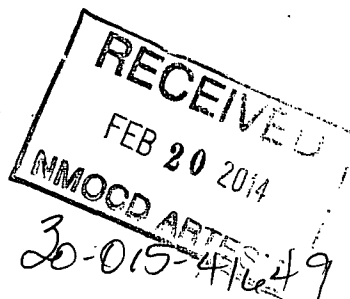


A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

January 21, 2014

Devon Energy Production Co., LP
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010



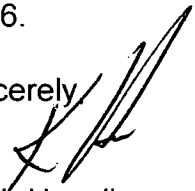
Attn: David Cook

Re: **Cotton Draw Unit SWD No 181**

Please find enclosed a copy of the survey from 0' to 18,235.82' ran on the above referenced well.

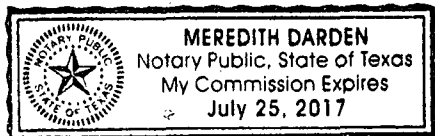
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

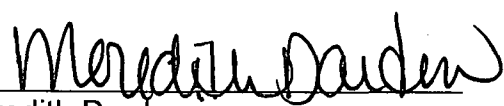
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

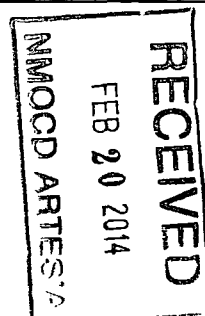
This instrument was acknowledged before me on the 21st day of January
A.D., 2014, by Keith Havelka.




Meredith Darden
Notary Public, State of Texas



Company: Devon Energy
 Lease/Well: Cotton Draw Unit SWD/No 181
 Location: S36 T24s R31e
 Rig Name: Nabors 730
 State/County: New Mexico/Eddy
 Latitude: 32.18, Longitude: -103.73
 GRID North is 0.32 Degrees East of True North
 VS-Azi: 0.00 Degrees



RKB : 22.6 Feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: ... unit swd #181 gyro survey.ut

Minimum Curvature Method

Report Date/Time: 1/21/2014 / 12:52

Vaughn Energy Services

(432) 563-5444

Gardendale, TX

Surveyor: Dustin Wedel

Cotton Draw Unit SWD No 181 / API 30-015-41649

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	****
153.52	0.56	315.73	153.52	0.53	-0.52	0.53	0.74	315.73	0.36
248.69	0.73	296.76	248.68	1.14	-1.39	1.14	1.79	309.39	0.29
343.86	0.91	277.79	343.84	1.52	-2.68	1.52	3.08	299.47	0.34
439.03	0.87	272.03	439.00	1.64	-4.15	1.64	4.47	291.59	0.10
534.20	0.83	276.26	534.16	1.74	-5.56	1.74	5.82	287.42	0.08
629.37	1.00	273.78	629.32	1.87	-7.07	1.87	7.31	284.85	0.19
724.54	1.17	275.30	724.47	2.02	-8.86	2.02	9.09	282.83	0.18
819.71	0.93	262.98	819.62	2.01	-10.60	2.01	10.79	280.76	0.35
914.88	0.68	250.65	914.79	1.73	-11.89	1.73	12.02	278.28	0.31
1010.05	0.56	231.32	1009.95	1.25	-12.80	1.25	12.86	275.59	0.25
1105.22	0.44	211.99	1105.12	0.65	-13.36	0.65	13.37	272.77	0.22
1200.39	0.36	218.92	1200.28	0.10	-13.74	0.10	13.74	270.43	0.11
1295.56	0.27	221.85	1295.45	-0.29	-14.07	-0.29	14.07	268.81	0.09
1390.73	0.30	209.76	1390.62	-0.68	-14.34	-0.68	14.36	267.30	0.07
1485.90	0.34	197.66	1485.79	-1.16	-14.55	-1.16	14.60	265.44	0.08
1581.07	0.30	231.66	1580.96	-1.58	-14.83	-1.58	14.92	263.92	0.20
1676.24	0.26	265.67	1676.13	-1.75	-15.24	-1.75	15.34	263.45	0.18
1771.41	0.26	240.82	1771.30	-1.87	-15.65	-1.87	15.76	263.17	0.12

