that no action or further investigation is required at the Site Screening Area (SSA) known as Site 6 – Abandoned Rifle Range No. 1.

Details of the SSP results are attached to this record of agreement document (Attachment II).  
The PADEP letter of consensus is attached to this record of agreement document (Attachment III).

**SIGNATURES:**

 12/12/07  
Date  
Lisa Cunningham  
USEPA Region 3 RPM

 12/12/07  
Date  
Robert Lewandowski, P.E.  
Navy BRAC Environmental Coordinator

10/25/07

**NAS JRB WILLOW GROVE  
NO ACTION DECISION FOR SITE 6 – ABANDONED RIFLE RANGE NO. 1  
SITE SCREENING PROCESS  
CONSENSUS AGREEMENT**

**TOPIC:**

No Action Concurrence for Site Screening Area (SSA) known as Site 6 – Abandoned Rifle Range No. 1, NAS JRB Willow Grove, Horsham Township, Pennsylvania

**PURPOSE:**

The results of the Site Screening Process (SSP) at NAS JRB Willow Grove indicate that Site 6 – Abandoned Rifle Range No. 1 should be removed from further study under the Federal Facilities Agreement (FFA) for NAS JRB Willow Grove.

**BASIS AND DETAILS OF AGREEMENT:**

**Introduction**

The SSP is the mechanism defined in the FFA for NAS JRB Willow Grove for determining whether there have been releases of hazardous substances, pollutants, contaminants, hazardous wastes, or hazardous constituents to the environment from the identified SSAs, as discussed in the FFA. The SSP enables the Navy and the regulators to determine whether an SSA should proceed through the Remedial Investigation/Feasibility Study (RI/FS) process or whether the SSA should be removed from further study under the FFA. The SSP has generated sufficient data to support a No Action decision for Site 6 – Abandoned Rifle Range No. 1.

Site 6 – Abandoned Rifle Range No.1 is located adjacent to Horsham Road at the southwestern corner of the Marine Reserve Compound (see Attachment I). The Site was operational from 1942 to about 1965. The range consisted of a firing mat and an earthen rampart, which occupied approximately one acre. It is assumed that there were no provisions for removing the lead from the rampart during the operation of the range. After the range was closed, the rampart was regraded (NEESA, 1986). The Marine Reserve Training Center was constructed at the Site in 1994. The soils that were excavated for the foundation of this building were removed from Site 6 and deposited in low piles near the Commanding Officer's Quarters. The Marine Reserve Training Center and parking lot presently cover virtually all of Site 6.

### **Site Screening Process Results**

The following sections detail the results of the SSP activities for Site 6.

#### **Initial Assessment Study**

In 1986, the Naval Energy and Environmental Support Activity (NEESA) performed an Initial Assessment Study (IAS) on nine potentially contaminated sites at NAS JRB Willow Grove, including Site 6 (NEESA, 1986). The IAS consisted of a records search, field inspection, and personnel interviews.

The IAS report for Site 6 estimated that 350 pounds of lead may have been embedded in the rampart during the operation of the range, based on the rate of lead removal from the then currently operating range in the Army Reserve Facility, Building 176. Based on the low solubility of lead in groundwater and attenuation mechanisms such as adsorption on mineral surfaces and cation exchange, the report concluded that lead release to the environment from the Site was negligible. The Site was not recommended for confirmation study.

#### **Site Inspection**

In 1989, EA Engineering performed a Site Inspection (SI) on ten sites at NAS JRB Willow Grove, including Site 6 (EA Engineering, 1990).

The site reconnaissance did not reveal any particular environmental concerns at Site 6; no additional waste appeared to have been deposited at the Site. Based on soil and groundwater chemistry, it was concluded that lead release to the environment due to leaching from buried lead projectiles would be negligible. There were no analytical samples collected. Based on the findings of the IAS and the site reconnaissance, the SI report recommended no further investigations at the Site.

In June 1991, the Navy submitted a Decision Document for No Further Action at Sites 4, 6, 8, and 9 to the Pennsylvania Department of Environmental Resources, based on the findings of the IAS and the SI.

10/25/07

### **Additional Investigations**

In February 1994, the Navy collected soil samples at Site 6 prior to the construction of the Marine Corps Reserve Training Center at the Site, in order to confirm that lead contaminated soil was not present. This information was intended to support the construction of the Training Center and also the Navy's claim that no further action was warranted at the Site. Ten soil samples were collected from five locations within the proposed footprint of the building (one at each of the four corners and one in the center) and analyzed for lead (SW-846 Method 6010). The samples were collected at depths of 0 to 6 inches and 1 to 2 feet from each location. The sample analytical results are included as Attachment II.

The sample results showed a maximum lead concentration of 38 mg/kg, which is less than the statistical background upper tolerance limit (UTL) lead concentration (105 mg/kg) calculated for the Base during the Phase I RI. These sample results were submitted to EPA on September 10, 1996, as requested by the EPA Remedial Project Manager (RPM), Drew Lausch, during a site visit on August 28, 1996. Since the sample results confirmed that the soils at the Site were not contaminated, the construction of the Marine Corps Reserve Training Center proceeded and the building was completed in 1996. The soils excavated during the construction of the building were spread across the street from the Commanding Officer's Quarters, Building No. 114. This area is presently a field, which is periodically mowed by Base personnel (NAS JRB File Memorandum, December 2006).

