07.01-01/21/97-01866 Partnering ARF ✓

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-2002

January 21, 1997

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Katherine Landman
Navy Technical Representative
Code 18232

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Order (CTO) 0001
MCB Camp Lejeune, North Carolina
Partnering Minutes - November 1996

Dear Ms. Landman:

Attached are the final meeting minutes for the Partnering meeting held on November 6 and 7, 1996 at MCB Camp Lejeune, North Carolina.. A copy of these meeting minutes has been forwarded to all of the Team members. These meeting minutes were finalized at the next Partnering meeting held on January 6, 7, and 8, 1997 in Clearwater Florida. Revisions to these minutes include discussions on the Phase I investigation findings for Operable Units Nos. 15 and 16 and the Treatability Study for Operable Unit No 10.

If you have any questions, please do not hesitate to contact me at (412) 269-2053.

Sincerely,

BAKER ENVIRONMENTAL, INC.

Matthew D. Bartman
Activity Coordinator

MDB/lq

Attachments

cc: Ms. Linda Saksvig, P.E., Code 18231
Mr. Byron Brant, Code 1832
Mr. Neal Paul, MCB Camp Lejeune
Mr. Dave Lown, NCDEHNR
Ms. Gena Townsend, EPA Region IV
Mr. Jim Dunn, OHM
Mr. Brent Rowse, ROICC MCB Camp Lejeune
Ms. Lee Anne Rapp, P.E., Code 18312 (w/o attachment)
Ms. Beth Collier, Code 02115 (w/o attachment)

MEETING MINUTES
MCB CAMP LEJEUNE PARTNERING TEAM
NOVEMBER 6 and 7, 1996

A Partnering Meeting was conducted on November 6 and 7, 1996 between representatives from LANTDIV, MCB Camp Lejeune, USEPA Region IV, NC DEHNR, Baker Environmental, Inc. (Baker), and OHM Remediation Services, Inc. (OHM). The meeting was attended by the following:

- Ms. Katherine Landman, LANTDIV
- Mr. Neal Paul, MCB Camp Lejeune
- Ms. Gena Townsend, USEPA
- Mr. Dave Lown, NC DEHNR
- Mr. Matt Bartman, Baker
- Mr. Richard Bonelli, Baker
- Mr. Jim Dunn, OHM

Guests who attended the meeting included:

- Mr. Bill Mullen, LANTDIV
- Mr. Mark Barnes, LANTDIV
- Mr. Mick Senus, MCB Camp Lejeune
- Mr. Tom Morris, MCB Camp Lejeune
- Mr. Dan Bonk, Baker
- Mr. Tom Trebilcock, Baker
- Mr. Dan Fisher, Baker

The meeting was hosted by Mr. Neal Paul and chaired by Mr. Jim Dunn. Additionally, Matt Bartman recorded the minutes.

The minutes are summarized below for each day of the meeting and by topic.

November 6, 1996

The meeting focused on the following items:

- Team Member Schedules
- Groundwater Modeling
- Base Master Plan
- Lot 201 Storm Water Pond Project
- Land-Use Restrictions
- RAB
- OU 15 and OU 16 update

November 7, 1996

- Long-Term Monitoring
- Site 41 Update
- Site 35 Treatability Study Update

The first day of meeting began with the check in and review of the minutes from the previous meeting. Jim provided minor revisions to the minutes. The final minutes from the July Partnering Meeting will be finalized and distributed to all the team members.

During check in the following important matters were discussed:

Neal let the Team know the Lt. Cheryl Hansen is no longer serving at the ROICC. Her position is know being handled by Brent Rowse who used to report to Neal while he was at EMD. Neal informed the Team that Tom Morris would be leaving as of December 2, 1996 for a nine month tour of duty. Due to Neal's shortness of staff,

Jennifer Casey and Marliyn Brower have been added. Neal informed the Team that he is acting as the Tier II link for the Marine Corps in SOUTHDIV.

Mark Barnes informed the Team the LANTDIV Code 18 is looking at realignment. The UST NTRs will be reassigned to IR sites due to the decreasing number of UST sites. All UST construction work will no longer be completed by J. A. Jones, OHM is now contracted for this purpose.

Dave informed the Team that his duties prior to taking over for Patrick have not been relinquished. Therefore, he is still serving dual responsibilities. Due to personal matters with the individual responsible for hiring , Dave is unsure when this will be resolved.

Gena informed the Team that she is no longer working on Cherry Point and that she has been assigned to Pensacola. She will be working with the CLEAN contractor ENSAFE.

