

Enhanced Oil Recovery Commission



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MINUTES

September 11, 2014 – 2:00 PM

Energy Innovation Center, 3rd Floor Questar Conference Room
Laramie, Wyoming

Commission Members Present:

Tom Fitzsimmons, Chairman, via Phone
Aaron Otteman, Vice Chair, via Phone
Rob Hurless, Representing Governor Mead, Acting EORI Director
Tom Drean, State Geologist
Jimmy Goolsby, via Phone
Eric Easton, Senior Assistant Attorney General, via Phone

Commission Members Excused:

Senator Eli Bebout
John MacPherson
Ron Baugh

Enhanced Oil Recovery Institute Staff Present:

Pepper McClenahan, Business Manager
Laura Dalles, Outreach Manager
Nick Jones, Research Scientist, Senior (Technical Lead)
Allen Tanner, Computer Support Specialist
Chana Conley, Office Assistant, Senior
Curtis Chopping, Research Scientist, Assistant
Tashi Herzmark, Research Scientist, Assistant
Rituraj Borgohain, Research Scientist, Assistant

University of Wyoming Faculty Present:

Saman Aryana, Chemical and Petroleum Engineering

I. Call to Order

Chairman Fitzsimmons called the meeting to order at 2:01 PM. A quorum was established. Chairman Fitzsimmons requested Acting Director Rob Hurless chair the meeting as most of the participants were present in Laramie, and the other participants were joining the meeting via telephone.

II. Approval of Minutes

Acting Director Hurless asked for changes or corrections to the June 19, 2014 meeting minutes. There were no changes or corrections.

Motion: Commissioner Otteman moved to approve the June 19, 2014 meeting minutes as published. Chairman Fitzsimmons seconded the motion. **Motion passed unanimously.**

III. Open Discussion

Chairman Fitzsimmons requested that staff send a copy of the June 19, 2014 minutes to the September 25, 2014 work session for signature. Chairman Fitzsimmons also restated his commitment to attending staff meetings at the Enhanced Oil Recovery Institute (EORI), and requested notification of the next staff meeting. Acting Director Hurless stated the next staff meeting had not yet been scheduled, and Chairman Fitzsimmons would be notified as soon as future meetings were scheduled.

Assistant Attorney General Easton stated the executive session minutes from the June 19, 2014 meeting had to be approved. He stated with the current meeting held via teleconference, executive session minutes would wait until after the Enhanced Oil Recovery Commission (EORC) could discuss them in executive session at the next business meeting.

Commissioner Drean committed himself to joining future EORI staff meetings as well, schedule permitting.

IV. Old Business

Review Outstanding Action Items

The first action item from the May 15, 2013 meeting was to contact the Wyoming Oil and Gas Conservation Commission (WOGCC) to coordinate an effort to centralize data and make the data available to operators. Nick Jones, Senior Research Scientist was asked to update the EORC on progress.

Mr. Jones stated he was currently in contact with staff at the WOGCC to begin designing and building the database. The next step was to decide what servers should house the database. Current options include the University of Wyoming (UW) or the State of Wyoming. Once the question of hosting is resolved, bids can be requested from technical companies to build and maintain the database. The Wyoming Geographic Information Science Center (WyGISC), located at the University of Wyoming, has designed similar databases for other groups and might be a candidate for building the database within the University. Currently data is being located and gathered. The searchable database is still in planning stages.

Commissioner Drean stated the Wyoming Geological State Survey stored data on a bank of servers located at the University of Wyoming with links to the State of Wyoming, making use of both venues for hosting data. Commissioner Drean also pointed out making use of State servers would require a monthly data storage fee.

Commissioner Otteman asked for clarification as to whether the plan was to store all the data collected from various sources, or to offer links to the current locations of the data. He questioned what the final intent of the database will be when completed. Mr. Jones explained that the intent was to have a fully query able database that would make information readily

available to operators and other interested parties. The data would be in one location for ease of access. The database could also include maps and historical data, some of which are not currently available outside of the individual operators.

