



Fleur De Lis Energy, LLC

Reagan CountyTx
Sec 22 & 27, BLK 10, U.L.S
University 10 #2703H

Wellbore #1

Survey: IDS Surveys

Survey Report - Geographic

08 May, 2017



[illegible]

PENNEL & MARLOWE
RESIDENTIAL, OILFIELD &
LAND SURVEYORS, INC.
ALL TYPES OF SURVEYS



Stephen P. Marlowe
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 5715

January 26, 2017
170126JUR1-NRL

P.O. Box 51887, Midland, Texas 79710 (432) 262-0901 Fax (432) 262-0679 Firm #100201-00

FDL OPERATING, LLC
University 10 #2703H
2234' FROM SOUTH LINE
2647' FROM WEST LINE
Sections 22 & 27, Block 10
University Lands Survey
Reagan County, Texas

Scale: 1" = 1000'

Company:	Fleur De Lis Energy, LLC	Local Co-ordinate Reference:	Well University 10 #2703H
Project:	Reagan CountyTx	TVD Reference:	KB=25' @ 2747.00ft
Site:	Sec 22 & 27, BLK 10, U.L.S	MD Reference:	KB=25' @ 2747.00ft
Well:	University 10 #2703H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Multi User Db

Project	Reagan CountyTx		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Texas Central Zone		

Site	Sec 22 & 27, BLK 10, U.L.S				
Site Position:		Northing:	10,414,991.6846 usft	Latitude:	31° 14' 6.913 N
From:	Lat/Long	Easting:	1,923,765.0864 usft	Longitude:	101° 31' 34.573 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.61 °

Well	University 10 #2703H					
Well Position	+N/-S	0.00 ft	Northing:	10,414,990.6064 usft	Latitude:	31° 14' 6.907 N
	+E/-W	0.00 ft	Easting:	1,923,805.4279 usft	Longitude:	101° 31' 34.108 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	2,722.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/7/2017	5.87	59.60	47,716

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	354.34	

Survey Program	Date	5/8/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
85.00	855.00	Gyros (Wellbore #1)	NS-GYRO-MS	North sensing gyrocompassing m/s	
898.00	16,480.00	IDS 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	
855.00	0.08	345.94	854.99	-0.93	1.33	10,414,989.6742	1,923,806.7597	31° 14' 6.898 N	101° 31' 34.093 W	
898.00	0.80	249.70	897.98	-1.01	1.04	10,414,989.5992	1,923,806.4708	31° 14' 6.897 N	101° 31' 34.096 W	
1st MWD Survey										
988.00	0.90	242.60	987.97	-1.55	-0.17	10,414,989.0560	1,923,805.2540	31° 14' 6.891 N	101° 31' 34.110 W	
1,079.00	0.90	239.70	1,078.96	-2.24	-1.43	10,414,988.3665	1,923,804.0025	31° 14' 6.884 N	101° 31' 34.124 W	
1,170.00	0.90	242.00	1,169.95	-2.94	-2.67	10,414,987.6704	1,923,802.7544	31° 14' 6.877 N	101° 31' 34.138 W	
1,260.00	0.90	239.70	1,259.94	-3.62	-3.91	10,414,986.9819	1,923,801.5200	31° 14' 6.870 N	101° 31' 34.153 W	
1,350.00	0.90	233.80	1,349.93	-4.40	-5.09	10,414,986.2079	1,923,800.3394	31° 14' 6.863 N	101° 31' 34.166 W	
1,441.00	0.90	236.70	1,440.92	-5.21	-6.26	10,414,985.3934	1,923,799.1653	31° 14' 6.854 N	101° 31' 34.179 W	
1,530.00	1.10	250.30	1,529.91	-5.88	-7.65	10,414,984.7217	1,923,797.7768	31° 14' 6.848 N	101° 31' 34.195 W	
1,621.00	0.40	242.40	1,620.90	-6.33	-8.76	10,414,984.2800	1,923,796.6729	31° 14' 6.843 N	101° 31' 34.208 W	

