

## AFCEE Galena Triad Meeting No. 5

ATTENDEES: See Attached  
FROM: CH2M HILL  
DATE: August 10, 2011

The Galena Triad meeting/teleconference was attended by members of the Air Force, ADEC, ADOT, CH2M HILL, and Booz Allen Hamilton. Please see the attached **Galena Triad Team Contact List** for attendees.

This was an additional meeting primarily to talk about the SS016 source area delineation results and information on some of the proposed Phase 2 groundwater monitoring wells.

### Agenda:

1. Safety moment
2. Status update for field work activities
3. Review of action items and conclusions from previous Triad meeting. Approval of minutes
4. Discussion of new site data and evaluating progress toward Work Plan objectives
5. Identifying additional work needed and/or concurrence that Work Plan objectives have been met
6. Open discussion of other items
7. Schedule update for upcoming activities

### Safety Moment

None was presented.

### Status Update of Field Work Activities

Ronny Fields/CH2M HILL summarized field activities for the last week. Completed all borings at sites SS014 and SS017. Mobilized today to SS016 for TO294 samples; will be there for 3–4 days. Monitoring well installations were completed Friday, August 5; awaiting approvals for other wells.

The hollow stem auger rig has been shut down for 2 weeks pending approval of Phase 2 wells, and receipt of the building permit from ADOT.

Second DPT rig is onsite.

### Review of Action Items, Approval of Minutes

Minutes from the last Triad meeting were sent yesterday afternoon to ADEC and DOT.

Amanda Loomis/ADEC questioned the number of proposed boring relocations that were presented in the minutes. The minutes summarized nine locations that need to be moved because of field observations; however, only three were discussed at the last Triad meeting. Win noted that the discussion of the boring relocations ended after the first few were discussed and

Amanda said in general ADEC will approve the boring relocations if the original locations are not accessible, but understood that all of the relocations were to be summarized in the minutes. CH2M HILL will send the revised figure from the surveyor showing all nine relocations marked with an “R” in the location id.

## New Site Data and Evaluating Progress toward Work Plan Objectives

### SS005

Robert Thompson/CH2M HILL provided an update on TO259 SS005 field activities. There was a large frost wall that was part of the Wilderness Hall foundation that slowed things down somewhat last week and this week. However most of the contaminated soil has been excavated. Additional contamination was found on the east and north sides of the excavation. Soils have been excavated down to 14–15 ft below ground surface, and they have not hit groundwater. The excavation should be completed Friday and confirmation samples will be taken.

The AST1569 excavation will be started after SS005 is completed, and should be finished on Sunday or Monday.

Fred Vreeman/ADEC asked whether the field activities are going well, whether we have all the contractors we need onsite, and whether they’re performing correctly. Robert said that, in general, things are going well; the excavation is going a bit slower than planned; however the activities are still on schedule. Can accomplish approximately 2,000 yds/day in backfill, so that part will go quickly. Stockpiling at the runway is going well; received a driveway permit this week to shorten access into the stockpile for dump trucks.

A different contractor will be doing the SS014, SS016, SS017 excavation; they will mobilize next week.

### SS016

OIL-IN-SOIL™ was tested as a potential soil screening method; applying a colorimetric method for detecting hydrocarbons in soil. However, this method proved to be unsatisfactory for our purposes, and we propose switching to SiteLab.

A scatter plot showing only preliminary results from SiteLab was presented and discussed. Additional soil screening is currently being done, and we should have the data by the end of the week. Fred asked that all data be sent to ADEC to determine whether they correlate for the soil type at the site. Soils from SS017 and SS021 are being used for these analyses. Fred also stated that there may be data from AECOM’s work that may be beneficial to include when developing this correlation.

**➡ The complete scatter plot with the results of the SiteLab testing will be presented during the next Triad call.**

Discussion of prioritization of excavation volume:

- Robert said the priorities are getting SS005 and AST1569 to clean closure, so they are removing as much soil as necessary to accomplish that. The excavation volume currently is around 400–500 cy greater than the original plan, and that may go up a bit more.

- The next priority is SS017. The most contaminated soil is in the roadway east of the power lines. More data are now available from the most eastern soil borings. Propose moving the excavation limit to the east based on stepout soil borings.
- **➡ Spider diagram will be updated to reflect new data and proposed stepout locations and will be discussed at the next Triad meeting.**
- The next priority is SS014, and again, the most contaminated soil is around the roadway. That excavation boundary has not changed.
- The final priority is SS016, focusing on the most contaminated soil along the north-south pipeline. If possible, the excavation will attempt to clear the top 15 feet.
- ADEC agreed with the excavation priorities proposed. However, in order to address the excavation limits at SS017 ADEC recommended continuing to step out at Site SS017.

