

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

**APPLICATION OF LUCID ENERGY
DELAWARE, LLC TO MODIFY NMOCC
ORDER R-13507, LEA COUNTY, NEW MEXICO**

**Reopened
Case No. 14720
Order No. R-13507-F**

ORDER OF THE COMMISSION

THIS MATTER comes before the New Mexico Oil Conservation Commission ("Commission") on the Fourth Motion to Amend Order R-13507 filed by Lucid Energy Delaware, LLC. The Commission having conducted a hearing on October 4, 2017, in Santa Fe, New Mexico, and having considered the testimony and evidence presented, and having deliberated following the hearing, enters the following findings, conclusion, and order.

THE COMMISSION FINDS THAT:

1. Due public notice has been given, and the Commission has jurisdiction over this case and its subject matter, and no other parties appeared at the hearing of this matter.
2. The Fourth Motion to Amend Order No. R-13507 before the Commission was filed by Lucid Energy Delaware, LLC ("Lucid"), which is the successor in interest to Agave Energy Company ("Agave"), the original applicant for the issuance of Order No. R-13507.
3. The Fourth Motion to Amend Order No. R-13507 requests the following:
 - (a) An extension of time to January 23, 2019 within which to complete the Red Hills AGI #1 well and commence injection should its current plan of development be delayed;
 - (b) Modify the disposal interval to a depth of between 6,230 to 6,585 feet based on actual drilling and logging of the Red Hills AGI #1;
 - (c) Change of the operator under the Order from Agave to Lucid.
4. On January 23, 2012, the Commission issued Order No. R-13507 authorizing Agave to drill and operate an acid gas injection ("AGI") well called the Red Hills AGI #1, which will be located 1600 feet from the South line and 150 feet from the East line of Section 13, Township 24 South, Range 33 East, NMPM, in Lea County.

5. Order No. R-13507 authorized Agave to utilize the Red Hills AGI #1 well to dispose of treated acid gas ("TAG") containing carbon dioxide ("CO₂") and hydrogen sulfide ("H₂S") from Agave's Red Hills Gas Processing Plant into the Cherry Canyon Formation at an open hole depth interval between 6,200 and 6,530 feet below the surface.

6. Since issuance of Order No. R-13507, the Commission has issued Orders R-13507-A, R-13507-D, and R-13507-E which made substantive modifications to Order No. R-13507, providing for, among other things, changes to plugging procedures and methods for wells serving the Red Hills Gas Processing Plant and extensions of time within which to drill and complete the Red Hills AGI #1 and commence injection of TAG into the well.

7. On October 29, 2014, Agave filed its Amended Third Motion to Amend Order No. R-13507 requesting the Commission to grant a two-year extension of the January 23, 2015 deadline for commencing the injection of TAG into the Red Hills AGI #1 well. The motion further requested that the Commission (i) approve Agave's proposal to cap the unfinished Red Hills AGI #1 well for purposes of obtaining temporary abandonment status for the well, and (ii) allow for the New Mexico Oil Conservation Division ("Division") to administratively approve any future requests by Agave for an extension of the deadline for commencing the injection of TAG.

8. On November 19, 2014, the Commission entered Order No. R-13507-E approving Agave's Amended Third Motion to Amend Order No. R-13507, thereby setting a January 23, 2017 deadline for commencing the injection of TAG into the Red Hills AGI #1 well.

9. Since acquiring the Agave interests applicable to this case, which occurred over a period covering the January 23, 2017 deadline, Lucid's current operational plans are to complete the Red Hills AGI Well #1 by the end of December 2017 or early 2018, and to commence injection of TAG in the first half of 2018 after surface compression facilities are completed and an H₂S contingency plan pursuant to Rule 11 is submitted to, and approved by, the Division.

10. Order No. R-13507 approved injection into the Cherry Canyon Formation at a depth between 6,200 and 6,530 feet, which depths were based on and calculated from drill logs from nearby wells.

11. On October 2, 2017, the Division approved a form C-145, reflecting the change of operator of the Red Hills AGI #1 well from Agave Energy Company, which has been dissolved, to Lucid Energy Delaware, LLC.

12. The Commission held a public hearing on this matter on October 14, 2017. The only party appearing at the hearing was Lucid. Lucid appeared through its counsel and presented one witness, James C. Hunter. No other testimony was presented.

13. James C. Hunter, registered professional geologist of Geolex Inc, and

whose credentials include considerable experience with Acid Gas Injection Systems Design, Permitting and Operations testified that:

(a) Since approval of Order No. R-13507 new horizontal and active wells have been drilled and completed in the Wolfcamp Formation by COG Resources, LLC, at vertical depths of approximately 11,000 feet. The vertical components of these wells are not within the area of review as shown in the original C-108 submitted in this case. Three of the COG wells transect beneath the C-108 area of review. The production zone of these wells is approximately 4,350 feet below the total depth of Red Hills AGI #1, having a total depth of 6,650 feet.

