



COG Operating L L C

Eddy County, NM (NAD 27 NME)

Sec. 6, T 26 S. , R 28 E

Myox 6 State 2H

30-015-41919

Wellbore #1

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 09 2017

RECEIVED

Design: Wellbore #1

Survey Report - Geographic

17 March, 2017

Provide signature page for survey

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Integrity Directional Services, LLC
Survey Report - Geographic



Company: COG Operating L L C
Project: Eddy County, NM (NAD 27 NME)
Site: Sec. 6, T 26 S., R 28 E
Well: Myox 6 State 2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Myox 6 State 2H
TVD Reference: KB=20' @ 3065.80ft (Patriot 2)
MD Reference: KB=20' @ 3065.80ft (Patriot 2)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Project: Eddy County, NM (NAD 27 NME)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site: Sec. 6, T 26 S., R 28 E

Site Position: Northing: 392,268.2000 usft Latitude: 32° 4' 41.836 N
From: Map Easting: 564,860.4000 usft Longitude: 104° 7' 26.129 W
Position Uncertainty: 0.00 ft Slot Radius: 13-3/16 " Grid Convergence: 0.11°

Well: Myox 6 State 2H, ACTIVE

Well Position: +N/-S 0.00 ft Northing: 392,268.2000 usft Latitude: 32° 4' 41.836 N
+E/-W 0.00 ft Easting: 564,860.4000 usft Longitude: 104° 7' 26.129 W
Position Uncertainty: 0.00 ft Wellhead Elevation: 0.00 ft Ground Level: 3,045.80 ft

Wellbore: Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/27/2017	7.23	59.84	47,826

Design: Wellbore #1

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	180.11

Survey Program: Date 3/17/2017

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
25.00	7,230.00	VES Gyros (Wellbore #1)	VESSI_GYROFLEX	VESSI Gyroflex Gyro
7,354.00	12,520.00	IDS MWD Surveys (Wellbore #1)	MWD	MWD - Standard

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	392,268.2000	564,860.4000	32° 4' 41.836 N	104° 7' 26.129 W
25.00	0.24	134.67	25.00	-0.04	0.04	392,268.1632	564,860.4372	32° 4' 41.836 N	104° 7' 26.129 W
50.00	0.47	138.64	50.00	-0.15	0.14	392,268.0494	564,860.5422	32° 4' 41.835 N	104° 7' 26.127 W
75.00	0.74	142.17	75.00	-0.36	0.31	392,267.8450	564,860.7090	32° 4' 41.833 N	104° 7' 26.125 W
100.00	0.93	147.44	100.00	-0.65	0.52	392,267.5465	564,860.9172	32° 4' 41.830 N	104° 7' 26.123 W
125.00	1.29	154.26	124.99	-1.08	0.75	392,267.1220	564,861.1486	32° 4' 41.826 N	104° 7' 26.120 W
150.00	1.57	149.18	149.98	-1.63	1.05	392,266.5744	564,861.4463	32° 4' 41.820 N	104° 7' 26.117 W
175.00	1.93	147.09	174.97	-2.27	1.45	392,265.9268	564,861.8504	32° 4' 41.814 N	104° 7' 26.112 W
200.00	2.15	154.73	199.96	-3.05	1.88	392,265.1493	564,862.2794	32° 4' 41.806 N	104° 7' 26.107 W
225.00	2.21	158.96	224.94	-3.92	2.25	392,264.2754	564,862.6526	32° 4' 41.797 N	104° 7' 26.103 W
250.00	2.41	160.42	249.92	-4.87	2.60	392,263.3302	564,863.0018	32° 4' 41.788 N	104° 7' 26.099 W



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Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
275.00	2.69	165.95	274.89	-5.93	2.92	392,262.2659	564,863.3204	32° 4' 41.778 N	104° 7' 26.095 W
300.00	2.85	160.98	299.86	-7.09	3.27	392,261.1092	564,863.6654	32° 4' 41.766 N	104° 7' 26.091 W
325.00	3.04	160.50	324.83	-8.30	3.69	392,259.8968	564,864.0892	32° 4' 41.754 N	104° 7' 26.086 W
350.00	3.17	163.94	349.79	-9.59	4.10	392,258.6076	564,864.5017	32° 4' 41.741 N	104° 7' 26.082 W
375.00	3.19	160.15	374.75	-10.91	4.53	392,257.2891	564,864.9291	32° 4' 41.728 N	104° 7' 26.077 W
400.00	3.21	163.96	399.72	-12.24	4.96	392,255.9621	564,865.3587	32° 4' 41.715 N	104° 7' 26.072 W
425.00	3.00	165.17	424.68	-13.54	5.32	392,254.6570	564,865.7196	32° 4' 41.702 N	104° 7' 26.068 W
450.00	3.17	163.21	449.64	-14.84	5.69	392,253.3629	564,866.0867	32° 4' 41.689 N	104° 7' 26.063 W
475.00	3.27	166.33	474.60	-16.19	6.05	392,252.0083	564,866.4549	32° 4' 41.676 N	104° 7' 26.059 W
500.00	3.35	164.50	499.56	-17.59	6.42	392,250.6116	564,866.8186	32° 4' 41.662 N	104° 7' 26.055 W
525.00	3.24	163.68	524.52	-18.97	6.81	392,249.2297	564,867.2123	32° 4' 41.648 N	104° 7' 26.050 W
550.00	3.25	167.09	549.48	-20.34	7.17	392,247.8609	564,867.5691	32° 4' 41.635 N	104° 7' 26.046 W
575.00	3.12	164.27	574.44	-21.68	7.51	392,246.5153	564,867.9119	32° 4' 41.622 N	104° 7' 26.042 W
