

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Heather Riley, Division Director
Oil Conservation Division



Administrative Order SWD-1746
August 28, 2018

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of Division Rule 19.15.26.8(B) NMAC, BOPCO, LLC (the "operator") seeks an administrative order for its proposed Big Eddy Unit 14 Federal SWD Well No. 1 (the "proposed well") with a location of 1110 feet from the South line and 250 feet from the West line, Unit letter M of Section 14, Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico, for the purpose of produced water disposal.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 19.15.26.8(B) NMAC and satisfactory information has been provided that affected parties have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Division Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Division Rule 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, BOPCO, LLC (OGRID 260737), is hereby authorized to utilize its Big Eddy Unit 14 Federal SWD Well No. 1 (API 30-015-43649) with a location of 1110 feet from the South line and 250 feet from the West line, Unit letter M of Section 14, Township 20 South, Range 31 East, NMPM, Eddy County, for disposal of oil field produced water (UIC Class II only) through open-hole completion into an interval consisting of the Devonian and Silurian formations from approximately 14250 feet (at the lower contact of the Woodford Shale) to approximately 15342 feet. Injection will occur through internally-coated, 4½-inch or smaller tubing inside the 7-inch casing with a packer set within 100 feet of the top of the disposal interval.

This order allows disposal into an interval which includes the upper 100 feet of the Montoya formation below the contact with the Silurian formations, but does not allow disposal into the Ellenburger formation (lower Ordovician) or lost circulation intervals directly on top and obviously connected to the Ellenburger formation.

Prior to commencing disposal, the operator shall submit mudlog and geophysical logs information, to the Division's District geologist and Santa Fe Bureau Engineering office, showing evidence agreeable that only the permitted formation is open for disposal including a summary of depths (picks) for contacts of the formations which the Division shall use to amend this order for

a final description of the depth for the injection interval. If significant hydrocarbon shows occur while drilling, the operator shall notify both the Division's District II and the Bureau of Land Management and the operator shall be required to receive written permission prior to commencing disposal.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the well as described in the application and, if necessary, as modified by the Bureau of Land Management.

After installing tubing, the casing-tubing annulus 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.

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

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's District II office of any failure of the tubing, casing or packer in the well, 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.

If the disposal well fails a MIT or if there is evidence that the mechanical integrity of said well is impacting correlative rights, the public health, any underground sources of fresh water, or the environment, the Division Director shall require the well to be shut-in within 24 hours of discovery and the operator shall redirect all disposal waters to another facility. The operator shall take the necessary actions to address the impacts resulting from the mechanical integrity issues in accordance with Division Rule 19.15.26.10 NMAC, and the well shall be tested pursuant to Rule 19.15.26.11 NMAC prior to returning to injection.

The wellhead injection pressure on the well shall be limited to **no more than 2850 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formations. 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 II office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's District II office. The operator shall submit monthly reports of the disposal operations that includes number of days of operation, injection volume, and injection pressure on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

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 order after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate one (1) year after the effective date of this Order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

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.



HEATHER RILEY
Director

HR/prg

cc: Oil Conservation Division – Artesia District Office
Well File 30-015-43649
Bureau of Land Management – Carlsbad Field Office

Attachment: Proposed well completion diagram from C-108 application

BEU 14 Fed 1 SWD

Proposed SWD Schematic (Nov 15, 2017)

County: Eddy

SHL: 690' FSL, 175' FWL
Sec 14, T 20S, R 31E

BHL: 690' FNL, 175' FWL
Sec 14, T 20S, R 31E



AFE # 1704324
XTO ID # 735199

API # ~~TBD~~ 30-015-43649
Elevation 3451' GL
Rig: TBD (RKB ~25')

<u>Geology</u>	<u>Casing & Cement</u>	<u>Wellhead</u>	<u>Hole Size</u>	<u>General Notes</u>
TVD	<u>Lead (100% OH excess)</u> 770 sx 13.5ppg Poz/Class C Top of Lead @ 0'		24"	
610' Rustler	<u>Tail (100% OH excess)</u> 550 sx 14.8ppg Class C Top of Tail @ 550'			
	18-5/8" 87.5# J-55 BTC		850' MD	
940' Top Salt	<u>Lead (100% OH excess)</u> 1510 sx 12.8ppg Poz/Class C Top of Lead @ 0'		17-1/2"	
2,050' Base Salt	<u>Tail (100% OH excess)</u> 310 sx 14.8ppg Class C Top of Tail @ 2100'			
	13-3/8" 61# J-55 BTC		2400' MD	
2,745' Capitan Reef	<u>2nd Stage</u> Lead: 760 sx 12.9 ppg Poz/C Tail: 250 sx 14.4 ppg Class C		12-1/4"	
	<u>1st Stage</u> Lead: 0 sx 12.9 ppg Poz/C Tail: 960 sx 14.8 ppg Class C			ECP/DV Tool to be set at 2820'
4,560' Delaware	9-5/8" 47# L-80 LTC		4750' MD	
7,395' Bone Spring 10,595' Wolfcamp 11,635' Strawn 12,030' Atoka 12,500' Morrow	<u>Lead (30% OH excess)</u> 660 sx 11ppg Poz/Class C Top of Lead @ 4250'		8-3/4"	
	<u>Tail (30% OH excess)</u> 60 sx 13.2ppg Class C Top of Tail @ 13750'			
13,540' Mississippi Lime 14,120' Woodford 14,291' Devonian	7" 32# P-110 BTC		14150' MD Baker F permanent packer 4-1/2" 13.65# P110 IPC tbg	
			14250' MD 6"	
Open Hole to TD			19540' MD	

100' below upper contact Montoya
~15342 ±