### **Current Status**

The Pennsylvania Department of Environmental Protection (PADEP) concurred with the Navy recommendation for No Action at Site 6 (PADEP, October 2005) (Attachment III).

At the scheduled December 19, 2006 Navy Willow Grove IRP Partnering Team Meeting, the Navy provided a summary discussion of review documentation and presented a status update for Site 6. All available past investigation results, correspondence and notes were summarized and recommendations for future actions were presented for discussion among the team. EPA expressed concern regarding the possibility of groundwater lead contamination at Site 6. In response to EPA's concern, the Navy reviewed and summarized the groundwater sample results for Site 5 monitoring wells in the vicinity of Site 6 in an e-mail correspondence (TtNUS, April 17, 2007) to all parties. The review revealed no evidence of lead contamination potentially attributable to Site 6.

10/25/07

During discussion among the Navy, EPA and PADEP at the June 2007 NAS JRB Willow Grove IRP Partnering Team Meeting, it was decided that the Navy would prepare and present this site screening process consensus agreement document for No Action at Site 6 for signatures by EPA and the Navy.

**REFERENCES:**

Baker, Lorie, EPA, to Jim Colter, Navy. 1999. Electronic correspondence. March 10.

Colter, James, to Robert Lewandowski. 1994. Electronic correspondence. Trip Report for Visit to NAS Willow Grove, PA. February 23.

Colter, James, Navy, to Drew Lausch, EPA. 1996. Correspondence. September 10.

Colter, James, Navy, to Lorie Baker, EPA. 1999. Electronic correspondence. March 12.

Colter, James. 1994. Trip report for visit to NAS Willow Grove, PA. February 23.

EA Engineering, Science, and Technology, Inc. 1990. Site Inspection Studies at NAS Willow Grove, Horsham Township, Pennsylvania. May.

Edmond, James. 2006. File Memorandum: Soil Removal at Naval Air Station Joint Reserve Base, Willow Grove, Navy Site No. 6, Abandoned Rifle Range No. 1. December 18.

Flipse, April, PADEP, to Mr. James R. Edmond, Navy, NAS JRB Willow Grove. 2005. Correspondence. October 31.

Naval Energy and Environmental Support Activity. 1986. Initial Assessment of Naval Air Station, Willow Grove, Pennsylvania. February.

Naval Facilities Engineering Command, Engineering Field Activity Northeast. 1991. Decision Document for No Further Action at Sites 4, 6, 8, and 9. June 14.

Sheckels, T.G., Navy, to Bruce Beitler, Pennsylvania Department of Environmental Resources. 1991. Correspondence. June 20.

10/25/07

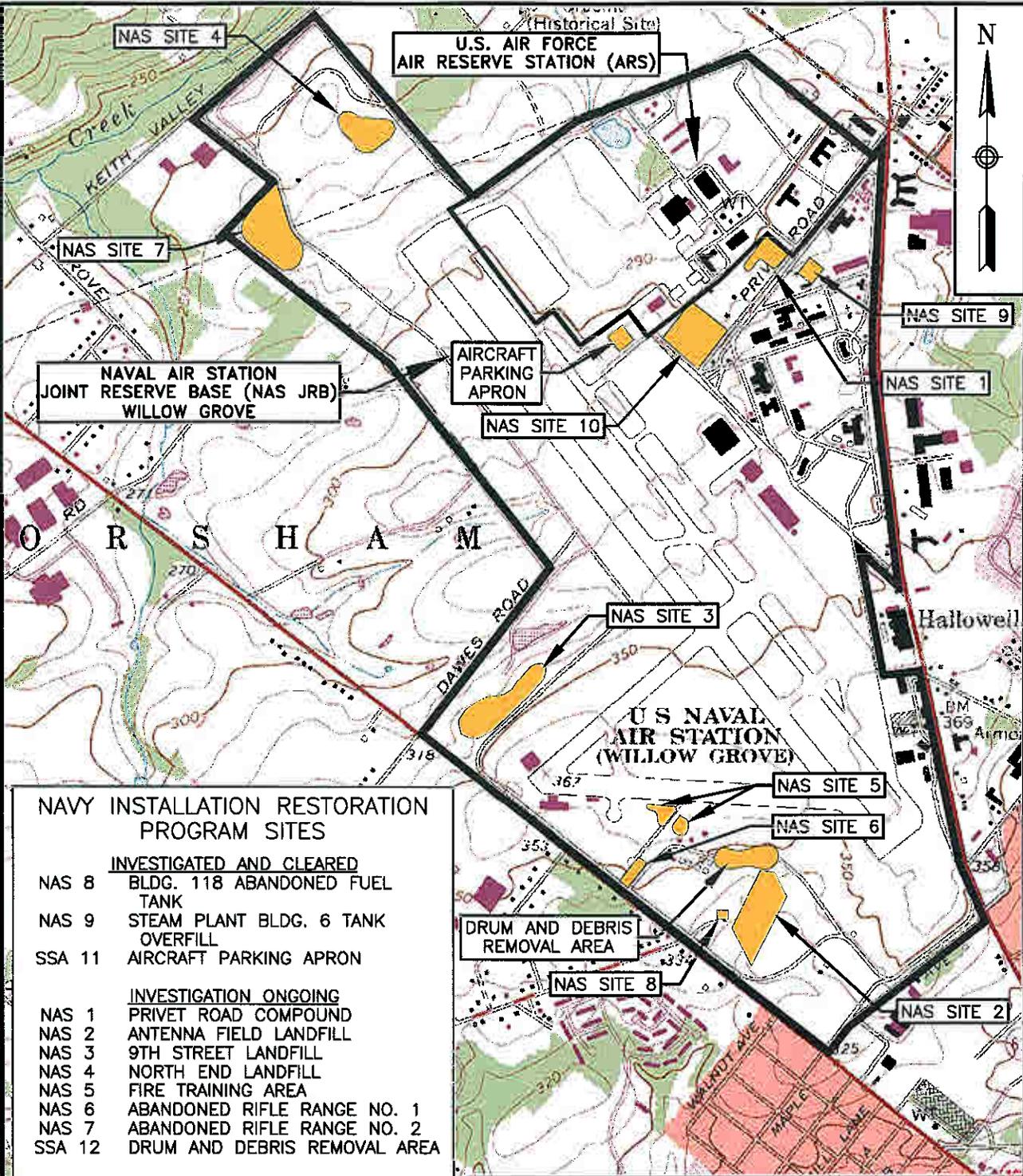
Turner, Russell, TtNUS, to Curtis Frye, Navy. 2007. Electronic correspondence. April 17.