600.00	3.11	162.04	599.40	-22.98	7.91	392,245.2153	564,868.3055	32° 4' 41.609 N	104° 7' 26.038 W
625.00	2.76	159.33	624.37	-24.19	8.33	392,244.0071	564,868.7270	32° 4' 41.597 N	104° 7' 26.033 W
650.00	2.54	158.93	649.35	-25.27	8.74	392,242.9270	564,869.1387	32° 4' 41.586 N	104° 7' 26.028 W
675.00	2.44	159.00	674.32	-26.29	9.13	392,241.9132	564,869.5285	32° 4' 41.576 N	104° 7' 26.024 W
700.00	2.27	151.56	699.30	-27.22	9.56	392,240.9811	564,869.9550	32° 4' 41.567 N	104° 7' 26.019 W
725.00	2.21	154.39	724.28	-28.09	10.00	392,240.1110	564,870.3992	32° 4' 41.558 N	104° 7' 26.013 W
750.00	1.95	152.61	749.27	-28.90	10.40	392,239.2987	564,870.8032	32° 4' 41.550 N	104° 7' 26.009 W
775.00	1.96	141.93	774.25	-29.62	10.86	392,238.5845	564,871.2625	32° 4' 41.543 N	104° 7' 26.003 W
800.00	1.84	148.11	799.24	-30.29	11.34	392,237.9071	564,871.7381	32° 4' 41.536 N	104° 7' 25.998 W
825.00	1.90	145.96	824.22	-30.98	11.78	392,237.2229	564,872.1822	32° 4' 41.530 N	104° 7' 25.993 W
850.00	1.87	145.15	849.21	-31.66	12.25	392,236.5448	564,872.6472	32° 4' 41.523 N	104° 7' 25.987 W
875.00	1.95	144.25	874.20	-32.34	12.73	392,235.8648	564,873.1288	32° 4' 41.516 N	104° 7' 25.982 W
900.00	1.88	145.08	899.18	-33.02	13.21	392,235.1834	564,873.6121	32° 4' 41.509 N	104° 7' 25.976 W
925.00	1.71	140.84	924.17	-33.64	13.68	392,234.5579	564,874.0824	32° 4' 41.503 N	104° 7' 25.971 W
950.00	1.66	140.34	949.16	-34.21	14.15	392,233.9899	564,874.5490	32° 4' 41.498 N	104° 7' 25.965 W
975.00	1.55	139.06	974.15	-34.74	14.60	392,233.4557	564,875.0017	32° 4' 41.492 N	104° 7' 25.960 W
1,000.00	1.50	130.73	999.14	-35.21	15.07	392,232.9868	564,875.4712	32° 4' 41.488 N	104° 7' 25.955 W
1,025.00	1.38	122.99	1,024.13	-35.59	15.57	392,232.6094	564,875.9717	32° 4' 41.484 N	104° 7' 25.949 W
1,050.00	1.20	119.91	1,049.13	-35.89	16.05	392,232.3150	564,876.4511	32° 4' 41.481 N	104° 7' 25.943 W
1,075.00	1.04	114.81	1,074.12	-36.11	16.48	392,232.0892	564,876.8839	32° 4' 41.479 N	104° 7' 25.938 W
1,100.00	1.18	122.21	1,099.12	-36.34	16.91	392,231.8568	564,877.3077	32° 4' 41.476 N	104° 7' 25.933 W
1,125.00	1.07	124.62	1,124.11	-36.61	17.32	392,231.5870	564,877.7176	32° 4' 41.474 N	104° 7' 25.929 W
1,150.00	1.06	119.94	1,149.11	-36.86	17.71	392,231.3390	564,878.1101	32° 4' 41.471 N	104° 7' 25.924 W
1,175.00	1.06	123.79	1,174.10	-37.11	18.10	392,231.0949	564,878.5026	32° 4' 41.469 N	104° 7' 25.919 W
1,200.00	1.11	127.90	1,199.10	-37.38	18.49	392,230.8176	564,878.8859	32° 4' 41.466 N	104° 7' 25.915 W
1,225.00	1.11	131.52	1,224.09	-37.69	18.86	392,230.5083	564,879.2583	32° 4' 41.463 N	104° 7' 25.911 W
1,250.00	1.15	139.73	1,249.09	-38.04	19.20	392,230.1564	564,879.6017	32° 4' 41.459 N	104° 7' 25.907 W
1,275.00	1.07	137.31	1,274.08	-38.41	19.52	392,229.7934	564,879.9221	32° 4' 41.456 N	104° 7' 25.903 W
1,300.00	1.08	137.15	1,299.08	-38.75	19.84	392,229.4491	564,880.2406	32° 4' 41.452 N	104° 7' 25.899 W
1,325.00	1.12	139.93	1,324.08	-39.11	20.16	392,229.0894	564,880.5582	32° 4' 41.449 N	104° 7' 25.896 W
1,350.00	1.11	141.01	1,349.07	-39.49	20.47	392,228.7142	564,880.8678	32° 4' 41.445 N	104° 7' 25.892 W
1,375.00	1.13	142.04	1,374.07	-39.87	20.77	392,228.3316	564,881.1718	32° 4' 41.441 N	104° 7' 25.889 W
1,400.00	0.95	147.17	1,399.06	-40.24	21.04	392,227.9631	564,881.4358	32° 4' 41.438 N	104° 7' 25.885 W
1,425.00	1.08	142.88	1,424.06	-40.60	21.29	392,227.6011	564,881.6903	32° 4' 41.434 N	104° 7' 25.882 W
1,450.00	1.05	142.88	1,449.05	-40.97	21.57	392,227.2306	564,881.9707	32° 4' 41.430 N	104° 7' 25.879 W
1,475.00	1.04	148.94	1,474.05	-41.35	21.83	392,226.8536	564,882.2260	32° 4' 41.427 N	104° 7' 25.876 W
1,500.00	1.11	151.82	1,499.05	-41.75	22.06	392,226.4458	564,882.4574	32° 4' 41.423 N	104° 7' 25.874 W
1,525.00	1.11	149.71	1,524.04	-42.18	22.29	392,226.0233	564,882.6939	32° 4' 41.419 N	104° 7' 25.871 W
1,550.00	1.08	149.26	1,549.04	-42.59	22.54	392,225.6117	564,882.9365	32° 4' 41.414 N	104° 7' 25.868 W
1,575.00	1.23	151.64	1,574.03	-43.03	22.78	392,225.1731	564,883.1844	32° 4' 41.410 N	104° 7' 25.865 W
1,600.00	1.10	152.57	1,599.03	-43.48	23.02	392,224.7239	564,883.4224	32° 4' 41.406 N	104° 7' 25.862 W
1,625.00	1.11	152.08	1,624.02	-43.90	23.25	392,224.2970	564,883.6463	32° 4' 41.401 N	104° 7' 25.860 W



