

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

**APPLICATION OF MANZANO LLC FOR APPROVAL OF A PRESSURE  
MAINTENANCE PROJECT AND AUTHORIZATION TO INJECT, LEA  
COUNTY, NEW MEXICO.**

**CASE NO. 22458  
CASE NO. 22357  
ORDER NO. R-22076**

**ORDER OF THE DIVISION**

This case came for hearing before the Oil Conservation Division (“OCD”) at 8:15 a.m. on January 6, 2022, in Santa Fe, New Mexico.

The OCD Director, having considered the testimony, the record, the recommendations of Hearing Examiner Dylan Rose-Coss, adopts these findings of fact, and conclusions of law and issues this Order.

**FINDINGS OF FACT**

1. Due notice has been given, and the OCD has jurisdiction of the subject matter of this case.
2. In the application filed December 7, 2021 (“Application”), Manzano LLC (“Applicant” or “Manzano”) seeks the following:
  - a. To establish a pressure maintenance project (“Project”) for the injection of produced gas into the San Andres formation in the project area comprised of the SE/4 and E/2 NE/4 of Section 30, and the E/2 SE/4 of Section 19, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico (“Project Area”); and
  - b. To authorize Manzano to convert the Vince BGH No. 1 (API No. 30-025-37104; “Well”) from a vertical producing well to an injection well within the pressure maintenance project.
3. Applicant plans to inject produced gas from the Sodbuster 21 Fee No. 4 (API No. 30-025-43704) and Rag Mama 30-19 Fee No. 1 (API No. 30-025-44067) into the San Andres formation through a closed system using the Vince BGH No. 1.

4. No other party appeared at the hearing or otherwise opposed the application.

5. Applicant previously opened Case No. 22357 and provided testimony and exhibits at the OCD hearing on December 2, 2021. This prior hearing was to consider the approval for the proposed injection project being sought in the Application. At hearing the Examiners determined that the definition of the project area required amendments and subsequent re-notice to affected parties. However, since the subject matter of both cases are identical, the OCD has consolidated the two cases to be addressed in this single hearing order.

6. At the hearings on December 2, 2021 and January 6, 2022, Applicant appeared through counsel and presented engineering testimony and exhibits through affidavit to the effect that:

- a. In this area of Lea County, the P-1 dolomite is a productive interval within the San Andres formation and is well delineated and characterized.
- b. The proposed Project Area is currently producing from a single pool, the Jenkins San Andres Pool (Pool 33950).
- c. The Project Area is comprised of two fee mineral leases with Manzano as the Division designated operator.
- d. There are no faults or other geologic impediments that would impede the efficacy of the Project.
- e. The current review of the Area of Review ("AOR") for the Project Area showed all active and abandoned wells that penetrate the injection interval are properly plugged as to prevent vertical migration of injected fluids.
- f. The Well is currently producing 2 barrels of oil and 31 barrels of water per day which the Applicant has assessed as uneconomical.
- g. A ten-day shut-in test of the Well demonstrated a current bottom-hole pressure of 378 pounds per square inch ("psi") within the injection interval and that the original bottom-hole pressure was calculated at 1697 psi.
- h. Applicant estimated that injection of produced gas into the Well will have a limited impact for enhancing the production on the adjacent horizontal well, Rag Mama 30-19 Fee No. 1.
- i. Applicant stated that there is no pipeline connection for transportation of gas produced from recently completed horizontal wells and requires the flaring for continued production. Additionally, the applicant stated that the produced gas is of such poor quality that it does not meet current pipeline specifications for sale.

- j. Applicant provided evidence of proper notice under 19.15.26.8 NMAC as required for approval of project.
7. Applicant provided supplemental information in response to the Examiner's questions on the spacing unit of the well, the injection boundaries, proposed volume of gas to be injected and information on the proposed maximum surface injection pressures for produced gas.

### **CONCLUSIONS OF LAW**

8. The operation of the pressure maintenance unit during the period will be as a pilot project to demonstrate the feasibility of the project as enhanced recovery without evidence of fluid migration out of the approved injection interval or the lateral boundary of the Project Area
9. All the wells (active and plugged) in the one-half mile modified AOR surrounding the proposed injection well appear to be adequately cased and cemented, so that none will become a conduit for the escape of injected fluid or gas from the permitted injection formation. Accordingly, there is no requirement for remedial work on any wells within the modified AOR for each of the injection wells.
10. OCD records indicate Manzano LLC (OGRID 231429) as of the date of this order is in compliance with Rule 19.15.5.9 NMAC.
11. Applicant should be authorized to inject fluids at a surface injection pressure not to exceed 950 psi for produced gas. Applicant may apply to the OCD for a higher injection pressure upon satisfactorily demonstrating that an increase in injection pressure will not result in fracturing of the injection formation or confining strata.
12. The proposed project will, in reasonable probability, serve the interest of conservation, prevent waste, and will not impair correlative rights.
13. Accordingly, the Application should be approved as a pilot project with a requirement for review at a future hearing.

### **ORDER**

1. Manzano LLC ("operator") is hereby authorized to inject produced gas into the San Andres formation [Jenkins San Andres pool (Pool code: 33950)], at a true vertical depth interval from approximately 4840 feet to approximately 4850 feet below the surface.
2. The Project Area shall consist of 320 acres, more or less, of the following lands in Lea County, New Mexico:

Township 9 South, Range 35 East, NMPM

Section 19: E/2 SE/4

Section 30: SE/4 and E/2 NE/4

3. This project is hereby designated the **Jenkins San Andres Pressure Maintenance Project** ("Project").

4. Manzano LLC (OGRID 231429) is designated the operator of the Project.

5. The existing vertical well approved for injection within this Project is the Vince BGH No. 1 (API No. 30-025-37104; "injection well") with a surface location of 1980 feet from the South line and 1750 feet from the East line (Unit letter J) of Section 30, Township 9 South, Range 35 East, NMPM.