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Design:	Wellbore #1	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	
1,711.00	1.00	59.50	1,710.89	-6.07	-8.36	10,414,984.5331	1,923,797.0712	31° 14' 6.846 N	101° 31' 34.204 W	
1,801.00	1.70	54.30	1,800.87	-4.90	-6.60	10,414,985.7107	1,923,798.8321	31° 14' 6.857 N	101° 31' 34.183 W	
1,891.00	1.70	52.00	1,890.83	-3.29	-4.46	10,414,987.3116	1,923,800.9682	31° 14' 6.874 N	101° 31' 34.159 W	
1,987.00	1.40	52.10	1,986.79	-1.70	-2.41	10,414,988.9087	1,923,803.0157	31° 14' 6.890 N	101° 31' 34.136 W	
2,076.00	0.80	317.70	2,075.78	-0.57	-1.97	10,414,990.0362	1,923,803.4555	31° 14' 6.901 N	101° 31' 34.131 W	
2,167.00	2.70	260.70	2,166.74	-0.45	-4.52	10,414,990.1597	1,923,800.9124	31° 14' 6.902 N	101° 31' 34.160 W	
2,257.00	5.00	254.90	2,256.53	-1.81	-10.39	10,414,988.7953	1,923,795.0331	31° 14' 6.888 N	101° 31' 34.228 W	
2,348.00	7.20	256.70	2,347.01	-4.16	-19.77	10,414,986.4501	1,923,785.6536	31° 14' 6.863 N	101° 31' 34.335 W	
2,439.00	8.90	255.60	2,437.11	-7.22	-32.14	10,414,983.3873	1,923,773.2848	31° 14' 6.832 N	101° 31' 34.477 W	
2,529.00	9.10	255.60	2,526.00	-10.72	-45.78	10,414,979.8860	1,923,759.6480	31° 14' 6.796 N	101° 31' 34.634 W	
2,618.00	8.60	256.40	2,613.94	-14.04	-59.06	10,414,976.5710	1,923,746.3633	31° 14' 6.761 N	101° 31' 34.787 W	
2,711.00	8.50	256.10	2,705.91	-17.32	-72.50	10,414,973.2848	1,923,732.9330	31° 14' 6.728 N	101° 31' 34.941 W	
2,803.00	9.10	254.20	2,796.83	-20.94	-86.10	10,414,969.6705	1,923,719.3324	31° 14' 6.690 N	101° 31' 35.097 W	
2,896.00	9.50	255.60	2,888.60	-24.85	-100.61	10,414,965.7594	1,923,704.8222	31° 14' 6.650 N	101° 31' 35.264 W	
2,987.00	10.60	255.20	2,978.21	-28.85	-115.97	10,414,961.7537	1,923,689.4560	31° 14' 6.609 N	101° 31' 35.440 W	
3,079.00	13.20	254.10	3,068.22	-33.89	-134.26	10,414,956.7136	1,923,671.1695	31° 14' 6.557 N	101° 31' 35.650 W	
3,168.00	13.50	254.00	3,154.82	-39.54	-154.02	10,414,951.0664	1,923,651.4108	31° 14' 6.499 N	101° 31' 35.877 W	
3,258.00	13.00	253.90	3,242.42	-45.24	-173.84	10,414,945.3636	1,923,631.5868	31° 14' 6.440 N	101° 31' 36.105 W	
3,349.00	12.70	253.70	3,331.14	-50.89	-193.28	10,414,939.7177	1,923,612.1521	31° 14' 6.382 N	101° 31' 36.328 W	
3,441.00	12.60	253.70	3,420.91	-56.54	-212.61	10,414,934.0629	1,923,592.8144	31° 14' 6.324 N	101° 31' 36.550 W	
3,530.00	11.30	250.20	3,507.98	-62.22	-230.14	10,414,928.3844	1,923,575.2922	31° 14' 6.266 N	101° 31' 36.751 W	
3,621.00	10.40	251.50	3,597.35	-67.85	-246.31	10,414,922.7581	1,923,559.1142	31° 14' 6.209 N	101° 31' 36.937 W	
3,710.00	9.50	251.40	3,685.01	-72.74	-260.89	10,414,917.8664	1,923,544.5349	31° 14' 6.159 N	101° 31' 37.104 W	
3,800.00	8.90	250.80	3,773.85	-77.40	-274.51	10,414,913.2078	1,923,530.9209	31° 14' 6.111 N	101° 31' 37.260 W	
3,890.00	8.40	253.00	3,862.83	-81.61	-287.37	10,414,908.9963	1,923,518.0596	31° 14' 6.068 N	101° 31' 37.408 W	
3,981.00	8.20	255.00	3,952.88	-85.23	-299.99	10,414,905.3733	1,923,505.4348	31° 14' 6.031 N	101° 31' 37.553 W	
4,074.00	9.50	255.60	4,044.77	-88.86	-313.83	10,414,901.7480	1,923,491.5943	31° 14' 5.994 N	101° 31' 37.712 W	
