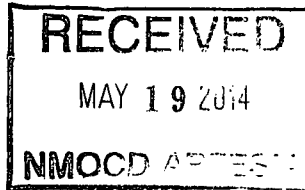




PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288



February 3, 2014

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

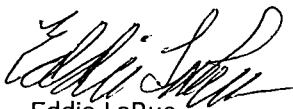
30-015-41866

RE: SRO State Unit #46H
190' FNL & 550' FWL
Sec. 5, T26S, R28E
Eddy County, New Mexico

Dear Sir,

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

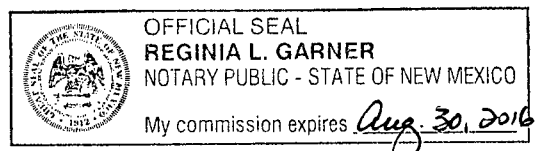
Very truly yours,


Eddie LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 3^d day of February, 2014.


Notary Public



SRO State Unit #46H

Date	Depth	Deviation	Direction	TVD	Horiz Disp
1/14/2014	114	0.50	0.00	0.00	0.00
1/14/2014	203	0.90	0.00	0.00	0.00
1/14/2014	291	1.30	0.00	0.00	0.00
1/14/2014	377	1.60	0.00	0.00	0.00
1/15/2014	466	1.90	0.00	0.00	0.00
1/17/2014	689	1.30	0.00	0.00	0.00
1/17/2014	934	0.30	0.00	0.00	0.00
1/17/2014	1178	0.40	0.00	0.00	0.00
1/17/2014	1422	1.70	0.00	0.00	0.00
1/17/2014	1668	0.90	0.00	0.00	0.00
1/18/2014	1912	0.60	0.00	0.00	0.00
1/18/2014	2127	0.30	0.00	0.00	0.00
1/19/2014	2390	0.00	0.00	0.00	0.00
1/20/2014	2832	0.40	0.00	0.00	0.00
1/20/2014	3243	0.80	0.00	0.00	0.00
1/20/2014	3653	0.30	0.00	0.00	0.00
1/20/2014	4094	0.40	0.00	0.00	0.00
1/20/2014	4535	0.30	0.00	0.00	0.00
1/21/2014	4978	0.90	0.00	0.00	0.00
1/21/2014	5404	0.90	170.40	5403.60	0.00
1/22/2014	5435	2.20	170.90	5434.00	138.83
1/22/2014	5498	9.80	186.10	5497.00	7.36
1/22/2014	5530	13.50	187.00	5528.00	0.92
1/22/2014	5562	16.20	190.00	5559.00	0.00
1/22/2014	5625	20.50	186.20	5619.00	0.00
1/22/2014	5657	23.10	184.20	5649.10	38.60
1/22/2014	5815	38.90	186.40	5784.50	118.90
1/23/2014	5911	48.40	184.30	5853.00	185.00
1/23/2014	5942	51.30	185.90	5873.60	0.00
1/23/2014	5974	55.10	186.20	5892.00	234.00
1/23/2014	6006	59.30	185.80	5910.10	261.10
1/23/2014	6038	65.60	186.60	5924.90	289.40
1/24/2014	6069	72.00	187.20	5836.00	318.00
1/24/2014	6100	78.90	187.10	5943.00	348.00
1/24/2014	6192	87.40	184.10	5954.90	439.17
1/24/2014	6288	89.80	183.00	5957.20	535.10
1/25/2014	6381	91.90	183.30	5955.80	628.00
1/25/2014	6474	91.10	180.20	5953.40	721.00
1/25/2014	6567	88.40	179.50	5953.80	813.90
1/25/2014	6758	90.90	181.30	5956.00	1004.00
1/25/2014	6852	90.50	180.60	5955.00	1098.00
1/25/2014	6946	89.90	181.00	5955.00	1192.00
1/25/2014	7230	89.90	183.20	5954.10	1476.70