Schedules

Matt explained that it would be beneficial to know each Team members schedule for the month so that if a conference call needed to be scheduled or that person need to be contacted the rest of the Team would know if it could be done or when the next available date would occur. Matt said that he would take responsibility for gathering all of the Team schedules and providing a combined calendar.

Groundwater Modeling

Dan Fisher from Baker Environmental provided the Team with an update regarding the groundwater modeling being conducted for the base. Dan started off by stating that the comments on the BRAGS study have been addressed. This study was not provided to USEPA or NC DEHNR until the draft version could be reviewed by USGS.

Jim provided some input regarding the Lot 203 Pump and Treat System. The plant has been in operation for the last 2 to 3 months and last month it was down a total of six hours. The shallow aquifer/shallow wells are pumping at 13 gpm from a total of six wells. Jim stated that we need to look at relocating wells No. 5 and No. 6. The deep wells are pumping between 30 and 130 gpm. Dan Fisher confirmed that the model and wells for the surficial need examined. Jim stated that OHM may shut off shallow wells if they are not functioning for what they were designed to do.

During his update on the BRAGS, Dan informed the Team that the BRAGS study was used as a starting point for the Site 82 and Site 73 models. The model for Site 73 has shown that the contamination will enter Courthouse Bay and that contamination will not migrate under the Bay. Additionally, the model has demonstrated that pumping wells have no impact on the migration of contamination. Dan mentioned that one of the problems that he is having with the model is input data for historical information. It is unknown where the source was and how long ago the contamination began. If this information is available it will assist in determining how long contamination has been moving and when it will reach Courthouse Bay.

Neal stated that Dan could contact John Cotton at x5003 for history. Additionally, Neal informed the Team that in the next five years the southern tip of the Courthouse Bay area is going to be developed for riverain operations which will consist of multiple piers and approximately 60 to 70 boats.

Dave explained that we need to determine the Lethal Quantity (LQ10). Dave also mentioned that if pump and treat is the selected remedy for this site it will not be a remediation but a containment. Additionally a lot of money will be spent defining the plume then monitoring it.

Kate was interested in the schedule for all of the modeling. Dan explained that the BRAGS should be completed in approximately a five week time frame. However, Bill Mullen felt that because the site date from Site 73 is needed for the BRAGS it would be cost-effective to complete the model for Site 73 to support a non-FS. The information in the model could be used to create supporting data for intrinsic remediation. Bill also explained that current model examines the groundwater to surface water pathway if surface water mixing is required additional time will be needed for the modeling.

Dave cautioned that a risk-based approach does not stop the removal or treatment of source areas and that degradation rates will need to be considered.

Gena and Dave granted permission to relax the schedule on the ROD for OU No. 9 so that this modeling effort could be conducted.

Dan continued the modeling discussion with the modeling that was conducted for OU No. 1 specifically Site 22 which is also know as the Fuel Farm at Hadnot Point. Based on information from Catlin, Dan explained that 800,000 gallons had been lost and 500,000 gallons had been recovered. Dan mentioned that benzene is now in the deeper portion of the aquifer. This migration is due to a downward head plus the influence of the pumping wells and no upward gradient. Bill mentioned that the groundwater flow is based on groundwater measurements. It is known that the fuel farm is definitely the source of this contamination. Dan also explained that there is sufficient wells for product recovery, however, the wells are just insufficient in recovering product. This potentially, is due to the placement of the wells being used for recovery.

Base Master Plan

Neal informed the Team that the Facilities Department prepares the Base Master Plan (BMP) every five years. This years sites that have institutional controls as part of the RODs will be specified in the BMP. The plan to ensure that this takes place is that when a ROD is signed a form is sent from EMD to Facilities Planning stating the institutional controls are being enforced at the site. When the draft BMP is published Neal will provide the Team members with a copy of the text for these sites for review and comment. Neal stated that there are no plans to build any residential housing in the next 15 years, however, areas for recreation are in the plan. Prior to any building being constructed the Environmental Impact Work Group, which includes a representative from the IR Program, evaluates the area where construction is to be completed and provides input regarding potential risks to the environment and human health.

Gena mentioned that if land use restrictions are made that the appropriate individuals should be notified and told what enforcement actions there are if the restrictions are not complied with. Dave stated that the state of North Carolina views an IR site as a SWMU. Gena mentioned that if IR sites are in current RCRA permit there will have to be a permit modification to list sites as no further action or describe what type of action is being conducted.

Dave had a concern that there is nothing in the BMP to inform the State as to what Camp Lejeune is doing at a site that is either under RCRA or a listed IR site. Neal said he would proceed with getting the IR sites published in the BMP and that the enforceability would be handled under RCRA because the entire base is considered a SWMU.