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Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,650.00	0.93	143.95	1,649.02	-44.28	23.48	392,223.9190	564,883.8791	32° 4' 41.398 N	104° 7' 25.857 W
1,675.00	1.01	147.50	1,674.01	-44.63	23.72	392,223.5691	564,884.1169	32° 4' 41.394 N	104° 7' 25.854 W
1,700.00	1.13	141.44	1,699.01	-45.01	23.99	392,223.1905	564,884.3889	32° 4' 41.390 N	104° 7' 25.851 W
1,725.00	1.00	133.31	1,724.00	-45.35	24.30	392,222.8481	564,884.7013	32° 4' 41.387 N	104° 7' 25.848 W
1,750.00	0.94	126.54	1,749.00	-45.62	24.62	392,222.5764	564,885.0248	32° 4' 41.384 N	104° 7' 25.844 W
1,775.00	0.89	126.12	1,774.00	-45.86	24.95	392,222.3399	564,885.3464	32° 4' 41.382 N	104° 7' 25.840 W
1,800.00	0.97	123.76	1,798.99	-46.09	25.28	392,222.1078	564,885.6792	32° 4' 41.380 N	104° 7' 25.836 W
1,825.00	1.17	119.04	1,823.99	-46.33	25.68	392,221.8663	564,886.0782	32° 4' 41.377 N	104° 7' 25.832 W
1,850.00	1.11	117.76	1,848.99	-46.57	26.12	392,221.6296	564,886.5157	32° 4' 41.375 N	104° 7' 25.827 W
1,875.00	1.16	117.36	1,873.98	-46.80	26.55	392,221.4005	564,886.9547	32° 4' 41.373 N	104° 7' 25.821 W
1,900.00	1.39	121.44	1,898.97	-47.07	27.04	392,221.1261	564,887.4382	32° 4' 41.370 N	104° 7' 25.816 W
1,925.00	1.28	113.42	1,923.97	-47.34	27.55	392,220.8569	564,887.9531	32° 4' 41.367 N	104° 7' 25.810 W
1,950.00	1.35	113.87	1,948.96	-47.57	28.08	392,220.6268	564,888.4786	32° 4' 41.365 N	104° 7' 25.804 W
1,975.00	1.39	111.87	1,973.95	-47.81	28.63	392,220.3947	564,889.0293	32° 4' 41.363 N	104° 7' 25.797 W
2,000.00	1.23	111.30	1,998.95	-48.02	29.16	392,220.1842	564,889.5607	32° 4' 41.361 N	104° 7' 25.791 W
2,025.00	1.19	109.15	2,023.94	-48.20	29.66	392,220.0016	564,890.0559	32° 4' 41.359 N	104° 7' 25.785 W
2,050.00	1.20	114.87	2,048.94	-48.39	30.14	392,219.8064	564,890.5387	32° 4' 41.357 N	104° 7' 25.780 W
2,075.00	1.25	113.56	2,073.93	-48.61	30.63	392,219.5873	564,891.0261	32° 4' 41.355 N	104° 7' 25.774 W
2,100.00	1.30	110.91	2,098.92	-48.82	31.14	392,219.3771	564,891.5410	32° 4' 41.353 N	104° 7' 25.768 W
2,125.00	1.28	114.64	2,123.92	-49.04	31.66	392,219.1594	564,892.0597	32° 4' 41.350 N	104° 7' 25.762 W
2,150.00	1.30	107.55	2,148.91	-49.24	32.18	392,218.9575	564,892.5839	32° 4' 41.348 N	104° 7' 25.756 W
2,175.00	1.29	106.60	2,173.91	-49.41	32.72	392,218.7916	564,893.1240	32° 4' 41.347 N	104° 7' 25.750 W
2,200.00	1.22	106.20	2,198.90	-49.56	33.25	392,218.6370	564,893.6492	32° 4' 41.345 N	104° 7' 25.744 W
2,225.00	1.14	103.57	2,223.89	-49.70	33.75	392,218.5043	564,894.1466	32° 4' 41.344 N	104° 7' 25.738 W
2,250.00	1.06	104.57	2,248.89	-49.81	34.21	392,218.3878	564,894.6121	32° 4' 41.343 N	104° 7' 25.733 W
2,275.00	0.92	94.98	2,273.89	-49.89	34.64	392,218.3122	564,895.0359	32° 4' 41.342 N	104° 7' 25.728 W
2,300.00	0.77	95.74	2,298.88	-49.92	35.00	392,218.2780	564,895.4030	32° 4' 41.342 N	104° 7' 25.723 W
2,325.00	0.94	107.44	2,323.88	-50.00	35.37	392,218.1997	564,895.7657	32° 4' 41.341 N	104° 7' 25.719 W
2,350.00	0.82	106.62	2,348.88	-50.11	35.73	392,218.0871	564,896.1328	32° 4' 41.340 N	104° 7' 25.715 W
2,375.00	0.75	112.01	2,373.87	-50.23	36.06	392,217.9746	564,896.4559	32° 4' 41.339 N	104° 7' 25.711 W
2,400.00	0.61	99.93	2,398.87	-50.31	36.34	392,217.8904	564,896.7387	32° 4' 41.338 N	104° 7' 25.708 W
2,425.00	0.60	98.38	2,423.87	-50.35	36.60	392,217.8483	564,896.9993	32° 4' 41.337 N	104° 7' 25.705 W
2,450.00	0.62	95.54	2,448.87	-50.38	36.86	392,217.8162	564,897.2634	32° 4' 41.337 N	104° 7' 25.702 W
2,475.00	0.56	88.98	2,473.87	-50.39	37.12	392,217.8053	564,897.5202	32° 4' 41.337 N	104° 7' 25.699 W
2,500.00	0.72	100.01	2,498.87	-50.42	37.40	392,217.7802	564,897.7970	32° 4' 41.337 N	104° 7' 25.696 W
2,525.00	0.71	99.25	2,523.87	-50.47	37.70	392,217.7280	564,898.1046	32° 4' 41.336 N	104° 7' 25.692 W
2,550.00	0.81	103.82	2,548.86	-50.54	38.03	392,217.6609	564,898.4291	32° 4' 41.335 N	104° 7' 25.688 W
2,575.00	0.95	102.92	2,573.86	-50.63	38.40	392,217.5723	564,898.8027	32° 4' 41.335 N	104° 7' 25.684 W
2,600.00	1.07	96.55	2,598.86	-50.70	38.84	392,217.4994	564,899.2366	32° 4' 41.334 N	104° 7' 25.679 W
2,625.00	1.12	102.29	2,623.85	-50.78	39.31	392,217.4207	564,899.7072	32° 4' 41.333 N	104° 7' 25.673 W
2,650.00	1.19	96.33	2,648.85	-50.86	39.80	392,217.3401	564,900.2039	32° 4' 41.332 N	104° 7' 25.668 W
2,675.00	1.31	97.60	2,673.84	-50.93	40.35	392,217.2737	564,900.7452	32° 4' 41.332 N	104° 7' 25.661 W
2,700.00	1.13	94.16	2,698.84	-50.98	40.87	392,217.2180	564,901.2743	32° 4' 41.331 N	104° 7' 25.655 W
2,725.00	0.93	99.89	2,723.83	-51.03	41.32	392,217.1653	564,901.7201	32° 4' 41.330 N	104° 7' 25.650 W
2,750.00	0.97	100.52	2,748.83	-51.11	41.73	392,217.0918	564,902.1280	32° 4' 41.330 N	104° 7' 25.645 W
2,775.00	1.14	92.43	2,773.82	-51.16	42.18	392,217.0426	564,902.5845	32° 4' 41.329 N	104° 7' 25.640 W
2,800.00	1.08	94.60	2,798.82	-51.19	42.67	392,217.0132	564,903.0678	32° 4' 41.329 N	104° 7' 25.634 W
2,825.00	1.08	90.57	2,823.81	-51.21	43.14	392,216.9919	564,903.5383	32° 4' 41.329 N	104° 7' 25.629 W
2,850.00	1.23	85.60	2,848.81	-51.19	43.64	392,217.0102	564,904.0414	32° 4' 41.329 N	104° 7' 25.623 W
2,875.00	1.40	83.91	2,873.80	-51.14	44.21	392,217.0632	564,904.6126	32° 4' 41.329 N	104° 7' 25.616 W
2,900.00	1.55	84.89	2,898.79	-51.07	44.85	392,217.1257	564,905.2531	32° 4' 41.330 N	104° 7' 25.609 W
2,925.00	1.56	81.68	2,923.79	-51.00	45.53	392,217.2050	564,905.9265	32° 4' 41.331 N	104° 7' 25.601 W
2,950.00	1.59	78.54	2,948.78	-50.88	46.20	392,217.3232	564,906.6032	32° 4' 41.332 N	104° 7' 25.593 W
2,975.00	1.58	78.90	2,973.77	-50.74	46.88	392,217.4585	564,907.2813	32° 4' 41.333 N	104° 7' 25.585 W
3,000.00	1.52	80.63	2,998.76	-50.62	47.55	392,217.5788	564,907.9467	32° 4' 41.334 N	104° 7' 25.578 W



