District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr., Santa Fe, NM 87505

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

Form C-144 CLEZ
July 21, 2008

For closed-loop systems *that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure*, submit to the appropriate NMOCD District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances

1.
Operator: **COG OPERATING LLC** OGRID #: **229137**
Address: **550 WEST TEXAS, SUITE 100 MIDLAND, TX 79701**
Facility or well name: **FALABELLA "31" FEE #6H**
API Number: **30-015-** 40211 OCD Permit Number: 212866
U/L or Qtr/Qtr **UL N** Section **31** Township **18S** Range **26E** County: **Eddy**
Center of Proposed Design: Latitude **N/A** Longitude **N/A** NAD: ☐1927 ☐ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Closed-loop System:** Subsection H of 19 15.17.11 NMAC
Operation: ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A
☐ Above Ground Steel Tanks or ☒ Haul-off Bins

3.
Signs: Subsection C of 19.15.17.11 NMAC
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19.15.3.103 NMAC

RECEIVED
APR 26 2012
NMOCD ARTESIA

4.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____

5.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19 15.17.13.D NMAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name: **CRI** Disposal Facility Permit Number: **R1966**
Disposal Facility Name: **GM INC** Disposal Facility Permit Number: **711-019-001**
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No

Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17 13 NMAC

Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): **Kacie Connally** Title: **PERMITTING TECH**
Signature: Kacie Connally Date: 4-25-12
e-mail address: **kconnally@concho.com** Telephone: **432-221-0336**

7.
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____ **Approval Date:** 4/27/2012

Title: Dist II Supervisor **OCD Permit Number:** 212866

8.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

9.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

10.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

Closed Loop Operation & Maintenance Procedure

All drilling fluid circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) are circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid is continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll off containers are lined and de-watered with fluids re-circulated into system.

Additional tank is used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained 24 hrs./day by solids control personnel and or rig crews that stay on location.

Cuttings will be hauled to either:

CRI (permit number R9166)
or
GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

COG Operating LLC

Eddy County, NM
Fallabella 31 Fee 6H
Fallabella 31 Fee 6H

Wellbore #1

Plan: Plan #1

Surface: 150' FSL, 2260' FWL, Sec 31, T18S, R26E, Unit N
BHL: 330' FNL, 2260' FWL, Sec 31, T18S, R26E, Unit C
PP: 330' FSL, 2260' FWL, Sec 31, T18S, R26E, Unit N

Standard Planning Report

16 April, 2012

Crescent Directional Drilling

Planning Report

Database:	R5000 Houston DB	**Local Co-ordinate Reference:**	Site Fallabella 31 Fee 6H
Company:	COG Operating LLC	**TVD Reference:**	WELL @ 3444 00ft (Original Well Elev)
Project:	Eddy County, NM	**MD Reference:**	WELL @ 3444 00ft (Original Well Elev)
Site:	Fallabella 31 Fee 6H	**North Reference:**	Grid
Well:	Fallabella 31 Fee 6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project Eddy County, NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Fallabella 31 Fee 6H

Site Position:		**Northing:**	617,359 10 ft	**Latitude:**	32 697184
From:	Map	**Easting:**	472,814 30 ft	**Longitude:**	-104 421709
Position Uncertainty:	0 00 ft	**Slot Radius:**	13 200 in	**Grid Convergence:**	-0 05 °

Well Fallabella 31 Fee 6H

Well Position	**+N/-S**	0 00 ft	**Northing:**	617,359 10 ft	**Latitude:**	32 697184
	+E/-W	0 00 ft	**Easting:**	472,814 30 ft	**Longitude:**	-104 421709
Position Uncertainty		0 00 ft	**Wellhead Elevation:**		**Ground Level:**	3,426 00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/3/2012	7 91	60 46	48,725

Design Plan #1

Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0 00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0 00	0 00	0 00	0 16

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2,272.54	0 00	0 00	2,272.54	0 00	0 00	0 00	0 00	0 00	0 00	
3,022 54	90 00	0 16	2,750 00	477 46	1 30	12.00	12 00	0 00	0 16	
7,396 59	90 00	0 16	2,750 00	4,851 50	13 20	0 00	0 00	0 00	0 00	PBHL (Fallabella 31 F

