

30-015-43176



July 14, 2015

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

NM OIL CONSERVATION
ARTESIA DISTRICT

SEP 17 2015

RECEIVED

Attn: Kanicia Castillo

RE: **Beech 25 Federal 11H**

Please find enclosed a copy of the survey from 0.00' to 930.00' ran on the above referenced well.

If I can be of any further service, please do not hesitate to call me at 800-606-4976.

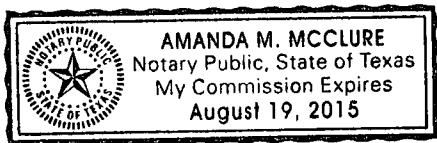
Sincerely,

A handwritten signature in cursive script that reads "Kimberly D Moller".

Kimberly D Moller
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 14 day of July, A.D., 2015, by Kimberly D Moller.



A handwritten signature in cursive script that reads "Amanda McClure".

Amanda McClure
Notary Public, State of Texas



Company: COG Operating LLC
Lease/Well: Beech 25 Federal/11H

Rig Name: Silver Oak # 3
State/County: New Mexico /Eddy
VS-Azi: 0.00 Degrees
Latitude: 32.79930, Longitude: -104.23950
Grid North = True North -0.05 degs
Grid Convergence Applied = -0.05 degs



NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 17 2015
RECEIVED

Depth Reference : R.K.B = 17 FT

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: beech 25 fed 11h -de_01.ut