4,165.00	10.60	253.60	4,134.37	-93.09	-329.14	10,414,897.5171	1,923,476.2909	31° 14' 5.950 N	101° 31' 37.888 W	
4,257.00	10.00	251.50	4,224.89	-98.01	-344.83	10,414,892.5934	1,923,460.5982	31° 14' 5.900 N	101° 31' 38.068 W	
4,350.00	9.30	252.40	4,316.57	-102.85	-359.65	10,414,887.7590	1,923,445.7778	31° 14' 5.851 N	101° 31' 38.238 W	
4,440.00	9.70	256.00	4,405.34	-106.88	-373.94	10,414,883.7259	1,923,431.4891	31° 14' 5.809 N	101° 31' 38.402 W	
4,529.00	11.10	260.50	4,492.87	-110.11	-389.67	10,414,880.4978	1,923,415.7633	31° 14' 5.775 N	101° 31' 38.583 W	
4,621.00	11.60	263.50	4,583.07	-112.62	-407.59	10,414,877.9890	1,923,397.8384	31° 14' 5.749 N	101° 31' 38.789 W	
4,711.00	10.40	263.20	4,671.42	-114.60	-424.65	10,414,876.0028	1,923,380.7812	31° 14' 5.727 N	101° 31' 38.985 W	
4,804.00	10.30	264.30	4,762.91	-116.42	-441.26	10,414,874.1831	1,923,364.1729	31° 14' 5.708 N	101° 31' 39.176 W	
4,896.00	10.20	261.80	4,853.44	-118.40	-457.50	10,414,872.2043	1,923,347.9260	31° 14' 5.686 N	101° 31' 39.363 W	
4,989.00	10.60	253.70	4,944.92	-121.98	-473.86	10,414,868.6289	1,923,331.5649	31° 14' 5.649 N	101° 31' 39.551 W	
5,081.00	11.10	250.40	5,035.27	-127.32	-490.33	10,414,863.2832	1,923,315.1002	31° 14' 5.594 N	101° 31' 39.740 W	
5,172.00	10.60	253.00	5,124.64	-132.71	-506.59	10,414,857.8975	1,923,298.8438	31° 14' 5.539 N	101° 31' 39.927 W	
5,261.00	11.60	255.80	5,211.98	-137.30	-523.09	10,414,853.3091	1,923,282.3405	31° 14' 5.492 N	101° 31' 40.116 W	
5,350.00	12.20	259.30	5,299.07	-141.24	-541.00	10,414,849.3680	1,923,264.4252	31° 14' 5.451 N	101° 31' 40.322 W	
5,440.00	12.10	255.40	5,387.05	-145.38	-559.48	10,414,845.2246	1,923,245.9524	31° 14' 5.408 N	101° 31' 40.534 W	
5,529.00	12.00	251.30	5,474.09	-150.70	-577.27	10,414,839.9069	1,923,228.1616	31° 14' 5.354 N	101° 31' 40.738 W	
5,619.00	11.70	247.40	5,562.18	-157.21	-594.55	10,414,833.4002	1,923,210.8745	31° 14' 5.288 N	101° 31' 40.937 W	
5,711.00	12.20	242.90	5,652.18	-165.22	-611.82	10,414,825.3869	1,923,193.6084	31° 14' 5.206 N	101° 31' 41.135 W	
5,802.00	13.00	241.50	5,740.99	-174.48	-629.38	10,414,816.1227	1,923,176.0536	31° 14' 5.113 N	101° 31' 41.336 W	
5,891.00	12.90	238.10	5,827.73	-184.51	-646.61	10,414,806.0962	1,923,158.8219	31° 14' 5.012 N	101° 31' 41.533 W	
5,982.00	12.70	243.10	5,916.47	-194.40	-664.15	10,414,796.2024	1,923,141.2769	31° 14' 4.912 N	101° 31' 41.734 W	
6,071.00	12.70	245.90	6,003.29	-202.83	-681.81	10,414,787.7813	1,923,123.6218	31° 14' 4.827 N	101° 31' 41.936 W	
6,161.00	11.40	249.70	6,091.31	-209.95	-699.18	10,414,780.6554	1,923,106.2480	31° 14' 4.754 N	101° 31' 42.135 W	
6,251.00	10.40	248.30	6,179.69	-216.04	-715.07	10,414,774.5659	1,923,090.3577	31° 14' 4.692 N	101° 31' 42.318 W	
6,341.00	10.00	242.60	6,268.27	-222.64	-729.56	10,414,767.9660	1,923,075.8721	31° 14' 4.626 N	101° 31' 42.484 W	
6,432.00	9.70	241.30	6,357.92	-229.96	-743.30	10,414,760.6484	1,923,062.1330	31° 14' 4.552 N	101° 31' 42.641 W	
6,524.00	9.70	243.60	6,448.61	-237.13	-757.04	10,414,753.4803	1,923,048.3925	31° 14' 4.479 N	101° 31' 42.798 W	
6,613.00	10.60	246.00	6,536.22	-243.79	-771.23	10,414,746.8169	1,923,034.1982	31° 14' 4.412 N	101° 31' 42.961 W	

