

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

WELL API NO. 30-015-39783
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Clydesdale 1 Fee
8. Well Number 2H
9. OGRID Number 229137
10. Pool name or Wildcat Penasco Draw; SA-Yeso (ASSOC) 50270

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.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
COG Operating LLC

3. Address of Operator
One Concho Center - 600 W Illinois Ave Midland, TX 79701

4. Well Location
Unit Letter 1 1040 feet from the NORTH line and 150 feet from the EAST line
Section 1 Township 19S Range 25E NMPM County EDDY

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3430'

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: **Change Casing Program** ☒

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 proposes to drill an 11" hole to 1200' w/fresh water, run 8-5/8" 32# J-55 and cement to surface. Drill a 7-7/8" hole to 3157' MD and kick off and drill curve to 2822' TVD 3483' MD. Drill a 7-7/8" lateral to new BHL @ 2647' TVD 7511' MD. Run a 5 1/2" 17# L-80 casing to TD cement to surface with 800 sacks.

A revised directional plan is attached.

Spud Date:

Rig Release Date:

RECEIVED

NOV 26 2013

NMOC D ARTESIA

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

SIGNATURE [Signature] TITLE Permitting Tech DATE 11/26/2013

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

APPROVED BY: [Signature] TITLE "Geologist" DATE 11/26/2013
Conditions of Approval (if any):



COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Clydesdale 1 Fee

#2H

WB1

Plan: Plan #1 11-21-13

Surface: 1040' FNL, 150' FEL, Sec 1, T19S, R25E, Unit A (Lot 1)

PP: 1011' FNL, 330' FEL, Sec 1, T19S, R25E, Unit A (Lot 1)

BHL: 1093' FNL, 330' FWL, Sec 1, T19S, R25E, Unit D (Lot 4)

Standard Planning Report

22 November, 2013





Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3430.00usft
Project:	Eddy County, New Mexico (NAD 27 NME)	MD Reference:	GL @ 3430.00usft
Site:	Clydesdale 1 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #1 11-21-13		

Project:	Eddy County, New Mexico (NAD 27 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		

Site:	Clydesdale 1 Fee		
Site Position:		Northing:	616,840.10 usft
From:	Map	Easting:	470,401.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 41' 44.71785 N
		Longitude:	104° 25' 46.36893 W
		Grid Convergence:	-0.05 °

Well:	#2H		
Well Position	+N/-S	-659.90 usft	Northing:
	+E/-W	-4.70 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	
		Latitude:	32° 41' 38.18769 N
		Longitude:	104° 25' 46.41692 W
		Ground Level:	3,430.00 usft

Wellbore:	WB1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	11/22/13	7.72
			Dip Angle
			60.41
			Field Strength
			48,560

Design:	Plan #1 11-21-13		
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
			270.63

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	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	
2,316.25	0.00	0.00	2,316.25	0.00	0.00	0.00	0.00	0.00	0.00	
3,157.16	92.50	279.00	2,836.63	85.04	-536.90	11.00	11.00	0.00	279.00	
3,482.96	92.50	269.22	2,822.38	108.33	-861.16	3.00	0.00	-3.00	-89.79	
7,511.11	92.50	269.22	2,646.70	53.30	-4,885.10	0.00	0.00	0.00	0.00	PBHL-Clydesdale 1 #



Phoenix Technology Services
Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, New Mexico (NAD 27 NME)
Site: Clydesdale 1 Fee
Well: #2H
Wellbore: WB1
Design: Plan #1 11-21-13

Local Co-ordinate Reference: Well #2H
TVD Reference: GL @ 3430.00usft
MD Reference: GL @ 3430.00usft
North Reference: Grid
Survey Calculation Method: 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,316.25	0.00	0.00	2,316.25	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 11.00									
2,400.00	9.21	279.00	2,399.64	1.05	-6.64	6.65	11.00	11.00	0.00
2,500.00	20.21	279.00	2,496.21	5.02	-31.68	31.73	11.00	11.00	0.00
2,600.00	31.21	279.00	2,586.17	11.79	-74.47	74.59	11.00	11.00	0.00
2,700.00	42.21	279.00	2,666.21	21.13	-133.42	133.64	11.00	11.00	0.00
2,765.81	49.45	279.00	2,712.04	28.51	-180.02	180.32	11.00	11.00	0.00
PP-Clydesdale 1 #2H									
2,800.00	53.21	279.00	2,733.40	32.69	-206.38	206.72	11.00	11.00	0.00
2,900.00	64.21	279.00	2,785.25	46.03	-290.65	291.14	11.00	11.00	0.00
3,000.00	75.21	279.00	2,819.87	60.69	-383.15	383.79	11.00	11.00	0.00
3,100.00	86.21	279.00	2,835.98	76.10	-480.47	481.28	11.00	11.00	0.00
3,146.42	91.32	279.00	2,836.98	83.36	-526.30	527.17	11.00	11.00	0.00
TL, 2680' TVD @ 0 VZ, 92.50° Inc									
3,157.16	92.50	279.00	2,836.63	85.04	-536.90	537.79	11.00	11.00	0.00
LP Start DLS 3.00 TFO -89.81									
3,200.00	92.50	277.71	2,834.75	91.26	-579.24	580.20	3.00	0.01	-3.00
3,300.00	92.51	274.71	2,830.38	102.07	-678.55	679.62	3.00	0.00	-3.00
3,400.00	92.51	271.71	2,826.00	107.66	-778.29	779.41	3.00	0.00	-3.00
3,482.96	92.50	269.22	2,822.38	108.33	-861.16	862.29	3.00	-0.01	-3.00
Start 4028.14 hold at 3482.96 MD									
3,500.00	92.50	269.22	2,821.64	108.09	-878.18	879.31	0.00	0.00	0.00
3,600.00	92.50	269.22	2,817.28	106.73	-978.07	979.18	0.00	0.00	0.00
3,700.00	92.50	269.22	2,812.91	105.36	-1,077.97	1,079.06	0.00	0.00	0.00
3,800.00	92.50	269.22	2,808.55	104.00	-1,177.87	1,178.93	0.00	0.00	0.00
3,900.00	92.50	269.22	2,804.19	102.63	-1,277.76	1,278.80	0.00	0.00	0.00
4,000.00	92.50	269.22	2,799.83	101.26	-1,377.66	1,378.68	0.00	0.00	0.00
4,100.00	92.50	269.22	2,795.47	99.90	-1,477.55	1,478.55	0.00	0.00	0.00
4,200.00	92.50	269.22	2,791.11	98.53	-1,577.45	1,578.43	0.00	0.00	0.00
4,300.00	92.50	269.22	2,786.75	97.17	-1,677.34	1,678.30	0.00	0.00	0.00
4,400.00	92.50	269.22	2,782.39	95.80	-1,777.24	1,778.18	0.00	0.00	0.00
4,500.00	92.50	269.22	2,778.02	94.43	-1,877.13	1,878.05	0.00	0.00	0.00
4,600.00	92.50	269.22	2,773.66	93.07	-1,977.03	1,977.93	0.00	0.00	0.00
4,700.00	92.50	269.22	2,769.30	91.70	-2,076.93	2,077.80	0.00	0.00	0.00
4,800.00	92.50	269.22	2,764.94	90.34	-2,176.82	2,177.68	0.00	0.00	0.00
4,900.00	92.50	269.22	2,760.58	88.97	-2,276.72	2,277.55	0.00	0.00	0.00
5,000.00	92.50	269.22	2,756.22	87.60	-2,376.61	2,377.43	0.00	0.00	0.00
5,100.00	92.50	269.22	2,751.86	86.24	-2,476.51	2,477.30	0.00	0.00	0.00
5,200.00	92.50	269.22	2,747.49	84.87	-2,576.40	2,577.18	0.00	0.00	0.00
5,300.00	92.50	269.22	2,743.13	83.51	-2,676.30	2,677.05	0.00	0.00	0.00
5,400.00	92.50	269.22	2,738.77	82.14	-2,776.19	2,776.92	0.00	0.00	0.00
5,500.00	92.50	269.22	2,734.41	80.77	-2,876.09	2,876.80	0.00	0.00	0.00
5,600.00	92.50	269.22	2,730.05	79.41	-2,975.98	2,976.67	0.00	0.00	0.00
5,700.00	92.50	269.22	2,725.69	78.04	-3,075.88	3,076.55	0.00	0.00	0.00
5,800.00	92.50	269.22	2,721.33	76.67	-3,175.78	3,176.42	0.00	0.00	0.00
5,900.00	92.50	269.22	2,716.97	75.31	-3,275.67	3,276.30	0.00	0.00	0.00
6,000.00	92.50	269.22	2,712.60	73.94	-3,375.57	3,376.17	0.00	0.00	0.00
6,100.00	92.50	269.22	2,708.24	72.58	-3,475.46	3,476.05	0.00	0.00	0.00
6,200.00	92.50	269.22	2,703.88	71.21	-3,575.36	3,575.92	0.00	0.00	0.00
6,300.00	92.50	269.22	2,699.52	69.84	-3,675.25	3,675.80	0.00	0.00	0.00
6,400.00	92.50	269.22	2,695.16	68.48	-3,775.15	3,775.67	0.00	0.00	0.00
6,500.00	92.50	269.22	2,690.80	67.11	-3,875.04	3,875.55	0.00	0.00	0.00
6,600.00	92.50	269.22	2,686.44	65.75	-3,974.94	3,975.42	0.00	0.00	0.00



Phoenix Technology Services
Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, New Mexico (NAD 27 NME)
Site: Clydesdale 1 Fee
Well: #2H
Wellbore: WB
Design: Plan #1 11-21-13