Minimum Curvature Method

Report Date/Time: 7/14/2015 / 09:47

VES Survey International

(432) 563-5444

West Texas

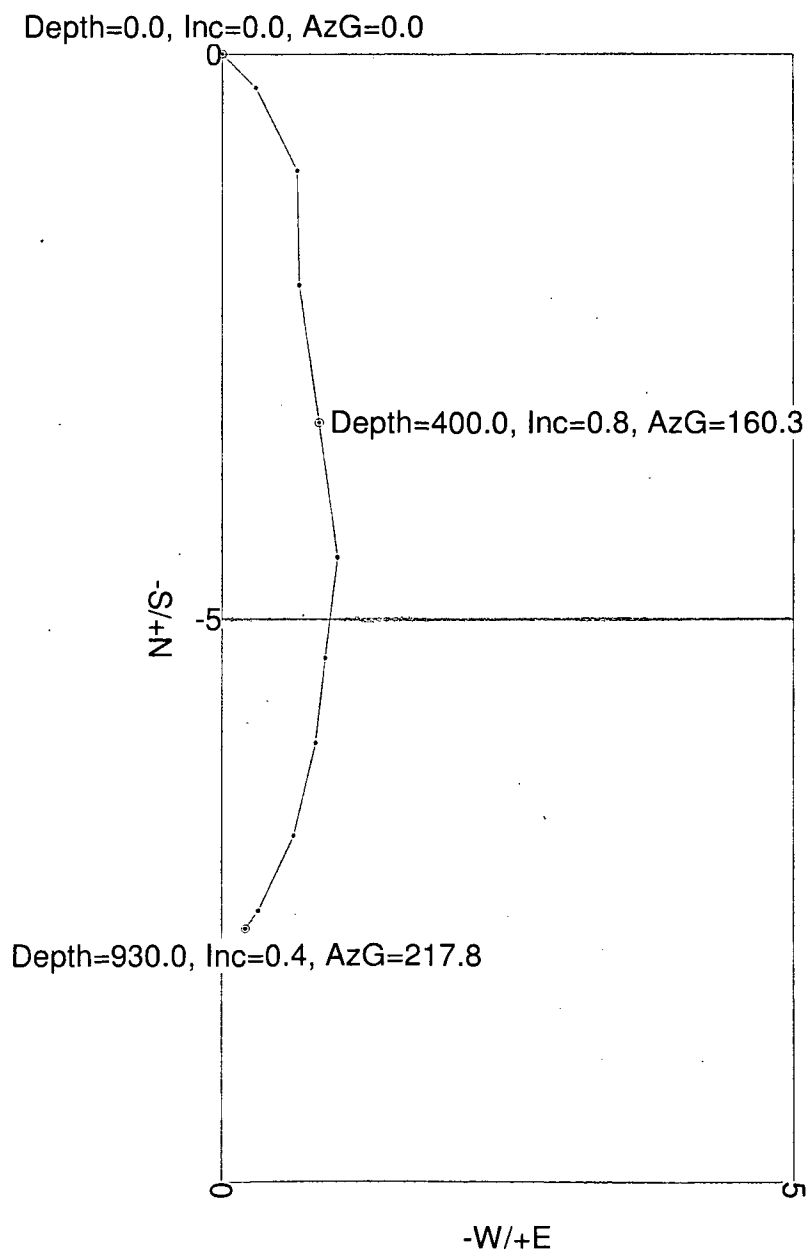
Surveyor: Javier Estrada

Beech 25 Federal 11H / API 30-015-43176

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.48	135.28	100.00	-0.30	0.30	-0.30	0.42	135.28	0.48
200.00	0.50	170.69	200.00	-1.03	0.66	-1.03	1.23	147.28	0.30
300.00	0.66	185.21	299.99	-2.04	0.68	-2.04	2.15	161.56	0.22
400.00	0.78	160.29	399.98	-3.26	0.86	-3.26	3.37	165.26	0.33
500.00	0.64	187.16	499.98	-4.45	1.02	-4.45	4.56	167.12	0.36
600.00	0.40	186.19	599.97	-5.35	0.91	-5.35	5.42	170.33	0.24
700.00	0.47	186.33	699.97	-6.10	0.83	-6.10	6.15	172.26	0.07
800.00	0.51	199.73	799.96	-6.92	0.63	-6.92	6.95	174.77	0.12
900.00	0.34	212.87	899.96	-7.58	0.32	-7.58	7.59	177.56	0.20
930.00	0.42	217.76	929.96	-7.75	0.21	-7.75	7.75	178.46	0.28



VES Survey International
(432) 563-5444
West Texas
Surveyor: Javier Estrada
Beech 25 Federal 11H / API 30-015-43176



VES Survey Date: 07/08/2015



PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

July 20, 2015

COG, LLC
One Concho Center
600 W. Illinois Ave.
Midland, TX 79701

RE: Beech 25 Fed #11H
581' FSL & 237' FWL
Sec. 25, T17S, R27E
Eddy County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

Very truly yours,

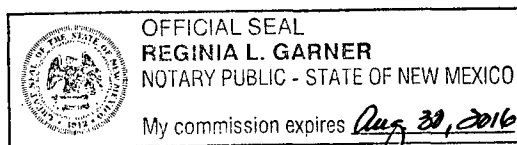
A handwritten signature in cursive script, appearing to read "Chris Graham".

Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 20th day of July, 2015.