Date	Depth	Deviation	Direction	TVD	Horiz Disp
1/25/2014	7401	90.90	182.80	5954.80	1287.78
1/25/2014	7419	89.30	183.30	5955.40	1665.70
1/26/2014	7513	91.40	183.80	5954.90	1759.60
1/26/2014	7608	90.90	183.00	5953.00	1854.60
1/26/2014	7702	92.10	184.20	5950.50	1948.50
1/26/2014	7797	90.90	182.20	5948.00	2043.00
1/26/2014	7891	96.70	180.90	5950.00	2137.00
1/26/2014	7986	87.70	181.40	5954.60	2232.40
1/26/2014	8079	88.44	181.90	5955.80	2325.60
1/26/2014	8268	90.00	181.90	5961.70	2568.10
1/27/2014	8394	89.90	182.30	5961.90	2640.10
1/27/2014	8457	89.40	182.10	5962.40	2703.10
1/27/2014	8551	89.50	182.60	5963.30	2797.10
1/27/2014	8740	89.50	183.30	5962.00	2986.00
1/27/2014	8835	90.90	182.30	5962.00	3081.00
1/27/2014	8929	90.30	182.50	5963.30	3175.10
1/27/2014	9025	91.50	183.00	5959.97	3271.50
1/28/2014	9115	92.00	180.50	5959.10	3361.00
1/28/2014	9210	92.10	179.60	5955.00	3456.00
1/28/2014	9304	91.10	180.20	5953.00	3579.90
1/28/2014	9399	90.30	180.80	5951.90	3644.80
1/28/2014	9494	89.30	180.40	5952.20	3739.80
1/29/2014	9590	90.00	180.00	5952.70	3835.70
1/29/2014	9683	89.30	179.10	5953.30	3988.10
1/29/2014	9777	89.60	179.00	5954.30	4022.40
1/29/2014	9873	91.00	178.60	5953.00	4118.00
1/29/2014	9968	88.20	178.80	5954.00	4213.00
1/29/2014	10063	88.40	179.10	5958.00	4269.00
1/29/2014	10158	88.50	178.90	5959.80	4402.60
1/29/2014	10284	89.50	179.10	5962.30	4528.40
1/29/2014	10442	89.10	178.60	5964.30	4686.30

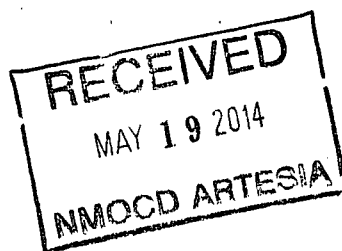


A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

February 13, 2014

COG Operating LLC (Concho)
One Concho Center
600 W. Illinois Avenue
Midland, TX 79701



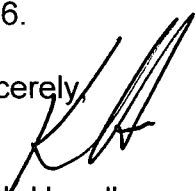
Attn: Kanicia Castillo

Re: **SRO State Unit No 046H**

Please find enclosed a copy of the survey from 0' to 5,361' ran on the above referenced well.

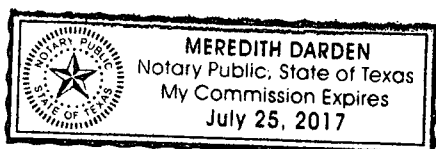
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

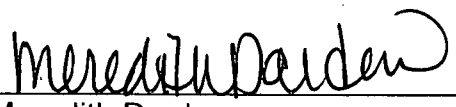
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 13th day of February A.D., 2014, by Keith Havelka.




Meredith Darden
Notary Public, State of Texas



Company: COG Operating-Concho

Lease/Well: SRO State Unit /No 046H

Location: Sec 5 T26S R28E

Rig Name: Silver Oak #7

State/County: New Mexico/Eddy

Latitude: 32.08, Longitude: -104.12

GRID North is 0.12 Degrees East of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB = 18 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: sro state unit #46h-de_01.ut

