



SPRING VALLEY FORMERLY USED DEFENSE SITE PROJECT

RAB Meeting

May 13, 2014
7:00 – 8:30 p.m.

UNDERCROFT MEETING ROOM
ST. DAVID'S EPISCOPAL CHURCH
5150 MACOMB ST. NW, WASHINGTON, DC

Agenda

- 7:00 p.m. I. Administrative Items**
Co-Chair Updates
▪ Introductions, Announcements
Task Group Updates
- 7:10 p.m. II. USACE Program Updates**
Site-Wide Human Health Risk Assessment
▪ COPCs (Chemicals of Potential Concern)
Groundwater Study
▪ Sampling Results & Upcoming Effort
▪ MP-5 Location & Installation Progress
Glenbrook Road
- 8:00 p.m. III. Community Items**
- 8:10 p.m. IV. Open Discussion & Future RAB Agenda Development**
Upcoming Meeting Topics:
▪ (Suggestions?)
▪ Community Relations Plan Update
▪ 4825 Glenbrook Road Health Consultation Update (ATSDR)
- *Next meeting: July
- 8:20 p.m. V. Public Comments**
- 8:30 p.m. VI. Adjourn**

**Note: The RAB meets every odd month.*

Spring Valley

Formerly Used Defense Site

Restoration Advisory Board Meeting

May 13, 2014

“The USACE Mission in Spring Valley is to identify, investigate and remove or remediate threats to human health, safety or to the environment resulting from past Department of Defense activities in the area.”



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US Army Corps of Engineers
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Agenda Review



❖ Co-Chair Updates

- Introductions, Announcements

❖ USACE Updates

- **Site-Wide Human Health Risk Assessment**
 - Chemicals of Potential Concern (COPCs)
- **Groundwater**
 - Sampling Results & Upcoming Effort
 - MP-5 Well Location & Installation Progress
- **Glenbrook Road**

❖ Open Discussion & Agenda Development

❖ Community Items

❖ Public Comments



Co-Chair Updates

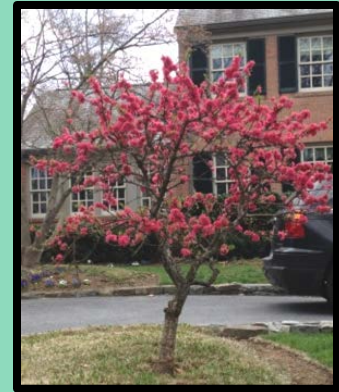


Introductions



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Co-Chair Updates



❖ Announcements

- Possible date change for July RAB meeting
- Website Updates:
 - March & April Monthly Site-Wide Project Update
 - Weekly 4825 Glenbrook Rd Project Updates with photos
 - February Partnering meeting minutes
 - March RAB meeting materials
 - Final Addendum 1 to Final Pre-2005 Human Health Risk Assessment Review
 - Final Spring Valley FUDS Final Site-Wide Human Health Risk Assessment Work Plan



Co-Chair Updates



❖ Announcements (con't.)

➤ Information Repository Additions:

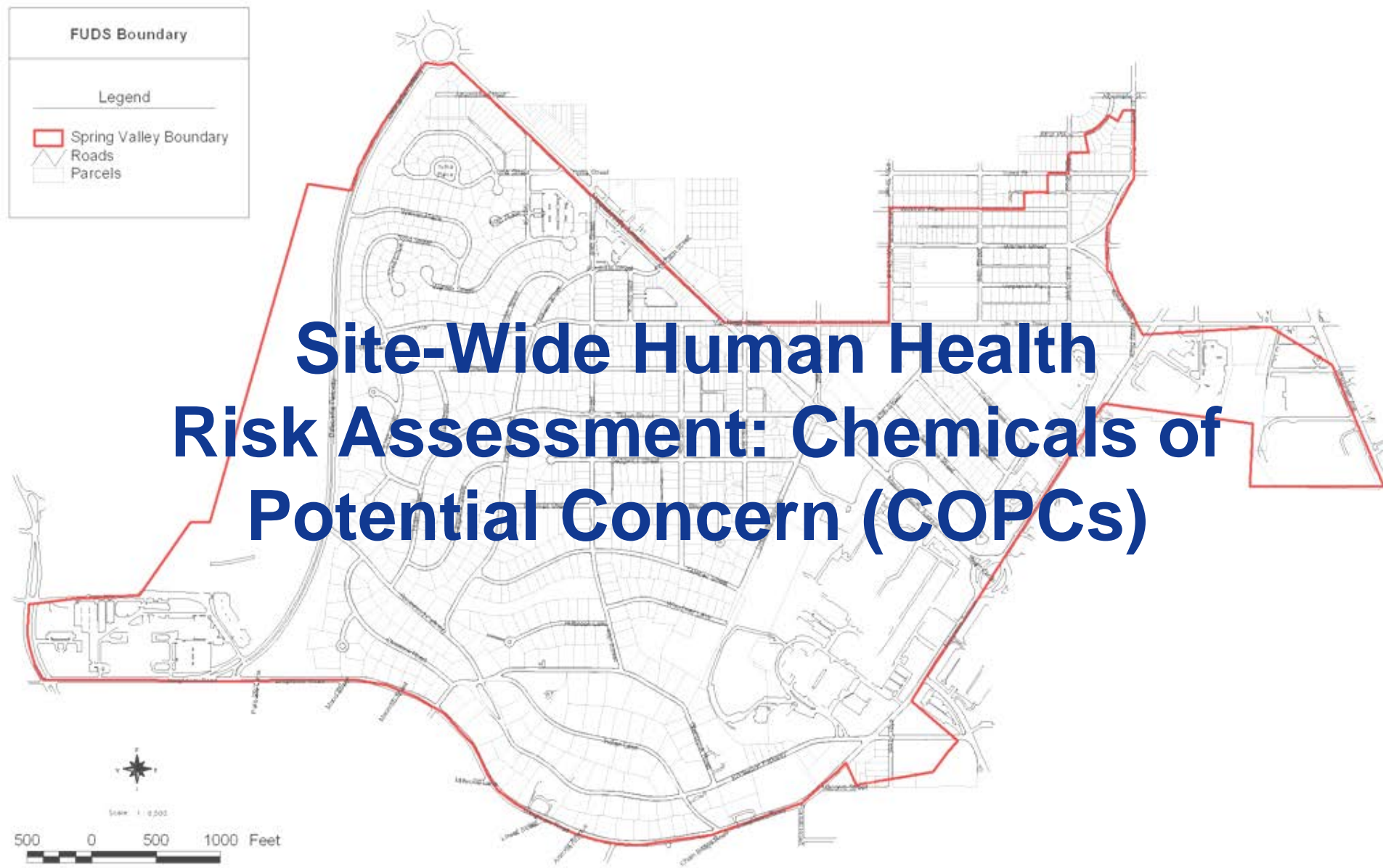
- Addendum 1 to Final Pre-2005 Human Health Risk Assessment Review
- Final Spring Valley FUDS Final Site-Wide Human Health Risk Assessment Work Plan



Task Group Updates



USACE Updates



Spring Valley FUDS

Site-Wide Human Health Risk Assessment



Spring Valley FUDS

Site-Wide Human Health Risk Assessment

Chemicals of Potential Concern Potentially Posing Risk			
<u>COPC</u>	<u>AOI 9 EU</u>	<u>Spaulding-Rankin EU</u>	<u>Southern AU EU</u>
Antimony			Yes
Cobalt	Yes	Yes	Yes
Benzo(a)anthracene			Yes
Benzo(b)fluoranthene			Yes
Benzo(k)flouranthene			Yes
Indeno(1,2,3-cd) pyrene			Yes

- The listed COPCs are the end result of the pre-2005 HHRA review and more recent sampling efforts. Based on these COPCs, it was concluded that full quantitative HHRAs are warranted at these three exposure units (EU).
- The actual HHRAs for these EUs will be presented in the Site-Wide Remedial Investigation (RI).