Lot 201 Projects

Neal and Tom explained the project that is currently being completed in the area of Lot 201. To support the landfill currently being constructed on the eastern side of Piney Green Road three storm water ponds need to be constructed on the western side of Piney Green Road to handle water from three storage areas. The construction of these areas are to store wood waste, concrete and debris, and solid waste so that it would not be placed in the landfill. Baker has conducted wood clearing and a geophysical investigation in three areas identified by the Activity. However, two areas, that would be used for the Ponds 1 and 2, were determined to be unsuitable based on the geophysical investigation findings. The third area although suitable from a geophysical standpoint is unsuitable due to shallow groundwater contamination detected during the RI conducted at Lot 201.

Jim asked where the water in the ponds would be diverted to. Neal stated that a discharge design had not been completed. Rich wanted to know if the Activity planned for any additional geophysical investigations to be conducted in the area. Additional work will need to be completed and will be performed by Baker or by construction contractor. Tom stated that there is a possibility that one pond may be eliminated and a second enlarged. Gena and Dave expressed concern with constructing in this area if there is something in the ground that was going to be covered up. Would like to see test pits due to see what the geophysical investigation is indicating. This information will be discussed with the individuals in charge of construction so that appropriate action can be taken.

Land Use Restrictions

Kate would like to see land use restriction text removed from future RODs. The text should only refer to aquifer use restrictions. For future sites where soil is not a problem only aquifer use restrictions should be considered and mentioned in the ROD. However, if subsurface soil is determined to be a problem land use restrictions will need to be considered.

RAB

Tom informed the team regarding Environmental Justice which requires that during the formation of a RAB that a concentrated effort has to be made to enlist a representative for minority representation. It is felt that the recruitment process must be tailored so that the minority community is made more aware of the RAB and that extra efforts are used to establish their representation. The Team came up with several suggestions as to how this could be accomplished and Neal said that he would discuss it with the community RAB members at the meeting planned for the evening. A decision as to how to recruit minority members would be decided upon at the meeting.

OU No.15 and OU No. 16 Update

Matt provided the Team with an update pertaining to the Phase I investigations conducted at these OU No. 15 (Site 88) and OU No. 16 (Sites 89 and 93). Phase I investigations were conducted at these sites using temporary wells to assist in delineating shallow and intermediate depth groundwater contamination. Matt used figures that will be provided in the Phase I investigation report to describe the extent of the contamination at all of the sites. The information provided in the Phase I investigations is to be used to scope the investigation needs for Phase II of the investigation.

Matt indicated that the contamination at Site 88 has impacted both the shallow and intermediate depth. Groundwater flow appears to be in the direction of the New River. However, the highest levels of contamination in the intermediate depth were detected in MW08, which is opposite groundwater flow. Jim mentioned that with levels this elevated that there is possibly another source. The Cobler Shop (Building 43) northeast of the Building 25 could be a potential source. Matt said that Baker would look into the activities conducted in the building and the geology that may influence groundwater flow in this direction. However, analytical findings from shallow and intermediate wells installed northwest indicate that the contamination has been defined in this direction.

Matt explained that the contamination at Site 93 has been well defined in both the shallow and deeper depths. The NC WQS were used as limits for bounding the contamination. It was demonstrated during the Phase I investigation that the east, west, north, and south directions of the contamination were defined.

However, Site 89 is probably the most interesting of the three sites. This site which was a former motor pool and now serves as the location of the DRMO has some problems. Within the fenced area of the DRMO the contamination is limited to the shallow portion of the aquifer (less than 25 feet). When the investigation continued to the east of the right of way the contamination was found in the intermediate portion of the aquifer (25 feet to 40 feet). Additionally, surface water and sediment samples collected from Edwards Creek indicated levels of solvents also detected in the groundwater. Unfortunately due to the lack of funding and time the contamination to the east of the site could not be fully delineated.

After a brief discussion by Team members regarding funding and the schedule to complete the Phase II investigations at these sites the following action items were undertaken be Baker and OHM. Due to limited funding Kate wanted Baker and OHM to determine the potential remedial alternatives that could be applied at these sites and determine the costs for collecting sufficient data to support this. Additionally, Kate wanted Baker to determine what data gaps still existed that would be required to complete the delineation of the contamination and what data would be required to conduct groundwater modeling for each of the sites. Matt said that he would discuss these scenarios with individuals at Baker and assess if modeling or development of remedial alternatives could be completed prior to the extent of contamination being known or if these items could be completed in conjunction with one another during the Phase II investigation. Due to the severity of the contamination detected in Phase I Kate is hoping to find funding to continue some portion of the additional work required at these sites.

