

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 08 2019

RECEIVED

COG Operating LLC

Eddy County, NM (NAD27 NME)

Myox 21 State Com

35H

OH

30.015-45373

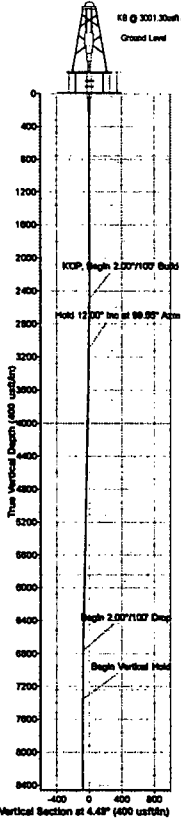
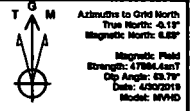
Plan: Plan 3 03-07-19

Standard Planning Report

07 March, 2019



Project: Eddy County, NM (NAD27 NME)
Site: Myox 21 State Com
Well: 35H
Wellbore: OH
Design: Plan 3 03-07-19
Rig: Ensign 155

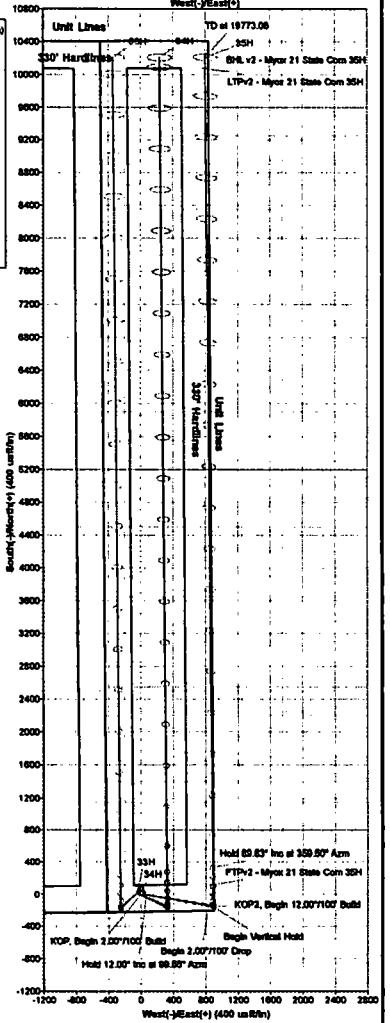
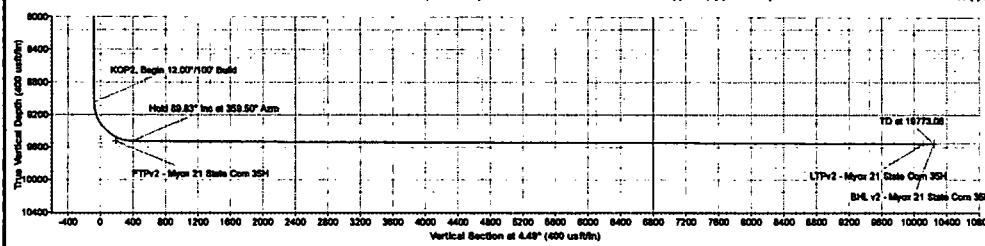
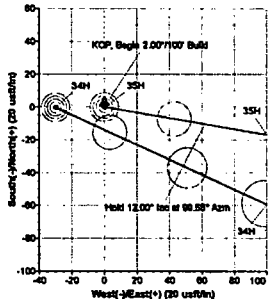
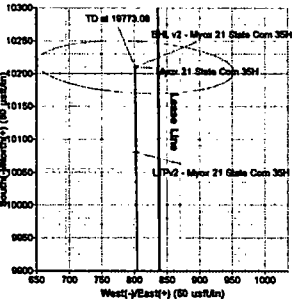
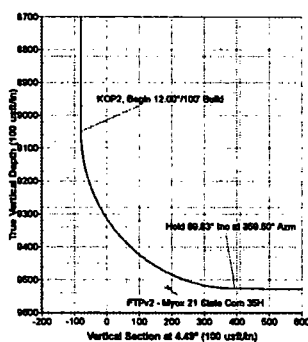


