



Directional Drilling

Horizontal Drilling

MWD/LWD

Mud Motors

March 20, 2023

Railroad Commission of Texas
Oil and Gas Division
P.O. Box 12967
Capitol Station
Austin, Texas 78711

Attention: Pamela Johns

Re: Vencer Energy, LLC
University 1-2A #1A
Upton County, Texas
API No. 42-461-42358

Enclosed, please find the original and one copy of the survey performed on the referenced well by Aim Directional Services, LLC (P-5 No. 009134). Other information required by your office is as follows:

<u>Name & Title</u> <u>of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Date Performed</u>	<u>Type of Survey</u>
Breana Wooley Performance and Regulatory Manager	Original hole	137' - 7597'	02/23/23 – 03/02/23	MWD
Breana Wooley Performance and Regulatory Manager	Sidetrack	6173' – 18744'	03/03/23 – 03/15/23	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and the lease line (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Breana Wooley
Performance and Regulatory Manager

Enclosures

cc:



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Mud Motors

March 15, 2023

State of Texas
County of Upton

I, Breana Wooley, certify that; I am employed by Aim Directional Services, LLC; that I did on the day(s) of March 3, 2023 through March 15, 2023 conduct or supervise the taking of a directional MWD survey from a depth of 6173 feet to a depth of 18744 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Aim Directional Services, LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Vencer Energy, LLC for University 1-2A #1A Sidetrack API No. 42-461-42358 in Upton County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Aim Directional Services, LLC.

Breana Wooley
Performance and Regulatory Manager



Aim Directional Services

Survey Report

Company:	Vencer Energy LLC	Local Co-ordinate Reference:	Well #1A
Project:	Upton Co., TX (NAD27 TXC)	TVD Reference:	Well @ 2704.40usft (25' KB)
Site:	University 1-2A #1A	MD Reference:	Well @ 2704.40usft (25' KB)
Well:	#1A	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01 Surveys	Database:	EDM 5000.17-Aim-DB

Project	Upton Co., TX (NAD27 TXC)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas Central 4203		

Site	University 1-2A #1A		
Site Position:		Northing:	561,445.49 usft
From:	Map	Easting:	1,513,356.79 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	31.20107
		Longitude:	-101.88992

Well	#1A		
Well Position	+N/-S	0.00 usft	Northing: 561,445.49 usft
	+E/-W	0.00 usft	Easting: 1,513,356.79 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	-0.80 °	Ground Level:	2,679.40 usft

Wellbore	ST01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	3/7/2023	5.88	59.34	46,940.16446901

Design	ST01 Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	5,985.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	1.33	

Survey Program	Date	3/15/2023			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
137.00	5,985.00	Aim MWD Surveys (OH)	MWD+HRGM+FDIR	OWSG MWD + HRGM + FDIR Correction	
6,173.00	18,744.00	Aim MWD Surveys ST01 (ST01)	MWD+HRGM+FDIR	OWSG MWD + HRGM + FDIR Correction	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	
137.00	1.08	235.17	136.99	-0.74	-1.06	-0.76	0.788	0.788	0.000	
First OH Aim Svy										
227.00	1.18	223.19	226.97	-1.90	-2.39	-1.95	0.284	0.111	-13.311	
319.00	1.07	244.33	318.96	-2.96	-3.81	-3.05	0.464	-0.120	22.978	
409.00	0.83	228.76	408.94	-3.75	-5.06	-3.87	0.389	-0.267	-17.300	
498.00	0.71	221.48	497.94	-4.59	-5.91	-4.73	0.174	-0.135	-8.180	
590.00	0.77	232.79	589.93	-5.39	-6.78	-5.55	0.171	0.065	12.293	
685.00	1.10	228.45	684.92	-6.38	-7.97	-6.57	0.355	0.347	-4.568	

