USACE SPRING VALLEY FUDS PROJECT **AGENDA**

Inter-Agency Partners Meeting

Tuesday, April 29th, 2014				**[**Upcoming Meetings: June ?**]**
TIME	**TOPIC**	**DISCUSSION LEADER**	**PREPARATION**	**OBJECTIVE**
9:15 - 9:30	Check-in / Review Ground Rules	D. Noble		Introductions of new attendees / Personal check-in / Review Ground Rules
9:30 – 10:30	4825 Glenbrook Road	B. Barber/Parsons		High probability work progress. Schedule review
10:30 – 10:45	BREAK			
10:45 – 10:55	Groundwater	T. Beckwith		Update
10:55 – 11:05	Open Issues and New Data	D. Noble		Sign ARB memo for the Dalecarlia Woods Area Data Gap Analysis
11:05 – 11:15	Document Tracking Matrix for MMRP/HTW	L. Reeser/ Parsons	Partners Review	Review pending documents
11:15 – 11:25	Partners' Parking Lot	D. Noble	Partners Review	
11:25 – 11:35	Agenda Building	D. Noble		** Future Meeting Discussion
11:35	Adjourn	D. Noble		

Spring Valley Partnering Meeting
April 29, 2014
Spring Valley Trailer Conference Room

Name	**Organization/Address**	**X**
Sherri Anderson-Hudgins	CEHNC	**X**
Thomas Bachovchin	ERT	
Brenda Barber	CENAB	**X**
Todd Beckwith	CENAB	**X**
Bethany Bridgham	American University	**X**
Janelle Boncal	Parsons	
Jessica Bruland	ERT	**X**
Sean Buckley	Parsons	**X**
Paul Chrostowski	CPF Associates, AU Consultant	
Tom Colozza	CENAB	
Jennifer Conklin	DDOE	
Kathy Davies	US EPA Region 3	
Dr. Peter deFur	Environmental Stewardship Concepts/RAB TAPP Consultant	**X**
Diane Douglas	DDOE	
Bill Eaton	URS	
Brandon Fleming	USGS	
Alma Gates	RAB Member - Horace Mann Rep.	
Steve Hirsh	US EPA Region 3	**X**
Leigh Isaac	Environmental Stewardship Concepts	
Cynthia Mitchell	CENAB, Public Affairs	**X**
Dan Noble	CENAB	**X**
John Owens	CENAB	
Randall Patrick	Parsons	**X**

Lan Reeser	CENAB	**X**
Amy Rosenstein	Risk Assessor (Independent Consultant)	
Allen Shapiro	USGS	
Don Silkkenbaken	Parsons	
Lattie Smart	ERT - Community Outreach Team	**X**
Jim Sweeney	DDOE	**X**
Andrea Takash	CENAB, Corporate Communication Office	**X**
Cheryl Webster	CENAB	
Ethan Weikel	CENAB	
Nan Wells	ANC3D Commissioner	**X**
Maya Werner	ERT	
Kellie Williams	CEHNC	
Laura Williams	Environmental Stewardship Concepts	
Rebecca Yahiel	ERT - Community Outreach Team	**X**

Summary of April 29 Spring Valley Partnering Meeting

Consensus Decisions

- No consensus decisions were made.

April 29, 2013 Action Items

- USACE will continue coordination with homeowners to finalize the location where MP-5 will be installed.

Tuesday, April 29, 2014

Check-in

The Partners conducted their normal check-in procedure.

Andrea Takash mentioned that the USACE Public Affairs Office had changed their office name to Corporate Communication Office. She introduced Cynthia Mitchell, who will handle outreach and social media for the Baltimore District.

A. 4825 Glenbrook Road Remedial Action Update

The goal of this segment of the meeting was to discuss the decision-making process and the ongoing remedial action for the 4825 Glenbrook Road site.

USACE-Baltimore and Parsons provided an update on the high-probability remedial activities in progress at the 4825 Glenbrook Road site.

High-Probability Excavation (Area F): Removal of high-probability soil continued in Area F, in the front yard of the site, and is currently progressing southward toward the neighboring 4801 Glenbrook Road property. The current area of soil removal is characterized by a less intense debris field. Remaining hardscape such as the front portion of the house foundation wall will also be removed as excavation progresses.

To date (as of April 25), a total of 405 cubic yards of soil were removed. This volume represents compressed soil below the ground surface, but upon accounting for the above ground air fluff, the total volume placed in the roll-offs was greater than the compressed cubic yards of soil. Composite soil samples are collected as the roll-offs or drums are filled.

Based on recent findings (AUES-related items and contaminated soil) in the known debris area underneath the front porch, all excavated soil is now placed in drums instead of roll-offs. Depending on analytical results, the drummed soil will either be placed in roll-offs (if tested negative for contamination) or remain sealed in drums for hazardous waste disposal (if tested positive for contamination). To date (as of April 25), a total of 45 roll-offs of soil and 360 drums of soil were removed, along with 10 roll-offs containing rubble.

