



October 2, 2014

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

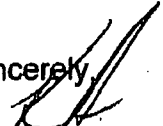
Attn: Kanicia Castillo

RE: Burch Keely Unit No. 900

30-015-40885

Please find enclosed a copy of the survey from 0.00' to 913.00' ran on the above referenced well.

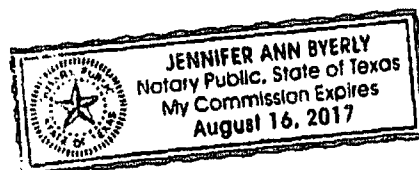
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 2 day of October
A.D., 2014, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas





Company: COG Operating, LLC (Concho)
Lease/Well: Burch Keely Unit/No. 900
Location: Unit 1 Sec 23 T17S R29E
Rig Name: Basic 38
State/County: New Mexico/Eddy
Latitude: 32.02, Longitude: -104.04
GRID North is 0.16 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 13 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut

Minimum Curvature Method

Report Date/Time: 10/2/2014 / 11:41

Vaughn Energy Services

West Texas

(432) 563-5444

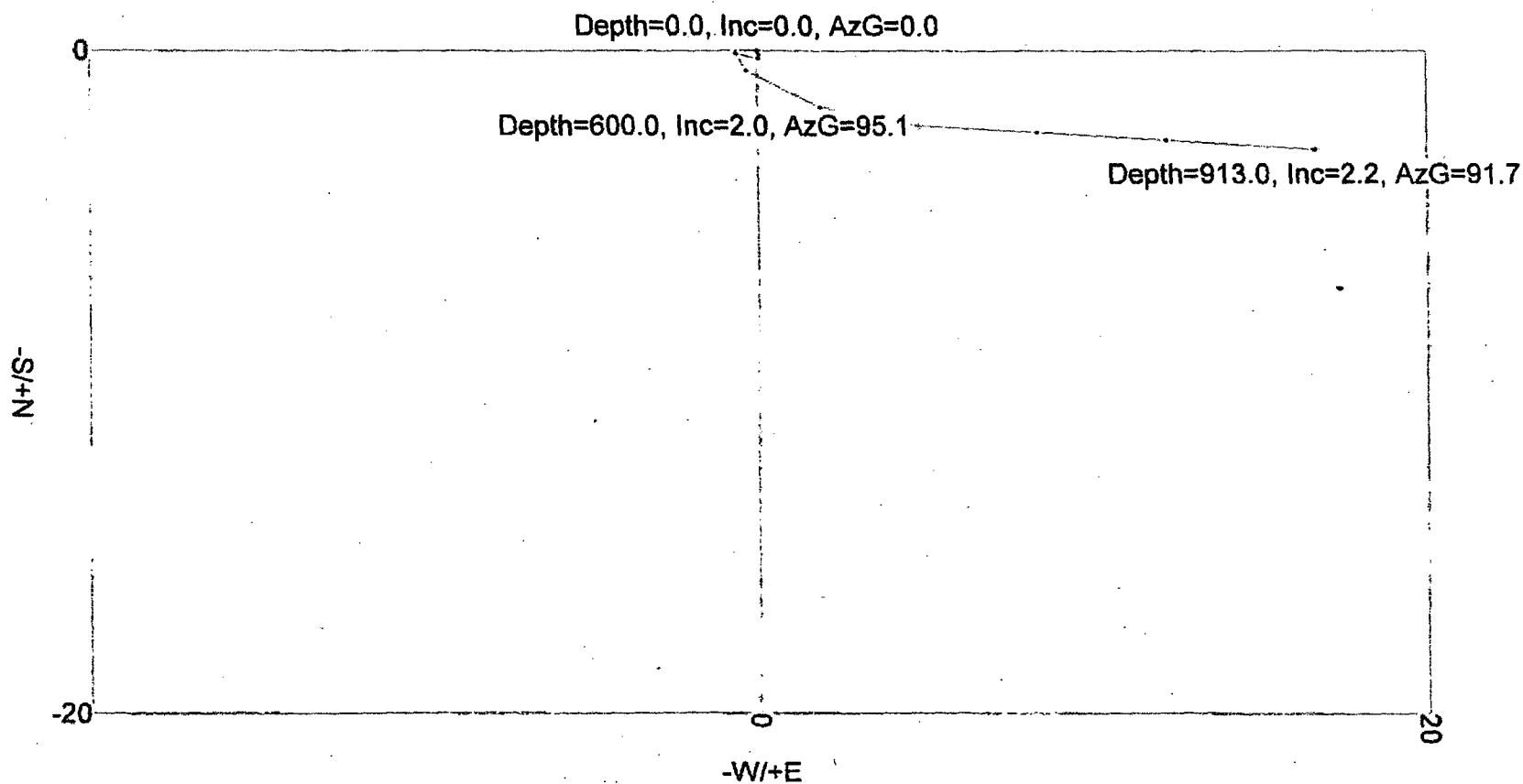
Surveyor: Noe Garza

Burch Keely Unit No. 900H / API 30-015-40885

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	0.15	156.06	100.00	-0.12	0.05	-0.12	0.13	156.06	0.15
200.00	0.08	270.96	200.00	-0.24	0.04	-0.24	0.24	170.18	0.20
300.00	0.72	283.42	300.00	-0.09	-0.63	-0.09	0.64	261.63	0.65
400.00	1.31	125.76	399.99	-0.61	-0.32	-0.61	0.69	207.50	1.99
500.00	1.52	107.94	499.96	-1.69	1.86	-1.69	2.51	132.15	0.48
600.00	1.97	95.10	599.91	-2.25	4.84	-2.25	5.33	114.93	0.60
700.00	2.09	91.32	699.85	-2.44	8.37	-2.44	8.72	106.27	0.18
800.00	2.33	96.64	799.78	-2.68	12.22	-2.68	12.51	102.39	0.29