**ACRONYMS:**

µg	Micrograms
µg/kg	Micrograms per kilogram
µg/l	Micrograms per liter
BTAG	Biological Technical Assistance Group
EPA	Environmental Protection Agency
FFA	Federal Facilities Agreement
IAS	Initial Assessment Study
IRP	Installation Restoration Program
mg	Milligrams
mg/kg	Milligrams per kilogram
NAS JRB	Naval Air Station Joint Reserve Base
NEESA	Naval Energy and Environmental Support Activity
NFA	No Further Action
PADEP	Pennsylvania Department of Environmental Protection
RPM	Remedial Project Manager
SI	Site Inspection
SSA	Site screening areas
SSP	Site screening process
RI/FS	Remedial Investigation/Feasibility Study
TtNUS	Tetra Tech NUS, Inc.
USEPA	United States Environmental Protection Agency
UTL	Upper tolerance limit
VOCs	Volatile organic compounds

# **ATTACHMENT I**

2192 WillowGrove\04-30\2192CM01.DWG 10/01/07 MKB



NAVY INSTALLATION RESTORATION PROGRAM SITES	
<u>INVESTIGATED AND CLEARED</u>	
NAS 8	BLDG. 118 ABANDONED FUEL TANK
NAS 9	STEAM PLANT BLDG. 6 TANK OVERFILL
SSA 11	AIRCRAFT PARKING APRON
<u>INVESTIGATION ONGOING</u>	
NAS 1	PRIVET ROAD COMPOUND
NAS 2	ANTENNA FIELD LANDFILL
NAS 3	9TH STREET LANDFILL
NAS 4	NORTH END LANDFILL
NAS 5	FIRE TRAINING AREA
NAS 6	ABANDONED RIFLE RANGE NO. 1
NAS 7	ABANDONED RIFLE RANGE NO. 2
SSA 12	DRUM AND DEBRIS REMOVAL AREA
<u>CLEANUP COMPLETED</u>	
NAS 10	NAVY FUEL FARM

BASE MAP IS A PORTION OF THE AMBLER, PA U.S.G.S. 7.5 MINUTE QUADRANGLE MAP, DATED 1963, PHOTOREVISED IN 1983.



**SITE LOCATION MAP  
NAS JRB WILLOW GROVE  
WILLOW GROVE, PENNSYLVANIA**

SCALE AS NOTED	
FILE 2192CM01.DWG	
REV 0	DATE 09/27/07
FIGURE NUMBER <b>FIGURE 1</b>	

## **ATTACHMENT II**

## MEMORANDUM FOR RECORD

**Subject: Soil Removal at Naval Air Station Joint Reserve Base,  
Willow Grove, Navy Site #6, Abandoned Rifle Range #1**

Navy Site #6, Abandoned Rifle Range #1 was originally constructed in 1942 used as a rifle range from 1942-1965. The site was part of the Initial Assessment (IA) dated January 1986. The IA stated that there was no accurate date on the demolition of the range. It went on to state. At that time, the revetment was gone and probably was leveled and graded before the expansion of the runway in 1965.

In 1994 a construction project for a Marine Corps Reserve Center was designed. Soil samples were taken per my request by Wright Lab Service Inc. in late February-early March of 1994 for pre-construction NEPA documentation. Results are attached.