WELL DETAILS											
2977.30											
+W-S	+E-W	North	East	Latitude	Longitude						
0.00	0.00	43324.60	573901.80	32° 8' 31.07027 N	104° 5' 40.75863 W						
DESIGN TARGET DETAILS											
Well	TVD	+W-S	+E-W	North	East	Latitude	Longitude				
FTP-V2 - Myox 21 State Com 35H	825.00	117.80	880.00	433412.80	574791.80	32° 8' 32.1744 N	104° 5' 30.4583 W				
LTPV2 - Myox 21 State Com 35H	958.61	10079.80	802.80	43404.40	574794.30	32° 8' 10.80558 N	104° 5' 31.18558 W				
BHL v2 - Myox 21 State Com 35H	957.07	10209.80	801.50	43534.40	574793.10	32° 8' 12.05344 N	104° 5' 31.17458 W				
SECTION DETAILS											
Sec	WD	Inc	As	TVD	+W-S	+E-W	Diag	TFace	VFace	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		KOP: Bore 2 007102' Isd
2	2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00		1408' 1200' Inc at 289 55' Azm
3	3089.96	12.00	99.55	3089.58	-10.38	61.73	2.00	99.55	-5.52		Bore 1 020710' Isd
4	4643.70	12.00	99.55	4762.42	-139.71	823.77	0.00	0.00	-14.31		Bore 1 020710' Group
5	7448.66	0.00	0.00	7504.00	-150.10	822.00	2.00	180.00	-79.63		Bore Vertical Isd
6	8140.20	0.00	0.00	8049.54	-150.10	822.00	0.00	0.00	-79.63		KOP: Bore 12 07102' Isd
7	8883.75	89.63	359.50	9537.00	-323.80	857.46	12.00	259.50	-389.38		1408' 1200' Inc at 289 55' Azm
8	18773.08	89.63	359.50	9537.00	-323.80	857.46	0.00	0.00	10241.21		TD at 18773.08
BHL v2 - Myox 21 State Com 35H											

Map System: US State Plane 1927 (Erect solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001
Local Origin: Well 35H, Grid North
Latitude: 32° 8' 31.07027 N
Longitude: 104° 5' 40.75863 W
Grid East: 673901.80
Grid North: 453324.60
Scale Factor: 1.000
Geographic Model: NAD83
Sample Date: 30-Apr-19
Magnetic Declination: 7.01°
Dip Angle from Horizontal: 69.79°
Magnetic Field Strength: 47884.42062910nT
To convert a Magnetic Direction to a Grid Direction, Add 6.88°
To convert a Magnetic Direction to a True Direction, Add 7.01° East
To convert a True Direction to a Grid Direction, Subtract 0.13°

FORMATION TOP DETAILS
No formation data is available

LEGEND
— 35H, CH, Plan 3 03-07-19 VO
— 34H, CH, Plan 3 03-07-19 VO
— Plan 3 03-07-19



Planning Report

Database: USA Compass
Company: COG Operating LLC
Project: Eddy County, NM (NAD27 NME)
Site: Myox 21 State Com
Well: 35H
Wellbore: OH
Design: Plan 3 03-07-19

Local Co-ordinate Reference: Well 35H
TVD Reference: KB @ 3001.30usft (Ensign 155)
MD Reference: KB @ 3001.30usft (Ensign 155)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County, NM (NAD27 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		Myox 21 State Com			
Site Position:		Northing:	403,335.40 usft	Latitude:	32° 6' 31.10711 N
From:	Map	Easting:	577,031.40 usft	Longitude:	104° 5' 4.37007 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well	35H					
Well Position	+N/-S	-10.80 usft	Northing:	403,324.60 usft	Latitude:	32° 6' 31.07027 N
	+E/-W	-3,129.80 usft	Easting:	573,901.60 usft	Longitude:	104° 5' 40.75968 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	2,977.30 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	4/30/2019	7.01	59.79	47,864.42062911