913.00	2.18	91.67	912.69	-2.97	16.66	-2.97	16.92	100.12	0.19



Vaughn Energy Services
West Texas
(432) 563-5444
Surveyor: Noe Garza
Burch Keely Unit No. 900H / API 30-015-40885



V.E.S. Survey Date: 09/18/2014

OPERATOR COG Operating LLC
WELL/LEASE Burch Keely Unit #900
COUNTY Eddy Co., NM

STATE OF NEW MEXICO
DEVIATION REPORT

724	1.00
934	0.00
1097	2.00
1160	2.00
1223	2.30
1318	3.30
1445	4.70
1539	5.20
1634	4.90
1729	5.00
1824	4.50
1919	4.80
2014	5.00
2109	5.10
2583	5.70
2678	5.50
2773	5.30
2963	5.60
3153	5.80
3248	5.70
3343	5.50
3533	5.10
3722	5.30
3912	5.50
4102	5.20
4197	5.40
4292	5.50
4482	5.50
4671	5.50
4803	5.30

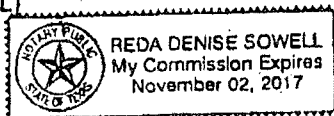
SIGNED BY: *Ron Scandolari*

RON SCANDOLARI, VP-CONTRACT DRILLING

STATE OF TEXAS
COUNTY OF MIDLAND

ON THIS 29 DAY OF September, 2014, BEFORE ME, R SOWELL, A NOTARY
PUBLIC, PERSONALLY APPEARED RON SCANDOLARI, WHO ACKNOWLEDGED AND EXECUTED
THIS DOCUMENT. WITNESS MY HAND AND OFFICIAL SEAL.

(SEAL)



Reda Denise Sowell
NOTARY PUBLIC



COG Operating LLC

Eddy County, NM (NAD27 NME)

Burch Keely Unit

#900

WB1 / Job #1411733

Design: Surveys (Basic 38)

Standard Survey Report

23 September, 2014.





Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #900
Project:	Eddy County, NM (NAD27,NME)	TVD Reference:	KB @ 3603.00usft (Basic 38)
Site:	Burch Keely Unit	MD Reference:	KB @ 3603.00usft (Basic 38)
Well:	#900	North Reference:	Grid
Wellbore:	WB1 / Job #1411733	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Basic 38)	Database:	GCR'DB

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:	Burch Keely Unit		
Site Position:	Northings:	666,591.10 usft	Latitude: 32° 49' 55.74916 N
From: Map	Easting:	596,305.50 usft	Longitude: 104° 1' 11.28420 W
Position Uncertainty:	0.00 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.17 "

Well:	#900		
Well Position	+N-S	0.00 usft	Northings: 661,832.20 usft
	+E-W	0.00 usft	Easting: 591,128.80 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Ground Level:	3,591.00 usft

Wellbore:	WB1 / Job #1411733		
Magnetics:	Model Name	Sample Date	Declination
	IGRF2010_14	09/09/14	7.45
			Dip Angle
			60.58
			Field Strength
			48,588

Design:	Surveys (Basic 38)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			22.48

Survey Program	Date: 09/23/14		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	913.00	VES Gyro Survey (WB1 / Job #1411733)	VES-ISCWSA-GYRO-3
1,096.00	4,815.00	Phoenix MWD Survey (WB1 / Job #141173)	PHX+MWD+IGRF
			Description
			Biaxial Semi-Cont. Gyro
			PHX+MWD+IGRF v3: standard declination

Survey										
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(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	
100.00	0.15	156.06	100.00	-0.12	0.05	-0.09	0.15	0.15	0.00	
200.00	0.08	270.96	200.00	-0.24	0.04	-0.21	0.20	-0.07	114.90	
300.00	0.72	283.42	300.00	-0.09	-0.64	-0.33	0.64	0.64	12.46	
400.00	1.31	125.76	399.99	-0.61	-0.33	-0.69	1.99	0.59	-157.66	
500.00	1.52	107.94	499.96	-1.69	1.86	-0.85	0.48	0.21	-17.82	
600.00	1.97	95.10	599.91	-2.25	4.84	-0.23	0.59	0.45	-12.84	
700.00	2.09	91.32	699.85	-2.45	8.37	0.94	0.18	0.12	-3.78	
800.00	2.33	95.64	799.78	-2.69	12.22	2.19	0.29	0.24	4.32	
913.00	2.18	91.67	912.69	-2.98	16.65	3.62	0.19	-0.13	-3.51	



Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #900:
Project:	Eddy County, NM (NAD27, NME)	TVD Reference:	KB @ 3603.00usft (Basic 38)
Site:	Burch Keely Unit	MD Reference:	KB @ 3603.00usft (Basic 38)
Well:	#900	North Reference:	Grid
Wellbore:	WB1 / Job #1411733	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Basic 38)	Database:	GCR DB