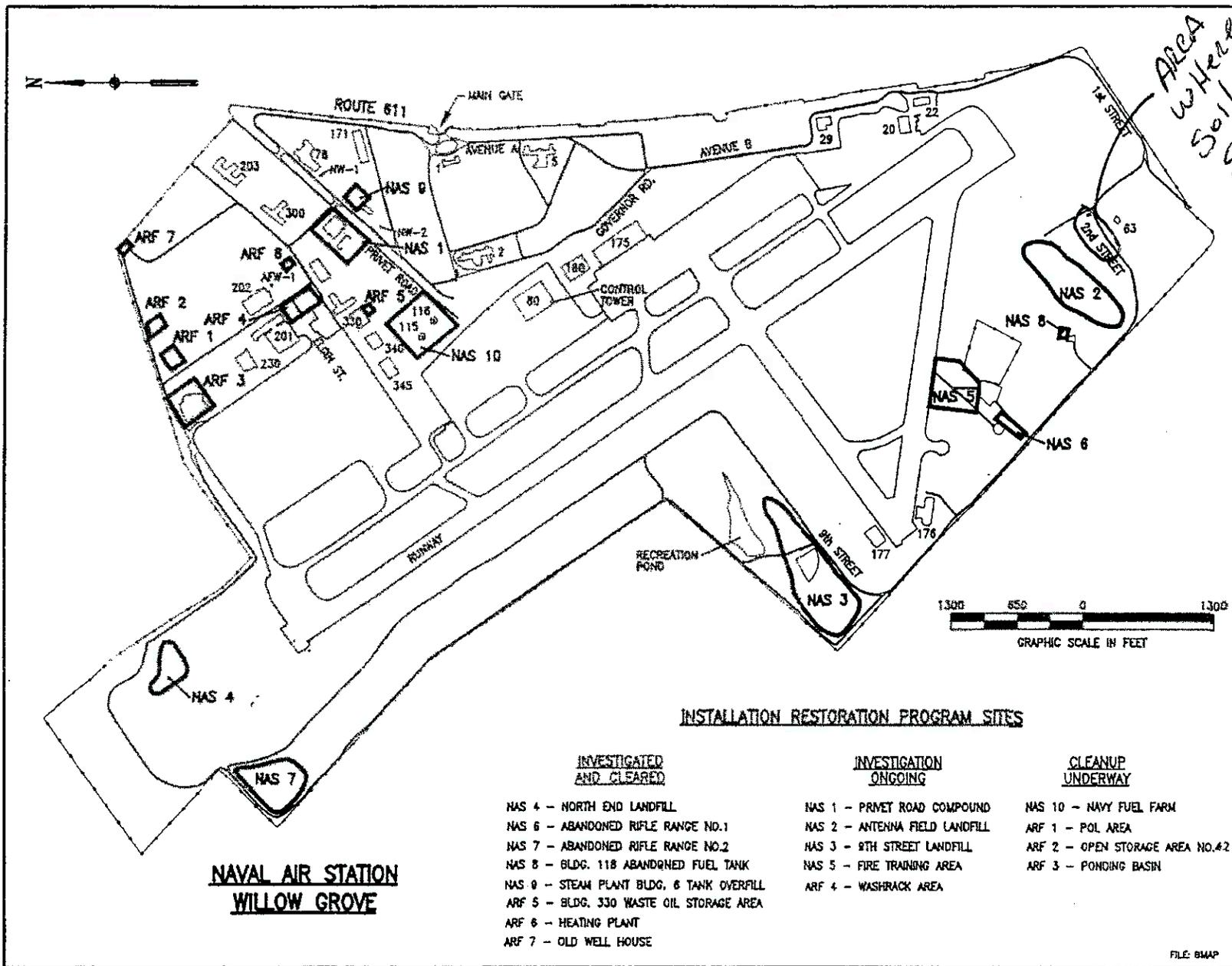
In 1996 a construction project was completed on top of the site. The Marine Corps Reserve Center now sits directly over the abandoned rifle range. As part of the construction contract the excavated soils were held on station and spread across the street from the Commanding Officers Quarters, building #114 (see map for location). I recently spoke with LCDR Scott Kosnick, who then as Ensign Kosnick, was part of the Naval Facilities Command, Northern Divisions Resident Officer in Charge of Construction staff. He was the contract officer in charge of the Marine Corps Reserve Center construction project. He remembered that the air station had requested a change order that gave permission for the construction contractor to leave dirt on station for other considerations in regards to the construction contract. This is a common practice. The dirt was spread by reserve Navy Seabees at its present location.

The area is now a in a meadow type condition and is periodically mowed by NAS JRB Willow Grove personnel.



18 December 2006

James Edmond  
Environmental Coordinator  
Naval Air Station Joint Reserve Base, Willow Grove



**NAVAL AIR STATION  
WILLOW GROVE**

**INSTALLATION RESTORATION PROGRAM SITES**

**INVESTIGATED  
AND CLEARED**

- NAS 4 - NORTH END LANDFILL
- NAS 6 - ABANDONED RIFLE RANGE NO.1
- NAS 7 - ABANDONED RIFLE RANGE NO.2
- NAS 8 - BLDG. 118 ABANDONED FUEL TANK
- NAS 9 - STEAM PLANT BLDG. 6 TANK OVERFILL
- ARF 5 - BLDG. 330 WASTE OIL STORAGE AREA
- ARF 6 - HEATING PLANT
- ARF 7 - OLD WELL HOUSE

**INVESTIGATION  
ONGOING**

- NAS 1 - PRIVET ROAD COMPOUND
- NAS 2 - ANTENNA FIELD LANDFILL
- NAS 3 - 9TH STREET LANDFILL
- NAS 5 - FIRE TRAINING AREA
- ARF 4 - WASHRACK AREA

