

Enhanced Oil Recovery Commission



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MEETING MINUTES

Wednesday, March 15, 2023, 1:00 -4:00 PM MST

EORI Conference Room, 2435 King Blvd, Casper

Or via ZOOM: <https://uwyo.zoom.us/j/93342712040>

I. Call to Order – Commissioner King

Roll Call/Quorum – Commissioner King

EORI Conference Room: Chairman Ken Hendricks, Commissioner Robert King, Commissioner Dave True, Representative Don Burkhart. EORI staff present include Director Lon Whitman, Roger Hillibush, Stephen Whitaker and Shuiquan Li.

ZOOM Attendees: EORC Commissioners: Commissioner Erin Campbell – State Geologist. Other attendees include SER Director Holly Krutka, Stephanie Sneesby and Eric Easton – Attorney General’s Office, Dr. Mohamad Piri – COIFPM, Carrie Haderlie – Public. EORI staff include Kellie Cairns Vlastos and Eric Robertson.

Absent: Commissioner Eli Bebout

II. Minutes – Commissioner King

December 14, 2022 minutes provided for perusal and were approved. Motion to approve: Commissioner Campbell, 2nd by Commissioner King.

Commissioner King requested the order of the agenda be modified to allow Chairman Hendricks to weigh in on item numbers: 3 - Discussion/Approval EORC/WEA MOU and item number 4 - EORC Chair Position – Succession, when he arrives. The meeting will continue with agenda item: the Director’s Report.

III. Director’s Report – Director Lon Whitman

Director Whitman thanked everyone for joining the meeting. He also explained his new presentation format that focuses on the Director’s current and central priorities.

Current Priorities

- **Focus on our Mission, Team Unity and Collaborative Work; Addressing and Minimizing “Grey Areas”; Providing Clarity and Increasing Transparency in all areas of EORI**
 - Completed 2022 performance evaluations
 - All team members have 2023 goals are in place
- **Revised Financial Report for State Funding**
 - The presentation of the budget is now based on Full Year Funding numbers

- We've received half of our budget effective July 1st and received in quarterly allocations
- Governor's 2022 raise allocations not yet applied to our account (\$218, 000 Biennium) with EORI carrying half of the allocation.
- New format provides clarity on current balance and end-of-year balance projections
- Anticipating roughly \$195,000 surplus for June 30, 2023

Commissioner True asks when we can expect the 2022 raise allocations to arrive. Director Whitman explains we haven't been given a date yet and until then EORI will carry it. Director Whitman mentions the desire to work with the University to see if there is a better approach and will be discussed later in the Executive Session in greater detail.

- **EORI TAB Meeting – March 24, 2023 1-3 pm**
 - TAB is motivated
 - Denbury may join and is currently looking for their best fit for EORI TAB
- **Outreach Highlights**
 - Effective WEA Legislative Luncheon in Cheyenne. Commission Brister joined Director Whitman in Cheyenne
 - Emphasis was placed on Denbury outreach and project development at Hartzog Draw

TECHNICAL PROJECT HIGHLIGHTS

- **Cost-Share project for development of a Microbial EOR (MEOR) pilot(s) with Rockwater Energy Solutions (Houston, TX)**
 - Water sampling was completed at Lost Soldier/Wertz and found positive results and high success probability for a MEOR project.
 - Discussions of EORI support for an MEOR pilot are underway with Amplify Energy and Rockwater
 - Another developing project with MidCon for work on a Muddy or Minnelusa field for MEOR potential. NO samples have been taken yet.
- **On-Line EORI Inter-Active Project and Reports Dashboard** – We have reached out to industry for suggestions and have received very positive feedback since its launch
- **Denbury** –Plans were announced to move forward with CO₂-EOR/Storage project at Hartzog Draw. EORI will provide support to the project specifically with the geology of the Shannon formation (Randi Martinsen). Randi will be connected with Denbury towards the end of April, 2023

- **WY Gas Injection EOR Project with Piri Tech – Dr. Piri**
 - Update today from Dr. Piri and an opportunity to ask questions.