Crescent Directional Drilling

Planning Report

Database:	R5000 Houston DB	**Local Co-ordinate Reference:**	Site Fallabella 31 Fee 6H
Company:	COG Operating LLC	**TVD Reference:**	WELL @ 3444.00ft (Original Well Elev)
Project:	Eddy County, NM	**MD Reference:**	WELL @ 3444 00ft (Original Well Elev)
Site:	Fallabella 31 Fee 6H	**North Reference:**	Grid
Well:	Fallabella 31 Fee 6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,272.54	0 00	0 00	2,272 54	0 00	0 00	0 00	0 00	0 00	0 00
KOP - Start Build @ 12.00°/100'									
2,300 00	3 30	0 16	2,299 98	0 79	0 00	0 79	12 00	12 00	0 00
2,400 00	15 30	0 16	2,398 49	16 91	0 05	16 91	12 00	12 00	0 00
2,500 00	27 30	0 16	2,491 49	53 17	0 14	53 17	12 00	12 00	0 00
2,600 00	39 30	0 16	2,574 93	107 96	0 29	107 96	12 00	12 00	0 00
2,700 00	51 30	0 16	2,645 14	178 91	0 49	178 91	12 00	12 00	0 00
2,702 68	51 62	0 16	2,646 81	181 00	0 49	181 00	12 00	12 00	0 00
PP @ 2702.68 MD, 2646.81 TVD, 51.62 INC, 0.16 AZ, 181.00 VS									
2,800 00	63 30	0 16	2,699 07	262 90	0 72	262 90	12 00	12 00	0 00
2,900 00	75 30	0 16	2,734 36	356 27	0 97	356 27	12 00	12 00	0 00
3,000 00	87 30	0 16	2,749 47	454 94	1 24	454.94	12 00	12 00	0 00
3,022 54	90 00	0 16	2,750 00	477 46	1 30	477 46	12 00	12 00	0 00
Landing Point - Hold @ 90.00° INC, 0.16° AZ									
3,100 00	90 00	0 16	2,750 00	554 93	1.51	554 93	0 00	0 00	0 00
3,200 00	90 00	0 16	2,750 00	654 93	1 78	654 93	0.00	0 00	0 00
3,300 00	90 00	0 16	2,750 00	754 93	2 05	754 93	0 00	0 00	0 00
3,400 00	90 00	0 16	2,750 00	854 93	2 33	854 93	0 00	0 00	0 00
3,500 00	90 00	0 16	2,750 00	954 93	2 60	954 93	0 00	0 00	0 00
3,600 00	90 00	0 16	2,750 00	1,054 93	2 87	1,054 93	0 00	0 00	0 00
3,700 00	90 00	0 16	2,750 00	1,154 93	3 14	1,154 93	0 00	0 00	0 00
3,800 00	90 00	0 16	2,750 00	1,254 93	3 41	1,254 93	0 00	0 00	0 00
3,900 00	90 00	0 16	2,750 00	1,354 92	3 69	1,354 93	0 00	0 00	0 00
4,000 00	90.00	0 16	2,750 00	1,454 92	3 96	1,454 93	0 00	0 00	0 00
4,100 00	90 00	0 16	2,750 00	1,554 92	4 23	1,554 93	0 00	0 00	0 00
4,200 00	90 00	0 16	2,750 00	1,654 92	4 50	1,654 93	0 00	0 00	0 00
4,300 00	90 00	0 16	2,750 00	1,754 92	4 77	1,754 93	0 00	0 00	0 00
4,400 00	90 00	0 16	2,750 00	1,854 92	5.05	1,854 93	0 00	0 00	0 00
4,500 00	90 00	0 16	2,750 00	1,954 92	5 32	1,954 93	0 00	0 00	0 00
4,600 00	90 00	0 16	2,750 00	2,054 92	5 59	2,054 93	0 00	0 00	0 00
4,700 00	90 00	0 16	2,750 00	2,154 92	5 86	2,154 93	0 00	0 00	0 00
4,800 00	90 00	0 16	2,750 00	2,254 92	6 14	2,254 93	0.00	0 00	0 00
4,900 00	90 00	0 16	2,750.00	2,354 92	6 41	2,354 93	0 00	0 00	0.00
5,000 00	90 00	0 16	2,750 00	2,454 92	6 68	2,454 93	0 00	0 00	0 00
5,100 00	90 00	0 16	2,750 00	2,554 92	6 95	2,554 93	0 00	0 00	0 00
5,200 00	90 00	0 16	2,750 00	2,654 92	7 22	2,654 93	0 00	0 00	0 00
5,300 00	90 00	0 16	2,750 00	2,754 92	7 50	2,754 93	0 00	0 00	0 00
5,400 00	90 00	0 16	2,750 00	2,854 92	7 77	2,854 93	0 00	0 00	0 00
5,500 00	90 00	0 16	2,750 00	2,954 92	8.04	2,954 93	0 00	0 00	0 00
5,600 00	90 00	0 16	2,750 00	3,054 92	8 31	3,054 93	0 00	0 00	0 00
5,700 00	90 00	0 16	2,750 00	3,154 92	8 58	3,154 93	0 00	0 00	0 00
5,800 00	90 00	0 16	2,750 00	3,254 92	8 86	3,254 93	0 00	0 00	0 00
5,900 00	90.00	0 16	2,750 00	3,354 92	9 13	3,354 93	0 00	0 00	0 00
6,000 00	90 00	0 16	2,750 00	3,454.92	9 40	3,454 93	0 00	0 00	0 00
6,100 00	90 00	0 16	2,750 00	3,554 92	9 67	3,554.93	0 00	0 00	0 00
6,200 00	90 00	0 16	2,750.00	3,654 92	9 94	3,654 93	0 00	0 00	0 00
6,300 00	90 00	0 16	2,750 00	3,754 92	10 22	3,754 93	0 00	0 00	0 00
6,400 00	90 00	0 16	2,750 00	3,854 92	10 49	3,854 93	0 00	0 00	0 00
6,500 00	90 00	0 16	2,750 00	3,954 92	10 76	3,954 93	0 00	0 00	0 00
6,600 00	90 00	0 16	2,750 00	4,054 91	11 03	4,054 93	0 00	0 00	0 00
6,700 00	90 00	0 16	2,750 00	4,154 91	11.30	4,154 93	0 00	0 00	0 00
6,800 00	90 00	0 16	2,750 00	4,254 91	11 58	4,254 93	0 00	0 00	0 00
6,900 00	90 00	0 16	2,750 00	4,354 91	11 85	4,354 93	0 00	0 00	0 00