**CLEANUP  
UNDERWAY**

- NAS 10 - NAVY FUEL FARM
- ARF 1 - POL AREA
- ARF 2 - OPEN STORAGE AREA NO.#2
- ARF 3 - PONDING BASIN

006

23 February 1994

From: Code 1821/JLC  
To: Code 1821/RFL

Subj: TRIP REPORT FOR VISIT TO NAS WILLOW GROVE, PA

Ref: (a) Phoncon btwn. Mark Wolfe (NorthDiv Activity Manager) and James Colter (NorthDiv, Code 1821) on 17 Feb 94

1. Mark Wolfe initiated reference (a) to discuss siting of a BRAC project for the Marines near the existing Marine Reserve Compound located on the south side of the base adjacent to Horsham Road. This is to be a fast-tracked project with the planning and conceptual design being done at NAS Willow Grove over a few day period.
2. Mark wanted to know if environmental would have any problem approving a site for this project somewhere between Taxiway J and the Marine Compound. I told him that this area is an active IR site currently under investigation (Site 5 - Fire Training Area). He wanted to know if it was a law that we can not site a project on an IR site. I informed him that it wasn't a law but it was our general rule of thumb that environmental would recommend against siting on an IR site and that planning would disapprove the site on that basis.
3. A few hours later, Mark called again and asked about a location to the south of the Marine Compound and north of the fence line. I told him that this was labeled as an IR site in the IAS (Site 6 - Abandoned Rifle Range #1) but that Code 18 has since determined that no further action was necessary at this site based on an SI which was done on this site. I told him that siting a project on this site was possible but that caution would be needed since neither PADER or the EPA has given their concurrence regarding our designation of the site. He then asked if I could go up there on Friday, February 18 to take a look at the site and talk with the A/E. I told him that I would.
4. On Friday, February 18, 1994, Mark Leipert and I went to NAS Willow Grove and met with Mark Wolfe and Mr. Eugene Ogozalek, principal of the design A/E firm Quad Three Group Incorporated. I explained that we are not sure of the exact location of Site 6 since the map presented in the SI report had no scale and very few landmarks to work off of. However, based on their conceptual layout of the building, it looked like the siting was very close, if not, on top of the old backstop for the old rifle range which has been out of commission since about 1965. They asked if this site could be used and my reply was that I didn't see why it couldn't be used but that I was concerned about encountering lead contaminated soil since the SI recommended no further action without any analytical data, such as soil samples, to back up the recommendation.

Subj: TRIP REPORT FOR VISIT TO NAS WILLOW GROVE, PA

5. Mark Leipert and I then discussed the matter with Paul Greco and Jim Edmond of the environmental branch of Public Works. We decided that in order to be on the safe side, some soil samples of that area should be taken to confirm that lead contaminated soil would not be a problem. Paul then told us that he had an open ended contract with Wright Laboratories for the purpose of taking and analyzing samples. Jim Edmond then called Wright Labs and set up an appointment for them to come out and sample the area on Tuesday, February 22, 1994.

6. We then went back into the meeting and told the A/E that they could continue their design using that area but that if our samples indicated that lead contamination is present, that the design would have to include excavation, testing, and proper disposal of any lead contaminated soil that is encountered using project funds. I made it clear that DERA funds could not be used. Mark Wolfe and the A/E concurred with this approach.