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1866.58	0.27	219.96	1866.47	-2.15	-15.98	-2.15	16.13	262.33	0.10
1961.75	0.28	207.48	1961.63	-2.53	-16.24	-2.53	16.43	261.13	0.07
2056.92	0.30	189.00	2056.80	-2.99	-16.38	-2.99	16.65	259.66	0.10
2152.09	0.28	177.65	2151.97	-3.46	-16.41	-3.46	16.77	258.08	0.06
2247.26	0.26	170.30	2247.14	-3.90	-16.37	-3.90	16.83	256.58	0.04
2342.43	0.34	177.74	2342.31	-4.39	-16.32	-4.39	16.90	254.93	0.10
2437.60	0.42	175.17	2437.48	-5.02	-16.28	-5.02	17.04	252.85	0.09
2532.77	0.51	163.73	2532.64	-5.77	-16.13	-5.77	17.14	250.31	0.13
2627.94	0.59	152.29	2627.81	-6.61	-15.79	-6.61	17.12	247.27	0.15
2723.11	0.67	157.31	2722.97	-7.56	-15.34	-7.56	17.11	243.76	0.10
2818.28	0.75	162.33	2818.14	-8.67	-14.94	-8.67	17.27	239.86	0.11
2913.45	0.78	168.18	2913.30	-9.91	-14.62	-9.91	17.66	235.87	0.09
3008.62	0.81	164.02	3008.46	-11.20	-14.30	-11.20	18.16	231.93	0.07
3103.79	0.65	167.80	3103.62	-12.37	-13.99	-12.37	18.68	228.52	0.18
3198.96	0.49	165.58	3198.79	-13.30	-13.78	-13.30	19.15	226.02	0.17
3294.13	0.38	177.31	3293.95	-14.01	-13.66	-14.01	19.57	224.29	0.14
3389.30	0.28	189.04	3389.12	-14.56	-13.69	-14.56	19.98	223.23	0.13
3484.47	0.32	201.43	3484.29	-15.03	-13.82	-15.03	20.42	222.59	0.08
3579.64	0.36	213.82	3579.46	-15.54	-14.09	-15.54	20.97	222.20	0.09
3674.81	0.52	219.31	3674.63	-16.12	-14.53	-16.12	21.70	222.02	0.17
3769.98	0.67	220.80	3769.79	-16.87	-15.16	-16.87	22.68	221.94	0.16
3865.15	0.87	201.57	3864.95	-17.96	-15.79	-17.96	23.92	221.32	0.34
3960.32	1.07	182.34	3960.11	-19.52	-16.09	-19.52	25.30	219.50	0.40
4055.49	1.61	183.45	4055.25	-21.74	-16.21	-21.74	27.12	216.71	0.57
4150.66	2.15	178.57	4150.37	-24.86	-16.24	-24.86	29.69	213.17	0.59
4245.83	2.38	173.93	4245.47	-28.60	-15.99	-28.60	32.77	209.21	0.31
4341.00	2.60	169.29	4340.55	-32.69	-15.38	-32.69	36.13	205.20	0.32
4436.17	2.10	176.73	4435.64	-36.55	-14.88	-36.55	39.46	202.15	0.62
4531.34	1.59	184.18	4530.76	-39.61	-14.88	-39.61	42.31	200.59	0.59
4626.51	1.58	182.17	4625.89	-42.24	-15.02	-42.24	44.83	199.58	0.06
4721.68	1.57	178.16	4721.03	-44.85	-15.03	-44.85	47.30	198.53	0.12
4816.85	1.55	177.81	4816.16	-47.44	-14.94	-47.44	49.73	197.48	0.02
4912.02	1.54	181.46	4911.30	-50.00	-14.92	-50.00	52.18	196.62	0.10
5007.19	1.40	185.45	5006.43	-52.44	-15.07	-52.44	54.56	196.03	0.18
5102.36	1.27	183.44	5101.58	-54.65	-15.24	-54.65	56.74	195.58	0.15
5197.53	1.18	187.59	5196.73	-56.67	-15.43	-56.67	58.74	195.23	0.13
5292.70	1.09	189.73	5291.88	-58.53	-15.72	-58.53	60.61	195.03	0.10
5387.87	1.12	176.95	5387.03	-60.35	-15.82	-60.35	62.39	194.69	0.26
5483.04	1.15	164.17	5482.18	-62.20	-15.51	-62.20	64.10	194.00	0.27

