

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised August 1, 2011

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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. 30-015-39780
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 One Concho Center - 600 W Illinois Ave Midland, TX 79701		7. Lease Name or Unit Agreement Name Palomino 12 Fee
4. Well Location Unit Letter D : 150 feet from the NORTH line and 380 feet from the WEST line Section 12 Township 19S Range 25E NMPM County EDDY		8. Well Number 1H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3414'		9. OGRID Number 229137
		10. Pool name or Wildcat Atoka; Glorieta-Yeso 3250

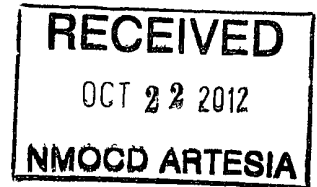
12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

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: Revised Directional Plan ☒		OTHER: ☐	

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 respectfully requests to update the Directional plan for this well. Revision is due to skewed section.

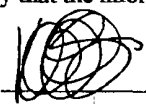
Attached is the revised Directional Plan.



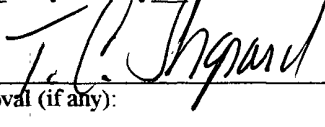
Spud Date:

Rig Release Date:

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

SIGNATURE  TITLE **Permitting Tech** DATE **10/22/2012**

Type or print name **Kelly J. Holly** E-mail address: **kholly@concho.com** PHONE: **432-685-4384**
For State Use Only

APPROVED BY:  TITLE **Geologist** DATE **10/22/2012**
Conditions of Approval (if any):



COG Operating LLC

Eddy County, NM (NAN27 NME)

Palomino 12 Fee #1H

OH

Plan: Plan #1 8-3/4" Hole

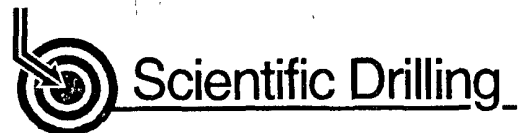
Surface: 150' FNL, 380' FWL, Sec 12, T19S, R25E, Unit D

PP: 330' FNL, 380' FWL, Sec 12, T19S, R25E, Unit D

BHL: 330' FSL, 380' FWL, Sec 12, T19S, R25E, Unit M

Standard Planning Report

16 October, 2012





Scientific Drilling
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3414.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3414.00usft
Site:	Palomino 12 Fee	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8-3/4" Hole		

Project:	Eddy County, NM (NAN27 NME)		
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		Using geodetic scale factor

Site:	Palomino 12 Fee		
Site Position:		Northing:	611,794.60 usft
From:	Map	Easting:	465,541.10 usft
Position Uncertainty:	0 00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 40' 54.742 N
		Longitude:	104° 26' 43.187 W
		Grid Convergence:	-0 06 °

Well:	#1H		
Well Position	+N/-S	0 00 usft	Northing:
	+E/-W	0 00 usft	611,794.60 usft
Position Uncertainty	0 00 usft	Wellhead Elevation:	Latitude:
			32° 40' 54.742 N
			Longitude:
			104° 26' 43.187 W
			Ground Level:
			3,414.00 usft

Wellbore:	OH		
Magnetic:	Model Name	Sample Date	Declination
	IGRF2010	12/12/2011	(°)
			7.96
			Dip Angle
			(°)
			60.45
			Field Strength
			(nT)
			48,744

Design:	Plan #1 8-3/4" Hole		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 00	0 00	0 00
			Direction
			(°)
			179.85

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Bulld	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
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	179.85	2,750.00	-477.46	1 22	12.00	12.00	0 00	179.85	
7,379.42	90 00	179.85	2,750 00	-4,834.33	12 40	0 00	0 00	0 00	0 00	PBHL



Scientific Drilling
Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Palomino 12 Fee
Well: #1H
Well Type: OH
Design: Plan #1 8-3/4" Hole

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well #1H
GL Elev @ 3414.00usft
GL Elev @ 3414.00usft
Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+W-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
KOP Start Build 12.00°/100'									
2,300.00	3.30	179.85	2,299.98	-0.79	0.00	0.79	12.00	12.00	0.00
2,400.00	15.30	179.85	2,398.49	-16.91	0.04	16.91	12.00	12.00	0.00
2,500.00	27.30	179.85	2,491.49	-53.17	0.14	53.17	12.00	12.00	0.00
2,600.00	39.30	179.85	2,574.93	-107.96	0.28	107.96	12.00	12.00	0.00
2,700.00	51.30	179.85	2,645.14	-178.91	0.46	178.91	12.00	12.00	0.00
2,701.41	51.46	179.85	2,646.02	-180.01	0.46	180.01	12.00	12.00	0.00
PP=330° FNL									
2,800.00	63.30	179.85	2,699.07	-262.90	0.67	262.90	12.00	12.00	0.00
2,900.00	75.30	179.85	2,734.36	-356.27	0.91	356.27	12.00	12.00	0.00
3,000.00	87.30	179.85	2,749.47	-454.94	1.17	454.94	12.00	12.00	0.00
3,022.54	90.00	179.85	2,750.00	-477.47	1.22	477.47	12.00	12.00	0.00
Land EOC hold 90.00°									
3,100.00	90.00	179.85	2,750.00	-554.93	1.42	554.93	0.00	0.00	0.00
3,200.00	90.00	179.85	2,750.00	-654.93	1.68	654.93	0.00	0.00	0.00
3,300.00	90.00	179.85	2,750.00	-754.93	1.94	754.93	0.00	0.00	0.00
3,400.00	90.00	179.85	2,750.00	-854.93	2.19	854.93	0.00	0.00	0.00
3,500.00	90.00	179.85	2,750.00	-954.93	2.45	954.93	0.00	0.00	0.00
3,600.00	90.00	179.85	2,750.00	-1,054.93	2.71	1,054.93	0.00	0.00	0.00
3,700.00	90.00	179.85	2,750.00	-1,154.93	2.96	1,154.93	0.00	0.00	0.00
3,800.00	90.00	179.85	2,750.00	-1,254.93	3.22	1,254.93	0.00	0.00	0.00
3,900.00	90.00	179.85	2,750.00	-1,354.93	3.48	1,354.93	0.00	0.00	0.00
4,000.00	90.00	179.85	2,750.00	-1,454.92	3.73	1,454.93	0.00	0.00	0.00
4,100.00	90.00	179.85	2,750.00	-1,554.92	3.99	1,554.93	0.00	0.00	0.00
4,200.00	90.00	179.85	2,750.00	-1,654.92	4.25	1,654.93	0.00	0.00	0.00
4,300.00	90.00	179.85	2,750.00	-1,754.92	4.50	1,754.93	0.00	0.00	0.00
4,400.00	90.00	179.85	2,750.00	-1,854.92	4.76	1,854.93	0.00	0.00	0.00
4,500.00	90.00	179.85	2,750.00	-1,954.92	5.01	1,954.93	0.00	0.00	0.00
4,600.00	90.00	179.85	2,750.00	-2,054.92	5.27	2,054.93	0.00	0.00	0.00
4,700.00	90.00	179.85	2,750.00	-2,154.92	5.53	2,154.93	0.00	0.00	0.00
4,800.00	90.00	179.85	2,750.00	-2,254.92	5.78	2,254.93	0.00	0.00	0.00
4,900.00	90.00	179.85	2,750.00	-2,354.92	6.04	2,354.93	0.00	0.00	0.00
5,000.00	90.00	179.85	2,750.00	-2,454.92	6.30	2,454.93	0.00	0.00	0.00
5,100.00	90.00	179.85	2,750.00	-2,554.92	6.55	2,554.93	0.00	0.00	0.00
5,200.00	90.00	179.85	2,750.00	-2,654.92	6.81	2,654.93	0.00	0.00	0.00
5,300.00	90.00	179.85	2,750.00	-2,754.92	7.07	2,754.93	0.00	0.00	0.00
5,400.00	90.00	179.85	2,750.00	-2,854.92	7.32	2,854.93	0.00	0.00	0.00
5,500.00	90.00	179.85	2,750.00	-2,954.92	7.58	2,954.93	0.00	0.00	0.00
5,600.00	90.00	179.85	2,750.00	-3,054.92	7.84	3,054.93	0.00	0.00	0.00
5,700.00	90.00	179.85	2,750.00	-3,154.92	8.09	3,154.93	0.00	0.00	0.00
5,800.00	90.00	179.85	2,750.00	-3,254.92	8.35	3,254.93	0.00	0.00	0.00
5,900.00	90.00	179.85	2,750.00	-3,354.92	8.61	3,354.93	0.00	0.00	0.00
6,000.00	90.00	179.85	2,750.00	-3,454.92	8.86	3,454.93	0.00	0.00	0.00
6,100.00	90.00	179.85	2,750.00	-3,554.92	9.12	3,554.93	0.00	0.00	0.00
6,200.00	90.00	179.85	2,750.00	-3,654.92	9.38	3,654.93	0.00	0.00	0.00
6,300.00	90.00	179.85	2,750.00	-3,754.92	9.63	3,754.93	0.00	0.00	0.00
6,400.00	90.00	179.85	2,750.00	-3,854.92	9.89	3,854.93	0.00	0.00	0.00
6,500.00	90.00	179.85	2,750.00	-3,954.92	10.15	3,954.93	0.00	0.00	0.00
6,600.00	90.00	179.85	2,750.00	-4,054.92	10.40	4,054.93	0.00	0.00	0.00
6,700.00	90.00	179.85	2,750.00	-4,154.92	10.66	4,154.93	0.00	0.00	0.00
6,800.00	90.00	179.85	2,750.00	-4,254.92	10.91	4,254.93	0.00	0.00	0.00