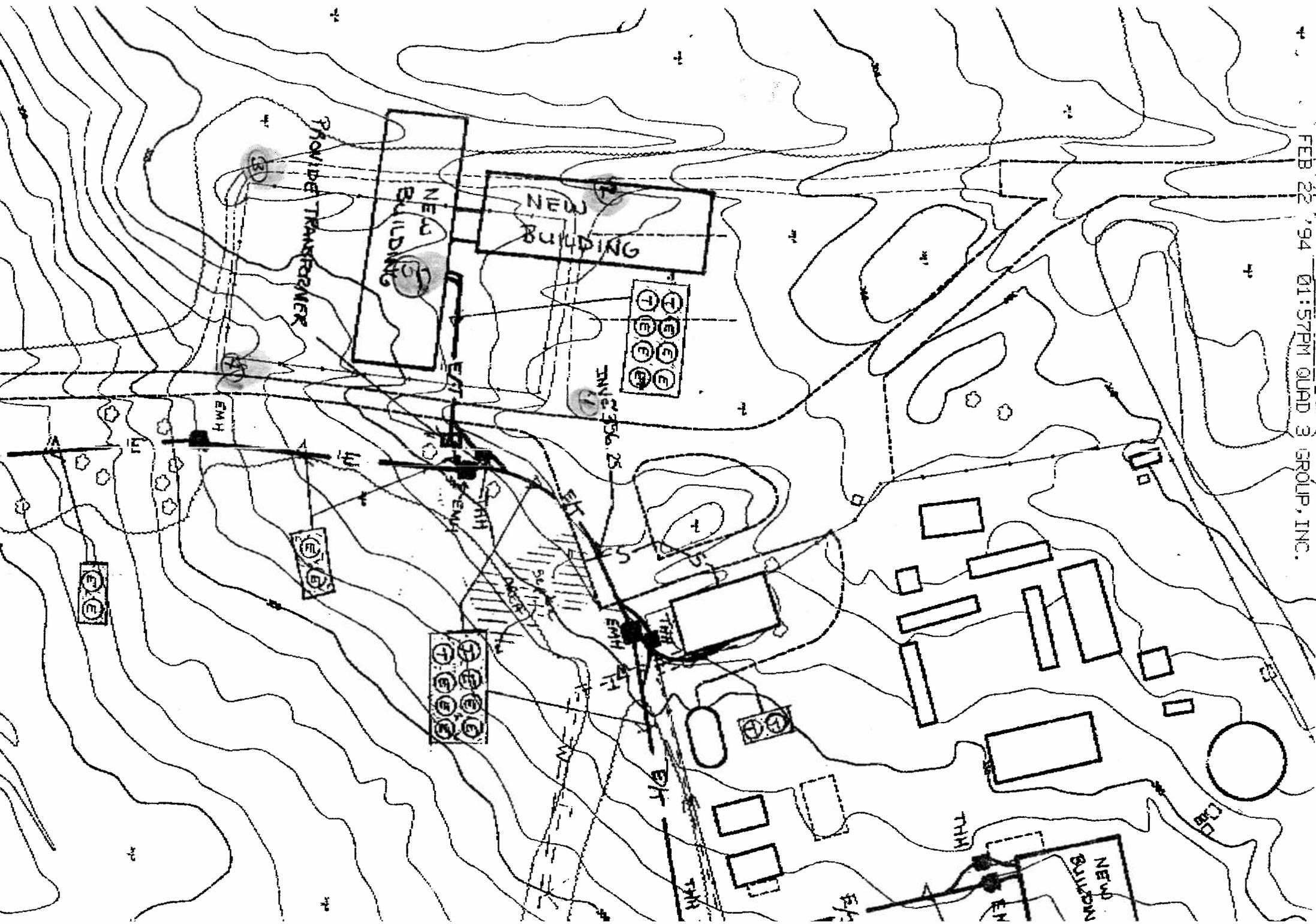
7. After the meeting, Mark Leipert, Jim Edmond and myself discussed a sampling plan. We had the A/E go out and stake the outer limits for the building so we would be able to sample where most of the excavation would be taking place. We then decided to sample 10 feet up and 10 feet in from all four corners which were staked plus a sample from somewhere in the middle. We then asked Jim to tell the lab to roughly survey in the locations of the samples and to take two sets of samples from each location, one at 6 inches and another at 2 feet.

8. The amount of samples may seem excessive for this small area, however Mark and I felt that since no prior analytical data was gathered in this area, the results of these samples could hopefully be used as backup data to support the NFA decision to the EPA when and if NAS Willow Grove gets listed on the National Priorities List.

9. Another issue that came up during the meeting regarded wetlands. The proposed layout included parking over an area which recent maps, made as part of the SI, show two wetland areas. These wetlands do not show up on older drawing of the area therefore the A/E was not aware of their existence until we brought it to their attention. We cautioned them regarding their plan to put parking in that area and recommended that they talk with NorthDiv's Nancy Kuntzleman. Mark Wolfe told the A/E that he would talk with Nancy and get her involved.

10. If you require additional information or want to discuss this issue, I am available at any time.

  
James L. Colter  
Remedial Project Manager





DEPARTMENT OF THE NAVY

NORTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
10 INDUSTRIAL HIGHWAY  
MAIL STOP, #82  
LESTER, PA 19113-2090

103  
1/21/96

IN REPLY REFER TO  
5090  
Code 1821/JLC

SEP 10 1996

Mr. Drew Lausch  
Remedial Project Manager  
United States Environmental Protection Agency  
Region III  
841 Chestnut Building  
Philadelphia, PA 19107-4431

RE: ANALYTICAL RESULTS FROM SOIL LEAD SAMPLING CONDUCTED AT IRP  
SITE 6, ABANDONED RIFLE RANGE #1, NASJRB WILLOW GROVE, PA

Dear Mr. Lausch:

As requested at our August 28, 1996 site visit, I am enclosing the analytical results obtained from samples taken at the Navy's Installation Restoration Program (IRP) Site 6, Abandoned Rifle Range #1. The environmental laboratory that conducted the analysis was Wright Lab Service Inc.

This sampling plan was conducted in order to support the construction of the new Marine Corps Reserve Training Center in the vicinity of IRP Site 6. It was also intended to use this data to support the Navy's claim that no further investigations or actions were warranted for this area.

I am also forwarding to you a map showing the sampling locations as well as an internal memorandum from myself to the construction project manager which explains the actions that were taken and the conclusions that my department made based upon the results.

If you have any questions or require additional information regarding this matter, please give me a call at (610) 595-0567, extension 163.

Sincerely,

JAMES L. COLTER  
Remedial Project Manager  
by direction of the  
Commanding Officer.

