

Submit 1 Copy To Appropriate District
Office
District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W. Grand Ave , Artesia, NM 88200
District III
1000 Rio Brazos Rd , Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
October 13, 2009

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)		WELL API NO. 30-025-39884
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator COG Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator 2208 W. Main Street, Artesia, NM 88210		7. Lease Name or Unit Agreement Name Macho State
4. Well Location Unit Letter <u>D</u> : <u>330</u> feet from the <u>North</u> line and <u>330</u> feet from the <u>West</u> line Section <u>2</u> Township <u>24S</u> Range <u>33E</u> NMPM Lea County		8. Well Number 1
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3654'		9. OGRID Number 229137
		10. Pool name or Wildcat <u>Bell Lake</u> <u>Hay Hollow</u> ; Bone Spring

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐		OTHER: ☐	
OTHER: APD Change ☒			

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG Operating LLC respectfully requests approval for the following TVD depth change to the original approved APD.

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Mayte Reyes TITLE: Regulatory Analyst DATE: 5/22/2012

Type or print name: Mayte Reyes E-mail address: mreyes1@conchoresources.com PHONE: (575) 748-6945

For State Use Only

APPROVED BY: [Signature] TITLE: PETROLEUM ENGINEER DATE: MAY 30 2012

Conditions of Approval (if any):

MAY 30 2012

Macho State #1H

	Hole Size	Casing	Wt	Depth	Cmt	TOC
Surface	17.5	13.375	54.5	1375'	900	0
Intrmd	12.25	9.625	36/40	5100'	1100	0
Prod	7.875	5.5	17	15,544'	2200	4900'

Plan to drill a 17-1/2" hole to 1375' with Fresh Water. Run 13-3/8", 54.5#, J-55 csg and cmt to surface. Drill 12-1/4" hole to 5100' with Brine, and run 9-5/8", 36#/40#, J55 and cement to surface. Drill 7-7/8" vertical, curve and lateral with cut brine to approx 15,544' MD. Run 5-1/2", 17#, P-110 csg and cement to 4900' in 1 stage.

Well Control

Type	Pressure	Test	Manufacture
Double Ram	3000	3000	Cameron

COG Operating LLC

Lea County, NM

Macho State 1H

Macho State 1H

Wellbore #1

Plan: Plan #1

Standard Planning Report

21 May, 2012

Crescent Directional Drilling

Planning Report

Database:	R5000 Houston DB	Local Co-ordinate Reference:	Site Macho State 1H
Company:	COG Operating LLC	TVD Reference:	WELL @ 3676 00ft (Original Well Elev)
Project:	Lea County, NM	MD Reference:	WELL @ 3676 00ft (Original Well Elev)
Site:	Macho State 1H	North Reference:	Grid
Well:	Macho State 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project	Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Macho State 1H			
Site Position:		Northing:	456,587.50 ft	Latitude:	32 253562
From:	Map	Easting:	742,127.70 ft	Longitude:	-103 683815
Position Uncertainty:	0 00 ft	Slot Radius:	13 200 in	Grid Convergence:	0 35 °

Well	Macho State 1H					
Well Position	+N/-S	0 00 ft	Northing:	456,587.50 ft	Latitude:	32 253562
	+E/-W	0 00 ft	Easting:	742,127.70 ft	Longitude:	-103 683815
Position Uncertainty		0 00 ft	Wellhead Elevation:		Ground Level:	3,654.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/21/2012	7.52	60 20	48,567

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	90 27

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	
10,648.42	0 00	0 00	10,648.42	0 00	0.00	0.00	0.00	0 00	0 00	
11,427.42	93.48	90 27	11,125.00	-2 40	506.45	12 00	12 00	0 00	90 27	
15,544.72	93.48	90 27	10,875.00	-21 90	4,616.10	0 00	0 00	0 00	0 00	PBHL (Macho State 1)