Minimum Curvature Method

Report Date/Time: 2/13/2014 / 10:20

Vaughn Energy Services

West Texas

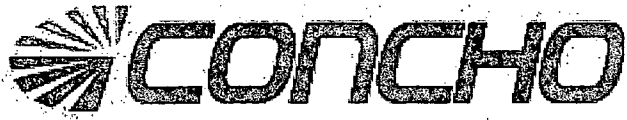
Surveyor: Chris Bankson

432-563-5444

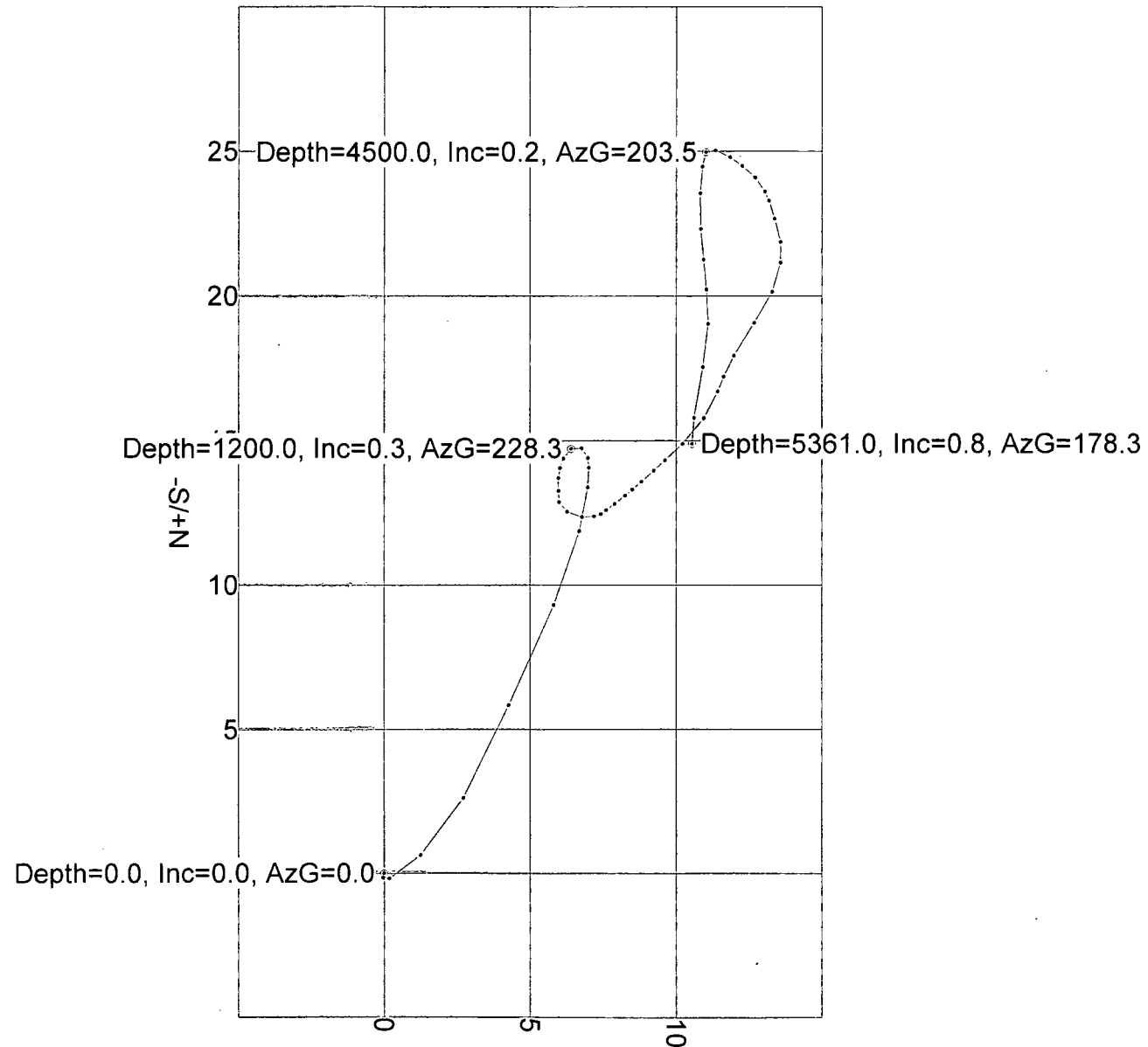
SRO State Unit No 046H / API 30-015-41866

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	0.19	194.12	100.00	-0.16	-0.04	-0.16	0.16	194.12	0.19
200.00	0.33	63.26	200.00	-0.19	0.17	-0.19	0.26	137.37	0.47
300.00	1.24	50.48	299.99	0.63	1.27	0.63	1.42	63.60	0.93
400.00	1.66	26.08	399.96	2.62	2.74	2.62	3.79	46.30	0.73
500.00	2.44	25.12	499.89	5.85	4.28	5.85	7.25	36.21	0.78
600.00	1.91	22.26	599.82	9.32	5.82	9.32	10.98	31.97	0.54
700.00	1.19	13.42	699.78	11.87	6.69	11.87	13.63	29.40	0.76
800.00	0.59	5.72	799.77	13.39	6.98	13.39	15.10	27.54	0.61
900.00	0.19	355.73	899.77	14.06	7.02	14.06	15.72	26.53	0.40
1000.00	0.21	352.68	999.77	14.41	6.98	14.41	16.02	25.85	0.03
1100.00	0.27	309.26	1099.77	14.75	6.78	14.75	16.23	24.68	0.19
1200.00	0.29	228.26	1199.77	14.73	6.41	14.73	16.06	23.51	0.36
1300.00	0.22	203.42	1299.77	14.38	6.14	14.38	15.64	23.12	0.13
1400.00	0.17	195.81	1399.76	14.06	6.02	14.06	15.30	23.19	0.06
1500.00	0.24	181.54	1499.76	13.71	5.98	13.71	14.96	23.56	0.09
1600.00	0.26	178.58	1599.76	13.27	5.98	13.27	14.56	24.25	0.02
1700.00	0.19	174.79	1699.76	12.88	6.00	12.88	14.21	24.98	0.07
1800.00	0.35	123.46	1799.76	12.54	6.27	12.54	14.02	26.57	0.28