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Well:	University 10 #2703H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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
6,752.00	9.50	245.80	6,673.08	-253.69	-793.37	10,414,736.9145	1,923,012.0554	31° 14' 4.312 N	101° 31' 43.215 W
6,842.00	9.10	243.40	6,761.90	-259.92	-806.51	10,414,730.6831	1,922,998.9171	31° 14' 4.248 N	101° 31' 43.365 W
6,934.00	11.00	240.00	6,852.48	-267.57	-820.62	10,414,723.0362	1,922,984.8092	31° 14' 4.171 N	101° 31' 43.527 W
7,026.00	9.50	235.30	6,943.01	-276.28	-834.46	10,414,714.3249	1,922,970.9650	31° 14' 4.084 N	101° 31' 43.685 W
7,119.00	10.70	238.60	7,034.57	-285.15	-848.14	10,414,705.4573	1,922,957.2856	31° 14' 3.994 N	101° 31' 43.842 W
7,210.00	10.20	242.10	7,124.06	-293.32	-862.48	10,414,697.2855	1,922,942.9539	31° 14' 3.912 N	101° 31' 44.006 W
7,300.00	10.60	255.20	7,212.60	-299.17	-877.52	10,414,691.4413	1,922,927.9060	31° 14' 3.852 N	101° 31' 44.179 W
7,346.00	11.10	266.50	7,257.78	-300.52	-886.03	10,414,690.0901	1,922,919.3948	31° 14' 3.838 N	101° 31' 44.276 W
7,390.00	11.60	273.90	7,300.92	-300.47	-894.68	10,414,690.1324	1,922,910.7532	31° 14' 3.838 N	101° 31' 44.376 W
7,437.00	12.40	284.00	7,346.90	-298.93	-904.29	10,414,691.6748	1,922,901.1412	31° 14' 3.852 N	101° 31' 44.487 W
7,483.00	13.10	291.20	7,391.77	-295.85	-913.94	10,414,694.7550	1,922,891.4881	31° 14' 3.881 N	101° 31' 44.598 W
7,529.00	13.80	296.40	7,436.51	-291.53	-923.72	10,414,699.0797	1,922,881.7133	31° 14' 3.923 N	101° 31' 44.712 W
7,575.00	15.60	304.70	7,481.01	-285.57	-933.72	10,414,705.0413	1,922,871.7122	31° 14' 3.981 N	101° 31' 44.827 W
7,605.00	18.40	310.30	7,509.69	-280.21	-940.65	10,414,710.4015	1,922,864.7830	31° 14' 4.033 N	101° 31' 44.908 W
7,635.00	18.50	315.70	7,538.15	-273.74	-947.58	10,414,716.8707	1,922,857.8473	31° 14' 4.097 N	101° 31' 44.989 W
7,665.00	20.40	319.50	7,566.44	-266.35	-954.30	10,414,724.2539	1,922,851.1266	31° 14' 4.169 N	101° 31' 45.067 W
7,695.00	21.90	325.80	7,594.42	-257.75	-960.84	10,414,732.8587	1,922,844.5849	31° 14' 4.254 N	101° 31' 45.143 W
7,725.00	24.00	332.30	7,622.05	-247.72	-966.83	10,414,742.8906	1,922,838.6025	31° 14' 4.352 N	101° 31' 45.214 W
7,754.00	25.80	339.60	7,648.36	-236.58	-971.77	10,414,754.0310	1,922,833.6596	31° 14' 4.462 N	101° 31' 45.272 W
7,784.00	27.70	345.70	7,675.15	-223.70	-975.77	10,414,766.9102	1,922,829.6606	31° 14' 4.589 N	101° 31' 45.320 W
7,814.00	30.30	349.90	7,701.39	-209.49	-978.82	10,414,781.1214	1,922,826.6104	31° 14' 4.729 N	101° 31' 45.356 W
7,845.00	32.30	352.70	7,727.88	-193.57	-981.24	10,414,797.0381	1,922,824.1862	31° 14' 4.887 N	101° 31' 45.386 W
7,875.00	35.80	354.50	7,752.74	-176.88	-983.10	10,414,813.7280	1,922,822.3262	31° 14' 5.052 N	101° 31' 45.410 W
7,905.00	39.60	355.80	7,776.47	-158.60	-984.65	10,414,832.0046	1,922,820.7843	31° 14' 5.232 N	101° 31' 45.430 W
7,936.00	43.60	356.80	7,799.65	-138.07	-985.97	10,414,852.5391	1,922,819.4635	31° 14' 5.435 N	101° 31' 45.448 W
7,966.00	48.00	357.50	7,820.56	-116.59	-987.03	10,414,874.0145	1,922,818.3993	31° 14' 5.648 N	101° 31' 45.462 W