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well #2H

GL @ 3430.00usft

GL @ 3430.00usft

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)
6,700.00	92.50	269.22	2,682.08	64.38	-4,074.84	4,075.30	0.00	0.00	0.00
6,800.00	92.50	269.22	2,677.71	63.01	-4,174.73	4,175.17	0.00	0.00	0.00
6,900.00	92.50	269.22	2,673.35	61.65	-4,274.63	4,275.04	0.00	0.00	0.00
7,000.00	92.50	269.22	2,668.99	60.28	-4,374.52	4,374.92	0.00	0.00	0.00
7,100.00	92.50	269.22	2,664.63	58.92	-4,474.42	4,474.79	0.00	0.00	0.00
7,200.00	92.50	269.22	2,660.27	57.55	-4,574.31	4,574.67	0.00	0.00	0.00
7,300.00	92.50	269.22	2,655.91	56.18	-4,674.21	4,674.54	0.00	0.00	0.00
7,400.00	92.50	269.22	2,651.55	54.82	-4,774.10	4,774.42	0.00	0.00	0.00
7,500.00	92.50	269.22	2,647.18	53.45	-4,874.00	4,874.29	0.00	0.00	0.00
7,511.10	92.50	269.22	2,646.70	53.30	-4,885.09	4,885.38	0.00	0.00	0.00
TD at 7511.10									
7,511.11	92.50	269.22	2,646.70	53.30	-4,885.10	4,885.39	0.01	0.00	0.00
PBHL-Clydesdale 1 #2H									

Design Targets

Target Name

hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
PBHL-Clydesdale 1 #2H - plan hits target center - Point	0.00	360.00	2,646.70	53.30	-4,885.10	616,233.50	465,511.90	32° 41' 38.66765 N	104° 26' 43.58336 W
PP-Clydesdale 1 #2H - plan hits target center - Point	0.00	360.00	2,712.03	28.51	-180.00	616,208.71	470,217.00	32° 41' 38.46818 N	104° 25' 48.52360 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,146.42	2,836.98	TL, 2680' TVD @ 0 VZ, 92.50° Inc		-2.50	270.63

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,316.25	2,316.25	0.00	0.00	KOP Start Build 11.00
3,157.16	2,836.63	85.04	-536.90	LP Start DLS 3.00 TFO -89.81
3,482.96	2,822.38	108.33	-861.16	Start 4028.14 hold at 3482.96 MD
7,511.10	2,646.70	53.30	-4,885.09	TD at 7511.10



Project: Eddy County, New Mexico (NAD 27 NME)
Site: Clydesdale 1 Fee
Well: #2H
Wellbore: WB1
Design: Plan #5 11-22-13
Rig:



Azimuths to Grid North
True North: 0.05°
Magnetic North: 7.77°
Magnetic Field
Strength: 48560.0snT
Dip Angle: 60.41°
Date: 11/22/2013
Model: IGRF2010_14

WELL DETAILS

+N/-S	+E/-W	Northing	Ground Level	Easting	Latitude	Longitude
0.00	0.00	616180.20	3430.00	470397.00	32° 41' 38.18769 N	104° 25' 46.41692 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dlog	TFace	VSeal	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2316.25	0.00	0.00	2316.25	0.00	0.00	0.00	0.00	0.00		KOP Start Build 11.00
3	3157.16	92.50	279.00	2836.62	85.04	-536.90	11.00	279.00	537.79		LP Start DLS 3.00 TFO -89.81
4	3482.96	92.50	289.22	2822.38	108.33	-861.16	3.00	-89.79	662.29		Start 4028.14 hold at 3482.96 MD
5	7511.11	92.50	269.22	2646.70	53.30	-4885.10	0.00	0.00	4885.39	PBHL-Clydesdale 1 #2H	TD at 7511.10

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL-Clydesdale 1 #2H	2646.70	53.30	-4885.10	616233.50	465511.90	32° 41' 38.66765 N	104° 26' 43.58336 W	Point
PP-Clydesdale 1 #2H								
- plan this target center	2712.03	28.51	-180.00	616208.71	470217.00	32° 41' 38.46818 N	104° 25' 48.52360 W	Point
- plan this target center								

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 #2H, Grid North

Latitude: 32° 41' 38.18769 N
Longitude: 104° 25' 46.41692 W

Grid East: 470397.00
Grid North: 616180.20
Scale Factor: 1.000

Geomagnetic Model: IGRF2010_14
Sample Date: 22-Nov-13

Magnetic Declination: 7.72°
Dip Angle from Horizontal: 60.41°
Magnetic Field Strength: 48560

To convert a Magnetic Direction to a Grid Direction, Add 7.77°
To convert a Magnetic Direction to a True Direction, Add 7.72° East
To convert a True Direction to a Grid Direction, Add 0.05°

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DoAngle	DoDr
2836.98	3146.42	TL 2680' TVD @ 0 VZ 92.50° Inc	-2.50	270.63

LEGEND

— #1H, OH / Job #1310195, Surveys (JW 4) VO
— Plan #5 11-22-13

