

N00639.AR.002132
NSA MID SOUTH
5090.3a

MINUTES FROM THE 26 MARCH 2014 BASE CLEANUP TEAM MEETING MILLINGTON
SUPPACT TN
3/26/2014
RESOLUTION CONSULTANTS



MINUTES FROM BASE CLEANUP TEAM MEETING 3/26/2014
Naval Support Activity MID-SOUTH

Roger Donovan	TDEC (Nashville)	615-532-0864	roger.donovan@state.tn.us
Charles Burroughs	TDEC (Nashville)	615-532-0863	charles.burroughs@state.tn.us
Howard Hickey	NAVFAC Mid-West	847-688-5999	howard.hickey@navy.mil
Harvey Pokorny	NAVFAC Mid-West	847-688-2600 x611	harvey.pokorny@navy.mil
Jack Carmichael	USGS (Nashville)	615-837-4704	jkcarmic@usgs.gov
Jim Heide	NSA Mid-South	901-874-5467	jim.heide@navy.mil
Rachel Methvin	NSA Mid-South	901-874-5904	rachel.methvin@navy.mil
Debbie Zanot	NSA Mid-South	901-874-5368	deborah.zanot@navy.mil
David Criswell	NAVFACBRAC PMO-E	843-743-2130	david.criswell@navy.mil
Monique Nixon	NAVFAC LANT	757-922-4699	monique.nixon@navy.mil
Scott Powell	Lee and Ryan (IN)	248-969-7290	spowell@leeandryan.com
Matt Teglas	QE2 (Knoxville, TN)	865-689-1395	mteglas@qe2llc.com
Corey Coleman	Resolution Consult.	901-372-7962	ccoleman@ensafe.com
Ben Brantley	Resolution Consult.	901-372-7962	bbrantley@ensafe.com

Participants via phone: Harvey Pokorny NAVFAC Mid-West
David Criswell BRAC PMO-Southeast
Scott Powell Lee & Ryan

Agenda Topics

BRAC

- Area of Concern A Long Term Monitoring
- Solid Waste Management Unit 15 Investigation
- Millington Industrial Development Board/Millington Airport Authority Activities

ER,N

- Solid Waste Management Unit 39 Fluvial Groundwater Interim Measures
- Solid Waste Management Unit 39 Sub-Slab Perched Groundwater
- Solid Waste Management Unit 17 and 22
- Solid Waste Management Unit 14
- Solid Waste Management Unit 2
- Review Action Items
- Schedule Next BCT meeting



830 AM — Check in — The meeting started with discussion on the Millington Industrial Development Board (MIDB)'s plans to meet with the Tennessee Department of Environment and Conservation (TDEC) during the afternoon session of the BRAC Cleanup Team (BCT) to discuss the regulatory requirements to remove the residential restriction from a parcel near the airfield that is being considered for a flight school with student dormitory/housing. Roger Donovan and Charles Burroughs, with TDEC, recommended that instead of attending the BCT, the MIDB should contact Mr. Jordan English with the local TDEC field office or the TDEC Brownfield Program to determine the best way to address their concern. Given that the parcel in question is not a "site," the Division of Solid Waste Management does not have regulatory authority to address the MIDB concerns. Mr. David Criswell with NAVFAC BRAC PMO-E relayed the recommendation and contact information to Charles Gulotta with the MIDB and the Millington Chamber of Commerce.

Action Items — none

Area of Concern A — Ben Brantley with Resolution Consultants provided a summary of the recent semi-annual Area of Concern A (AOC A) groundwater sampling activities completed in February 2014, the upcoming annual event (August 2014), and the status of the 2013 LTM Progress Report. The report was originally scheduled for Jan/Feb 2014; however, report format changes coupled with development of optimization recommendations have resulted in the schedule slippage. The new anticipated submittal date of the draft report to the Navy is now April 2014 and TDEC should have a copy in May 2014.

