

## AFCEE Galena Triad Meeting No. 1

ATTENDEES: See Attached  
FROM: CH2M HILL  
DATE: June 21, 2011

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

The meeting followed the standard agenda setup for the Galena Triad calls.

Agenda:

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

### Status Update of Field Work Activities

Melissa Buciak/CH2M HILL provided a quick summary of field efforts to date:

- The direct push technology (DPT) drilling rig mobilized on May 15 and started installing borings May 18.
- Installed 64 borings during the past 5 weeks.
- Sampling has been performed at the following sites:
  - UST1770 stepouts
  - UST 1859 stepouts
  - AOC23 stepouts
  - CG001/CG002
  - Five deep grab groundwater samples for the SS015 stepouts in Old Town Galena
  - Building 1850 stepouts
  - Oil/water separator 1830 stepouts
  - ST009 stepouts
  - Old abandoned pipeline (OAP) sites in the triangle
  - ST005 apron sampling in existing 2-inch crack locations

- Meeting with airport manager Marvin Thurmond today to look at additional stepout locations. Depending on findings, up to five more borings will be sampled in the apron tomorrow.
- The hollow-stem auger (HSA) drilling rig is now onsite; going over checklist and safety paperwork. CG001NW07 below Million Gallon Hill will be the first well drilled.
- Thirty-one GoreSorbers were installed last week; will wait 5 days, then retrieve the GoreSorbers.

## Review of Action Items, Approval of Minutes

Discussion of timeframe for review and approval of meeting minutes. Win noted that ADOT did not approve the Triad minutes last season. AL and Fred said it's important to have minutes approved prior to the next Triad meeting. Minutes will typically be available to ADEC and ADOT 1 week after the Triad meeting.

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

Four sites were discussed: AOC23, UST1170, UST1859, and the first two borings at CG001. The proposed sampling of the apron in relation to ST005 was also discussed.

### AOC23

The team reviewed the quick turnaround BTEX and petroleum hydrocarbon data from 17 locations across AOC23. "Hottest" hit is near the pipeline at more than 100 times the screening level at a depth of 5 feet. Discussed 2010 data collected from 14 borings to 40–45 feet, so we have the vertical delineation. In the historical data, we had PCE/TCE low-level hits at 5 feet and 30 feet.

Fred summarized his observations: We have a fuel source area, shallow, on top of the new pipeline in AOC23 (former waste accumulation area). Combination of DRO (at ~40,000 mg/kg) and GRO (at ~9,000 mg/kg).

Win: There are three questions we are trying to answer with the data collection:

1. Delineating the hot spots for petroleum-contaminated source area soils for removal action.
2. Identifying whether there is a source for scattered low-level hits of chlorinated compounds; have we looked everywhere so we're not missing hot spots? The data continue to show low-level scattered hits, so we don't have the signature of a hot spot.
3. Delineating the extent of pesticide elevated hits on the north side of AOC23. In 2010 there was a relatively high hit of DDT of 13 ppm. Pesticide results are not back yet from the lab, so will revisit this question in a future Triad meeting.

Fred said that it looks like we have enough qualified data without additional stepouts.

- Triad decision for AOC23: unless something comes back on the remaining analyticals, no need to look further at this point.

**UST1770**

Reviewed historical data. Arsenic shows widespread exceedances of ADEC cleanup goals; however, arsenic is a known background metal at Galena and is not believed to be a site contaminant.

Win believes we have sufficient data. Met objectives. Fred agrees.

- Triad decision for UST1770: contamination is bounded. No additional stepouts are needed (originally had proposed two rounds of stepouts; however, the second round is not needed).

**UST1859**

Building 1859 is the existing dining hall, behind it is existing AST, which was installed over a previous UST; UST was pulled, but left all the contaminated soil behind.