This volume of removed soil comprises approximately 95 percent of the total soil volume projected for Area F (the first tent location). Slower progress is anticipated in the remaining area as the excavation extent continues to clear the former chimney area and the adjacent debris field (where AUES-related glassware and lewisite-contaminated soil were encountered during the previous high-probability site investigation), and during installation of lagging near the property boundary with 4801 Glenbrook Road.

Hardscape removal completed to date includes the corner of the former basement foundation, the two front yard retaining walls, the front sidewalk footers, and large cinderblocks that were positioned underneath the front porch area.

Findings to Date (Area F): AUES-related debris findings in Area F to date were mostly limited to glassware fragments. Almost 495 pounds of glassware debris have been recovered, and all except one sample of this glassware has been cleared for headspace. One sample of scrap glassware (collected on April 4 was not cleared for on-site headspace.

Additionally, about 146 pounds of metallic debris have been cleared for headspace. These debris fragments are unidentifiable and are not categorized as AUES-related.

[Details of previous AUES-related items found during high-probability soil removal in Area F were provided at the December 2013 and February 2014 Partnering meetings.]

Since the February Partners meeting, a total of two (2) AUES-related munition items and a total of 39 AUES-related glassware items were found in the soil excavated from near the former front porch steps where excavation was placed on hold in May 2010.

- One (1) 75 mm projectile with a hex-plug was recovered on March 12. This item was intact and assessed inside the ECS by CARA Explosive Ordnance Disposal (EOD) via X-ray and found to be empty, with no liquid or energetic fill. This item was cleared for headspace and classified as scrap.
- One (1) 4.7 inch projectile was recovered on April 18. This item was intact and was assessed inside the ECS by CARA EOD via X-ray with inconclusive results, thus requiring a more powerful assessment using a mobile analytical platform. This item was assessed at the Federal Property by CARA EOD via their mobile munitions assessment system (MMAS) X-ray and PINS analysis, and found to be empty, with no liquid or energetic fill. This item was cleared for headspace and was classified (and will be disposed of) as scrap.

- Thirty-nine (39) intact small glass bottles, of various sizes, were recovered between February 25 and April 22. These items were observed to contain various fills, with varying types and volumes and layers. All glassware items were initially packaged in multiple round containers (MRCs) and transported to the Federal Property, and were then sent to Edgewood's Chemical Transfer Facility (CTF) for analysis. Analytical results are pending. Disposal of these items will be conducted at Edgewood, as appropriate.
- [CARA refers to the chemical, biological, radiological, nuclear and high-yield explosives (CBRNE) Analytical and Remediation Activity, which is a subordinate unit of the U.S. Army's 20th Support Command.]

Since the February 2014 Partnering meeting, contamination was also identified in the soil excavated from the debris area. These samples containing chemical agent (CA) and/or agent breakdown products (ABPs) were collected between March 7 and March 21. [Details of soil disposal characterization samples and air monitoring detection during high-probability soil removal in Area F are provided below.]

Discussion – High-Probability Excavation Findings to Date

USACE explained that once the crews started encountering the debris in the area of known debris, they stopped using roll-offs and started using drums. In response to EPA, USACE clarified that the drums are not all head spaced. One sample for every 3 drums is sent out for head space for low level analysis. All samples have been negative for head space.

In response to Dr. P. deFur, Parsons confirmed the 495 pounds of scrap glass does not include the intact glass containers. USACE-Baltimore noted that the April or May 2010 RAB minutes cited just over 500lbs of glass debris had been found by the time they stopped the initial excavation. We have just exceeded this amount during the current removal.

In response to EPA inquiry, USACE explained they are still waiting on ECBC's analysis on the glass containers. USACE has received some verbal information, but ECBC has been inundated with findings and they are prioritizing soil samples over the intact containers. USACE recently asked ECBC to re-prioritize all the intact containers. USACE is hoping to see more information soon.

In response to Dr. P. deFur's question, USACE clarified that they examine each glass container individually. They follow a risk assessment process, handling each item as completely unknown. It takes ECBC time to get each container into the system to be analyzed and then to verify the analytical data. On average, ECBC says they will have results within 2-4 weeks.

N. Wells commented that USACE has been finding bottles all along, but noted that quite a number of them have been found recently.

In response to N. Well's question, Parsons emphasized that as the crew has progressed closer to 4801 Glenbrook Road, the frequency of findings has dropped significantly. EPA noted as a reminder that this whole project was planned around finding bottles like this. This is not unusual or unexpected. USACE-Baltimore clarified that just because the front yard has been completed, does not necessarily mean everything has been found. They may continue to see intact containers.

In response to Dr. P. deFur question, Parsons explained that the other 5% of the front yard that needs completion is Area E. This portion of Area E is so small it is hard to quantify. The crews have to come around the house by the chimney and window wells. This is where Pit 3 stopped and where they did not dig all the way up to the corner of the house. At that point, the crew will start pulling down the walls and gathering confirmation samples. The window well is next to the back of the tent. We have to turn the corner and take out the soil and the chimney itself. The small amount of soil that is there is actually previously excavated soil. However, this soil needs to be removed in order to install lagging to be able to take out the chimney.

Discussion – Drum Sampling

The soil disposal characterization samples are taken from with the drums. The sample ID shows the date that sample was collected. The samples from March 7th and March 10th includes from grids -10 to -30, which is the area underneath the former front steps. Grid -10, -10 is the formerly investigated area before they stopped in 2010. Detections in those samples included mustard breakdown products 1,4-dithiane and 1,4-thioxane. The remaining samples after March 10th are soil from Grid -10, -10. There were some lewisite hits. However, the head space analysis did not come back positive; this is the low level analysis.

EPA asked which breakdown products are being tested. USACE clarified that the low level analysis is still pending. ECBC looks for the other chemicals first, and if they see only breakdown product but no mustard, then they will look for thiodiglycol. If they see samples with breakdown products with mustard, they do not look for thiodiglycol. USACE confirmed that they have seen mustard in previous samples. However, they have also seen breakdown product and no mustard. As a result, they are collecting soil that will be tested for thiodiglycol. Parsons added that all of this soil will be treated as hazardous.

The crews take grab samples if they see stained soil or a leaky container. This soil is then removed. USACE clarified that these grab samples are not a disposal characterization sample or a confirmation sample. They are just a sample of the soil that is currently being excavated, not the drums. The work plan says that when they encounter stained soils, or find an intact container leaking, they need to take a grab sample to help consistently assess the workers safety in their PPE based on what they are finding. The samples that they are pulling from the drums are also characterized for disposal purposes. They will not send soil that has come up positive for mustard and lewisite at the HTW lab. These samples help inform the incinerator what is in the soil. The incinerator is given all the available data to help them make their acceptance decisions.

In response to EPA's question, USACE clarified that in these grab samples, they are sampling the full suite: VOCs, SVOCs, metals, perchlorate. These are the only positive results in the grab samples. All of the soil has been drummed and will be assumed as and treated as hazardous waste until laboratory results show otherwise.

In response to EPA, Parsons clarified that the sealed drums are in the drum storage area at the federal property. They are head spaced and below hazard level, thus they are not off-gassing. USACE reminded EPA that last time the drum yard was full, they looked at the analytical results and amount of soil they had and determined the total weight of agent present. With those numbers, they calculated what would be the risk if the entire amount of agent was released into the air at once. They could do the same calculations here when they get enough soil. EPA agreed that this should be done at that time. Dr. P. deFur added that USACE could do approximate calculations given these detections, assuming USACE will accumulate more drums.

In response to Dr. P. deFur and N. Wells' questions, USACE clarified that the drums are locked in a secure fenced area, inside the main perimeter of the federal property, which also has a secure fence line with 24-hour security.

Discussion – Air Monitoring Detections Results

On March 25th, lewisite was detected at the filter inlet three times. This is considered a positive detection for lewisite. In accordance to protocol, the crew pulled the confirmation DAAMS tubes, which did not confirm a positive presence of lewisite. Everything was done in accordance to the work plan. Once the alarms sounded for lewisite, they started mitigating and covering everything up with soil. This was not unplanned. There were other DAAMS tubes tested for work protection limits. Samples from these tubes are always run, even if there are no detections. Those samples were collected at the filter inlet and were also clear for mustard and lewisite

In response to EPA's inquiry, Parsons confirmed that the DAAMS tubes did not detect mustard or lewisite at all. They continued to see detections of lewisite with the alarms, so they collected vapor samples from inside near the excavation area on March 26th to try to identify the interference. Those DAAMS tubes were analyzed using the GC-MS (Gas Chromatography Mass Spectrometry) method for TICs (Tentatively

Identified Compounds) with NIST library database, which was done by ECBC up at Edgewood.

1,4 dithiane and dichloronaphthalene were the two compounds that were detected with the greatest area percentage or the greatest concentration. Neither of these compounds corresponded to the expected retention for lewisite. In other words, the MINICAMS show a peak, and where that peak is along the line indicates what compound it is. A 1,4 dithiane and dichloronapthalene peak is not expected to correspond to a lewisite peak (although not much is known about dichloronapthalene retention times).

In response to EPA, USACE-Huntsville clarified that there is not a lot of information on dichloronaphthalene's break down product. ECBC is trying to get a sample of dichloronapthalene to run and see how it fits in with the agent gates on the MINICAMS. ECBC has done some research and found dichloronaphthalene was used in something called halo wax and some other research purposes. It was also later used for napalm. USACE-Baltimore added that dichloronaphthalene showed up on some of the historical lists, listed as halo wax, while investigating smokes. They found other mentions in the literature around the 20s and the 30s that talk about dichloronaphthalene and smoke research.

