



30-015-43465

February 5, 2016

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 11 2016

RECEIVED

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

Attn: Kanicia Castillo

RE: **Diamondback 22 State Com No 011H**

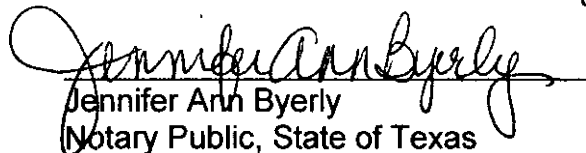
Please find enclosed a copy of the survey from 0' to 8590' ran on the above referenced well.

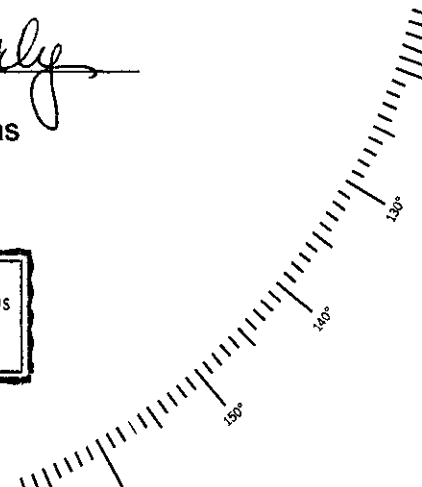
Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 5 day of February,
A.D., 2016, by Keith Havelka.

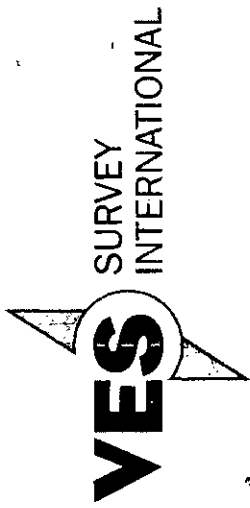

Jennifer Ann Byerly
Notary Public, State of Texas





Company: Concho

Lease/Well: Diamondback 22 State Com No/011H



Rig Name: Patriot 6

State/County: New Mexico/Eddy

VS-Azi: 168.81 Degrees

Latitude: 32.03470, Longitude: -104.07070

Grid North = True North -0.14 degs (NAD 27)

Grid Correction Applied = -0.14 degs

Depth Reference : RKB= 18 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...ondback 22 state com #011h.ut

Minimum Curvature Method

Report Date/Time: 2/5/2016 / 15:40

VES Survey International
West Texas

432-563-5444

Surveyor: Eric Warner

Diamondback 22 State Com No 011H / API 30-015-43465

NEW OIL CONSERVATION
ARTESIA DISTRICT
MAR 11 2016
RECEIVED

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	0.31	296.56	100.00	0.12	-0.24	-0.17	0.27	296.56	0.31
200.00	0.37	88.90	200.00	0.25	-0.16	-0.28	0.30	326.72	0.66
300.00	0.26	12.39	300.00	0.47	0.21	-0.42	0.52	23.57	0.40
400.00	0.22	122.81	400.00	0.59	0.42	-0.50	0.72	35.40	0.39
500.00	0.35	179.44	500.00	0.18	0.58	-0.06	0.61	73.26	0.30
600.00	0.68	129.61	599.99	-0.51	1.04	0.70	1.16	116.02	0.53
700.00	0.86	81.43	699.98	-0.77	2.24	1.19	2.37	109.06	0.65
800.00	-1.27	52.37	799.97	0.01	3.86	0.74	3.86	89.80	0.66
900.00	-0.93	34.41	899.95	1.36	5.20	-0.33	5.37	75.31	0.48
1000.00	1.04	32.82	999.93	2.80	6.15	-1.55	6.75	65.55	0.11
1100.00	0.31	52.40	1099.93	3.72	6.85	-2.32	7.80	61.50	0.76
1200.00	0.44	105.58	1199.93	3.78	7.43	-2.26	8.34	63.05	0.36
1300.00	0.52	115.04	1299.92	3.48	8.21	-1.82	8.92	67.01	0.11
1400.00	0.53	168.77	1399.92	2.84	8.71	-1.10	9.16	71.93	0.47
1500.00	0.49	237.16	1499.91	2.16	8.44	-0.48	8.71	75.65	0.57
1600.00	0.54	253.79	1599.91	1.80	7.63	-0.28	7.84	76.75	0.16