Groundwater



Groundwater

FY 2014 Groundwater Monitoring Effort

- On March 19, USACE successfully completed its quarterly sampling at two locations: monitoring wells (MW-44, MW-45S&D, and PZ-4 S&D) on the AU campus, and at the Sibley Hospital sump.



- The preliminary sampling results from the December 2013 and March 2014 samplings are currently being reviewed by the Partners.



Groundwater

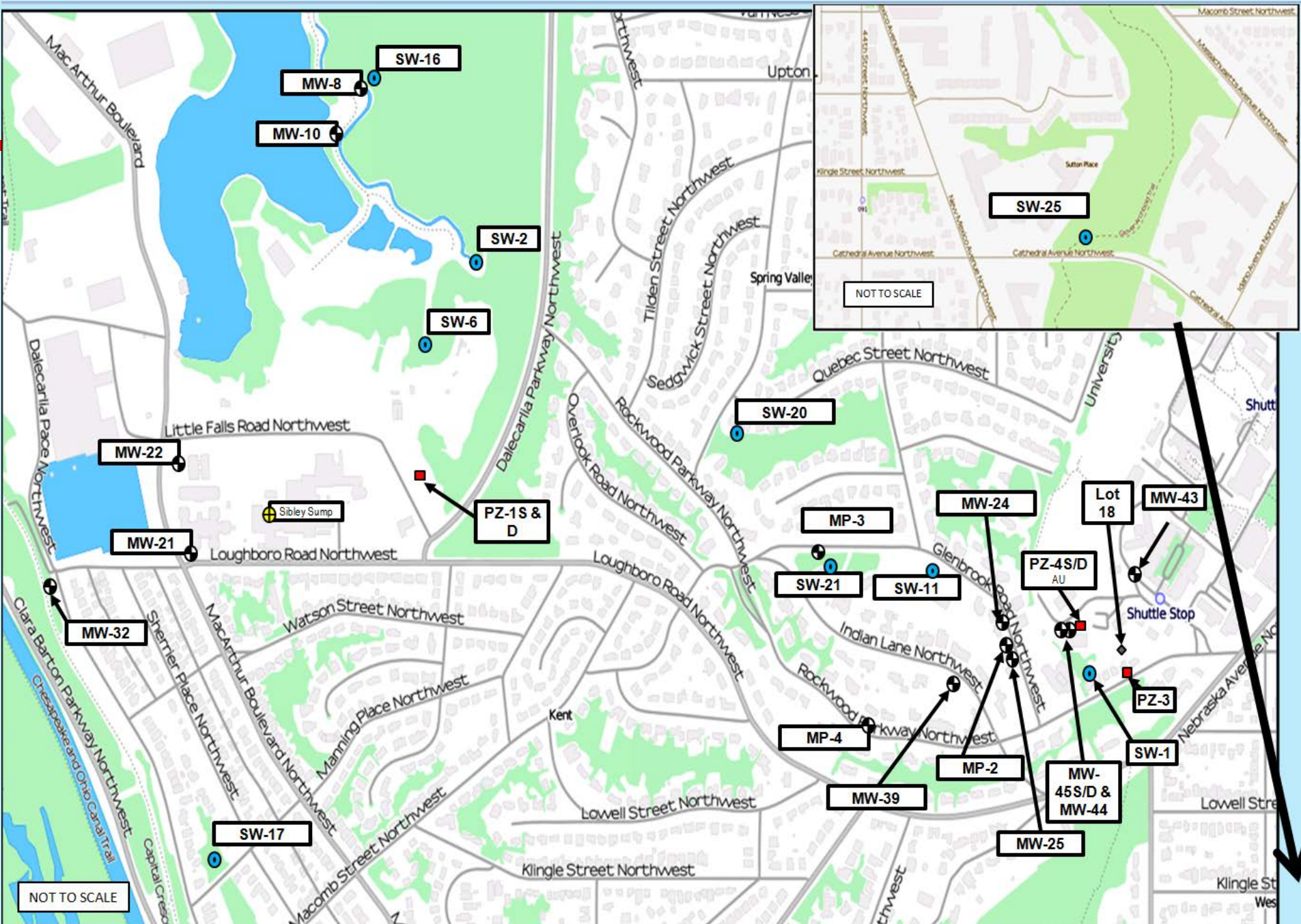
Groundwater Sampling Results

- **Summary of December 2013 Semi-Annual Groundwater Sampling Results** (from 20 existing monitoring wells, 10 surface water locations)
 - **MW-44, PZ-4D, Sibley Sump, and MW-22: Perchlorate concentrations are above drinking water advisory level of 15 parts per billion (ppb)**
 - **MP2: Arsenic concentrations are above drinking water standard of 10 ppb**

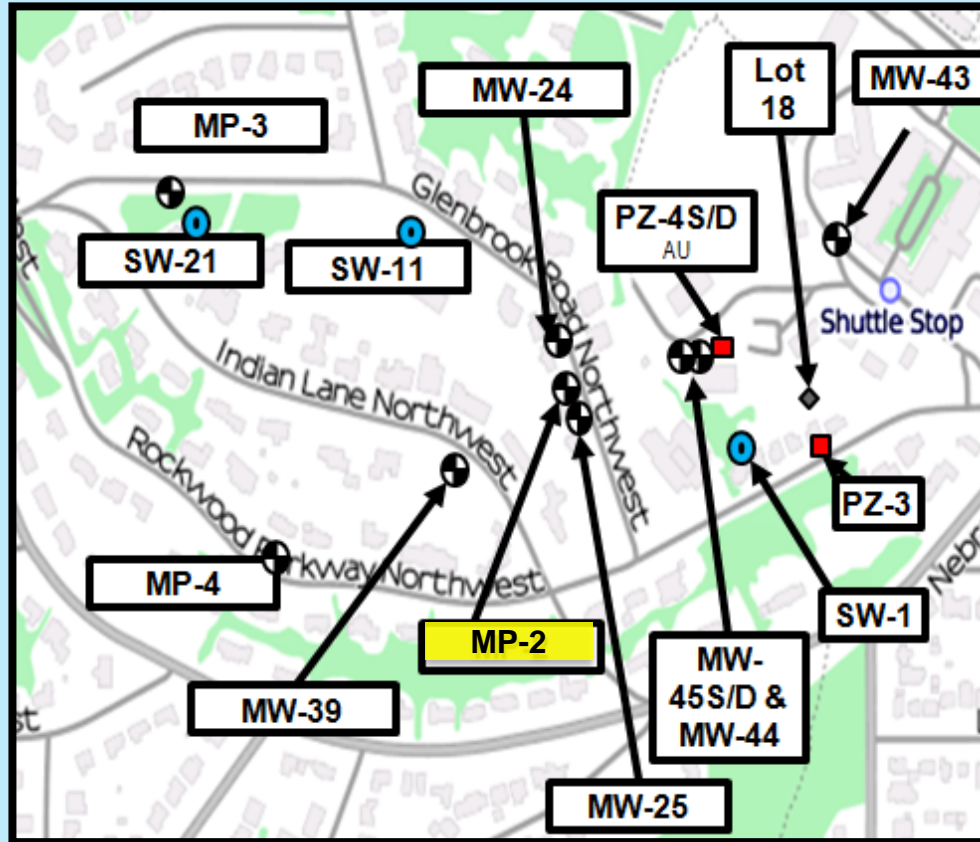
- **Summary of March 2014 Quarterly Groundwater Sampling Results*** (from monitoring wells in front of Kreeger Hall and at the Sibley Hospital sump)
 - **MW-44 and PZ-4D: Perchlorate concentrations are above drinking water advisory level of 15 parts per billion (ppb)**
 - **Arsenic concentrations were all below drinking water standard of 10 ppb**