Design	Plan 3 03-07-19			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	4.49

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,099.96	12.00	99.55	3,095.58	-10.39	61.73	2.00	2.00	0.00	99.55	
6,848.70	12.00	99.55	6,762.42	-139.71	830.27	0.00	0.00	0.00	0.00	
7,448.66	0.00	0.01	7,358.00	-150.10	892.00	2.00	-2.00	0.00	180.00	
9,140.20	0.00	0.01	9,049.54	-150.10	892.00	0.00	0.00	0.00	0.01	
9,888.75	89.83	359.50	9,527.00	325.90	887.84	12.00	12.00	-0.07	359.50	
19,773.08	89.83	359.50	9,557.00	10,209.80	801.50	0.00	0.00	0.00	0.00	BHL v2 - Myox 21

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Local Co-ordinate Reference: Well 35H
 TVD Reference: KB @ 3001.30usft (Ensign 155)
 MD Reference: KB @ 3001.30usft (Ensign 155)
 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
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin 2.00°/100' Build									
2,600.00	2.00	99.55	2,599.98	-0.29	1.72	-0.15	2.00	2.00	0.00
2,700.00	4.00	99.55	2,699.84	-1.16	6.88	-0.62	2.00	2.00	0.00
2,800.00	6.00	99.55	2,799.45	-2.60	15.48	-1.39	2.00	2.00	0.00
2,900.00	8.00	99.55	2,898.70	-4.63	27.49	-2.46	2.00	2.00	0.00
3,000.00	10.00	99.55	2,997.47	-7.22	42.92	-3.84	2.00	2.00	0.00
3,099.96	12.00	99.55	3,095.58	-10.39	61.73	-5.52	2.00	2.00	0.00
Hold 12.00° Inc at 99.55° Azm									
3,100.00	12.00	99.55	3,095.62	-10.39	61.73	-5.52	0.00	0.00	0.00
3,200.00	12.00	99.55	3,193.44	-13.84	82.24	-7.36	0.00	0.00	0.00
3,300.00	12.00	99.55	3,291.25	-17.29	102.74	-9.19	0.00	0.00	0.00
3,400.00	12.00	99.55	3,389.07	-20.74	123.24	-11.03	0.00	0.00	0.00
3,500.00	12.00	99.55	3,486.88	-24.19	143.74	-12.86	0.00	0.00	0.00
3,600.00	12.00	99.55	3,584.70	-27.64	164.24	-14.70	0.00	0.00	0.00
3,700.00	12.00	99.55	3,682.51	-31.09	184.74	-16.53	0.00	0.00	0.00
3,800.00	12.00	99.55	3,780.33	-34.54	205.24	-18.37	0.00	0.00	0.00
3,900.00	12.00	99.55	3,878.14	-37.99	225.75	-20.20	0.00	0.00	0.00
4,000.00	12.00	99.55	3,975.96	-41.44	246.25	-22.04	0.00	0.00	0.00
4,100.00	12.00	99.55	4,073.77	-44.89	266.75	-23.87	0.00	0.00	0.00
4,200.00	12.00	99.55	4,171.59	-48.34	287.25	-25.71	0.00	0.00	0.00
4,300.00	12.00	99.55	4,269.40	-51.79	307.75	-27.54	0.00	0.00	0.00