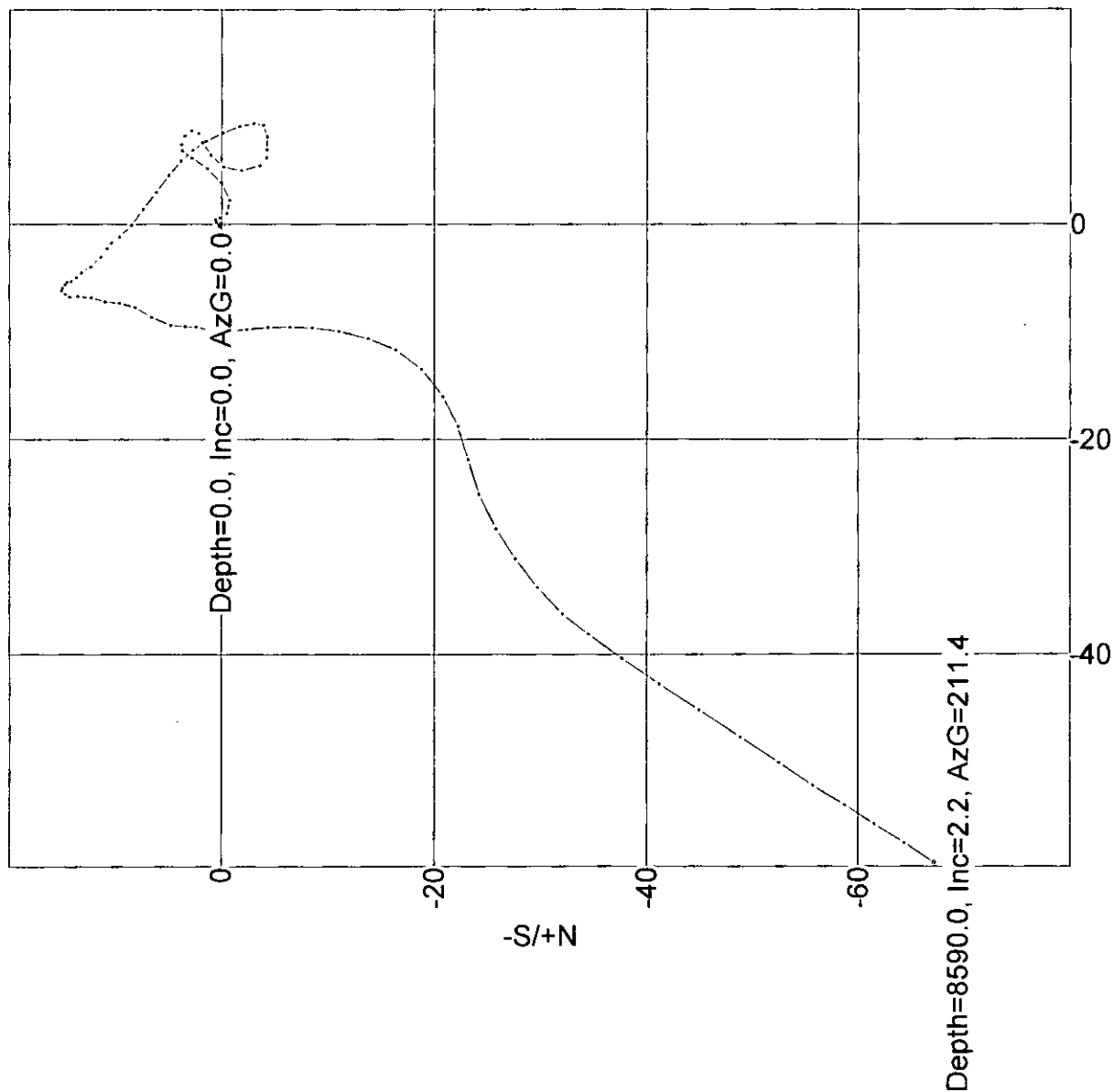
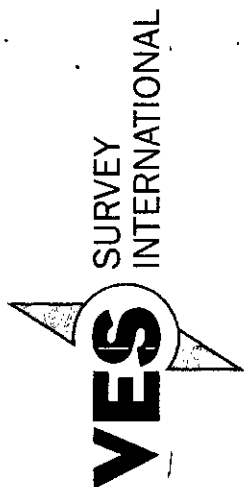
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	1.13	229.03	1699.90	1.02	6.43	0.25	6.51	81.00	0.67
1800.00	0.78	212.44	1799.89	-0.20	5.32	1.23	5.33	92.18	0.44
1900.00	1.25	177.74	1899.87	-1.87	5.00	2.80	5.34	110.51	0.75
2000.00	0.88	147.39	1999.85	-3.61	5.46	4.60	6.54	123.48	0.66
2100.00	0.38	89.12	2099.85	-4.25	6.20	5.37	7.52	124.45	0.75
2200.00	0.44	93.72	2199.85	-4.27	6.91	5.53	8.12	121.73	0.07
2300.00	0.97	88.84	2299.84	-4.28	8.13	5.78	9.19	117.75	0.53
2400.00	0.44	37.10	2399.83	-3.96	9.21	5.67	10.02	113.24	0.77
2500.00	0.69	353.30	2499.83	-3.05	9.37	4.81	9.85	108.01	0.48
2600.00	0.89	343.90	2599.82	-1.70	9.08	3.43	9.24	100.61	0.23
2700.00	1.06	336.51	2699.80	-0.11	8.50	1.76	8.50	90.76	0.21
2800.00	0.95	330.45	2799.79	1.46	7.72	0.07	7.86	79.32	0.15
2900.00	0.80	320.89	2899.78	2.72	6.87	-1.34	7.39	68.38	0.21
3000.00	0.91	315.07	2999.76	3.83	5.87	-2.62	7.01	56.89	0.14
3100.00	1.09	307.21	3099.75	4.97	4.55	-3.99	6.74	42.52	0.23
3200.00	1.18	306.99	3199.73	6.16	2.97	-5.47	6.84	25.75	0.09
3300.00	1.11	308.79	3299.71	7.39	1.39	-6.98	7.52	10.66	0.08
3400.00	1.01	303.68	3399.69	8.49	-0.10	-8.35	8.49	359.33	0.14
3500.00	0.81	329.38	3499.68	9.58	-1.19	-9.63	9.66	352.90	0.45