Integrity Directional Services, LLC

Survey Report - Geographic



Company: COG Operating L L C
Project: Eddy County, NM (NAD 27 NME)
Site: Sec. 6, T 26 S., R 28 E
Well: Myox 6 State 2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Myox 6 State 2H
TVD Reference: KB=20' @ 3065.80ft (Patriot 2)
MD Reference: KB=20' @ 3065.80ft (Patriot 2)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,025.00	1.32	83.43	3,023.75	-50.53	48.16	392,217.6657	564,908.5599	32° 4' 41.335 N	104° 7' 25.570 W
3,050.00	1.47	79.80	3,048.74	-50.44	48.76	392,217.7555	564,909.1616	32° 4' 41.336 N	104° 7' 25.563 W
3,075.00	1.36	78.19	3,073.73	-50.33	49.37	392,217.8730	564,909.7676	32° 4' 41.337 N	104° 7' 25.556 W
3,100.00	1.21	81.86	3,098.73	-50.23	49.92	392,217.9711	564,910.3193	32° 4' 41.338 N	104° 7' 25.550 W
3,125.00	1.23	75.89	3,123.72	-50.13	50.44	392,218.0738	564,910.8408	32° 4' 41.339 N	104° 7' 25.544 W
3,150.00	1.21	75.87	3,148.72	-50.00	50.96	392,218.2037	564,911.3570	32° 4' 41.341 N	104° 7' 25.538 W
3,175.00	1.11	75.80	3,173.71	-49.87	51.45	392,218.3275	564,911.8477	32° 4' 41.342 N	104° 7' 25.532 W
3,200.00	1.01	76.18	3,198.71	-49.76	51.90	392,218.4396	564,912.2964	32° 4' 41.343 N	104° 7' 25.527 W
3,225.00	0.91	79.78	3,223.70	-49.67	52.31	392,218.5274	564,912.7057	32° 4' 41.344 N	104° 7' 25.522 W
3,250.00	0.89	82.20	3,248.70	-49.61	52.69	392,218.5890	564,913.0935	32° 4' 41.344 N	104° 7' 25.518 W
3,275.00	0.86	81.73	3,273.70	-49.56	53.07	392,218.6423	564,913.4715	32° 4' 41.345 N	104° 7' 25.513 W
3,300.00	0.77	80.73	3,298.70	-49.50	53.42	392,218.6964	564,913.8230	32° 4' 41.345 N	104° 7' 25.509 W
3,325.00	0.67	84.06	3,323.69	-49.46	53.73	392,218.7386	564,914.1341	32° 4' 41.346 N	104° 7' 25.506 W
3,350.00	0.58	96.87	3,348.69	-49.46	54.01	392,218.7386	564,914.4051	32° 4' 41.346 N	104° 7' 25.502 W
3,375.00	0.52	93.89	3,373.69	-49.48	54.24	392,218.7157	564,914.6440	32° 4' 41.346 N	104° 7' 25.500 W
3,400.00	0.57	92.19	3,398.69	-49.50	54.48	392,218.7033	564,914.8814	32° 4' 41.345 N	104° 7' 25.497 W
3,425.00	0.56	90.49	3,423.69	-49.50	54.73	392,218.6975	564,915.1278	32° 4' 41.345 N	104° 7' 25.494 W
3,450.00	0.62	78.04	3,448.69	-49.48	54.98	392,218.7245	564,915.3823	32° 4' 41.346 N	104° 7' 25.491 W
3,475.00	0.61	79.06	3,473.69	-49.42	55.25	392,218.7778	564,915.6453	32° 4' 41.346 N	104° 7' 25.488 W
3,500.00	0.54	86.04	3,498.68	-49.39	55.49	392,218.8111	564,915.8935	32° 4' 41.346 N	104° 7' 25.485 W
3,525.00	0.64	94.27	3,523.68	-49.39	55.75	392,218.8089	564,916.1502	32° 4' 41.346 N	104° 7' 25.482 W
3,550.00	0.54	92.00	3,548.68	-49.41	56.01	392,218.7944	564,916.4072	32° 4' 41.346 N	104° 7' 25.479 W
3,575.00	0.54	90.08	3,573.68	-49.41	56.24	392,218.7901	564,916.6428	32° 4' 41.346 N	104° 7' 25.476 W
3,600.00	0.53	84.52	3,598.68	-49.40	56.48	392,218.8010	564,916.8757	32° 4' 41.346 N	104° 7' 25.474 W
3,625.00	0.60	84.13	3,623.68	-49.37	56.72	392,218.8254	564,917.1210	32° 4' 41.347 N	104° 7' 25.471 W
3,650.00	0.80	80.93	3,648.68	-49.33	57.02	392,218.8663	564,917.4235	32° 4' 41.347 N	104° 7' 25.467 W
3,675.00	0.69	76.33	3,673.67	-49.27	57.34	392,218.9294	564,917.7421	32° 4' 41.348 N	104° 7' 25.464 W
3,700.00	0.57	75.82	3,698.67	-49.20	57.61	392,218.9954	564,918.0090	32° 4' 41.348 N	104° 7' 25.461 W
3,725.00	0.58	79.67	3,723.67	-49.15	57.85	392,219.0486	564,918.2540	32° 4' 41.349 N	104° 7' 25.458 W
3,750.00	0.59	78.42	3,748.67	-49.10	58.10	392,219.0971	564,918.5046	32° 4' 41.349 N	104° 7' 25.455 W
3,775.00	0.48	70.74	3,773.67	-49.04	58.33	392,219.1575	564,918.7296	32° 4' 41.350 N	104° 7' 25.452 W
3,800.00	0.51	69.22	3,798.67	-48.97	58.53	392,219.2315	564,918.9324	32° 4' 41.351 N	104° 7' 25.450 W
3,825.00	0.43	65.43	3,823.67	-48.89	58.72	392,219.3100	564,919.1218	32° 4' 41.351 N	104° 7' 25.448 W
3,850.00	0.35	42.75	3,848.67	-48.80	58.86	392,219.4051	564,919.2589	32° 4' 41.352 N	104° 7' 25.446 W
3,875.00	0.37	77.87	3,873.67	-48.72	58.99	392,219.4781	564,919.3897	32° 4' 41.353 N	104° 7' 25.444 W
3,900.00	0.31	58.19	3,898.67	-48.67	59.13	392,219.5307	564,919.5261	32° 4' 41.354 N	104° 7' 25.443 W
3,925.00	0.38	64.75	3,923.67	-48.60	59.26	392,219.6017	564,919.6585	32° 4' 41.354 N	104° 7' 25.441 W
3,950.00	0.25	79.78	3,948.67	-48.55	59.39	392,219.6468	564,919.7872	32° 4' 41.355 N	104° 7' 25.440 W
3,975.00	0.25	102.33	3,973.66	-48.56	59.49	392,219.6448	564,919.8941	32° 4' 41.355 N	104° 7' 25.439 W
4,000.00	0.23	111.38	3,998.66	-48.59	59.59	392,219.6149	564,919.9941	32° 4' 41.354 N	104° 7' 25.437 W
4,025.00	0.35	111.10	4,023.66	-48.63	59.71	392,219.5691	564,920.1121	32° 4' 41.354 N	104° 7' 25.436 W
4,050.00	0.30	95.41	4,048.66	-48.66	59.85	392,219.5354	564,920.2485	32° 4' 41.354 N	104° 7' 25.435 W
4,075.00	0.31	105.15	4,073.66	-48.69	59.98	392,219.5116	564,920.3789	32° 4' 41.353 N	104° 7' 25.433 W
4,100.00	0.25	104.03	4,098.66	-48.72	60.10	392,219.4807	564,920.4971	32° 4' 41.353 N	104° 7' 25.432 W
4,125.00	0.36	117.38	4,123.66	-48.77	60.22	392,219.4313	564,920.6198	32° 4' 41.353 N	104° 7' 25.430 W
4,150.00	0.33	126.67	4,148.66	-48.85	60.35	392,219.3522	564,920.7473	32° 4' 41.352 N	104° 7' 25.429 W
4,175.00	0.38	135.11	4,173.66	-48.95	60.46	392,219.2505	564,920.8635	32° 4' 41.351 N	104° 7' 25.427 W
4,200.00	0.33	141.53	4,198.66	-49.06	60.57	392,219.1354	564,920.9668	32° 4' 41.350 N	104° 7' 25.426 W
4,225.00	0.40	135.46	4,223.66	-49.18	60.67	392,219.0168	564,921.0728	32° 4' 41.348 N	104° 7' 25.425 W
4,250.00	0.30	162.89	4,248.66	-49.31	60.75	392,218.8921	564,921.1533	32° 4' 41.347 N	104° 7' 25.424 W
4,275.00	0.24	159.13	4,273.66	-49.42	60.79	392,218.7806	564,921.1912	32° 4' 41.346 N	104° 7' 25.424 W
4,300.00	0.45	172.72	4,298.66	-49.57	60.82	392,218.6343	564,921.2223	32° 4' 41.345 N	104° 7' 25.423 W
4,325.00	0.41	185.85	4,323.66	-49.75	60.83	392,218.4479	564,921.2256	32° 4' 41.343 N	104° 7' 25.423 W
4,350.00	0.51	169.38	4,348.66	-49.95	60.84	392,218.2496	564,921.2370	32° 4' 41.341 N	104° 7' 25.423 W
4,375.00	0.63	164.04	4,373.66	-50.19	60.90	392,218.0081	564,921.2953	32° 4' 41.338 N	104° 7' 25.422 W



