

30-015-40413

July 8, 2015

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

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 17 2015

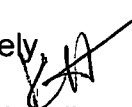
Attn: Kanicia Castillo

RECEIVED

RE: **Hogan State Com No 015H**

Please find enclosed a copy of the survey from 0' to 3670' ran on the above referenced well.

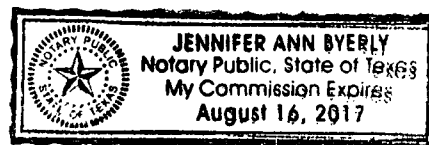
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 8 day of July,
A.D., 2015, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas





Company: Concho
Lease/Well: Hogan State Com No/015H

Rig Name: United 43
State/County: New Mexico/Eddy
VS-Azi: 0.00 Degrees

Latitude: 32.86172, Longitude: -104.03704
Grid North = True North -0.16 degs (NAD 27)
Grid Convergence Applied = -0.16 degs



Depth Reference : RKB = 12.5 Foot

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ... state com 15h_gyro survey.ut

Minimum Curvature Method

Report Date/Time: 7/8/2015 / 14:30

VES Survey International

Midland Tx

(432) 563-5444

Surveyor: Gene Heiss

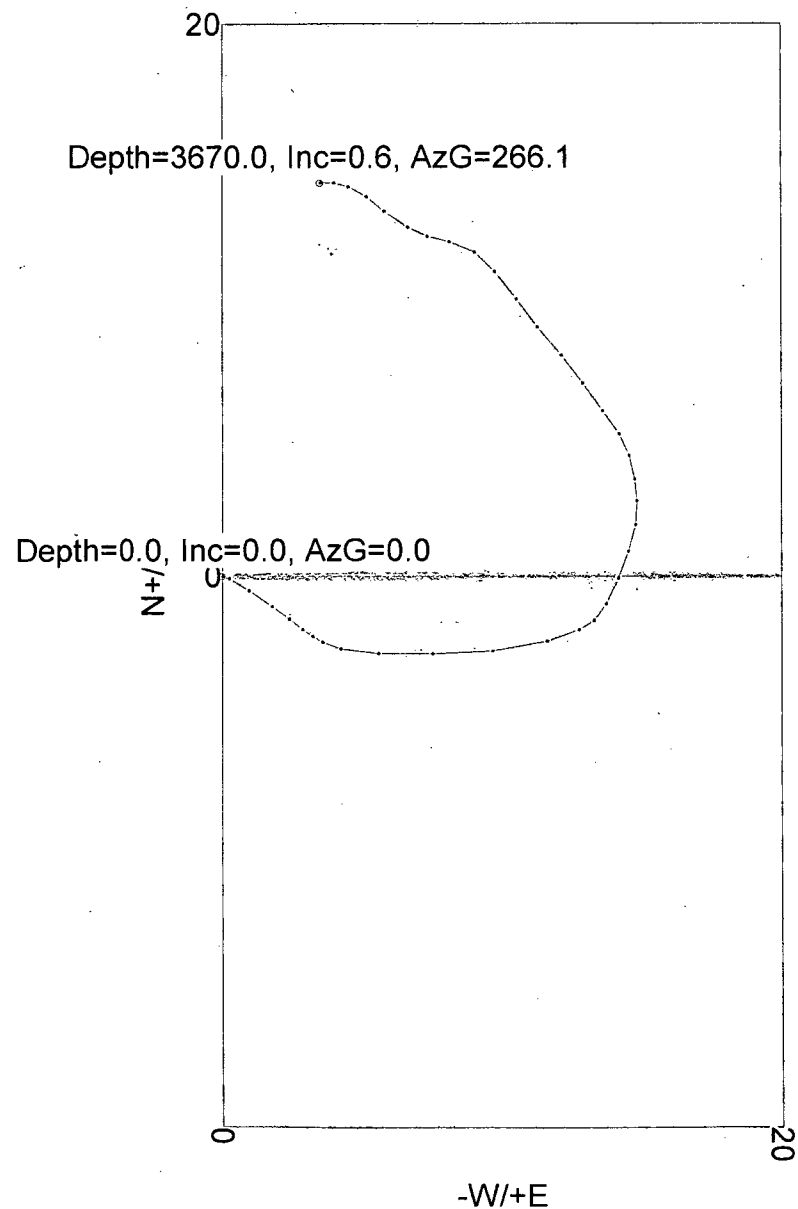
Hogan State Com No 015H / API 30-015-40413