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Design:	ST01 Surveys	Database:	EDM 5000.17-Aim-DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
778.00	1.39	227.98	777.89	-7.73	-9.48	-7.95	0.312	0.312	-0.505
873.00	1.77	241.41	872.86	-9.20	-11.62	-9.47	0.556	0.400	14.137
967.00	2.19	232.67	966.80	-10.99	-14.32	-11.32	0.549	0.447	-9.298
1,061.00	3.58	233.39	1,060.68	-13.83	-18.11	-14.24	1.479	1.479	0.766
1,154.00	5.51	230.94	1,153.38	-18.37	-23.91	-18.92	2.085	2.075	-2.634
1,238.00	6.89	231.04	1,236.89	-24.08	-30.96	-24.79	1.643	1.643	0.119
1,332.00	7.52	243.22	1,330.15	-30.40	-40.83	-31.34	1.754	0.670	12.957
1,427.00	8.60	264.76	1,424.24	-33.85	-53.46	-35.08	3.352	1.137	22.674
1,521.00	9.42	272.78	1,517.08	-34.12	-68.14	-35.69	1.594	0.872	8.532
1,614.00	10.73	276.49	1,608.64	-32.77	-84.35	-34.72	1.571	1.409	3.989
1,708.00	11.55	277.91	1,700.87	-30.49	-102.36	-32.85	0.920	0.872	1.511
1,801.00	11.76	278.58	1,791.95	-27.79	-120.95	-30.59	0.269	0.226	0.720
1,896.00	12.09	279.43	1,884.90	-24.72	-140.34	-27.97	0.393	0.347	0.895
1,990.00	12.42	280.74	1,976.76	-21.22	-159.98	-24.93	0.459	0.351	1.394
2,084.00	12.71	282.37	2,068.51	-17.12	-180.02	-21.30	0.487	0.309	1.734
2,178.00	12.88	282.43	2,160.18	-12.65	-200.35	-17.30	0.181	0.181	0.064
2,272.00	13.01	282.77	2,251.79	-8.06	-220.90	-13.18	0.160	0.138	0.362
2,366.00	12.79	283.33	2,343.41	-3.32	-241.34	-8.92	0.269	-0.234	0.596
2,460.00	12.62	283.12	2,435.11	1.41	-261.47	-4.66	0.187	-0.181	-0.223
2,553.00	12.16	283.68	2,525.95	6.03	-280.88	-0.49	0.511	-0.495	0.602
2,647.00	12.06	283.98	2,617.86	10.75	-300.03	3.78	0.126	-0.106	0.319
2,741.00	11.82	284.55	2,709.82	15.54	-318.88	8.13	0.284	-0.255	0.606
2,836.00	11.74	285.07	2,802.82	20.49	-337.63	12.65	0.140	-0.084	0.547
2,930.00	11.71	277.91	2,894.86	24.29	-356.31	16.02	1.547	-0.032	-7.617
3,024.00	11.59	274.02	2,986.93	26.27	-375.18	17.55	0.845	-0.128	-4.138
3,118.00	11.21	275.11	3,079.07	27.74	-393.70	18.60	0.465	-0.404	1.160
3,213.00	10.72	275.63	3,172.34	29.43	-411.69	19.87	0.526	-0.516	0.547
3,307.00	10.48	276.40	3,264.74	31.24	-428.88	21.28	0.296	-0.255	0.819
3,401.00	10.01	277.33	3,357.24	33.24	-445.48	22.89	0.530	-0.500	0.989
3,494.00	9.60	278.47	3,448.88	35.41	-461.17	24.70	0.488	-0.441	1.226
3,588.00	9.91	274.46	3,541.52	37.20	-476.99	26.11	0.794	0.330	-4.266
3,682.00	11.23	267.80	3,633.93	37.47	-494.20	25.99	1.911	1.404	-7.085
3,775.00	10.13	268.17	3,725.31	36.87	-511.42	24.98	1.185	-1.183	0.398
3,869.00	9.47	268.40	3,817.94	36.39	-527.41	24.13	0.703	-0.702	0.245
3,963.00	9.97	264.20	3,910.59	35.35	-543.24	22.73	0.923	0.532	-4.468
4,057.00	10.62	260.98	4,003.08	33.17	-559.89	20.16	0.923	0.691	-3.426
4,152.00	12.30	260.20	4,096.18	30.07	-578.51	16.64	1.776	1.768	-0.821
4,246.00	14.00	260.05	4,187.72	26.40	-599.58	12.48	1.809	1.809	-0.160
4,340.00	13.96	260.86	4,278.93	22.64	-621.97	8.19	0.212	-0.043	0.862
4,434.00	15.05	265.30	4,369.94	19.84	-645.33	4.85	1.656	1.160	4.723
4,528.00	15.56	267.28	4,460.60	18.24	-670.09	2.68	0.777	0.543	2.106
4,622.00	15.68	267.48	4,551.13	17.08	-695.37	0.94	0.140	0.128	0.213
4,715.00	15.60	268.30	4,640.69	16.16	-720.42	-0.57	0.253	-0.086	0.882