Chairman Fitzsimmons reminded everyone that the database was still in the early stages and there was still some flexibility in how it could develop. He felt confident that not only would the database be of great use to operators but would also make the work being accomplished by EORI more transparent to the public. Chairman Fitzsimmons stated he wants EORI to develop a reputation for transparency and willingness to share information.

Action items from the June 19, 2014 meeting were reviewed:

- A representative of the EORC would attend EORI staff meetings. Acting Director Hurless stated that since the June meeting only one staff meeting had taken place. Chairman Fitzsimmons was in attendance at that meeting. Both Chairman Fitzsimmons and Commissioner Otteman stated they would like to attend future staff meetings and requested to be informed of the dates when scheduled. Commissioner Drean also stated that the close proximity of his office to the EORI offices would allow him to attend staff meetings as his schedule permitted. Acting Director Hurless stated he would notify all Commission members when the next staff meeting was scheduled.
- Track deviations for budgeted salary amounts until vacancies at EORI are filled. Acting Director Hurless reported that he and Business Manager Pepper McClenahan are tracking payroll figures including tracking actual costs in relation to the budgeted costs. A detailed report by employee is available. Chairman Fitzsimmons requested a copy of the detailed report. Ms. McClenahan reported personnel changes that occurred at EORI between the June 19, 2014 EORC meeting and the September 11, EORC meeting. Research Scientist Aboozar Hesami resigned from EORI to pursue other interests. Former consultant Steven Fryberger has been hired as a part-time EORI employee.
- Report clarifying commissioning of the EORI laboratory. The EORI lab group's presentation of that report was on the agenda for later in the meeting.
- Include development of the promotion ladder/matrix and career advancement process at EORI on the active projects list. Mr. Jones stated that a draft matrix had been developed. EORI was working with the University of Wyoming to define a career path matrix that would work within UW's employment regulations. Commissioner Drean asked if the draft plan included advancement by title, or also demonstrated advancement in duties and responsibilities. Mr. Jones stated that the draft included both title and guidelines for increased responsibilities and accountability with each step of the promotion ladder. Acting Director Hurless added that the promotion levels would be measurable and that with each promotion would come increases in responsibilities that were realistic and executable.

Update Status of EORI Prospects

Mr. Jones gave brief summaries of possible future projects. E&B Resources owns Minnelusa assets and is interested in joining the Minnelusa Consortium. Another project involving the Minnelusa Consortium is the Ash Creek reservoir characterization.

Research Scientist Senior Peigui Yin is continuing his work on Residual Oil Zones (ROZ) and is exploring some new ROZs for study in the Wind River Basin. Research Scientist, Assistant Chopping is developing a proposal for a project involving the Wolf Draw field.

Commissioner Drean inquired about the process to move items from prospects to becoming full projects. Mr. Jones explained that one of the first steps was to determine if EORI staff was available to work on the projects, and if the staff had the appropriate skills and knowledge to complete the project. Once it was determined that the project fit within the capabilities and mission of EORI, a memorandum of understanding would be drafted between the operator and EORI. The operator would then supply the information needed to assign EORI staff and to define the scope of work for the project. The project would then be approved by the EORC to use EORI staff and resources. At that point a contract would be completed between the operator, EORI, and the University of Wyoming.

Commissioner Drean asked how much time it would take for a prospect to go through all those steps and become an approved EORI project. Mr. Jones noted that the time was highly variable based on what each project would entail. A request for a screen could be completed within a week, whereas larger projects could take months to setup before work could begin. Commissioner Drean stated his concern that waiting for approval from the EORC could delay projects since the Commission meets quarterly. He wanted to know how the Commission could move projects more efficiently through the process. Chairman Fitzsimmons felt the Director of EORI and the Chairman of the EORC could communicate between meetings to get projects approved unless there were extenuating circumstances or budget items requiring a vote and quorum approval by the EORC.

Action item: Develop a procedure statement for project approval between EORC meetings.

Commissioner Drean added that the focus should remain strategy driven and not activity driven. The EORI should not start numerous small projects and be unavailable for larger projects that need attention.

