

**TIM #9 MEETING MINUTES**  
**TREATABILITY STUDY FOR AREA OF CONCERN (AOC)-65**  
**CAMP STANLEY STORAGE ACTIVITY**  
**F41624-00-D-8024/TASK ORDER 0058**  
**PARSONS 740999.02020**

**Date:** September 8, 2004  
**Time:** 8:30 P.M - 5:00 P.M.  
**Place:** Camp Stanley Storage Activity (CSSA)

**Subject:** TIM #9 to discuss current status of the subject task order's scope of work tasks; to discuss contents of three remaining report submittals (and any CSSA review comments); to review general findings from the SVE testing, Operations and Maintenance, and recharge studies; and to discuss recommended restoration activities that CSSA should consider as follow-up actions to the TO 0058 study.

Attendees:

<b>Attendee</b>	<b>Organization</b>	<b>Phone</b>
Brian K. Murphy, CSP	CSSA	(210) 698-5208
Jeff Aston	USACE, Ft Worth/CSSA	(210) 698-5208
Chris Beal	Portage Environmental	(210) 698-5208
Brian Vanderglas*	Parsons	(512) 719-6059
Doug Downey	Parsons	(303) 831-8100
Scott Pearson	Parsons	(512) 799-6087
Gary Cobb	Parsons	(512) 719-6011

\*Minutes prepared by Brian Vanderglas, Parsons.

These meeting minutes are organized in the order discussed.

**Current Status of Scope of Work for TO 0058**

The meeting was opened with a discussion of the current status of the tasks:

Under work breakdown schedule (WBS) 01000, the period of performance for the project expires on September 30, 2004, or at the end of the current month. With two more reports scheduled for submittal in mid-September 2004 and CSSA still reviewing the draft SVE Interim Report, Camp Stanley reiterated their desire to extend the period of performance through the end of the year (December 31, 2004) to allow ample time to provide technical review of the submitted draft documents. Parsons indicated that AFCEE has suggested that the period of performance would be extended at least a couple months into 2005.

Under WBS 02000, the subject meeting was the ninth out of ten included in the original scope of work. Only one tentative technical Interchange/Progress Meetings (TIMs) remains in the scope of work. If appropriate, the next TIM (TIM#10) will be tentatively scheduled during the final months of the task order. Deletion of the two Karst support meetings included in the scope of work with George Veni, and one regulatory support meeting is included in the planned CLIN reallocation modification. Also, Parsons reminded CSSA that one fact sheet remains. The topic of the final TO 0058 fact sheet will be progress of cleanup at AOC-65. Camp Stanley

requested that the preparation of the final fact sheet be postponed until at least after the draft reports have all been submitted and reviewed by Camp Stanley.

WBS 03000 was reported as complete.

Under WBS 04000, SVE and O&M testing were completed. All of the data from the final O&M monitoring event were received and reviewed, and were integrated into the preparation of the O&M Assessment Report. The O&M Assessment Report is approximately 50% percent complete as of the TIM #9 meeting date. In the CLIN reallocation modification under TO 0058, Parsons requested that the tracer test be descoped to redirect the funds toward additional data collection and reporting. Tracer testing will be key component of the push-pull test planned at SWMU B-3 under a separate task order (AFCEE WERC TO 06).

Two of the key deliverables under WBS 05000 were completed, the draft interim SVE Test Report was submitted in late August. No comments from the Army on this report were provided at TIM#9. The draft Technology Evaluation Report, which incorporates the recharge study results, is progressing with submittal of draft report anticipated in October 2004.

The remaining budget was presented. Approximately \$62,000 remained in the TO budget to complete the remaining activities.

### **Findings from SVE Testing and Recharge Studies**

Parsons presented a brief overview of results from the SVE treatability study and O&M assessment. Doug Downey, Parsons new technical director on the project, indicated that he wants to review our SVE report(s) so he can evaluate our performance to date, and make recommendations for possible improvements to SVE network/design.

The groundwater recharge data included water level elevations and relative response to precipitation events. There was also much discussion regarding the apparent decrease in contaminant levels in the piezometers over the past 6-9 months of data collection. A consensus theory developed was that the greater than normal rainfall over the past year has possibly produced the decreasing trend-line. Likewise, the higher contaminant levels noted at the beginning of the data collection were reported in samples collected after a relatively drier than normal season. It was agreed that this phenomenon would need to be repeated before much confidence could be applied to this theory.

### **Summary of Treatment Technologies for AOC-65 at Camp Stanley**

Parsons presented a summary table that was prepared for inclusion into the draft Technology Evaluation Report, which included vadose zone technologies and dissolved phase groundwater technologies. Vadose technologies included:

- (1) No action;
- (2) Continued LTM and well-head treatment;
- (3) Expanded SVE;
- (4) SVE with hydrofracturing;
- (5) Enhanced dual-phase extraction; and
- (6) Organic substrate infiltration.

Dissolved plume technologies included:

- (1) No action;
- (2) Pump and treat;

- (3) Monitoring natural attenuation;
- (4) Carbon source injection/enhanced bioremediation;
- (5) Oxidation/reduction of contaminant plume;
- (6) Reactive barriers; and
- (7) ART technology.

#### **Applicability of Results to Future CSSA Restoration Program**

It was generally agreed that there is not sufficient data to rule out or definitively select any one of these technologies. However, there was consensus that a denser grid of shallow SVE wells would likely be able to vastly improve the removal of contaminant mass the most cost-effectively (mass of chlorinated hydrocarbon removed/unit cost). Additional SVE wells will need to be installed and connected to a new SVE blower housed near the weather station to focus on this selection. SVE is the action currently on-going at the site, and is considered an effective interim measure while other remedial options are being evaluated. Additional SVE wells are planned on pending TO 0006 award under AFCEE WERC contract with Parsons. Also, to avoid water build-up in the system, it was concluded that any future SVE plumbing would be designed to drain into the SVE wells.

For the dissolved plume, a push-pull test planned under TO 0006 award at SWMU B-3 should provide very useful data for the applicability of enhanced bioremediation of contaminated groundwater. The subject of tracer studies was also discussed, and it was generally agreed on that a tracer test should be pursued in FY05 by the Army. The scope of TO 0006 was briefly discussed, and it was suggested that it might be useful for the SWMU B-3 trench to be excavated before initiating the push-pull/tracer test. It was agreed that a single dedicated well should be installed at SWMU B-3 as the injection well for the push-pull test, and for possible future use as a recirculation well.

#### **ACTION ITEMS**

- None.