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
5578.21	1.15	173.84	5577.33	-64.06	-15.15	-64.06	65.83	193.30	0.20
5673.38	1.16	183.52	5672.48	-65.98	-15.10	-65.98	67.69	192.89	0.21
5768.55	1.11	178.34	5767.64	-67.87	-15.14	-67.87	69.53	192.57	0.12
5863.72	1.06	175.16	5862.79	-69.67	-15.03	-69.67	71.27	192.18	0.08
5958.89	1.10	188.53	5957.94	-71.45	-15.09	-71.45	73.03	191.93	0.27
6054.06	1.13	201.90	6053.09	-73.23	-15.58	-73.23	74.87	192.01	0.28
6149.23	1.08	193.42	6148.25	-74.98	-16.14	-74.98	76.69	192.15	0.18
6244.40	1.02	184.94	6243.40	-76.69	-16.42	-76.69	78.43	192.09	0.17
6339.57	1.08	183.00	6338.55	-78.43	-16.54	-78.43	80.16	191.91	0.08
6434.74	1.15	183.06	6433.71	-80.28	-16.64	-80.28	81.99	191.71	0.07
6529.91	0.99	171.60	6528.86	-82.05	-16.57	-82.05	83.70	191.42	0.28
6625.08	0.83	160.15	6624.02	-83.50	-16.22	-83.50	85.06	190.99	0.25
6720.25	0.92	162.63	6719.18	-84.88	-15.76	-84.88	86.33	190.52	0.11
6815.42	1.02	163.10	6814.33	-86.42	-15.28	-86.42	87.76	190.03	0.10
6910.59	1.13	167.39	6909.49	-88.14	-14.83	-88.14	89.38	189.55	0.14
7005.76	1.24	171.67	7004.64	-90.07	-14.48	-90.07	91.22	189.13	0.15
7100.93	1.23	172.13	7099.78	-92.09	-14.19	-92.09	93.18	188.76	0.01
7196.10	1.22	168.58	7194.93	-94.10	-13.85	-94.10	95.11	188.37	0.08
7291.27	1.18	169.53	7290.08	-96.06	-13.47	-96.06	97.00	187.98	0.04
7386.44	1.15	166.49	7385.23	-97.95	-13.07	-97.95	98.82	187.60	0.08
7481.61	1.33	158.13	7480.38	-99.90	-12.44	-99.90	100.67	187.10	0.27
7576.78	1.50	149.77	7575.52	-102.00	-11.40	-102.00	102.64	186.38	0.29
7671.95	1.19	111.67	7670.67	-103.45	-9.85	-103.45	103.91	185.44	0.98
7767.12	0.88	91.57	7765.82	-103.83	-8.20	-103.83	104.15	184.52	0.50
7862.29	1.14	115.60	7860.98	-104.26	-6.62	-104.26	104.47	183.63	0.52
7957.46	1.40	156.63	7956.12	-105.74	-5.30	-105.74	105.87	182.87	0.97
8052.63	0.83	193.09	8051.28	-107.48	-5.00	-107.48	107.60	182.66	0.93
8147.80	0.27	188.54	8146.44	-108.37	-5.19	-108.37	108.50	182.74	0.60
8242.97	1.82	182.56	8241.59	-110.10	-5.29	-110.10	110.23	182.75	1.64
8338.14	3.38	186.58	8336.66	-114.40	-5.68	-114.40	114.54	182.84	1.65
8433.31	2.32	173.66	8431.72	-119.10	-5.78	-119.10	119.24	182.78	1.30
8528.48	1.26	170.75	8526.84	-122.04	-5.41	-122.04	122.16	182.54	1.12
8623.65	1.50	168.08	8621.98	-124.29	-4.98	-124.29	124.39	182.29	0.27
8718.82	1.75	195.40	8717.11	-126.91	-5.11	-126.91	127.01	182.30	0.84
8813.99	1.07	172.92	8812.25	-129.19	-5.38	-129.19	129.30	182.39	0.91
8909.16	0.39	150.44	8907.42	-130.35	-5.11	-130.35	130.45	182.25	0.76
9004.33	0.56	164.29	9002.58	-131.08	-4.83	-131.08	131.17	182.11	0.21
9099.50	0.73	178.14	9097.75	-132.13	-4.68	-132.13	132.22	182.03	0.24
9194.67	0.79	138.24	9192.91	-133.23	-4.23	-133.23	133.29	181.82	0.55