Update Status of EORI Projects

Mr. Jones updated the Commission on the current status of EORI projects. The Little Mitchell Creek simulation will be completed by the end of September. The ASP study on Little Mitchell Creek already had samples collected which were currently being analyzed. The ASP phase behavior study would start late September once the simulation is completed.

The fluid analysis and nano fluids projects are ongoing.

The West Gibbs Simulation was completed by Research Scientist Hesami prior to his resignation from EORI. The next phase is for a single-well pilot test scheduled for the spring of 2015.

The Frannie Field Study final report is nearing completion. The Frannie Fracture Study, separate from the Frannie Field Study, was terminated with the resignation of Research Scientist Senior Shaochang Wo. No further plans to work on the Frannie Fracture Study are in place at this time.

Research Scientist Senior Yin presented his results of the Tensleep ROZ study in London, England, and at the CO2 Conference in Steamboat Springs, Colorado. Final report for the Tensleep ROZ is currently being edited in preparation for publication.

The Osage Bradley Unit project is ready for a single-well pilot test pending the validation of ASP. The project is expected to be completed in October of 2014 and the final report will be started at that time.

The development of a data platform is underway. Progress was updated to the EORC during review of action items earlier in the meeting. Various screening projects are currently underway throughout the state.

Completed projects included the setup of a chemical station in the EORI lab and the publication of a Minnelusa Field Guide.

Saman Aryana updated the EORC on progress of his funded project for data-driven reservoir flood management and optimization. Students to work on the project have been successfully hired, and progress was underway to make connections with local operators. Aryana's lab has started work on a detailed geological model of data collected.

Update EORI Budget – FY 13/14 Biennium & FY 15

Business Manager Pepper McClenahan reviewed the biennium budget summary. Some categories were over spent and some were underspent. Slightly less than 5% of the total EORI budget for both fiscal years 13 and 14 was reverted back to the State of Wyoming. The only remaining transactions that involve fiscal year 2013 or fiscal year 2014 funds are unpaid invoices with already encumbered funds.

Commissioner Drean inquired if there were plans in place to handle funding of projects if the goods and services with encumbered funds were not received by the deadline. Ms. McClenahan reassured the Commission that Mr. Jones did have contingency plans in place if services were not completed by the deadline. Currently all goods and services are scheduled to arrive prior to the deadline.

Ms. McClenahan gave a summary of the fiscal year 2015 spending through July. The new fiscal year started July 1, 2014, and spending is minimal. Ms. McClenahan reported that the payroll budget was underspent by \$9,400 for the month of July.

V. Directors Report

Acting Director Hurlless gave a brief director's report, stating several commissioners' terms are expiring in March of 2015. Mr. Hurlless would recommend to the Governor that all expiring Commission members be reappointed for another term. Chairman Fitzsimmons expressed his commitment and belief in the EORI staff and mission. If asked to serve on the EORC again, Chairman Fitzsimmons committed himself to accepting the reappointment.

Mr. Hurlless stated that a draft position description for the Director of EORI would be completed and forwarded to Commission members prior to the September 25, 2014 workshop. Also to be prepared are suggested changes to the enabling legislation establishing the EORC and EORI.

These changes would be presented to the Commission for review prior to submitting to the Wyoming Legislature.

Action Item: Draft changes to enabling legislation will be disseminated to the EORC for review at the September 25, 2014 workshop.

VI. New Business

Lab Commissioning Report

Research Scientist Senior Sheena Xie was out of the country at the time of the meeting. The laboratory commissioning report was presented by Research Scientist Assistant Curtis Chopping.

Mr. Chopping outlined the objectives for the EORI laboratory:

- The capability to screen and validate Enhanced Oil Recovery (EOR) methods in Wyoming
- Working with local operators in assisting with laboratory measurements
- Developing new EOR methods
- Collaboration with the University of Wyoming to promote energy research and education.

Mr. Chopping listed the major equipment commissioned for the EORI laboratory noting that the majority of equipment is now in use. Still in progress is the commissioning of two core flood apparatuses. Mr. Chopping presented examples of comparing measured results obtained with the equipment and predicted results to demonstrate the equipment was accurately obtaining data.