3600.00	0.30	312.01	3599.68	10.37	-1.75	-10.51	10.51	350.44	0.53
3700.00	0.46	308.38	3699.67	10.79	-2.26	-11.02	11.03	348.19	0.17
3800.00	0.66	303.76	3799.67	11.36	-3.05	-11.74	11.77	344.96	0.20
3900.00	0.88	324.65	3899.66	12.31	-3.98	-12.85	12.94	342.09	0.35
4000.00	0.37	343.37	3999.65	13.25	-4.52	-13.87	14.00	341.18	0.54
4100.00	0.42	295.60	4099.65	13.72	-4.94	-14.42	14.58	340.20	0.32
4200.00	0.40	355.30	4199.65	14.22	-5.30	-14.98	15.18	339.58	0.41
4300.00	0.08	312.12	4299.65	14.62	-5.38	-15.38	15.57	339.80	0.34
4400.00	0.21	306.61	4399.65	14.77	-5.58	-15.58	15.79	339.31	0.13
4500.00	0.28	310.33	4499.65	15.04	-5.91	-15.90	16.16	338.54	0.07
4600.00	0.13	232.85	4599.65	15.13	-6.19	-16.05	16.35	337.75	0.28
4700.00	0.43	214.38	4699.64	14.76	-6.49	-15.74	16.12	336.27	0.31
4800.00	0.15	207.78	4799.64	14.33	-6.76	-15.37	15.85	334.75	0.27
4900.00	0.75	170.14	4899.64	13.57	-6.71	-14.61	15.14	333.68	0.64
5000.00	0.82	197.49	4999.63	12.24	-6.81	-13.33	14.01	330.89	0.38
5100.00	0.73	195.76	5099.62	10.94	-7.20	-12.13	13.10	326.65	0.10
5200.00	0.83	176.48	5199.61	9.61	-7.33	-10.85	12.08	322.66	0.28
5300.00	0.96	210.00	5299.60	8.16	-7.70	-9.50	11.22	316.64	0.53
5400.00	1.13	211.44	5399.58	6.59	-8.64	-8.14	10.86	307.33	0.17
5500.00	1.13	192.37	5499.57	4.78	-9.37	-6.51	10.52	297.04	0.38