Crescent Directional Drilling

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Site:	Macho State 1H	North Reference:	Grid
Well:	Macho State 1H	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)
10,648.42	0.00	0.00	10,648.42	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Start Build @ 12.00°/100'									
10,700.00	6.19	90.27	10,699.90	-0.01	2.78	2.78	12.00	12.00	0.00
10,800.00	18.19	90.27	10,797.47	-0.11	23.86	23.86	12.00	12.00	0.00
10,900.00	30.19	90.27	10,888.52	-0.31	64.76	64.76	12.00	12.00	0.00
11,000.00	42.19	90.27	10,969.08	-0.59	123.70	123.70	12.00	12.00	0.00
11,100.00	54.19	90.27	11,035.62	-0.94	198.10	198.10	12.00	12.00	0.00
11,200.00	66.19	90.27	11,085.24	-1.35	284.71	284.71	12.00	12.00	0.00
11,300.00	78.19	90.27	11,115.77	-1.80	379.74	379.75	12.00	12.00	0.00
11,400.00	90.19	90.27	11,125.88	-2.27	479.04	479.05	12.00	12.00	0.00
11,427.42	93.48	90.27	11,125.00	-2.40	506.45	506.46	12.00	12.00	0.00
Landing Point - Hold @ 93.48° INC, 90.27° AZ									
11,500.00	93.48	90.27	11,120.59	-2.75	578.89	578.90	0.00	0.00	0.00
11,600.00	93.48	90.27	11,114.52	-3.22	678.71	678.71	0.00	0.00	0.00
11,700.00	93.48	90.27	11,108.45	-3.69	778.52	778.53	0.00	0.00	0.00
11,800.00	93.48	90.27	11,102.38	-4.17	878.33	878.34	0.00	0.00	0.00
11,900.00	93.48	90.27	11,096.30	-4.64	978.15	978.16	0.00	0.00	0.00
12,000.00	93.48	90.27	11,090.23	-5.11	1,077.96	1,077.98	0.00	0.00	0.00
12,100.00	93.48	90.27	11,084.16	-5.59	1,177.78	1,177.79	0.00	0.00	0.00
12,200.00	93.48	90.27	11,078.09	-6.06	1,277.59	1,277.61	0.00	0.00	0.00
12,300.00	93.48	90.27	11,072.02	-6.53	1,377.41	1,377.42	0.00	0.00	0.00
12,400.00	93.48	90.27	11,065.95	-7.01	1,477.22	1,477.24	0.00	0.00	0.00
12,500.00	93.48	90.27	11,059.87	-7.48	1,577.04	1,577.05	0.00	0.00	0.00
12,600.00	93.48	90.27	11,053.80	-7.96	1,676.85	1,676.87	0.00	0.00	0.00
12,700.00	93.48	90.27	11,047.73	-8.43	1,776.66	1,776.68	0.00	0.00	0.00
12,800.00	93.48	90.27	11,041.66	-8.90	1,876.48	1,876.50	0.00	0.00	0.00
12,900.00	93.48	90.27	11,035.59	-9.38	1,976.29	1,976.31	0.00	0.00	0.00
13,000.00	93.48	90.27	11,029.51	-9.85	2,076.11	2,076.13	0.00	0.00	0.00
13,100.00	93.48	90.27	11,023.44	-10.32	2,175.92	2,175.95	0.00	0.00	0.00
13,200.00	93.48	90.27	11,017.37	-10.80	2,275.74	2,275.76	0.00	0.00	0.00
13,300.00	93.48	90.27	11,011.30	-11.27	2,375.55	2,375.58	0.00	0.00	0.00
13,400.00	93.48	90.27	11,005.23	-11.74	2,475.36	2,475.39	0.00	0.00	0.00
13,500.00	93.48	90.27	10,999.15	-12.22	2,575.18	2,575.21	0.00	0.00	0.00
13,600.00	93.48	90.27	10,993.08	-12.69	2,674.99	2,675.02	0.00	0.00	0.00
13,700.00	93.48	90.27	10,987.01	-13.16	2,774.81	2,774.84	0.00	0.00	0.00
13,800.00	93.48	90.27	10,980.94	-13.64	2,874.62	2,874.65	0.00	0.00	0.00
13,900.00	93.48	90.27	10,974.87	-14.11	2,974.44	2,974.47	0.00	0.00	0.00
14,000.00	93.48	90.27	10,968.79	-14.59	3,074.25	3,074.29	0.00	0.00	0.00
14,100.00	93.48	90.27	10,962.72	-15.06	3,174.06	3,174.10	0.00	0.00	0.00
14,200.00	93.48	90.27	10,956.65	-15.53	3,273.88	3,273.92	0.00	0.00	0.00
14,300.00	93.48	90.27	10,950.58	-16.01	3,373.69	3,373.73	0.00	0.00	0.00
14,400.00	93.48	90.27	10,944.51	-16.48	3,473.51	3,473.55	0.00	0.00	0.00
14,500.00	93.48	90.27	10,938.43	-16.95	3,573.32	3,573.36	0.00	0.00	0.00
14,600.00	93.48	90.27	10,932.36	-17.43	3,673.14	3,673.18	0.00	0.00	0.00
14,700.00	93.48	90.27	10,926.29	-17.90	3,772.95	3,772.99	0.00	0.00	0.00
14,800.00	93.48	90.27	10,920.22	-18.37	3,872.77	3,872.81	0.00	0.00	0.00
14,900.00	93.48	90.27	10,914.15	-18.85	3,972.58	3,972.62	0.00	0.00	0.00
15,000.00	93.48	90.27	10,908.08	-19.32	4,072.39	4,072.44	0.00	0.00	0.00
15,100.00	93.48	90.27	10,902.00	-19.79	4,172.21	4,172.26	0.00	0.00	0.00
15,200.00	93.48	90.27	10,895.93	-20.27	4,272.02	4,272.07	0.00	0.00	0.00
15,300.00	93.48	90.27	10,889.86	-20.74	4,371.84	4,371.89	0.00	0.00	0.00
15,400.00	93.48	90.27	10,883.79	-21.21	4,471.65	4,471.70	0.00	0.00	0.00
15,500.00	93.48	90.27	10,877.72	-21.69	4,571.47	4,571.52	0.00	0.00	0.00
15,544.72	93.48	90.27	10,875.00	-21.90	4,616.10	4,616.15	0.00	0.00	0.00