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4,809.00	15.87	268.28	4,731.17	15.40	-745.90	-1.92	0.287	0.287	-0.021
4,903.00	16.05	269.30	4,821.54	14.85	-771.75	-3.07	0.355	0.191	1.085
4,997.00	16.02	269.03	4,911.89	14.47	-797.71	-4.05	0.086	-0.032	-0.287
5,091.00	15.69	269.20	5,002.31	14.08	-823.39	-5.04	0.355	-0.351	0.181
5,186.00	14.11	268.93	5,094.11	13.68	-847.81	-6.00	1.665	-1.663	-0.284
5,225.00	13.81	268.70	5,131.96	13.49	-857.22	-6.41	0.782	-0.769	-0.590
5,327.00	12.39	268.99	5,231.30	13.02	-880.33	-7.42	1.394	-1.392	0.284
5,422.00	10.67	267.18	5,324.38	12.40	-899.30	-8.47	1.850	-1.811	-1.905
5,516.00	9.02	265.16	5,417.00	11.35	-915.34	-9.89	1.793	-1.755	-2.149
5,610.00	7.71	262.80	5,509.99	9.94	-928.94	-11.62	1.440	-1.394	-2.511
5,703.00	6.80	255.71	5,602.25	7.80	-940.46	-14.03	1.371	-0.978	-7.624
5,797.00	4.71	265.84	5,695.77	6.15	-949.71	-15.90	2.464	-2.223	10.777
5,891.00	4.26	265.05	5,789.49	5.57	-957.03	-16.65	0.483	-0.479	-0.840
5,985.00	3.04	258.82	5,883.29	4.78	-962.96	-17.57	1.363	-1.298	-6.628
Tie on OH Svys									
6,173.00	5.10	347.30	6,070.95	11.97	-969.69	-10.54	3.120	1.096	47.064
First ST Svy									
6,267.00	4.50	343.23	6,164.62	19.58	-971.67	-2.98	0.734	-0.638	-4.330
6,361.00	4.42	353.26	6,258.34	26.71	-973.16	4.11	0.833	-0.085	10.670
6,456.00	3.14	2.07	6,353.13	32.94	-973.50	10.34	1.476	-1.347	9.274
6,549.00	4.80	16.20	6,445.91	39.23	-972.32	16.65	2.059	1.785	15.194
6,643.00	5.29	18.01	6,539.54	47.12	-969.88	24.60	0.548	0.521	1.926
6,737.00	4.56	34.04	6,633.20	54.34	-966.45	31.90	1.650	-0.777	17.053
6,831.00	6.53	26.32	6,726.76	62.23	-961.99	39.88	2.236	2.096	-8.213
6,925.00	10.77	20.34	6,819.67	75.26	-956.56	53.04	4.605	4.511	-6.362
7,019.00	8.57	20.19	6,912.33	90.07	-951.09	67.97	2.341	-2.340	-0.160
7,113.00	7.97	19.95	7,005.35	102.77	-946.45	80.78	0.639	-0.638	-0.255
7,207.00	9.46	14.82	7,098.26	116.37	-942.25	94.46	1.786	1.585	-5.457
7,301.00	8.26	14.66	7,191.14	130.37	-938.57	108.55	1.277	-1.277	-0.170
7,394.00	7.18	2.46	7,283.30	142.64	-936.63	120.86	2.104	-1.161	-13.118
7,488.00	5.23	0.47	7,376.75	152.79	-936.34	131.02	2.087	-2.074	-2.117
7,582.00	4.62	2.73	7,470.40	160.86	-936.13	139.09	0.681	-0.649	2.404
7,676.00	9.02	8.36	7,563.71	171.93	-934.87	150.19	4.729	4.681	5.989
7,771.00	13.85	8.37	7,656.80	190.56	-932.13	168.88	5.084	5.084	0.011
7,865.00	33.14	358.62	7,742.63	227.75	-931.10	206.07	20.867	20.521	-10.372
7,959.00	37.55	357.14	7,819.28	282.07	-933.15	260.33	4.779	4.691	-1.574
8,052.00	51.09	351.73	7,885.69	346.50	-939.81	324.60	15.105	14.559	-5.817
8,146.00	62.10	352.03	7,937.36	424.07	-950.86	401.88	11.716	11.713	0.319
8,240.00	59.72	355.13	7,983.07	505.67	-960.07	483.25	3.836	-2.532	3.298
8,333.00	60.33	354.77	8,029.53	585.92	-967.16	563.31	0.737	0.656	-0.387
8,427.00	69.50	1.25	8,069.38	670.86	-969.93	648.16	11.576	9.755	6.894
8,521.00	86.65	10.50	8,088.77	761.87	-960.33	739.38	20.610	18.245	9.840
8,615.00	96.14	9.16	8,086.48	854.36	-944.30	832.21	10.196	10.096	-1.426
8,709.00	88.04	0.73	8,083.05	947.78	-936.24	925.80	12.427	-8.617	-8.968

