



COG Operating LLC

Eddy County, NM (NAN27 NME)

Puckett 12 Federal #7H

Puckett 12 Federal #7H

OH

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

SHL = 15' FSL & 819' FEL

PP = 330' FSL & 832' FEL

BHL = 330' FNL & 990' FEL

Standard Planning Report

24 February, 2012



*Inserted
4/12/201
TMM*



SDI
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Puckett 12 Federal #7H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3965.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3965.00usft
Site:	Puckett 12 Federal #7H	North Reference:	Grid:
Well:	Puckett 12 Federal #7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3-8-3/4" 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		

Site	Puckett 12 Federal #7H		
Site Position:	Map	Northing:	670,369.40 usft
From:		Easting:	658,684.50 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 50' 30.711 N
		Longitude:	103° 48' 59.997 W
		Grid Convergence:	0.28°

Well	Puckett 12 Federal #7H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
			3,965.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	02/24/12	7.66	60.70	48,888

Design	Plan #3-8-3/4" Hole			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	357.69

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	
6,022.54	0.00	0.00	6,022.54	0.00	0.00	0.00	0.00	0.00	0.00	
6,772.54	90.00	357.69	6,500.00	477.08	-19.25	12.00	12.00	0.00	357.69	
11,233.79	90.00	357.69	6,500.00	4,934.70	-199.10	0.00	0.00	0.00	0.00	PBHL-Puckett 12 #7H

Inserted
4/12/2017
Tina



SDI
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site: Puckett 12 Federal #7H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3965.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3965.00usft
Site:	Puckett 12 Federal #7H	North Reference:	Grid
Well:	Puckett 12 Federal #7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 8-3/4" Hole		