Enclosures

Copy to:  
NASJRB Willow Grove, Jim Edmond

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

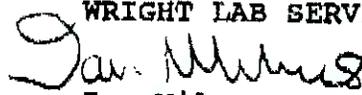
March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #1 @ 6"	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

TEST PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	38	mg/kg	10	6010

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

Respectfully Submitted,  
 WRIGHT LAB SERVICES  
  
 Ian Milnes  
 Laboratory Manager

CC: FAX RESULTS TO 215-443-6935  
 FAX RESULTS TO 1-215-443-6935  
 Naval Air Station-Willow Grove Mr. Jim Edmond

ATTN: Mr. Rick Herpel  
Defense Industry Supply Center  
700 Robbins Avenue  
DISC-EPT-Bldg.3  
Philadelphia PA 191115096

March 10, 1994

DATA PACKAGE FORM

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Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

 34 Dogwood Lane • Middletown, PA 17057  
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (215) 640-1323

Maryland • (410) 244-8889

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #1 @ 1.5'	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	20	mg/kg	10	6010

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QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
<b>METALS</b>			
Total Lead by ICP	97	% Recovery	Spike
Lead	103	% Recovery	Spike

\*\*\*\* Continued \*\*\*\*

Page # 2  
Sample # 58056-2

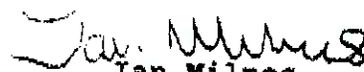
March 10, 1994

**QUALITY ASSURANCE REPORT**

**Q/A PARAMETER**

**RESULT**

Respectfully Submitted,  
WRIGHT LAB SERVICES



Ian Milnes  
Laboratory Manager

CC: FAX RESULTS TO 215-443-6935  
FAX RESULTS TO 1-215-443-6935  
Naval Air Station-Willow Grove Mr. Jim Edmond

 34 Dogwood Lane • Middletown, PA 17057  
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (215) 640-1323

Maryland • (410) 244-8889

**WRIGHT LAB**  
**SERVICES INC.**   
**ENVIRONMENTAL TESTING LABORATORIES**

Page # 1  
 Sample # 58056-2

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

March 10, 1994

DATA PACKAGE FORM

Job Name	: DISC / WGNAS	Customer PO#	: 0021
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Location	: WGNAS Marine NN #1 @ 1.5'	Date Received	: 03/01/94
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Collector	: GJW	Discard Date	: 03/23/94

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

 34 Dogwood Lane . Middletown, PA 17057  
 (717) 944-5541 . FAX (717) 944-1430

Philadelphia • (215) 640-1323

Maryland • (410) 244-8880

Page # 1  
 Sample # 58056-3

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #2 @ 6"	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	21	mg/kg	10	6010

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

Respectfully Submitted,  
 WRIGHT LAB SERVICES

*Ian Milnes*

Ian Milnes  
 Laboratory Manager

CC: FAX RESULTS TO 215-443-6935  
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 Naval Air Station-Willow Grove Mr. Jim Edmond

ATTN: Mr. Rick Herpel  
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Location	: WGNAS Marine NN #2 @ 6"	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

Page # 1

Sample # 58056-4

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

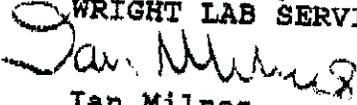
March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #2 @ 2'	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	17	mg/kg	10	6010

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

Respectfully Submitted,  
 WRIGHT LAB SERVICES  
  
 Ian Milnes  
 Laboratory Manager

CC: FAX RESULTS TO 215-443-6935  
 FAX RESULTS TO 1-215-443-6935  
 Naval Air Station-Willow Grove Mr. Jim Edmond

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

March 10, 1994

DATA PACKAGE FORM

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #2 @ 2'	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

TEST/PARAMETER	PRESERVATIVE	TECH	ANALYSIS	
			DATE	TIME
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

Page # 1  
 Sample # 58066-5

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
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 Philadelphia PA 191115096

March 10, 1994

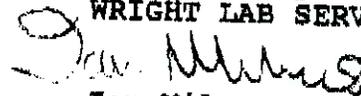
LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #3 @ 6"	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	20	mg/kg	10	6010

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Respectfully Submitted,  
 WRIGHT LAB SERVICES



Ian Milnes  
 Laboratory Manager

CC: FAX RESULTS TO 215-443-6935  
 FAX RESULTS TO 1-215-443-6935  
 Naval Air Station-Willow Grove Mr. Jim Edmond

 34 Dogwood Lane • Middletown, PA 17057  
 (717) 944-5541 • FAX (717) 944-1430

Philadelphia • (215) 640-1323

Maryland • (410) 244-8889

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

March 10, 1994

DATA PACKAGE FORM

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #3 @ 6"	Date Received	: 03/01/94
Sample State	: Soil	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94
	Grab		

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #3 @ 2'	Date Received	: 03/01/94
Sample State	: Soil	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94
			Grab

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
METALS				
Total Lead by ICP	16	mg/kg	10	6010

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Respectfully Submitted,  
 WRIGHT LAB SERVICES

*[Signature]*  
 Ian Milnes  
 Laboratory Manager

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 FAX RESULTS TO 1-215-443-6935  
 Naval Air Station-Willow Grove Mr. Jim Edmond

ATTN: Mr. Rick Herpel  
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 Philadelphia PA 191115096

March 10, 1994

DATA PACKAGE FORM

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #3 @ 2'	Date Received	: 03/01/94
Sample State	: Soil	Date Completed	: 03/08/94
Collector	: GJW	Grab	: 03/23/94
		Discard Date	: 03/23/94

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #4 @ 6"	Date Received	: 03/01/94
Sample State	: Soil	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94
	Grab		