Long-Term Monitoring

Tom Trebilcock participated as a guest in order to discuss the status of the monitoring program and recommendations that would be forthcoming now that Baker and OHM have taken over these tasks. Tom mentioned that some of wells are in need of maintenance (i.e., painting, replace locks, well caps). As for the monitoring at Site 78 there are several disparities between the ROD and what was being conducted under the FSC contract. These discrepancies included but were not limited to recovery and supply well sampling. Additionally, Tom mentioned that due to the number and arrangement of wells associated with the other programs it may be advantageous to use these wells in the monitoring program due to their proximity to the plume. The location of the recovery wells should be evaluated and the placement and installation of new wells determined.

Kate was in favor of modifying the sampling program to use wells that are within the proximity of the plume. Jim and Gena mentioned that the ideal solution for the recovery wells would be to install additional recovery wells in the area of the south plant and shut down some of the existing recovery wells that have no impact on the plume.

Tom went on to mention that with the assistance of GIS we will be able to determine the UST/IR wells that are most advantageous for the monitoring program. Rich stated that he will be able to have well locations and analytical data for each location by January.

Site 41

Mick Senus provided the Team with an update regarding the status of the Site 41 surface water variance and groundwater reclassification. Mick provided the history of this Site so that Dave would be aware of what the WiRO was requesting. Mick stated that he has been dealing with Boyd Devaine from the NC Raleigh office regarding the surface water variance. Boyd has visited the site and viewed the seeps and in his opinion he does not feel that a reclassification is required. However, in follow up conversation that Mick has had with the WiRO has been told that as for groundwater that the RS and GC reclassification is no longer the path that should be pursued. A Special Order of Consent (SOC) is to be the mechanism the we should be attempting to obtain. However, the WiRO has explained that the SW variance must be granted prior to the issuing of the SOC. This poses the problem because we have the Raleigh office telling us we don't need the SW variance and the WiRO states that we must have the SW variance prior to obtaining the SOC.

Gena stated that she would like to discontinue pursuit of the variance and change the text of the ROD to indicate that this will not be pursued. Dave would like to get a look at the data from the RI and base line monitoring prior to making a decision. Dave said that if after his examination of the data he will decide if he agrees with not going ahead with variance that the ROD can be revised and Baker can prepare ESD.

Site 35 Treatabiltity Study Update

Dan Bonk presented a summary of the results of the treatability study for the IAS. The results indicated that conventional vertical air sparging would likely be ineffective for contaminants that are situated atop the underlying confining layer. Clay seams above the underlying layer present a problem to horizontal air sparging also. Baker suggested an air sparging trench which, in theory, will alleviate the problems associated with the clay seams.

Dan also presented the analytical results which seem to indicate that some natural attenuation may be taking place as the contamination nears Brinson Creek, especially in the case of the BTEX contamination. Chlorinated solvent compounds appear to be migrating at a lesser rate.

Jim suggested that in lieu of the data obtained to date, we should reconsider placing the remedial system on the south side of the proposed U.S. Route 17 Bypass where access and subsurface conditions will be more conclusive to construction success. Dave and Gena agreed to consider this approach provided that a case could be made for the Natural Attenuation of the contaminants that would remain unremediated between the remediation system and Brinson Creek.

Action Items

Rich
1. Have Dan Fisher contact John Cotton regarding history of Site 73.
2. Send copy of BRAGS to Dave.
3. Generate figure with UST/IR well locations using GIS.

Matt
1. Provide Dave with analytical findings and figures for Site 41.

Kate
1. Supply Rich with Air Force Protocol for Chlorinated Solvent from Bill Mullen.

Jim
1. Supply Baker with boring logs from recovery wells at Lot 203.

Next Meetings

Date:	January 7, 8, 9
Location:	Clearwater Florida
Chair:	Matt Bartman
Host:	Dick Handrahan/Kate Landman

Date:	March 19, 20
Location:	Raleigh, North Carolina
Chair:	Rich Bonelli
Host:	Dave Lown

Agenda Topics for Next Meeting

Phase II Investigation Scoping Sites 88, 89, 93
HPIA - what to do?/GPS/Supply wells abandoned?
Biocell at Lot 203 - what is capacity and can it be permitted for PAH soil
FY97 Funding
Mark Barnes leaving (UST interface)
OU No. 6
Modeling updates?
Lot 201 Projects
Well abandonment Sites 80 and 3
CD-ROM submittals
RAB members "Environmental Justice"
Status of OU 1 Operations
Site 36 TCRA , lead and iron in soils, Groundwater TCE
Site 86 Groundwater TCE Remedial Action