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
6,022.54	0.00	0.00	6,022.54	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 12.00°/100°									
6,100.00	9.30	357.69	6,099.66	6.27	-0.25	6.27	12.00	12.00	0.00
6,200.00	21.30	357.69	6,195.94	32.58	-1.31	32.60	12.00	12.00	0.00
6,300.00	33.30	357.69	6,284.65	78.31	-3.16	78.38	12.00	12.00	0.00
6,400.00	45.30	357.69	6,361.89	141.48	-5.71	141.59	12.00	12.00	0.00
6,500.00	57.30	357.69	6,424.31	219.31	-8.85	219.49	12.00	12.00	0.00
6,600.00	69.30	357.69	6,469.16	308.41	-12.44	308.66	12.00	12.00	0.00
6,607.01	70.14	357.69	6,471.59	314.98	-12.71	315.23	12.00	12.00	0.00
PP=330° FNL, Puckett 12 #7H									
6,700.00	81.30	357.69	6,494.50	404.88	-16.34	405.21	12.00	12.00	0.00
6,772.54	90.00	357.69	6,500.00	477.08	-19.25	477.47	12.00	12.00	0.00
Land EOC hold 90.00°									
6,800.00	90.00	357.69	6,500.00	504.52	-20.36	504.93	0.00	0.00	0.00
6,900.00	90.00	357.69	6,500.00	604.44	-24.39	604.93	0.00	0.00	0.00
7,000.00	90.00	357.69	6,500.00	704.36	-28.42	704.93	0.00	0.00	0.00
7,100.00	90.00	357.69	6,500.00	804.28	-32.45	804.93	0.00	0.00	0.00
7,200.00	90.00	357.69	6,500.00	904.19	-36.48	904.93	0.00	0.00	0.00
7,300.00	90.00	357.69	6,500.00	1,004.11	-40.51	1,004.93	0.00	0.00	0.00
7,400.00	90.00	357.69	6,500.00	1,104.03	-44.54	1,104.93	0.00	0.00	0.00
7,500.00	90.00	357.69	6,500.00	1,203.95	-48.58	1,204.93	0.00	0.00	0.00
7,600.00	90.00	357.69	6,500.00	1,303.87	-52.61	1,304.93	0.00	0.00	0.00
7,700.00	90.00	357.69	6,500.00	1,403.79	-56.64	1,404.93	0.00	0.00	0.00
7,800.00	90.00	357.69	6,500.00	1,503.71	-60.67	1,504.93	0.00	0.00	0.00
7,900.00	90.00	357.69	6,500.00	1,603.62	-64.70	1,604.93	0.00	0.00	0.00
8,000.00	90.00	357.69	6,500.00	1,703.54	-68.73	1,704.93	0.00	0.00	0.00
8,100.00	90.00	357.69	6,500.00	1,803.46	-72.76	1,804.93	0.00	0.00	0.00
8,200.00	90.00	357.69	6,500.00	1,903.38	-76.80	1,904.93	0.00	0.00	0.00
8,300.00	90.00	357.69	6,500.00	2,003.30	-80.83	2,004.93	0.00	0.00	0.00
8,400.00	90.00	357.69	6,500.00	2,103.22	-84.86	2,104.93	0.00	0.00	0.00
8,500.00	90.00	357.69	6,500.00	2,203.14	-88.89	2,204.93	0.00	0.00	0.00
8,600.00	90.00	357.69	6,500.00	2,303.06	-92.92	2,304.93	0.00	0.00	0.00
8,700.00	90.00	357.69	6,500.00	2,402.97	-96.95	2,404.93	0.00	0.00	0.00
8,800.00	90.00	357.69	6,500.00	2,502.89	-100.98	2,504.93	0.00	0.00	0.00
8,900.00	90.00	357.69	6,500.00	2,602.81	-105.02	2,604.93	0.00	0.00	0.00
9,000.00	90.00	357.69	6,500.00	2,702.73	-109.05	2,704.93	0.00	0.00	0.00
9,100.00	90.00	357.69	6,500.00	2,802.65	-113.08	2,804.93	0.00	0.00	0.00
9,200.00	90.00	357.69	6,500.00	2,902.57	-117.11	2,904.93	0.00	0.00	0.00
9,300.00	90.00	357.69	6,500.00	3,002.49	-121.14	3,004.93	0.00	0.00	0.00
9,400.00	90.00	357.69	6,500.00	3,102.41	-125.17	3,104.93	0.00	0.00	0.00
9,500.00	90.00	357.69	6,500.00	3,202.32	-129.20	3,204.93	0.00	0.00	0.00
9,600.00	90.00	357.69	6,500.00	3,302.24	-133.24	3,304.93	0.00	0.00	0.00
9,700.00	90.00	357.69	6,500.00	3,402.16	-137.27	3,404.93	0.00	0.00	0.00
9,800.00	90.00	357.69	6,500.00	3,502.08	-141.30	3,504.93	0.00	0.00	0.00
9,900.00	90.00	357.69	6,500.00	3,602.00	-145.33	3,604.93	0.00	0.00	0.00
10,000.00	90.00	357.69	6,500.00	3,701.92	-149.36	3,704.93	0.00	0.00	0.00
10,100.00	90.00	357.69	6,500.00	3,801.84	-153.39	3,804.93	0.00	0.00	0.00
10,200.00	90.00	357.69	6,500.00	3,901.76	-157.42	3,904.93	0.00	0.00	0.00
10,300.00	90.00	357.69	6,500.00	4,001.67	-161.46	4,004.93	0.00	0.00	0.00
10,400.00	90.00	357.69	6,500.00	4,101.59	-165.49	4,104.93	0.00	0.00	0.00
10,500.00	90.00	357.69	6,500.00	4,201.51	-169.52	4,204.93	0.00	0.00	0.00
10,600.00	90.00	357.69	6,500.00	4,301.43	-173.55	4,304.93	0.00	0.00	0.00

Injected
1/12/2011
TMM



SDI
Planning Report



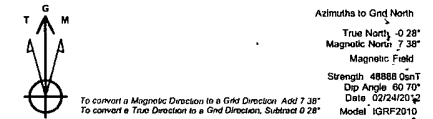
Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Puckett 12 Federal #7H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3965.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3965.00usft
Site:	Puckett 12 Federal #7H	North Reference:	Grid
Well:	Puckett 12 Federal #7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 8-3/4" Hole		