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	29	mg/kg	10	6010

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Respectfully Submitted,  
 WRIGHT LAB SERVICES

*Ian Milnes*  
 Ian Milnes  
 Laboratory Manager

CC: FAX RESULTS TO 215-443-6935  
 FAX RESULTS TO 1-215-443-6935  
 Naval Air Station-Willow Grove Mr. Jim Edmond

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
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Page # 1  
 Sample # 58056-7

March 10, 1994

DATA PACKAGE FORM

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #4 @ 6"	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

Page # 1  
 Sample # 58056-9

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
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 Philadelphia PA 191115096

March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #5 @ 6"	Date Received	: 03/01/94
Sample State	: Soil	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94
	Grab		

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	21	mg/kg	10	6010

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Respectfully Submitted,  
 WRIGHT LAB SERVICES

*Ian Milnes*  
 Ian Milnes  
 Laboratory Manager

CC: FAX RESULTS TO 215-443-6935  
 FAX RESULTS TO 1-215-443-6935  
 Naval Air Station-Willow Grove Mr. Jim Edmond

ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
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March 10, 1994

DATA PACKAGE FORM

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #4 @1'	Date Received	: 03/01/94
Sample State	: Soil	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94
	Grab		

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

Page # 1  
 Sample # 58056-8  
 ATTN: Mr. Rick Herpel  
 Defense Industry Supply Center  
 700 Robbins Avenue  
 DISC-EPT-Bldg.3  
 Philadelphia PA 191115096

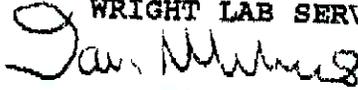
March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #4 @1'	Date Received	: 03/01/94
Sample State	: Soil	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94
	Grab		

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	19	mg/kg	10	6010

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Respectfully Submitted,  
 WRIGHT LAB SERVICES  
  
 Ian Milnes  
 Laboratory Manager

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 Naval Air Station-Willow Grove Mr. Jim Edmond

ATTN: Mr. Rick Herpel  
Defense Industry Supply Center  
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Philadelphia PA 191115096

March 10, 1994

DATA PACKAGE FORM

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #5 @ 6"	Date Received	: 03/01/94
Sample State	: Soil	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94
	Grab		

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Total Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion for Lead by ICP		MCB	03/07/94	

FAX RESULTS TO 215-443-6935  
 ATTN: JIM EDMOND

ATTN: Mr. Rick Herpel  
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 Philadelphia PA 191115096

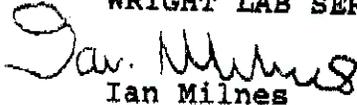
March 10, 1994

LAB ANALYSIS REPORT

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #5 @ 2'	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
<b>METALS</b>				
Total Lead by ICP	18	mg/kg	10	6010

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Respectfully Submitted,  
 WRIGHT LAB SERVICES  
  
 Ian Milnes  
 Laboratory Manager

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March 10, 1994

DATA PACKAGE FORM

Job Name	: DISC / WGNAS	Customer PO#	: 0021
Job Number	: D3612-WGN-LM	Date Sampled	: 03/01/94
Location	: WGNAS Marine NN #5 @ 2'	Date Received	: 03/01/94
Sample State	: Soil Grab	Date Completed	: 03/08/94
Collector	: GJW	Discard Date	: 03/23/94

<u>TEST</u>	<u>PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
				<u>DATE</u>	<u>TIME</u>
Total Lead	Lead by ICP	Cool to 4 Deg. C	MMH	03/08/94	14:54
Soil Digestion			MCB	03/07/94	

 34 Dogwood Lane • Middletown, PA 17057  
 (717) 944-5541 • FAX (717) 944-1430

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## **ATTACHMENT III**



Pennsylvania Department of Environmental Protection

2 East Main Street  
Norristown, PA 19401  
October 31, 2005

**Southeast Regional Office**

Phone: 484-250-5960  
Fax: 484-250-5961

Mr. James R. Edmond  
Department of the Navy  
Naval Air Station/Joint Reserve Base  
Box 21  
Willow Grove, PA 19090-5021

Re: NASJRB Willow Grove  
No Further Action Site

Dear Mr. Edmond:

Site Inspections were conducted on several sites at NASJRB, Willow Grove. In 1990, the results of these inspections were presented in the Site Inspection Studies Report (EA Engineering, 1990) and the Plan of Action for Extended Site Inspections and Remedial Investigations (EA Engineering, 1991). No further action (NFA) was recommended for each of the following sites: Site 4, North Lind Landfill; Site 6, Abandoned Rifle Range No. 1; Site 8, Building 118 Abandoned Fuel Tank, Site 7, Rifle Range 2 and Site 9, Steam Plant Building 6 Tank Overfill. DEP concurred with the NFA recommendations. These findings are repeated in the Federal Facilities Agreement that was signed in May and June 2005 by the Department of Defense, the Environmental Protection Agency and the Pennsylvania Department of Environmental Protection.

If you have any questions concerning these sites please feel free to contact me at 484-250-5721

Sincerely,

April M. Flipse  
Project Officer  
Environmental Cleanup

cc: Mr. Horvat  
Mr. Sheehan  
Mr. Hartzell  
Re 30 (RW05ECP) 304

