

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-8161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-8178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011
Permit 234029

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address COG PRODUCTION, LLC 600 W. Illinois Ave Midland, TX 79701		2. OGRID Number 217955
4. Property Code 316960		3. API Number 30-015-44118
5. Property Name COPPERHEAD 31 FEE		6. Well No. 021H

7. Surface Location

UL - Lot	B	Section	30	Township	26S	Range	29E	Lot Idn	Feet From	210	N/S Line	N	Feet From	1650	E/W Line	E	County	Eddy
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8. Proposed Bottom Hole Location

UL - Lot	B	Section	31	Township	26S	Range	29E	Lot Idn	6	Feet From	1120	N/S Line	N	Feet From	1980	E/W Line	E	County	Eddy
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9. Pool Information

PURPLE SAGE;WOLFCAMP (GAS)	98220
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 2929
16. Multiple N	17. Proposed Depth 16793	18. Formation Wolfcamp	19. Contractor	20. Spud Date 4/6/2017
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	13.5	10.75	45.5	950	400	0
Int1	9.875	7.625	29.7	10000	1075	0
Prod	6.75	5.5	20	16793	1350	9000

Casing/Cement Program: Additional Comments

Drill 13-1/2" hole to ~950' w/ fresh water spud mud. Run casing to TD and cement to surface in one stage. Drill 9-7/8" hole to 10,000' with diesel / brine emulsion fluid. Run casing to TD and cement to surface in one stage. Drill 6-3/4" vertical hole, curve & lateral to 16,793' with diesel/brine and OBM. Run 5-1/2" 20# P110 x 5' 18# P110 tapered casing to TD and cement.
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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. Signature: _____ Printed Name: Electronically filed by Diane Kuykendall Title: Production Reporting Manager Email Address: dkuykendall@concho.com Date: 3/30/2017	OIL CONSERVATION DIVISION Approved By: Raymond Podany Title: Geologist Approved Date: 3/30/2017 Expiration Date: 3/30/2019 Conditions of Approval Attached
Phone: 432-685-4372	

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Form C-102
August 1, 2011
Permit 234029

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-015-44118	2. Pool Code 98220	3. Pool Name PURPLE SAGE;WOLFCAMP (GAS)
4. Property Code 316960	5. Property Name COPPERHEAD 31 FEE	6. Well No. 021H
7. OGRID No. 217955	8. Operator Name COG PRODUCTION, LLC	9. Elevation 2929

10. Surface Location

UL - Lot B	Section 30	Township 26S	Range 29E	Lot Idn	Feet From 210	N/S Line N	Feet From 1650	E/W Line E	County Eddy
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11. Bottom Hole Location If Different From Surface

UL - Lot B	Section 31	Township 26S	Range 29E	Lot Idn	Feet From 1120	N/S Line N	Feet From 1980	E/W Line E	County Eddy
12. Dedicated Acres 450.02	13. Joint or Infill	14. Consolidation Code	15. Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p style="text-align: center;">OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: Diane Kuykendall Title: Production Reporting Manager Date: 3/30/2017</p>
	<p style="text-align: center;">SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: Chad Harcrow Date of Survey: 11/30/2016 Certificate Number: 17777</p>

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Form APD Comments

 Permit 234029

PERMIT COMMENTS

Operator Name and Address: COG PRODUCTION, LLC [217955] 600 W. Illinois Ave Midland, TX 79701		API Number: 30-015-44118
		Well: COPPERHEAD 31 FEE #021H
Created By	Comment	Comment Date
mreyes2	OIL: COG Operating has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore we do not believe that an H2S Contingency Plan would be necessary.	3/30/2017

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Form APD Conditions

Permit 234029

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG PRODUCTION, LLC [217955] 600 W. Illinois Ave Midland, TX 79701	API Number: 30-015-44118
	Well: COPPERHEAD 31 FEE #021H

OCD Reviewer	Condition
RPodany	Will require a directional survey with the C-104
RPodany	Cement is required to circulate on both surface and production strings of casing