7,996.00	52.90	357.30	7,839.65	-93.49	-988.08	10,414,897.1156	1,922,817.3489	31° 14' 5.876 N	101° 31' 45.477 W
8,028.00	57.60	356.60	7,857.89	-67.24	-989.48	10,414,923.3631	1,922,815.9458	31° 14' 6.136 N	101° 31' 45.497 W
8,056.00	62.00	356.80	7,871.97	-43.09	-990.88	10,414,947.5167	1,922,814.5540	31° 14' 6.375 N	101° 31' 45.516 W
8,088.00	67.20	358.20	7,885.69	-14.22	-992.13	10,414,976.3853	1,922,813.3012	31° 14' 6.660 N	101° 31' 45.534 W
8,117.00	71.60	359.50	7,895.89	12.91	-992.67	10,415,003.5182	1,922,812.7610	31° 14' 6.929 N	101° 31' 45.543 W
8,147.00	76.80	0.10	7,904.06	41.77	-992.77	10,415,032.3745	1,922,812.6622	31° 14' 7.215 N	101° 31' 45.548 W
8,177.00	82.30	359.80	7,909.50	71.26	-992.79	10,415,061.8655	1,922,812.6358	31° 14' 7.506 N	101° 31' 45.552 W
8,209.00	88.20	359.60	7,912.14	103.13	-992.96	10,415,093.7410	1,922,812.4686	31° 14' 7.822 N	101° 31' 45.558 W
8,237.00	90.20	358.80	7,912.54	131.13	-993.35	10,415,121.7338	1,922,812.0777	31° 14' 8.099 N	101° 31' 45.566 W
8,325.00	91.40	357.50	7,911.31	219.07	-996.19	10,415,209.6757	1,922,809.2373	31° 14' 8.969 N	101° 31' 45.610 W
8,413.00	91.00	358.00	7,909.46	306.98	-999.65	10,415,297.5879	1,922,805.7833	31° 14' 9.839 N	101° 31' 45.660 W
8,426.48	90.85	358.12	7,909.25	320.45	-1,000.10	10,415,311.0605	1,922,805.3269	31° 14' 9.972 N	101° 31' 45.667 W
Uni 10 #270 PP									
8,503.00	90.00	358.80	7,908.68	396.94	-1,002.16	10,415,387.5474	1,922,803.2705	31° 14' 10.729 N	101° 31' 45.700 W
8,597.00	90.70	0.80	7,908.10	490.93	-1,002.49	10,415,481.5395	1,922,802.9424	31° 14' 11.659 N	101° 31' 45.716 W
8,689.00	91.40	1.60	7,906.42	582.90	-1,000.56	10,415,573.5024	1,922,804.8687	31° 14' 12.569 N	101° 31' 45.705 W
8,782.00	90.60	1.60	7,904.80	675.85	-997.96	10,415,666.4510	1,922,807.4650	31° 14' 13.490 N	101° 31' 45.687 W
8,872.00	90.30	1.60	7,904.09	765.81	-995.45	10,415,756.4129	1,922,809.9778	31° 14' 14.380 N	101° 31' 45.669 W
8,964.00	90.20	1.20	7,903.69	857.78	-993.20	10,415,848.3841	1,922,812.2255	31° 14' 15.291 N	101° 31' 45.654 W
9,055.00	88.70	2.30	7,904.56	948.73	-990.43	10,415,939.3333	1,922,815.0042	31° 14' 16.191 N	101° 31' 45.634 W
9,147.00	89.60	2.50	7,905.93	1,040.64	-986.57	10,416,031.2414	1,922,818.8563	31° 14' 17.101 N	101° 31' 45.601 W
9,237.00	88.70	1.80	7,907.26	1,130.56	-983.20	10,416,121.1664	1,922,822.2323	31° 14' 17.992 N	101° 31' 45.573 W
9,330.00	88.50	2.20	7,909.53	1,223.48	-979.95	10,416,214.0816	1,922,825.4770	31° 14' 18.911 N	101° 31' 45.547 W
9,422.00	89.50	2.80	7,911.14	1,315.37	-975.94	10,416,305.9783	1,922,829.4894	31° 14' 19.821 N	101° 31' 45.512 W
9,512.00	90.70	3.00	7,910.98	1,405.26	-971.39	10,416,395.8610	1,922,834.0426	31° 14' 20.712 N	101° 31' 45.471 W
9,602.00	90.40	1.20	7,910.12	1,495.19	-968.09	10,416,485.7925	1,922,837.3402	31° 14' 21.602 N	101° 31' 45.444 W
9,693.00	88.50	359.70	7,910.99	1,586.18	-967.37	10,416,576.7785	1,922,838.0550	31° 14' 22.503 N	101° 31' 45.447 W
9,782.00	89.30	0.40	7,912.70	1,675.16	-967.30	10,416,665.7606	1,922,838.1328	31° 14' 23.383 N	101° 31' 45.457 W
9,873.00	90.30	359.90	7,913.02	1,766.16	-967.06	10,416,756.7581	1,922,838.3710	31° 14' 24.284 N	101° 31' 45.466 W