4,400.00	12.00	99.55	4,367.22	-55.24	328.25	-29.38	0.00	0.00	0.00
4,500.00	12.00	99.55	4,465.03	-58.69	348.76	-31.21	0.00	0.00	0.00
4,600.00	12.00	99.55	4,562.85	-62.14	369.26	-33.05	0.00	0.00	0.00
4,700.00	12.00	99.55	4,660.66	-65.59	389.76	-34.88	0.00	0.00	0.00
4,800.00	12.00	99.55	4,758.48	-69.04	410.26	-36.72	0.00	0.00	0.00
4,900.00	12.00	99.55	4,856.29	-72.49	430.76	-38.55	0.00	0.00	0.00
5,000.00	12.00	99.55	4,954.11	-75.94	451.26	-40.39	0.00	0.00	0.00
5,100.00	12.00	99.55	5,051.92	-79.39	471.76	-42.22	0.00	0.00	0.00
5,200.00	12.00	99.55	5,149.74	-82.84	492.27	-44.06	0.00	0.00	0.00
5,300.00	12.00	99.55	5,247.55	-86.29	512.77	-45.89	0.00	0.00	0.00
5,400.00	12.00	99.55	5,345.37	-89.74	533.27	-47.72	0.00	0.00	0.00
5,500.00	12.00	99.55	5,443.18	-93.18	553.77	-49.56	0.00	0.00	0.00
5,600.00	12.00	99.55	5,541.00	-96.63	574.27	-51.39	0.00	0.00	0.00
5,700.00	12.00	99.55	5,638.82	-100.08	594.77	-53.23	0.00	0.00	0.00
5,800.00	12.00	99.55	5,736.63	-103.53	615.27	-55.06	0.00	0.00	0.00
5,900.00	12.00	99.55	5,834.45	-106.98	635.78	-56.90	0.00	0.00	0.00
6,000.00	12.00	99.55	5,932.26	-110.43	656.28	-58.73	0.00	0.00	0.00
6,100.00	12.00	99.55	6,030.08	-113.88	676.78	-60.57	0.00	0.00	0.00
6,200.00	12.00	99.55	6,127.89	-117.33	697.28	-62.40	0.00	0.00	0.00
6,300.00	12.00	99.55	6,225.71	-120.78	717.78	-64.24	0.00	0.00	0.00
6,400.00	12.00	99.55	6,323.52	-124.23	738.28	-66.07	0.00	0.00	0.00
6,500.00	12.00	99.55	6,421.34	-127.68	758.79	-67.91	0.00	0.00	0.00
6,600.00	12.00	99.55	6,519.15	-131.13	779.29	-69.74	0.00	0.00	0.00
6,700.00	12.00	99.55	6,616.97	-134.58	799.79	-71.58	0.00	0.00	0.00
6,800.00	12.00	99.55	6,714.78	-138.03	820.29	-73.41	0.00	0.00	0.00
6,848.70	12.00	99.55	6,762.42	-139.71	830.27	-74.31	0.00	0.00	0.00
Begin 2.00°/100' Drop									
6,900.00	10.97	99.55	6,812.69	-141.41	840.35	-75.21	2.00	-2.00	0.00
7,000.00	8.97	99.55	6,911.17	-144.28	857.43	-76.74	2.00	-2.00	0.00
7,100.00	6.97	99.55	7,010.20	-146.58	871.10	-77.96	2.00	-2.00	0.00

Planning Report

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 Site: Myox 21 State Com
 Well: 35H
 Wellbore: OH
 Design: Plan 3 03-07-19