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8,802.00	87.75	0.69	8,086.47	1,040.71	-935.08	1,018.73	0.315	-0.312	-0.043
8,896.00	87.17	359.69	8,090.63	1,134.62	-934.77	1,112.62	1.229	-0.617	-1.064
8,990.00	86.47	359.03	8,095.85	1,228.47	-935.82	1,206.42	1.023	-0.745	-0.702
9,093.00	87.12	358.59	8,101.61	1,331.28	-937.96	1,309.15	0.762	0.631	-0.427
9,187.00	89.14	358.90	8,104.67	1,425.21	-940.01	1,403.00	2.174	2.149	0.330
9,281.00	89.28	358.82	8,105.97	1,519.18	-941.88	1,496.91	0.172	0.149	-0.085
9,376.00	91.44	2.33	8,105.37	1,614.15	-940.93	1,591.88	4.338	2.274	3.695
9,470.00	92.27	1.94	8,102.33	1,708.04	-937.43	1,685.82	0.976	0.883	-0.415
9,563.00	90.91	2.33	8,099.75	1,800.93	-933.97	1,778.77	1.521	-1.462	0.419
9,657.00	90.82	1.66	8,098.33	1,894.87	-930.70	1,872.75	0.719	-0.096	-0.713
9,751.00	91.26	1.60	8,096.62	1,988.81	-928.02	1,966.74	0.472	0.468	-0.064
9,845.00	90.12	2.10	8,095.49	2,082.75	-924.99	2,060.72	1.324	-1.213	0.532
9,940.00	90.78	2.05	8,094.75	2,177.69	-921.55	2,155.71	0.697	0.695	-0.053
10,033.00	90.52	1.77	8,093.69	2,270.63	-918.45	2,248.70	0.411	-0.280	-0.301
10,128.00	89.15	3.18	8,093.96	2,365.54	-914.35	2,343.68	2.069	-1.442	1.484
10,221.00	86.74	3.62	8,097.30	2,458.31	-908.83	2,436.55	2.634	-2.591	0.473
10,316.00	87.09	3.94	8,102.41	2,552.96	-902.58	2,531.32	0.499	0.368	0.337
10,409.00	87.48	3.44	8,106.82	2,645.66	-896.60	2,624.14	0.681	0.419	-0.538
10,503.00	89.77	1.63	8,109.07	2,739.54	-892.45	2,718.08	3.105	2.436	-1.926
10,598.00	90.60	1.11	8,108.77	2,834.51	-890.18	2,813.08	1.031	0.874	-0.547
10,692.00	91.17	0.92	8,107.31	2,928.48	-888.51	2,907.07	0.639	0.606	-0.202
10,786.00	90.03	0.78	8,106.33	3,022.46	-887.12	3,001.06	1.222	-1.213	-0.149
10,880.00	90.12	1.24	8,106.21	3,116.45	-885.46	3,095.06	0.499	0.096	0.489
10,974.00	90.60	1.76	8,105.62	3,210.41	-883.00	3,189.05	0.753	0.511	0.553
11,068.00	90.52	1.75	8,104.70	3,304.36	-880.12	3,283.05	0.086	-0.085	-0.011
11,161.00	92.19	1.46	8,102.50	3,397.30	-877.52	3,376.02	1.823	1.796	-0.312
11,255.00	91.79	1.45	8,099.23	3,491.21	-875.13	3,469.96	0.426	-0.426	-0.011
11,349.00	88.45	3.31	8,099.04	3,585.11	-871.23	3,563.93	4.067	-3.553	1.979
11,442.00	87.75	3.17	8,102.12	3,677.91	-865.97	3,656.82	0.768	-0.753	-0.151
11,536.00	87.48	3.47	8,106.03	3,771.67	-860.54	3,750.68	0.429	-0.287	0.319
11,630.00	88.71	1.63	8,109.16	3,865.52	-856.36	3,844.60	2.354	1.309	-1.957
11,724.00	90.30	0.52	8,109.97	3,959.50	-854.59	3,938.60	2.063	1.691	-1.181
11,818.00	91.97	359.79	8,108.11	4,053.48	-854.34	4,032.55	1.939	1.777	-0.777
11,912.00	90.60	0.52	8,106.00	4,147.45	-854.08	4,126.51	1.651	-1.457	0.777
12,007.00	90.96	0.24	8,104.71	4,242.44	-853.45	4,221.49	0.480	0.379	-0.295
12,101.00	89.99	1.52	8,103.93	4,336.42	-852.01	4,315.48	1.708	-1.032	1.362
12,196.00	90.07	1.99	8,103.88	4,431.38	-849.10	4,410.47	0.502	0.084	0.495
12,290.00	88.40	1.66	8,105.13	4,525.32	-846.11	4,504.46	1.811	-1.777	-0.351
12,384.00	86.78	1.52	8,109.08	4,619.19	-843.50	4,598.37	1.730	-1.723	-0.149
12,478.00	89.55	1.55	8,112.09	4,713.10	-840.99	4,692.31	2.947	2.947	0.032
12,572.00	91.53	0.95	8,111.21	4,807.07	-838.94	4,786.30	2.201	2.106	-0.638
12,666.00	89.59	0.65	8,110.29	4,901.05	-837.62	4,880.29	2.088	-2.064	-0.319
12,760.00	88.23	358.58	8,112.08	4,995.03	-838.25	4,974.22	2.635	-1.447	-2.202