Company:	Fleur De Lis Energy, LLC	Local Co-ordinate Reference:	Well University 10 #2703H
Project:	Reagan CountyTx	TVD Reference:	KB=25' @ 2747.00ft
Site:	Sec 22 & 27, BLK 10, U.L.S	MD Reference:	KB=25' @ 2747.00ft
Well:	University 10 #2703H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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
9,963.00	89.70	0.30	7,913.02	1,856.15	-966.90	10,416,846.7571	1,922,838.5281	31° 14' 25.175 N	101° 31' 45.475 W
10,053.00	90.60	359.40	7,912.78	1,946.15	-967.14	10,416,936.7545	1,922,838.2925	31° 14' 26.065 N	101° 31' 45.489 W
10,142.00	90.70	358.40	7,911.77	2,035.13	-968.85	10,417,025.7310	1,922,836.5840	31° 14' 26.946 N	101° 31' 45.519 W
10,231.00	92.10	358.40	7,909.60	2,124.07	-971.33	10,417,114.6674	1,922,834.0998	31° 14' 27.826 N	101° 31' 45.559 W
10,321.00	91.70	358.70	7,906.61	2,213.99	-973.61	10,417,204.5886	1,922,831.8237	31° 14' 28.715 N	101° 31' 45.596 W
10,413.00	89.30	0.20	7,905.81	2,305.97	-974.49	10,417,296.5714	1,922,830.9409	31° 14' 29.626 N	101° 31' 45.618 W
10,506.00	89.70	1.90	7,906.62	2,398.95	-972.78	10,417,389.5484	1,922,832.6450	31° 14' 30.546 N	101° 31' 45.610 W
10,598.00	87.70	0.20	7,908.71	2,490.90	-971.10	10,417,481.5011	1,922,834.3309	31° 14' 31.456 N	101° 31' 45.602 W
10,689.00	87.90	2.90	7,912.20	2,581.79	-968.64	10,417,572.3921	1,922,836.7905	31° 14' 32.356 N	101° 31' 45.585 W
10,779.00	89.10	3.50	7,914.56	2,671.62	-963.62	10,417,662.2187	1,922,841.8127	31° 14' 33.246 N	101° 31' 45.538 W
10,871.00	90.40	3.10	7,914.96	2,763.46	-958.32	10,417,754.0629	1,922,847.1084	31° 14' 34.155 N	101° 31' 45.488 W
10,963.00	90.30	2.90	7,914.40	2,855.33	-953.51	10,417,845.9349	1,922,851.9232	31° 14' 35.065 N	101° 31' 45.444 W
11,056.00	90.50	1.70	7,913.75	2,948.26	-949.77	10,417,938.8558	1,922,855.6553	31° 14' 35.985 N	101° 31' 45.413 W
11,148.00	89.00	3.20	7,914.15	3,040.17	-945.84	10,418,030.7654	1,922,859.5877	31° 14' 36.895 N	101° 31' 45.379 W
11,241.00	88.40	4.50	7,916.26	3,132.93	-939.60	10,418,123.5290	1,922,865.8303	31° 14' 37.814 N	101° 31' 45.319 W
11,332.00	89.20	2.90	7,918.17	3,223.72	-933.73	10,418,214.3156	1,922,871.7010	31° 14' 38.713 N	101° 31' 45.262 W
11,422.00	88.00	1.10	7,920.37	3,313.63	-930.59	10,418,304.2284	1,922,874.8412	31° 14' 39.603 N	101° 31' 45.237 W
11,513.00	88.10	0.30	7,923.46	3,404.57	-929.48	10,418,395.1680	1,922,875.9522	31° 14' 40.504 N	101° 31' 45.236 W
11,602.00	88.50	359.40	7,926.10	3,493.53	-929.71	10,418,484.1272	1,922,875.7193	31° 14' 41.384 N	101° 31' 45.249 W
11,692.00	88.30	359.20	7,928.62	3,583.49	-930.81	10,418,574.0851	1,922,874.6202	31° 14' 42.274 N	101° 31' 45.273 W
11,781.00	89.70	0.90	7,930.17	3,672.47	-930.73	10,418,663.0659	1,922,874.6981	31° 14' 43.155 N	101° 31' 45.283 W
11,873.00	88.10	358.70	7,931.94	3,764.44	-931.05	10,418,755.0395	1,922,874.3775	31° 14' 44.065 N	101° 31' 45.298 W
11,964.00	90.20	0.30	7,933.29	3,855.42	-931.85	10,418,846.0178	1,922,873.5839	31° 14' 44.965 N	101° 31' 45.319 W
12,055.00	88.50	359.40	7,934.32	3,946.41	-932.08	10,418,937.0072	1,922,873.3458	31° 14' 45.866 N	101° 31' 45.333 W
12,146.00	86.60	360.00	7,938.21	4,037.32	-932.56	10,419,027.9180	1,922,872.8695	31° 14' 46.766 N	101° 31' 45.349 W
12,237.00	87.10	359.60	7,943.21	4,128.18	-932.88	10,419,118.7793	1,922,872.5522	31° 14' 47.665 N	101° 31' 45.364 W