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 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)
7,200.00	4.97	99.55	7,109.65	-148.31	881.36	-78.88	2.00	-2.00	0.00
7,300.00	2.97	99.55	7,209.41	-149.46	888.20	-79.49	2.00	-2.00	0.00
7,400.00	0.97	99.55	7,309.34	-150.03	891.59	-79.79	2.00	-2.00	0.00
7,448.66	0.00	0.01	7,358.00	-150.10	892.00	-79.83	2.00	-2.00	0.00
Begin Vertical Hold									
9,140.20	0.00	0.00	9,049.54	-150.10	892.00	-79.83	0.00	0.00	0.00
KOP2, Begin 12.00°/100' Build									
9,200.00	7.18	359.50	9,109.18	-146.36	891.97	-76.10	12.00	12.00	0.00
9,300.00	19.18	359.50	9,206.37	-123.61	891.77	-53.44	12.00	12.00	0.00
9,400.00	31.18	359.50	9,296.71	-81.15	891.40	-11.14	12.00	12.00	0.00
9,500.00	43.18	359.50	9,376.24	-20.83	890.87	48.95	12.00	12.00	0.00
9,600.00	55.18	359.50	9,441.50	54.70	890.21	124.20	12.00	12.00	0.00
9,700.00	67.18	359.50	9,489.62	142.14	889.45	211.32	12.00	12.00	0.00
9,800.00	79.18	359.50	9,518.51	237.69	888.61	306.50	12.00	12.00	0.00
9,888.75	89.83	359.50	9,527.00	325.90	887.84	394.38	12.00	12.00	0.00
Hold 89.83° Inc at 359.50° Azm									
9,900.00	89.83	359.50	9,527.04	337.15	887.74	405.59	0.00	0.00	0.00
10,000.00	89.83	359.50	9,527.34	437.14	886.87	505.21	0.00	0.00	0.00
10,100.00	89.83	359.50	9,527.64	537.14	886.00	604.83	0.00	0.00	0.00
10,200.00	89.83	359.50	9,527.95	637.13	885.12	704.45	0.00	0.00	0.00
10,300.00	89.83	359.50	9,528.25	737.13	884.25	804.07	0.00	0.00	0.00
10,400.00	89.83	359.50	9,528.55	837.13	883.38	903.69	0.00	0.00	0.00
10,500.00	89.83	359.50	9,528.86	937.12	882.50	1,003.31	0.00	0.00	0.00
10,600.00	89.83	359.50	9,529.16	1,037.12	881.63	1,102.93	0.00	0.00	0.00
10,700.00	89.83	359.50	9,529.46	1,137.11	880.76	1,202.55	0.00	0.00	0.00
10,800.00	89.83	359.50	9,529.77	1,237.11	879.88	1,302.18	0.00	0.00	0.00
10,900.00	89.83	359.50	9,530.07	1,337.10	879.01	1,401.80	0.00	0.00	0.00
11,000.00	89.83	359.50	9,530.38	1,437.10	878.13	1,501.42	0.00	0.00	0.00
11,100.00	89.83	359.50	9,530.68	1,537.10	877.26	1,601.04	0.00	0.00	0.00
11,200.00	89.83	359.50	9,530.98	1,637.09	876.39	1,700.66	0.00	0.00	0.00
11,300.00	89.83	359.50	9,531.29	1,737.09	875.51	1,800.28	0.00	0.00	0.00
11,400.00	89.83	359.50	9,531.59	1,837.08	874.64	1,899.90	0.00	0.00	0.00
11,500.00	89.83	359.50	9,531.89	1,937.08	873.77	1,999.52	0.00	0.00	0.00
11,600.00	89.83	359.50	9,532.20	2,037.07	872.89	2,099.14	0.00	0.00	0.00
11,700.00	89.83	359.50	9,532.50	2,137.07	872.02	2,198.76	0.00	0.00	0.00
11,800.00	89.83	359.50	9,532.80	2,237.07	871.15	2,298.38	0.00	0.00	0.00
11,900.00	89.83	359.50	9,533.11	2,337.06	870.27	2,398.00	0.00	0.00	0.00
12,000.00	89.83	359.50	9,533.41	2,437.06	869.40	2,497.62	0.00	0.00	0.00
12,100.00	89.83	359.50	9,533.71	2,537.05	868.53	2,597.24	0.00	0.00	0.00
12,200.00	89.83	359.50	9,534.02	2,637.05	867.65	2,696.86	0.00	0.00	0.00
12,300.00	89.83	359.50	9,534.32	2,737.04	866.78	2,796.49	0.00	0.00	0.00
12,400.00	89.83	359.50	9,534.62	2,837.04	865.91	2,896.11	0.00	0.00	0.00
12,500.00	89.83	359.50	9,534.93	2,937.04	865.03	2,995.73	0.00	0.00	0.00
12,600.00	89.83	359.50	9,535.23	3,037.03	864.16	3,095.35	0.00	0.00	0.00
12,700.00	89.83	359.50	9,535.53	3,137.03	863.28	3,194.97	0.00	0.00	0.00
12,800.00	89.83	359.50	9,535.84	3,237.02	862.41	3,294.59	0.00	0.00	0.00
12,900.00	89.83	359.50	9,536.14	3,337.02	861.54	3,394.21	0.00	0.00	0.00
13,000.00	89.83	359.50	9,536.44	3,437.01	860.66	3,493.83	0.00	0.00	0.00
13,100.00	89.83	359.50	9,536.75	3,537.01	859.79	3,593.45	0.00	0.00	0.00
13,200.00	89.83	359.50	9,537.05	3,637.01	858.92	3,693.07	0.00	0.00	0.00
13,300.00	89.83	359.50	9,537.36	3,737.00	858.04	3,792.69	0.00	0.00	0.00
13,400.00	89.83	359.50	9,537.66	3,837.00	857.17	3,892.31	0.00	0.00	0.00
13,500.00	89.83	359.50	9,537.96	3,936.99	856.30	3,991.93	0.00	0.00	0.00