Company:	Vencer Energy LLC	Local Co-ordinate Reference:	Well #1A
Project:	Upton Co., TX (NAD27 TXC)	TVD Reference:	Well @ 2704.40usft (25' KB)
Site:	University 1-2A #1A	MD Reference:	Well @ 2704.40usft (25' KB)
Well:	#1A	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01 Surveys	Database:	EDM 5000.17-Aim-DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,855.00	86.43	356.04	8,116.50	5,089.81	-842.71	5,068.88	3.275	-1.895	-2.674
12,950.00	89.33	357.72	8,120.02	5,184.59	-847.87	5,163.51	3.527	3.053	1.768
13,044.00	92.05	0.31	8,118.89	5,278.55	-849.49	5,257.41	3.995	2.894	2.755
13,138.00	91.48	1.26	8,115.99	5,372.50	-848.20	5,351.36	1.178	-0.606	1.011
13,232.00	93.28	0.35	8,112.09	5,466.40	-846.88	5,445.27	2.145	1.915	-0.968
13,326.00	92.88	1.93	8,107.04	5,560.24	-845.01	5,539.13	1.732	-0.426	1.681
13,421.00	92.13	1.48	8,102.88	5,655.11	-842.19	5,634.04	0.920	-0.789	-0.474
13,515.00	90.81	1.50	8,100.47	5,749.04	-839.74	5,728.00	1.404	-1.404	0.021
13,609.00	87.35	2.37	8,101.98	5,842.96	-836.57	5,821.97	3.795	-3.681	0.926
13,703.00	86.87	2.18	8,106.72	5,936.77	-832.85	5,915.84	0.549	-0.511	-0.202
13,797.00	87.00	1.43	8,111.75	6,030.59	-829.89	6,009.70	0.809	0.138	-0.798
13,892.00	89.86	4.51	8,114.35	6,125.40	-824.97	6,104.60	4.423	3.011	3.242
13,986.00	90.08	4.01	8,114.40	6,219.14	-817.99	6,198.48	0.581	0.234	-0.532
14,081.00	88.41	1.73	8,115.65	6,314.01	-813.23	6,293.43	2.975	-1.758	-2.400
14,175.00	87.83	1.16	8,118.74	6,407.92	-810.86	6,387.38	0.865	-0.617	-0.606
14,269.00	88.85	358.18	8,121.46	6,501.87	-811.40	6,481.29	3.349	1.085	-3.170
14,364.00	88.63	355.77	8,123.55	6,596.71	-816.41	6,575.98	2.547	-0.232	-2.537
14,458.00	89.59	356.28	8,125.01	6,690.47	-822.93	6,669.57	1.156	1.021	0.543
14,552.00	87.53	0.29	8,127.37	6,784.37	-825.74	6,763.38	4.795	-2.191	4.266
14,646.00	86.69	0.25	8,132.11	6,878.25	-825.30	6,857.24	0.895	-0.894	-0.043