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
5600.00	0.47	166.78	5599.56	3.42	-9.48	-5.19	10.08	289.81	0.73
5700.00	0.72	194.15	5699.55	2.40	-9.54	-4.21	9.84	284.13	0.37
5800.00	1.19	190.02	5799.54	0.77	-9.88	-2.67	9.91	274.46	0.47
5900.00	0.66	168.35	5899.52	-0.81	-9.94	-1.13	9.98	265.34	0.63
6000.00	1.16	174.80	5999.51	-2.38	-9.74	0.44	10.02	256.28	0.51
6100.00	1.11	175.75	6099.49	-4.35	-9.57	2.41	10.52	245.54	0.05
6200.00	1.27	182.92	6199.47	-6.43	-9.56	4.46	11.52	236.05	0.22
6300.00	1.11	179.79	6299.45	-8.51	-9.61	6.48	12.63	228.48	0.16
6400.00	1.78	191.36	6399.41	-10.99	-9.91	8.86	14.80	222.03	0.73
6500.00	1.54	198.06	6499.37	-13.79	-10.63	11.46	17.41	217.63	0.31
6600.00	1.67	205.67	6599.33	-16.38	-11.68	13.80	20.11	215.49	0.25
6700.00	1.85	226.10	6699.29	-18.81	-13.47	15.83	23.13	215.61	0.65
6800.00	1.86	237.59	6799.24	-20.80	-16.01	17.29	26.24	217.58	0.37
6900.00	1.72	248.81	6899.19	-22.21	-18.78	18.14	29.09	220.22	0.38
7000.00	2.00	256.00	6999.13	-23.18	-21.88	18.49	31.87	223.35	0.36
7100.00	1.91	248.92	7099.08	-24.20	-25.13	18.86	34.88	226.08	0.26
7200.00	2.22	238.44	7199.01	-25.81	-28.33	19.82	38.33	227.66	0.49
7300.00	1.59	235.63	7298.96	-27.61	-31.13	21.04	41.61	228.43	0.64
7400.00	2.30	229.37	7398.90	-29.70	-33.80	22.58	44.99	228.69	0.74
7500.00	1.58	222.17	7498.84	-32.03	-36.25	24.39	48.38	228.53	0.76
7600.00	2.03	214.24	7598.79	-34.52	-38.17	26.46	51.47	227.88	0.51
7700.00	2.34	216.44	7698.72	-37.63	-40.38	29.07	55.20	227.02	0.32
7800.00	2.56	212.07	7798.63	-41.16	-42.78	32.08	59.37	226.11	0.29
7900.00	2.55	213.71	7898.53	-44.91	-45.20	35.28	63.72	225.19	0.07
8000.00	2.78	212.16	7998.42	-48.81	-47.73	38.62	68.27	224.36	0.23
8100.00	2.23	214.53	8098.32	-52.46	-50.12	41.74	72.56	223.69	0.56
8200.00	2.15	212.62	8198.25	-55.64	-52.23	44.45	76.32	223.19	0.11
8300.00	2.06	211.93	8298.18	-58.74	-54.19	47.11	79.92	222.69	0.09
8400.00	1.70	212.27	8398.13	-61.52	-55.93	49.50	83.15	222.28	0.36
8500.00	2.18	213.59	8498.07	-64.36	-57.78	51.92	86.49	221.92	0.48
8590.00	2.19	211.42	8588.01	-67.25	-59.62	54.40	89.87	221.56	0.09