A handwritten signature in cursive script, appearing to read "Regina L. Garner".

Notary Public

BEECH 25 FED # 11H

Date	Depth	Deviation	Direction	TVD
7/6/2015	84	0.80	0.00	0.00
7/8/2015	457	0.80	0.00	0.00
7/8/2015	695	0.90	0.00	0.00
7/8/2015	943	0.90	0.00	0.00
7/9/2015	1129	1.30	354.20	0.00
7/9/2015	1224	5.10	356.70	0.00
7/9/2015	1319	8.30	359.50	0.00
7/9/2015	1413	9.20	1.60	0.00
7/10/2015	1507	10.10	32.00	1503.00
7/10/2015	1602	9.80	2.20	1597.00
7/10/2015	1697	8.50	3.00	1691.00
7/10/2015	1791	8.60	358.40	1784.00
7/10/2015	1885	9.30	358.20	0.00
7/10/2015	1979	10.20	0.70	0.00
7/10/2015	2074	8.90	356.50	0.00
7/10/2015	2263	9.30	356.40	0.00
7/10/2015	2358	9.50	2.60	0.00
7/10/2015	2452	8.70	1.60	0.00
7/10/2015	2547	8.40	359.00	0.00
7/10/2015	2641	8.90	359.80	0.00
7/11/2015	2736	9.80	2.30	2716.00
7/11/2015	2829	9.10	1.10	2808.00
7/11/2015	2923	8.00	358.70	2901.50
7/11/2015	3018	7.00	0.10	0.00
7/11/2015	3113	2.90	7.70	0.00
7/11/2015	3208	1.50	7.60	0.00
7/12/2015	3392	2.90	73.30	0.00
7/12/2015	3423	6.00	74.50	0.00
7/12/2015	3518	16.80	77.10	0.00
7/12/2015	3549	20.20	78.50	0.00
7/12/2015	3581	22.40	80.70	0.00
7/12/2015	3613	24.30	83.60	0.00
7/13/2015	3675	28.30	84.60	3637.00
7/13/2015	3707	30.30	83.20	3665.00
7/13/2015	3770	35.60	82.50	3718.00
7/13/2015	3802	38.50	82.80	3768.00
7/13/2015	3865	40.50	83.10	3790.00
7/13/2015	3897	47.40	83.30	3812.00
7/13/2015	3960	52.80	83.30	0.00
7/13/2015	3991	55.80	82.90	0.00
7/13/2015	4023	59.40	82.30	0.00
7/13/2015	4055	64.10	81.00	0.00

Date	Depth	Deviation	Direction	TVD
7/13/2015	4086	68.70	81.50	0.00
7/13/2015	4117	72.40	81.40	0.00
7/13/2015	4180	77.40	83.80	0.00
7/13/2015	4211	29.80	85.00	0.00
7/13/2015	4243	82.30	85.60	0.00
7/14/2015	4262	84.10	86.00	3955.00
7/14/2015	4294	86.90	86.50	3958.00
7/14/2015	4325	88.00	86.50	3959.00
7/14/2015	4357	88.40	86.40	3960.00
7/14/2015	4388	91.30	86.90	3960.00
7/14/2015	4483	91.00	88.00	0.00
7/14/2015	4547	91.10	88.50	0.00
7/14/2015	4642	91.10	89.60	0.00
7/14/2015	4734	90.70	91.10	0.00
7/14/2015	4832	90.80	90.70	0.00
7/14/2015	4928	89.50	91.50	0.00
7/14/2015	5023	89.50	91.40	0.00
7/15/2015	5118	89.50	91.40	3954.00
7/15/2015	5213	89.60	90.50	3955.00
7/15/2015	5402	90.10	90.70	0.00
7/15/2015	5497	89.80	90.40	0.00
7/15/2015	5591	90.00	89.00	0.00
7/15/2015	5687	90.00	89.00	0.00
7/15/2015	5783	90.60	90.00	0.00
7/16/2015	5878	91.60	90.40	3954.00
7/16/2015	6003	90.80	90.30	3951.00
7/16/2015	6067	90.60	90.40	3950.00
7/16/2015	6162	90.50	90.30	3950.00
7/16/2015	6257	90.30	90.20	0.00
7/16/2015	6351	90.30	89.40	0.00
7/16/2015	6446	91.10	90.60	0.00
7/16/2015	6541	91.50	90.10	0.00
7/16/2015	6637	90.50	91.00	0.00
7/16/2015	6732	90.30	92.30	0.00
7/16/2015	6826	90.60	92.80	0.00
7/17/2015	6921	91.60	95.90	3940.00
7/17/2015	7012	90.70	99.30	3938.00

EOF



COG Operating LLC

Eddy County, NM (NAD27 NME)

Beech 25 Federal

#11H

OH / Job #1412160

Design: Surveys (Silver Oak 3)

Standard Survey Report

17 July, 2015



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services LP
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference	Well #11H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	KB @ 3605.00usft (Silver Oak 3)
Site:	Beech, 25 Federal	MD Reference:	KB @ 3605.00usft (Silver Oak 3)
Well:	#11H	North Reference:	Grid
Wellbore:	OH / Job #1412160	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000 GCR

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:	Beech, 25 Federal		
Site Position:		Northing:	654,947.50 usft
From:	Map	Easting:	528,762.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 48' 1.81838 N
		Longitude:	104° 14' 23.01541 W
		Grid Convergence:	0.05 °

Well	#11H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 47' 57.76866 N
		Longitude:	104° 14' 22.34482 W
		Ground Level:	3,587.00 usft

Wellbore	OH / Job #1412160				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/6/2015	7.58	60.62	48,395

Design	Surveys (Silver Oak 3)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00		84.68

Survey Program	Date 7/17/2015				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	930.00	VES Gyro Survey (OH / Job #1412160)	NS-GYRO-MS	North sensing gyrocompassing m/s	
1,035.00	7,087.00	Phoenix MWD Survey (OH / Job #1412160)	PHX+MWD+HDGM	PHX+MWD+HDGM	