(b) In the original approved C-108 application for the Red Hills AGI #1, an anticipated injection rate of 13 MMSCFD was used to calculate the radius of the treated acid gas (TAG) plume. The calculated radius was 0.51 miles. More recent analyses of the expected feed gas indicate that the TAG volume will be only approximately 5 MMSCFD, leading to a calculated plume radius of 0.32 miles.

(c) The Red Hills AGI Well # 1 is cased with a corrosion resistant alloy joint at the level where the packer, also of a corrosion resistant alloy, will be set.

(d) None of Lucid's proposed injection activities will in any way impact the operation of the new horizontal wells in the area such as the COG wells.

(e) Unanticipated delays beyond Lucid's control, such as the manufacturing specialized corrosion resistant alloy compressors associated with AGI gas injection which have been ordered, may require additional time within which to commence injection.

14. Based on the logs developed during the drilling of the Red Hills AGI #1, the disposal interval should be changed to a depth of between 6,230 to 6,585 feet. This change has been approved by the Bureau of Land Management in December of 2013, and informally approved by the Division in August of 2017.

15. The authority to inject pursuant to Order No. R-13507 has expired and the Commission must reinstate that authority prior to extending the deadline for injection.

THE COMMISSION CONCLUDES THAT:

1. The Commission is empowered to regulate the disposition of nondomestic waste resulting from the treatment of natural gas or the refinement of crude oil to protect public health and the environment. NMSA § 70-2-12(B)(22) (1978). The Commission has a statutory duty to prevent waste and protect correlative rights. NMSA § 70-2-11(A) (1978).

2. Lucid, and Agave Energy Company prior to Lucid's acquisition of Agave's interests, have provided substantial evidence that it has been necessary and appropriate to

postpone the completion of the Red Hills AGI #1 well and to begin injection of TAG generated from Lucid's Red Hills Gas Processing Plant.

3. Good cause exists for reinstatement of the injection authority of Order No. R-13507, as amended, and to extend the deadline within which to commence injection of TAG through the Red Hills AGI #1 well.

IT IS THEREFORE ORDERED THAT:

1. The Fourth Motion to Amend Order No. R-13507, as amended, is hereby granted as follows:

(a) The operator under Order No. R-13507 is hereby changed from Agave Energy Company to Lucid Energy Delaware, LLC.

(b) The authority to inject TAG into the Red Hills AGI #1 well under the conditions in Order No. R-13507, as amended, is reinstated.

(c) Lucid's authority to inject shall terminate on January 23, 2019, if Lucid has not commenced injection by that time unless the deadline has been extended as provided in this Order.

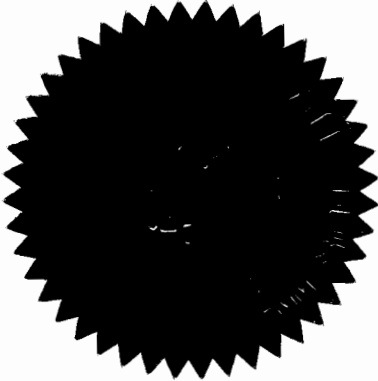
(d) The Director of the Oil Conservation Division may administratively grant an additional extension of one (1) year beyond the January 23, 2019 deadline to commence such injection without necessity of a Commission hearing and approval. Any further extension requires an application to and approval by the Commission.

(e) The disposal interval for injection of TAG in the Red Hills AGI #1 well is amended from a depth of between 6,200 to 6,530 feet to between 6,230 and 6,585 feet.

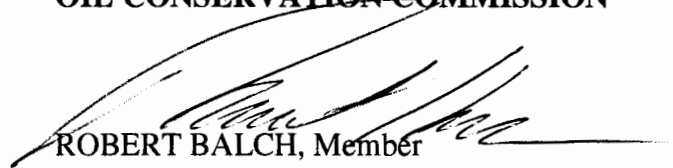
2. The Commission retains jurisdiction over this case for the entry of further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon Lucid's operation of the Red Hills AGI # 1 well in a manner that (i) fails to protect fresh water or (ii) is inconsistent with the requirements of this order, whereupon the Commission may, after notice and hearing, terminate Lucid's injection authority.

DONE at Santa Fe, New Mexico on the 9th day of November, 2017.

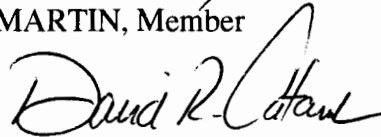
**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**



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