VES Survey International
West Texas
432-563-5444

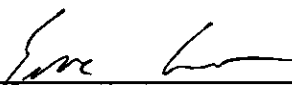
Surveyor: Eric Warner
Diamondback 22 State Com No 011H / API 30-015-43465



V.E.S. Survey Date: 1/29/2016

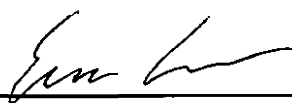


I Eric Warner certify that I am employed by VES Survey International. That I did on the day(s) of 01/29/16 through 01/29/16 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 8,590.00 feet; that the data is true, correct, complete and within the limitations 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 Concho for the Diamondback 22 State Com No Well # 011H API # 30-015-43465 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 Vaughn Energy Services


Eric Warner
Service Technician
Vaughn Energy Services



I Eric Warner certify that I am employed by VES Survey International. That I did on the day(s) of 01/29/16 through 01/29/16 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 8,590.00 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 Concho for the Diamondback 22 State Com No Well # 011H API # 30-015-43465 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 Vaughn Energy Services


Eric Warner
Service Technician
Vaughn Energy Services



COG Operating LLC.

Eddy County, NM

Diamondback 22 State Com

#11H

OH

Survey: MWD

Survey Report - Geographic

05 February, 2016

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 11 2016
RECEIVED



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #11H
Project:	Eddy County, NM	TVD Reference:	WELL @ 3002.1usft (Original Well Elev)
Site:	Diamondback 22 State Com	MD Reference:	WELL @ 3002.1usft (Original Well Elev)
Well:	#11H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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	Diamondback 22 State Com		
Site Position:		Northing:	376,046.00 usft
From:	Map	Easting:	578,606.90 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 1.000 N
		Longitude:	104° 4' 46.798 W
		Grid Convergence:	0.13 °

Well	#11H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	2.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 2' 4.857 N
		Longitude:	104° 4' 14.530 W
		Ground Level:	2,984.1 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	1/11/2016	7.32
			Dip Angle
			(°)
			59.82
			Field Strength
			(nT)
			47,921

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			168.81

Survey Program	Date 2/5/2016		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	8,590.0	MWD #1 (OH)	VESSI_GYROFLEX
8,665.0	13,995.0	MWD (OH)	MWD
			Description
			VESSI Gyroflex Gyro
			MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting		
(usft)			(usft)			(usft)	(usft)		
8,590.0	2.19	211.42	8,588.0	-67.3	-59.6	376,375.04	581,323.94	32° 2' 4.193 N	104° 4' 15.224 W
8,665.0	2.10	200.10	8,663.0	-69.8	-60.8	376,372.52	581,322.72	32° 2' 4.168 N	104° 4' 15.239 W
8,696.0	2.80	185.00	8,693.9	-71.1	-61.0	376,371.24	581,322.46	32° 2' 4.155 N	104° 4' 15.242 W
8,728.0	4.40	155.00	8,725.9	-73.0	-60.6	376,369.35	581,322.91	32° 2' 4.136 N	104° 4' 15.236 W
8,759.0	6.90	137.00	8,756.7	-75.4	-58.8	376,366.91	581,324.68	32° 2' 4.112 N	104° 4' 15.216 W
8,791.0	9.80	129.40	8,788.4	-78.5	-55.4	376,363.77	581,328.10	32° 2' 4.081 N	104° 4' 15.176 W
8,823.0	13.20	126.60	8,819.7	-82.4	-50.4	376,359.86	581,333.14	32° 2' 4.042 N	104° 4' 15.118 W
8,853.0	16.70	126.60	8,848.7	-87.1	-44.2	376,355.25	581,339.35	32° 2' 3.996 N	104° 4' 15.046 W
8,885.0	20.50	127.50	8,879.0	-93.2	-36.0	376,349.09	581,347.49	32° 2' 3.935 N	104° 4' 14.952 W
8,917.0	24.20	129.40	8,908.6	-100.8	-26.5	376,341.52	581,357.00	32° 2' 3.860 N	104° 4' 14.841 W
8,948.0	26.90	131.40	8,936.6	-109.5	-16.3	376,332.84	581,367.18	32° 2' 3.774 N	104° 4' 14.723 W