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	
100.00	0.48	135.28	100.00	-0.30	0.29	0.27	0.48	0.48	0.00	
200.00	0.50	170.69	200.00	-1.03	0.66	0.56	0.30	0.02	35.41	
300.00	0.66	185.21	299.99	-2.03	0.68	0.49	0.22	0.16	14.52	
400.00	0.78	160.29	399.98	-3.24	0.86	0.55	0.33	0.12	-24.92	
500.00	0.64	187.16	499.98	-4.44	1.02	0.60	0.36	-0.14	26.87	
600.00	0.40	186.19	599.97	-5.34	0.91	0.41	0.24	-0.24	-0.97	
700.00	0.47	186.33	699.97	-6.10	0.83	0.26	0.07	0.07	0.14	
800.00	0.51	199.73	799.96	-6.92	0.63	-0.01	0.12	0.04	13.40	
900.00	0.34	212.87	899.96	-7.59	0.32	-0.39	0.19	-0.17	13.14	



Phoenix Technology Services LP
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #11H
Project:	Eddy County NM (NAD27 NME)	TVD Reference:	KB @ 3605.00usft (Silver Oak 3)
Site:	Beech 25 Federal	MD Reference:	KB @ 3605.00usft (Silver Oak 3)
Well:	#11H	North Reference:	Grid
Wellbore:	OH / Job #1412160	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000 GCR

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)
930.00	0.42	217.76	929.96	-7.75	0.20	-0.52	0.29	0.27	16.30
Tie-on to VES Gyro Survey									
1,035.00	0.50	201.30	1,034.96	-8.48	-0.20	-0.98	0.15	0.08	-15.68
First Phoenix MWD Survey									
1,129.00	1.30	354.20	1,128.95	-7.80	-0.46	-1.18	1.87	0.85	162.66
1,224.00	5.10	356.70	1,223.79	-2.51	-0.81	-1.04	4.00	4.00	2.63
1,319.00	8.30	359.50	1,318.12	8.56	-1.11	-0.31	3.38	3.37	2.95
1,413.00	9.20	1.60	1,411.03	22.86	-0.96	1.16	1.02	0.96	2.23
1,507.00	10.10	3.00	1,503.70	38.60	-0.32	3.26	0.99	0.96	1.49
1,602.00	9.80	2.20	1,597.27	55.00	0.43	5.52	0.35	-0.32	-0.84
1,697.00	8.50	3.00	1,691.06	70.09	1.11	7.60	1.37	-1.37	0.84
1,791.00	8.60	358.40	1,784.02	84.05	1.27	9.06	0.74	0.11	-4.89
1,885.00	9.30	358.20	1,876.87	98.67	0.84	9.98	0.75	0.74	-0.21
1,979.00	10.20	0.70	1,969.51	114.58	0.70	11.32	1.06	0.96	2.66
2,074.00	9.70	2.10	2,063.08	130.99	1.10	13.24	0.58	-0.53	1.47
2,169.00	8.90	356.50	2,156.84	146.33	0.94	14.50	1.27	-0.84	-5.89
2,263.00	9.30	356.40	2,249.65	161.16	0.02	14.96	0.43	0.43	-0.11
2,358.00	9.50	2.60	2,343.38	176.66	-0.11	16.27	1.09	0.21	6.53
2,452.00	8.70	1.60	2,436.20	191.51	0.44	18.20	0.87	-0.85	-1.06
2,547.00	8.40	359.00	2,530.14	205.63	0.52	19.59	0.51	-0.32	-2.74
2,641.00	8.90	359.80	2,623.07	219.77	0.38	20.75	0.55	0.53	0.85
2,736.00	9.80	2.30	2,716.81	235.20	0.68	22.48	1.04	0.95	2.63
2,829.00	9.10	1.10	2,808.55	250.46	1.14	24.35	0.78	-0.75	-1.29
2,923.00	8.00	358.70	2,901.50	264.43	1.13	25.64	1.23	-1.17	-2.55
3,018.00	7.00	0.10	2,995.69	276.83	0.99	26.65	1.07	-1.05	1.47
3,113.00	2.90	7.70	3,090.31	285.00	1.32	27.74	4.36	-4.32	8.00
3,208.00	1.50	7.60	3,185.24	288.62	1.81	28.56	1.47	-1.47	-0.11
3,303.00	0.20	70.50	3,280.23	289.90	2.13	29.00	1.49	-1.37	66.21
3,329.00	0.30	79.10	3,306.23	289.93	2.24	29.11	0.41	0.38	33.08
3,361.00	0.70	69.10	3,338.23	290.02	2.50	29.38	1.27	1.25	-31.25
3,392.00	2.90	73.30	3,369.21	290.31	3.43	30.34	7.10	7.10	13.55
3,423.00	6.00	74.50	3,400.11	290.97	5.75	32.70	10.00	10.00	3.87
3,455.00	9.30	74.30	3,431.82	292.12	9.85	36.89	10.31	10.31	-0.63
3,486.00	12.90	75.40	3,462.24	293.67	15.61	42.77	11.63	11.61	3.55
3,518.00	16.80	77.10	3,493.16	295.60	23.58	50.88	12.26	12.19	5.31
3,549.00	20.20	78.50	3,522.56	297.67	33.19	60.65	11.06	10.97	4.52
3,581.00	22.40	80.70	3,552.37	299.76	44.62	72.22	7.31	6.88	6.88
3,613.00	24.30	83.60	3,581.75	301.47	57.19	84.89	6.94	5.94	9.06
3,644.00	26.10	84.60	3,609.80	302.83	70.31	98.09	5.97	5.81	3.23
3,675.00	28.30	84.60	3,637.37	304.16	84.42	112.26	7.10	7.10	0.00
3,707.00	30.30	83.20	3,665.27	305.83	99.99	127.92	6.61	6.25	-4.38
3,739.00	33.00	82.80	3,692.51	307.88	116.65	144.70	8.46	8.44	-1.25
3,770.00	35.60	82.50	3,718.12	310.12	133.98	162.15	8.40	8.39	-0.97



