

**Travis Air Force Base
Environmental Management
Building 246, Upstairs Conference Room
Environmental Restoration Program
Remedial Program Managers Meeting
Meeting Minutes**

10 September 2003, 0930 Hours

Mr. Mark Smith, Travis Air Force Base (AFB), conducted the Remedial Program Managers (RPM) meeting held on 10 September 2003 at 0930 in Building 246, Upstairs Conference Room, Travis AFB, California. Attendees included:

- Mark Smith Travis AFB
- Dale Malsberger Travis AFB
- Wilford Day Travis AFB
- Glenn Anderson Travis AFB
- Tom Sreenivasan Travis AFB
- Greg Parrot Travis AFB
- Roger Johnson Air Force Center for Environmental Excellence (AFCEE)
- John Lucey U.S. Environment Protection Agency (U.S. EPA)
- Elizabeth Allen TechLaw
- Sarah Raker Regional Water Quality Control Board (RWQCB)
- Jose Salcedo Department of Toxic Substance Control (DTSC)
- Mike Wray CH2M Hill
- Chuck Elliott CH2M Hill
- Amir Matin URS
- Brian Garber Shaw Engineering and Infrastructure (SE&I)

Handouts distributed throughout the meeting included:

- Attachment 1 Meeting Agenda
- Attachment 2 Master Meeting, Teleconference, and Document Schedules
- Attachment 3 SBBGWTP Monthly Data Sheet
- Attachment 4 CGWTP Monthly Data Sheet
- Attachment 5 NGWTP Monthly Data Sheet
- Attachment 6 Monthly Product Removed/Accumulated (in Gallons) SS014 and Monthly Product Removed/Accumulated (in Gallons) SD034
- Attachment 7 Travis AFB Petroleum Only Contaminated (POCO) Sites, 10 September 2003
- Attachment 8 Shaw Field Activities, Travis AFB (September – October 2003)
- Attachment 9 URS Field Activities, Travis AFB (August 2003)

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The minutes from the August 2003 RPM meeting was approved with corrections and finalized.

B. Master Meeting and Document Schedule

The revised Travis AFB Master Meeting, Teleconference, and Document Schedules were distributed (see Attachment 2).

Travis AFB Master Meeting and Document Schedule

- Page 2, SD042, LF008, SS041, LF044 Remedial Action Reports and SS015 Removal Action Report schedules were established.
- Page 5, Quarterly Newsletter (for the 23 October 2003 RAB) draft to agencies due date was changed to 8 September 2003.
- Page 5, Risk Assessment Fact Sheet schedule was established.
- Page 7, RW013 Remedial Action Report was moved to the Historical Document section.

2. OPERABLE UNIT UPDATE

A. North/East/West/ Industrial Operable Unit

1. NEWIOU ROD Plan of Action and Milestone

a. Groundwater Protection Technical Memorandum

Mr. Malsberger stated that the Air Force will respond to the comments of the revised draft Groundwater Protection Technical Memorandum once the Ecological Protection Technical Memorandum is submitted.

b. Ecological Protection Technical Memorandum

Mr. Malsberger stated that the Ecological Protection Technical Memorandum will be submitted on 15 September 2003. The plan is to submit this document as an email attachment to be followed by a hardcopy.

2. CAMU Phase I Project Summary Report

Mr. Malsberger stated that the CAMU Phase I Summary Report will go final on 29 September 2003.

3. CURRENT PROJECTS

A. South Base Boundary Groundwater Treatment Plant

Mr. Sreenivasan reported that the South Base Boundary Groundwater Treatment Plant (SBBGWTP) performed at 99.8% uptime with approximately 7 million gallons of groundwater extracted and treated during the month of August 2003. The average flow was 157 gallons per minute (gpm). Approximately 4.2 pounds of VOCs were removed during the month of August 2003. The total mass of VOCs removed since startup of the system is 228 pounds (see Attachment 3).

The key O&M issues related to replacement of corroded sample ports, cleaning the blower inlet screen, replacing the batteries in the flow meters at EW02x05, EW03x05, and EW01x29. Also, the algae covered sight glasses on the air stripper were removed and replaced. Four drums of used filter socks were removed from the plant and sent out for disposal.