Crescent Directional Drilling

Planning Report

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Company:	COG Operating LLC	TVD Reference:	WELL @ 3676 00ft (Original Well Elev)
Project:	Lea County, NM	MD Reference:	WELL @ 3676 00ft (Original Well Elev)
Site:	Macho State 1H	North Reference:	Grid
Well:	Macho State 1H	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)
TD @ 15544.72' MD, 10875.00' TVD - PBHL (Macho State 1H Plan 1)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL (Macho State 1H	0 00	0 00	10,875 00	-21 90	4,616 10	456,565 60	746,743 80	32.253424	-103.668884
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,648.42	10,648.42	0 00	0 00	KOP - Start Build @ 12 00°/100'
11,427.42	11,125.00	-2 40	506 45	Landing Point - Hold @ 93 48° INC, 90 27° AZ
15,544.72	10,875.00	-21 90	4,616 10	TD @ 15544.72' MD, 10875 00' TVD



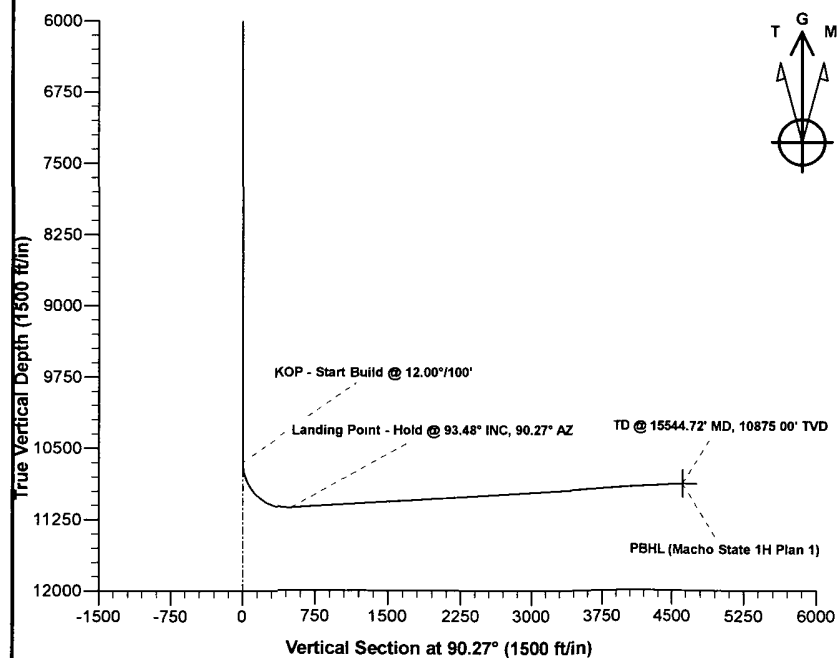
COG Operating LLC
Macho State 1H
Lea County, NM
Plan #1



Surface Location		Ground Elev: 3654.00 WELL @ 3676.00ft (Original Well Elev)			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	456587.50	742127.70	32.253562	-103.683815

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (Macho State 1H Plan 1)	10875.00	-21.90	4616.10	456565.60	746743.80	32.253424	-103.668884

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	10648.42	0.00	0.00	10648.42	0.00	0.00	0.00	0.00	0.00	KOP - Start Build @ 12.00°/100'
3	11427.42	93.48	90.27	11125.00	-2.40	506.45	12.00	90.27	506.46	Landing Point - Hold @ 93.48° INC, 90.27° AZ
4	15544.72	93.48	90.27	10875.00	-21.90	4616.10	0.00	0.00	4816.15	TD @ 15544.72' MD, 10875.00' TVD



Azimuths to Grd North
True North -0 35°
Magnetic North 7 17°

Magnetic Field
Strength 48567 OsnT
Dip Angle. 60 20°
Date. 5/21/2012
Model. IGRF200510