*** The March 2014 data is still being validated.**





4800 Block of Glenbrook Road MP2



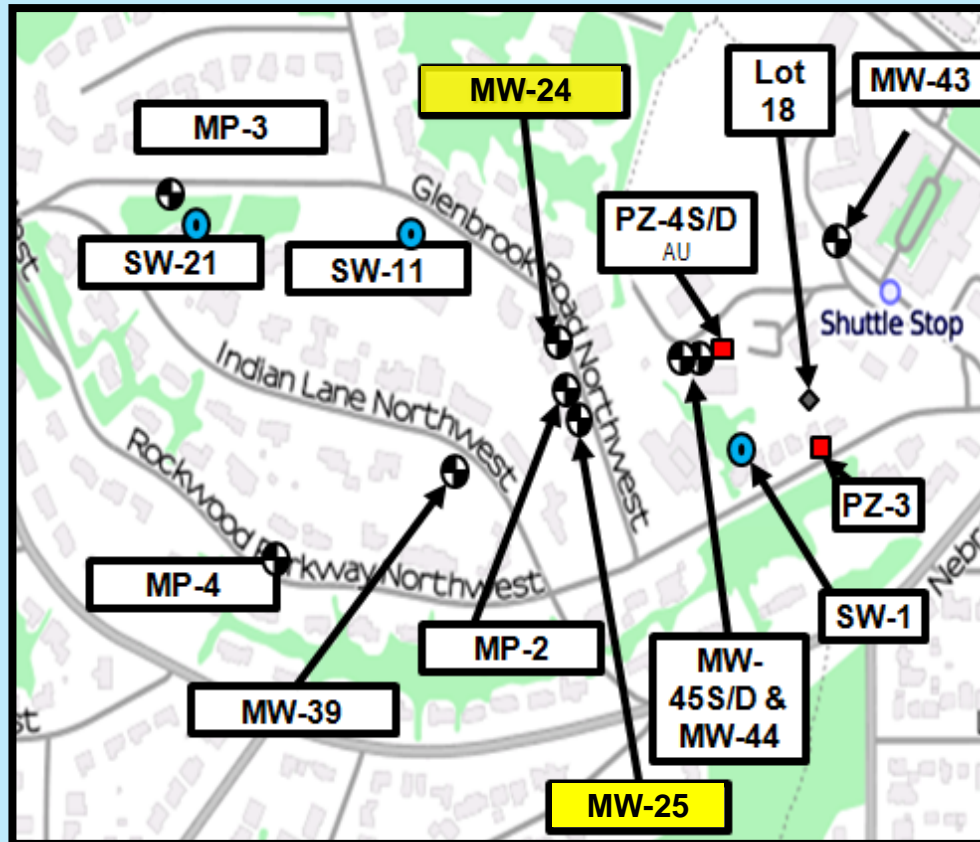
Perchlorate And Arsenic Sampling Results

4800 Block of
Glenbrook Rd
MP-2

Arsenic MCL = 10 ppb
Perchlorate DWAL = 15 ppb
= exceeds MCL/DWAL

MP2 – #1 Depth: 35-44 ft			MP2 – #5 Depth: 96-102 ft		
Date	Arsenic	Perchlorate	Date	Arsenic	Perchlorate
12/11/13	6.6	3.08	12/11/13	10.3	5.07
04/30/13	7.6	5.82	05/13/13	9.1	2.67
07/20/12	8.4	6.3	07/20/12	14	26
05/03/12	7.4	4.5	7/20/12 FD	15	24
03/30/12	7.5	5.8	05/03/12	15	26
3/30/2012 FD	7.6	7	03/30/12	13	24
MP2 – #2 Depth: 49-54 ft			MP2 – #6 Depth: 105-114 ft		
12/11/13	11	0.403	12/11/13	10.2	2.43
12/11/13 FD	7.1	NT	05/13/13	11	9.05
05/13/13	12.6	9.74	07/20/12	16	25
07/20/12	16	12	05/03/12	17	25
05/03/12	15	12	5/3/2012 FD	17	26
03/30/12	15	12	03/30/12	15	27
MP2 – #3 Depth: 56-71 ft			MP2 – #7 Depth: 123-129 ft		
12/11/13	15.2	6.89	12/11/13	12	8.18
05/13/13	11	2.57	05/03/13	12	16.6
07/20/12	18	18	07/20/12	16	24
05/03/12	18	17	05/03/12	17	25
03/30/12	15	17	03/30/12	14	20
MP2 – #4 Depth: 73-77 ft			MP2 – #8 Depth: 145-160 ft		
12/11/13	9.9	8.09	12/11/13	10.3	3.67
05/13/13	9.2	1.57 J	05/13/13	12.6	17.9
07/20/12	12	25	07/20/12	15	25
05/03/12	15	25	05/03/12	16	24
03/30/12	12	21	03/30/12	14	24

4800 Block of Glenbrook Road MW-24 and MW-25



MW- 24		
Date	Arsenic	Perchlorate
12/12/13	1.8	ND
12/12/13 FD	1.7	ND
04/30/13	16.8	ND
02/06/12	7.9	1.6 J
11/07/11	3.9	2.4
08/02/11	4.6	3
05/17/11	3.7	2.3
11/02/09	5 J	3.1
06/13/07	9.3 J	18.5
07/11/06	10.5	62.6
12/22/05	10.4	70

MW- 25		
Date	Arsenic	Perchlorate
12/11/13	6.7	4.04
04/30/13	4.5	3.12
02/06/12	2.2 J	ND
11/07/11	3	2.5
08/02/11	3	2.8
05/10/11	3.1	2.9
11/03/09	8.4 J	25
11/03/09 FD	8.2 J	23
06/13/07	8.1 J	74.1
07/11/06	9.5 J	124
12/22/05	5 J	60