14,740.00	88.49	2.52	8,136.06	6,972.13	-823.03	6,951.15	3.080	1.915	2.415
14,834.00	87.61	1.62	8,139.26	7,066.01	-819.63	7,045.09	1.339	-0.936	-0.957
14,928.00	91.09	6.10	8,140.33	7,159.76	-813.31	7,138.95	6.034	3.702	4.766
15,022.00	91.57	5.80	8,138.15	7,253.22	-803.57	7,232.62	0.602	0.511	-0.319
15,116.00	91.04	4.33	8,136.01	7,346.83	-795.27	7,326.39	1.662	-0.564	-1.564
15,209.00	91.48	4.19	8,133.96	7,439.55	-788.36	7,419.25	0.496	0.473	-0.151
15,302.00	89.33	1.91	8,133.30	7,532.41	-783.42	7,512.19	3.370	-2.312	-2.452
15,396.00	88.58	1.06	8,135.02	7,626.36	-780.98	7,606.17	1.206	-0.798	-0.904
15,489.00	88.23	0.75	8,137.61	7,719.31	-779.51	7,699.14	0.503	-0.376	-0.333
15,583.00	87.53	0.71	8,141.08	7,813.24	-778.32	7,793.07	0.746	-0.745	-0.043
15,677.00	88.80	0.41	8,144.09	7,907.18	-777.40	7,887.01	1.388	1.351	-0.319
15,771.00	90.25	359.19	8,144.87	8,001.17	-777.73	7,980.97	2.016	1.543	-1.298
15,866.00	90.08	357.45	8,144.60	8,096.13	-780.51	8,075.83	1.840	-0.179	-1.832
15,960.00	92.14	357.38	8,142.78	8,190.01	-784.75	8,169.59	2.193	2.191	-0.074
16,054.00	92.32	357.07	8,139.12	8,283.83	-789.30	8,263.28	0.381	0.191	-0.330
16,148.00	92.19	358.43	8,135.42	8,377.68	-792.98	8,357.02	1.452	-0.138	1.447
16,242.00	92.85	1.62	8,131.29	8,471.58	-792.94	8,450.89	3.462	0.702	3.394
16,336.00	91.26	3.67	8,127.92	8,565.41	-788.61	8,544.80	2.759	-1.691	2.181
16,430.00	90.82	2.16	8,126.21	8,659.27	-783.83	8,638.74	1.673	-0.468	-1.606
16,524.00	90.08	2.47	8,125.47	8,753.19	-780.03	8,732.73	0.854	-0.787	0.330
16,617.00	89.11	1.82	8,126.13	8,846.12	-776.55	8,825.71	1.256	-1.043	-0.699
16,711.00	91.57	4.52	8,125.57	8,939.96	-771.36	8,919.65	3.886	2.617	2.872
16,805.00	91.44	3.25	8,123.10	9,033.71	-764.99	9,013.52	1.358	-0.138	-1.351
16,899.00	89.55	3.65	8,122.29	9,127.53	-759.33	9,107.45	2.055	-2.011	0.426