Integrity Directional Services, LLC

Survey Report - Geographic



Company: COG Operating L L C
Project: Eddy County, NM (NAD 27 NME)
Site: Sec. 6, T 26 S., R 28 E
Well: Myox 6 State 2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Myox 6 State 2H
TVD Reference: KB=20' @ 3065.80ft (Patriot 2)
MD Reference: KB=20' @ 3065.80ft (Patriot 2)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,400.00	0.50	163.46	4,398.66	-50.43	60.96	392,217.7714	564,921.3641	32° 4' 41.336 N	104° 7' 25.422 W
4,425.00	0.69	154.42	4,423.65	-50.67	61.06	392,217.5310	564,921.4602	32° 4' 41.334 N	104° 7' 25.420 W
4,450.00	0.60	147.53	4,448.65	-50.92	61.20	392,217.2848	564,921.5955	32° 4' 41.331 N	104° 7' 25.419 W
4,475.00	0.59	153.30	4,473.65	-51.14	61.32	392,217.0594	564,921.7236	32° 4' 41.329 N	104° 7' 25.417 W
4,500.00	0.84	155.71	4,498.65	-51.42	61.46	392,216.7774	564,921.8568	32° 4' 41.326 N	104° 7' 25.416 W
4,525.00	0.72	157.66	4,523.65	-51.74	61.59	392,216.4651	564,921.9919	32° 4' 41.323 N	104° 7' 25.414 W
4,550.00	0.80	173.06	4,548.65	-52.05	61.67	392,216.1465	564,922.0727	32° 4' 41.320 N	104° 7' 25.413 W
4,575.00	0.81	175.97	4,573.64	-52.40	61.71	392,215.7970	564,922.1062	32° 4' 41.317 N	104° 7' 25.413 W
4,600.00	0.93	175.95	4,598.64	-52.78	61.73	392,215.4183	564,922.1329	32° 4' 41.313 N	104° 7' 25.413 W
4,625.00	1.02	185.45	4,623.64	-53.21	61.73	392,214.9945	564,922.1261	32° 4' 41.309 N	104° 7' 25.413 W
4,650.00	0.90	176.61	4,648.63	-53.62	61.72	392,214.5769	564,922.1166	32° 4' 41.304 N	104° 7' 25.413 W
4,675.00	1.14	172.93	4,673.63	-54.07	61.76	392,214.1341	564,922.1588	32° 4' 41.300 N	104° 7' 25.412 W
4,700.00	0.98	175.80	4,698.62	-54.53	61.81	392,213.6741	564,922.2051	32° 4' 41.296 N	104° 7' 25.412 W
4,725.00	1.02	172.59	4,723.62	-54.96	61.85	392,213.2403	564,922.2494	32° 4' 41.291 N	104° 7' 25.411 W
4,750.00	1.09	184.20	4,748.62	-55.42	61.86	392,212.7824	564,922.2607	32° 4' 41.287 N	104° 7' 25.411 W
4,775.00	1.26	181.59	4,773.61	-55.93	61.84	392,212.2705	564,922.2357	32° 4' 41.282 N	104° 7' 25.412 W
4,800.00	1.04	176.53	4,798.61	-56.43	61.84	392,211.7693	564,922.2418	32° 4' 41.277 N	104° 7' 25.412 W
4,825.00	1.15	166.91	4,823.60	-56.90	61.91	392,211.2985	564,922.3123	32° 4' 41.272 N	104° 7' 25.411 W
4,850.00	1.24	176.12	4,848.60	-57.42	61.99	392,210.7842	564,922.3875	32° 4' 41.267 N	104° 7' 25.410 W
4,875.00	1.21	179.09	4,873.59	-57.95	62.01	392,210.2504	564,922.4100	32° 4' 41.262 N	104° 7' 25.410 W
4,900.00	1.17	189.71	4,898.59	-58.47	61.97	392,209.7349	564,922.3711	32° 4' 41.257 N	104° 7' 25.410 W
4,925.00	1.11	185.23	4,923.58	-58.96	61.91	392,209.2422	564,922.3060	32° 4' 41.252 N	104° 7' 25.411 W
4,950.00	1.19	188.26	4,948.58	-59.46	61.85	392,208.7442	564,922.2466	32° 4' 41.247 N	104° 7' 25.412 W
4,975.00	1.29	177.82	4,973.57	-59.99	61.82	392,208.2061	564,922.2200	32° 4' 41.241 N	104° 7' 25.412 W
5,000.00	1.24	177.41	4,998.56	-60.55	61.84	392,207.6546	564,922.2429	32° 4' 41.236 N	104° 7' 25.412 W
5,025.00	1.25	176.89	5,023.56	-61.09	61.87	392,207.1121	564,922.2700	32° 4' 41.231 N	104° 7' 25.411 W
5,050.00	1.26	178.92	5,048.55	-61.64	61.89	392,206.5650	564,922.2899	32° 4' 41.225 N	104° 7' 25.411 W
5,075.00	1.45	177.55	5,073.54	-62.23	61.91	392,205.9742	564,922.3086	32° 4' 41.219 N	104° 7' 25.411 W
5,100.00	1.44	181.54	5,098.54	-62.86	61.91	392,205.3441	564,922.3137	32° 4' 41.213 N	104° 7' 25.411 W
5,125.00	1.39	172.72	5,123.53	-63.47	61.94	392,204.7293	564,922.3437	32° 4' 41.207 N	104° 7' 25.410 W
5,150.00	1.33	169.56	5,148.52	-64.06	62.03	392,204.1432	564,922.4347	32° 4' 41.201 N	104° 7' 25.409 W
5,175.00	1.35	160.08	5,173.51	-64.62	62.19	392,203.5810	564,922.5876	32° 4' 41.196 N	104° 7' 25.408 W
5,200.00	1.38	156.60	5,198.51	-65.17	62.41	392,203.0279	564,922.8075	32° 4' 41.190 N	104° 7' 25.405 W
5,225.00	1.52	157.32	5,223.50	-65.75	62.66	392,202.4457	564,923.0549	32° 4' 41.184 N	104° 7' 25.402 W
5,250.00	1.46	166.60	5,248.49	-66.37	62.86	392,201.8299	564,923.2566	32° 4' 41.178 N	104° 7' 25.400 W
5,275.00	1.36	160.13	5,273.48	-66.96	63.03	392,201.2411	564,923.4312	32° 4' 41.172 N	104° 7' 25.398 W
5,300.00	1.41	150.05	5,298.48	-67.50	63.29	392,200.6956	564,923.6856	32° 4' 41.167 N	104° 7' 25.395 W
5,325.00	1.45	149.32	5,323.47	-68.04	63.60	392,200.1570	564,924.0006	32° 4' 41.162 N	104° 7' 25.391 W
5,350.00	1.58	148.06	5,348.46	-68.61	63.94	392,199.5925	564,924.3443	32° 4' 41.156 N	104° 7' 25.387 W
5,375.00	1.40	151.21	5,373.45	-69.17	64.27	392,199.0324	564,924.6737	32° 4' 41.151 N	104° 7' 25.384 W
5,400.00	1.24	148.98	5,398.44	-69.67	64.56	392,198.5329	564,924.9602	32° 4' 41.146 N	104° 7' 25.380 W
5,425.00	1.27	153.75	5,423.44	-70.15	64.82	392,198.0526	564,925.2221	32° 4' 41.141 N	104° 7' 25.377 W
5,450.00	1.23	152.79	5,448.43	-70.63	65.07	392,197.5655	564,925.4674	32° 4' 41.136 N	104° 7' 25.374 W
5,475.00	1.35	148.80	5,473.43	-71.13	65.34	392,197.0750	564,925.7426	32° 4' 41.131 N	104° 7' 25.371 W
5,500.00	1.42	144.22	5,498.42	-71.63	65.68	392,196.5718	564,926.0763	32° 4' 41.126 N	104° 7' 25.367 W
5,525.00	1.27	156.04	5,523.41	-72.13	65.97	392,196.0673	564,926.3699	32° 4' 41.121 N	104° 7' 25.364 W
5,550.00	1.27	140.18	5,548.41	-72.60	66.26	392,195.6013	564,926.6598	32° 4' 41.117 N	104° 7' 25.361 W
5,575.00	1.57	138.66	5,573.40	-73.07	66.66	392,195.1314	564,927.0634	32° 4' 41.112 N	104° 7' 25.356 W
5,600.00	1.45	149.85	5,598.39	-73.60	67.05	392,194.6007	564,927.4485	32° 4' 41.107 N	104° 7' 25.351 W
5,625.00	1.50	146.53	5,623.38	-74.15	67.39	392,194.0543	564,927.7879	32° 4' 41.101 N	104° 7' 25.347 W
5,650.00	1.35	160.25	5,648.37	-74.70	67.67	392,193.5042	564,928.0678	32° 4' 41.096 N	104° 7' 25.344 W
5,675.00	1.36	156.70	5,673.37	-75.25	67.88	392,192.9545	564,928.2847	32° 4' 41.090 N	104° 7' 25.342 W
5,700.00	1.37	155.69	5,698.36	-75.79	68.13	392,192.4097	564,928.5251	32° 4' 41.085 N	104° 7' 25.339 W
5,725.00	1.43	157.21	5,723.35	-76.35	68.37	392,191.8497	564,928.7689	32° 4' 41.079 N	104° 7' 25.336 W
5,750.00	1.45	158.54	5,748.34	-76.93	68.61	392,191.2677	564,929.0055	32° 4' 41.074 N	104° 7' 25.333 W