B. Central Groundwater Treatment Plant

Mr. Sreenivasan reported that the Central Groundwater Treatment Plant (CGWTP) performed at 92.1% uptime with approximately 3.4 million gallons of groundwater extracted and treated during the month August. The average flow for the CGWTP was 83.5 gpm. Approximately 239 pounds of VOCs (which 219 pounds were from vapor) were removed during August 2003. The total mass of VOCs removed since startup of the system is 3,419 pounds (see Attachment 4).

The plant experienced one power related shutdown in the month of August. There was also a plant shutdown due to the wiper failure in the ultraviolet oxidation system.

The thermal oxidation (ThOx) system continued to treat soil vapor from the 2-phase well as part of the SS016 focused vapor extraction activities. The most recent sample, collected on 10 June 2003, had an influent TCE concentration of 190 parts per million by volume (ppmv). This is the highest TCE vapor concentration seen since the start of focused extraction activities in October 2002, when the TCE concentration was 96 ppmv. The ThOx system performance is monitored on a weekly basis with the use of the PID. The average destruction removal efficiency of the ThOx system is 99.9%. Sampling will be done at the end of the third quarter (September 2003).

The West Treatment and Transfer Plant's vacuum blowers are offline and will remain offline. Rebound samples will be collected and analyzed at the end of the third quarter (September 2003).

Approximately 1.5 million gallons of the 3.4 million gallons of the treated water was used for irrigation in Area 200 during this month. The remainder was discharged to the storm drain.

C. North Groundwater Treatment Plant

Mr. Sreenivasan reported that the North Groundwater Treatment Plant (NGWTP) performed at 91.7% uptime with approximately 1.0 million gallons of groundwater extracted and treated during the month of August 2003. The average flow for the NGWTP was 25.4 gpm during the month. Approximately 33 pounds of vapor VOC mass removed through extraction and vapor VGAC treatment. Another 1.0 pound of groundwater VOC mass removed. The temporary portable catalytic oxidation system removed 2,900 pounds of vapor petroleum hydrocarbon mass through extraction and treatment from EW566x31 during August. The total mass of VOCs removed since startup of the system is 357 pounds (see Attachment 5).

A plant shutdown occurred on 13 August 2003 due to a malfunction in the subsonic level sensor located at the wet well. The level sensor regulates the variable frequency drive of the influent transfer pump. A new sensor was installed and fine tuned for accurate response. Since then the wet well level alarms system has been operating trouble-free.

The duck pond was scheduled for herbicidal treatment on 15 August 2003. The NGWTP discharge was diverted into the storm drain, instead of sending it to the duck pond as requested by the Natural and Cultural Resources personnel. The practice is continuing. Approximately 550,000 gallons were discharged to the storm drain in August 2003.

Quarterly GSAP Event: The third quarterly GSAP sampling event took place in August 2003. It was a small sampling event, with only 31 wells sampled. Most of the wells included in the event were the newly installed wells at sites FT005 and LF007. These wells have been sampled before and there are no surprises to expect.

All the soil vapor extraction wells except EW566x31 that are connected to the NGWTP were in operation in August 2003.

Mr. Lucey requested the Air Force to reformat the tables for the groundwater treatment monthly reports in order that the information displayed is clearer.

D. WABOU Soil Remedial Action Status

1. WABOU

Mr. Anderson provided updates on the WABOU soil remedial actions. Mr. Smith distributed the Fiscal Year Summer Soil Actions Schedule to the agencies.

- LF008 – completed this week. The fence which surrounds the “A” Bunker was restored. Munitions experts and security force personnel will confirm that the site restoration meets military specifications.
- SD042 – completed. Materials removed from the sewer sump that was connected to Building 940 will be transported to an appropriate landfill in compliance with RCRA.
- SS041 – completed.

Mr. Johnson asked what can be done to ensure that it is clear to all parties that the soil cleanups of these sites are completed. Mr. Lucey and Ms. Raker suggested that a letter stating “No Further Action” for soil; whereas groundwater actions are ongoing.

Mr. Johnson commented that the first Travis AFB Soil Record of Decision will now be the model ROD for all military installations. In addition, it has been set up that Air Staff and the Department of Defense have a 72-hour turnaround once the next ROD is submitted for their review.

Ms. Raker is planning to send the URL for the website to Mr. Tony Landis in Northern California and Mr. John Candura in Southern California.

2. SS015 Removal Action Status

Mr. Malsberger stated that the field work is complete. The Removal Action Completion report will be submitted 30 September 2003.

CAMU Phase II – Mr. Garber reported that the Air Force is completing the stockpile of contaminated soil. The cover material has been screened and laid out. Approximately 500 tons of bentonite is at the site. On Monday, the bentonite will be mixed (10% mixed) to get soil permeability down to 10^{-6} , with 87% compaction. Afterwards the cover material will be placed on the contaminated soil.

E. LF007 C Groundwater Action

Mr. Malsberger gave an update on the LF007 C groundwater action.

- On-Base – Travis AFB will attempt to get an extension on the period of performance due to the impending weather. (The work effort will include the installation of solar panels and bringing the piping to NGWTP plant.)
- Off-Base – The Air Force is still attempting to purchase the easement for a value that is above market value (re: installation of 2 monitoring wells prior to the rainy season).

F. POCO Sites Update

Mr. Wilford Day distributed handouts depicting the Monthly Product Removed/Accumulated (in Gallons) SS014 and Monthly Product Removed/Accumulated (in Gallons) SD034 (see Attachment 6).

Ms. Raker SD034 suggested that the Air Force continue using the skimmer; however, a case can be made to stop. Ms. Raker stated that she agrees that the free product removal is complete and not cost-effective.

Ms. Raker will email her version of a close-out strategy for petroleum sites using the GSAP document as a guide.

Mr. Chuck Elliott gave a presentation on the Petroleum Only Contaminated (POCO) Sites (see Attachment 7).

Travis AFB POCO sites do not pose immediate or short-term risks and all are likely candidates for monitored natural attenuation.

- **SS014 Site 1, Separator Overflow at Fuel Station Area G** – Underground storage tank (UST) removed and holes were observed. An unknown amount of JP-4 was released. Since 1998, 184 gallons were removed through March 2003. No TPH-gasoline was detected.

Ms. Raker stated that the Air Force should look at the criteria to stop removing free product, and how do to address site closure. She asked what should be the sampling frequency in order to get to closure.

Mr. Day stated that all contracts are to accomplish closeout.

- **SS014 Site 4, Abandoned AVGAS pipeline** – focuses on portion of pipeline adjacent to total petroleum hydrocarbons (TPH) groundwater contamination identified in remedial investigation direct-push CPT investigations. Adequate evidence for biodegradation based on preliminary screening; however, the extent of contamination is unknown.

- **ST018 (North/South Gas Station)** – No free product has been found in the any wells. The groundwater is flowing to the southeast due to Markley Sandstone and SS016 pumping. Eleven wells were sampled with the following results.
 - TPH has been detected in 7 – TPH-gas stable and declining over time;
 - Benzene (and BTEX) has been detected in 7, mostly declining over time; and
 - MTBE has been detected in 10, mostly stable or increasing across the site.

Ms. Raker commented that there is a lot of data for the plume, but not at the North Gas Station.

Mr. Johnson asked if anything is being done commercially concerning MTBE. Mr. Garber stated that currently they are using standard pump/treat and innovative technologies (enhanced air strippers, bioventing/airstripping simultaneously, reactor beds). Currently there is no accepted cost-effective method.

Ms. Raker asked about the by-product of MTBE degradation or the manufacturing of TBA. What would it take to add TBA as an indicator chemical for sampling? The Air Force agreed to sampling for TBA, if there are no additional costs associated.

Ms. Raker stated that this will be the first Geotracker site and Shaw has been assigned the task to enter the analytical data obtained from CH2M Hill.