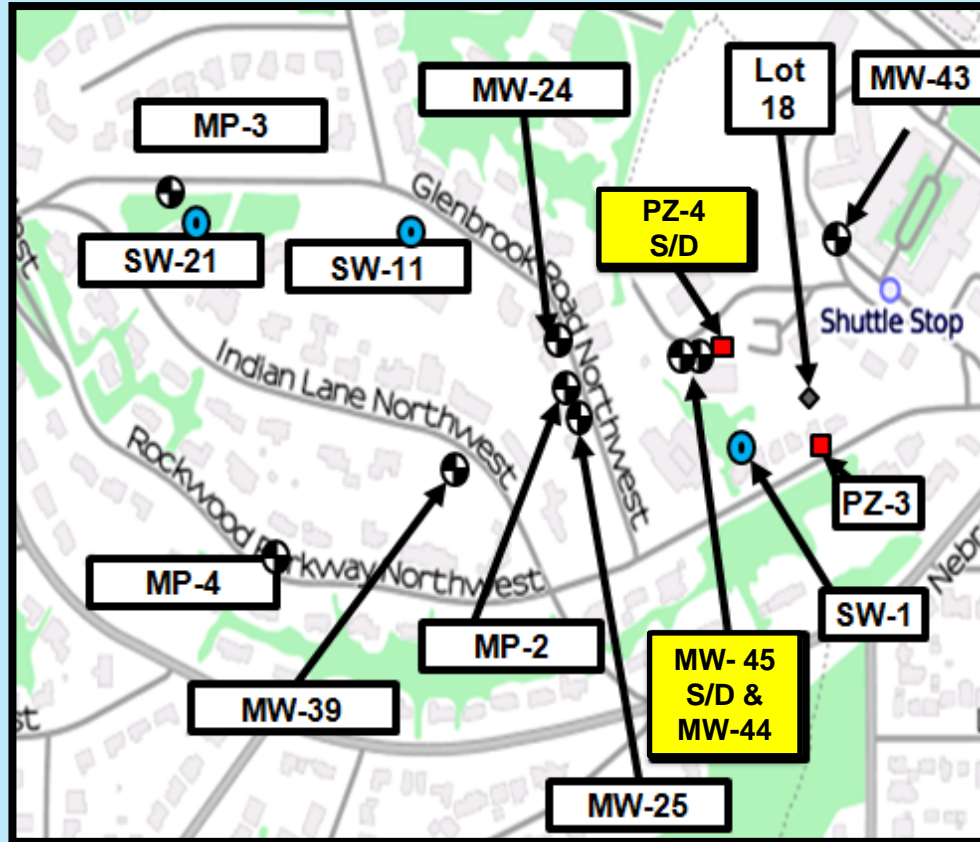
Perchlorate And Arsenic Sampling Results

4800 Block of
Glenbrook Rd

MW-24 and MW-25

Arsenic MCL = 10 ppb
Perchlorate DWAL = 15 ppb
= exceeds MCL/DWAL

American University



Perchlorate And Arsenic Sampling Results

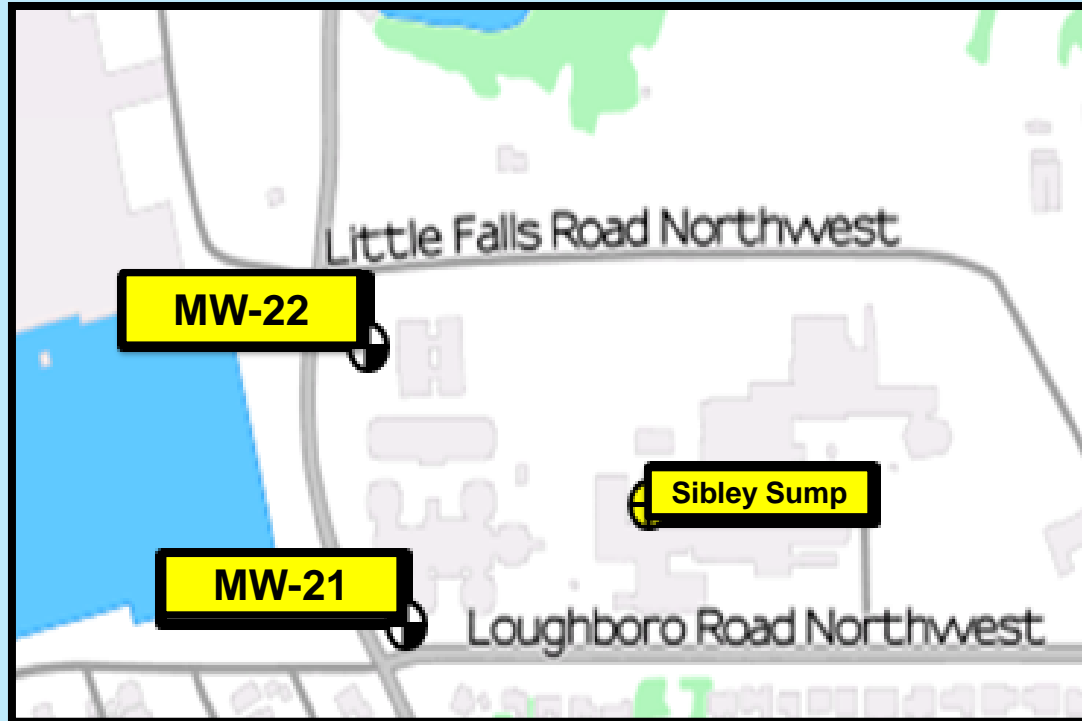
American University

MW-44 Depth: 80-95 ft		
Date	Arsenic	Perchlorate
03/20/14	0.69 J	42.3
03/20/14 FD	0.78 J	40.5
12/12/13	0.75 J	40.2
12/12/13 FD	0.85 J	39.8
04/29/13	0.15 J	40.5
09/06/12	ND	35
9/6/12 FD	ND	36
03/29/12	ND	34
03/29/12 FD	ND	33

PZ-4S Depth: 27-47 ft			PZ-4D Depth: 52-62 ft		
Date	Arsenic	Perchlorate	Date	Arsenic	Perchlorate
03/20/14	2.8	10.9	03/20/14	3.9	44.5
12/13/13	3.6	6.75	12/13/13	1.8	39.8 D
07/24/13	1.4	ND	07/24/13	1.5	5.59
07/24/13 FD	1.5	ND	05/03/13	NT	NT
05/03/13	0.22 J	5.57	04/09/12	NT	36
02/08/12	2.4 J	28	02/07/12	2.7 J	39
11/09/11	ND	25	11/08/11	ND	45
08/04/11	ND	19	08/05/11	ND	39
07/28/11	NT	18	07/28/11	NT	9.8
05/16/11	2.6 J	30	05/16/11	2.6 J	39
11/10/09	NT	50	11/11/09	NT	41
06/13/07	ND	146	06/13/07	ND	41
07/07/06	ND	71.8	07/07/06	0.6 J	34.7

MW-45S Depth: 119-124 ft		
Date	Arsenic	Perchlorate
03/20/14	1.2	5.86
12/13/13	1.5	1.28
05/03/13	0.53 J	31.1
05/03/13 FD	0.32 J	30.9
09/06/12	ND	6
MW-45D Depth: 147-152 ft		
Date	Arsenic	Perchlorate
03/20/14	1.3	ND
12/12/13	1.3	5.3
12/12/13 FD	1.4	5.26
05/03/13	ND	54.3
05/03/13 FD	0.16 J	52.9
09/06/12	ND	3.6

Sibley Hospital



Perchlorate And Arsenic Sampling Results

Sibley Hospital

Sibley Sump		
Date	Arsenic	Perchlorate
03/20/14	3.4	13
12/12/13	4.5	17.5
07/24/13	3.8	14.5
04/30/13	0.73 J	18.5
02/08/12	5	24
11/09/11	ND	21
08/03/11	ND	16
05/13/11	ND	16
10/30/09	NT	15
06/06/07	ND	25.2
07/12/06	ND	18.5
08/09/05	NT	24

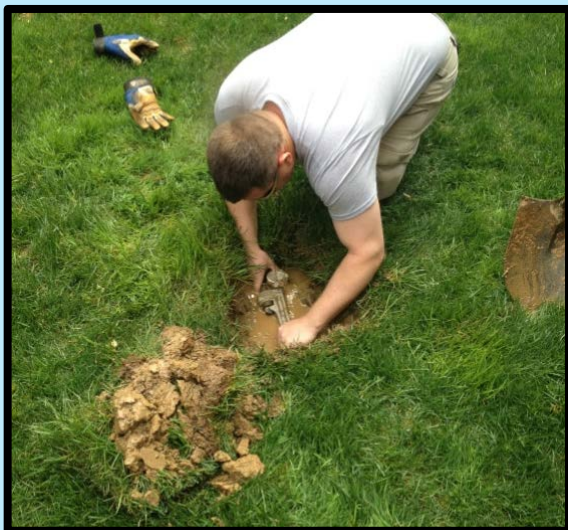
MW-21		
Date	Arsenic	Perchlorate
12/16/13	0.24 J	3.76
05/01/13	ND	4.53
02/07/12	ND	5.2
11/08/11	ND	4.7
09/01/11	ND	12
05/13/11	ND	8.3
11/11/09	NT	19
06/14/07	ND	43.8
07/10/06	ND	34.8
07/10/06 FD	NT	38.2
12/20/05	NT	48