In response to EPA's inquiry about the false positive results for lewisite, USACE-Baltimore explained that ECBC has to create a standard on the MINICAMS to confirm whether that is the cause of the false positive. At first they were seeing this detection inside the gate for lewisite. The detection has now moved outside of the gate for lewisite. Parsons explained that biphenol was detected closest in the expected retention type for lewisite using the DAAMS tubes analysis. However, its chemical structure indicates that it would not be detectable on the MINICAMS. They would be able to detect lewisite with the DAAMS tube with the GCMS. Dichloronapthalene was detected with the second greatest area percentage. It has a retention time within one minute of the expected retention time for lewisite. The retention time for lewisite is not necessarily the same between the MINICAMS and the GCMS (the GCMS is used to run the DAAMS tubes), but it has a chemical structure and molecular weight that one would expect to be able to detect dichloronaphthalene on the MINICAMS. ECBC has purchased a reference standard of 1,8 dichloronaphthalene. They plan to manipulate it in order to run on the MINICAMS and then calibrate the MINICAMS to determine its peak. That interference could be a combination of chemicals, and so it may not necessarily be the dichloronaphthalene alone. It may be dichloronaphthalene with some other chemicals that might cause it to be within the lewisite gate. USACE mentioned that after a while that peak started moving outside the lewisite gate, so it started not being considered a false positive, but definitely a peak.

Parsons reiterated there was no indication of lewisite or lewisite degradation products detected on any of DAAMS tubes that were analyzed. Additionally, once the hole was covered, and the peak was gone, and the DAAMS were run again, the dichloronaphthalene was not detected in the DAAMS tubes.

In response to AU, Parsons confirmed that this was the first time they had seen dichloronaphthalene. It does not change the MCE because it has a very low vapor pressure and generally is a solid crystal. It would be more of an inhalation hazard from the dust that we would be kicking up, but only to the workers.

In response to Dr. P. deFur, Parsons explained that they have been seeing dichloronaphthalene in the vapor samples, but have not seen it in the grab soil samples. However, they cannot send the grab soil samples to the commercial lab to test for dichloronaphthalene. ECBC must test the grab soil samples because they are all positive for agent.

Dr. P. deFur commented that the contaminant must come from either a soil contaminant or a leaky bottle. Parsons confirmed this. This past week, the level on the MINICAMS was very low and within background levels. Since ECBC ran maintenance yesterday on the MINICAMS by cleaning out all of their lines, the peak is totally gone. We still have some soil from Grid -10, -10, but it does not seem to be off gassing or show the peak. What was there has been containerized.

USACE commented that the reason why the peak shifted out of lewisite gate is because they changed the analytical columns and swapped out the MINICAMS. This is good news because when the peak was

constantly showing up in the lewisite gate, they had to treat it as potential lewisite and had to keep pulling and testing DAAMS tubes. Now that the new column has moved that interference peak out of the gates, they can treat it as a simple unknown rather than as a potential lewisite detection. However, now they know it is not agent. They do not have to runs a DAAMS tube just because we see it three times in a row in the MINCAMS.

USACE also clarified that halo wax *is* dichloronaphthalene; it is not just associated with dichloronaphthalene. It is a mixture of all the isomers, but not necessarily a pure fraction of just one isomer.

Dr. P. deFur commented: If it is not lewisite, then something is setting the MINICAMS off. There is no reason that it could not be compounds like dichloronaphthalene. In so many cases, there are mixtures and no pure standard. The chemical will have aged and will be different now, compared to what it was 100 years ago. They have changed over time, as well as once they hit the atmosphere after 100 years.

Parsons commented that they may encounter this peak again, but at this time they are out of the area that was the source of that peak.

On April 7th, there was a single alarm for lewisite at one mid-bed filter. The crews stopped intrusive operations and immediately mitigated the area, even though they did not have two subsequent ring-offs at the mid-bed. On April 8th, the crew ran the tubes from the filter inlet, as well as the filter mid-bed confirmation samples, checking for worker protection limit. Two sets of DAAMS tubes were collected from the pre-filter and then the confirmation sample was collected from the mid-bed. They completed a one hour WPL sample at the inlet that Tuesday, which represented air that came in that day after the excavated soils were covered. They also collected the DAAMS tubes for scrap glassware for screening.

Compounds indicated of lewisite (CVAA and CVAO) were not detected in any of the samples. Even though there were not three consecutive ring-offs of lewisite at the mid-bed (only one), the crew still handled the situation as if it was three consecutive ring-offs by running the DAAMS tube. Lewisite was not detected.

In response to EPA questions, Parsons clarified that the mustard was found in the pre-filter. The MINICAMS did not detect the mustard because they were at such low levels.

In response to USACE, Parsons clarified that the MINICAMS do not look for mustard breakdown products. HD ABPs and Dichloronaphthalene were detected in the samples collected from the pre-filter inlet on the DAAMS tubes and the analyzed scrap glassware. None of the compounds of interest were detected in any of the samples collected from the filter mid bed.

Parsons continued to explain that the compounds detected at the filter inlet were expected and consistent with what was finding the previous week. The compounds were not detected beyond the filter inlet; meaning nothing was detected at the mid bed. Nothing was detected at the filter inlet after the excavation area was covered, as previously discussed. The day (April 7th) lewisite was detected at the filter at mid-bed location was a rainy day. Excessive moisture can sometimes play havoc on the MINICAMS. There could have been an electrical spike or something similar. For this reason, they look at 3 consecutive ring offs before considering it a confirmed detection. Other indications that the CAFS were doing their job are the magnahelic readings. The magnahelic readings would change if the carbon were absorbing the chemicals to the point of break through. Since the carbons in the CAFS were installed in February 2014, there have been no changes to the magnahelic readings.