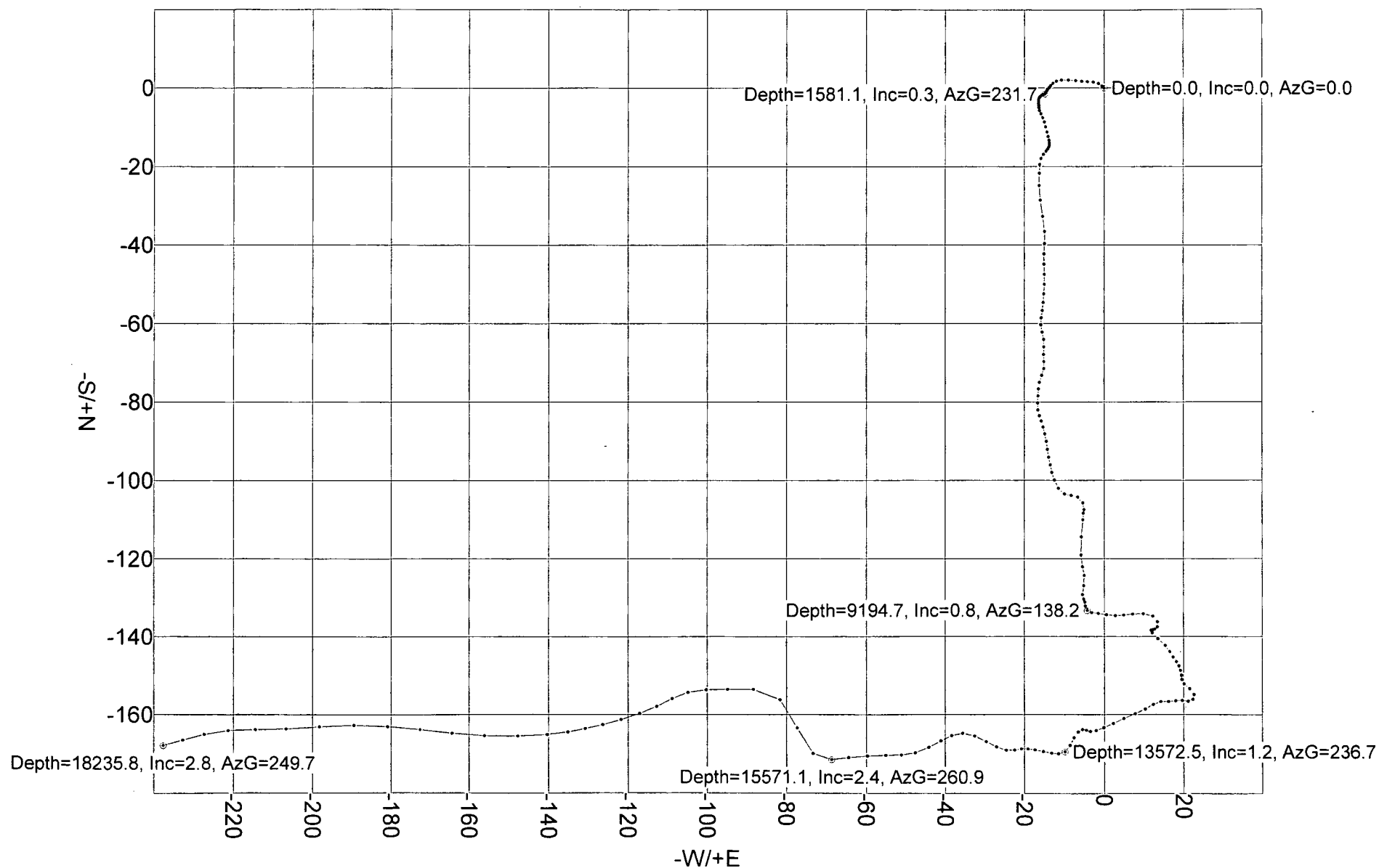
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9289.84	0.85	98.35	9288.07	-133.82	-3.10	-133.82	133.85	181.33	0.59
9385.01	1.12	96.48	9383.23	-134.02	-1.48	-134.02	134.03	180.63	0.29
9480.18	1.40	100.61	9478.37	-134.34	0.59	-134.34	134.34	179.75	0.30
9575.35	1.31	91.38	9573.52	-134.58	2.82	-134.58	134.61	178.80	0.25
9670.52	1.23	82.15	9668.66	-134.47	4.92	-134.47	134.56	177.91	0.23
9765.69	1.50	83.77	9763.81	-134.19	7.16	-134.19	134.38	176.94	0.28
9860.86	1.76	91.39	9858.94	-134.09	9.86	-134.09	134.46	175.79	0.36
9956.03	1.37	122.61	9954.07	-134.75	12.29	-134.75	135.30	174.79	0.97
10051.20	0.99	165.83	10049.23	-136.15	13.45	-136.15	136.82	174.36	0.99
10146.37	0.71	208.20	10144.39	-137.47	13.37	-137.47	138.12	174.44	0.70
10241.54	0.43	250.56	10239.55	-138.10	12.76	-138.10	138.69	174.72	0.51
10336.71	0.28	257.44	10334.72	-138.27	12.19	-138.27	138.81	174.96	0.17
10431.88	0.13	260.32	10429.89	-138.34	11.86	-138.34	138.85	175.10	0.16
10527.05	0.90	153.53	10525.05	-139.03	12.09	-139.03	139.55	175.03	0.99
10622.22	1.67	128.75	10620.20	-140.57	13.51	-140.57	141.22	174.51	0.98
10717.39	1.35	139.02	10715.34	-142.29	15.33	-142.29	143.11	173.85	0.44
10812.56	1.03	149.29	10810.49	-143.87	16.50	-143.87	144.82	173.46	0.40
10907.73	0.91	146.03	10905.64	-145.24	17.37	-145.24	146.27	173.18	0.14
11002.90	0.80	144.76	11000.80	-146.41	18.17	-146.41	147.53	172.93	0.13