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #11H
Project:	Eddy County, NM	TVD Reference:	WELL @ 3002.1usft (Original Well Elev)
Site:	Diamondback 22 State Corn	MD Reference:	WELL @ 3002.1usft (Original Well Elev)
Well:	#11H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude		Longitude
8,980.0	30.10	130.70	8,964.7	-119.5	-4.8	376,322.82	581,378.69	32° 2' 3.674 N		104° 4' 14.590 W
9,012.0	33.10	130.40	8,992.0	-130.4	7.9	376,311.92	581,391.43	32° 2' 3.566 N		104° 4' 14.442 W
9,044.0	36.60	130.70	9,018.2	-142.3	21.8	376,300.04	581,405.32	32° 2' 3.448 N		104° 4' 14.281 W
9,075.0	39.90	131.50	9,042.6	-154.9	36.3	376,287.42	581,419.78	32° 2' 3.323 N		104° 4' 14.113 W
9,105.0	44.10	132.20	9,064.8	-168.3	51.2	376,274.02	581,434.73	32° 2' 3.190 N		104° 4' 13.940 W
9,137.0	48.60	133.00	9,086.9	-183.9	68.3	376,258.35	581,451.76	32° 2' 3.035 N		104° 4' 13.743 W
9,168.0	52.80	133.10	9,106.6	-200.3	85.8	376,241.98	581,469.29	32° 2' 2.872 N		104° 4' 13.540 W
9,199.0	55.60	133.50	9,124.7	-217.6	104.1	376,224.74	581,487.58	32° 2' 2.701 N		104° 4' 13.327 W
9,231.0	58.10	134.70	9,142.2	-236.2	123.3	376,206.09	581,506.82	32° 2' 2.516 N		104° 4' 13.105 W
9,262.0	60.10	136.20	9,158.1	-255.2	142.0	376,187.13	581,525.48	32° 2' 2.328 N		104° 4' 12.888 W
9,294.0	62.90	137.30	9,173.4	-275.6	161.2	376,166.65	581,544.74	32° 2' 2.125 N		104° 4' 12.665 W
9,326.0	65.70	137.60	9,187.2	-296.9	180.7	376,145.41	581,564.24	32° 2' 1.914 N		104° 4' 12.439 W
9,356.0	68.60	138.00	9,198.9	-317.4	199.3	376,124.93	581,582.80	32° 2' 1.711 N		104° 4' 12.224 W
9,388.0	71.20	138.00	9,209.9	-339.7	219.4	376,102.60	581,602.91	32° 2' 1.490 N		104° 4' 11.991 W
9,420.0	73.50	138.00	9,219.6	-362.4	239.8	376,079.94	581,623.31	32° 2' 1.265 N		104° 4' 11.755 W
9,451.0	76.00	138.70	9,227.7	-384.7	259.7	376,057.59	581,643.19	32° 2' 1.043 N		104° 4' 11.525 W
9,482.0	78.10	140.00	9,234.7	-407.6	279.4	376,034.67	581,662.86	32° 2' 0.816 N		104° 4' 11.297 W
9,514.0	80.10	141.20	9,240.7	-431.9	299.3	376,010.39	581,682.81	32° 2' 0.575 N		104° 4' 11.066 W
9,546.0	81.10	141.90	9,246.0	-456.6	318.9	375,985.67	581,702.44	32° 2' 0.330 N		104° 4' 10.838 W
9,578.0	82.60	142.70	9,250.5	-481.7	338.3	375,960.61	581,721.81	32° 2' 0.082 N		104° 4' 10.614 W
9,609.0	83.60	143.20	9,254.2	-506.3	356.8	375,936.05	581,740.35	32° 1' 59.838 N		104° 4' 10.399 W
9,641.0	85.70	143.80	9,257.2	-531.9	375.8	375,910.44	581,759.30	32° 1' 59.584 N		104° 4' 10.180 W
9,673.0	86.90	144.10	9,259.3	-557.7	394.6	375,884.62	581,778.09	32° 1' 59.328 N		104° 4' 9.962 W
9,736.0	90.40	144.60	9,260.8	-608.9	431.3	375,833.45	581,814.79	32° 1' 58.821 N		104° 4' 9.537 W
9,769.0	91.10	147.40	9,260.3	-636.2	449.7	375,806.09	581,833.24	32° 1' 58.550 N		104° 4' 9.324 W
9,863.0	89.60	151.70	9,259.8	-717.2	497.4	375,725.08	581,880.87	32° 1' 57.747 N		104° 4' 8.773 W