Integrity Directional Services, LLC

Survey Report - Geographic



Company: COG Operating L L C
Project: Eddy County, NM (NAD 27 NME)
Site: Sec. 6, T 26 S., R 28 E
Well: Myox 6 State 2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Myox 6 State 2H
TVD Reference: KB=20' @ 3065.80ft (Patriot 2)
MD Reference: KB=20' @ 3065.80ft (Patriot 2)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,775.00	1.40	166.35	5,773.34	-77.52	68.79	392,190.6766	564,929.1933	32° 4' 41.068 N	104° 7' 25.331 W
5,800.00	1.71	160.95	5,798.33	-78.17	68.99	392,190.0272	564,929.3871	32° 4' 41.061 N	104° 7' 25.329 W
5,825.00	1.73	162.22	5,823.32	-78.88	69.22	392,189.3153	564,929.6241	32° 4' 41.054 N	104° 7' 25.326 W
5,850.00	1.72	168.24	5,848.31	-79.61	69.42	392,188.5886	564,929.8158	32° 4' 41.047 N	104° 7' 25.324 W
5,875.00	1.73	173.28	5,873.29	-80.35	69.54	392,187.8466	564,929.9364	32° 4' 41.040 N	104° 7' 25.323 W
5,900.00	1.59	183.66	5,898.28	-81.07	69.56	392,187.1256	564,929.9584	32° 4' 41.033 N	104° 7' 25.322 W
5,925.00	1.69	184.79	5,923.27	-81.79	69.51	392,186.4122	564,929.9055	32° 4' 41.026 N	104° 7' 25.323 W
5,950.00	1.60	173.71	5,948.26	-82.50	69.51	392,185.6979	564,929.9130	32° 4' 41.019 N	104° 7' 25.323 W
5,975.00	1.48	181.62	5,973.25	-83.17	69.54	392,185.0282	564,929.9421	32° 4' 41.012 N	104° 7' 25.323 W
6,000.00	1.32	188.25	5,998.25	-83.78	69.49	392,184.4205	564,929.8916	32° 4' 41.006 N	104° 7' 25.323 W
6,025.00	0.86	191.34	6,023.24	-84.25	69.41	392,183.9516	564,929.8134	32° 4' 41.001 N	104° 7' 25.324 W
6,050.00	0.88	187.13	6,048.24	-84.62	69.35	392,183.5772	564,929.7527	32° 4' 40.998 N	104° 7' 25.325 W
6,075.00	0.77	195.04	6,073.24	-84.98	69.29	392,183.2244	564,929.6853	32° 4' 40.994 N	104° 7' 25.326 W
6,100.00	0.86	191.88	6,098.23	-85.32	69.20	392,182.8786	564,929.6031	32° 4' 40.991 N	104° 7' 25.327 W
6,125.00	0.92	192.30	6,123.23	-85.70	69.12	392,182.4989	564,929.5217	32° 4' 40.987 N	104° 7' 25.328 W
6,150.00	0.85	205.88	6,148.23	-86.06	69.00	392,182.1360	564,929.3980	32° 4' 40.983 N	104° 7' 25.329 W
6,175.00	0.83	227.11	6,173.23	-86.35	68.78	392,181.8459	564,929.1844	32° 4' 40.980 N	104° 7' 25.332 W
6,200.00	0.75	225.99	6,198.22	-86.59	68.53	392,181.6090	564,928.9341	32° 4' 40.978 N	104° 7' 25.334 W
6,225.00	0.73	237.92	6,223.22	-86.79	68.28	392,181.4107	564,928.6814	32° 4' 40.976 N	104° 7' 25.337 W
6,250.00	0.87	240.75	6,248.22	-86.97	67.98	392,181.2334	564,928.3809	32° 4' 40.974 N	104° 7' 25.341 W
6,275.00	0.99	258.39	6,273.22	-87.10	67.60	392,181.0972	564,928.0037	32° 4' 40.973 N	104° 7' 25.345 W
6,300.00	1.29	253.55	6,298.21	-87.23	67.12	392,180.9741	564,927.5223	32° 4' 40.972 N	104° 7' 25.351 W
6,325.00	1.32	265.92	6,323.20	-87.33	66.57	392,180.8739	564,926.9652	32° 4' 40.971 N	104° 7' 25.357 W
6,350.00	1.39	261.40	6,348.20	-87.39	65.98	392,180.8080	564,926.3781	32° 4' 40.970 N	104° 7' 25.364 W
6,375.00	1.24	264.41	6,373.19	-87.46	65.41	392,180.7364	564,925.8091	32° 4' 40.969 N	104° 7' 25.371 W
6,400.00	1.27	262.27	6,398.18	-87.53	64.87	392,180.6727	564,925.2654	32° 4' 40.969 N	104° 7' 25.377 W
6,425.00	1.35	259.88	6,423.18	-87.62	64.30	392,180.5837	564,924.7009	32° 4' 40.968 N	104° 7' 25.384 W
6,450.00	1.73	250.80	6,448.17	-87.79	63.65	392,180.4079	564,924.0546	32° 4' 40.966 N	104° 7' 25.391 W
6,475.00	1.72	241.38	6,473.16	-88.10	62.97	392,180.1041	564,923.3689	32° 4' 40.963 N	104° 7' 25.399 W
6,500.00	1.46	236.97	6,498.15	-88.45	62.37	392,179.7507	564,922.7725	32° 4' 40.960 N	104° 7' 25.406 W
6,525.00	1.40	230.43	6,523.14	-88.82	61.87	392,179.3826	564,922.2701	32° 4' 40.956 N	104° 7' 25.412 W
6,550.00	1.62	215.16	6,548.13	-89.30	61.43	392,178.8991	564,921.8312	32° 4' 40.951 N	104° 7' 25.417 W
6,575.00	1.47	218.01	6,573.12	-89.84	61.03	392,178.3576	564,921.4302	32° 4' 40.946 N	104° 7' 25.422 W
6,600.00	1.47	223.70	6,598.11	-90.33	60.61	392,177.8731	564,921.0112	32° 4' 40.941 N	104° 7' 25.427 W
6,625.00	1.47	235.40	6,623.11	-90.74	60.13	392,177.4592	564,920.5257	32° 4' 40.937 N	104° 7' 25.432 W
6,650.00	1.44	240.74	6,648.10	-91.08	59.59	392,177.1235	564,919.9877	32° 4' 40.934 N	104° 7' 25.439 W
6,675.00	1.63	246.10	6,673.09	-91.37	58.99	392,176.8260	564,919.3886	32° 4' 40.931 N	104° 7' 25.445 W
6,700.00	1.59	253.97	6,698.08	-91.61	58.33	392,176.5861	564,918.7302	32° 4' 40.929 N	104° 7' 25.453 W
6,725.00	1.62	252.87	6,723.07	-91.81	57.66	392,176.3863	564,918.0591	32° 4' 40.927 N	104° 7' 25.461 W
6,750.00	1.62	255.58	6,748.06	-92.01	56.98	392,176.1942	564,917.3791	32° 4' 40.925 N	104° 7' 25.469 W
6,775.00	1.60	259.49	6,773.05	-92.16	56.29	392,176.0425	564,916.6937	32° 4' 40.923 N	104° 7' 25.477 W
6,800.00	1.60	265.58	6,798.04	-92.25	55.60	392,175.9519	564,916.0026	32° 4' 40.922 N	104° 7' 25.485 W
6,825.00	1.53	273.59	6,823.03	-92.25	54.92	392,175.9459	564,915.3215	32° 4' 40.922 N	104° 7' 25.493 W
6,850.00	1.51	274.19	6,848.02	-92.21	54.26	392,175.9909	564,914.6599	32° 4' 40.923 N	104° 7' 25.500 W
6,875.00	1.60	276.47	6,873.01	-92.15	53.58	392,176.0543	564,913.9846	32° 4' 40.923 N	104° 7' 25.508 W
6,900.00	1.62	272.66	6,898.00	-92.09	52.88	392,176.1100	564,913.2848	32° 4' 40.924 N	104° 7' 25.516 W
6,925.00	1.52	267.91	6,922.99	-92.09	52.20	392,176.1143	564,912.6004	32° 4' 40.924 N	104° 7' 25.524 W
6,950.00	1.47	276.21	6,947.98	-92.06	51.55	392,176.1369	564,911.9503	32° 4' 40.924 N	104° 7' 25.532 W
6,975.00	1.61	276.14	6,972.98	-91.99	50.88	392,176.2092	564,911.2823	32° 4' 40.925 N	104° 7' 25.540 W
7,000.00	1.71	272.80	6,997.97	-91.94	50.16	392,176.2650	564,910.5606	32° 4' 40.926 N	104° 7' 25.548 W
7,025.00	1.62	266.31	7,022.95	-91.94	49.44	392,176.2605	564,909.8354	32° 4' 40.926 N	104° 7' 25.557 W
7,050.00	1.69	272.26	7,047.94	-91.95	48.71	392,176.2522	564,909.1144	32° 4' 40.925 N	104° 7' 25.565 W
7,075.00	1.65	278.06	7,072.93	-91.88	47.99	392,176.3173	564,908.3896	32° 4' 40.926 N	104° 7' 25.573 W
7,100.00	1.47	275.99	7,097.92	-91.80	47.31	392,176.4012	564,907.7143	32° 4' 40.927 N	104° 7' 25.581 W
7,125.00	1.28	279.08	7,122.92	-91.72	46.72	392,176.4787	564,907.1197	32° 4' 40.928 N	104° 7' 25.588 W