Database:	R5000 Houston DB	**Local Co-ordinate Reference:**	Site Fallabella 31 Fee 6H
Company:	COG Operating LLC	**TVD Reference:**	WELL @ 3444 00ft (Original Well Elev)
Project:	Eddy County, NM	**MD Reference:**	WELL @ 3444 00ft (Original Well Elev)
Site:	Fallabella 31 Fee 6H	**North Reference:**	Grid
Well:	Fallabella 31 Fee 6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,000.00	90 00	0 16	2,750 00	4,454.91	12 12	4,454 93	0 00	0 00	0 00
7,100 00	90 00	0 16	2,750 00	4,554 91	12 39	4,554.93	0 00	0 00	0 00
7,200 00	90 00	0 16	2,750 00	4,654 91	12 67	4,654 93	0 00	0 00	0 00
7,300 00	90.00	0.16	2,750 00	4,754 91	12.94	4,754.93	0 00	0.00	0 00
7,396 59	90 00	0 16	2,750 00	4,851 50	13 20	4,851 52	0 00	0 00	0 00
TD @ 7396.59' MD, 2750.00' TVD - PBHL (Fallabella 31 Fee 6H Plan 1)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL (Fallabella 31 Fee - plan hits target center - Point	0 00	0 00	2,750 00	4,851 50	13 20	622,210 60	472,827 50	32 710520	-104 421679

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
2,272 54	2,272 54	0 00	0 00	KOP - Start Build @ 12 00°/100'
2,702 68	2,646 81	181 00	0 49	PP @ 2702 68 MD, 2646 81 TVD, 51 62 INC, 0 16 AZ, 181 00 VS
3,022 54	2,750 00	477 46	1 30	Landing Point - Hold @ 90 00° INC, 0 16° AZ
7,396 59	2,750 00	4,851 50	13 20	TD @ 7396 59' MD, 2750 00' TVD

CRESCENT DIRECTIONAL DRILLING

COG Operating LLC
Fallabella 31 Fee 6H
Eddy County, NM
Plan #1

CONCHO

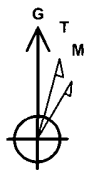
Surface Location		Ground Elev: 3426.00 WELL @ 3444.00ft (Original Well Elev)			
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	617359.10	472814.30	32.697184	-104.421709

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (Fallabella 31 Fee 6H Plan 1)	2750.00	4851 50	13 20	622210.60	472827 50	32.710520	-104 421679

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0 00	0.00	0 00	0 00	0 00	0 00	0.00	0.00	0 00	
2	2272 54	0 00	0 00	2272.54	0.00	0 00	0.00	0.00	0 00	KOP - Start Build @ 12.00°/100'
3	3022 54	90 00	0 16	2750.00	477 46	1 30	12.00	0 16	477 46	Landing Point - Hold @ 90 00° INC, 0.16° AZ
4	7396.59	90.00	0 16	2750.00	4851 50	13 20	0.00	0 00	4851 52	TD @ 7396.59' MD, 2750 00' TVD



Azimuths to Grid North
True North: 0 05°
Magnetic North 7.96°

Magnetic Field
Strength 48725 3snT
Dip Angle 60 46°
Date 4/3/2012
Model IGRF2010