Scientific Drilling
Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Palomino 12 Fee
Well: #1H
Wellbore: OH
Design: Plan #1 8-3/4" Hole

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well #1H
GL Elev @ 3414.00usft
GL Elev @ 3414.00usft
Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,900.00	90.00	179.85	2,750.00	-4,354.92	11.17	4,354.93	0.00	0.00	0.00
7,000.00	90.00	179.85	2,750.00	-4,454.92	11.43	4,454.93	0.00	0.00	0.00
7,100.00	90.00	179.85	2,750.00	-4,554.91	11.68	4,554.93	0.00	0.00	0.00
7,200.00	90.00	179.85	2,750.00	-4,654.91	11.94	4,654.93	0.00	0.00	0.00
7,300.00	90.00	179.85	2,750.00	-4,754.91	12.20	4,754.93	0.00	0.00	0.00
7,379.42	90.00	179.85	2,750.00	-4,834.33	12.40	4,834.35	0.00	0.00	0.00
PBHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PP=330' FNL	0.00	360.00	2,646.02	-180.02	0.46	611,614.60	465,541.56	32° 40' 52.961 N	104° 26' 43.179 W
- plan misses target center by 0.01usft at 2701.41usft MD (2646.02 TVD, -180.01 N, 0.46 E)									
- Point									
PBHL	0.00	0.00	2,750.00	-4,834.33	12.40	606,960.70	465,553.50	32° 40' 6.908 N	104° 26' 42.982 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Comment
2,272.54	2,272.54	0.00	0.00	KOP Start Build 12.00°/100'
3,022.54	2,750.00	-477.47	1.22	Land EOC hold 90.00°



Palomino 12 Fee #1H
Eddy County, NM (NAN27 NME)
Northing: (Y) 611794.60
Easting: (X) 465541.10
Plan #1 8-3/4" Hole



Azimuths to Grid North
True North 0.06°
Magnetic North 8.02°

Magnetic Field
Strength 48744 3snT
Dip Angle 80.45°
Date 12/12/2011
Model IGRF2010

To convert a Magnetic Direction to a Grid Direction Add 8.02°
To convert a True Direction to a Grid Direction Add 0.06°

WELL DETAILS:						
+N/-S	+E/-W	Ground Level	-3414.00			
0.00	0.00	Northing	611794.60	Easting	465541.10	Latitude Longitude
						32° 40' 54.742 N 104° 26' 43.187 W

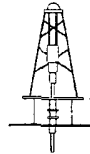
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeal	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2272.54	0.00	0.00	2272.54	0.00	0.00	0.00	0.00	0.00	
3022.54	90.00	179.85	2750.00	-477.46	1.22	12.00	179.85	477.46	
7379.42	90.00	179.85	2750.00	-4834.33	12.40	0.00	0.00	4834.35	PBHL

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
PP=330' FNL	2646.02	-180.02	0.46	611614.60	465541.56
PBHL	2750.00	-4834.33	12.40	606960.70	465553.50

SITE DETAILS: Palomino 12 Fee	
Site Centre Northing	611794.60
Easting	465541.10
Positional Uncertainty:	0.00
Convergence:	-0.06
Local North	Grid

Map System	US State Plane 1927 (Exact solution)
Datum	NAD 1927 (NADCON CONUS)
Ellipsoid	Clarke 1866
Zone Name	New Mexico East 3001
Local Origin	Well #1H, Grid North
Latitude	32° 40' 54.742 N
Longitude	104° 26' 43.187 W
Grid East	465541.10
Grid North	611794.60
Scale Factor	1.000
Geomagnetic Model	IGRF2010
Sample Date	12-Dec-11
Magnetic Declination	7.96°
Dip Angle from Horizontal	80.45°
Magnetic Field Strength	48744
To convert a Magnetic Direction to a Grid Direction, Add 8.02°	
To convert a Magnetic Direction to a True Direction, Add 7.96° East	
To convert a True Direction to a Grid Direction, Add 0.06°	

PROJECT DETAILS: Eddy County, NM (NAN27 NME)	
Geodetic System	US State Plane 1927 (Exact solution)
Datum	NAD 1927 (NADCON CONUS)
Ellipsoid	Clarke 1866
Zone	New Mexico East 3001
System Datum	Mean Sea Level



GL Elev @ 3414.00usft
Ground Level 3414.00

July 19th
2016 October 19 2017
Scientific Drilling
2034 Trade Drive
Midland TX 79703