- **Kitty Field (Muddy) Sequence Stratigraphy and Regional Muddy Study**
 - Detailed presentation by Steve Whitaker and Dr. Piri including the potential Muddy Core/Brine Study with COIFPM
 - A proposal in for CORE and Brine study work and will be covered during the presentation.
- **Tallgrass Blue Bison (DOE) – Complete**
 - Report will be coming out soon
- **Developing CO2-EOR and Associated Storage Within the Residual Oil Zone Fairways of the Powder River Basin, Wyoming**
 - This project has seen delays primarily due to operator changes at Salt Creek which required a no-cost technical extension through December 2022
 - G. Finley (PI) has requested a 2nd no-cost technical extension (through December 2023) and submitted the revised Statement of Project Objective and the Project Management as requested by DOE and we are waiting on DOE approval
 - Contango has submitted the State and Federal permits for drilling the necessary well for the project “geo-lab” and anticipate approvals May-June 2023
- **Unlocking the Tight Oil Reservoirs of the Powder River Basin, Wyoming**
 - The project is in the third year of four years of funding.
 - The project horizontal well being completed in the Niobrara was recently drilled.
 - Oxy was able to successfully place the fiber optic cable all the way to TD.
 - Mapping of the cable will take place in May or June and stimulation in late summer 2023.
 - The project is on budget and on track for successful completion in 2024. The fiber optic cable provides incredible ability to see where one would like to frac

COMPLETED REPORTS AND PUBLICATIONS

- **CO₂-EOR Upside in Oil and Gas Fields Near WY Coal-Fired Power Plants**
 - prepared for Senator Scott for support of SF 142 which did not pass. EORI received positive feedback on the report.

DATA/IT PROJECT HIGHLIGHTS

- **EORI IT Infrastructure** – Completed February 2023
 - Roger’s in-depth research into products and pricing saved us \$43,000 compared to original cost estimates.
- **WYRIT (Wyoming Reservoir Information Tool)**
 - Updated and significantly improved version.
 - Final bugs being worked out.
 - Major “roll-out” being planned and preparing for outreach efforts including demos for operators and their teams.
- **On-Line EORI Project and Reports Locator Dashboard**
 - Launched in February 2023 with very positive feedback

DOLLARS AND SENSE

- **FY23-24 Biennium Budget - \$4.2MM**
- **Budget Surplus Possible for this budget year, possibly \$195,000 – Under Review**
 - Some of the reallocated \$2.2MM in funds have been used for the above-mentioned areas. While meeting with Chairman Hendricks, it was decided that the \$2.2MM will be kept as intact as possible, focusing on in-field project work. For the budget surplus, we have the option to pull some of the monies back out of the \$2.2MM and charge it towards our state budget, leaving \$195,000 surplus.

Commissioner True appreciates the provision of the report and feels it's helpful to view a full year. He goes on to further state that by moving our \$195,000 "surplus", the \$201,000 would create a deficit of approximately \$6,000 and asks if there is cause for concern cutting it so closely.

Director Whitman explained that EORI works monthly with Tim Keller (UW Comptroller's office) on our financial balances which are within a dollar of the University's calculations with the only difference being a rounding difference that EORI does not make. The State-Funded Budget shows the total expenses for January 2023, which was the latest month that closed at the time of report preparation. Operations, data, and technology are a large part of our Salary and Fringe. The second page breaks those numbers down by category, what was spent based on the numbers from the previous chart.

July 1, 2022 – January 31, 2023, shows Salaries and Fringe at \$826,802 with the remainder largely dedicated to operations. The last page breaks down the calculations through January 2023. Our budget is roughly \$2.1MM for this year out of the biennium in which EORI has spent almost half.

The \$2.2MM re-allocated funds run through January 31, 2023. Corrections were immediately taken out for past budget deficits as early as 2017 and were reflected in the audit. To clarify, we chose to start with \$2.2MM and show all transactions. The legislature largely refers to it as the \$2.2MM. There will be re-allocations back into the account and out of our state budget and next month will show a net number.

We've barely touched the non-state appropriated accounts which is the account comprised of two separate accounts totaling \$232,635; this is largely our indirect cost revenue from DOE projects which are used for conference sponsorships and such. The account is healthy and increasing in value.

A summary showing what was transferred from the \$2.2MM account to the State Budget \$200,893 account. Also included is the UW 2023 EORI Financial Report that matches the accounting department's calculations.

Quarterly State allocations show our total of \$525,000 was provided each quarter and the Governor's \$104,000 allocation for employee raises. The allocation has not arrived yet.

Chairman Hendricks arrived and has been invited to take control of the meeting.

