

**WESTERN KENTUCKY SEQUESTRATION SUB-PROJECT
MEETING**

December 11, 2008

KGS Well Sample and Core Library, Lexington, KY

These people were present for the meeting:

KGS Staff

Jim Cobb
Dave Williams
Dave Harris
Rick Bowersox
Jim Drahovzal
John Kiefer
Jerry Weisenfluh
Warren Anderson
Brandon Nuttall
Mike Lynch

GEO Oil / Gas

Ross Miller

Icon Construction

Edward Lekson

Peabody

Dianna Tickner

U.S. EPA / Atlanta (via telephone)

George Ford
Robert Olive

PraxAir / San Diego (via telephone)

Dan Dalton
Chris Sessions

Sandia Technologies

Phil Papadeas

ConocoPhillips (via telephone)

Michelle Pittenger
Paul Heard

E.ON US

Roger Medina
Doug Schetzel
Glenn Sundheimer

Sandia Technologies (via telephone)

Phil Papadeas

TVA

Ed Stephens
Suzanne Fisher

OMNI / Weatherford Labs

Anne Terburgh
Melanie Dunn

WeternGeco

Doug Allen
Vlad Pekker (via telephone)

Dave Williams opened meeting.

EPA permit issues:

Phil Papadeas reported that the financial assurance forms were sent in with the CFO letter and auditor's letter; he had heard nothing back on them yet, but George Ford of EPA later said from Atlanta he just received a recommendation of acceptance of financial responsibility letters and related documents.

George Ford told the meeting the permit language has been completed and is going through sign-off by his supervisors. December 30 will begin the public notice period, making earliest permit issuance date Feb. 7, 2009. Public comments taken for thirty days plus one week, to insure all comment mail has been delivered and opened. People who have serious comments or objections have 30 days to go to the appeals board in Washington if they do not like the regional office's response / reaction to their comments.

He added that the comments can possibly extend the issuance time. Dave Harris asked if there have been any inquiries or comments yet. George Ford replied that one person had already expressed opposition to the project. He had told her she would receive a notice on the comment period and can comment.

Land owners, residents, water well / spring owners will receive notices. There is also "a list" of people and entities which want to receive all such public comment notices. So it's a broader audience than just "affected people." Anyone in our region could be on "the list," and their comments could possibly change the permit to reflect their concerns. This is an EPA Region IV policy on such public notices.

Mr. Ford explained how comments are handled: Region IV decides if there is merit to the comments and may make changes in the permit to reflect them. EPA responds to every comment, too, and the comments can be reviewed, even if the permit doesn't change. The applicant doesn't get a say on the comments and their effects, if any, on the permit unless they appeal the comments and the changed permit.

He read all of the permit language, including: type of well being permitted; construction details; casing sizes; borehole sizes; injection depths; cementing requirements; mechanical integrity, pressure testing; EPA witnessing of testing, plugging, injection operation conditions & limitations; injection pressure monitoring. He made a special point to say that EPA's requirements that their staff witness some of the initial activities is very important. Some applicants fail to do this, though it's in the permit language.

Phil Papadeas commented that this is a pretty standard permit for such wells.

But the permit also requires a monitoring well within 400 feet of main well. Analysis of water wells in the area of review is also required. The monitoring well must be a new well drilled to below the underground drinking water supply. The public can

comment on the construction of the monitoring well, too. Phil Papadeas notes that there are no EPA comments in the permit on construction and monitoring requirements of the monitoring well. He added that the partnership plans extensive comments on the monitoring well requirement. He added the partnership believes it had already included a robust monitoring plan in its application.

Partnership members said that these monitoring wells are not required in other similar projects and wondered why this one necessary. George Ford responded: because Region IV believes you should monitor the water for impacts on the USDW. He added that the project is “on the cutting edge” and people want to know what's going on.

Robert Olive of EPA remarked that this well will be below the USDW; it will be an "early warning" well to let us know before drinking water might be impacted. Phil Papadeas responded that the integrity requirements on the main well will already do this; this is redundancy on top of that.

Project operations:

Vendor presentations:

Dan Dalton (via phone from San Diego) of PraxAir, made a presentation on his company's CO₂ / injection estimate and answered questions.

Anne Terburgh and Melanie Dunn of Omni/Weatherford Laboratories made a presentation on their company and its capabilities to do the core analysis for the project.

Doug Allen, WesternGeco (with Vlad Pekker on phone): Using a PowerPoint presentation, he summarized changes needed in “Line C” of the seismic profile program as a result of a property owner in Breckenridge county declining to allow work on property. In addition, the recent rain has made the ground soft, threatening off-road operations.

The current schedule: The survey crew should be done on Saturday (two days away); vibrators should arrive Sat. 13th. He hopes to do testing on Monday 15th and start recording that day. He hopes to get it done in less than ten days.

He recommended that Line C be changed to go up a section of U.S. 60. Ground conditions and costs make it a good change. There will be 2.5 to 3 fewer line miles this way.

Michelle Pittenger reported that she will be able to send the old reprocessed Line 7 data to WesternGeco for their use.

Dave Williams reported the analyses should be returned soon on the sampling of the well site property owner's water well.