MW-22		
Date	Arsenic	Perchlorate
12/13/13	0.64 J	16.7
05/01/13	0.078 J	16.4
02/07/12	ND	13
11/08/11	ND	12
08/01/11	ND	13
05/11/11	ND	10
10/29/09	NT	13
06/11/07	ND	7.65
07/10/06	ND	5.48
08/10/05	ND	8.92

Groundwater

FY 2014 Groundwater Monitoring Effort

- On May 6th, MW-23 on 52nd Court was successfully decommissioned:



- In late May, USACE will be conducting inspections on some existing wells and noting any repairs needed.
- Preparations have been underway for the next semi-annual groundwater sampling activities. USACE will begin the spring sampling event in June, as part of the extended groundwater monitoring program at 20 existing monitoring wells and 10 surface water locations.



Groundwater

FY 2014 Groundwater Investigation Effort

- **Planning continues for the installation of two additional deep wells:**
 - **One well will be placed on Sibley Hospital property.**
 - **For the other well, USACE met with residents, ANC commissioners, RAB members and Congresswoman Eleanor Holmes Norton on April 29th to discuss locations for the proposed well in the vicinity of Rockwood Parkway.**



Groundwater

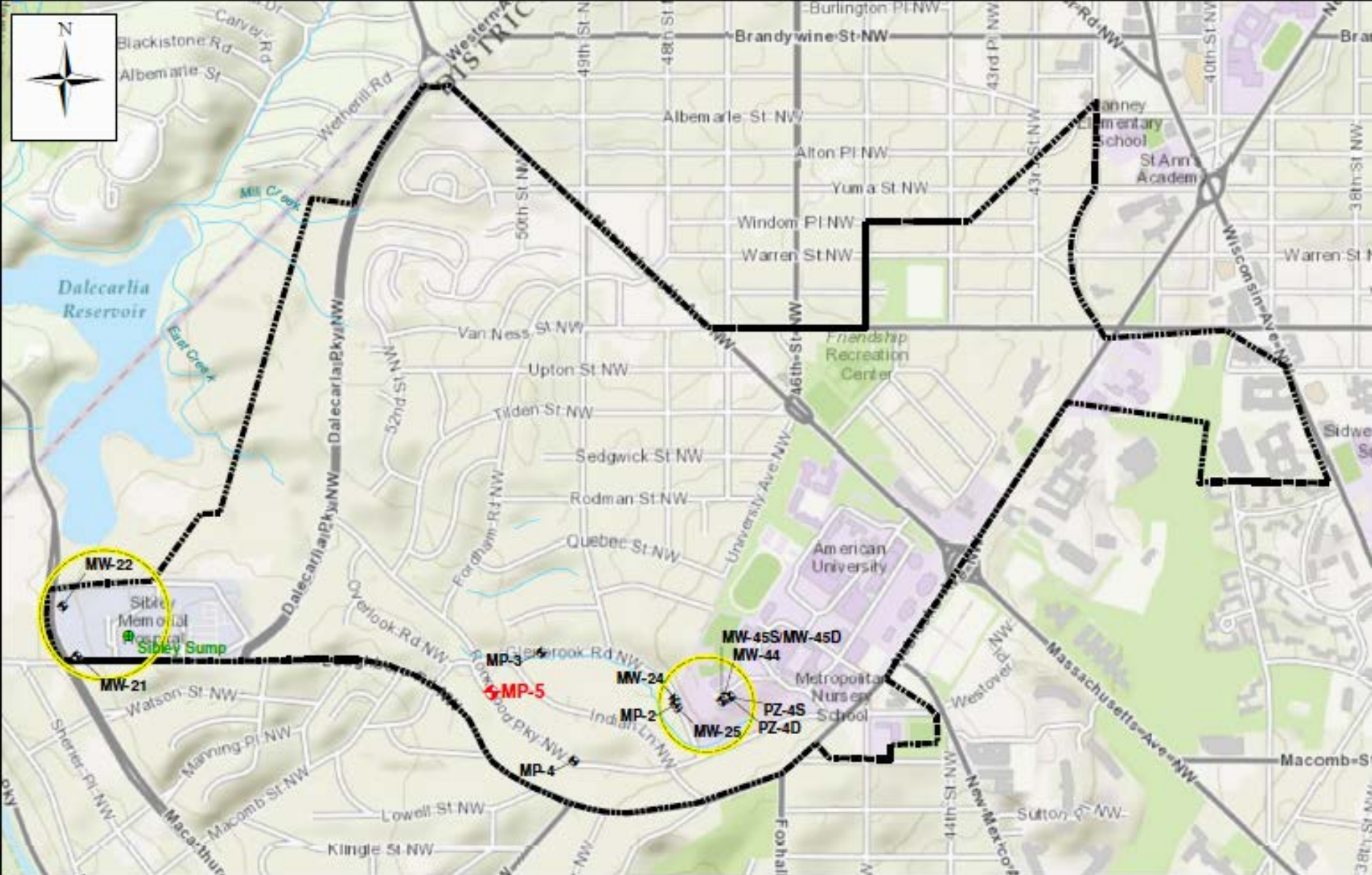
FY 2014 Groundwater Investigation Effort



➤ **Topics of discussion during the April 29th meeting:**

- **Spring Valley FUDS Groundwater Study Background**
- **Purpose of Well**
- **Well Location Evaluation**
- **Property Restoration**
- **Drilling and Restoration Schedule**





12420 Milestone Center Drive
Germantown, MD 20878
301-820-3000

Date: 4/24/2014
Author: AGI
Checked: BE
Senior: BE
C:\Project\SpringValley\GISData\Projects\2014\SpringValley_IL_Sx11.mxd