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
1900.00	0.29	91.22	1899.76	12.37	6.78	12.37	14.10	28.74	0.19
2000.00	0.18	81.84	1999.76	12.38	7.19	12.38	14.32	30.15	0.11
2100.00	0.11	54.89	2099.76	12.46	7.43	12.46	14.51	30.80	0.10
2200.00	0.16	52.09	2199.76	12.60	7.61	12.60	14.72	31.15	0.05
2300.00	0.25	53.59	2299.76	12.82	7.90	12.82	15.06	31.66	0.10
2400.00	0.27	48.85	2399.76	13.10	8.26	13.10	15.48	32.22	0.03
2500.00	0.10	50.53	2499.76	13.31	8.50	13.31	15.79	32.56	0.16
2600.00	0.38	48.04	2599.75	13.59	8.81	13.59	16.20	32.97	0.27
2700.00	0.27	47.76	2699.75	13.96	9.23	13.96	16.74	33.47	0.11
2800.00	0.33	44.88	2799.75	14.33	9.61	14.33	17.25	33.85	0.07
2900.00	0.62	48.08	2899.75	14.90	10.22	14.90	18.06	34.45	0.29
3000.00	0.72	32.03	2999.74	15.79	10.95	15.79	19.21	34.75	0.21
3100.00	0.48	20.97	3099.74	16.71	11.43	16.71	20.24	34.39	0.26
3200.00	0.15	21.72	3199.73	17.22	11.63	17.22	20.78	34.04	0.32
3300.00	0.77	27.95	3299.73	17.94	12.00	17.94	21.58	33.77	0.62
3400.00	0.75	34.49	3399.72	19.08	12.69	19.08	22.91	33.62	0.09
3500.00	0.67	25.06	3499.71	20.15	13.31	20.15	24.15	33.44	0.14
3600.00	0.55	3.77	3599.71	21.16	13.59	21.16	25.14	32.71	0.26
3700.00	0.28	352.41	3699.71	21.87	13.58	21.87	25.75	31.85	0.28
3800.00	0.67	343.48	3799.70	22.67	13.39	22.67	26.32	30.57	0.40
3900.00	0.09	333.75	3899.70	23.29	13.19	23.29	26.77	29.52	0.58
4000.00	0.32	335.61	3999.70	23.61	13.04	23.61	26.97	28.92	0.23
4100.00	0.36	317.00	4099.70	24.09	12.72	24.09	27.24	27.83	0.12
4200.00	0.32	306.83	4199.70	24.48	12.28	24.48	27.39	26.64	0.07
4300.00	0.30	304.28	4299.69	24.80	11.84	24.80	27.48	25.52	0.03
4400.00	0.33	287.57	4399.69	25.03	11.35	25.03	27.49	24.39	0.10
4500.00	0.18	203.51	4499.69	24.97	11.01	24.97	27.29	23.80	0.36
4600.00	0.41	187.97	4599.69	24.47	10.90	24.47	26.79	24.01	0.24
4700.00	0.65	182.88	4699.69	23.54	10.82	23.54	25.91	24.69	0.24
4800.00	0.75	175.57	4799.68	22.31	10.84	22.31	24.81	25.91	0.13
4900.00	0.46	174.09	4899.67	21.26	10.93	21.26	23.91	27.22	0.29
5000.00	0.73	174.20	4999.67	20.23	11.04	20.23	23.04	28.63	0.26
5100.00	0.63	181.11	5099.66	19.05	11.09	19.05	22.04	30.22	0.13
5200.00	1.11	190.22	5199.65	17.54	10.91	17.54	20.66	31.88	0.50
5300.00	0.93	189.41	5299.63	15.79	10.61	15.79	19.02	33.89	0.19
5361.00	0.78	178.33	5360.63	14.89	10.54	14.89	18.24	35.28	0.36



Vaughn Energy Services
West Texas
Surveyor: Chris Bankson
432-563-5444
SRO State Unit No 046H / API 30-015-41866



VES Survey Date: 01/21/2014



Concho Oil and Gas

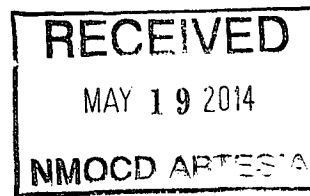
Eddy County, NM

Section 5-26S-28E SRO State Unit #46H

SRO State Unit #46H

Original Hole

Design: Original Hole



Standard Survey Report

30 January, 2014





Stryker Directional Survey Report



Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Well SRO State Unit #46H
Project:	Eddy County, NM	TVD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Site:	Section 5-26S-28E SRO State Unit #46H	MD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Well:	SRO State Unit #46H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

Project	Eddy County, NM		
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	Section 5-26S-28E SRO State Unit #46H		
Site Position:		Northing:	392,268.60 usft
From:	Map	Easting:	567,389.80 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 4' 41.791 N
		Longitude:	104° 6' 56.730 W
		Grid Convergence:	0.12 °

Well	SRO State Unit #46H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 4' 41.791 N
		Longitude:	104° 6' 56.730 W
		Ground Level:	3,004.9 usft

Wellbore	Original Hole		
----------	---------------	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/11/2013	7.52	59.90	48,223

Design	Original Hole		
--------	---------------	--	--

Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	182.14

Survey Program	Date 1/30/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
100.0	5,361.0	VES Gyro Survey #1 (Original Hole)	GyroFlex
5,404.0	10,492.0	MWD Survey #2 (Original Hole)	MWD
			Description
			MWD - Standard

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)
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	100.0	0.19	194.12	100.0	-0.2	0.0	0.2	0.19	0.19	0.00
	200.0	0.33	63.26	200.0	-0.2	0.2	0.2	0.48	0.14	-130.86
	300.0	1.24	50.48	300.0	0.6	1.3	-0.7	0.92	0.91	-12.78
	400.0	1.66	26.08	400.0	2.6	2.7	-2.7	0.74	0.42	-24.40
	500.0	2.44	25.12	499.9	5.8	4.3	-6.0	0.78	0.78	-0.96
	600.0	1.91	22.26	599.8	9.3	5.8	-9.5	0.54	-0.53	-2.86
	700.0	1.19	13.42	699.8	11.9	6.7	-12.1	0.76	-0.72	-8.84
	800.0	0.59	5.72	799.8	13.4	7.0	-13.6	0.61	-0.60	-7.70
	900.0	0.19	355.73	899.8	14.1	7.0	-14.3	0.40	-0.40	-9.99



Stryker Directional Survey Report



Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Well SRO State Unit #46H
Project:	Eddy County, NM	TVD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Site:	Section 5-26S-28E SRO State Unit #46H	MD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Well:	SRO State Unit #46H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User 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)
1,000.0	0.21	352.68	999.8	14.4	7.0	-14.7	0.02	0.02	-3.05
1,100.0	0.27	309.26	1,099.8	14.7	6.8	-15.0	0.19	0.06	-43.42
1,200.0	0.29	228.26	1,199.8	14.7	6.4	-15.0	0.36	0.02	-81.00
1,300.0	0.22	203.42	1,299.8	14.4	6.1	-14.6	0.13	-0.07	-24.84
1,400.0	0.17	195.81	1,399.8	14.1	6.0	-14.3	0.06	-0.05	-7.61
1,500.0	0.24	181.54	1,499.8	13.7	6.0	-13.9	0.09	0.07	-14.27
1,600.0	0.26	178.58	1,599.8	13.3	6.0	-13.5	0.02	0.02	-2.96
1,700.0	0.19	174.79	1,699.8	12.9	6.0	-13.1	0.07	-0.07	-3.79