## Phase 2 Wells

Peter Lawson/CH2M HILL presented cross sections for some of the proposed Phase 2 monitoring wells for team discussion. This morning we learned that there are potential permitting issues for the wells in the airfield. CH2M HILL is looking into this, and will work to determine revised well locations, if needed. Peter presented a figure for SS006 showing the location for a proposed replacement well (ST006-MW09R). Linda Liu/ADEC said that this was an area of high contamination and that more coverage was needed.

➤ **The replacement well was approved by the team, as long as construction is similar to the well being replaced.**

Peter then addressed Fred's concern about what the downgradient plume looks like. A three-well (ST006-MW067, -068, and -069) cluster is proposed to look at potential pathways from some of the higher concentration grab samples that were obtained further upgradient and to provide monitoring for those potential pathways. The proposed cluster targets some of the potential pathways in the 40-, 50-, and 60-foot depth ranges and includes a well that is deeper than the deepest grab sample exceeding MCLs to look at potential deeper migration away from the plume. These wells are not intended to address the full delineation of the SS006 plume.

ADEC will review the data. There was a discussion of the rationales for screen intervals; Fred wants these documented in our work plans.

Win said we're trying to expedite these decisions in these calls so we can keep activity in the field moving. The two groundwater work plans are scheduled to be submitted to ADEC in two weeks. We could excerpt the sections that discuss these screens if that would help ADEC approve the wells. ADEC needs to be provided language to the effect that these wells are not decision-point wells; they are simply to collect more data, the wells may not rule out contamination if none is found since there are some gaps between the screened intervals. The wells are being designed such that they *may* be used as compliance wells in the future if they are located correctly, based on information obtained during this investigation, but their current purpose is to be used to for additional site information.

Fred said that, regarding wells planning for SS006, one of the most useful ways to evaluate the behavior of TCE plumes is mass flux, and he is not sure we are planning a sufficient number of

wells with sufficient locations to do that. Peter agrees that mass flux is a good indicator of remedial progress.

Peter presented figures showing historical grab groundwater sample results for benzene, moderate to low-level hits. The grab samples weren't analyzed for DRO, the high-concentration constituent upgradient of the area. Propose installing a three-well cluster (MW-073, -074, and -075) downgradient of high-concentration DRO hits to see impacts of the DRO soil source area on groundwater.

There was a question about the elevations shown on the cross section; Peter will check the elevations and correct the figure if necessary.

➤ **CH2M HILL will prepare a tech memo providing the justification for the 16 proposed Phase 2 wells, and submit to ADEC for approval.**

Fred asked whether wells are being proposed upgradient of UST1859 and downgradient of ST009. Donna noted that we are still in the process of stepping out from UST1859, and we'd like to have all the data prior to evaluating which wells to propose in the area. Regarding ST009, Donna stated that since we have agreement that the nature and extent investigation of soil at ST009 is complete, the next step is to pull together a more detailed cross-section of the ST009 site.

#### SS016 Additional Well Abandonment

Jerry Tracy presented the proposed revised excavation limit figure. Wells MW-01 and -05 in Site SS016 have already been approved for abandonment, and we are requesting approval for abandonment of MW-04 as well, since it is within the proposed excavation limits. Fred: Okay to abandon, let's look at data. ADEC will review the data, and issue an approval letter.

#### SS006 RTC

Discussion was held on the potential use of a field screening tool for DNAPL, to help guide decisions on how deep to sample. The Air Force would like to have more information before deciding to sample deeper within the source area, as there is a concern about drilling too deep and creating a preferential pathway. Fred stated that he would be more comfortable with the proposed approach if we had a better understanding of the horizontal and vertical groundwater gradients in the area. Peter mentioned that we typically see a downward gradient here. ADEC's main concerns are: 1 – the groundwater investigation has to be coordinated with the soil investigation at this site, even if the approach is presented in 2 separate work plans, and 2) – need better justification for the proposed investigation at SS006, especially in the deeper samples. ADEC also stated that new worksheets and DQOs for dealing with TCE plumes need to be submitted as the previous ones deal with POL contamination.

➤ ADEC will review and provide a response to the Air Force's Response to Comments.

#### SS019 RTC

Donna restated information brought up during the last Triad call, when it was stated SS019 appears to be a POL site, and not an RI site, since it does not have the significant TCE that SS006 does. However, the currently drawn site boundary is big and may need to be revised, since it encompasses wells to the south that appear to be related to SS006. The TCE concentrations at the southwest corner of Building 1700 were discussed.

- ADEC will review the data further and decide if they agree to keep SS019 as a POL Site.  
ADEC will review and provide a response to the Air Force's Response to Comments

### **Additional Work Needed and/or Concurrence that Work Plan Objectives Have Been Met**

None noted

### **Open Discussion for Other Items**

2011 boring logs will be posted to SharePoint every 2 weeks in conjunction with the Triad calls.

### **Schedule Update for Upcoming Activities**

The next Triad meeting is scheduled for Tuesday, August 16, 10:00 a.m. to noon Alaska time.

Attachment: Galena TO 294 Triad Team Contact List