

State of New Mexico
Energy, Minerals and Natural Resources Department

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Oil Conservation Division



Administrative Order WFX-949
December 1, 2015

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Division Order No. R-10020-B, ConocoPhillips Company (OGRID No. 217817) has made application to the Division for approval to change the injection interval for the 11 injection wells in its Vacuum Glorieta East Unit (VGEU), approved by Division Order R-10020-B, issued on June 10, 2013.

ConocoPhillips is seeking a minor modification to Division Order R-10020-B for approval of injection into the entire Unitized Formation listed in Table One of this application.

These wells are being proposed for conversion to injection to complement existing injection wells for enhanced oil recovery in the Glorieta and Paddock formations of the Vacuum Unit Waterflood Project.

For the well locations listed in this application, the "Unitized Formation" shall comprise the stratigraphic interval underlying the Unit Area found between the top of the Glorieta formation to the base of the Paddock formation in the Vacuum-Glorieta Pool. The top of the Glorieta formation is defined as all points underlying the Unit Area correlative to the depth of 5,838 feet and the base of the Paddock formation is defined as all points underlying the Unit Area correlative to the depth of 6,235 feet, both depths as identified on the Schlumberger Sonic Log for the Socony Mobil Bridges State Well No. 95, Located in Unit P, Section 27, Township 17 South, Range 34 East, NMPM, Lea County New Mexico, as stated in Division Order R-10017, issued on November 16, 1993.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 19.15.26.8B. NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections remain outstanding. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Rule 19.15.5.9 NMAC.

The proposed expansion of the above-referenced water flood project, will prevent waste, is in the best interests of conservation, will not impair correlative rights, and should be approved.

IT IS THEREFORE ORDERED THAT:

ConocoPhillips Company, as operator, is hereby authorized to inject water into the following wells for the purpose of secondary recovery through plastic-lined tubing set into a packer:

Table One

API No.	Well Name	Unit	Sec	Twp	Rng	Footage N/S	Footage E/W	Approved Injection Interval (in ft.); type	Total Depth
30-025-37851	VGEU Tract 2 No. 21	A	32	17 S	35E	1200' FNL	525' FEL	5923' to 6415'; perforations	6345'
30-025-37852	VGEU Tract 2 No. 22	G	32	17 S	35 E	1765' FNL	1585' FEL	5924' to 6413'; perforations	6350'
30-025-20829	VGEU Tract 5 No. 3	O	29	17 S	35 E	460' FSL	1980' FEL	5959' to 6441'; perforations	6301'
30-025-20864	VGEU Tract 17 No. 2	I	31	17 S	35 E	2080' FSL	660' FEL	5936' to 6389'; perforations	6300'
30-025-40739	VGEU Tract 19 No. 33	M	32	17 S	35 E	968' FSL	733' FWL	5980' to 6395'; perforations	6391'
30-025-40738	VGEU Tract 19 No. 34	K	32	17 S	35 E	2150' FSL	2233' FWL	5965' to 6398'; perforations	6415'
30-025-20886	VGEU Tract 25 No. 2	C	32	17 S	35 E	760' FNL	1980' FWL	5945' to 6413'; perforations	6250'
30-025-40737	VGEU Tract 25 No. 32	E	32	17 S	35 E	1695' FSL	723' FWL	5926' to 6405'; perforations	6400'
30-025-20290	VGEU Tract 37 No. 3	G	31	17 S	35 E	2310' FNL	1980' FEL	5898' to 6351'; perforations	6900'
30-025-40736	VGEU Tract 37 No. 31	A	31	17 S	35 E	969' FNL	153' FEL	5918' to 6394'; perforations	6433'
30-025-32368	VGEU Tract 38 No. 3	N	29	17 S	35 E	1130' FSL	1405' FWL	5930' to 6407'; perforations	6300'

The approved maximum surface injection pressure shall be **1184** pounds per square inch (psi) for the wells listed in Table One, as stated in Division Order R-10020-B. The Operator shall set the injection packer in individual wells no more than 100 feet above the shallowest perforation. Further, the packers shall be placed within the Unitized Formation. If the Operator sets packers

greater than 100 feet above the uppermost perforation, the Operator shall submit a Sundry notice to the Hobbs District Office explaining the reasons why it is not practical to set the packer within 100 feet of the upper perforations.

For wells in which the approved injection interval is greater than the total depth, if the Operator deepens the well(s) the Operator shall provide Hobbs District Office and Santa Fe Office log correlations that show that the new injection interval is within the approved Unitized Formation.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected fluid enters only the approved injection interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the wells as proposed in the application.

After installing tubing, the casing-tubing annulus for each well shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

All wells shall pass an initial mechanical integrity test ("MIT") prior to initially commencing injection and prior to resuming injection each time any injection packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in the subject wells.

The wellhead injection pressure on the subject wells shall be limited as listed above. In addition, the injection well or header system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressures to the maximum allowable pressures for these wells.

Subject to the limitations within the hearing order permitting this project, the Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluids from the approved injection interval. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's District I office of the date and time of the installation of injection equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of injection for each well to the Division's District II office. The operator shall submit monthly reports of the injection operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the District I office of any failure of the tubing, casing or packer in the approved injection wells, or of any leakage or release of water,

oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

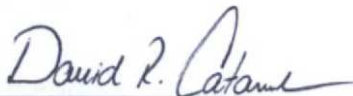
The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection permit after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein. The subject wells shall be governed by all provisions of Order R-10020 (as amended) and associated administrative orders.

The injection authority granted herein shall terminate two (2) years after the effective date of this order if the operator has not commenced injection operations into at least one of the subject wells, provided however, the Division, upon written request by the operator received prior to the two-year deadline, may grant an extension thereof for good cause shown.



DAVID R. CATANACH
Director

DRC/mam

cc: Oil Conservation Division – Hobbs
New Mexico State Land Office – Oil, Gas and Minerals Division
File Case No. 14964