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NSA MID SOUTH  
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MINUTES AND AGENDA FROM BASE REALIGNMENT AND CLOSURE TEAM MEETING  
DATED 10 OCTOBER 2012 NSA MID SOUTH TN  
10/10/2012



**Agenda / Meeting Minutes**  
**BCT Meeting**  
**NSA Mid-South**  
**October 10, 2012; 9 AM – 3:30 PM**

- Attendees

Roger Donovan	TDEC (Nashville)	(615) 532-0864	<a href="mailto:roger.donovan@state.tn.us">roger.donovan@state.tn.us</a>
Charles Burroughs	TDEC (Nashville)	(615)-532-0863	<a href="mailto:charles.burroughs@state.tn.us">charles.burroughs@state.tn.us</a>
Jack Carmichael	USGS (Nashville)	(615) 837-4704	<a href="mailto:jkcarmic@usgs.gov">jkcarmic@usgs.gov</a>
Jim Heide	NSA Mid-South	(901) 874-5467	<a href="mailto:jim.heide@navy.mil">jim.heide@navy.mil</a>
Rob Williamson	NSA Mid-South	(901) 874-5399	<a href="mailto:rob.williamson@navy.mil">rob.williamson@navy.mil</a>
Ursula Robinson	NSA Mid-South	(901) 874-5918	<a href="mailto:ursula.robinson@navy.mil">ursula.robinson@navy.mil</a>
Rachel Methvin	NSA Mid-South	(901) 874-5904	<a href="mailto:rachel.methvin@navy.mil">rachel.methvin@navy.mil</a>
Ben Simes	NAVFAC Mid-West	(847) 688-2600	<a href="mailto:benjamin.simes@navy.mil">benjamin.simes@navy.mil</a>
David Criswell	NAVFAC BRAC PMO	(843) 743-2130	<a href="mailto:david.criswell@navy.mil">david.criswell@navy.mil</a>
Scott Powell	Lee and Ryan (IN)	(248) 969-7290	<a href="mailto:spowell@leeandryan.com">spowell@leeandryan.com</a>
Scott Randall	Lee and Ryan (IN)	(317) 453-7983	<a href="mailto:srandall@leeandryan.com">srandall@leeandryan.com</a>
Matt Teglas	QE2 (Knoxville, TN)	(865) 689-1395	<a href="mailto:mteglas@qe2.llc.com">mteglas@qe2.llc.com</a>
Ben Brantley	Resolution Consult.	(901) 372-7962	<a href="mailto:bbrantley@ensafe.com">bbrantley@ensafe.com</a>

**AGENDA**

- SWMU 39
  - Slab/Soil Removal
  - Groundwater Injections
  - Quarterly Monitoring Data
- SWMU 2
  - Landfill maintenance, fence repairs, and brush/tree clearing
  - Semi-Annual Monitoring Data
  - POA Checklist
- SWMU 14
  - Quarterly Monitoring
  - Planned groundwater corrective measures
- AOC A - Schedule of upcoming investigative activities
- MRP
  - Status of MRP Sites
  - Project Scoping/DQOs for AOC 1 and UXO 1 RFIs.

## **SWMU 39**

### **Slab Removal**

Scott Randall from Lee and Ryan discussed the SWMU 39 slab and soil removal. An initial estimate of 100 tons of soil was assumed to require removal due to perchloroethylene and Stoddard solvent impacts; however, the excavation depth and extent were expanded due to relic contamination based on photoionization detector (PID) readings in the field and observed soil staining. The excavation reached 4 to 5 feet below ground surface (bgs) across the northern portion of the site and 10 to 12 feet bgs in the southwest portion. Confirmation soil samples indicated VOC concentrations were below the EPA's residential and industrial Regional Screening Levels (RSLs) with the exception of two samples that were above the residential RSL but below the industrial RSL. Additional excavation activities were conducted associated with pipe chases with observable oil staining and pipe chase with asbestos thermal wrap material. At the conclusion of the removal activities, 894 tons of impacted soil and 144 tons of concrete/rubble/ACM material were disposed. The excavation has been backfilled and seeded with grass. The area will be reseeded by Lee and Ryan to ensure a uniform grass cover is established over the site.

**Action Item #1:** Submit Draft Removal Action Report to the Navy for review.

### **Groundwater Remediation/LTM -**

Lee and Ryan discussed the July 2012 potassium permanganate injections ( $\text{KMNO}_4$ ) at SWMU 39 to remediate the residual VOCs in the lower portion of the aquifer and the newly discovered TCE source area identified in the upper portion of the alluvial aquifer. Eight new monitoring wells used for vertically profiling groundwater across the entire thickness of the fluvial aquifer (48 to 100 feet bgs) identified a TCE concentration of 950 ppb at 50 feet bgs (39G25LF). Former remedial measures consisting of enhanced bioremediation focused on the lower section of the fluvial aquifer [70 to 100 feet bgs] which have successfully degraded most TCE; however, daughter products cis-1,2DCE and vinyl chloride remain above the MCLs. Between July 11 and 20<sup>th</sup>, 23,400 gallons of 3%  $\text{KMNO}_4$  were injected at 12 locations between depths of 30 and 70 feet bgs. The remedy effectiveness is being monitored through quarterly sampling. The second post-injection monitoring event is scheduled for December 2012. Monitoring data is being reported to TDEC on a quarterly basis. After the fourth quarter of post-injection monitoring (June 2013), the need to conduct another  $\text{KMNO}_4$  injection will be evaluated based on the reductions noted in the VOC monitoring data. Following four quarters of VOC concentrations below the MCLs, site close out will be requested.