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7,150.00	1.17	287.16	7,147.91	-91.60	46.20	392,176.5981	564,906.6001	32° 4' 40.929 N	104° 7' 25.594 W
7,175.00	0.93	290.26	7,172.91	-91.46	45.77	392,176.7436	564,906.1659	32° 4' 40.930 N	104° 7' 25.599 W
7,200.00	0.71	290.02	7,197.90	-91.33	45.43	392,176.8669	564,905.8300	32° 4' 40.932 N	104° 7' 25.603 W
7,230.00	0.49	300.95	7,227.90	-91.20	45.15	392,176.9965	564,905.5454	32° 4' 40.933 N	104° 7' 25.606 W
7,354.00	0.50	269.60	7,351.90	-90.93	44.15	392,177.2654	564,904.5496	32° 4' 40.936 N	104° 7' 25.618 W
First IDS MWD Survey									
7,386.00	0.60	240.90	7,383.90	-91.02	43.86	392,177.1830	564,904.2636	32° 4' 40.935 N	104° 7' 25.621 W
7,417.00	3.40	201.00	7,414.88	-91.95	43.39	392,176.2456	564,903.7922	32° 4' 40.925 N	104° 7' 25.627 W
7,449.00	7.60	197.60	7,446.72	-94.86	42.41	392,173.3414	564,902.8119	32° 4' 40.897 N	104° 7' 25.638 W
7,480.00	11.10	196.80	7,477.30	-99.67	40.93	392,168.5292	564,901.3291	32° 4' 40.849 N	104° 7' 25.656 W
7,511.00	14.70	194.30	7,507.52	-106.34	39.09	392,161.8588	564,899.4944	32° 4' 40.783 N	104° 7' 25.677 W
7,543.00	18.20	191.60	7,538.20	-115.17	37.09	392,153.0264	564,897.4861	32° 4' 40.696 N	104° 7' 25.701 W
7,574.00	21.70	188.40	7,567.34	-125.59	35.27	392,142.6109	564,895.6748	32° 4' 40.593 N	104° 7' 25.722 W
7,606.00	24.70	185.10	7,596.75	-138.10	33.82	392,130.0957	564,894.2159	32° 4' 40.469 N	104° 7' 25.739 W
7,637.00	27.80	182.90	7,624.55	-151.78	32.87	392,116.4210	564,893.2741	32° 4' 40.334 N	104° 7' 25.750 W
7,669.00	31.00	181.10	7,652.43	-167.48	32.34	392,100.7249	564,892.7382	32° 4' 40.178 N	104° 7' 25.757 W
7,700.00	34.50	179.20	7,678.49	-184.24	32.31	392,083.9592	564,892.7075	32° 4' 40.012 N	104° 7' 25.758 W
7,732.00	37.70	178.90	7,704.35	-203.09	32.62	392,065.1101	564,893.0220	32° 4' 39.826 N	104° 7' 25.754 W
7,763.00	40.60	180.40	7,728.39	-222.66	32.73	392,045.5419	564,893.1336	32° 4' 39.632 N	104° 7' 25.754 W
7,795.00	44.00	182.50	7,752.05	-244.18	32.18	392,024.0184	564,892.5759	32° 4' 39.419 N	104° 7' 25.761 W
7,826.00	47.40	183.10	7,773.70	-266.34	31.09	392,001.8621	564,891.4889	32° 4' 39.200 N	104° 7' 25.774 W
7,858.00	50.40	183.20	7,794.73	-290.41	29.76	391,977.7873	564,890.1635	32° 4' 38.962 N	104° 7' 25.790 W
7,889.00	52.70	183.50	7,814.01	-314.65	28.34	391,953.5529	564,888.7439	32° 4' 38.722 N	104° 7' 25.807 W
7,921.00	54.90	182.30	7,832.91	-340.44	27.04	391,927.7655	564,887.4414	32° 4' 38.467 N	104° 7' 25.822 W
7,952.00	58.10	182.50	7,850.01	-366.26	25.96	391,901.9412	564,886.3582	32° 4' 38.211 N	104° 7' 25.836 W
7,984.00	61.70	183.70	7,866.06	-393.90	24.46	391,874.3025	564,884.8560	32° 4' 37.938 N	104° 7' 25.854 W
8,015.00	64.80	184.10	7,880.01	-421.51	22.57	391,846.6878	564,882.9721	32° 4' 37.664 N	104° 7' 25.876 W
8,047.00	66.30	184.70	7,893.26	-450.56	20.34	391,817.6445	564,880.7365	32° 4' 37.377 N	104° 7' 25.903 W
8,078.00	69.00	186.30	7,905.04	-479.09	17.59	391,789.1095	564,877.9850	32° 4' 37.095 N	104° 7' 25.935 W
8,110.00	70.60	189.10	7,916.10	-508.85	13.56	391,759.3537	564,873.9580	32° 4' 36.800 N	104° 7' 25.983 W
8,141.00	74.00	189.40	7,925.52	-537.99	8.81	391,730.2097	564,869.2109	32° 4' 36.512 N	104° 7' 26.039 W
8,172.00	77.80	190.30	7,933.07	-567.61	3.67	391,700.5931	564,864.0666	32° 4' 36.219 N	104° 7' 26.099 W
8,204.00	81.00	192.20	7,938.96	-598.45	-2.47	391,669.7496	564,857.9286	32° 4' 35.914 N	104° 7' 26.171 W
8,235.00	84.10	192.70	7,942.98	-628.46	-9.10	391,639.7381	564,851.3022	32° 4' 35.617 N	104° 7' 26.249 W
8,267.00	89.10	191.10	7,944.87	-659.71	-15.68	391,608.4917	564,844.7188	32° 4' 35.308 N	104° 7' 26.326 W
8,298.00	92.60	188.50	7,944.41	-690.25	-20.96	391,577.9549	564,839.4438	32° 4' 35.006 N	104° 7' 26.388 W
8,330.00	92.30	185.50	7,943.04	-721.98	-24.85	391,546.2261	564,835.5481	32° 4' 34.692 N	104° 7' 26.434 W
8,361.00	90.80	182.40	7,942.21	-752.89	-26.99	391,515.3158	564,833.4141	32° 4' 34.386 N	104° 7' 26.460 W
8,423.00	89.70	178.60	7,941.94	-814.87	-27.53	391,453.3312	564,832.8732	32° 4' 33.772 N	104° 7' 26.467 W
8,517.00	91.50	177.90	7,940.95	-908.82	-24.66	391,359.3848	564,835.7434	32° 4' 32.843 N	104° 7' 26.436 W
8,611.00	92.20	178.30	7,937.92	-1,002.72	-21.54	391,265.4864	564,838.8584	32° 4' 31.913 N	104° 7' 26.402 W
8,706.00	92.80	178.60	7,933.77	-1,097.59	-18.97	391,170.6123	564,841.4257	32° 4' 30.974 N	104° 7' 26.374 W
8,800.00	93.20	178.90	7,928.85	-1,191.44	-16.93	391,076.7639	564,843.4735	32° 4' 30.046 N	104° 7' 26.353 W
8,894.00	92.10	178.50	7,924.51	-1,285.31	-14.80	390,982.8905	564,845.6040	32° 4' 29.116 N	104° 7' 26.330 W
8,989.00	92.90	178.90	7,920.36	-1,380.20	-12.64	390,888.0065	564,847.7573	32° 4' 28.177 N	104° 7' 26.307 W
9,083.00	91.10	178.20	7,917.08	-1,474.10	-10.27	390,794.0984	564,850.1347	32° 4' 27.248 N	104° 7' 26.282 W
9,178.00	89.40	178.50	7,916.67	-1,569.06	-7.53	390,699.1425	564,852.8699	32° 4' 26.308 N	104° 7' 26.252 W
9,272.00	89.70	178.90	7,917.41	-1,663.03	-5.40	390,605.1701	564,855.0025	32° 4' 25.378 N	104° 7' 26.229 W
9,366.00	90.90	180.20	7,916.91	-1,757.03	-4.66	390,511.1782	564,855.7407	32° 4' 24.448 N	104° 7' 26.223 W
9,461.00	89.60	179.20	7,916.50	-1,852.02	-4.16	390,416.1838	564,856.2382	32° 4' 23.508 N	104° 7' 26.219 W
9,555.00	88.80	178.90	7,917.81	-1,946.00	-2.60	390,322.2070	564,857.7965	32° 4' 22.578 N	104° 7' 26.203 W
9,650.00	89.00	178.90	7,919.64	-2,040.96	-0.78	390,227.2422	564,859.6199	32° 4' 21.638 N	104° 7' 26.184 W
9,744.00	88.70	178.80	7,921.52	-2,134.92	1.11	390,133.2804	564,861.5061	32° 4' 20.708 N	104° 7' 26.164 W
9,838.00	89.50	179.30	7,923.00	-2,228.90	2.66	390,039.3062	564,863.0643	32° 4' 19.778 N	104° 7' 26.148 W
9,932.00	90.00	179.90	7,923.41	-2,322.89	3.32	389,945.3103	564,863.7206	32° 4' 18.848 N	104° 7' 26.143 W



