December 3, 2015

The following is my comment letter on the DEIS. I hope all Shareholders will comment on this serious problem. You are welcome to use any part of this letter if you wish.

Jeannine Hale BIA, Muskogee, OK VIA Email at: <u>osagecountyoilgaseis@bia.gov</u>

December 3, 2015

Dear Ms. Hale:

Thank you for the opportunity to comment on the Osage County DEIS.

• Hire an expert to sample nearby water wells---

Producers shouldn't be required to hire an "expert" to sample water every time they drill a well. This is an unnecessary expense. The producer could be required to take source water samples, using prescribed methods, and then submit them for testing. The sample report should be kept on file and available from the producer upon request.

• Use closed loop mud management when drilling near streams--

The term "closed loop" should be reconsidered or at least better defined. If this means using steel shaker tanks rather than open, mud settling pits, I have no problem, but, a truly "closed loop" system would not work.

• Avoid altering run-off path from new construction---

The ground water run-off path will be disrupted each time the earth is disturbed. This can't be helped. Temporary silt trapping fences should be erected downstream from disturbed earth resulting from new construction.

• Use Ditch Witch® type drilling to install flowlines under streams----

This is not necessary on smaller dry creeks or those normally carrying very little water and would be very expensive. The larger the water stream, the more practical it becomes. However, extra depth for flowlines in places where water flows, even occasionally, should be required. A minimum of 5 feet of cover over the pipe would not be unreasonable where there is any probability of water erosion and below the bottom of roadside ditches where road graders work.



• Agree with surface owners on the visual impact of your facilities----

Asking a surface owner to agree on visual impact of something he doesn't want in the first place is asking for trouble. The surface owner should be consulted but this is a decision that must rest with the Superintendent.

• Design equipment to blend in to the natural environment----

Oilfield equipment is designed to accommodate it's function. This requirement is too broad. Placement of facilities (to some extent) and paint colors are about the only things that are optional. The surface owner should have some input on this, but the BIA should be the final authority.

• Remediate all brine scaring-----

The producer should be responsible to immediately clean up any spills and remediate the affected area damaged while under his control. Legacy scarred land should also be remediated, but that would be a separate issue.

• Replace pump jacks with submersibles if three phase power is available-----

A huge percentage of Osage oil production is from "stripper wells", many making only 20 or 30 barrels of fluid per day, of which only 1 or 2 barrels may be oil. These would all be shut down and the people operating these leases would be laid off if submersible pumps were required. Submersible pumps are only practical and cost effective where very high volumes of fluid must be lifted. This is a terrible idea!

• If within 1⁄4 of a residence work only Monday-Friday 7 to 7-----

I have never heard of an oil lease that only operates 5 days per week. This is ridiculous. Even in downtown Los Angeles, drilling rigs operate around the clock and the resulting wells, thousands of them, run continuously. Further, production from an oil or gas well can be seriously impaired if it is not pumped on the regular schedule established for that well. If shut in for Saturday and Sunday, that well may not produce in paying quantities again for several days and it could be longer, depending on the damage done. This is another terrible idea!



• Maintain roads as required by the BIA and surface owners---

The lease roads are the business of the operator. If the BIA or the landowner need special maintenance, they can provide it.

• Bury power lines-----

How electrical power is transmitted is the business of the operator and the power supplier. Burying power lines in solid rock may not be the best way in many situations.

• Locate structures at edge of open prairie

In some cases, it could be ½ mile or more to the edge of a prairie. The wells must be drilled where the oil is and the attending structures must accommodate the well locations.

• Do not go within 1/4 mile of breeding Greater Prairie Chickens---

The Greater Prairie Chicken is not endangered. The Prairie Chicken has done very well over the last 100 years, thriving right in the middle of oil activities. This rule is totally unnecessary and will cause much grief and expense.

• Obtain US FWS authorization for American Burying Beetle----

The BIA should be making diligent efforts to get this ABB de-listed.

• Avoid the rattlesnake-master plant in an attempt to save the rattlesnake-master borer moth----

Do we even have any of these in Osage County?

• To prohibit oil and gas activities within 200 feet of any occasional stream or place that holds water after a rain-----

This is probably the most ridiculous proposed rule in this list!



If we must have more rules, I have no vehement objections to the following:

• Obtain authorization to cross a stream with a flowline or road--

Where or from whom does one obtain this authorization?

- Measure noise and reduce noise by installing barriers and mufflers---
- Place warning signs around power lines, road intersections, etc.----
- Remove any unused equipment-----
- Line and gravel tank batteries-----
- **Stockpile topsoil for future use-----**Once stockpiled, who owns this top soil and where can it be used?
- Return disturbed areas to original contour----When applicable and to the extent practical
- Stay on existing roads-----

On single lane roads, suggest 100 ft. long pull-outs or turn-arounds at hilltops to accommodate oncoming vehicles.

I suggest that this EIS and the CFRs be revisited, properly negotiated, and updated at least every 10 years. Although many of these changes needed to be done, dumping this many new rules on our Producers, especially at a time when oil and gas prices are so low, is a huge burden for them to bear.

Thank you again for this opportunity to comment.

Ray McClain, Osage Shareholder