**Action Item # 2:** Submit Draft Groundwater Assessment and Remedial Implementation Report to the Navy for review.

## **SWMU 14/46**

### **Groundwater Remediation/LTM**

Matt Teglas with QE2 discussed the monthly sodium acetate injections and quarterly groundwater sampling at SWMU 14/46. The sodium acetate injections are to stimulate anaerobic biodegradation of VOCs in groundwater as the solution migrates downgradient into the PCE plume; however, the injections have had limited effectiveness due to the low permeability of the loess. In February 2013, a Hydrogen Release Compound (HRC<sup>®</sup>) will be injected at 27 locations across the entire plume. Approximately 60 pounds of HRC are proposed for each location, targeting an injection radius of 5-foot around each point. Quarterly monitoring will be used to gauge the effectiveness of the supplemental remedial measures. The injections are tentatively scheduled for February 2012 and pending approval from Shelby County Health Department (SCHD) for an injection permit. QE2 will submit a work plan to the Navy for review following the SCHD's approval. Ben Simes mentioned that if the supplemental interim measures are not effective, then the Team may want to evaluate phytoremediation as an alternate remedy, given the shallow water depth and low VOC concentrations remaining at the site.

**Action Item #3:** The fourth quarter monitoring event is scheduled for October 2012. The Annual SWMU 14/46 Monitoring Report will be submitted to the Navy for review in December 2012.

## **SWMU 2**

### **Fence Repairs and Long-Term Monitoring**

In August 2012, the SWMU 2 fence line was cleared of all vines and repaired. Additionally, a clear zone was established on 15 feet of either side of the fence resulting in the removal of most trees less than 6-inches in diameter.

Semi-annual groundwater monitoring and surface water sampling of Big Creek is being conducted in January and July for the VOCs at the southeast corner of the landfill. During July's sampling event, very low, "J" flagged concentrations (< 1ppb) of cis-1,2-DCE were detected in surface water and groundwater concentrations have remained consistent with historical detections.

**Action Item #4:** Submit Annual SWMU 2 Monitoring Report to the Navy and TDEC for review. The report is scheduled for November 2012 and will include brush clearing and fence repair photos.

### **Base Wide Well Inspections**

Resolution Consultants, the Navy CLEAN joint-venture contractor (EnSafe and AECOM), discussed the Base wide monitoring well inspections completed in September. Electronic field forms and computer tablets were used for the first time for the data collection which will save time in the back end by not manually keying in data collected in the field. The goal is to similarly convert the groundwater sampling and chain of custody forms which will minimize transcription errors and expedite data entry/processing. The well inspection summary report will outline the condition of each well and the maintenance items that were conducted. Routine maintenance items such as painting well posts and bollards will be

conducted following well sampling activities to minimize the amount of time visiting each well after which the well inspection summary report will be submitted.

**Action Item # 5:** Submit Well Inspection Summary Report to the Navy and TDEC.

#### **AOC A Optimization Activities**

Resolution Consultants provided an overview of upcoming field activities associated with the AOC A since TDEC's recent approval (October 4, 2012) of the SAP. The SWMU 15 DPT investigation is scheduled to begin at the end of October. The schedule for the other field activities, including the installation of additional injection wells [10] at the former property perimeter, offsite monitoring wells [2], and Sub-Plume D monitoring wells [3], will take place in November or December.

**Action Item #6:** Resolution Consultants to contact Tennessee One Call and coordinate with Rachel Methvin (NSA Mid-South) regarding possible utilities in the SWMU 15 area.

#### **Munitions Response Plan (MRP)**

##### **Status Summary/Overview**

Six MRP sites underwent Site Investigations by Tetra Tech in 2009 (Tt, 2010), three of which have received regulatory NFA as a result of either a removal action (Horse Stables Skeet Range #1) or the absence of contaminants above risk based screening levels (Aircraft Firing Range and the Former Navy Rifle Range). The Horse Stables Skeet Range #2 will undergo a hot-spot removal action in November 2012 and the two remaining sites, the (Pistol Range and Trap/Skeet Ranges #1 and #2), are scheduled for RCRA Facility Investigations (RFI) by lead and PAH impacts identified in soil.

##### **RFI Scoping/DQOs - Pistol Range and Trap/Skeet Ranges #1 and #2**

Resolution Consultants provided an overview of the RFI data quality objectives for the Pistol Range and the Trap/Skeet Ranges #1 and #2. The affected media, rationale for proposed sampling locations of soil, sediment, groundwater, and surface water, and goals of the RFI were presented to the Project Team in a preliminary draft Sampling and Analysis Plan (SAP) that was shared with the Project Team the week prior to the meeting. Following an overview of the SAP, the following items were agreed to by the Project Team:

- Groundwater sampling will be removed from the RFI for the Pistol Range due to the potential carry down of lead contamination in soil during drilling and cross contaminating the perched groundwater. TDEC suggested we revisit the groundwater at a later time, following a possible removal action, when the potential cross contamination can be avoided.
- Decisions associated with defining the nature and extent of contamination are to be based on human health risk and the appropriate screening criteria. All references to ecological risk will

be removed from the SAP and an ecological risk assessment will not be conducted after the RFI. The Facility's RCRA permit also does not specify requirements for evaluating ecological risk.

- Sediment sample data are to be evaluated as soil data using the human health risk screening values for soil.
- The human health risk assessment will not be included in the RFI report and will be submitted as a separate standalone report or as part of the Corrective Measures Study.

To ensure compliance with the Shelby County Health Department's Water Quality Control, applications for well construction will be approved and signed by the NSA Mid-South (Rachel Methvin). Ben Simes mentioned that the Activity will need to review the Health and Safety Plan before initiating any field activities and a hard copy of the plan must be onsite during all field activities.

**Action Item #7:** Revise SAP and resend to the Project Team.