Discussion of nondetects and screening level. Berney Kidd/CH2M HILL commented on what we can do with our lab data when we get elevated detection limits that may be obscuring lower concentrations. We can ask the lab to perform lower dilutions if they have not already. There are cut-offs where, if there are high concentrations of other analytes, they won't perform lower dilutions.

Fred: We need to validate the benzene numbers on all these tanks that we're investigating right now because that's our main risk driver downgradient in the groundwater, and we're getting NDs on benzene, getting some fairly high detections on ethylbenzene and xylenes. Need to know the fuel profile of product that's under the ground at 20-30 feet, so we can understand the risk and contribution downgradient.

Win: Even if you don't see benzene in the soil data, it is generally more apparent in the groundwater data.

The team reviewed the proposed stepout locations. It appears the source area goes under the building.

- Decisions: five stepouts as proposed look good; add a sixth one off the alcove to the south.

**Apron Sampling Associated with ST005**

The team reviewed the PID results from the first four boring locations within 100 feet of the north edge of the apron. In accordance with the ADOT permit, can only sample within 2-inch existing cracks in the apron in the newer paved area south of the GAVTC building. In the older paved area west at the PADS area, there are fewer restrictions on drilling. Melissa and Marvin Thurmond, Airport Manager, walked the site and agreed on sampling locations. Three borings (ST005\_GP079, GP083, and GP089) were advanced to depths of 55 to 70 feet. Boring GP0084 hit refusal at 10.5 feet; moved rig four times up and down the crack and hit refusal each time.

Discussed PID results. The highest readings were from 21 to 30 feet deep, then lower readings (still above 20 ppm) were observed to 42 feet in two borings and 65 feet in one boring. The PID results do not show elevated contamination above 20 feet deep. It appears that the smear zone spread at 21 to 30 feet deep and is not yet bounded to the south.

Win: propose five stepout locations: GP091, 081, 086, 082, 088. Fred concurred and has already given ADEC approval in their approval letter.

- Decision: will step out to the south and west at preapproved locations GP091, 081, 086, 082, and 088.

Fred discussed the possibility of a near-surface fuel release at the north edge of the apron near the GAVTC building, which may be a vadose zone source area. Win: Additional borings are proposed at the north apron edge in the ST005 FSP, which will be coming back to ADEC in about 2 weeks. Also, there is a high-voltage power line running about 25 feet south of the apron edge, so it is not practical to do more drilling in the apron at this location.

### **CG001**

The team reviewed the quick turnaround lab data from the first two borings for MGH. The results indicate relatively clean soils down to 34 feet deep, then detections above screening levels at 34, 37, and 47 feet deep. The field team will go deeper in subsequent borings to tag the vertical extent of the smear zone soils.

Fred: Need to understand the error that led to these samples being too shallow. Need to correct in field. Appears we didn't read hydrograph correctly.

Win: We will review the FSP tables and maps to confirm the sampling depths are correct relative to the hydrograph for Well 09-MW-05. The field team is also using headspace PID readings in real time during drilling and sampling to determine if we are getting beneath the smear zone, and we will drill deeper if indicated.

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

Discussed and summarized under Sites above.

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

Discussion of the questions ADEC had from their site visit on June 9<sup>th</sup>. CH2M HILL sent an email with the requested information to ADEC on June 17, and Linda Liu confirmed they had received it.

Fred: looking for SOP for sampling methods for VOCs. Drawing down temporary well points down to 30–40 feet because of getting a lot of air.

Win: It is not possible to pump from greater than 30 feet deep with a peristaltic pump because that is greater than 1 atmosphere vacuum. Sampler told us that was an unusually tight interval. Typically we are pumping from a gravelly/sandy formation and normally wouldn't anticipate any drawdown.

Fred: Check into it. VOCs are really important in water. Main concern is that we have defensible data.

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

The next Triad meeting is scheduled for Tuesday, July 5, 10 am to 12 pm Alaska time.

Attachment: Galena TO 294 Triad Team Contact List