Action Items — none

Solid Waste Management Unit 15 — B. Brantley with Resolution Consultants provided a summary of the recent well construction activities at Solid Waste Management Unit 15 to delineate the extent of benzene which has persisted at elevated levels at 015G01UF. Five upper fluvial monitoring wells (015G05UF — 015G09UF) were constructed in January 2014 and the initial sampling indicates benzene in groundwater ranges between 2.3 µg/L to 384 µg/L in new wells. The extent of benzene >1,000 µg/L has been defined (likely target treatment area); however, the down and side gradient sections of the plume still need definition. Six additional wells were proposed on the benzene plume map for delineating the extent of benzene. The nature and extent of delineation will be provided in a Focused Corrective Measures Studies (CMS)/Remedial Design report for the site. If the data from the proposed wells shows concentrations near or below the maximum contaminant levels (MCL), the report submittal date will likely be June 2014. Otherwise,



additional well locations will be proposed to the Team for an additional investigative phase — pushing out the deliverable into the fall of 2014.

Action Item — B. Brantley to submit figure showing proposed well locations to Jack Carmichael, of USGS, for input/concurrence before submitting to TDEC.

Millington Airport Authority & MIDB — David Criswell stated that the Millington Airport Authority and MIDB had approached him about a possible flight training school in the old N-7 Hangar on the Northside transfer parcel along with possible construction of a dormitory on the three acre parcel south of N-7 for flight school students. The same company is considering an option to purchase the 10.8 acre parcel that is south and west of the three acre parcel, provided that the residential restriction in the parcel deed can be lifted from the sites. As discussed above, Charles Gulotta will be contacting the Memphis TDEC field office for the sampling requirements necessary to lift the residential restriction. Warehouses were formerly present on the three acre parcel and the ten acre option parcel contains at least four AOC A monitoring wells, two of which would probably be recommended for closure in the upcoming optimization report while the other two had low detections of Trichloroethylene (TCE) and other volatile organic compounds (VOCs) which would be retained in the monitoring program. D. Criswell mentioned that any wells needing to be closed because of the redevelopment issues would fall at the expense of the redeveloper. MIDB has also recently sold a five acre parcel at the intersection of Veteran's Parkway and Dakar to a tool distribution facility that plans to construct a 21,000-square foot warehouse/distribution building. This planned construction does not impact ongoing remediation actions.

D. Criswell announced that he will be taking early retirement and leaving the Navy at the end of September. Stacin Martin with NAVFAC LANT will be assuming D. Criswell's BRAC responsibilities at NSA Mid-South. S. Martin is familiar with the Base and has been the Remedial Project Manager (RPM) for the BRAC Munitions Response Program (MRP) sites here.

Action Items — none

UXO 1 and 2 — Monique Nixon with NAVFAC LANT presented the status of the confirmation and step out samples that were initially collected in February at the two locations near the RV park where the lead concentrations were higher than the results for the overall site obtained during the RCRA Facility Investigation (RFI) (and outlined in the 2/11/14 Sampling and Analysis Plan (SAP) Amendment). The lab contacted the Navy and recommended a different analysis method because



the original method was not appropriate and resulted in QC failures. The data is anticipated to be ready for internal review within the next few weeks and once reviewed for quality, the data will be shared with the entire team. If lead results in the confirmation/step out samples are comparable to the surrounding area, then the Navy will proceed with advancing the land use control (LUC) remedy in the focused CMS. The new data will be submitted as an Addendum/Tech Memo to the UXO 1 and 2 RFI following its validation and review.

The Base Commander Officer (CO) was briefed on the recommendations included in the RFI. The CO agreed to incorporate reduced mowing in the grass fields within the western portion of the site. The CO requested the opportunity to review and approve proposed signage prior to implementation of that portion of the remedy. The recommendations in the RFI of signs, selective plantings and education for the base personnel were discussed during the November 2013 BCT meeting. C. Burroughs, TDEC, expressed concerns about children and adult trespassers coming into contact with soils and, as a result, the soils being tracked into homes. There are families living approximately 300 feet east of the northern edge of UXO 2. The concern was that this area could be accessed by the forested area behind the housing. TDEC is aware of residual dust from shoes accumulating in homes and creating an exposure pathway to housing occupants, particularly infants. C. Burroughs expressed concern that this potential exposure pathway may exist absent some fencing, possibly behind the housing, to discourage access. R. Methvin stated that TDEC points need to be considered and committed to the Navy evaluating the concerns that were raised. The additional sampling results, site conditions overall and the risks to potential receptors will be evaluated and the results brought back to the team for discussion and approval of the path forward.