6. The injection interval for the Project, shall be the San Andres formation P-1 dolomite; where the upper vertical limit is defined by the San Andres P-1 Marker to 160 feet below the marker, as shown in the High Resolution Laterolog for the injection well dated June 8, 2005.

7. The operator shall take all steps necessary to ensure that the injected fluid enters only the injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

8. The injection well shall use the existing construction with injection occurring through perforations currently in place from a measured depth of 4840 feet to a measured depth of 4850 feet.

9. The operator shall utilize its Sodbuster 21 Fee No. 4 (API No. 30-025-43704) and Rag Mama 30-19 Fee No. 1 (API No. 30-025-44067) wells as the source of the produced gas to be used in the injection phases of the Project. Additional sources of produced gas from operator leases may be administratively approved for the Project after having demonstrated gas composition and compatibility. Operator shall submit the required information along with well information using Form C-103 through E-permitting.

10. The injection well shall be equipped with a pressure control device or acceptable substitute that will limit the maximum surface injection pressure **to no more than 950 psi for produced gas.**

11. The OCD Director shall have the authority to administratively authorize an increase in injection pressure upon a showing supported by an approved Step-Rate Tests (using only water) that such higher pressure will not result in fracturing of the injection formation or confining strata. The operator shall give at least 72 hours advance notice to the appropriate Inspection Supervisor of the date and time

- i. injection equipment will be installed, and

- ii. the mechanical integrity pressure test will be conducted, so these operations may be witnessed.

12. Injection shall be accomplished through tubing installed in a packer set in the production casing so as to provide a proper seal while being as close as practical to the uppermost injection perforations. The limit for the placement of the packer in the production casing shall be less than 100 feet above the uppermost perforation of the injection well.

13. The casing-tubing annulus shall be filled with an inert fluid. Operator shall continuously monitor the annulus including a gauge attached to the annulus in order to detect leakage in the casing, tubing or packer.

14. The injection well shall pass a mechanical integrity test prior to recommencement of injection under this order and prior to resumption of injection each time the packer is unseated. All testing procedures and schedules shall conform to the requirements of Rule 19.15.26.11(A) NMAC. The OCD Director retains the right to require at any time wireline verification of completion and packer setting depths.

15. The operator shall immediately notify the OCD's Inspection Supervisor of the failure of the tubing, casing or packer in either injection well, or the leakage of water, oil, gas or other fluid from or around any producing or abandoned well within one-half mile of either injection well and shall take all steps as may be timely and necessary to correct such failure or leakage. If the monitoring system indicates communication of the tubing with the annulus due to loss of mechanical integrity, the operator shall immediately proceed to shut-in the injection well and notify the Inspection Supervisor.

16. The operator shall provide written notice using Form C-103 submitted through E-permitting of the date of commencement of injection into the injection well.

17. The Project shall be governed by Rules 19.15.26.8 through 19.15.26.15 NMAC. The operator shall submit electronic monthly reports of the injection operations on OCD Form C-115, in accordance with Rules 19.15.26.13 and 19.15.7.24 NMAC.

18. The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations; provided, however, the OCD, upon written request by the operator filed prior to the expiration of the two-year time period, may grant an extension for good cause.

19. The authorizations provided in this order shall terminate three (3) years after the approval date of this order unless the operator applies for approval of the Project as a permanent pressure maintenance project and OCD approves after a hearing on the application. The operator shall apply no later than three months prior to the termination date and shall provide a summary of the Project operation including documentation of observed benefits to production or the prevention of waste and evidence that injected fluid has not migrated beyond the horizontal and vertical boundaries of the Project Area.

20. The injection authority granted herein shall be subject to 19.15.26.12(C)(1) NMAC [Abandonment of injection authority]. If necessary due to operational requirements that all injection wells in the Project are simultaneously not injecting for a continuous one-year period, the operator shall maintain the injection authority of the order by requesting an extension as provided in 19.15.26.12(C)(2) NMAC.

21. The OCD Director must authorize alternative or additional injection wells within the Project Area through the OCD hearing process and as provided in 19.15.26.8 NMAC.

22. The operator shall provide written notice to the OCD upon permanent cessation of injection into the Project.

23. Case No. 22357 is hereby dismissed with the approval of this order.

24. This order does not relieve the operator of responsibility should its operations cause any actual damage or threat of damage to protectable fresh water, human health or the environment; nor does it relieve the operator of responsibility for complying with applicable OCD rules or other state, federal or local laws or regulations.

25. Upon failure of the operator to conduct operations (1) in such manner as will protect fresh water or (2) in a manner consistent with the requirements in this Order, the OCD may, after notice and hearing (or without notice and hearing in event of an emergency, subject to the provisions of NMSA 1978 Section 70-2-23), terminate the injection authority granted herein.

26. Jurisdiction of this case is retained for the entry of such further orders as the OCD may deem necessary.

DONE at Santa Fe, New Mexico, on this 22 day of March, 2022.

**STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION**

A handwritten signature in black ink, appearing to read 'Adrienne', is written over a horizontal line.

**ADRIENNE SANDOVAL  
DIRECTOR  
AS/dhr**