1,800.0	0.35	123.46	1,799.8	12.5	6.3	-12.8	0.27	0.16	-51.33
1,900.0	0.29	91.22	1,899.8	12.4	6.8	-12.6	0.19	-0.06	-32.24
2,000.0	0.18	81.84	1,999.8	12.4	7.2	-12.7	0.12	-0.11	-9.38
2,100.0	0.11	54.89	2,099.8	12.5	7.4	-12.7	0.10	-0.07	-26.95
2,200.0	0.16	52.09	2,199.8	12.6	7.6	-12.9	0.05	0.05	-2.80
2,300.0	0.25	53.59	2,299.8	12.8	7.9	-13.1	0.09	0.09	1.50
2,400.0	0.27	48.85	2,399.8	13.1	8.2	-13.4	0.03	0.02	-4.74
2,500.0	0.10	50.53	2,499.8	13.3	8.5	-13.6	0.17	-0.17	1.68
2,600.0	0.38	48.04	2,599.8	13.6	8.8	-13.9	0.28	0.28	-2.49
2,700.0	0.27	47.76	2,699.8	14.0	9.2	-14.3	0.11	-0.11	-0.28
2,800.0	0.33	44.88	2,799.8	14.3	9.6	-14.7	0.06	0.06	-2.88
2,900.0	0.62	48.08	2,899.7	14.9	10.2	-15.3	0.29	0.29	3.20
3,000.0	0.72	32.03	2,999.7	15.8	10.9	-16.2	0.21	0.10	-16.05
3,100.0	0.48	20.97	3,099.7	16.7	11.4	-17.1	0.27	-0.24	-11.06
3,200.0	0.15	21.72	3,199.7	17.2	11.6	-17.7	0.33	-0.33	0.75
3,300.0	0.77	27.95	3,299.7	18.0	12.0	-18.4	0.62	0.62	6.23
3,400.0	0.75	34.49	3,399.7	19.1	12.7	-19.5	0.09	-0.02	6.54
3,500.0	0.67	25.06	3,499.7	20.2	13.3	-20.6	0.14	-0.08	-9.43
3,600.0	0.55	3.77	3,599.7	21.2	13.6	-21.7	0.25	-0.12	-21.29
3,700.0	0.28	352.41	3,699.7	21.9	13.6	-22.4	0.28	-0.27	-11.36
3,800.0	0.67	343.48	3,799.7	22.7	13.4	-23.2	0.40	0.39	-8.93
3,900.0	0.09	333.75	3,899.7	23.3	13.2	-23.8	0.58	-0.58	-9.73
4,000.0	0.32	335.61	3,999.7	23.6	13.0	-24.1	0.23	0.23	1.86
4,100.0	0.36	317.00	4,099.7	24.1	12.7	-24.6	0.12	0.04	-18.61
4,200.0	0.32	306.83	4,199.7	24.5	12.3	-25.0	0.07	-0.04	-10.17
4,300.0	0.30	304.28	4,299.7	24.8	11.8	-25.3	0.02	-0.02	-2.55
4,400.0	0.33	287.57	4,399.7	25.1	11.3	-25.5	0.10	0.03	-16.71
4,500.0	0.18	203.51	4,499.7	25.0	11.0	-25.4	0.36	-0.15	-84.06
4,600.0	0.41	187.97	4,599.7	24.5	10.9	-24.9	0.24	0.23	-15.54
4,700.0	0.65	182.88	4,699.7	23.6	10.8	-24.0	0.24	0.24	-5.09
4,800.0	0.75	175.57	4,799.7	22.4	10.8	-22.8	0.13	0.10	-7.31
4,900.0	0.46	174.09	4,899.7	21.3	10.9	-21.7	0.29	-0.29	-1.48
5,000.0	0.73	174.20	4,999.7	20.3	11.0	-20.7	0.27	0.27	0.11
5,100.0	0.63	181.11	5,099.7	19.1	11.1	-19.5	0.13	-0.10	6.91
5,200.0	1.11	190.22	5,199.6	17.6	10.9	-18.0	0.50	0.48	9.11



Stryker Directional Survey Report



Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Well SRO State Unit #46H
Project:	Eddy County, NM	TVD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Site:	Section 5-26S-28E SRO State Unit #46H	MD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Well:	SRO State Unit #46H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User 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)
5,300.0	0.93	189.41	5,299.6	15.9	10.6	-16.2	0.18	-0.18	-0.81
5,361.0	0.78	178.33	5,360.6	14.9	10.5	-15.3	0.36	-0.25	-18.16
5361' MD VES Gyro Survey									
5,404.0	0.90	170.40	5,403.6	14.3	10.6	-14.7	0.39	0.28	-18.44
5,435.0	2.20	170.90	5,434.6	13.5	10.7	-13.9	4.19	4.19	1.61
5,467.0	5.90	184.10	5,466.5	11.2	10.7	-11.6	11.85	11.56	41.25
5,498.0	9.80	186.10	5,497.2	7.0	10.3	-7.4	12.61	12.58	6.45
5,530.0	13.50	187.70	5,528.6	0.6	9.5	-1.0	11.61	11.56	5.00
5,562.0	16.20	190.00	5,559.5	-7.5	8.2	7.2	8.63	8.44	7.19
5,594.0	18.00	187.80	5,590.1	-16.8	6.8	16.5	5.98	5.63	-6.88
5,625.0	20.50	186.20	5,619.3	-26.9	5.6	26.7	8.24	8.06	-5.16
5,657.0	23.10	184.20	5,649.1	-38.8	4.5	38.6	8.45	8.13	-6.25
5,688.0	25.50	184.10	5,677.3	-51.5	3.6	51.3	7.74	7.74	-0.32
5,720.0	28.80	185.00	5,705.8	-66.0	2.4	65.9	10.39	10.31	2.81
5,752.0	32.30	185.20	5,733.3	-82.2	1.0	82.1	10.94	10.94	0.63
5,784.0	35.90	186.30	5,759.8	-100.1	-0.9	100.0	11.41	11.25	3.44
5,815.0	38.90	186.40	5,784.4	-118.8	-2.9	118.8	9.68	9.68	0.32
5,847.0	42.20	186.00	5,808.8	-139.5	-5.2	139.6	10.34	10.31	-1.25
5,879.0	45.50	185.40	5,831.8	-161.5	-7.4	161.7	10.39	10.31	-1.88
5,911.0	48.40	184.30	5,853.7	-184.8	-9.4	185.0	9.40	9.06	-3.44
5,942.0	51.30	185.90	5,873.7	-208.4	-11.5	208.7	10.15	9.35	5.16
5,974.0	55.10	186.20	5,892.8	-233.9	-14.2	234.3	11.90	11.88	0.94
6,006.0	59.30	185.80	5,910.2	-260.6	-17.0	261.1	13.17	13.13	-1.25
6,038.0	65.60	186.60	5,924.9	-288.8	-20.0	289.4	19.81	19.69	2.50
6,069.0	72.00	187.20	5,936.2	-317.5	-23.5	318.2	20.72	20.65	1.94
6,100.0	78.90	187.10	5,943.9	-347.3	-27.2	348.0	22.26	22.26	-0.32
6,192.0	87.40	184.10	5,954.9	-438.1	-36.1	439.1	9.79	9.24	-3.26
6,288.0	89.80	183.00	5,957.2	-533.8	-42.1	535.0	2.75	2.50	-1.15
6,381.0	91.90	183.30	5,955.9	-626.7	-47.2	628.0	2.28	2.26	0.32
6,474.0	91.10	180.20	5,953.4	-719.6	-50.0	721.0	3.44	-0.86	-3.33
6,567.0	88.40	179.50	5,953.8	-812.6	-49.8	813.9	3.00	-2.90	-0.75
6,662.0	88.50	181.20	5,956.4	-907.6	-50.4	908.8	1.79	0.11	1.79
6,758.0	90.90	181.30	5,956.9	-1,003.5	-52.5	1,004.8	2.50	2.50	0.10
6,852.0	90.50	180.60	5,955.8	-1,097.5	-54.0	1,098.8	0.86	-0.43	-0.74
6,946.0	89.90	181.00	5,955.4	-1,191.5	-55.3	1,192.7	0.77	-0.64	0.43
7,041.0	90.90	182.80	5,954.8	-1,286.4	-58.5	1,287.7	2.17	1.05	1.89
7,135.0	90.00	182.50	5,954.0	-1,380.3	-62.8	1,381.7	1.01	-0.96	-0.32
7,230.0	89.90	183.20	5,954.1	-1,475.2	-67.5	1,476.7	0.74	-0.11	0.74
7,325.0	89.60	182.90	5,954.5	-1,570.1	-72.6	1,571.7	0.45	-0.32	-0.32
7,419.0	89.30	183.30	5,955.4	-1,663.9	-77.7	1,665.7	0.53	-0.32	0.43
7,513.0	91.40	183.80	5,954.9	-1,757.7	-83.5	1,759.6	2.30	2.23	0.53
7,608.0	90.90	183.00	5,953.0	-1,852.6	-89.1	1,854.6	0.99	-0.53	-0.84
7,702.0	92.10	184.20	5,950.5	-1,946.3	-95.0	1,948.5	1.81	1.28	1.28



