STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION COMMISSION

APPLICATION OF HIGH ROLLER WELLS LLC FOR AUTHORIZATION TO INJECT, EDDY COUNTY, NEW MEXICO

CASE NO. 15278 (de novo) ORDER NO. R-14091-B

ORDER OF THE COMMISSION

THIS MATTER came before the New Mexico Oil Conservation Commission (the "Commission") on the application of High Roller Wells LLC ("High Roller") for authorization to inject. The Commission, having conducted a hearing on May 19, 2016, and having considered the testimony, the record, and the arguments of the parties, and being otherwise fully advised, enters the following findings, conclusions and order.

THE COMMISSION FINDS THAT:

1. Due notice has been given, and the Commission has jurisdiction of the parties and the subject matter herein.

2. High Roller Wells LLC seeks authorization to utilize its Gossett SWD Well No. 1 (the "proposed well"), to be located 313 feet from the South line and 921 feet from the East line (Unit P) of Section 33, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, for commercial disposal of produced water into the Delaware Mountain Group. High Roller originally sought approval to inject into the Bell Canyon, Cherry Canyon, and upper Brushy Canyon members of the Delaware Mountain Group through a perforated interval from 2500 feet to 5000 feet below the surface.

3. High Roller filed an administrative application on December 23, 2014 for authorization to inject into the proposed well. Due to objections from surface owners and offset operators, the matter was set for hearing at the request of High Roller, which hearing was held before the Oil Conservation Division ("Division") on April 30, 2015.

4. Mewbourne Oil Company ("Mewbourne") and other parties of record appeared at the Division hearing.

5. High Roller originally sought approval to inject into the Bell Canyon, Cherry Canyon, and upper Brushy Canyon members of the Delaware Mountain Group through a perforated interval from 2500 feet to 5000 feet below the surface, at a maximum injection rate of 30,000 barrels of water per day ("BWPD").

6. Prior to the Division hearing, High Roller revised its application to inject into the Bell Canyon and Cherry Canyon members of the Delaware Mountain Group through a perforated interval from 2500 feet to 4500 feet below the surface, at a maximum injection rate of 17,500 BWPD.

7. The Division, by Order No. R-14091 dated December 8, 2015, approved injection into the proposed well into the Bell Canyon member of the Delaware Mountain Group through perforations at 2600 feet to 3200 feet below surface, with the depth of the well not to exceed 3400 feet subsurface.

8. Mewbourne appealed Order No. R-14091 *de novo* to the Commission, and appeared at the hearing. COG Operating LLC appeared at the hearing but did not take a position.

9. High Roller appeared at the hearing and presented engineering and geological evidence to the effect that:

a. High Roller amended its request to inject to include the interval from 2600 feet to 5000 feet below the surface, at a maximum injection rate of 8000 BWPD. The injection interval would include the Bell Canyon, Cherry Canyon, and Upper Brushy Canyon (approximately 300 feet) members of the Delaware Mountain Group.

b. No active fresh water wells were located within a two-mile radius of the proposed well, and the well will be completed to isolate any potential fresh water zones.

c. Existing wells within the half mile area of review were either properly plugged and abandoned or properly completed so as to prevent the movement of injected fluids from the proposed injection interval.

d. There is no current commercial production from the Bell Canyon, Cherry Canyon, and Upper Brushy Canyon members of the Delaware Mountain Group in the immediate area around the proposed well.

e. Injection fluids would not migrate to the Lower Brushy Canyon member.

f. High Roller does not plan to operate the proposed well long term, but intends to sell it after the well is completed.

10. Mewbourne appeared at the hearing and presented land, geological, and engineering evidence to the effect that:

a. It owns substantial oil and gas leasehold interests in the area of the proposed well, including in the lands on which the proposed well is located.

b. Mewbourne has not granted a subsurface easement or waiver to High Roller to evaluate hydrocarbon potential in the proposed injection interval, and maintains such rights exclusively.

c. There are Bell Canyon pools north-northwest and southsoutheast of the proposed well that have been developed by vertical drilling.

d. There are Cherry Canyon pools north and southeast of the proposed well that have been developed primarily by vertical drilling. In addition, a vertical Cherry Canyon well is located in Unit K of Section 2, Township 24 South, Range 28 East, NMPM, approximately 1-1/2 miles from the proposed well.

e. Mewbourne has drilled horizontal Cherry Canyon wells to the southeast of the proposed well, although they were drilled early in the era of horizontal drilling, and horizontal technology has improved substantially since they were drilled.

f. There are Upper Brushy Canyon pools with producing wells to the south and southeast of the proposed well.

g. There are multiple mudlogs from wells offsetting the proposed well with shows of hydrocarbons in the Bell Canyon, Cherry Canyon, and Upper Brushy Canyon members of the Delaware Mountain Group.

h. As horizontal drilling technology continues to improve, the upper Delaware zones are prospective strata for hydrocarbon production in the area of the proposed disposal well.

i. In Snyder Ranches v. Oil Conservation Comm'n, 110 N.M. 637 (S. Ct. 1990), the Court found that issuance of a license to inject salt water by the Commission does not authorize trespass or other tortious conduct by the licensee, nor does such license immunize the licensee from liability.

j. There are numerous Lower Brushy Canyon wells in the immediate area of the proposed well, and Mewbourne has an ongoing development program to develop the Lower Brushy Canyon in this area. Mewbourne has drilled commercial horizontal Lower Brushy Canyon wells in the W/2 W/2 of Section 35, Township 23 South, Range 29 East, NMPM

and W/2 E/2 of Section 3, Township 24 South, Range 28 East, NMPM. Both of these wells are located within 1.5 miles of the proposed well.

k. The fracture gradient of the Delaware Mountain Group is anomalously low and generally decreases with depth, without any significant barriers or impermeable strata.

1. The following two plugged and abandoned wells have no casing across the proposed injection interval and could provide a conduit for movement of injected fluids into the Bell Canyon, Cherry Canyon, and Upper Brushy Canyon members of the Delaware Mountain Group: (i) the Vasquez 4 Com. Well No. 1, located in Unit H of Section 4, Township 24 South, Range 28 East, NMPM; and (ii) the Pardue Farms Well No. 1, located in Unit O of Section 33, Township 23 South, Range 28 East, NMPM.

11. NMSA 1978 §70-2-12.B(4) requires the Commission to prevent the drowning of strata capable of producing hydrocarbons in paying quantities.

12. The Commission finds that there was past production, and there is potential future production, in the Bell Canyon, Cherry Canyon, and Brushy Canyon members of the Delaware Mountain Group in the area of the proposed well.

THE COMMISSION CONCLUDES THAT:

13. The Commission has jurisdiction, under the Oil and Gas Act, over the parties and the subject matter of this case. Public notice of the hearing has been provided.

14. To meet the statutory mandate to prevent the drowning of strata capable of producing hydrocarbons, NMSA 1978 §70-2-12.B(4), the Commission cannot approve a well that will inject produced water into the members of the Delaware Mountain Group in this area.

IT IS THEREFORE ORDERED THAT:

1. The application of High Roller Wells LLC for authorization to utilize its Gossett SWD Well No. 1, to be located 313 feet from the South line and 921 feet from the East line (Unit P) of Section 33, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, for commercial disposal of produced water into the Delaware Mountain Group is hereby <u>denied</u>.

2. Jurisdiction over this case is retained for the entry of such further orders as the Commission may deem necessary.

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DONE at Santa Fe, New Mexico, on the 16th day of June, 2016.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

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PATRICK PADILLA, Member and K F . (Haut

DAVID R. CATANACH, Chair

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