



Osage Minerals Council

Regular Meeting

August 5, 2022

Pawhuska, Oklahoma

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1. Call to Order – Welcome by Chairman Waller
2. Opening Prayer– Councilmember Talee Redcorn
3. Roll Call – Chief of Staff Lacey Reynolds

Councilmember Bighorse – present
Councilmember Cheshewalla – present
Councilmember Currey – absent
Councilmember Red Eagle – present
Councilmember Redcorn – present
Councilmember Revard – present
Councilmember Shackelford – present
Councilmember Waller – present

Guests: Tom Thralls, Candy Thomas, Mindy Kimple (Zoom), Crystal Howard (Zoom), Duane Matt (Zoom), Edward Satzberg (Zoom), Mark Harding (Zoom), Richard Kemple (Zoom), Michael Hiner (Zoom), Todd Isherwood (Zoom), Margo Gray, Dean Markham, Scott Bruner

4. New Business

- a. **Wastewater Desalination Project** – **Tom Thralls** has worked on the Osage Reservation since the 1970s and **Richard Kemple** works with NGI and has done a lot of work in West Virginia. They are from a water 333 LLC company interested in doing a wastewater desalination infrastructure project on the Osage Reservation utilizing President Biden's Department of Energy guaranteed loan program. **Council Redcorn** asked if the purpose of the project was to utilize groundwater or saltwater for injection. **Mr. Kemple** said they are looking at water in the ancient salt seas, a two-mile depth that comes up with oil and gas. Water below aquifers designed for industrial and irrigation purposes. **Council Redcorn** followed by asking if they wanted produced water. **Mr. Kemple** said yes. **Council Revard** clarified they wanted between \$20 and \$55 million to build a facility on the Mineral Estate to process/produce saltwater associated with oil and gas production and turn it into a profitable byproduct. **Mr. Kemple** thinks the plant could produce 9K barrels per day. **Council Revard** said the Osage Reservation produced saltwater in abundance. He inquired if Mr. Thralls' company wanted to utilize OMC because they were a Native American organization who could get federal funding, and his company couldn't get funding without a tribal entity. **Mr. Kemple** affirmed. **Council Revard** asked why the presentation didn't reflect projected revenues. He said 750 barrels a day could not justify building a multimillion dollar facility, especially when there was no proof where revenue would come to offset the construction cost. He wanted to be shown a rate of revenue. **Mr. Kemple** said every basin and field are different. The estimated ROI is from 10% to 20% and some could easily go off the charts. He said he had to be cautious to estimate the ROI because it varied, depending on the water. Capped wells could even be used. **Council Revard** asked if a 15% rate of return is after operating expenses and servicing the loan – revenue from salt and/or other metals. **Mr. Kemple** said yes. The estimated amount is \$20-25K per acre foot for irrigation. He spoke with the Department of Energy, and they are agreeable about profit possibilities and have more information on how long to service the loan. In Colorado, water is \$20-25K per acre foot. **Mr. Revard** asked if the biggest revenue will be the sale of fresh water. **Mr. Kemple** said yes. **Council Red Eagle** said he spoke with Chief Standing Bear, who has said water is a problem on the reservation. OMC is under the nation and will have to deal with water one day. It is a good time to start and see what can be done. There are a lot of opportunities on the Osage Reservation. He asked Candy Thomas to relay the information about the presentation to Chief. During OMC-2, Mr. Thralls turned saltwater into drinking water in a demonstration for them. **Council Redcorn** asked if anyone from the Department of Energy, who were mentioned in their