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)
Tie-on to VES Gyro Survey									
1,096.00	1.98	99.40	1,095.57	-3.59	23.25	5.57	0.19	-0.11	4.22
First Phoenix MWD Survey									
1,128.00	1.98	92.81	1,127.55	-3.71	24.35	5.88	0.71	0.00	-20.59
1,160.00	2.02	77.25	1,159.53	-3.61	25.45	6.39	1.70	0.13	-48.63
1,255.00	2.51	34.89	1,254.45	-1.54	28.27	9.39	1.79	0.52	-44.59
1,350.00	3.65	25.13	1,349.32	2.91	30.75	14.44	1.32	1.20	-10.27
1,445.00	4.66	18.72	1,444.07	9.30	33.27	21.31	1.17	1.06	-6.75
1,539.00	5.19	19.07	1,537.73	16.93	35.88	29.37	0.56	0.56	0.37
1,634.00	4.88	18.10	1,632.36	24.84	38.54	37.69	0.34	-0.33	-1.02
1,727.00	5.01	15.73	1,725.01	32.50	40.87	45.66	0.26	0.14	-2.55
1,823.00	4.48	13.09	1,820.68	40.19	42.86	53.52	0.60	-0.55	-2.75
1,919.00	4.75	11.68	1,916.37	47.74	44.51	61.13	0.31	0.28	-1.47
2,015.00	5.01	9.84	2,012.03	55.76	46.03	69.12	0.32	0.27	-1.92
2,110.00	5.05	9.84	2,106.66	63.96	47.46	77.25	0.04	0.04	0.00
2,205.00	5.27	12.12	2,201.27	72.35	49.09	85.62	0.32	0.23	2.40
2,301.00	5.76	15.90	2,296.83	81.29	51.33	94.74	0.64	0.51	3.94
2,397.00	5.67	17.66	2,392.35	90.45	54.09	104.25	0.21	-0.09	1.83
2,490.00	5.63	20.12	2,484.90	99.11	57.05	113.39	0.26	-0.04	2.85
2,583.00	5.71	18.01	2,577.45	107.79	60.05	122.56	0.24	0.09	-2.27
2,678.00	5.45	18.45	2,672.00	116.56	62.94	131.77	0.28	-0.27	0.46
2,773.00	5.32	18.01	2,766.58	125.03	65.73	140.66	0.14	-0.14	-0.46
2,868.00	5.36	15.64	2,861.16	133.49	68.29	149.46	0.24	0.04	-2.49
2,962.00	5.63	21.53	2,954.73	142.01	71.16	158.43	0.66	0.29	6.27
3,057.00	5.67	22.14	3,049.27	150.69	74.64	167.78	0.08	0.04	0.64
3,153.00	5.76	23.46	3,144.79	159.50	78.35	177.34	0.17	0.09	1.38
3,248.00	5.71	24.52	3,239.32	168.18	82.21	186.83	0.12	-0.05	1.12
3,343.00	5.45	22.41	3,333.87	176.65	85.89	196.06	0.35	-0.27	-2.22
3,438.00	5.23	21.62	3,428.46	184.84	89.20	204.91	0.24	-0.23	-0.83
3,533.00	5.10	23.55	3,523.07	192.74	92.49	213.46	0.23	-0.14	2.03
3,628.00	5.19	23.55	3,617.69	200.55	95.89	221.97	0.09	0.09	0.00
3,723.00	5.32	17.57	3,712.29	208.69	98.94	230.66	0.59	0.14	-6.29
3,817.00	5.45	17.40	3,805.87	217.10	101.59	239.45	0.14	0.14	-0.18
3,912.00	5.45	18.89	3,900.45	225.67	104.40	248.44	0.15	0.00	1.57
4,007.00	5.54	21.44	3,995.01	234.21	107.53	257.53	0.27	0.09	2.68
4,102.00	5.19	22.06	4,089.59	242.46	110.82	266.41	0.37	-0.37	0.65
4,197.00	5.36	21.00	4,184.19	250.59	114.03	275.14	0.21	0.18	-1.12
4,292.00	5.49	19.24	4,278.76	259.02	117.12	284.12	0.22	0.14	-1.85
4,387.00	5.41	14.23	4,373.34	267.65	119.71	293.09	0.51	-0.08	-5.27
4,482.00	5.49	15.73	4,467.91	276.37	122.05	302.03	0.17	0.08	1.58
4,577.00	5.54	15.55	4,562.47	285.16	124.51	311.10	0.06	0.05	-0.19
4,671.00	5.49	14.32	4,656.03	293.89	126.84	320.05	0.14	-0.05	-1.31
4,766.00	5.32	15.46	4,750.61	302.53	129.13	328.92	0.21	-0.18	1.20



Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #900
Project:	Eddy County NM (NAD27, NME)	TVD Reference:	KB @ 3603.00usft (Basic 38)
Site:	Burch Keely Unit	MD Reference:	KB @ 3603.00usft (Basic 38)
Well:	#900	North Reference:	Grid
Wellbore:	WB1 / Job #1411733	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Basic 38)	Database:	GCR 08

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)
Last Phoenix MWD Survey									
4,815.00	5.32	15.46	4,799.40	306.91	130.35	333.43	0.00	0.00	0.00
Projection to TD									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
913.00	912.69	-2.98	16.65	Tie-on to VES Gyro Survey
1,096.00	1,095.57	-3.59	23.25	First Phoenix MWD Survey
4,766.00	4,750.61	302.53	129.13	Last Phoenix MWD Survey
4,815.00	4,799.40	306.91	130.35	Projection to TD

Checked By: _____ Approved By: _____ Date: _____