9,958.0	90.30	154.60	9,259.8	-802.0	540.3	375,640.33	581,923.77	32° 1' 56.907 N		104° 4' 8.277 W
10,052.0	90.50	156.60	9,259.2	-887.6	579.1	375,554.73	581,962.60	32° 1' 56.059 N		104° 4' 7.828 W
10,147.0	89.40	157.90	9,259.3	-975.2	615.8	375,467.13	581,999.34	32° 1' 55.191 N		104° 4' 7.404 W
10,242.0	89.80	159.90	9,259.9	-1,063.8	650.0	375,378.51	582,033.53	32° 1' 54.313 N		104° 4' 7.009 W
10,337.0	90.00	162.00	9,260.1	-1,153.6	681.0	375,288.71	582,064.54	32° 1' 53.424 N		104° 4' 6.651 W
10,429.0	89.60	164.00	9,260.4	-1,241.6	707.9	375,200.74	582,091.44	32° 1' 52.552 N		104° 4' 6.342 W
10,524.0	90.70	166.20	9,260.2	-1,333.4	732.4	375,108.94	582,115.86	32° 1' 51.643 N		104° 4' 6.060 W
10,618.0	89.10	167.10	9,260.3	-1,424.8	754.1	375,017.48	582,137.56	32° 1' 50.738 N		104° 4' 5.811 W
10,744.0	88.10	171.10	9,263.4	-1,548.5	777.9	374,893.82	582,161.38	32° 1' 49.513 N		104° 4' 5.538 W
10,840.0	88.30	170.50	9,266.4	-1,643.2	793.2	374,799.10	582,176.72	32° 1' 48.576 N		104° 4' 5.362 W
10,934.0	88.50	173.80	9,269.1	-1,736.3	806.0	374,706.03	582,189.55	32° 1' 47.654 N		104° 4' 5.216 W
11,029.0	89.60	175.70	9,270.6	-1,830.8	814.7	374,611.45	582,198.24	32° 1' 46.718 N		104° 4' 5.118 W
11,156.0	90.10	178.80	9,271.0	-1,957.7	820.8	374,484.61	582,204.33	32° 1' 45.463 N		104° 4' 5.050 W
11,251.0	90.30	178.20	9,270.6	-2,052.7	823.3	374,389.65	582,206.82	32° 1' 44.523 N		104° 4' 5.024 W
11,345.0	90.80	178.50	9,269.7	-2,146.6	826.0	374,295.69	582,209.53	32° 1' 43.593 N		104° 4' 4.995 W
11,440.0	88.90	178.50	9,270.0	-2,241.6	828.5	374,200.73	582,212.01	32° 1' 42.653 N		104° 4' 4.969 W
11,534.0	89.90	178.20	9,271.0	-2,335.5	831.2	374,106.77	582,214.72	32° 1' 41.723 N		104° 4' 4.941 W
11,629.0	90.40	178.00	9,270.7	-2,430.5	834.4	374,011.83	582,217.87	32° 1' 40.783 N		104° 4' 4.907 W
11,724.0	89.30	177.90	9,271.0	-2,525.4	837.8	373,916.89	582,221.27	32° 1' 39.844 N		104° 4' 4.870 W
11,819.0	89.80	178.00	9,271.7	-2,620.3	841.2	373,821.95	582,224.67	32° 1' 38.904 N		104° 4' 4.833 W
11,914.0	90.20	177.50	9,271.7	-2,715.3	844.9	373,727.03	582,228.40	32° 1' 37.964 N		104° 4' 4.793 W
12,009.0	90.70	177.20	9,271.0	-2,810.2	849.3	373,632.13	582,232.79	32° 1' 37.025 N		104° 4' 4.744 W
12,104.0	90.10	178.50	9,270.3	-2,905.1	852.8	373,537.20	582,236.35	32° 1' 36.086 N		104° 4' 4.706 W
12,199.0	91.10	178.50	9,269.3	-3,000.1	855.3	373,442.24	582,238.84	32° 1' 35.146 N		104° 4' 4.679 W
12,323.0	88.10	178.70	9,270.2	-3,124.0	858.4	373,318.30	582,241.87	32° 1' 33.919 N		104° 4' 4.648 W
12,419.0	89.30	178.70	9,272.3	-3,220.0	860.5	373,222.35	582,244.05	32° 1' 32.969 N		104° 4' 4.625 W
12,514.0	90.20	178.40	9,272.8	-3,314.9	862.9	373,127.38	582,246.45	32° 1' 32.030 N		104° 4' 4.600 W
12,608.0	89.40	178.00	9,273.1	-3,408.9	865.9	373,033.43	582,249.40	32° 1' 31.100 N		104° 4' 4.568 W
12,703.0	90.50	177.90	9,273.2	-3,503.8	869.3	372,938.49	582,252.80	32° 1' 30.160 N		104° 4' 4.532 W