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proposal, was present on the Zoom call. **Mr. Kemple** said no. **Council Redcorn** said he heard President Biden offered \$7B for water, but OMC wouldn't "want to throw all our eggs in one basket." He added that he wanted someone to find out what DOE had to say about the project and get back to OMC with their response. He asked if OMC got a loan for their program if it would restrict their eligibility for other government loans in the future, if they choose to do mineral development. **Mr. Thralls** said this guarantee loan does not interfere with other loan programs, and it is only for energy programs. **Council Redcorn** said it was a lot of work, so he wants an exact ROI, supply cost, facility cost, water volumes, etc. **Council Revard** asked if their process naturally-occurring radioactive minerals (NORMS) and whether it was proprietary. **Mr. Kemple** said yes. It's barium sulfide taken to an industrial landfill facility or whatever is appropriate. **Council Revard** said separating is standard practice. **Mr. Kemple** said it's blended with other materials in 55-gallon drums to get radiation down to a point where it can go into a landfill. **Council Revard** wants more information on processing. He asked if there were any facilities in the world now. **Mr. Kemple** said no. NGI's process is a chemical reaction with the salt, an inert reaction. Large producers brought it to West Virginia, ran water through a reactor, and it worked. NGI's process was approved by DOE in West Virginia and Colorado, then COVID came. **Chairman Waller** thanked them for coming.

5. Motion: Enter Executive Session

Motion by **Council Redcorn**

Councilmember Bighorse – y

Councilmember Currey – absent

Councilmember Redcorn – y

Councilmember Shackelford – y

Motion **PASSED**

YES: 7

NO: 0

ABSTAIN: 0

ABSENT: 1

Time: 10:40 a.m.

Second by **Council Red Eagle**

Second Chairman Cheshewalla – y

Councilmember Red Eagle – y

Councilmember Revard – y

Councilmember Waller – y

Motion: Exit Executive Session

Motion by **Second Chair Cheshewalla**

Councilmember Bighorse – y

Councilmember Currey – absent

Councilmember Redcorn – y

Councilmember Shackelford – y

Motion **PASSED**

YES: 7

NO: 0

ABSTAIN: 0

ABSENT: 1

Second by **Council Red Eagle**

Second Chairman Cheshewalla – y

Councilmember Red Eagle – y

Councilmember Revard – y

Councilmember Waller – y

- a. **Resolution:** Accept scholarships for Braiden Holloway, Jordan Brace, Allison Koopman, Blake Bledsoe for the fall semester 2022 to be paid out of the S510 account

Motion by **Council Red Eagle**

Councilmember Bighorse – y

Councilmember Currey – absent

Councilmember Redcorn – y

Councilmember Shackelford – y

Motion **PASSED**

YES: 7

NO: 0

ABSTAIN: 0

ABSENT: 1

Second by **Chairman Waller**

Second Chairman Cheshewalla – y

Councilmember Red Eagle – y

Councilmember Revard – y

Councilmember Waller – y

6. Old Business

- a. **Wah Zha Zhi Lease** – Michael Hiner, Sid Anderson, and Charles Wickstrom returned to discuss their lease for **Iron Hawk Energy**. **Mr. Hiner** said he wanted to make sure the two-tier royalty was removed and have the proper royalty amount on lease language. He will meet with Mr. Anderson and Mr. Wickstrom, then go to the BIA to sign the lease and pay bonus. **Council Revard** asked if the resolution would be amended. **Lacey Reynolds** said the resolution amendment (4-506A) was