Legend

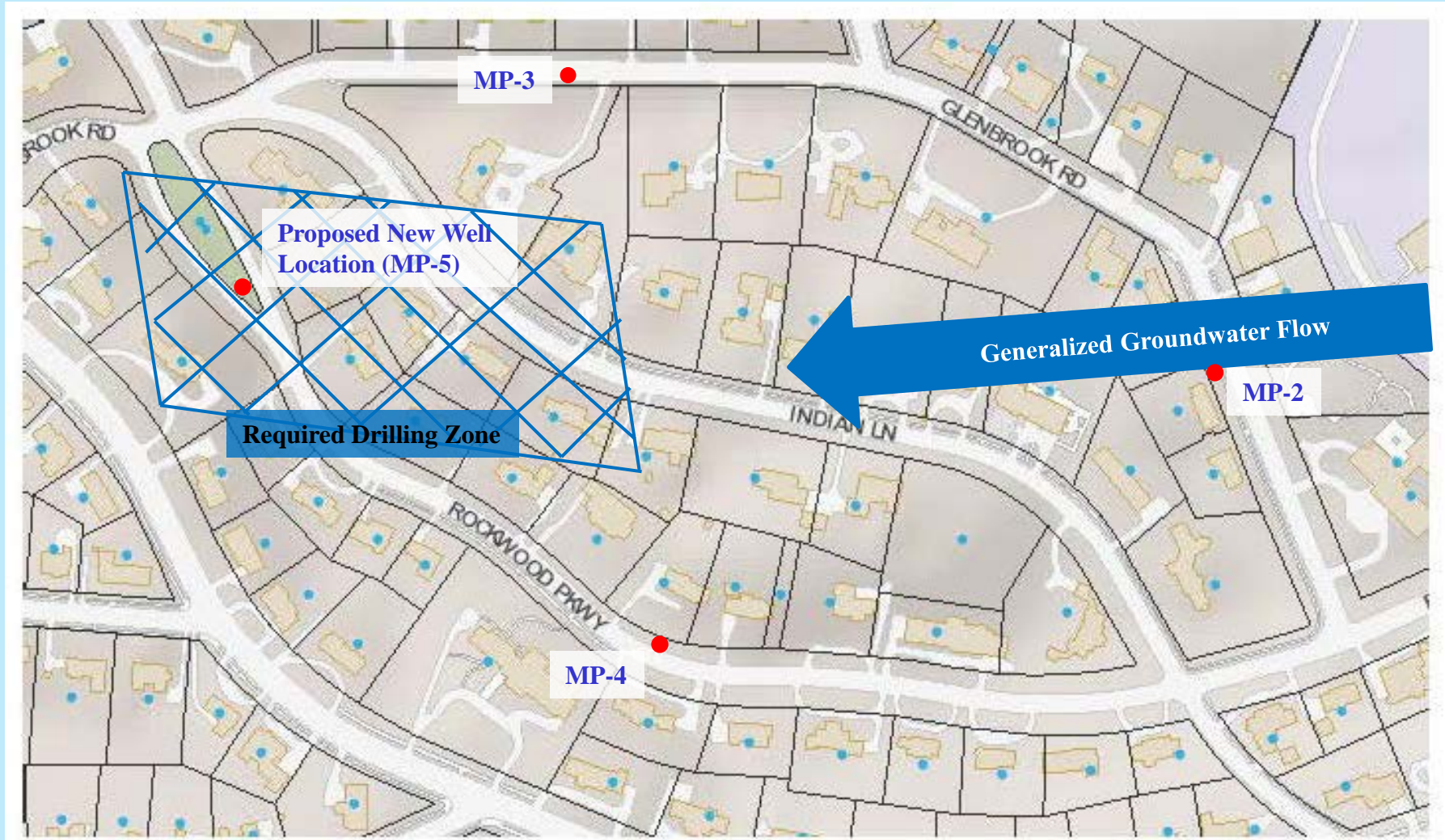
- Spring Valley FUDS Boundary
- Zone of Elevated Perchlorate
- ★ Monitoring Wells
- Sibley Sump
- ★ Planned New Multiport Well
- Stream or Creek



Basemap Source: ESRI World Topo Map.



Proposed New Well Location for MP-5



Groundwater

MP-5 Site



Four Alternatives

1. Island of public green space within Rockwood Parkway
2. Road
3. Public space in front of private properties
4. No well



Groundwater

Evaluation of Well Location

- Public space preferred over private residence wherever possible to minimize disturbing private residents.
- Physical limitations for drilling include steep topography, trees, hardscape, underground utilities, overhead tree limbs or electrical lines.
- USACE evaluated additional alternative MP-5 locations in front of private residences. Examined all 16 properties in the required drilling zone and identified many factors inhibiting drilling options. Public space areas in front of three properties were identified as possible viable alternatives.
 - Approached the residents about potential of installation of MP-5 in front of their properties. None of the property owners were amenable and preferred the well be located in public space not adjacent to a private residence. Alternative 3 was eliminated.
- SVFUDS Partners determined Alternative 4 (No well) was not an acceptable option, since data is needed to complete the study.



Rockwood Parkway Island



Groundwater

Alternative 1: Rockwood Parkway Island

➤ Advantages:

- The island is easily accessible for the drill rig, clear of trees
- Clear of visible utilities
- Minimizes traffic hazards from lane closures
- Minimizes public inconvenience of lane closures
- Easy, safe access for workers for future sampling events
- Grass area could be easily restored to similar condition

➤ Disadvantages:

- During Community Outreach efforts, some local residents expressed concern about drilling the well on the Rockwood Island
- Grass area could not be used for approximately one week during well installation



Groundwater

Alternative 2: Place Well in Road

➤ Advantages:

- The road is easily accessible for the drill rig, clear of large trees
- Road can be easily restored with asphalt patch
- No disturbance to Rockwood Island greenspace

➤ Disadvantages:

- Extensive presence of active and abandoned utilities
- Increased traffic hazards during installation and sampling
- Public inconvenience of road closure during installation and during future sampling events
- Damage to well due to traffic and paving activities



Groundwater

April 29 Meeting Conclusion

Based on this meeting, USACE is looking for another area in public space on Rockwood Parkway or Indian Lane, other than the Rockwood Parkway Island.



4825 Glenbrook Road



4825 Glenbrook Road

High Probability Operations

- The crews continued hand excavating the area adjacent to the former front porch of the home.
- We are encountering less debris and have reached competent saprolite in several areas of the debris field.
- This month we will continue excavations in the front yard.
- The crews are also installing the needed slope protection to continue digging and to begin to prepare for the next tent move.



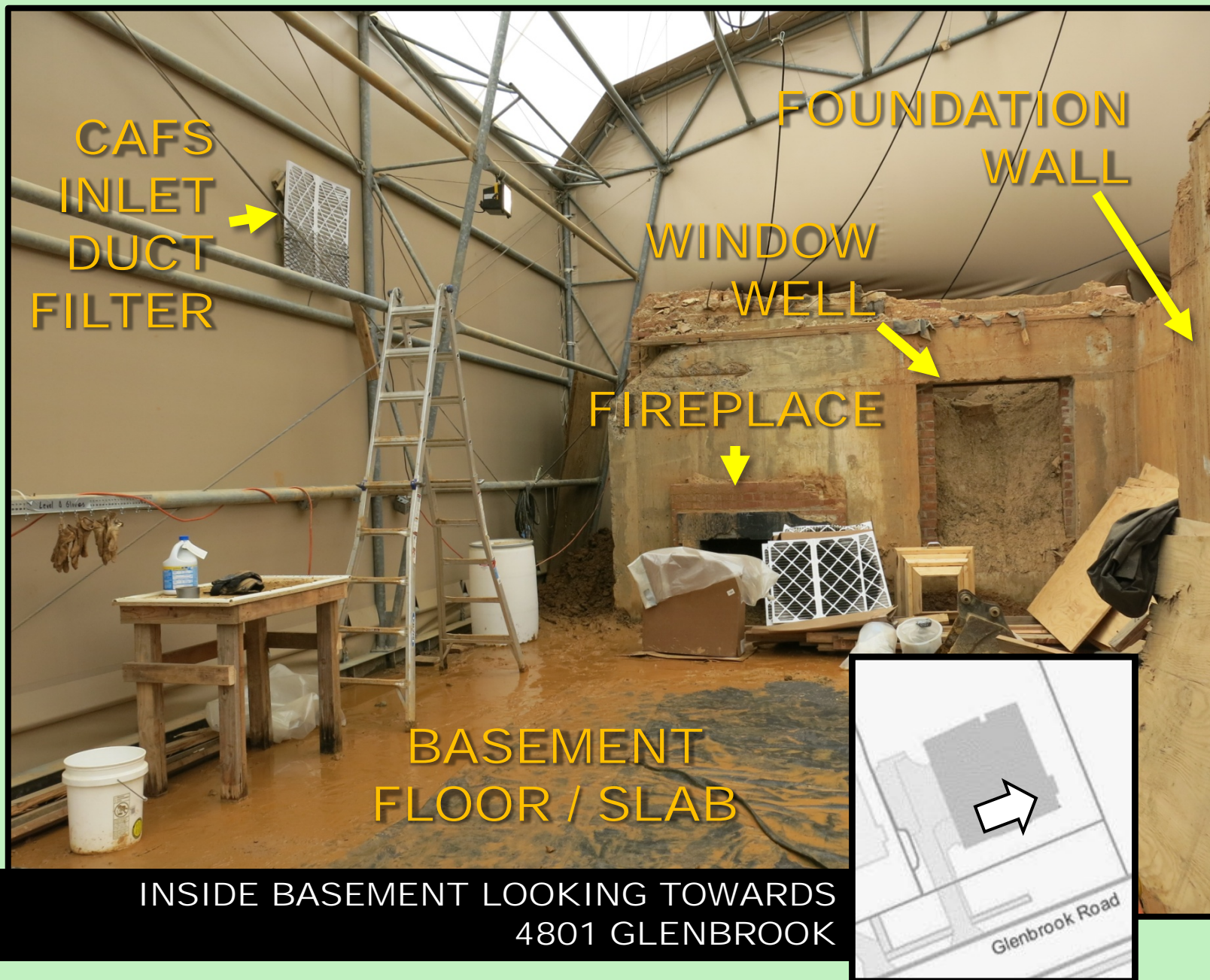
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4825 Glenbrook Road

