



March 1, 2017

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

Attn: Kanicia Castillo

RE: **Dodd Federal Unit No. 930H** - *430-015-43782*

Please find enclosed a copy of the survey from 0' to 830' ran on the above referenced well.

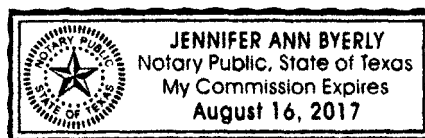
Sincerely,

[Signature]
Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 1st day of March, A.D., 2017, by Keith Havelka.

Jennifer Ann Byerly
Jennifer Ann Byerly
Notary Public, State of Texas

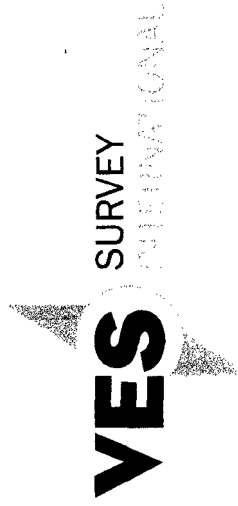




Company: COG Operating
Lease/Well: Dodd Federal Unit No./930H

Rig Name: Silver Oak 3
State/County: New Mexico/Eddy
VS-Azi: 0.00 Degrees

Latitude: 32.82693, Longitude: -104.05793
Grid North = True North -0.15 degs (NAD 27)
Grid Correction Applied = -0.15 degs



Depth Reference : RKB = 18 Foot

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey-de_01.ut
Minimum Curvature Method
Report Date/Time: 3/1/2017 / 11:43

VES Survey International
Midland Tx
(432) 563-5444

Surveyor: Gene Heiss

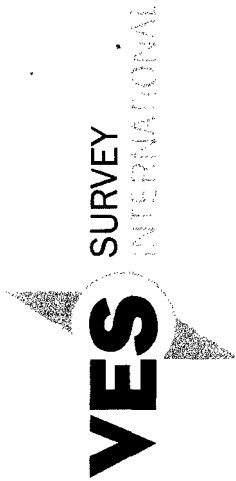
Dodd Federal Unit No. 930H / API 30-015-43782

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	****
25.00	0.11	75.96	25.00	0.01	0.02	0.01	0.02	75.96	0.44
50.00	0.06	16.99	50.00	0.02	0.05	0.02	0.05	65.05	0.37
75.00	0.17	315.00	75.00	0.06	0.03	0.06	0.07	23.22	0.62
100.00	0.31	303.62	100.00	0.13	-0.06	0.13	0.14	335.55	0.59
125.00	0.30	263.43	125.00	0.16	-0.18	0.16	0.24	311.32	0.84
150.00	0.32	252.70	150.00	0.13	-0.31	0.13	0.33	292.65	0.25
175.00	0.35	247.70	175.00	0.08	-0.45	0.08	0.45	280.06	0.17
200.00	0.38	230.84	200.00	0.00	-0.58	0.00	0.58	269.84	0.44
225.00	0.25	239.96	225.00	-0.08	-0.69	-0.08	0.70	263.37	0.55
250.00	0.23	243.27	250.00	-0.13	-0.78	-0.13	0.79	260.59	0.10
275.00	0.26	268.21	275.00	-0.15	-0.88	-0.15	0.90	260.14	0.44
300.00	0.31	273.48	300.00	-0.15	-1.01	-0.15	1.02	261.46	0.21
325.00	0.33	264.06	325.00	-0.15	-1.15	-0.15	1.16	262.31	0.23
350.00	0.27	250.02	350.00	-0.18	-1.27	-0.18	1.29	261.85	0.38
375.00	0.26	220.91	375.00	-0.25	-1.37	-0.25	1.39	259.79	0.54
400.00	0.18	203.75	400.00	-0.33	-1.42	-0.33	1.46	257.10	0.43

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
425.00	0.12	173.37	425.00	-0.39	-1.43	-0.39	1.48	254.93	0.39
450.00	0.14	172.45	450.00	-0.44	-1.43	-0.44	1.49	252.79	0.10
475.00	0.02	123.07	475.00	-0.47	-1.42	-0.47	1.50	251.52	0.53
500.00	0.10	74.15	500.00	-0.47	-1.40	-0.47	1.47	251.38	0.35
525.00	0.24	51.07	525.00	-0.43	-1.33	-0.43	1.40	252.08	0.62
550.00	0.34	50.64	550.00	-0.35	-1.24	-0.35	1.29	254.13	0.39
575.00	0.42	41.51	574.99	-0.24	-1.12	-0.24	1.14	258.11	0.42
600.00	0.46	37.47	599.99	-0.09	-1.00	-0.09	1.00	265.05	0.19
625.00	0.46	39.45	624.99	0.07	-0.87	0.07	0.87	274.62	0.07
650.00	0.52	43.48	649.99	0.23	-0.73	0.23	0.77	287.43	0.29
675.00	0.48	40.82	674.99	0.39	-0.58	0.39	0.70	303.78	0.18
700.00	0.60	48.64	699.99	0.56	-0.42	0.56	0.70	323.15	0.57
725.00	0.47	60.94	724.99	0.69	-0.23	0.69	0.73	341.75	0.69
750.00	0.45	80.58	749.99	0.76	-0.04	0.76	0.76	356.89	0.63
775.00	0.38	87.23	774.99	0.78	0.14	0.78	0.79	10.18	0.34
800.00	0.31	99.08	799.99	0.77	0.29	0.77	0.83	20.54	0.42
830.00	0.27	93.37	829.99	0.76	0.44	0.76	0.87	30.18	0.15

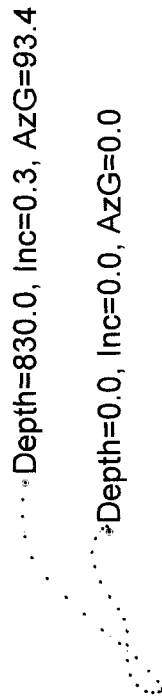


VES Survey International
Midland Tx
(432) 563-5444
Surveyor: Gene Heiss
Dodd Federal Unit No. 930H / API 30-015-43782



5

0
-S/+N



0
-W/+E

VES Survey Date: 2/22/2017

5



SURVEY

I Gene Heiss certify that I am employed by VES Survey International. That I did on the day(s) of 02/22/17 through 02/22/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 830.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of COG Operating for the Dodd Federal Unit Well # 931H API # 30-015-43782 in Eddy County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

A handwritten signature in black ink, appearing to read "Gene Heiss", is written over a horizontal line.

Gene Heiss
Service Technician
VES Survey International