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already done in April. **Mr. Hiner** said the legal description was NE 12-27-6 E. **Council Revard** wanted to make sure the BIA requirements were met. **Mr. Hiner** said he received a letter from the BIA inquiring if he still wanted the lease. **Council Revard** said all he needed was a resolution from OMC. **Ms. Reynolds** said all Mr. Hiner needed to do is sign the lease. **Council Redcorn** asked if this was the same lease OMC's attorneys pulled from the plugging list because value was found. **Mr. Hiner** said yes. He wants to do a local engineering study for a direct completion with a pipeline to send to market that separates the helium as purified helium or use the process in a study done by DEMD in 2021 for a fully-operational plan. A subsurface evaluation will also need to be done. Moreover, deep fracture systems will be researched to enhance the economics of the well. Iron Hawk has worked with Shane Matson, who has done a lot of work in the area. The plan would eventually add economics to OMC. **Chairman Waller** said bring the plan to OMC when it's done, so OMC will know how to proceed with the sale. **Second Chair Cheshewalla** asked what the depth and production would be and wanted more information. **Mr. Hiner** said Ms. McLean's (DEMD) study showed low rates of helium production at three- to five-thousand cubic feet of low limit production. Iron Hawk would stimulate down fracture systems production in the basement interface to improve that. The challenge is the amount of water that would be produced. After completion, he will send more information about the plan to OMC. **Council Redcorn** said the basement is not going to have production, based on the DEMD study. He asked if Iron Hawk's study was going back looking in the depth. **Mr. Hiner** affirmed saying DEMD only looked at shallow intervals. In Iron Hawk's research, they found a deep interval in the upper part of the basement extremely high accumulation, as much as 12%, related to a fracture in the basement. They want to better map the fracture system and reevaluate how to separate the helium. **Council Redcorn** said it was a deep well geologic feature dome meteor concept. He asked if they were only touching into the deep interval. **Mr. Hiner** said yes. There are shallow intervals and one deep interval. The plan is to have production from all to maximize it. As far as the geologic feature dome, that was a conversation to have with Mr. Wickstrom. There were unknown evaluations in studies from 2007 and 2009, but after talking to Mr. Matson, studies have evolved. **Council Revard** said multiple producers drilled in the past, including Spyglass with whom Mr. Wickstrom and Mr. Matson used to be affiliated. The BIA will likely want multiple wells plugged in the area. He asked if any of the disposal wells had significant value. **Mr. Hiner** said disposal wells are always valuable for saltwater disposal because there is no delay for drilling or the BIA permitting process, and there are several disposal wells in the area. The BIA placed a demand for wells to be plugged by September 9, 2022. **Chairman Waller** requested the BIA requests for well plugging. **Mr. Hiner** asked OMC would consider saltwater disposal from nearby counties or in Kansas for wells in the northern part of the county. **Chairman Waller** said that discussion would come at a later time. The prior evening news had a story about a company in Pawnee County being sued by a company in Kansas and had to pay when an earthquake occurred. He closed the discussion saying OMC would hear from Lacey Reynolds when the lease assignment came.

b. Resolution: Send the gas lease proposal by David Brodie for review by Mr. Tim Dowd

Motion by **Council Redcorn**

Councilmember Bighorse – y

Councilmember Currey – absent

Councilmember Redcorn – y

Councilmember Shackelford – y

Second by **Council Red Eagle**

Second Chairman Cheshewalla – y

Councilmember Red Eagle – y

Councilmember Revard – y

Councilmember Waller – y

Motion **PASSED** YES: 7 NO: 0 ABSTAIN: 0 ABSENT: 1

Discussion: **Mr. Brodie** was not present to request a well bore only lease at his residence. As discussed in the July 20, 2022 meeting, Mr. Brodie met with the BIA and agreed to a rate of \$56 per month flat fee. He will use 35 mcf/month. Mr. Brodie will report to OMC. A discussion took place about the liability if an



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accident occurred at Mr. Brodie's residence. In the July 20 meeting, Mr. Brodie assumed all liability and OMC had no liability. He will carry the bond. He also claimed ownership of the well. **Mr. Lynn** said mineral owners are never responsible for any accidents that happen. **Chairman Waller** said liability went with the bond. **Council Redcorn** asked to table the discussion until an attorney reviewed the information.

7. Motion: Accept minutes

Motion by **Council Redcorn**

Councilmember Bighorse – y

Councilmember Currey – absent

Councilmember Redcorn – y

Councilmember Shackelford – y

Motion **PASSED** YES: 7 NO: 0

Second by **Council Red Eagle**

Second Chairman Cheshewalla – y

Councilmember Red Eagle – y

Councilmember Revard – y

Councilmember Waller – y

ABSTAIN: 0 ABSENT: 1

8. Motion: Adjourn

Motion by **Council Redcorn**

Councilmember Bighorse – y

Councilmember Currey – absent

Councilmember Redcorn – y

Councilmember Shackelford – y

Motion **PASSED** YES: 7 NO: 0

Time: 12:40 p.m.

Second by **Council Bighorse**

Second Chairman Cheshewalla – y

Councilmember Red Eagle – y

Councilmember Revard – y

Councilmember Waller – y

ABSTAIN: 0 ABSENT: 1

Discussion: **Chairman Waller** complimented staff who participated in a recent language preservation conference.

Approved by the Fifth Osage Minerals Council on August 17, 2022.

Everett Waller, Chairman

Executive Administrative Assistant