Planning Report

Database: USA Compass
Company: COG Operating LLC
Project: Eddy County, NM (NAD27 NME)
Site: Myox 21 State Com
Well: 35H
Wellbore: OH
Design: Plan 3 03-07-19

Local Co-ordinate Reference: Well 35H
TVD Reference: KB @ 3001.30usft (Ensign 155)
MD Reference: KB @ 3001.30usft (Ensign 155)
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)
13,600.00	89.83	359.50	9,538.27	4,036.99	855.42	4,091.55	0.00	0.00	0.00
13,700.00	89.83	359.50	9,538.57	4,136.98	854.55	4,191.17	0.00	0.00	0.00
13,800.00	89.83	359.50	9,538.87	4,236.98	853.68	4,290.80	0.00	0.00	0.00
13,900.00	89.83	359.50	9,539.18	4,336.98	852.80	4,390.42	0.00	0.00	0.00
14,000.00	89.83	359.50	9,539.48	4,436.97	851.93	4,490.04	0.00	0.00	0.00
14,100.00	89.83	359.50	9,539.78	4,536.97	851.06	4,589.66	0.00	0.00	0.00
14,200.00	89.83	359.50	9,540.09	4,636.96	850.18	4,689.28	0.00	0.00	0.00
14,300.00	89.83	359.50	9,540.39	4,736.96	849.31	4,788.90	0.00	0.00	0.00
14,400.00	89.83	359.50	9,540.69	4,836.95	848.44	4,888.52	0.00	0.00	0.00
14,500.00	89.83	359.50	9,541.00	4,936.95	847.56	4,988.14	0.00	0.00	0.00
14,600.00	89.83	359.50	9,541.30	5,036.95	846.69	5,087.76	0.00	0.00	0.00
14,700.00	89.83	359.50	9,541.60	5,136.94	845.81	5,187.38	0.00	0.00	0.00
14,800.00	89.83	359.50	9,541.91	5,236.94	844.94	5,287.00	0.00	0.00	0.00
14,900.00	89.83	359.50	9,542.21	5,336.93	844.07	5,386.62	0.00	0.00	0.00
15,000.00	89.83	359.50	9,542.51	5,436.93	843.19	5,486.24	0.00	0.00	0.00
15,100.00	89.83	359.50	9,542.82	5,536.92	842.32	5,585.86	0.00	0.00	0.00
15,200.00	89.83	359.50	9,543.12	5,636.92	841.45	5,685.48	0.00	0.00	0.00
15,300.00	89.83	359.50	9,543.43	5,736.92	840.57	5,785.10	0.00	0.00	0.00
15,400.00	89.83	359.50	9,543.73	5,836.91	839.70	5,884.73	0.00	0.00	0.00
15,500.00	89.83	359.50	9,544.03	5,936.91	838.83	5,984.35	0.00	0.00	0.00
15,600.00	89.83	359.50	9,544.34	6,036.90	837.95	6,083.97	0.00	0.00	0.00
15,700.00	89.83	359.50	9,544.64	6,136.90	837.08	6,183.59	0.00	0.00	0.00
15,800.00	89.83	359.50	9,544.94	6,236.89	836.21	6,283.21	0.00	0.00	0.00
15,900.00	89.83	359.50	9,545.25	6,336.89	835.33	6,382.83	0.00	0.00	0.00
16,000.00	89.83	359.50	9,545.55	6,436.89	834.46	6,482.45	0.00	0.00	0.00