11098.07	0.77	155.61	11095.96	-147.53	18.82	-147.53	148.73	172.73	0.16
11193.24	0.75	166.45	11191.13	-148.72	19.23	-148.72	149.95	172.63	0.15
11288.41	0.70	173.44	11286.29	-149.90	19.44	-149.90	151.15	172.61	0.10
11383.58	0.66	178.42	11381.45	-151.02	19.52	-151.02	152.28	172.64	0.08
11478.75	0.98	137.55	11476.61	-152.17	20.09	-152.17	153.49	172.48	0.68
11573.92	1.31	126.67	11571.76	-153.43	21.51	-153.43	154.93	172.02	0.41
11669.09	1.02	168.05	11666.91	-154.90	22.56	-154.90	156.54	171.71	0.91
11764.26	0.72	229.42	11762.08	-156.11	22.28	-156.11	157.70	171.88	0.97
11859.43	0.87	260.67	11857.24	-156.62	21.12	-156.62	158.04	172.32	0.47
11954.60	1.02	291.92	11952.39	-156.42	19.62	-156.42	157.65	172.85	0.56
12049.77	1.11	246.19	12047.55	-156.47	17.99	-156.47	157.50	173.44	0.87
12144.94	1.19	280.45	12142.70	-156.67	16.18	-156.67	157.50	174.10	0.72
12240.11	1.21	259.12	12237.85	-156.68	14.22	-156.68	157.32	174.82	0.47
12335.28	1.24	237.79	12333.00	-157.42	12.35	-157.42	157.90	175.51	0.48
12430.45	1.56	242.71	12428.14	-158.56	10.33	-158.56	158.89	176.27	0.36
12525.62	1.88	247.63	12523.27	-159.75	7.74	-159.75	159.93	177.23	0.37
12620.79	1.82	245.11	12618.39	-160.98	4.93	-160.98	161.05	178.25	0.11
12715.96	1.75	244.59	12713.51	-162.23	2.24	-162.23	162.25	179.21	0.07
12811.13	1.40	247.67	12808.65	-163.30	-0.15	-163.30	163.30	180.05	0.38
12906.30	1.05	248.76	12903.79	-164.06	-2.04	-164.06	164.07	180.71	0.37