Video of High Probability Excavation



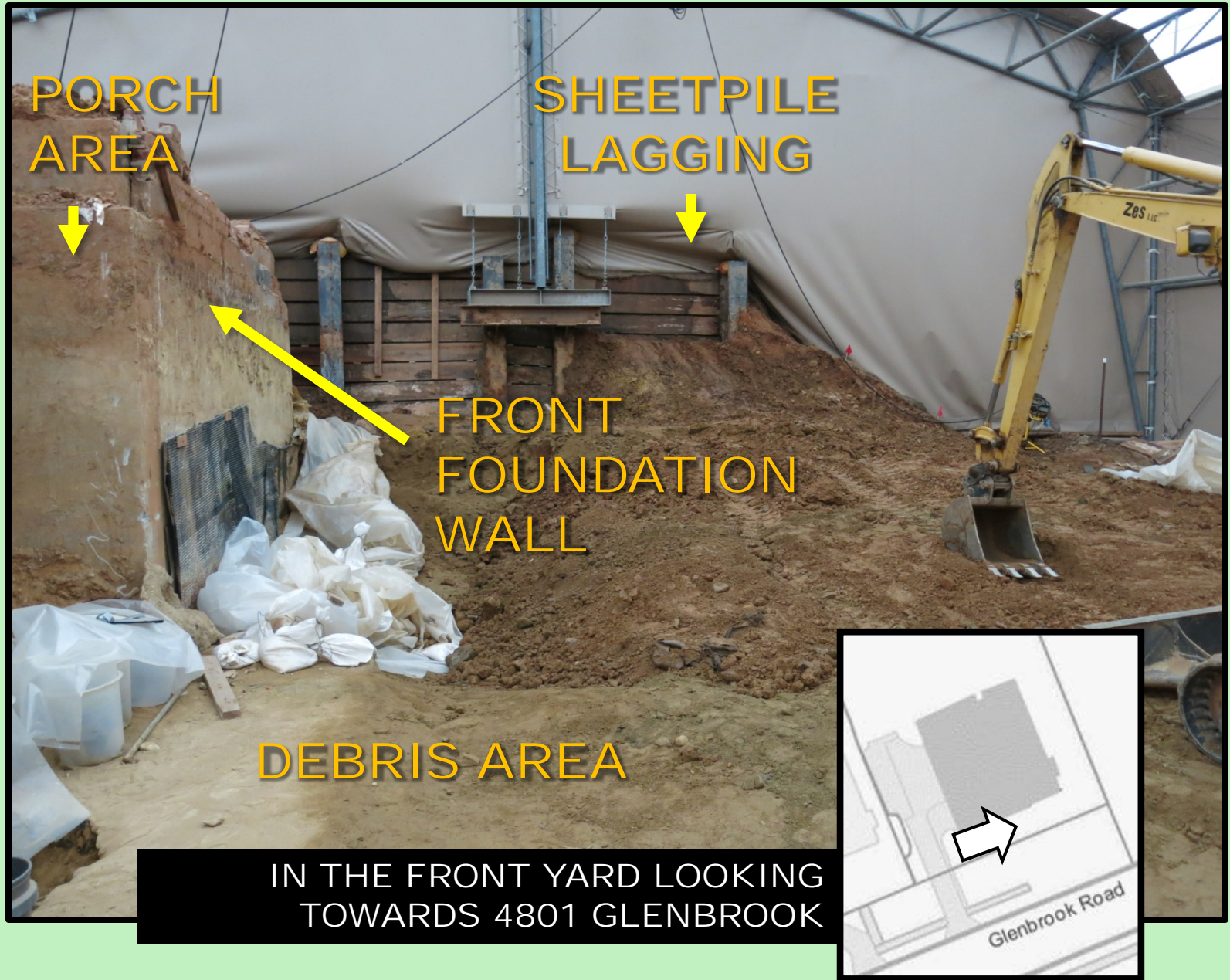
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LOOKING TOWARDS THE FRONT OF THE
FORMER HOUSE





High Probability Operations Progress



4825 Glenbrook Road

High Probability Operations - Findings to Date

➤ The high probability excavation crews have safely recovered the following items: 39 intact containers, five 75mm munitions debris items, one Mk IV adapter/booster, one 75mm shrapnel round with no explosives, one 4.7" projectile with no explosives, and over 530 pounds of broken American University Experiment Station-related glassware. The items were packaged and safely transported to Federal Property.



➤ There have been low level readings for possible lewisite and mustard on the MINICAMS (near real time continuous air monitoring system) at the pre-filter (inlet to the Chemical Agent Filtration System, or CAFS). There continues to be no risk to the public due to these readings. All of our engineering controls are working as designed, with multiple layers of protection. We are continuing to monitor this situation.



➤ We also have had results for a small amount of mustard breakdown products and lewisite in the excavated soil. This soil will be sent to an incinerator for final disposal.



4825 Glenbrook Road

MARB Report on 75mm Found January 13

We received the final report from the Materiel Assessment Review Board (MARB) in reference to the 75mm shrapnel round found January 13. A review of the x-rays determined the item contains a 100% solid fill, but there are no explosives.

Further analysis indicated that the item contains a possible magnesium arsenide fill, which is not chemical warfare materiel. However, it is considered a hazardous chemical and will be disposed of accordingly.

All of our engineering controls are designed to handle this type of chemical.



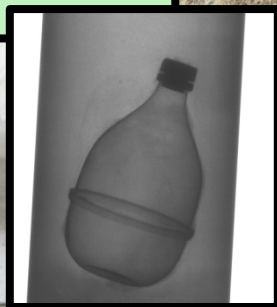
March 11th Finds

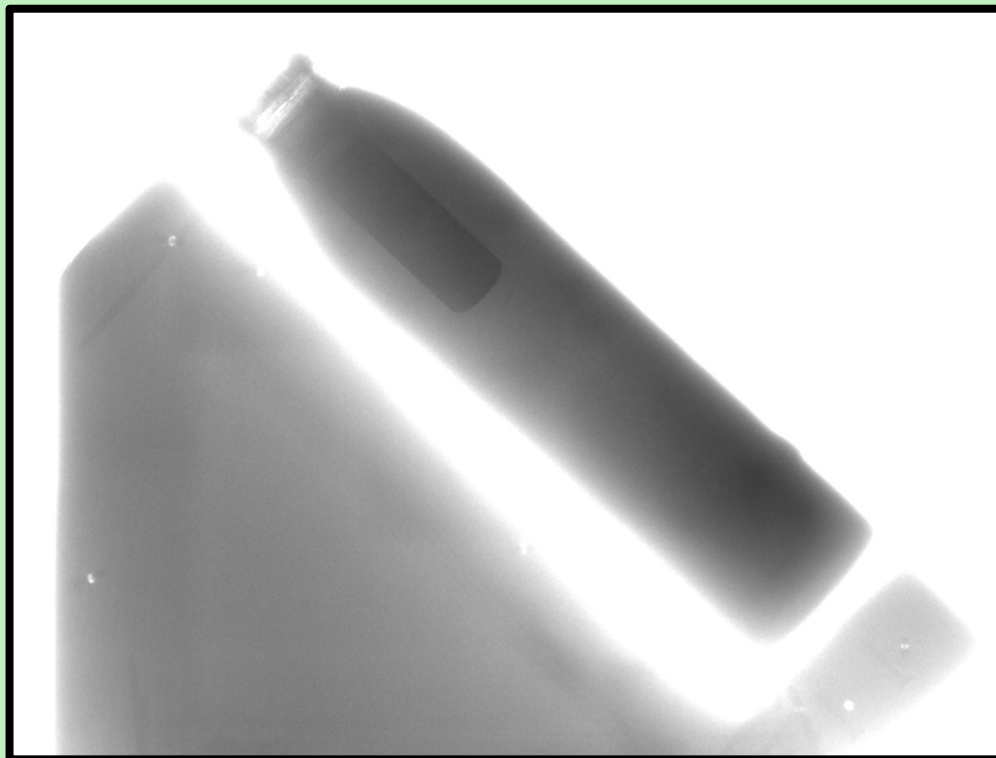


Intact Glass Containers

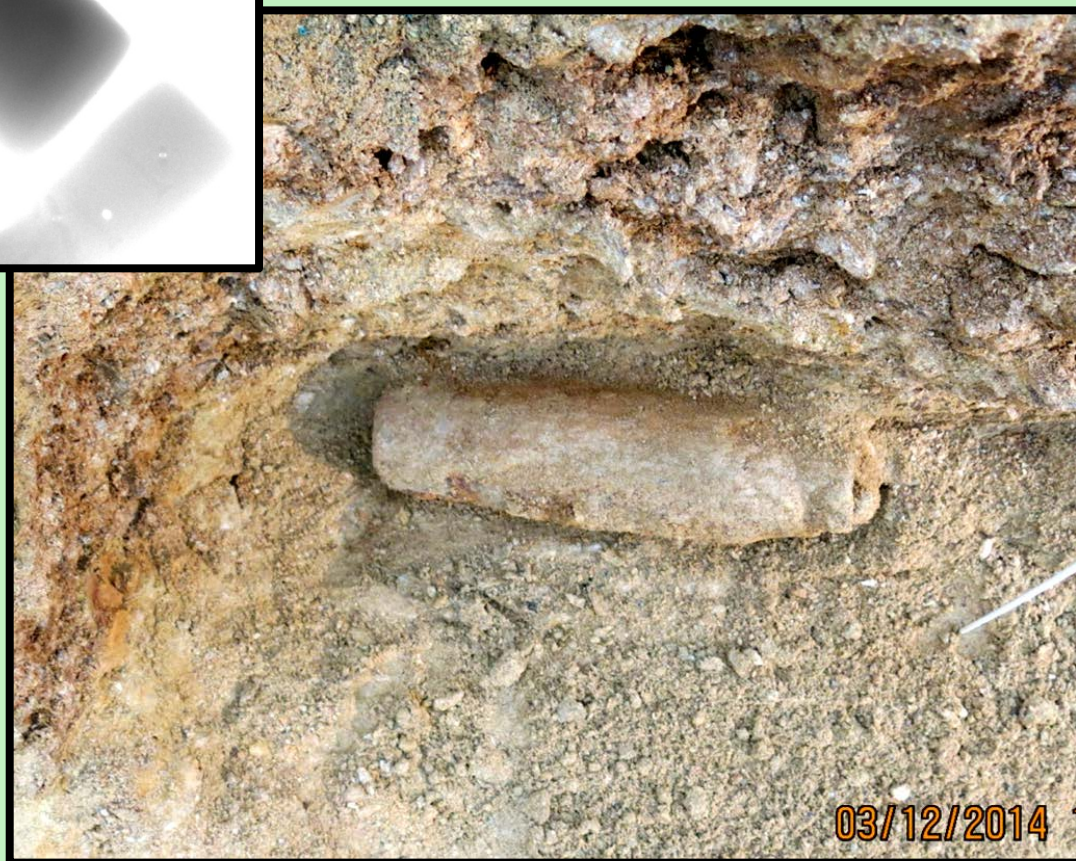


Copper Vessel





**An empty 75mm
munitions debris item
found on March 12**

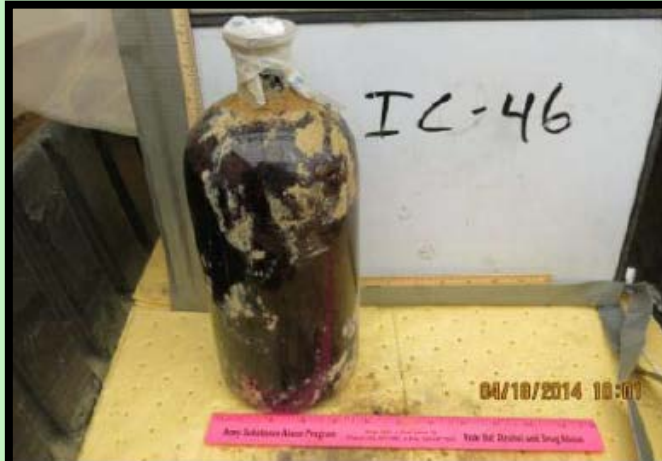


**Glass bottle found on
March 19**



**Intact container
found on March 27**





An empty 4.7” projectile round and a large glass container were found on April 18



**Examples of
intact containers
found February
25 through
April 22**



4825 Glenbrook Road

High Probability Operations



The crews loaded excavated soil, where they were encountering debris, into drums and collected composite samples.

Site crews continue to load soil and debris per the procedures. All items and soils are tested prior to disposal. To date, 45 roll-offs of soil, 360 drums of soil, and 10 roll-offs of rubble have been removed.



4825 Glenbrook Road

Schedule Update



✓ **December 2012 through May 2013**

Site Preparation/ Initial Low Probability Work

- Test pits in backyard and re-locating utilities
- Install soldier piles to support embankments

✓ **May 2013 through September 2013**

ECS Set Up, High Probability training, and Pre-Operational Exercises

→ **September 2013 through July 2015 (a 12-week extension)**
High Probability Excavation

August 2015 through October 2015

Final Low Probability Excavation

October 2015 through November 2015

Site Restoration



Spring Valley FUDS

Restoration Advisory Board

Community Items



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Spring Valley FUDS Restoration Advisory Board



Reminder: Our next meeting will be July 15th

Upcoming Agenda Items

- Suggestions?

- Community Relations Plan Update
- 4825 Glenbrook Road Health Consultation Update (ATSDR) - TBD



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Spring Valley FUDS Restoration Advisory Board



- **Public Comments**
- **Wrap-Up**



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