



August 22, 2014

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

30-015-H2501

Attn: Kanicia Castillo

RE: **Noose Federal Com No. 011H**

Please find enclosed a copy of the survey from 0.00' to 2348.00' ran on the above referenced well.

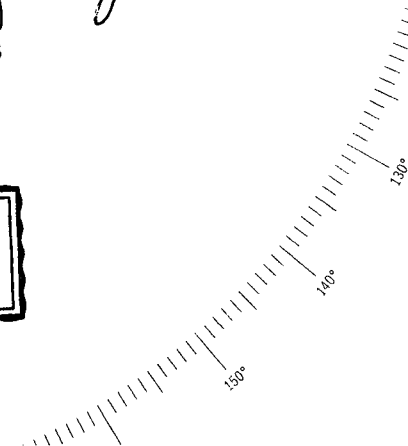
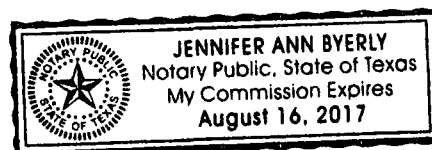
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 22 day of August, A.D., 2014, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas





Company: COG Operating, LLC (Concho)
Lease/Well: Noose Federal Com/No. 011H
Location: S35 T19S R25E
Rig Name: Silver Oak 3
State/County: New Mexico/Eddy
Latitude: 32.61, Longitude: -104.45
GRID North is 0.06 Degrees West of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 17 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 8/21/2014 / 15:04

VES Survey International
Midland, TX
432-563-5444

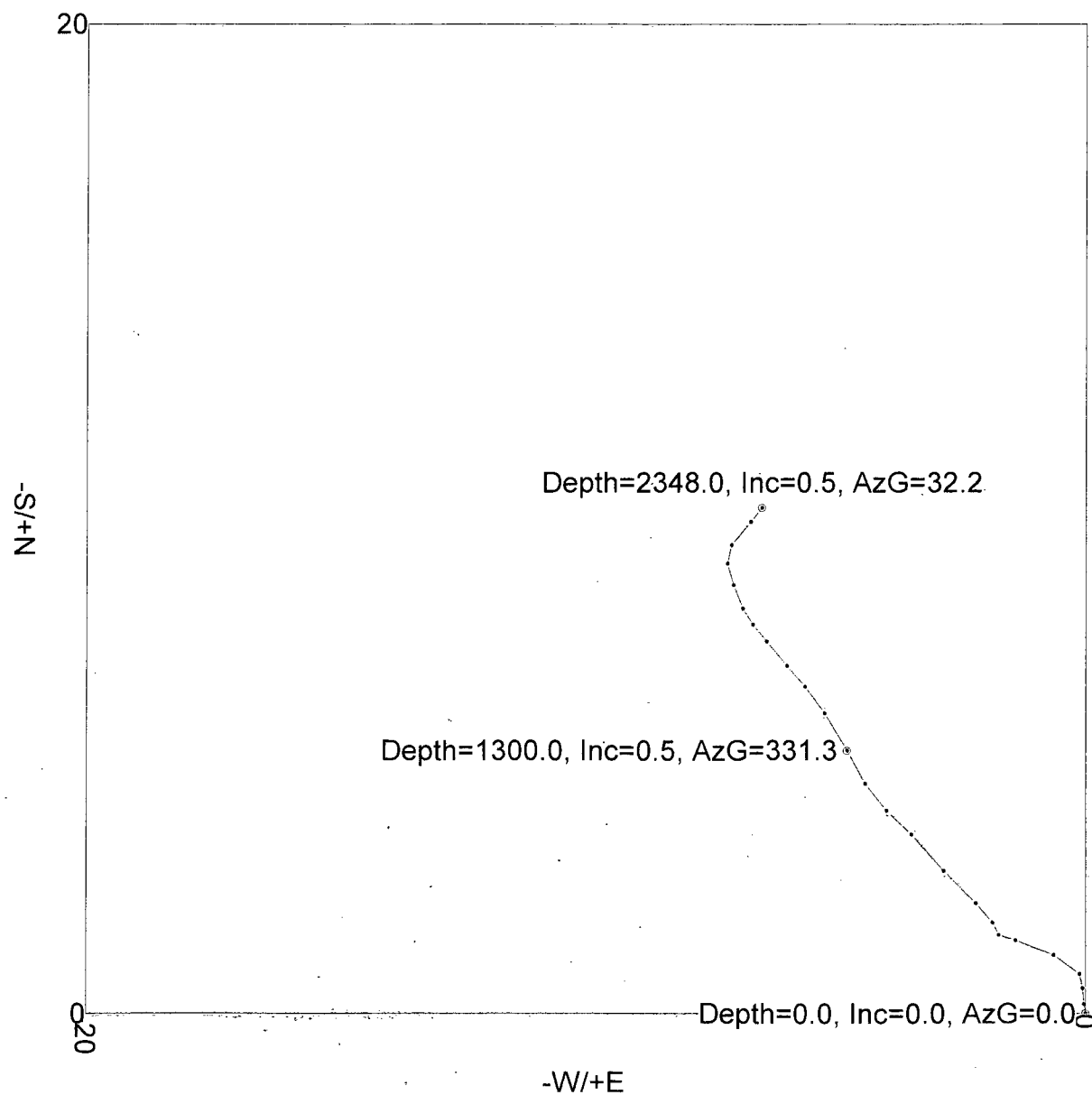
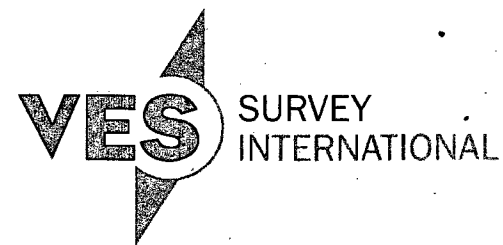
Surveyor: Andrew Askew
Noose Federal Com No. 011H / API 30-015-42501