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
13001.47	0.78	277.85	12998.95	-164.28	-3.49	-164.28	164.32	181.22	0.55
13096.64	0.52	306.95	13094.12	-163.94	-4.47	-163.94	164.00	181.56	0.44
13191.81	0.73	263.59	13189.28	-163.75	-5.42	-163.75	163.84	181.90	0.53
13286.98	0.94	220.24	13284.44	-164.41	-6.52	-164.41	164.54	182.27	0.68
13382.15	1.19	211.34	13379.60	-165.85	-7.54	-165.85	166.02	182.60	0.31
13477.32	1.44	202.45	13474.74	-167.79	-8.51	-167.79	168.01	182.90	0.34
13572.49	1.18	236.70	13569.89	-169.44	-9.79	-169.44	169.72	183.31	0.85
13667.66	0.93	270.95	13665.04	-169.97	-11.38	-169.97	170.35	183.83	0.70
13762.83	1.16	277.49	13760.20	-169.83	-13.12	-169.83	170.33	184.42	0.28
13858.00	1.40	284.03	13855.34	-169.42	-15.20	-169.42	170.10	185.13	0.29
13953.17	1.19	279.44	13950.49	-168.98	-17.30	-168.98	169.86	185.85	0.25
14048.34	0.98	274.85	14045.64	-168.74	-19.08	-168.74	169.82	186.45	0.24
14143.51	1.05	265.65	14140.80	-168.74	-20.77	-168.74	170.02	187.02	0.19
14238.68	1.13	256.45	14235.95	-169.03	-22.55	-169.03	170.53	187.60	0.20
14333.85	1.44	277.72	14331.10	-169.09	-24.65	-169.09	170.87	188.29	0.59
14429.02	1.75	298.98	14426.23	-168.22	-27.11	-168.22	170.39	189.15	0.70
14524.19	1.87	295.63	14521.35	-166.84	-29.78	-166.84	169.48	190.12	0.16
14619.36	1.99	296.27	14616.47	-165.44	-32.66	-165.44	168.63	191.17	0.12
14714.53	1.83	269.65	14711.59	-164.72	-35.66	-164.72	168.54	192.21	0.94
14809.70	1.67	243.03	14806.71	-165.36	-38.41	-165.36	169.76	193.08	0.86
14904.87	1.96	244.04	14901.84	-166.70	-41.11	-166.70	171.70	193.85	0.31
15000.04	2.25	241.05	14996.94	-168.32	-44.21	-168.32	174.03	194.72	0.33
15095.21	2.20	254.47	15092.04	-169.71	-47.61	-169.71	176.27	195.67	0.55
15190.38	2.15	267.88	15187.14	-170.27	-51.15	-170.27	177.79	196.72	0.54
15285.55	2.58	269.91	15282.23	-170.34	-55.07	-170.34	179.02	197.92	0.47
15380.72	3.02	265.94	15377.29	-170.52	-59.71	-170.52	180.67	199.30	0.50
15475.89	2.69	264.42	15472.34	-170.91	-64.44	-170.91	182.66	200.66	0.35
15571.06	2.37	260.90	15567.42	-171.44	-68.60	-171.44	184.66	201.81	0.38
15666.23	4.06	303.61	15662.45	-169.89	-73.35	-169.89	185.05	203.35	2.96
15761.40	5.75	346.32	15757.29	-163.39	-77.28	-163.39	180.74	205.31	4.10
15856.57	4.99	308.63	15852.07	-156.17	-81.64	-156.17	176.22	207.60	3.72
15951.74	4.23	270.94	15946.96	-153.53	-88.39	-153.53	177.15	209.93	3.22
16046.91	3.57	269.58	16041.91	-153.49	-94.86	-153.49	180.44	211.72	0.70
16142.08	2.92	268.21	16136.92	-153.59	-100.25	-153.59	183.41	213.13	0.69
16237.25	2.73	254.80	16231.98	-154.26	-104.85	-154.26	186.52	214.20	0.72
16332.42	2.53	241.40	16327.05	-155.86	-108.88	-155.86	190.13	214.94	0.68
16427.59	2.76	245.22	16422.12	-157.83	-112.81	-157.83	194.00	215.56	0.30
16522.76	2.98	249.04	16517.17	-159.67	-117.19	-159.67	198.06	216.28	0.31
16617.93	2.89	252.69	16612.21	-161.27	-121.79	-161.27	202.09	217.06	0.22