Stryker Directional Survey Report



Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Well SRO State Unit #46H
Project:	Eddy County, NM	TVD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Site:	Section 5-26S-28E SRO State Unit #46H	MD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Well:	SRO State Unit #46H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
7,797.0	90.90	182.20	5,948.0	-2,041.1	-100.3	2,043.5	2.45	-1.26	-2.11
7,891.0	86.70	180.90	5,950.0	-2,135.1	-102.9	2,137.4	4.68	-4.47	-1.38
7,986.0	87.70	181.40	5,954.6	-2,229.9	-104.8	2,232.3	1.18	1.05	0.53
8,079.0	88.40	181.90	5,957.8	-2,322.8	-107.5	2,325.2	0.92	0.75	0.54
8,174.0	88.40	181.00	5,960.4	-2,417.8	-109.9	2,420.2	0.95	0.00	-0.95
8,268.0	90.00	181.80	5,961.7	-2,511.7	-112.2	2,514.2	1.90	1.70	0.85
8,363.0	89.90	182.30	5,961.8	-2,606.7	-115.6	2,609.2	0.54	-0.11	0.53
8,457.0	89.40	182.10	5,962.4	-2,700.6	-119.2	2,703.2	0.57	-0.53	-0.21
8,551.0	89.50	182.60	5,963.3	-2,794.5	-123.0	2,797.2	0.54	0.11	0.53
8,646.0	89.70	182.20	5,964.0	-2,889.4	-127.0	2,892.2	0.47	0.21	-0.42
8,740.0	89.50	183.30	5,964.6	-2,983.3	-131.5	2,986.2	1.19	-0.21	1.17
8,835.0	90.90	182.30	5,964.3	-3,078.2	-136.1	3,081.1	1.81	1.47	-1.05
8,929.0	90.30	182.50	5,963.3	-3,172.1	-140.1	3,175.1	0.67	-0.64	0.21
9,025.0	91.50	183.00	5,961.8	-3,268.0	-144.7	3,271.1	1.35	1.25	0.52
9,115.0	92.00	180.50	5,959.0	-3,357.9	-147.4	3,361.1	2.83	0.56	-2.78
9,210.0	92.10	179.60	5,955.7	-3,452.8	-147.5	3,455.9	0.95	0.11	-0.95
9,304.0	91.10	180.20	5,953.0	-3,546.8	-147.4	3,549.8	1.24	-1.06	0.64
9,399.0	90.30	180.80	5,951.9	-3,641.8	-148.2	3,644.8	1.05	-0.84	0.63
9,494.0	89.30	180.40	5,952.2	-3,736.8	-149.2	3,739.7	1.13	-1.05	-0.42
9,590.0	90.00	180.00	5,952.8	-3,832.8	-149.5	3,835.7	0.84	0.73	-0.42
9,683.0	89.30	179.10	5,953.4	-3,925.8	-148.8	3,928.6	1.23	-0.75	-0.97
9,777.0	89.60	179.00	5,954.3	-4,019.8	-147.2	4,022.4	0.34	0.32	-0.11
9,873.0	91.00	178.60	5,953.8	-4,115.7	-145.2	4,118.3	1.52	1.46	-0.42
9,968.0	88.20	178.80	5,954.4	-4,210.7	-143.1	4,213.1	2.95	-2.95	0.21
10,063.0	88.40	179.10	5,957.2	-4,305.6	-141.3	4,307.9	0.38	0.21	0.32
10,158.0	88.50	178.90	5,959.8	-4,400.6	-139.7	4,402.7	0.24	0.11	-0.21
10,190.0	88.40	179.00	5,960.7	-4,432.6	-139.1	4,434.7	0.44	-0.31	0.31
10,221.0	88.90	179.10	5,961.4	-4,463.6	-138.6	4,465.6	1.64	1.61	0.32
10,253.0	89.20	179.10	5,961.9	-4,495.5	-138.1	4,497.6	0.94	0.94	0.00
10,284.0	89.50	179.10	5,962.3	-4,526.5	-137.6	4,528.5	0.97	0.97	0.00
10,316.0	89.50	178.90	5,962.6	-4,558.5	-137.0	4,560.5	0.62	0.00	-0.63
10,347.0	89.20	178.90	5,962.9	-4,589.5	-136.4	4,591.4	0.97	-0.97	0.00
10,379.0	89.10	178.90	5,963.4	-4,621.5	-135.8	4,623.4	0.31	-0.31	0.00
10,410.0	89.10	178.80	5,963.9	-4,652.5	-135.2	4,654.3	0.32	0.00	-0.32
10,442.0	89.10	178.60	5,964.4	-4,684.5	-134.5	4,686.2	0.62	0.00	-0.63
10,492.0	89.10	178.60	5,965.2	-4,734.5	-133.2	4,736.1	0.00	0.00	0.00

10492' MD Projected to Bit - PBHL SRO State Unit #46H



Stryker Directional Survey Report



Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Well SRO State Unit #46H
Project:	Eddy County, NM	TVD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Site:	Section 5-26S-28E SRO State Unit #46H	MD Reference:	GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
Well:	SRO State Unit #46H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,361.0	5,360.6	14.9	10.5	5361' MD VES Gyro Survey
10,492.0	5,965.2	-4,734.5	-133.2	10492' MD Projected to Bit



COMPANY: Concho Oil and Gas
WELL: SRO State Unit #46H
COUNTY: Eddy County, NM
DATUM: NAD 1927 (NADCON CONUS)
RIG: Silver Oak #7



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.40°

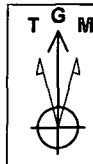
OFFICE: 936.582.7296

GEODETTIC ZONE: New Mexico East 3001
GL 3004.9 + 18 @ 3022.9usft (Silver Oak #7)
GROUND ELEVATION: 3004.9

+N/-S	+E/-W	North	East	Latitude	Longitude	Slot
0.0	0.0	392268.60	567389.80	32° 4' 41.791 N	104° 6' 56.730 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
1	5361.0	0.78	178.33	5360.6	14.9	10.5	0.00	0.00	-15.3	
2	5479.4	0.78	178.33	5479.0	13.3	10.6	0.00	0.00	-13.7	
3	6221.8	89.87	182.27	5950.0	-462.6	-7.9	12.00	3.94	462.6	
4	10527.2	89.87	182.27	5960.0	-4764.6	-178.4	0.00	0.00	4767.9	PBHL SRO State Unit #46H



Azimuths to Grid North
True North: -0.12°
Magnetic North: 7.40°

Magnetic Field
Strength: 48223.0nT
Dip Angle: 59.90°
Date: 12/11/2013
Model: IGRF2010