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	0.22	348.70	100.00	0.19	-0.04	0.19	0.19	348.70	0.22
200.00	0.15	5.42	200.00	0.51	-0.06	0.51	0.51	352.84	0.09
300.00	0.21	337.01	300.00	0.80	-0.12	0.80	0.81	351.37	0.10
400.00	0.57	296.50	400.00	1.19	-0.64	1.19	1.35	331.87	0.43
500.00	0.37	284.10	499.99	1.49	-1.39	1.49	2.04	316.92	0.22
600.00	0.05	317.72	599.99	1.60	-1.73	1.60	2.36	312.68	0.33
700.00	0.27	335.78	699.99	1.85	-1.86	1.85	2.62	314.79	0.23
800.00	0.34	306.37	799.99	2.24	-2.19	2.24	3.13	315.55	0.17
900.00	0.72	320.32	899.99	2.89	-2.83	2.89	4.05	315.62	0.40
1000.00	0.39	316.18	999.98	3.62	-3.47	3.62	5.01	316.25	0.33
1100.00	0.40	312.64	1099.98	4.10	-3.96	4.10	5.70	316.02	0.03
1200.00	0.41	332.01	1199.98	4.65	-4.38	4.65	6.39	316.72	0.14
1300.00	0.46	331.29	1299.97	5.32	-4.74	5.32	7.13	318.30	0.05
1400.00	0.55	327.69	1399.97	6.09	-5.20	6.09	8.00	319.51	0.09
1500.00	0.22	314.23	1499.97	6.63	-5.59	6.63	8.67	319.85	0.34
1600.00	0.42	322.03	1599.97	7.05	-5.95	7.05	9.23	319.82	0.21
1700.00	0.31	318.38	1699.96	7.54	-6.36	7.54	9.86	319.86	0.12
1800.00	0.19	324.41	1799.96	7.88	-6.63	7.88	10.30	319.89	0.12

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	0.25	330.49	1899.96	8.20	-6.84	8.20	10.68	320.18	0.06
2000.00	0.34	344.73	1999.96	8.68	-7.02	8.68	11.16	321.01	0.12
2100.00	0.18	341.89	2099.96	9.11	-7.15	9.11	11.58	321.87	0.17
2200.00	0.30	30.37	2199.96	9.48	-7.06	9.48	11.82	323.31	0.23
2300.00	0.41	45.26	2299.96	9.95	-6.68	9.95	11.99	326.14	0.14
2348.00	0.46	32.25	2347.96	10.24	-6.45	10.24	12.10	327.77	0.24



VES Survey International
Midland, TX
432-563-5444
Surveyor: Andrew Askew
Noose Federal Com No. 011H / API 30-015-42501



V.E.S. Survey Date: 08/07/2014