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)
10,700.00	90.00	357.69	6,500.00	4,401.35	-177.58	4,404.93	0.00	0.00	0.00
10,800.00	90.00	357.69	6,500.00	4,501.27	-181.61	4,504.93	0.00	0.00	0.00
10,900.00	90.00	357.69	6,500.00	4,601.19	-185.64	4,604.93	0.00	0.00	0.00
11,000.00	90.00	357.69	6,500.00	4,701.10	-189.68	4,704.93	0.00	0.00	0.00
11,100.00	90.00	357.69	6,500.00	4,801.02	-193.71	4,804.93	0.00	0.00	0.00
11,200.00	90.00	357.69	6,500.00	4,900.94	-197.74	4,904.93	0.00	0.00	0.00
11,233.79	90.00	357.69	6,500.00	4,934.70	-199.10	4,938.72	0.00	0.00	0.00
PBHL-Puckett 12 #7H									

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, Puckett 1. - hit/miss target - Shape - Point	0.00	0.01	6,471.60	315.00	-12.71	670,684.40	658,671.80	32° 50' 33.829 N	103° 49' 0.127 W
PBHL-Puckett 12 #7H - plan hits target center - Point	0.00	0.00	6,500.00	4,934.70	-199.10	675,304.10	658,485.40	32° 51' 19.549 N	103° 49' 2.048 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,022.54	6,022.54	0.00	0.00	KOP Start Build 12.00°/100'
6,772.54	6,500.00	477.08	-19.25	Land EOC hold 90.00°

Inserted
4/14/2012
TMM



Puckett 12 Federal #7H
Eddy County, NM (NAN27 NME)
Northing: (Y) 670369.40
Easting: (X) 658684.50
Plan #3 8-3/4" Hole

WELL DETAILS Puckett 12 Federal #7H											
+N-S 0 00		+E-W 0 00		Northing 670369 40		Ground Level Easting 658684 50		Latitude 32° 50' 30 711 N		Longitude 103° 48' 59 997 W	Slot
SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	VSect	Target	
1	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
2	6022 54	0 00	0 00	6022 54	0 00	0 00	0 00	0 00	0 00		
3	6772 54	90 00	357 69	6500 00	477 08	-19 25	12 00	357 69	477 46		
4	11233 79	90 00	357 69	6500 00	4934 70	-199 10	0 00	0 00	4938 71	PBHL-Puckett 12 #7H	
DESIGN TARGET DETAILS											
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape			
PP-330' FNL, Puckett 12 #7H - plan hits target center	60	315 00	-12 71	670664 40	658671 7302	50° 33' 829 N	49° 0' 127 W	Point			
PBHL-Puckett 12 #7H - plan hits target center	6500 00	4934 70	-199 10	675304 10	658485 4032	51° 19' 549 N	49° 2' 048 W	Point			