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	0.30	108.59	100.00	-0.08	0.25	-0.08	0.27	108.59	0.30
200.00	0.65	127.53	200.00	-0.52	0.95	-0.52	1.08	118.38	0.38
300.00	0.50	122.37	299.99	-1.10	1.78	-1.10	2.09	121.70	0.16
400.00	0.36	131.37	399.99	-1.54	2.38	-1.54	2.84	122.86	0.16
500.00	0.35	126.20	499.99	-1.92	2.86	-1.92	3.45	123.93	0.03
600.00	0.16	124.59	599.99	-2.18	3.22	-2.18	3.89	124.13	0.19
700.00	0.32	117.34	699.98	-2.39	3.58	-2.39	4.31	123.70	0.16
800.00	0.49	105.92	799.98	-2.64	4.24	-2.64	4.99	121.86	0.18
900.00	1.07	92.59	899.97	-2.79	5.58	-2.79	6.24	116.59	0.61
1000.00	1.14	88.28	999.95	-2.81	7.51	-2.81	8.02	110.48	0.11
1100.00	1.33	86.44	1099.93	-2.70	9.67	-2.70	10.04	105.62	0.19
1200.00	0.95	70.68	1199.91	-2.36	11.61	-2.36	11.85	101.48	0.49
1300.00	0.44	68.44	1299.90	-1.94	12.76	-1.94	12.90	98.65	0.51
1400.00	0.28	43.04	1399.90	-1.62	13.28	-1.62	13.38	96.96	0.23
1500.00	0.59	31.32	1499.90	-1.00	13.72	-1.00	13.75	94.17	0.33
1600.00	0.58	18.50	1599.89	-0.08	14.15	-0.08	14.15	90.32	0.13

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
1700.00	0.61	20.94	1699.89	0.90	14.50	0.90	14.53	86.46	0.04
1800.00	0.54	9.08	1799.88	1.86	14.76	1.86	14.88	82.81	0.14
1900.00	0.48	356.39	1899.88	2.75	14.81	2.75	15.06	79.50	0.13
2000.00	0.42	351.47	1999.87	3.53	14.73	3.53	15.15	76.54	0.06
2100.00	0.57	343.59	2099.87	4.37	14.54	4.37	15.18	73.27	0.16
2200.00	0.42	324.90	2199.87	5.15	14.18	5.15	15.09	70.04	0.22
2300.00	0.76	324.78	2299.86	5.99	13.59	5.99	14.85	66.20	0.33
2400.00	0.64	325.72	2399.85	6.99	12.89	6.99	14.67	61.52	0.11
2500.00	0.81	321.52	2499.85	8.01	12.14	8.01	14.54	56.58	0.18
2600.00	0.72	318.95	2599.84	9.03	11.29	9.03	14.46	51.33	0.10
2700.00	0.73	327.64	2699.83	10.04	10.54	10.04	14.56	46.36	0.11
2800.00	0.73	316.83	2799.82	11.04	9.76	11.04	14.74	41.47	0.14
2900.00	0.45	308.55	2899.82	11.75	9.02	11.75	14.81	37.52	0.29
3000.00	0.70	281.79	2999.81	12.12	8.12	12.12	14.59	33.82	0.36
3100.00	0.21	290.54	3099.81	12.31	7.35	12.31	14.33	30.83	0.50
3200.00	0.68	297.17	3199.80	12.64	6.65	12.64	14.28	27.73	0.47
3300.00	0.50	314.46	3299.80	13.22	5.81	13.22	14.44	23.71	0.25
3400.00	0.46	304.34	3399.80	13.75	5.17	13.75	14.69	20.60	0.09
3500.00	0.40	292.67	3499.79	14.11	4.52	14.11	14.81	17.77	0.10
3600.00	0.23	273.41	3599.79	14.25	4.00	14.25	14.80	15.68	0.20
3670.00	0.59	266.09	3669.79	14.24	3.50	14.24	14.66	13.82	0.52



VES Survey International
Midland Tx
(432) 563-5444
Surveyor: Gene Heiss
Hogan State Com No 015H / API 30-015-40413



VES Survey Date: 7/4/2015

WELL NAME AND NUMBER Hogan State Com No. 15H
 LOCATION Section 2, T17S, R29E, Unit I, 2010 FSL, 220 FEL, Eddy Cty
 OPERATOR COG Operating LLC
 DRILLING CONTRACTOR United Drilling, Inc.