Mr. Chopping updated the Commission on the status of equipment commissioned and purchased in the previous biennium. Most of the new equipment was installed and operational. Items not yet received included the PVT dual pump and BPR that would ship mid-September. Received, but not installed, were the gas chromatographer door and the hydrogen gas generator.

Chairman Fitzsimmons asked why the hydrogen generator was taking so long to install as other gas generators were in place. Research Scientist Assistant Tashi Herzmark informed the Commission that the company which sold the hydrogen generator was giving EORI a water purification system to operate the hydrogen generator at no cost. Installation of the generator was pending the installation of the purification system.

CO2 Conference Report

Outreach Manager Laura Dalles informed the Commission that the 2014 Annual CO2 Conference had been a success. The number of registrants and attendees at the conference was close to the same number as last year. The difference being this year saw high attendance on both days of the conference. Historically attendance was significantly lower the second day of the conference than on the first day.

Surveys from attendees provided mostly positive feedback. Suggestions gathered from the surveys included having shorter presentations and more discussions. This feedback will be taken into consideration for the 2015 conference.

Overall, the conference was \$8,000 under estimated budget. Most of the expenses for the conference were covered by sponsorship donations from private companies.

Planning for the 2015 CO2 conference was already in progress. The conference will be held a week later in July than the historical time. A third day might also be added to the conference. The reason for the changes is the possible redefinition of the conference objective. The scope of the conference and the title could change for next year as the focus moves away from CO2 and instead covers a broader range of enhanced oil recovery methods as well as unconventional reservoirs.

Ms. Dallas reported that in October, EORI will be hosting stakeholder listening sessions. These sessions are planned to take place over three days in Casper, Cody, and Gillette, Wyoming. Ten participants registered within the first few hours of registration opening and attendance looks promising. Currently facilitators for each session are being sought.

Acting Director Hurless listed some of the current invitees including the EORI Technical Advisory Board, the Wyoming Minerals Committee, and the Joint Appropriations Committee. Key staff from EORI would be on hand to listen to concerns and answer any questions from attendees. Plans are to identify the top 20 operators in the State of Wyoming and invite them to attend the sessions.

Commissioner Dreaan noted that the top operators in the State have changed drastically over the last few years. Commissioner Dreaan wanted to be certain that EORI was keeping abreast of changes and those new operators would be invited. Ms. Dalles stated she was in the process of gaining contact information for the newer operators and they were all on the list for invitations. Ms. Dalles also asked the Commissioners to forward the contact information for any stakeholders they would like to see invited.

Commissioner Dreaan felt that these changes could offer an opportunity for EORI to head in a new direction. He asked what the role of Commissioners would be at these listening sessions. Mr. Hurless responded that the main purpose of Commission members attending would be to show EORC involvement with EORI and to introduce Commissioners to the stakeholders. Mr. Hurless stated it would be the facilitator's job to illicit feedback from the stakeholders on the historic function of the EORI and EORC versus new directions that the stakeholders would like to see taken.

Action Item: Mr. Hurless and Ms. Dalles will compile and share the results of the stakeholder listening sessions.

VII. Review Action Items

Office Assistant Senior Chana Conley reviewed the new action items:

1. Develop a procedure statement for project approval between EORC meetings.
2. Changes to the current enabling legislation will be drafted and brought to the September 25, 2014 EORC workshop for Commission discussion and approval
3. Results from the stakeholder listening sessions will be compiled and shared with the Commission.

VIII. Review EORI Calendar Dates

On September 25, 2014 the EORC will meeting in Saratoga, Wyoming for a work session.


The next EORC business meeting will take place in conjunction with the Technical Advisory Board meeting in January, 2015.

IX. Meeting Adjourn

Acting Director Hurless requested a motion to adjourn the meeting.

Motion: Commissioner Goolsby moved to adjourn the meeting. Chairman Fitzsimmons seconded the motion. **Motion passed unanimously.**

**** Meeting Adjourned at 3:25 PM****


Tom Fitzsimmons, Chairman 1/16/2015