Paul Heard reported the drill site preparation is basically complete; a few more items left to do; probably about \$2000 for road damage; we should still be able to get the first drill rig available when we need it.

Paul said he is awaiting final bids for well design and construction. Currently, we're an estimated 3.1% (\$5400) over budget, including contingencies, on construction cost.

Rick Bowersox made a PowerPoint presentation of the site, photos/drawings, construction, road improvements, and some road damages on Sweet Rd.

Dave Williams reported that he talked to magistrates and the County Judge/Executive, assuring them the partners will foot the bill for the road damages. Judge McCaslin is asking for a letter stating that we will put the road back to the condition just before our work started. To re-surface it with 2 inches of asphalt (.6 - .7 miles) would be under \$20,000. Some temporary fixes (i.e., culverts, potholes) during the project work will also need to be done.

Jim Cobb said he will to send Judge McCaslin the letter.

There was further discussion on the types of repairs needed and how to go about paying for them.

Project administration:

Dave Harris handed out budget summary documents showing the spending so far on Phases III and IVa. Phase III is mostly done. He said he expects to come within the seismic program budget now as a result of the changes (above). This may allow contingency money to be spent elsewhere.

The Foundation private partners will now pay all of the seismic acquisition costs, to accelerate their 2008 costs.

Dave Harris handed out the project management costs for Sandia Technologies to date.

Discussion of other potential sources of funding (companies, groups, associations, etc.)

Phil P: I spoke to Texas Bureau of Economic Geology, who may assist on the core analysis portion. He'll send information to Rick Bowersox.

KGS will contact Alliance, LLP for potential participation.

Phil Papadeas suggested that there may be some DOE or NETL funding available to offset CO₂ costs and some interest from the national laboratories. With other projects behind schedule, they may be willing to help the project, which has actually moved more quickly than those. Dianna Tickner and Jim Cobb agreed to make some contacts on this.

Paul Heard reminded the partners not to overlook the 2.5% discount if charges are paid within 10 days to Sandia.

Paul Heard promised a first pass at the costs of Phase IVb by the middle of the following week.

It's believed that, considering the public comment schedule, Feb. 7 is earliest possible permit issuance date (30 day comment period plus 7 "mailed comments" days). EPA wants to be there for the casing. And the monitoring well needs to go in first to draw the first samples before the main-well drilling.

Dianna Tickner agreed to ask for the comments on the Duke well via FOIA to get an idea of the kinds of comments other similar projects have received.

There was discussion on where to drill the monitoring well close to the main-well site and agreement that the monitoring well will most likely have to happen.

Phil Papadeas said he and Bill Armstrong will work on details, specifications, and costs on a monitoring well.

There was discussion of the need to get permission from owners to sample their water wells per the EPA expectations, which could be problematic. It was agreed that the owners of the affected wells should be contacted soon for their reactions and that information should be put into our permit comments. Dave Williams will contact the well owners.

It was noted that most, maybe all, of the wells are abandoned, in poor shape, or even gone.

Public Outreach:

Rick Bowersox drew the members' attention to a list attached to the agenda of all news items found in newspapers or on the web relating to the project.

Mike Lynch reported that the UK Center for Visualization and Virtual Environments had contacted him about including this project in a documentary on "clean coal" which the Center is working on. The documentary would be sent to the Documentary Channel for national distribution and possibly sent to KET. He recommended that we pursue this, to get good documenting of the value of this project. Partners agreed the fairest coverage would be received this way.

Review of KGS Knox Dolomite research:

Warren Anderson made a presentation on the extent of the Knox formation in Kentucky and its sequestration potential. He noted that southern Kentucky was investigated for minerals in the Knox, so much data on the Knox has been gathered from there.

Michelle Pittenger will contact WesternGeco to work out seismic acquisition parameters.

She will send Line 7 Data to WesternGeco processing group

Next meeting: January 8th at the same location: KGS Core Library.

ACTION ITEMS:

WesternGeco:

Begin testing as soon as Monday, Dec. 15th, when the equipment arrives and possibly start recording that day. Program may be finished in less than ten days.

ConocoPhillips:

Michelle Pittenger reported that she will be able to send the reprocessed Line 7 data to WesternGeco for their use.

She will contact WesternGeco to work out seismic acquisition parameters.

Paul Heard will produce a first pass at the costs of Phase IVb by middle of the following week.

Peabody:

Dianna Tickner will make some contacts with DOE, NETL and national laboratories about participating financially in the project.

KGS:

Jim Cobb said he will to send Judge McCaslin the letter of assurance that the partnership will pay for repairs and restoration of Sweet Road.

Dave Harris and Jim Cobb will contact Alliance, LLP for potential participation in the project.

Jim Cobb will make some contacts with DOE, NETL and national laboratories about participating financially in the project.

Dave Williams will contact water well owners whose wells must be tested by EPA requirements to determine if they will give permission.

Sandia Technologies:

Phil Papadeas will send information to Rick Bowersox about an expression of interest in assisting the project from the Texas Bureau of Economic Geology.

He and Bill Armstrong will work on details, specifications, and costs on a monitoring well.

Foundation and KGS:

Will submit payments to Sandia Technologies early enough to get the 2.5% / ten-day payment discount.