12,329.00	86.70	1.40	7,948.18	4,220.04	-932.08	10,419,210.6370	1,922,873.3536	31° 14' 48.574 N	101° 31' 45.367 W
12,418.00	88.50	3.10	7,951.91	4,308.89	-928.58	10,419,299.4833	1,922,876.8452	31° 14' 49.454 N	101° 31' 45.337 W
12,509.00	91.80	5.00	7,951.67	4,399.64	-922.16	10,419,390.2388	1,922,883.2710	31° 14' 50.353 N	101° 31' 45.275 W
12,599.00	92.40	4.40	7,948.37	4,489.28	-914.79	10,419,479.8750	1,922,890.6405	31° 14' 51.241 N	101° 31' 45.201 W
12,689.00	91.50	5.40	7,945.31	4,578.89	-907.11	10,419,569.4919	1,922,898.3236	31° 14' 52.128 N	101° 31' 45.123 W
12,779.00	92.00	4.70	7,942.56	4,668.50	-899.19	10,419,659.0997	1,922,906.2421	31° 14' 53.016 N	101° 31' 45.043 W
12,869.00	88.50	3.20	7,942.17	4,758.27	-892.99	10,419,748.8683	1,922,912.4405	31° 14' 53.905 N	101° 31' 44.983 W
12,959.00	86.60	3.10	7,946.02	4,848.05	-888.05	10,419,838.6459	1,922,917.3813	31° 14' 54.794 N	101° 31' 44.937 W
13,050.00	87.00	2.30	7,951.10	4,938.81	-883.77	10,419,929.4020	1,922,921.6611	31° 14' 55.693 N	101° 31' 44.899 W
13,142.00	87.40	2.30	7,955.59	5,030.62	-880.08	10,420,021.2178	1,922,925.3488	31° 14' 56.602 N	101° 31' 44.868 W
13,233.00	87.50	2.40	7,959.64	5,121.46	-876.35	10,420,112.0510	1,922,929.0765	31° 14' 57.501 N	101° 31' 44.836 W
13,325.00	88.70	1.20	7,962.69	5,213.36	-873.47	10,420,203.9516	1,922,931.9642	31° 14' 58.411 N	101° 31' 44.814 W
13,415.00	88.30	1.60	7,965.05	5,303.30	-871.27	10,420,293.8933	1,922,934.1623	31° 14' 59.302 N	101° 31' 44.800 W
13,504.00	89.00	0.70	7,967.14	5,392.25	-869.48	10,420,382.8491	1,922,935.9479	31° 15' 0.182 N	101° 31' 44.791 W
13,594.00	92.20	359.70	7,966.20	5,482.24	-869.17	10,420,472.8306	1,922,936.2622	31° 15' 1.073 N	101° 31' 44.798 W
13,684.00	92.00	357.10	7,962.90	5,572.13	-871.68	10,420,562.7271	1,922,933.7511	31° 15' 1.962 N	101° 31' 44.838 W
13,775.00	92.90	355.30	7,959.01	5,662.84	-877.70	10,420,653.4392	1,922,927.7265	31° 15' 2.860 N	101° 31' 44.919 W
13,865.00	89.50	354.40	7,957.13	5,752.45	-885.78	10,420,743.0418	1,922,919.6504	31° 15' 3.746 N	101° 31' 45.023 W
13,954.00	90.30	355.40	7,957.28	5,841.09	-893.69	10,420,831.6873	1,922,911.7390	31° 15' 4.622 N	101° 31' 45.125 W
14,045.00	90.70	354.90	7,956.49	5,931.76	-901.38	10,420,922.3574	1,922,904.0455	31° 15' 5.519 N	101° 31' 45.225 W
14,135.00	92.00	354.50	7,954.37	6,021.35	-909.69	10,421,011.9455	1,922,895.7348	31° 15' 6.404 N	101° 31' 45.332 W
14,226.00	91.10	352.30	7,951.91	6,111.71	-920.15	10,421,102.3026	1,922,885.2797	31° 15' 7.298 N	101° 31' 45.463 W
14,317.00	91.50	356.50	7,949.84	6,202.23	-929.03	10,421,192.8243	1,922,876.4037	31° 15' 8.193 N	101° 31' 45.577 W
14,407.00	92.70	359.30	7,946.54	6,292.10	-932.32	10,421,282.6926	1,922,873.1076	31° 15' 9.082 N	101° 31' 45.626 W
14,498.00	91.90	2.40	7,942.89	6,383.00	-930.97	10,421,373.5973	1,922,874.4570	31° 15' 9.981 N	101° 31' 45.622 W
14,588.00	90.30	1.10	7,941.16	6,472.94	-928.23	10,421,463.5337	1,922,877.2045	31° 15' 10.872 N	101° 31' 45.601 W
14,680.00	92.10	2.30	7,939.24	6,564.87	-925.50	10,421,555.4674	1,922,879.9327	31° 15' 11.782 N	101° 31' 45.581 W
14,770.00	92.50	3.70	7,935.62	6,654.68	-920.79	10,421,645.2691	1,922,884.6388	31° 15' 12.671 N	101° 31' 45.538 W
14,860.00	91.80	5.60	7,932.25	6,744.31	-913.50	10,421,734.9048	1,922,891.9298	31° 15' 13.559 N	101° 31' 45.465 W