Action Items — B. Brantley — Submit supplemental soil lead data to Team following its validation and evaluation (anticipated memo submittal — April 2014). Navy to evaluate site LUCs in upcoming focused CMS.

Lunch — 1130 - 1300

Solid Waste Management Unit 39 Fluvial Groundwater Information Management — Scott Powell with Lee and Ryan gave an overview of the SWMU 39 corrective measures for TCE in groundwater implemented in 2012 (25,000 gallons of KMNO₃ injected at 13 DPT locations). The site undergoes quarterly monitoring and results from the December 2013 and March 2014 effectiveness monitoring were presented to the BCT. MCL exceedances for TCE and VOCs remain



in wells 039G02LF and 039G03LF. Inspection of the water quality data collected during purging activities indicated that stabilization criteria were not being met and Lee and Ryan conducted an evaluation of turbidity levels vs. TCE levels to see if there was a possible correlation. They concluded that no correlation existed between high turbidity and high VOCs; however, the data did appear to support the inverse correlation between groundwater elevations and concentrations (i.e., low groundwater elevations corresponding with higher TCE concentrations) that the team has previously noted. S. Powell indicated that corrective actions have been taken with field crews to ensure future water quality parameters are collected per the project SAP

Monitoring well 039G25LF contains a blockage at 47 feet and will be recommended for abandonment. The well is not part of the LTM and was used for the resistivity study to evaluate possible source areas before the Lee and Ryan remedy implementation. The next sampling event is scheduled for June with the annual progress report to follow.

Howard Hickey with NAVFAC Mid-West followed up after Lee and Ryan to discuss possible source-area evaluations in the area beneath/around the remaining SWMU 39 building. The relatively high TCE concentration detected in an upper fluvial interval following Lee and Ryan's remedy implementation suggests a possible shallow source area that may have been liberated/displaced during the chemical oxidation injection activities. While TCE concentrations have since normalized, the consensus from the Team was that it would be prudent to address a possible lingering source area beneath the building before transitioning to a LTM or monitored natural attenuation (MNA remedy, possibly shortening the duration of the monitoring period). R. Donovan indicated that if MNA is selected the data collection would need to be augmented with the added geochemical data to support that the MNA is ongoing. To date, the SWMU 39 downgradient wells indicate the TCE plume is stable and is not migrating.

Action Item — H. Hickey to follow up with a Statement of Work (SOW) for a SWMU 39 source area investigation, pending funding availability. Schedule to be determined.

Solid Waste Management Unit 39 Perched Groundwater Investigation — B. Brantley with Resolution Consultants presented the February 2014 SWMU 39 perched groundwater data. As vinyl chloride (VC) was detected above the MCL (in the downgradient most well — 039G02LS), four downgradient and one upgradient monitoring wells were placed around 039G02LS to delineate the extent of impacts. One of the five newly constructed wells (039G08LS) contained benzene (9.4 µg/L) and cis-1,2-dichloroethylene (135 µg/L) above the MCLs. B. Brantley stated that another



round of water levels would be collected to verify the groundwater flow direction and that two additional monitoring wells would most likely be necessary to delineate the downgradient extent. Harvey Pokorny with NAFVAC Mid-West wondered whether new wells may be moving into another plume area, given the distance of the detections from the former tank hold (approximately 60 feet) and the extremely low permeability of the loess. Future remediation of the impacted loess groundwater and the challenges noted in the past were discussed amongst the Team. R. Donovan indicated that if contamination is low and isolated, TDEC would allow treatment of the chemical directly in the monitoring well where it resided.

Action Item — B. Brantley to forward site map with proposed well locations to Team for concurrence after collecting another round of water levels and verifying the groundwater flow direction.

Solid Waste Management Unit 17 and 22 — Corey Coleman with Resolution Consultants said utility clearance and dig permits had been obtained to begin the SWMU 17 and 22 field work next week. Figures from the SAP were presented to the Team again showing the scope of field work proposed at each site. Three temporary upper fluvial wells will be constructed at SWMU 17 to determine whether 1,2-dichloropropane, identified in RFI, still persists in the area. Four soil borings are proposed at SWMU 22 to determine whether the demolition contractor removed the petroleum contaminated soil that extended beneath the building. R. Methvin with NSA Mid-South inquired whether drilling permits had been obtained. C. Coleman is to follow up with drilling contractor and R. Methvin regarding well permit status.