Company:	Vencer Energy LLC	Local Co-ordinate Reference:	Well #1A
Project:	Upton Co., TX (NAD27 TXC)	TVD Reference:	Well @ 2704.40usft (25' KB)
Site:	University 1-2A #1A	MD Reference:	Well @ 2704.40usft (25' KB)
Well:	#1A	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01 Surveys	Database:	EDM 5000.17-Aim-DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,994.00	86.96	3.73	8,125.18	9,222.28	-753.22	9,202.31	2.728	-2.726	0.084
17,089.00	85.69	3.54	8,131.27	9,316.89	-747.21	9,297.04	1.352	-1.337	-0.200
17,182.00	87.10	2.06	8,137.12	9,409.59	-742.68	9,389.82	2.196	1.516	-1.591
17,276.00	87.13	1.78	8,141.85	9,503.42	-739.53	9,483.70	0.299	0.032	-0.298
17,370.00	85.73	0.89	8,147.71	9,597.21	-737.35	9,577.51	1.764	-1.489	-0.947
17,465.00	88.77	1.25	8,152.26	9,692.07	-735.57	9,672.39	3.222	3.200	0.379
17,559.00	94.97	3.79	8,149.20	9,785.88	-731.45	9,766.26	7.127	6.596	2.702
17,654.00	92.98	3.37	8,142.61	9,880.46	-725.53	9,860.96	2.141	-2.095	-0.442
17,747.00	92.63	2.58	8,138.06	9,973.22	-720.71	9,953.81	0.928	-0.376	-0.849
17,841.00	87.88	0.01	8,137.64	10,067.16	-718.59	10,047.77	5.745	-5.053	-2.734
17,935.00	88.67	0.27	8,140.47	10,161.12	-718.36	10,141.71	0.885	0.840	0.277
18,029.00	91.97	1.71	8,139.95	10,255.09	-716.74	10,235.69	3.830	3.511	1.532
18,122.00	92.71	0.93	8,136.15	10,347.98	-714.59	10,328.61	1.156	0.796	-0.839
18,217.00	92.32	0.33	8,131.98	10,442.89	-713.55	10,423.51	0.753	-0.411	-0.632
18,311.00	94.51	0.36	8,126.38	10,536.71	-712.99	10,517.32	2.330	2.330	0.032
18,405.00	94.99	0.28	8,118.60	10,630.39	-712.46	10,610.99	0.518	0.511	-0.085
18,500.00	91.78	0.56	8,112.99	10,725.21	-711.77	10,705.80	3.392	-3.379	0.295
18,593.00	87.61	1.09	8,113.48	10,818.18	-710.43	10,798.77	4.520	-4.484	0.570
18,684.00	86.87	0.86	8,117.87	10,909.06	-708.88	10,889.66	0.851	-0.813	-0.253
Last MWD Svy									
18,744.00	86.87	0.86	8,121.14	10,968.96	-707.98	10,949.57	0.000	0.000	0.000
Projection to BHL									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
137.00	136.99	-0.74	-1.06	First OH Aim Svy
5,985.00	5,883.29	4.78	-962.96	Tie on OH Svys
6,173.00	6,070.95	11.97	-969.69	First ST Svy
18,684.00	8,117.87	10,909.06	-708.88	Last MWD Svy
18,744.00	8,121.14	10,968.96	-707.98	Projection to BHL

Checked By: _____	Approved By: _____	Date: _____
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