- **ST027 (Jet Engine Testing and Fuel Storage Area)** – Two USTs still exist. No BTEX or TPH-diesel has been detected in any well. It was concluded that test stands and test pad areas required no further investigation. Floating product was measure in all 3 wells and none found. Groundwater flow direction is influenced by a ridge of Markley Sandstone. Three site wells and 2 nearby downgradient wells were sampled. No TPH has been detected in any well and only one low detection of MTBE as of June 2003. *Ms. Raker commented that the new tanks (1779) will be removed. The goal is to place everything above ground.*
 - Facilities 1020 and 1040 were never investigated. Found elevated TPH-gas and TPH-diesel. Additional investigation is required.
- **ST028 (USTs at Facilities 363 and 365)** – No floating product found. Groundwater flow direction is influenced by ridge of Domengine Sandstone. Five wells sampled for TPH-gas, TPH-diesel, and VOCs. Benzene (in Facility 363) and TPH-gas concentrations remain elevated and are not declining over time.

- Facility 363 – All USTs were removed. Reportedly in good condition. Low concentrations of BTEX, gas, and diesel. Concentrations are declining over time. Biodegradation is evident.
- Facility 365 – All USTs were removed. Reportedly in good condition. Elevated concentrations of TPH-diesel and TPH-gas on edge of site. Recommendation is that fuels declining over time, but remained elevated. Extent of contamination needs to be defined.

G. CAMU Wetland Mitigation Performance Criteria

Mr. Malsberger stated that he sent an email announcing that the Air Force has programmed for FY2003 for Shaw to conduct a biological assessment of 5 constructed wetlands. Shaw has developed a scope of work for this assessment. Ms. Raker stated that she will have the RWQCB vernal pool expert review and comment on the assessment.

Mr. Malsberger stated that as part of a previous agreement between the Air Force and the U.S. Fish and Wildlife Service, the Air Force set aside a part of the base as preserve area in which Travis AFB Natural Resources and Conservation Office would conduct periodic assessment. This will begin shortly.

In order that this effort will not be duplicated, the Air Force has awarded URS to do surveys for water levels and aquatic life; Shaw will do plant life surveys of the constructed wetlands.

Soil information is not required for these surveys. Observation on how the pools respond to rain events will be the most beneficial. It will also allow a means to evaluate the hydraulic conductivity of the pools.

Mr. Malsberger thanked Ms. Raker for inviting the Air Force to the Environmental Screening Levels Conference.

H. Restoration Advisory Board Update

Mr. Sreenivasan stated that the July 2003 *Guardian* draft has been completed and sent to the regulators for their comments with a one-week turn around time. Preparations are underway to outsource the printing and mailing of this publication. The RAB presentations pre-dry run and dry run are scheduled for 9 and 16 October 2003, respectively.

The next RAB meeting will be 23 October 2003.

4. PROGRAM ISSUES UPDATE

A. Project Funding and Prioritizing

1. LF007 Easement

Mr. Malsberger stated that working with AMC to assist in obtaining the easement. Mr. Smith stated that the off-base is not as restricted by the weather so the Air Force will attempt to get the monitoring wells installed. A letter requesting above-market value for the purchase of the easement was sent by the Air Force's real estate office to AMC.

B. Optimization Activities/Further Actions

1. Site SS041 Well Abandonment

Mr. Sreenivasan stated that he sent an email to the agencies regarding the proposed well abandonment (EW542x41) along with the rationale. The Air Force will abandon the well.

C. Field Activity Reports

Mr. Smith distributed the field activity reports from CH2M Hill, Shaw Field, and URS (see Attachments 8, 9, and 10).

ACTION ITEM LIST

(Action Items Open)

AGENDA	RESPONSIBLE	ACTION ITEM	DUE DATE	STATUS
1.	Agencies	To provide an Ecological Protection Technical Memorandum	15 August 2003	Ongoing.
2.	U.S. EPA/DTSC	Check on the requirement for site closure documentation.	10 September 2003	Ongoing.
3.	AFCEE	To look at the status for site closeout on land use control sites and NFA sites.	10 September 2003	New Item
4.	AFCEE	Prepare a draft closure document for RW013 (NFA site).	10 September 2003	Continue on with the U.S. EPA template closure document.