Action Item — C. Coleman is to follow up with drilling contractor and R. Methvin regarding well permit status.

SWMU 14/46 — Matt Teglas with QE2 presented the January 2014 monitoring data for the site, which underwent a Hydrogen Releasing Compound (HRC) injection at 27 locations in April 2013 to remediate lingering perchloroethylene (PCE)/TCE contamination that had persisted despite former injections of sodium acetate. The July 2013 VOC data was inconclusive due likely to the short period of time since the injections; however, the January 2014 data set showed PCE and TCE had declined to below the 5 µg/L MCL while increases in VOC, iron, and methane were noted — all of which were encouraging that the remedy is functioning as intended. The next sampling event is scheduled for July 2014 and whether another injection will be necessary will be determined on the results of the data. M. Teglas also mentioned that the four former injection wells and three



non-essential monitoring wells can be closed. J. Carmichael suggested given that site closure may be near, the Team may want to consider waiting until MCLs are achieved in the remaining wells so all wells can be closed at the same time. To expedite possible site closure, the site will undergo quarterly monitoring following the July event. R. Donovan said four quarters of concentrations below the MCLs are required before a well can be closed. M. Teglas said optimization recommendations for the well closures and modified sampling frequency will be included in the upcoming April 2014 annual progress report.

Action Items — B. Brantley to forward to M. Teglas Navy guidance on Navy LTM guidance and concentration history of the non-essential monitoring wells that will be recommended for closure.

SWMU 2 — M. Teglas provided an overview of the January 2014 sample data for the SWMU 2 which undergoes semi-annual monitoring. VOC detections in groundwater were consistent with historical detections and below the alternate concentration limit (ACL) with exception to methylene chloride, which has not been historically detected and was found above the 5 µg/L MCL in one well (an ACL was not calculated for the methylene chloride). The surface water sample contaminants from Big Creek were not detected. The annual monitoring report is scheduled for delivery in April 2014. M. Teglas also mentioned that the SWMU 2 fencing had sustained some damage during the ice storm and that a contract action was underway to repair.

Review Action Items — The Team reviewed the Action Items from the 19 November 2013 BCT meeting. The status of all the Action Items were completed with exception to the following, which are being carried forward:

- 1) LTM report for AOC A is due to the Navy in early January and TDEC end of January. 007G48LF issue will be addressed with recommendations for path forward. Per R. Donovan COC maps not necessary for isolated VOC exceedances.

Person Responsible: B. Brantley

Status: Report Pending — Scheduled for late April to Navy and May to TDEC



- 2) SWMU 14 — Tech memo (Progress Report) will be submitted at end of February after the January sampling event.

Person Responsible: M. Teglas

Status: Pending — Going out in
April 2014

The following will be included in the LTM report:

- a. Status of HRC injections and water quality improvements.
- b. Wells possibly available for abandonment.

Results of the HRC injections will also be presented to the Shelby County Water Quality Control Board – Date is pending.

- 3) SWMU 2 — LTM Report going out in January 2014.

Person Responsible: M. Teglas

Status: Pending — Planned for
April 2014

- 4) UXO 1 and 2 — TDEC concern regarding children and adult trespassers coming into contact with soils and, as a result, the soils being tracked into homes.

Person Responsible: R. Methvin to escalate
TDEC concerns to Navy management for
evaluation. The Navy's proposed actions to
address concerns will be addressed in future
meetings/communications. **Status:** Pending

Next BCT Meeting — The next meeting is scheduled for 29 October 2014. H. Hickey announced that NAVFAC Mid-West is being dissolved and the ER,N portion of NSA Mid-South will be absorbed under NAVFAC Southeast, out of Jacksonville, Florida. H. Hickey also indicated there is uncertainty whether he will continue as the RPM and that possible introductions and turnover of responsibilities to the new Navy RPM may take place at the next BCT meeting.