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #11H
Project:	Eddy County, NM	TVD Reference:	WELL @ 3002.1usft (Original Well Elev)
Site:	Diamondback 22 State Com	MD Reference:	WELL @ 3002.1usft (Original Well Elev)
Well:	#11H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,798.0	90.30	177.70	9,272.5	-3,598.7	872.9	372,843.56	582,256.45	32° 1' 29.220 N	104° 4' 4.492 W
12,892.0	88.80	176.60	9,273.2	-3,692.6	877.6	372,749.69	582,261.12	32° 1' 28.291 N	104° 4' 4.440 W
12,986.0	89.50	176.10	9,274.6	-3,786.4	883.6	372,655.89	582,267.10	32° 1' 27.363 N	104° 4' 4.373 W
13,081.0	90.00	176.10	9,275.1	-3,881.2	890.1	372,561.11	582,273.57	32° 1' 26.425 N	104° 4' 4.301 W
13,176.0	89.70	175.70	9,275.3	-3,975.9	896.9	372,466.35	582,280.36	32° 1' 25.487 N	104° 4' 4.225 W
13,270.0	90.90	178.10	9,274.8	-4,069.8	901.9	372,372.50	582,285.44	32° 1' 24.558 N	104° 4' 4.169 W
13,365.0	89.90	178.20	9,274.2	-4,164.7	905.0	372,277.55	582,288.51	32° 1' 23.618 N	104° 4' 4.136 W
13,459.0	89.40	178.20	9,274.7	-4,258.7	908.0	372,183.60	582,291.46	32° 1' 22.688 N	104° 4' 4.104 W
13,553.0	89.90	178.00	9,275.3	-4,352.6	911.1	372,089.66	582,294.58	32° 1' 21.758 N	104° 4' 4.070 W
13,648.0	89.60	178.30	9,275.7	-4,447.6	914.1	371,994.71	582,297.64	32° 1' 20.819 N	104° 4' 4.038 W
13,741.0	90.60	177.70	9,275.6	-4,540.5	917.4	371,901.76	582,300.89	32° 1' 19.899 N	104° 4' 4.003 W
13,804.0	91.20	178.00	9,274.6	-4,603.5	919.7	371,838.82	582,303.25	32° 1' 19.276 N	104° 4' 3.977 W
13,944.0	91.30	177.90	9,271.5	-4,743.4	924.8	371,698.94	582,308.26	32° 1' 17.891 N	104° 4' 3.923 W
13,995.0	91.30	177.90	9,270.4	-4,794.3	926.6	371,647.99	582,310.13	32° 1' 17.387 N	104° 4' 3.902 W
PBHL(DB22#11H)									

Checked By: _____	Approved By: _____	Date: _____
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