As discussed, the interference peak moved outside of the retention time for lewisite because of the column change. The drums will be removed from the tent when the excavation site is covered and the MINICAMS readings are clear, meaning they are within the background noise, and all other monitors are clear (i.e. nothing reading on the PID, arsine, and HCL monitors). ECBC is creating a standard to calibrate the MNICAMS, but at this point it will be for historical purposes. It will not be something used actively unless they come across that peak again. No other detections of industrial compounds were found

with any of the other monitors.

Dr. P. DeFur agreed with the strategy to get a standard of dichloronaphthalene. However, this leaves the problem that we will not know if there is actually a mixture of chemicals – it will remain an unknown. With the separation of dichloronaphthalene and lewisite, they may get close to the answer, but can only be approximate. There still is the high probability that impure dichloronaphthalene has a slight change in retention time versus a pure standard.

Parsons explained that any time they see a lewisite peak or any other compound they treat it as such, until it is confirmed by testing the DAAMS tubes. Since this is a removal, they are digging down to saprolite and bedrock.

In response to EPA, Parsons explained that they will change the first set of filters if they start seeing changes in the magnahelic (or the first line of defense) readings or analytical data at the mid bed. Parsons verified with ECBC that they have an adequate amount of carbon at the site. USACE mentioned that if the CAFS system needs a carbon change, USACE-Huntsville is already reviewing the plans in place to do so.

In response to EPA, USACE clarified that carbon life is not measured by cubic feet of air that passes through; it is measure by chemical break through. The first bed of the filter does not act as a source of chemical to the second bed; likewise, if a chemical is pulled through the mid bed, it is not added to the final bed because the filter absorbs the chemical. USACE commented that if the crew sees what they think is break through at the first filter, they can 'button up' the site to ensure that they are only pulling clean air through the CAFS. At that point, they can swap out the filters in about three days. Keep in mind that the second filter should be intact.

In response to EPA, USACE clarified that ECBC sent an initial memo on recent activities and discoveries, but cannot make a formal conclusion until they run the standard ofdichloronaphthalene. At that point, USACE will ask ECBC to issue a formal report on the MINICAMS' activities at the site, which will include their conclusion and summary in respect to what was detected. EPA and Dr. P. deFur requested to see the final report. USACE confirms this.

In response to N. Wells, USACE confirmed that the assumption is that the builder of 4825 Glenbrook Road uncovered these materials and re-buried them. However, it is hard to say if he knew they were there for sure. N. Wells noted that it looked like the builder excavated around the items. USACE clarified that this soil was back fill that the builder placed around the wall as the house was built. They were physically removed by somebody and then put back. Some of the objects were large enough to see in the bucket of an excavator. A good operator would not have missed these objects. There is too much debris. The photos taken when the crews were in the heavy debris area show that the area was basically backfilled with debris. In response to EPA, USACE confirmed that Grid -10, -10 was a fill area.

Discolored soil was found. It was a weathered, greenish color on the saprolite. This does not reflect normal saprolite color. The stained soil has been dug up and removed. This soil was found where the previous excavation team started digging in the former high probability test pit area.

After April 18th, the team started digging in the formerly excavated area in order to install the lagging. Considering that the crews have been hand digging, they have made a great deal of progress.

In response to EPA question, Parsons explained that the black material on the wall was some sort of vapor barrier, which had continued along the wall but was removal during the previous excavation.

Parsons showed pictures of some of the glass bottles found. Their functions varied: some were used for distilling or some other operation; others have glass tubes going into the bottles; some have liquid fill, some have powder fill, in many different fills and colors.

In response to Dr. P. DeFur's question, USACE answered that the plastic wrap on the glass bottle tops are actually paraffin wax that are put on before the item is packaged. Depending on when the picture is taken,

the bottles may or may not have paraffin wax in the picture.

Parsons described a thin metal wall pipe that contained a grease-like substance, which tested positive for lewisite. They wondered if the Army was attempting to mix lewisite with another complound. In response to USACE, Parsons confirmed that, thus far, the only analytics they have on that particular metal container was lewisite. ECBC can do metals, but they do not know what their VOC or SVOC capabilities are. No one could clearly identify what the metal container was. It was not a munition.

In response to USACE inquiry, Parsons clarified that the dimensions of this metal container were 18 inches long and 6 inches in diameter. It was very corroded and deteriorated.

D. Noble commented that the most recent glass bottle found was the largest bottle found so far during his time with the project.

In response to EPA's question, USACE confirmed that this bottle was an intact liter bottle but it was not full. It had a dirt plug and some solid substance inside.

Discussion – High-Probability Excavation Progress

Parsons explained that future activities under the first tent will include continued removing soil from the former Pit 3 area in order to install lagging. The crews will then turn the corner of the house to take down the remaining basement wall and fireplace. They will jackhammer the footer of the former retaining wall and removal the rubble. One of the footers was poured on top of glass debris. This section must be drummed.

B. Bridgham from AU commented that AU is about to hit the time of maximum use of the President's residence as graduation approaches. USACE confirmed that they will be shutting down intrusive operations during the major luncheons, so the jack hammering should not be a problem.

L. Reeser asked if all of the footer removal will be done under the tent. Parsons confirmed this.

Dr. P. deFur asked if these removals were the last activities to do underneath the first tent. Parsons responded that they want to clean the area and take confirmation samples. They are down to competent bedrock. USACE-Baltimore clarified that they will pull down the footers, but will leave the basement floor. They will remove the basement floor under the third tent.

In response to EPA's question, Parsons clarified that the schedule has been shifted since the original schedule. Originally it was expected to be at each tent location for three months. They originally expected to end high probability this September, and complete the remaining low probability work and site restoration in the remainder of the 2014 calendar year.

USACE mentioned that they would like AU to be aware of the schedule and logistics of the first tent move. They will need the entire parking lot in front of Watkins and Kreeger in order to move in the crane that will move the tent without taking the tent apart. This is scheduled to occur during the summer and thus be less of an impact on AU. USACE wants another two weeks to finalize the move date to start coordinating with AU on how they can shut down the parking lot. USACE confirmed that even though safety barricades will be set up, foot access through that area will still be permitted and the buildings will be fully accessible.

Parsons explained that they must first build the crane, then move the tent, and then dissemble the crane. It will take a day or two to assemble the boom of the crane. This is when that parking area will be taken. Once they lift up the boom and start the moving operations, it will take about a week total. After that week, the parking area will be assessable. It will take a day to take the crane down, at which point they will need to block that parking lot again. EPA requested an update on the tent move schedule because he would like to come down to Spring Valley around that time. USACE confirmed this and also mentioned this would be an appropriate time for a project update for the AU president.

Tentative Remedial Action Schedule: Completion of high-probability soil removal is anticipated in spring (late April) 2015. The remaining low-probability soil removal actions (the remainder of excavation area A, along with excavation area B) will be conducted as early as spring 2015, followed by site restoration. The remediated property will be returned to AU, the property owner, as early as summer 2015 (late July).

Weather Delays: Approximately 2 planned work days (March 3rd and 17th) were lost due to winter weather conditions, which limited or prevented transportation to the site.

Debris Field Delays: During March and April 2014, most high-probability soil removal was excavated by hand due to the presence of AUES-related material. Site personnel hand-dug the soil, staged and drummed it as appropriate, and waited for analytical data before resuming excavation of known debris areas. Additional lagging was added to soldier piles in this area as debris field excavation progressed.

Weekly Schedule (Working Days): Site personnel continue to work five ten-hour days each week because this is helpful for the site teams.

Upcoming Tent Locations: Based on high-probability excavation progress to date, completion of the first (current) tent location is anticipated in mid-June 2014.

USACE noted that preparation for the first tent move will occur around the next Partners meeting. They will work on getting as much of the analytical results as possible. B. Barber clarified that the tent will actually move in early-mid July

B. Open Issues and New Data

The goal of this segment of the meeting was to share issues not on the agenda for possible placement on a future agenda and to share new data that became available since the last Partnering meeting.

Three open issues were brought forward as brief status updates.

Status Update – Dalecarlia Wood ARB Memo

D. Noble followed up on the ARB memo that was electronically sent out to the Partners. When USACE completed the geophysical survey of 60 acres at Dalecarlia Woods, there were some areas that the team could not survey. USACE-Baltimore presented on this topic at the last Partners meeting, where they agreed to look into a couple of things. For instance, DDOE was going to look into the issues of encroachment by some homeowners on the city's right of way along Dalecarlia; USACE was going to look into getting some photos that conveys the steepness of the un-surveyed slope. The Partners followed up and produced the ARB memo which says that the investigation USACE did was sufficient; the survey obtained the coverage needed in order to evaluate the area. The Partners signed the memo.

Status Update – Fordham Road Property

USACE mentioned to EPA and DDOE that USACE is still attempting to complete the anomaly investigation at the Fordham Road property. At the last Partners meeting, USACE updated the Partners that the homeowner had requested changes to the Right-of-Entry language. These changes were denied by both Baltimore District Office of Counsel and USACE HQ. The real estate office at Baltimore District put together and sent a written response as an explanation to the homeowner; USACE has not heard any response yet, and it has been about 3 weeks. It is unclear where USACE stands with the homeowner. USACE will attempt to communicate with the homeowner again. However, the letter basically offered again that if [the homeowners] are willing to reconsider signing the standard ROE, USACE will coordinate with them to start the work as soon as possible.

USACE added that he will continue to follow up with the homeowners over this summer, and keep the Partners updated on any progress.

N. Wells asked what would be the next way of encouraging them for access; would we have to go to court?

USACE answered that this is last step they should take. There is not much else we can do.

N. Wells asked if anyone else has authority to do anything, like EPA. EPA responded that there is no easy way. If you go to court, you must have a very good reason to gain access to the property to show the judge; it is like getting a search warrant.

Status Update – Site-Wide Remedial Investigation Report

USACE mention to EPA and DDOE that their contractor, ERT, delivered the draft RI document to USACE. USACE-Baltimore is reviewing the document now and will be done by end of this week. Those comments will go back to the contractor to produce an edited draft that will be provided to the DOD reviewers, i.e. the CX and Public Health Command at Edgewood. USACE-Baltimore reiterated that the review is active and moving forward. The Partners should expect to see something this FY.

USACE-Baltimore mentioned that there are still several AOI consensus memos that he needs to finalize before the RI is complete. The Partners can look forward to seeing those in future.

C. Document Tracking

USACE-Baltimore had nothing new to add. USACE is reviewing the Draft RI report. They are tracking the Draft RA, but it is all on slightly different tracks. The intermediate step for the preliminary Draft Final RI, which was supposed to be the version for the CX, will be worked out.

USACE-Baltimore asked EPA for their guidance on cobalt. EPA responded, saying EPA's risk assessor thinks those numbers are beyond background, but he will find what she sent and forward it to USACE.

Dr. P. DeFur asked when the Risk Assessment is coming out as Draft Final. USACE-Baltimore confirmed that it is hard to say at this point exactly, but it will be available before the end of FY 2014, and it will most likely be combined into one document.

D. Partner's Parking Lot

The goal of this segment of the meeting was to review and update the Parking Lot list.

The "Partners Parking Lot" is an informal list designed to assist the Partners in tracking ideas, collaborations, research and tasks. The list is not a formal document specifying actions that must be taken.

The Parking Lot list will be reviewed and updated at an upcoming Partnering meeting.

E. Groundwater Study Efforts

The goal of this segment of the meeting was to provide an update on ongoing and upcoming groundwater study efforts.

USACE provided a brief update on the status of upcoming groundwater study efforts.

Additional Well Installation for the SVFUDS GW Monitoring Program: Two additional wells are planned to provide additional vertical delineation of groundwater. MW-46 will be installed close to Sibley Hospital. MP-5 will be installed between MP-3 and MP-4 (The exact location still to be determined).

Quarterly Sampling: Two existing groundwater monitoring wells and a surface water location were selected for more frequent quarterly sampling in addition to the semi-annual sampling events, based on historically high perchlorate detections. PZ-4S/D and the Sibley Sump were both sampled in March 2014.

The Kreeger Hall data was sent out to the Partners yesterday; these are preliminary March sampling results.

In March, the crew sampled in front of Kreeger Hall again. At PZ-4D and MW-44, we are seeing similar levels as were seen at these locations in the past. At the deeper wells, MW45-S&D, results show about 6 ppb and ND (non-detect) at the deepest interval, which is similar to the Sept 2012 and Dec 2013 sampling results, but significantly different than the May 2013 sampling results (31 ppb at MW-45S and 54 ppb at MW-45D). At the Partners meeting a few months ago, USACE brought up the possibility that samples from MW-45 S&D were mixed up with samples from PZ 4S & D. The latest set of data from March 2014 supports the idea that the May 2013 data may have been mixed up with other sample points. We will continue to sample these wells to monitor any changes in groundwater chemistry.

Semi-Annual Sampling: Selected existing groundwater monitoring wells and surface water monitoring locations will be sampled twice annually for the next few years, as part of the extended groundwater monitoring program. These locations include a total of 20 shallow and deep wells and 10 surface water locations.

The third semi-annual sampling event is scheduled for June 2014.

USACE commented that during the June semi-annual sampling event, the full set of wells will be sampled. The last semi-annual sampling event was in December. More wells are sampled during the semi-annual sampling events. The quarterly sampling includes the wells in front of Kreeger Hall and the Sibley Hospital sump. The complete data set was sent to the Partners before the meeting. At the meeting, USACE just showed the data for the wells in front of Kreeger Hall. However, the Sibley Hospital sump has similar detections of around 13 ppb from the March 2014 sampling event. This is where the results have been hovering for the past several years (a little below or around 15 ppb).

In response to DDOE, USACE explained that MW-44 is around 90 feet deep and PZ-4D is around 60 feet deep. It appears that, in the past, PZ-4S had some of the highest perchlorate detections. Now, the perchlorate appears to be flushing out a little in the shallow portion and getting deeper.

Discussion – Planned Installation Location for MP-5

USACE-Baltimore explained that they are hosting a meeting to discuss MP-5 and its location. USACE opened the floor for any questions before the afternoon meeting commenced. The approach USACE plans to take for the afternoon meeting is to share all the information, and ensure the project team understands what the community concerns are, and ensure the community members understand the facts of the plans and the process USACE must follow. The hope is that a path forward is found for the final well location.

N. Wells added that she thinks people are looking for the ability to alter the specific location, but keep it within area in which the USACE needs. The community members are certainly interested in working with [the Spring Valley project team]. Those community members who are planning to attend are a few local residents, a few RAB members, and the congresswoman Eleanor Holmes Norton.

USACE confirmed this. USACE still believes that the best location is the Rockwood island. However, the decision comes down to placing the new well, MP-5, on the road or on the island. There was no good alternate solution after looking at individual private properties within the drilling zone for a couple reasons. Either the property was not conducive for the drill rig placement or the property owner strongly objected to a well in the public space of their front lawn.