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10,027.00	90.60	180.20	7,922.91	-2,417.89	3.24	389,850.3124	564,863.6377	32° 4' 17.908 N	104° 7' 26.146 W
10,121.00	90.90	180.00	7,921.68	-2,511.88	3.07	389,756.3210	564,863.4736	32° 4' 16.977 N	104° 7' 26.150 W
10,216.00	89.90	179.60	7,921.02	-2,606.88	3.41	389,661.3254	564,863.8052	32° 4' 16.037 N	104° 7' 26.148 W
10,310.00	88.80	179.60	7,922.08	-2,700.87	4.06	389,567.3354	564,864.4614	32° 4' 15.107 N	104° 7' 26.143 W
10,405.00	89.40	180.10	7,923.58	-2,795.86	4.31	389,472.3484	564,864.7101	32° 4' 14.167 N	104° 7' 26.142 W
10,499.00	89.90	180.50	7,924.15	-2,889.85	3.82	389,378.3521	564,864.2179	32° 4' 13.237 N	104° 7' 26.150 W
10,593.00	89.60	180.30	7,924.56	-2,983.85	3.16	389,284.3556	564,863.5616	32° 4' 12.306 N	104° 7' 26.160 W
10,688.00	90.40	181.10	7,924.56	-3,078.84	2.00	389,189.3644	564,862.4011	32° 4' 11.366 N	104° 7' 26.175 W
10,782.00	88.70	180.40	7,925.30	-3,172.83	0.77	389,095.3796	564,861.1707	32° 4' 10.436 N	104° 7' 26.192 W
10,876.00	89.20	180.60	7,927.02	-3,266.81	-0.05	389,001.3995	564,860.3505	32° 4' 9.506 N	104° 7' 26.203 W
10,970.00	89.70	180.70	7,927.92	-3,360.80	-1.12	388,907.4104	564,859.2842	32° 4' 8.576 N	104° 7' 26.218 W
11,065.00	90.50	180.80	7,927.76	-3,455.79	-2.36	388,812.4196	564,858.0407	32° 4' 7.636 N	104° 7' 26.234 W
11,159.00	91.10	181.00	7,926.45	-3,549.77	-3.84	388,718.4411	564,856.5644	32° 4' 6.706 N	104° 7' 26.254 W
11,253.00	89.70	180.70	7,925.79	-3,643.75	-5.23	388,624.4563	564,855.1700	32° 4' 5.776 N	104° 7' 26.272 W
11,348.00	90.40	181.20	7,925.71	-3,738.74	-6.81	388,529.4705	564,853.5949	32° 4' 4.836 N	104° 7' 26.292 W
11,442.00	91.30	181.30	7,924.31	-3,832.70	-8.86	388,435.5044	564,851.5446	32° 4' 3.906 N	104° 7' 26.318 W
11,536.00	89.90	181.20	7,923.33	-3,926.67	-10.91	388,341.5344	564,849.4942	32° 4' 2.976 N	104° 7' 26.344 W
11,631.00	89.50	180.60	7,923.83	-4,021.66	-12.40	388,246.5483	564,848.0020	32° 4' 2.036 N	104° 7' 26.364 W
11,725.00	87.80	180.40	7,926.04	-4,115.63	-13.22	388,152.5816	564,847.1819	32° 4' 1.106 N	104° 7' 26.375 W
11,819.00	88.40	180.60	7,929.16	-4,209.57	-14.04	388,058.6375	564,846.3620	32° 4' 0.176 N	104° 7' 26.387 W
11,914.00	88.50	180.50	7,931.73	-4,304.53	-14.95	387,963.6769	564,845.4504	32° 3' 59.237 N	104° 7' 26.400 W
12,008.00	89.60	180.90	7,933.28	-4,398.51	-16.10	387,869.6986	564,844.3022	32° 3' 58.307 N	104° 7' 26.415 W
12,103.00	90.30	181.00	7,933.37	-4,493.50	-17.67	387,774.7125	564,842.7271	32° 3' 57.367 N	104° 7' 26.436 W
12,197.00	91.00	181.00	7,932.30	-4,587.48	-19.31	387,680.7337	564,841.0867	32° 3' 56.437 N	104° 7' 26.457 W
12,291.00	91.40	180.80	7,930.33	-4,681.44	-20.79	387,586.7663	564,839.6105	32° 3' 55.507 N	104° 7' 26.476 W
12,386.00	90.80	179.80	7,928.51	-4,776.42	-21.29	387,491.7869	564,839.1133	32° 3' 54.567 N	104° 7' 26.484 W
12,463.00	91.00	179.60	7,927.30	-4,853.41	-20.88	387,414.7977	564,839.5164	32° 3' 53.805 N	104° 7' 26.481 W
Final IDS MWD Survey									
12,520.00	91.00	179.60	7,926.30	-4,910.40	-20.49	387,357.8079	564,839.9143	32° 3' 53.241 N	104° 7' 26.478 W
Projection to TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
7,354.00	7,351.90	-90.93	44.15	First IDS MWD Survey
12,463.00	7,927.30	-4,853.41	-20.88	Final IDS MWD Survey
12,520.00	7,926.30	-4,910.40	-20.49	Projection to TD

Checked By: _____ Approved By: _____ Date: _____