V. IT and Data Updates – Roger Hillibush

- **EORI IT Infrastructure**
 - Completed February 2023 and included hardware refresh for all workstations, laptops, peripherals, some conferencing room equipment, and related items has been completed and deployed.
 - Roger’s in-depth research into products and pricing saved us \$43,000 compared to original cost estimates.
- **On-Line EORI Project and Reports Locator Dashboard**
 - Deployed in February and can be found in our Map Gallery
- **EORI Website Progress**
 - Still in progress after a delay due to hardware refresh and administrative issues
 - Estimate launch date of July 2023, after EORC has a chance to review the new site for their input.
- **Casper Log Library**
 - This project is estimated to go on for another 3 years to get everything digitized and put into a database type format.
- **Wyoming Pipeline Infrastructure data and interactive online map**
 - Still undergoing migration
 - Decisions have been made and we are moving forward with what we originally anticipated
- **Microsoft Teams**
 - Getting used more and for project management
- **CO2 EOR Potential Near Power Plants**
 - We’ve received positive feedback
- **Software and Data Subscriptions**
 - Expenses are \$51,000/year

Director Krutka extended compliments for the EORI Current Projects and Recent Publications Dashboard. She appreciates that it’s:

- Clear
- Transparent
- Demonstrates what EORI is doing for the State and where the projects are. SER plans on copying the application.

Representative Burkhart interjects the EORI budget is \$4.4MM for the biennium. If EORI goes over this sum, EORI would make that up in the second year. It's not \$2.2MM per year, it's \$4.4MM for two years. Any money that is left reverts to, technically, the Budget Reserve Account (BRA), which is the general fund. Because we'll develop the budget in February 2024, the next budget year starts in July of the following year, you can request to keep any excess money you may have without letting it revert. Department of Health has done that. There are some options there. Unused monies will revert to the general fund, not to UW. If a reversion remains at the end of the budget year, EORC would request not

to revert and to carry over the monies which then progresses through the Joint Appropriations Committee. UW may not take the money.

Dr. Mohammad Piri presented Experimental and Computational Research on EOR and its Applications to Wyoming's Needs. Dr. Piri will also touch on Wyoming gas EOR project. Dr. Piri is grateful for the continued relationship, collaboration and partnership between EORI and Dr. Piri's team.

Stephen Whitaker presented Thoughts on Regional Geology of the Muddy Formation in the Powder River Basin, Wyoming. His presentation was cut short for the sake of time.

Motion to go into Executive Session with a public session after the Executive Session.

The Public Meeting re-convened at 3:50 pm.

Chairman Hendricks reviewed the Wyoming Energy Authority (WEA) MOU for the new pipeline work agreement. The WEA will provide EORI funding for the pipeline consultant as well as other staff to handle the previous pipeline work and possibly expand it. The agreement is a 2-year budget term through the biennium which raises many questions. The term in the budget is vague, and Commissioner Bebout and Chairman Hendricks suggest entities have an ongoing, evergreen agreement as long as funding is available. Eric Easton advises revisiting the MOU every 6-8 years for necessary adjustments. If no funding is available, both parties need to be able to cancel the MOU at the end of the fiscal year. Commissioner True asks Director Whitman and Eric Easton to wordsmith the agreement and finalize the MOU. A motion to approve the incorporated changes was accepted.

Next EORC meeting is scheduled for June 28, 2023, 1-3 pm and will include a luncheon with the EORI staff from 11:30am – 12:30 pm with the EORI Team. It will be catered by Graze and Gather. Attendees will let Director Whitman know of any dietary restrictions.

It was suggested that because Stephen Whitaker's presentation was cut short during the first part of the public meeting, he be invited to re-do the same version of the presentation in June as the focus study for our first early morning industry insights discussions.

Director Whitman is interested in forming a Muddy Consortium.

Dr. Piri's quote for \$965,000 to provide analysis is not an option for EORI. Director Whitman will investigate other options for core evaluation work and obtain bids.

EORI has contracted Jimmy Goolsby to help Stephen Whitaker with work on the Muddy formation.

Commissioner Campbell commends Stephen Whitaker's thorough work and asks how much impact Dr. Piri's contributions would have on the project. OXY objected to paying the high cost for core evaluation work with Dr. Piri for the DOE project and Core Labs was used. The general sentiment is that if Core Labs delivers the same work as Dr. Piri's lab then it's not wise to pay exponentially more.

Commissioner Campbell mentions working with Piri is rigidly structured and we should use caution to ensure we do what's best for Wyoming. She feels no pressure to use Dr. Piri's lab when the money could

be spent more efficiently elsewhere. Chairman Hendricks agrees. Director Krutka adds that it could be challenging for EORI to manage work with Dr. Piri and suggests that if there is a project with Dr. Piri, the deliverables of services, data and information should be outlined.

The Public Meeting was adjourned at 4:06PM.

Ken Hendricks
Ken Hendricks (Aug 3, 2023 14:57 MDT)
Ken Hendricks, Chairman

6-28-23
Date







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Final Audit Report

2023-08-03

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