Company:	Fleur De Lis Energy, LLC	Local Co-ordinate Reference:	Well University 10 #2703H
Project:	Reagan CountyTx	TVD Reference:	KB=25' @ 2747.00ft
Site:	Sec 22 & 27, BLK 10, U.L.S	MD Reference:	KB=25' @ 2747.00ft
Well:	University 10 #2703H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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
14,949.00	90.40	0.30	7,930.54	6,833.14	-908.92	10,421,823.7364	1,922,896.5066	31° 15' 14.439 N	101° 31' 45.423 W
15,038.00	90.60	1.90	7,929.76	6,922.12	-907.21	10,421,912.7135	1,922,898.2150	31° 15' 15.320 N	101° 31' 45.415 W
15,129.00	90.50	3.70	7,928.89	7,013.00	-902.77	10,422,003.5968	1,922,902.6600	31° 15' 16.220 N	101° 31' 45.375 W
15,221.00	90.30	3.80	7,928.24	7,104.81	-896.75	10,422,095.3973	1,922,908.6769	31° 15' 17.129 N	101° 31' 45.317 W
15,311.00	90.30	1.00	7,927.77	7,194.72	-892.98	10,422,185.3080	1,922,912.4453	31° 15' 18.019 N	101° 31' 45.285 W
15,402.00	90.40	359.40	7,927.22	7,285.71	-892.67	10,422,276.3026	1,922,912.7629	31° 15' 18.920 N	101° 31' 45.292 W
15,494.00	90.50	360.00	7,926.49	7,377.71	-893.15	10,422,368.2979	1,922,912.2812	31° 15' 19.830 N	101° 31' 45.309 W
15,585.00	91.30	1.80	7,925.07	7,468.68	-891.72	10,422,459.2708	1,922,913.7102	31° 15' 20.731 N	101° 31' 45.304 W
15,677.00	91.80	5.50	7,922.58	7,560.44	-885.87	10,422,551.0342	1,922,919.5635	31° 15' 21.640 N	101° 31' 45.248 W
15,766.00	89.60	4.60	7,921.49	7,649.08	-878.03	10,422,639.6756	1,922,927.3964	31° 15' 22.518 N	101° 31' 45.169 W
15,856.00	91.30	5.60	7,920.78	7,738.72	-870.03	10,422,729.3119	1,922,935.3961	31° 15' 23.406 N	101° 31' 45.088 W
15,945.00	90.30	3.70	7,919.54	7,827.41	-862.82	10,422,818.0050	1,922,942.6099	31° 15' 24.284 N	101° 31' 45.015 W
16,035.00	90.50	2.40	7,918.91	7,917.28	-858.03	10,422,907.8731	1,922,947.3984	31° 15' 25.174 N	101° 31' 44.971 W
16,124.00	90.10	358.10	7,918.44	8,006.26	-857.64	10,422,996.8498	1,922,947.7866	31° 15' 26.055 N	101° 31' 44.978 W
16,214.00	89.90	356.00	7,918.44	8,096.14	-862.27	10,423,086.7253	1,922,943.1550	31° 15' 26.944 N	101° 31' 45.042 W
16,303.00	90.50	358.50	7,918.13	8,185.02	-866.54	10,423,175.6146	1,922,938.8853	31° 15' 27.823 N	101° 31' 45.103 W
16,436.00	90.20	356.50	7,917.32	8,317.89	-872.35	10,423,308.4784	1,922,933.0843	31° 15' 29.138 N	101° 31' 45.186 W
Last MWD Svy 16436 MD/7917.32 TVD									
16,457.22	90.20	356.50	7,917.25	8,339.07	-873.64	10,423,329.6588	1,922,931.7889	31° 15' 29.347 N	101° 31' 45.203 W
Uni 10 #2703 LTP/PBHL Plan #7									
16,457.39	90.20	356.50	7,917.25	8,339.24	-873.65	10,423,329.8329	1,922,931.7783	31° 15' 29.349 N	101° 31' 45.204 W
Uni 10 #270 LTP/BHL									
16,461.00	90.20	356.50	7,917.23	8,342.84	-873.87	10,423,333.4316	1,922,931.5581	31° 15' 29.384 N	101° 31' 45.207 W
Crossed 100' Offset 16461 MD/7917.23									
16,480.00	90.20	356.50	7,917.17	8,361.81	-875.03	10,423,352.3960	1,922,930.3982	31° 15' 29.572 N	101° 31' 45.222 W
PTD 16480' MD/7917.17 TVD									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
898.00	897.98	-1.01	1.04	1st MWD Survey
16,436.00	7,917.32	8,317.89	-872.35	Last MWD Svy 16436 MD/7917.32 TVD
16,461.00	7,917.23	8,342.84	-873.87	Crossed 100' Offset 16461 MD/7917.23
16,480.00	7,917.17	8,361.81	-875.03	PTD 16480' MD/7917.17 TVD

Checked By: _____ Approved By: _____ Date: _____



Survey Certification Form

STATE OF TEXAS

REAGAN COUNTY

I **Christina Myers**, certify that; I am employed **Integrity Directional Services**; that I did on the day(s) of **04/10/2017** through **05/07/2017** conduct or supervise the taking of MWD surveys from a depth of **898** feet to a depth of **16436** feet & Project to TD **16480** feet. The data is true, correct, complete, and within the limitations of the tool set forth by Integrity Directional Services. I am authorized and qualified to make this report, and that this report was conducted at the request of **FDL Operating, LLC.** , for the **University 10 #2703H** , API # **42-383-38225** drilled in **Reagan** County, Texas. I have reviewed this report and find that it conforms to the principles and procedures as set forth by Integrity Directional Services.

Christina Myers

Christina Myers
Well Planner