Final

Travis Air Force Base
Environmental Management
Building 570, Travis AFB, California
Environmental Restoration Program
Remedial Program Manager's
Meeting Minutes

21 October 2009, 0930 Hours

Mr. Mark Smith, Travis Air Force Base (AFB), conducted the Remedial Program Manager's (RPM) meeting on 21 October 2009 at 0930 in the Base Civil Engineer's Conference Room, Building 570, Travis AFB, California. Attendees included:

• Mark Smith	Travis AFB
• Lonnie Duke	Travis AFB
• Glenn Anderson	Travis AFB
• Gregory Parrott	Travis AFB
• James Chang	U.S. Environmental Protection Agency (USEPA)
• Alan Friedman	California Regional Water Quality Control Board (Water Board)
• Jose Salcedo	California Department of Toxic Substances Control (DTSC)
• Dezso Linbrunner	United States Army Corp of Engineers (USACE), Omaha District
• Rachel Hess	ITSI
• Mary Snow	TechLaw Inc.
• Mike Wray	CH2M HILL

Handouts distributed at the meeting and presentations included:

• Attachment 1	Meeting Agenda
• Attachment 2	Master Meeting, Teleconference, and Document Schedule
• Attachment 3	SBBGWTP Monthly Data Sheet (September 2009)
• Attachment 4	CGWTP Monthly Data Sheet (September 2009)
• Attachment 5	Presentation: Status of Current Investigations (SS014, SS016, ST018, ST027, SS030, SD036/SD037, and DP039)
• Attachment 6	Presentation: Program Update

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The 23 September 2009 RPM meeting minutes were approved and finalized as written with the following exceptions. Mr. Salcedo requested a correction be made to the 'South Base Boundary Groundwater Treatment Plant' monthly data sheet. Change CIS-1,2-DEC to CIS-1,2-DCE. Mr. Salcedo also requested a minor change to the presentation on SD036 and SD037, section 3B paragraph 4 on page 10 to add "at" after Bedrock and "bgs" after 70. Lastly, he suggested to add "B" at the end of ST027 in section 3D under Field Work.

B. Action Item Review

Action Items from September were reviewed.

Action item 1- has been closed.

Action item 2 – Ms. Hess gave first draft of the revisions to the Remedial Action Work Plan for FT005 to Mr. Linbrunner and Mr. Duke. This item will remain open.

Action item 3 – has been closed.

C. Master Meeting and Document Schedule Review (attachment 2)

The Travis AFB Master Meeting and Document Schedule was discussed during this meeting (see Attachment 2). Mr. Smith indicated he would prepare the 2010 Meeting and Teleconference schedule.

Travis AFB Annual Meeting and Teleconference Schedule

— There will not be a face-to-face RPM meeting in November (as usual). The RPM teleconference will be held on 16 November 2009 at 9:30.

Travis AFB Master Document Schedule

— Basewide GW ROD: No change. Mr. Chang suggested that the Air Force look at the sequence of dates. The Proposed Plan (PP) draft is scheduled to be submitted before the Focused Feasibility (FS) is scheduled to be completed. Mr. Chang said he would like to see the FS be finalized first to allow for the regulator comments. Mr. Chang thought the sequence should be: complete the FFS, then complete the PP, and then the ROD starts. Mr. Anderson said the rationale was to get the comments back on the FS on 15 April 2010, then start on PP pre-draft. Mr. Anderson agreed the schedule is tight. He said that Mr. Chang's comments were well received, and that

they will take a look at the schedule. Mr. Anderson asked if that will change the schedule to the ROD as well. Mr. Chang confirmed most definitely. Mr. Chang also wanted to caution because institutional controls (ICs) are in this ROD that EPA headquarters in Washington DC will need to review. This will take longer than the standard review time. Mr. Chang said in the past, it has taken up to 6 months. Mr. Chang also mentioned to concentrate on the quality rather then keeping up with the schedule. Mr. Chang said that there is an EPA headquarters IC checklist. Mr. Anderson requested a copy of that checklist. Mr. Chang said he would forward that checklist to Mr. Anderson.