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
16713.10	2.80	256.35	16707.27	-162.53	-126.34	-162.53	205.85	217.86	0.21
16808.27	2.70	257.16	16802.33	-163.57	-130.78	-163.57	209.43	218.64	0.10
16903.44	2.61	259.98	16897.40	-164.45	-135.11	-164.45	212.83	219.41	0.17
16998.61	3.84	264.61	16992.41	-165.13	-140.41	-165.13	216.75	220.38	1.31
17093.78	5.06	269.25	17087.30	-165.48	-147.77	-165.48	221.86	221.76	1.34
17188.95	5.00	272.12	17182.10	-165.38	-156.11	-165.38	227.43	223.35	0.27
17284.12	4.94	276.99	17276.91	-164.73	-164.32	-164.73	232.68	224.93	0.45
17379.29	5.02	276.64	17371.72	-163.75	-172.53	-163.75	237.86	226.49	0.09
17474.46	5.09	274.29	17466.52	-162.95	-180.87	-162.95	243.45	227.98	0.23
17569.63	5.24	269.67	17561.31	-162.66	-189.43	-162.66	249.68	229.35	0.46
17664.80	5.39	265.04	17656.07	-163.07	-198.23	-163.07	256.69	230.56	0.48
17759.97	4.92	267.99	17750.85	-163.60	-206.76	-163.60	263.66	231.65	0.57
17855.14	4.44	268.93	17845.70	-163.81	-214.52	-163.81	269.92	232.63	0.51
17950.31	3.81	267.27	17940.63	-164.03	-221.36	-164.03	275.51	233.46	0.68
18045.48	3.51	253.37	18035.61	-165.02	-227.31	-165.02	280.89	234.02	0.98
18140.65	3.27	257.31	18130.61	-166.45	-232.74	-166.45	286.14	234.43	0.35
18235.82	2.84	249.68	18225.64	-167.86	-237.60	-167.86	290.92	234.76	0.62



Vaughn Energy Services
(432) 563-5444
Gardendale, TX
Surveyor: Dustin Wedel
Cotton Draw Unit SWD No 181 / API 30-015-41649



VES Survey Date: 12/27/2013