

Conference Call, March 13:



02144293

Proj 115

Attendees:

1. Christi Zeller
2. Bill Hawkins - Bp
3. Glen Christiansen- XTO
4. Matt Yarnell - XTO
5. Karen Spray- COGCC
6. Brian Macke – COGCC
7. Walt Brown – FS/BLM
8. Debbie Baldwin – COGCC

Discussion centered around directives needed for contractors, specifically EL Montgomery.

The COGCC is not in favor and will not include in the Request for Proposal any money for continued satellite work. Industry discussed the approximate \$7,000.00, and the value and may consider paying for this information, after further discussions with ELM.

Christi will request Power Point materials from March 8<sup>th</sup> presentation. She will find out if this can be transmitted via email or if ELM will provide a posted site for full Advisory Committee review. We want to help ELM find the appropriate locations and the number of locations, via conference call. Next is to meet in Durango and do a field trip.

The goal is to have a telephone conference call and ask the following questions:

The work plan for the Interim Phase was summarized by ELM as the following:

“Task 1: Conduct field inspections and land ownership review of seep areas to verify and obtain site access to potential monitoring locations. As many as 11 potential monitoring locations will be analyzed that have been initially identified in the Phase I work. We anticipate identifying and contacting property owners and field checking each proposed monitoring location. For this Task, we will require assistance from the Advisory Group for initiating contacts with property owners (e.g., letter writing) and for obtaining access to field areas (e.g., Florida River, Carbon Junction, and Basin Creek). Field work will be concurrent with work for Tasks 2 and 3. Task 1 includes continuing project management for reporting project status, periodic teleconferencing with the Advisory Group, and an “in-person” meeting in Durango near completion of the Interim Phase.”

#### REVISIONS AND QUESTIONS:

Instead of the Advisory Group assisting in contacting property owners:

Help with geological data for ELM to build a geological cross section from geological logs from gas wells.

Goal is to determine how deep the potential identified locations are. Then perform a small-scale project, 1 to 2 potential locations in 3 areas perhaps...vs. 11 for access issues ease.

From the ELM Project Status Summary of 2-15-07, this task (2) is 75% complete. WHAT IS THE STATUS OF A GEOLOGICAL CROSS SECTION MAP?

Additional Questions:

Can we isolate the formations when we use this grout material?

We will also want a diagram of this effort and want to know if surface casing be done?

Need details of this material and how it will perform in pressurized systems?

We want the unintended consequences anticipated.

How do you isolate the different formations/horizons?

Can you find an example of somewhere in the world where this has been done? We do not want Fruitland gas into a shallow aquifer.

This could be done on the properties on Bp, before dealing with the access issues. Small pilot in an area where there is thick alluvium and a place where there is no alluvium. Perhaps instead of installing around seep areas, maybe 1 or 2 out to the East in the Shamrock area.

Task 2: Conduct surface geophysical studies that will include ground magnetics, shallow seismic, and electrical resistivity methods. The geophysical survey will address the objectives: 1) define the subcrop surface expected to be Fruitland Formation or younger Cretaceous sedimentary rocks; and, 2) determine the lateral variation of material properties within the Quaternary alluvial soils and at the soil/subcrop interface (weathered bedrock contact). The geophysical field program is based on performing the geophysics at two or three sites, depending on site access, as part of a pilot or test program. Because no one method will satisfy both objectives, a combination of geophysical methods is required. Each method is described briefly in the accompanying Attachment 1.

QUESTIONS FOR ELM: Do you have a map of the area that you intend to cover? We also want to stress that the planning phase is important.

Task 3: Measure soil methane flux using portable static chamber methods. Measuring soil methane flux (mass flux) will involve using a modified LICOR 8100 flux meter and an infrared (IR) spectrometer methane sensor. The method will use standard practices developed for soil respiration in agronomy, soil degassing in volcanic terrains, and venting of biogas at landfills. The methane flux field program is based on measuring methane flux and obtaining precision GPS coordinates of each measurement location at as many seep areas identified in a 3-day field program. We anticipate conducting as many 100 measurements per day.

Comment/Question for LTE: S.Ute had a detailed grid over a several mile area, did soil gas measurements (every 200 feet?), calculate flux in two different ways...as a check to see if either or both are a reliable way to do this.

Would be useful to have LTE and ELM, complete? Further research needs to be done on this topic. Advisory Group thoughts: Pick a couple of places, have both companies measure methane flux measurements. May need to scale back, two methods in a pilot area. Goal: Want to know the flux, how much gas is coming out? Want to start intercepting, is it measureable gas. Maybe mapping vegetation is reliable way to determine if it is working.

Final conversations: What is next after all of this...not too early to thing about mitigation approaches. Is industry wanting to cut off the methane escaping before it appears at the outcrop. The industry felt that some of this is too early until the work is completed, but interceptor wells down dip (S. Ute) approach is intriguing still.