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

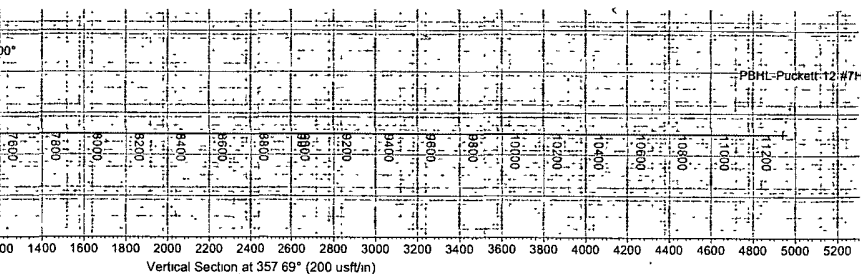
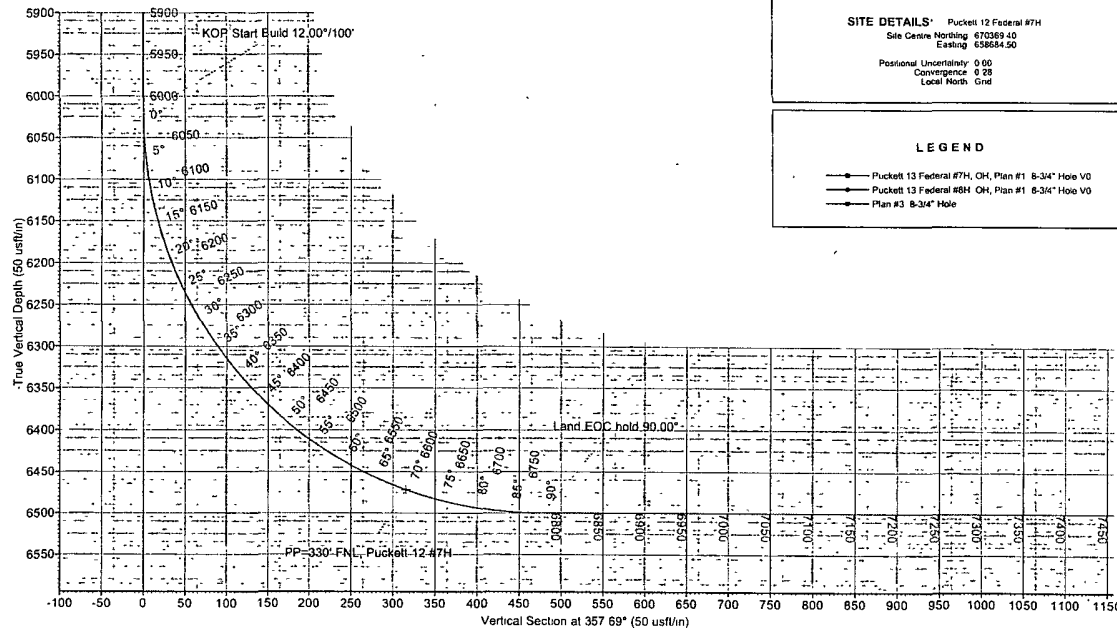
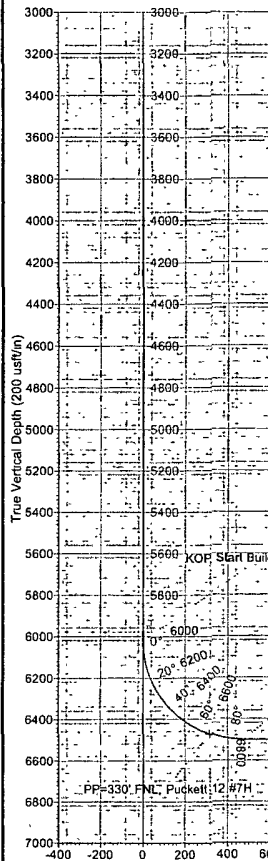
Map System: US State Plane 1927 (Eckert solution)
Datum: NAD 1927 (NADCON CONUS)
Eipsoid: Clarke 1866
Zone Name: New Mexico East 3001
Local Origin: Site Puckett 12 Federal #7H Gnd North
Latitude: 32° 50' 30 711 N
Longitude: 103° 48' 59 997 W
Grid East: 658684 50
Grid North: 670369 40
Scale Factor: 1 000
Geomagnetic Model: IGRF2010
Sample Date: 24 Feb 12
Magnetic Declination: 7 69°
Dip Angle from Horizontal: 60 70°
Magnetic Field Strength: 48868
To convert a Magnetic Direction to a Grid Direction, Add 7 38°
To convert a Magnetic Direction to a True Direction, Add 7 68° East
To convert a True Direction to a Grid Direction, Subtract 0 28°

SITE DETAILS: Puckett 12 Federal #7H
Site Centre Northing: 670369 40
Easting: 658684 50

Positional Uncertainty: 0 00
Convergence: 0 28
Local North: Grid

LEGEND

- Puckett 13 Federal #7H, OH, Plan #1 8-3/4" Hole V0
- Puckett 13 Federal #8H, OH, Plan #1 8-3/4" Hole V0
- Plan #3 8-3/4" Hole



Julio C Peña
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2034 Trade Dr
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