



March 10, 2017

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

Attn: Kanicia Castillo

RE: **Dodd Federal Unit No. 918H** - 30-015-42940

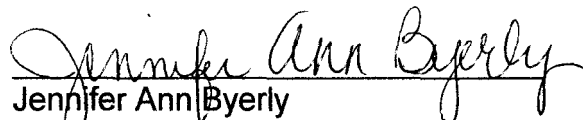
Please find enclosed a copy of the survey from 0' to 925' ran on the above referenced well.

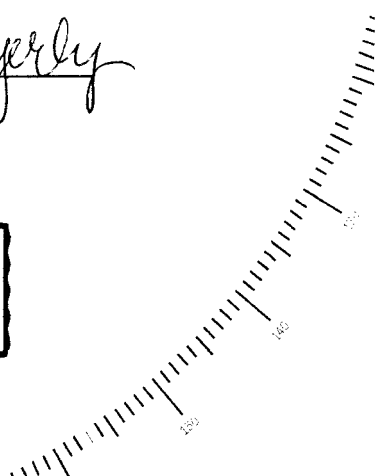
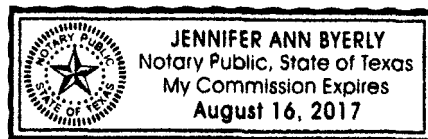
Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 10th day of March, A.D., 2017, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas





Company: COG OPERATING
 Lease/Well: DODD FEDERAL UNIT No.918H
 Rig Name: SILVER OAK 3
 State/County: NEW MEXICO/EDDY
 VS-Azi: 0.00 Degrees
 Latitude: 32.83700, Longitude: -104.05482
 Grid North = True North -0.15 degs (NAD 27)
 Grid Correction Applied = -0.15 degs

NM OIL CONSERVATION
 ARTESIA DISTRICT
 JUN 1 2 2017
 RECEIVED

Depth Reference : RKB 18 FEET
 DRILLOG HA GYRO SURVEY CALCULATIONS
 Filename: eline-de_01.ut
 Minimum Curvature Method
 Report Date/Time: 3/10/2017 / 10:57
 VES Survey International
 West Texas
 432-563-5444
 Surveyor: Dustin Byers
 Dodd Federal Unit No. 918H / API 30-015-42940

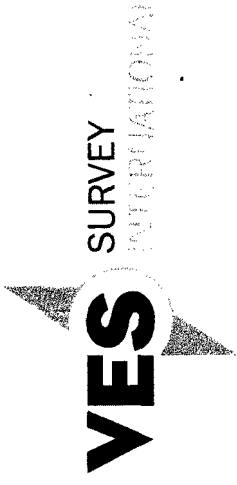
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
25.00	0.18	80.80	25.00	0.01	0.04	0.01	0.04	80.80	0.71
50.00	0.09	78.41	50.00	0.02	0.09	0.02	0.10	80.33	0.36
75.00	0.12	82.50	75.00	0.02	0.14	0.02	0.14	80.48	0.14
100.00	0.19	135.68	100.00	0.00	0.20	0.00	0.20	90.88	0.62
125.00	0.26	168.63	125.00	-0.09	0.24	-0.09	0.25	110.45	0.57
150.00	0.24	169.63	150.00	-0.19	0.26	-0.19	0.32	127.12	0.08
175.00	0.09	115.60	175.00	-0.25	0.28	-0.25	0.38	131.83	0.80
200.00	0.21	193.28	200.00	-0.31	0.29	-0.31	0.42	136.56	0.84
225.00	0.11	211.11	225.00	-0.37	0.27	-0.37	0.46	144.19	0.45
250.00	0.10	105.54	250.00	-0.40	0.28	-0.40	0.48	145.06	0.67
275.00	0.29	58.35	275.00	-0.37	0.35	-0.37	0.51	136.37	0.92
300.00	0.37	51.10	300.00	-0.29	0.47	-0.29	0.55	121.32	0.38
325.00	0.36	47.76	325.00	-0.18	0.59	-0.18	0.62	107.04	0.09
350.00	0.34	45.63	350.00	-0.08	0.70	-0.08	0.71	96.18	0.11
375.00	0.36	58.04	375.00	0.02	0.82	0.02	0.82	88.79	0.32
400.00	0.42	52.94	400.00	0.11	0.96	0.11	0.97	83.20	0.29

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	0.46	58.82	425.00	0.22	1.12	0.22	1.14	78.80	0.23
450.00	0.47	48.80	449.99	0.34	1.29	0.34	1.33	75.11	0.33
475.00	0.48	56.27	474.99	0.47	1.45	0.47	1.52	72.14	0.25
500.00	0.45	46.92	499.99	0.59	1.61	0.59	1.71	69.79	0.32
525.00	0.38	38.61	524.99	0.72	1.73	0.72	1.88	67.31	0.36
550.00	0.49	50.99	549.99	0.86	1.87	0.86	2.05	65.36	0.56
575.00	0.44	53.10	574.99	0.98	2.02	0.98	2.25	64.17	0.21
600.00	0.40	52.51	599.99	1.09	2.17	1.09	2.43	63.33	0.15
625.00	0.45	47.94	624.99	1.21	2.31	1.21	2.61	62.39	0.25
650.00	0.54	46.14	649.99	1.36	2.47	1.36	2.82	61.22	0.34
675.00	0.60	46.19	674.99	1.53	2.65	1.53	3.06	60.01	0.26
700.00	0.62	47.43	699.99	1.71	2.84	1.71	3.32	58.96	0.10
725.00	0.69	29.34	724.98	1.93	3.02	1.93	3.59	57.34	0.86
750.00	0.81	33.99	749.98	2.21	3.19	2.21	3.88	55.26	0.55
775.00	0.78	36.31	774.98	2.50	3.39	2.50	4.21	53.63	0.17
800.00	0.83	44.82	799.98	2.76	3.62	2.76	4.56	52.64	0.52
825.00	0.86	40.43	824.97	3.04	3.87	3.04	4.92	51.89	0.28
850.00	0.83	48.22	849.97	3.30	4.13	3.30	5.28	51.36	0.47
875.00	0.80	50.18	874.97	3.53	4.40	3.53	5.64	51.22	0.17
900.00	0.58	55.07	899.97	3.72	4.64	3.72	5.94	51.28	0.91
925.00	0.57	74.60	924.97	3.82	4.86	3.82	6.18	51.81	0.78



VES Survey International
West Texas
432-563-5444

Surveyor: Dustin Byers
Dodd Federal Unit No. 918H / API 30-015-42940



20

Depth=925.0, Inc=0.6, AzG=74.6

Depth=0.0, Inc=0.0, AzG=0.0
Z

0

20

-W/+E

VES Survey Date: 3/7/2017



NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 12 2017

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I Dustin Byers certify that I am employed by VES Survey International. That I did on the day(s) of 03/07/17 through 03/07/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 925.00 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 # 918H API # 30-015-42490 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.



Dustin Byers
Service Technician
VES Survey International