— Potrero Hills Annex ROD: Mr. Chang asked to add an annotation/footnote to the Focused Feasibility Study (FFS) and Proposed Plan (PP) to the ROD. Mr. Anderson said he knows that Potrero Hills will require a PP but asked about the need for a FFS. Mr. Chang said a FFS will be required if ICs will be in the ROD.

— Model QAPP Update: No changes. Move to historical

— Comprehensive Site Evaluation Phase II Work Plan: Dates have been updated to reflect actual dates and schedule changes. Travis completed the response to comments. The responses were accepted. Travis incorporated the changes in the draft final. The final is due next month.

— Focused Feasibility Study (FFS): No changes.

— Phases 1 & 2 Vapor Intrusion Report: No changes.

— Vapor Intrusion Assessment Report: Added new column with new dates. This report contains the results of Phases 1, 2, and 3 of the Vapor Intrusion Assessment and a data evaluation. It complies with the decisions made during the 30 March 2009 EPA-Travis meeting. It is a new document but one that Travis has been tracking all along. It will describe all three phases of the assessment.

— SS016 RPO Work Plan: Dates are yet to be determined. Waiting on EPA to verify if Air Force responses to their comments are accepted.

— Field Sampling Plan: Dates have been updated to reflect actual dates and schedule changes. Travis has completed the response to comments. The responses were accepted. The draft-final was submitted on 28 September 2009. It will go final the end of October.

— Natural Attenuation Assessment Report (NAAR): No change. Travis has received comments from EPA and the Water Board. Waiting on comments from DTSC.

— DP039 RPO Work Plan: Dates have been revised. Changed the CH2M HILL point of contact to Loren Krook.

— SD036/SD037 RPO Work Plan: Dates have been changed to reflect when the draft went out and when the comments are due.

— ST018 POCO Remedial Action (RA) Work Plan: No changes.

— ST027B Site Characterization Report: No changes. The drilling has been completed.

— LF008 Rebound Test Tech Memo: No changes.

— Quarterly Newsletter (Guardian): No changes. Newsletter went out.

2. CURRENT PROJECTS

A. Treatment Plant Operation and Maintenance Update

Mr. Duke reported on the water treatment plant status.

South Base Boundary Groundwater Treatment Plant (see Attachment 3)

The South Base Boundary Groundwater Treatment Plant (SBBGWTP) was off line the entire month of September to support the Union Creek sediment remedial actions. Mr. Duke said this shutdown period gave the base sufficient time to carry out needed maintenance at a few groundwater sites. For example, extraction well EW605x16, which was damaged by the airfield paving contractor, has been repaired and rewired.

The plant was restarted on 2 October 2009.

Central Groundwater Treatment Plant (see Attachment 4)

The Central Groundwater Treatment Plant (SBBGWTP) was off line the entire month of September to support the Union Creek sediment remedial actions.

The plant was restarted on 2 October 2009.

North Groundwater Treatment Plant: The plant has not restarted yet. Travis only has two extraction wells from LF007 with a combined yield of only 2 ½ to 3 gpm. Mr. Duke said he is looking at using two 55-gallon carbon vessels, which will be more than adequate for the low TCE concentrations and influent volume from these wells.

B. Union Creek Cleanup Update

Mr. Anderson gave an update on the Union Creek Cleanup. Fieldwork has essentially been completed. The data is still being validated. Mr. Salcedo asked for a completion report schedule. Mr. Anderson said that they would put a schedule together. Mr. Anderson said this is the first time the base has conducted a cleanup of this nature. The field team was lucky to have completed the work before the first big storm. Mr. Anderson said that ITSI did a very good job; they even planted fescue seed along the top of the creek banks to promote vegetation growth and control erosion. Bottom line

is that the two cleanup actions were successful, and the field team completed the work in a professional manner.

C. Phytostabilization Fieldwork

Mr. Anderson gave an update on the Phytostabilization Fieldwork. The fieldwork has been completed. Mr. Anderson said the work was done so quickly, they were in and out in one day. He apologized to Mr. Chang for not letting him know when the work was scheduled, as agreed to so that Mr. Nagle could be there.

Mr. Anderson said the field team used surface flux devices to take air samples directly from surface soil and also a jar over the branches for transpiration tests. They selected a number of trees throughout the grove for this sampling. Travis will be putting out a schedule for the report on this field work, probably next year.

D. MMRP Fieldwork Schedule

Mr. Anderson gave an update on the MMRP Fieldwork. The work is scheduled for 16 November 2009, and will take about three days. Mr. Anderson will give an update at the November RPM teleconference. There are two locations that need to be checked out. They are planning on having a tailgate safety briefing before the start of field work. The only potential delay could be caused by inclement weather; it has to be as dry as possible. Mr. Duke said the access to the site could be real messy if it is raining or the soil is real wet.

3. PRESENTATIONS

A. Status of Current Investigations for Sites: SS016, ST027, SS030, SD036/SD037, and DP039 (attachment 4)

Mr. Wray gave a presentation on the Status of Current Investigations.

Site SS016: Mr. Wray referenced a map during this presentation, pointing to the potential source areas for this site, in the Oil Spill Area (OSA). The existing remedial actions are groundwater and vapor extraction and treatment. The groundwater extraction system was designed to capture TCE above 1000 ppb. The goal of the SS016 Remedial Process Optimization field effort was to better characterize the source area and to optimize mass removal in that area using Emulsified Vegetable Oil (EVO).

In the month of September, the field team drilled an angle boring beneath the sump under building 18. They also drilled a couple of borings in the aircraft parking ramp, just southeast of the source area. There was a unique opportunity to drill these borings, which they originally had not planned. An airfield contractor was replacing concrete on the parking ramp. The original concrete was removed, and that allowed the driller to drill the borings before the airfield contractor replaced the concrete. Mr.

Duke added that the airfield contractor allowed us to drill under the authority of their dig permit, which created a "free zone" to temporarily remove the security restrictions in this area and allow field work to take place without the need of base escorts. Normally the entire flight line is a restricted area.

The investigation has essentially ruled out the OWS, Sump, Chemical Storage Area, and Runoff Collection Point as the primary sources of the OSA contamination. Travis thinks the Catch Basin is the "source area." Analysis of a groundwater sample from the Catch Basin area detected a TCE concentration of 210,000 ppb, and the soil sample result was also very high.

Mr. Duke said that this site was an extremely busy location when the initial investigations were taking place in the 1990s. There was a large jet engine repair facility at the site, and building 18 supported the jet engine repairs. Travis could not have done this type of investigation years ago, since a field team would not have been allowed in such a busy industrial area.

Next steps:

Travis had planned an EVO injection to address the source area contamination. However, site conditions are significantly different than those from the original conceptual site model. Travis needs to reconsider the use of EVO at this site.

Prepare a technical memo that summarizes the existing data and identifies path forward for the source area optimization.

Prepare a completion report after optimization is accomplished.

Evaluate ongoing progress and present results in GSAP reports.

Sites SD036/SD037: Mr. Wray referenced a map during the presentation. The sites are in the West Industrial Operable Unit (WIOU) portion of the base, near Ragsdale Blvd. Both of these sites are part of the bigger WIOU solvent plume. There are a couple of hotspots that have been identified through the GSAP. The existing interim remedies include both groundwater and vapor extraction wells. Many of the extraction wells are dual phase.

SD036: Travis is gathering data to define the hot spot TCE concentrations greater than 1000 ppb. Mr. Wray gave an overview of the TCE concentrations and associated depths located on the 'attached map'. He showed on the map where the field team will collect data, pointing to the three locations on the southwest side of the hot spot area. There is a narrow dirt patch between a fence and Union Creek, which will be difficult to drill in. However, the driller does have a rig that can access this area, it is narrow and lighter and it should fit in this tight area. Mr. Salcedo wanted to know the directional flow of the plume. Mr. Wray said the plume generally flows south and a component flows to the southwest. Mr. Salcedo asked the reason for choosing 1000

ppb. Mr. Wray said it aligns with the interim remedial goals from the IROD. Mr. Salcedo stated that numbers in the IRODs are arbitrary numbers. Mr. Wray said the objective is to reduce the TCE concentration levels down to below 1000 ppb, and then have the MNA take over as the remedy. Mr. Salcedo said a target TCE concentration of 500 ppb may knock years off the time MNA will need to complete the remediation of the plume. Mr. Wray said the area covered by a target TCE concentration of 500 ppb would be very large and too costly for an EVO optimization. Mr. Anderson said Travis needs to inject EVO as soon as possible to verify that it can reduce solvent concentrations to the point where MNA will be effective. Mr. Anderson added that the overall optimization strategy is to shut down the treatment plants and use a biologically-based remedy to clean up the TCE. Mr. Wray added that is why Travis is looking at EVO versus other lactate products. Mr. Smith said he likes the progress being made; the plumes are actually shrinking, but that when a the field team injects EVO, they cannot extract groundwater right next to the injection, the injection area has to be outside of the radii of influence of any extraction wells. Mr. Chang asked if it is worth injecting EVO if you have to shut down the pumps. Mr. Wray said Travis would only shut down the pumps that are impacted by the injection in that area.

Next steps:

Step out sampling to the east and southeast.

After the hot spots have been defined, prepare a technical memo to present data and revised conceptual site model.

Prepare a design for EVO injections.

Monitor status and progress through the GSAP.

SD037: Near the large new hangar. No additional borings have been drilled since the last RPM meeting so there is no new data to share. The plan is to step out to the West. A previously unknown shallow well was found at this site on the south side of the hot spot. The well was sampled, and the detected TCE concentration was around 5 ppb. A deeper boring will be drilled in that same location. Borings cannot be drilled any further to the east because of the construction of the new hangar. Regarding the potential installation of a monitoring well in front of the new hangar (to the east) to monitor the effects of EVO injection, the EVO impact typically is not seen more than about 30 to 40 feet from the injection site, so this may not be needed for this optimization effort at this time. Travis has to wait until the construction crews finish paving the new parking lot before drilling can continue, and the paving project is a couple weeks behind schedule.

Site DP039: Mr. Wray referenced a map to show the location of this site. The TCE plume originated from a sump that was located outside building 755. The interim remedies at this site include a bioreactor, a permeable reactive barrier evaluation, a

phytoremediation evaluation, SVE, GET, and MNA**.** The TCE plume is currently migrating to the southeast of the phytoremediation study area, and this down-gradient area is being investigated to define TCE concentration above 500 ppb. Sampling started close to the phytoremediation area. Once the 500 ppb concentration was found, sampling was to be done laterally (to the southwest and northeast). Specifically, the sampling objective is to obtain detailed data to design an EVO biowall barrier to prevent migration of TCE greater than 500 ppb. Mr. Wray gave an overview of the hydropunch locations, and the TCE concentration levels, shown on 'attached map'.

Next steps: After the area downgradient of the phytoremediation area is defined to 500 ppb for TCE, optimize the EVO barrier design.

Prepare a technical memo identifying locations of EVO injection points and monitoring wells.

Prepare a completion report after EVO injection is completed.

Monitor future status and progress through the GSAP.

Site ST027B: Mr. Wray referenced a map to show the Site ST027B location, which is right in the middle of the flight line. TCE was recently found in the southern part of Site ST027, shown on 'attached map'. Back in November 2008, a Gore Sorber survey was conducted to delineate the TCE and cis-1,2-DCE plume. Nine soil borings were drilled, and three monitoring wells were installed. The latest round of sampling identified the bedrock ridge on the southwest side of the site, which is as shallow as two feet bgs. Samples were collected to the west and southwest of the ridge, and the results were all non-detect for TCE. Mr. Wray said this plume has been defined.

The next steps:

Prepare a report that summarizes the existing data, and presents remedy design.

Prepare a remedial action report after the remedy is in place.

Monitor future status and progress and report in the GSAP.

Site SS030: Mr. Wray referenced a map to show the location of this site. Site SS030 is off base southeast of the SBBGWTP. This is one of the three plumes that are located off base. TCE is the only containment detected above the IRG. During the second five-year review, increasing TCE concentration on the east side of the plume indicated contamination may be escaping hydraulic capture from the SS030 extraction system. The Air Force has an existing easement agreement that allows access to most of the previously known extent of the off-base plume. The data shows that the plume has migrated further east. As a result, Travis had to establish a right of entry agreement with the landowner to investigate the east side of the plume. Thanks to the Army Corp of Engineers and Mr. Linbrunner for finalizing the right of entry agreement. Three borings were drilled in the new access area, and all samples

collected east of the easement boundary were below the IRG for TCE. A monitoring well will be installed right on the easement boundary to verify conditions. Mr. Salcedo asked if Travis could convert a monitoring well into an extraction well. Mr. Wray said this is an option or Travis could just put in a new extraction well and tie into the existing electrical network.

Next steps:

Install a monitoring well on easement boundary (at location SB2001x30) to provide ongoing monitoring on the eastern edge of the plume.

Prepare a technical memo summarizing the existing data, and identifying enhancement of the remediation system, if needed.

Monitor future status and progress and report in the GSAP.

B. Program Update: Activities Completed, In Progress and Upcoming (see Attachment 8)

Mr. Wray gave the Management Overview Briefing presentation.

1) New additions to the Completed Documents & Field Work slide:

Model QAPP.

ST027 Site Characterization – Phase 3.

ST014 Monitoring Well Installation.

SD001/SD033 Sediment RA.

SS016 Site Characterization (source area).

2) New additions to the In Progress Documents & Field Work slide:

SD036/SD037 RPO Work Plan (Draft).

ST018 RA Work Plan (Draft)

DP039 RPO Work Plan (Draft).

LF008 Rebound Study Tech Memo (Draft)

3) New additions to the Upcoming Documents & Field Work slide:

SS016 Source-Area Characterization Tech Memo.

2009 GSAP Semiannual sampling event.

SD036/SD037 Site Characterization (hot spots).

ST018 Site Characterization (and Remedy Installation).

SS030 Site Characterization (Off-site VOC Plume).

DP039 Site Characterization (for Biowall Placement)

4. NEW ACTION ITEM REVIEW

Mr. Smith to prepare the Meeting schedule for RPM and RAB meetings in 2010.

5. PROGRAM/ISSUES/UPDATE

6. POTENTIAL RESPONSE TO COMMENTS (RTC) MEETINGS

None.

General Discussion

Mr. Smith said there will be a lot of vacation time coming up with his staff due to the Air Force "use or lose" leave policy. He said he would try to make a vacation schedule available and have it ready by next month's RPM meeting.

5. Action Items

ITEM	RESPONSIBLE	ACTION ITEM	DUE DATE	STATUS
1.	Air Force	Update document schedule to include revised names and dates in Remedial Action Work Plan for Sediment Sites	July 2009	**Closed**
2.	Air Force	Update document schedule to include revised names and dates for interim plans for FT005	October 2009	**Open**
3.	Air Force	Coordinate site visit of sediment excavations with RAB members	September 2009	**Closed**
4.	Air Force	Prepare the Meeting schedule for RPM and RAB meetings in 2010	TBD	**Open**