N. Wells mentioned looking at the well locations on the new set of maps. It appeared inconsequential in a visual sense as to where they are located in the neighborhood. She was surprised that residents had objected to a rather small piece in their yard.

EPA explained that if the well is placed on private property, other issues would arise. There is objection to the idea that the government is taking four square feet of property. Additionally, the government will need a long term agreement to access that well for sampling purposes. There are some legal complexities when

you go onto someone's property. Public space is more easily accessible. USACE clarified that they were only looking at public space in front of private property – not directly on private property.

N. Wells added that she has not spoken to any of the homeowners yet.

USACE commented that they have some wells in public space in front of properties. However, the usual response from a homeowner is negative when a well is proposed to go in front of their home.

N. Wells added that she knows a number people who will object to placing a well in public space. She would like to think that residents in Spring Valley would not have those problems; there are many resident lawyers who must be aware of public space obligation.

In response to USACE's question regarding EPA or DDOE questions ahead of the meeting, EPA responded that as long as the well is located in the groundwater flow path and can be properly constructed, in the road or public space, then they approve. DDOE responded that the proposed spot on the Rockwood island is the best spot.

N. Wells added that DDOE's Diane Douglas told her that the well could be put in road, and that she does not have problem with that.

USACE commented that there are certain challenges associated with putting the well in the road. USACE asked DDOE to clarify what is required for the public inconvenience fee that DC charges for shutting down a road. The fact sheet by DC says it is applicable for occupying public space for 30 days or more. However, URS explained that they cannot receive the permit without paying the fee, even if the work is only for a day or so. DDOE responded that he did not know anything about this fee.

N. Wells pointed out there are three parallel roads in that area: Glenbrook Road, Indian Lane, and Rockwood Parkway. Even if Rockwood Parkway was completely blocked, there are two other roads that could take people to their destination. These are modestly travelled roads in general. There is a pickup of cut-through traffic in the evening, but you have two completely clear roads as alternatives to Rockwood Parkway.

USACE added that the drill rig will stay in place throughout the drilling activity. The road will remain closed through the evening and overnight.

N. Wells asked if USACE could shut down one side of Rockwood, while leaving the other open. This area is quite wide compared to nearby roads. USACE said that they attempted to install MP-4 in the road, but had to move 4 times to different locations until they finally decided to put that well inside a curb. They kept running into abandoned underground utilities not identified by the utility clearance company. These are the types of issues the team runs into when installing a well in road.

N. Wells asked if the light pole on the tip of the island will impede the well installation. DDOE answered that they do not know yet. USACE added that if the drilling stays near one side of the curb, the light pole should not impact them.

N. Wells commented that further down Rockwood Parkway, another well was installed from the road. Could the heavy machinery be stationed on road and not on grass? USACE confirmed this. Originally, they thought that if the well was on the island, it would prevent a road closure. The grass would still have to be replaced even if the well was drilled on the island but the rig was on the road. The question was, why shut down the road when they can put all the equipment on the island since they would need to restore the grass either way.

N. Wells added that this action would ruin the sod. This is the real issue. Also, people use the park daily.

USACE added that the neighbors would not be able to use that portion of the park during installation.

N. Wells suggested installing the well above the park. Most people walk to the park and thus could walk there even if the road is cut off for traffic. Another problem is that there is no water source on the island. It took the neighbors three years to plant new sod because of several problems: it is a shaded area and

they have to run hoses down considerably steep sides. She wondered how many years it would take to restore everything.

USACE clarified that the grass will be restored right away. It will be restored one time upfront after the heavy equipment used to drill the well is used. The subsequent sampling efforts will not damage the grass. During the sampling events, a two person team samples with a regular truck and hand tools.

N. Wells wondered if she could find a private property [owner who is willing to install a well on their property] for USACE.

In response to N. Wells, EPA said that if they could find spot in the down gradient area. However, USACE has tried to contact several homeowners, and they have all responded no.

N. Wells shared that her sense is that having a neighbor come over to explain the situation that the well is for the good of neighborhood, will have a greater impact.

USACE mentioned that MP-4 is a well they have sampled multiple times. It is located inside a curb. After they installed MP-4, restored the grass, and sampled it multiple times, there is no visible damage to the grass. USACE would lay down new sod and water for two weeks to reestablish grass. This is the standard procedure USACE has done for the numerous restoration efforts in Spring Valley. This path was also recommended by the landscape company in order to reestablish the grass.

N. Wells commented that she is responding to the neighbors. Part of the original damage was done by Washington Gas, who came in without a permit and did not restore the grass. The community members have had a bad experience with the gas company.

USACE clarified that this is why the project team came to the public before installing the well - to talk about these related issues and ensure that the project team is addressing the community's concerns. N. Wells added that the community has expressed to her that this space is different and that is their concern.

F. Agenda Building

The next meeting is tentatively scheduled for Tuesday, June 19, 2014.

G. Adjourn

The meeting was adjourned at approximately 11:48 AM.