Phoenix Technology Services LP

Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #11H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3605.00usft (Silver Oak 3)
Site:	Beech 25.Federal	MD Reference:	KB @ 3605.00usft (Silver Oak 3)
Well:	#11H	North Reference:	Grid
Wellbore:	OH / Job #1412160	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000.GCR

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)
3,802.00	38.50	82.80	3,743.65	312.58	153.10	181.42	9.08	9.06	0.94
3,834.00	41.80	83.00	3,768.11	315.13	173.57	202.04	10.32	10.31	0.63
3,865.00	45.00	83.10	3,790.63	317.71	194.71	223.33	10.32	10.32	0.32
3,897.00	47.40	83.30	3,812.78	320.44	217.64	246.42	7.51	7.50	0.63
3,929.00	50.20	82.90	3,833.85	323.33	241.54	270.48	8.80	8.75	-1.25
3,959.00	52.80	83.20	3,852.53	326.17	264.85	293.95	8.70	8.67	1.00
3,990.00	55.80	82.90	3,870.62	329.22	289.83	319.11	9.71	9.68	-0.97
4,022.00	59.40	82.30	3,887.76	332.70	316.62	346.11	11.36	11.25	-1.88
4,054.00	64.10	81.00	3,902.90	336.80	344.50	374.25	15.12	14.69	-4.06
4,085.00	68.70	81.50	3,915.31	341.12	372.57	402.60	14.91	14.84	1.61
4,117.00	72.40	81.40	3,925.96	345.60	402.41	432.72	11.57	11.56	-0.31
4,148.00	74.60	82.40	3,934.77	349.79	431.83	462.40	7.74	7.10	3.23
4,180.00	77.40	83.80	3,942.51	353.52	462.65	493.44	9.73	8.75	4.38
4,211.00	79.80	85.00	3,948.64	356.48	492.89	523.82	8.62	7.74	3.87
4,243.00	82.30	85.60	3,953.61	359.07	524.39	555.43	8.03	7.81	1.88
4,262.00	84.10	86.00	3,955.86	360.45	543.21	574.29	9.70	9.47	2.11
4,294.00	86.90	86.50	3,958.37	362.54	575.04	606.17	8.89	8.75	1.56
4,325.00	88.00	86.50	3,959.75	364.43	605.95	637.13	3.55	3.55	0.00
4,357.00	88.40	86.40	3,960.76	366.41	637.87	669.10	1.29	1.25	-0.31
4,388.00	91.30	86.90	3,960.84	368.22	668.82	700.08	9.49	9.35	1.61
4,483.00	91.00	88.00	3,958.93	372.45	763.70	794.94	1.20	-0.32	1.16
4,547.00	91.10	88.50	3,957.76	374.40	827.66	858.81	0.80	0.16	0.78
4,642.00	91.10	89.60	3,955.94	375.98	922.63	953.51	1.16	0.00	1.16
4,737.00	90.70	91.10	3,954.44	375.40	1,017.61	1,048.03	1.63	-0.42	1.58
4,832.00	90.80	90.70	3,953.20	373.90	1,112.59	1,142.47	0.43	0.11	-0.42
4,928.00	89.50	91.50	3,952.95	372.06	1,208.57	1,237.86	1.59	-1.35	0.83
5,023.00	89.50	91.40	3,953.78	369.66	1,303.54	1,332.20	0.11	0.00	-0.11
5,118.00	89.50	91.40	3,954.61	367.34	1,398.50	1,426.54	0.00	0.00	0.00
5,213.00	89.60	90.50	3,955.35	365.76	1,493.49	1,520.97	0.95	0.11	-0.95
5,307.00	89.10	89.80	3,956.42	365.51	1,587.48	1,614.53	0.92	-0.53	-0.74
5,402.00	90.10	90.70	3,957.08	365.10	1,682.47	1,709.08	1.42	1.05	0.95
5,497.00	89.80	90.40	3,957.17	364.19	1,777.47	1,803.58	0.45	-0.32	-0.32
5,591.00	90.40	89.30	3,957.00	364.43	1,871.47	1,897.20	1.33	0.64	-1.17
5,687.00	90.00	89.00	3,956.67	365.86	1,967.46	1,992.90	0.52	-0.42	-0.31
5,783.00	90.60	90.00	3,956.16	366.70	2,063.45	2,088.56	1.21	0.63	1.04
5,878.00	91.60	90.40	3,954.34	366.36	2,158.43	2,183.10	1.13	1.05	0.42
6,003.00	90.80	90.30	3,951.72	365.60	2,283.40	2,307.46	0.64	-0.64	-0.08
6,067.00	90.60	90.40	3,950.94	365.21	2,347.39	2,371.14	0.35	-0.31	0.16
6,162.00	90.50	90.30	3,950.03	364.63	2,442.39	2,465.67	0.15	-0.11	-0.11
6,257.00	90.30	90.20	3,949.37	364.22	2,537.38	2,560.22	0.24	-0.21	-0.11
6,351.00	90.30	89.40	3,948.87	364.54	2,631.38	2,653.85	0.85	0.00	-0.85
6,446.00	91.10	90.60	3,947.71	364.54	2,726.37	2,748.43	1.52	0.84	1.26
6,541.00	91.50	90.10	3,945.56	363.96	2,821.35	2,842.94	0.67	0.42	-0.53
6,637.00	90.50	91.00	3,943.88	363.04	2,917.32	2,938.42	1.40	-1.04	0.94



Phoenix Technology Services LP
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #11H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3605.00usft (Silver Oak 3)
Site:	Beech 25 Federal	MD Reference:	KB @ 3605.00usft (Silver Oak 3)
Well:	#11H	North Reference:	Grid
Wellbore:	OH / Job #1412160	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000 GCR

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)
6,732.00	90.30	92.30	3,943.22	360.31	3,012.28	3,032.71	1.38	-0.21	1.37
6,826.00	90.60	92.80	3,942.48	356.12	3,106.18	3,125.82	0.62	0.32	0.53
6,921.00	91.60	95.90	3,940.66	348.92	3,200.88	3,219.44	3.43	1.05	3.26
7,012.00	90.70	99.30	3,938.83	336.89	3,291.05	3,308.11	3.86	-0.99	3.74
Last Phoenix MWD Survey									
7,087.00	90.50	99.80	3,938.04	324.45	3,365.00	3,380.59	0.72	-0.27	0.67
Projection to TD									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
930.00	929.96	-7.75	0.20	Tie-on to VES Gyro Survey
1,035.00	1,034.96	-8.48	-0.20	First Phoenix MWD Survey
7,012.00	3,938.83	336.89	3,291.05	Last Phoenix MWD Survey
7,087.00	3,938.04	324.45	3,365.00	Projection to TD

Checked By: _____ Approved By: _____ Date: _____