16,100.00	89.83	359.50	9,545.85	6,536.88	833.59	6,582.07	0.00	0.00	0.00
16,200.00	89.83	359.50	9,546.16	6,636.88	832.71	6,681.69	0.00	0.00	0.00
16,300.00	89.83	359.50	9,546.46	6,736.87	831.84	6,781.31	0.00	0.00	0.00
16,400.00	89.83	359.50	9,546.76	6,836.87	830.96	6,880.93	0.00	0.00	0.00
16,500.00	89.83	359.50	9,547.07	6,936.86	830.09	6,980.55	0.00	0.00	0.00
16,600.00	89.83	359.50	9,547.37	7,036.86	829.22	7,080.17	0.00	0.00	0.00
16,700.00	89.83	359.50	9,547.67	7,136.86	828.34	7,179.79	0.00	0.00	0.00
16,800.00	89.83	359.50	9,547.98	7,236.85	827.47	7,279.41	0.00	0.00	0.00
16,900.00	89.83	359.50	9,548.28	7,336.85	826.60	7,379.04	0.00	0.00	0.00
17,000.00	89.83	359.50	9,548.58	7,436.84	825.72	7,478.66	0.00	0.00	0.00
17,100.00	89.83	359.50	9,548.89	7,536.84	824.85	7,578.28	0.00	0.00	0.00
17,200.00	89.83	359.50	9,549.19	7,636.83	823.98	7,677.90	0.00	0.00	0.00
17,300.00	89.83	359.50	9,549.49	7,736.83	823.10	7,777.52	0.00	0.00	0.00
17,400.00	89.83	359.50	9,549.80	7,836.83	822.23	7,877.14	0.00	0.00	0.00
17,500.00	89.83	359.50	9,550.10	7,936.82	821.36	7,976.76	0.00	0.00	0.00
17,600.00	89.83	359.50	9,550.41	8,036.82	820.48	8,076.38	0.00	0.00	0.00
17,700.00	89.83	359.50	9,550.71	8,136.81	819.61	8,176.00	0.00	0.00	0.00
17,800.00	89.83	359.50	9,551.01	8,236.81	818.74	8,275.62	0.00	0.00	0.00
17,900.00	89.83	359.50	9,551.32	8,336.80	817.86	8,375.24	0.00	0.00	0.00
18,000.00	89.83	359.50	9,551.62	8,436.80	816.99	8,474.86	0.00	0.00	0.00
18,100.00	89.83	359.50	9,551.92	8,536.80	816.11	8,574.48	0.00	0.00	0.00
18,200.00	89.83	359.50	9,552.23	8,636.79	815.24	8,674.10	0.00	0.00	0.00
18,300.00	89.83	359.50	9,552.53	8,736.79	814.37	8,773.72	0.00	0.00	0.00
18,400.00	89.83	359.50	9,552.83	8,836.78	813.49	8,873.35	0.00	0.00	0.00
18,500.00	89.83	359.50	9,553.14	8,936.78	812.62	8,972.97	0.00	0.00	0.00
18,600.00	89.83	359.50	9,553.44	9,036.77	811.75	9,072.59	0.00	0.00	0.00
18,700.00	89.83	359.50	9,553.74	9,136.77	810.87	9,172.21	0.00	0.00	0.00
18,800.00	89.83	359.50	9,554.05	9,236.77	810.00	9,271.83	0.00	0.00	0.00
18,900.00	89.83	359.50	9,554.35	9,336.76	809.13	9,371.45	0.00	0.00	0.00

Planning Report

Database: USA Compass
Company: COG Operating LLC
Project: Eddy County, NM (NAD27 NME)
Site: Myox 21 State Corn
Well: 35H
Wellbore: OH
Design: Plan 3 03-07-19

Local Co-ordinate Reference: Well 35H
TVD Reference: KB @ 3001.30usft (Ensign 155)
MD Reference: KB @ 3001.30usft (Ensign 155)
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)
19,000.00	89.83	359.50	9,554.65	9,436.76	808.25	9,471.07	0.00	0.00	0.00
19,100.00	89.83	359.50	9,554.96	9,536.75	807.38	9,570.69	0.00	0.00	0.00
19,200.00	89.83	359.50	9,555.26	9,636.75	806.51	9,670.31	0.00	0.00	0.00
19,300.00	89.83	359.50	9,555.56	9,736.75	805.63	9,769.93	0.00	0.00	0.00
19,400.00	89.83	359.50	9,555.87	9,836.74	804.76	9,869.55	0.00	0.00	0.00
19,500.00	89.83	359.50	9,556.17	9,936.74	803.89	9,969.17	0.00	0.00	0.00
19,600.00	89.83	359.50	9,556.47	10,036.73	803.01	10,068.79	0.00	0.00	0.00
19,700.00	89.83	359.50	9,556.78	10,136.73	802.14	10,168.41	0.00	0.00	0.00
19,773.08	89.83	359.50	9,557.00	10,209.80	801.50	10,241.21	0.00	0.00	0.00
TD at 19773.08									

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									
FTPv2 - Myox 21 Stat	0.00	0.00	9,525.00	117.90	890.00	403,442.50	574,791.60	32° 6' 32.21744 N	104° 5' 30.40882 W
- plan misses target center by 42.27usft at 9695.81usft MD (9487.98 TVD, 138.29 N, 889.48 E)									
- Point									
LTPv2 - Myox 21 Stat	0.00	0.00	9,556.61	10,079.80	802.60	413,404.40	574,704.20	32° 8' 10.80688 N	104° 5' 31.16558 W
- plan misses target center by 0.04usft at 19643.07usft MD (9556.61 TVD, 10079.80 N, 802.64 E)									
- Point									
BHL v2 - Myox 21 Sta	0.00	0.01	9,557.00	10,209.80	801.50	413,534.40	574,703.10	32° 8' 12.09344 N	104° 5' 31.17498 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,500.00	2,500.00	0.00	0.00	KOP, Begin 2.00°/100' Build
3,099.96	3,095.58	-10.39	61.73	Hold 12.00° Inc at 99.55° Azm
6,848.70	6,762.42	-139.71	830.27	Begin 2.00°/100' Drop
7,448.66	7,358.00	-150.10	892.00	Begin Vertical Hold
9,140.20	9,049.54	-150.10	892.00	KOP2, Begin 12.00°/100' Build
9,888.75	9,527.00	325.90	887.84	Hold 89.83° Inc at 359.50° Azm
19,773.08	9,557.00	10,209.80	801.50	TD at 19773.08