The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above described well and had conducted deviation test and obtained the following results:

Degrees @ Depth	Degrees @ Depth	Degrees @ Depth
.1° @ 357'	26.8° @ 4022'	89.4° @ 4885'
.4° @ 567'	29.9° @ 4054'	91.1° @ 4982'
1.0° @ 954'	32.1° @ 4087'	92.1° @ 5078'
1.2° @ 1273'	34.3° @ 4119'	92.7° @ 5174'
.7° @ 1467'	37.6° @ 4151'	91.1° @ 5271'
1.2° @ 1900'	40.4° @ 4184'	91.3° @ 5368'
.3° @ 2300'	43.5° @ 4216'	91.0° @ 5464'
.7° @ 2649'	47.7° @ 4248'	90.9° @ 5561'
.7° @ 3064'	54.9° @ 4313'	90.4° @ 5658'
1.2° @ 3447'	56.6° @ 4314'	90.4° @ 5754'
.7° @ 3733'	60.0° @ 4376'	90.2° @ 5851'
.7° @ 3766'	64.7° @ 4408'	90.1° @ 5947'
2.3° @ 3797'	70.2° @ 4473'	9.0° @ 6044'
5.2° @ 3829'	74.2° @ 4537'	89.9° @ 6140'
8.9° @ 3861'	81.4° @ 4602'	90.9° @ 6237'
13.0° @ 3893'	89.5° @ 4667'	90.8° @ 6334'
17.0° @ 3925'	89.8° @ 4692'	92.7° @ 6430'
23.7° @ 3990'	89.8° @ 4789'	92.4° @ 6527'

Drilling Contractor- UNITED DRILLING, INC.

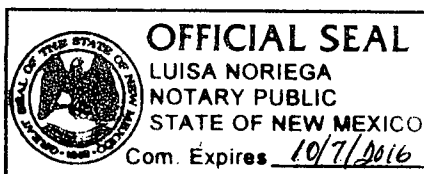
By: Angel Salazar
 (Angel Salazar)

Title: Vice President

Subscribed and sworn to before me this 14th day of July 2015:

Luisa Noriega
 Notary Public

My Commission Expires:



Chaves NM
 County State

WELL NAME AND NUMBER Hogan State Com No. 15H
 LOCATION Section 2, T17S, R29E, Unit I, 2010 FSL, 220 FEL, Eddy Cty
 OPERATOR COG Operating LLC
 DRILLING CONTRACTOR United Drilling, Inc.

The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above described well and had conducted deviation test and obtained the following results:

Degrees @ Depth	Degrees @ Depth	Degrees @ Depth
92.1° @ 6623'	90.3° @ 8450'	
91.6° @ 6719'	89.5° @ 8544'	
91.6° @ 6816'	89.0° @ 8639'	
92.0° @ 6911'	90.0° @ 8734'	
91.9° @ 7008'	90.9° @ 8797'	
90.2° @ 7104'		
90.1° @ 7294'		
91.7° @ 7391'		
92.0° @ 7488'		
92.1° @ 7585'		
92.0° @ 7681'		
91.8° @ 7797'		
91.6° @ 7874'		
91.7° @ 7970'		
92.0° @ 8067'		
90.5° @ 8163'		
91.1° @ 8258'		
90.8° @ 8354'		

Drilling Contractor- UNITED DRILLING, INC.

By: *Angel Salazar*
 (Angel Salazar)

Title: Vice President

Subscribed and sworn to before me this 14th day of July 2015.

Luisa Noriega
 Notary Public

Chaves NM
 County State

My Commission Expires:

