



A GYRO TECHNOLOGIES INC. COMPANY

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

30 015 42126

April 10, 2014

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 21 2014

RECEIVED

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

Attn: David Cook

Re: Cotton Draw 10 Fed Com No. 003H

Please find enclosed a copy of the survey from 0.00' to 4228.76' 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.

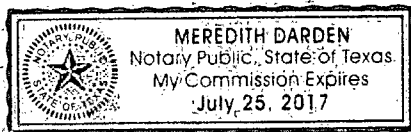
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
§
COUNTY OF NUECES §

This instrument was acknowledged before me on the 10th day of April, A.D., 2014, by Keith Havelka.


Meredith Darden
Notary Public, State of Texas





Company: Devon Energy
Lease/Well: Cotton Draw 10 Fed Com/No. 003H

Rig Name: H&P 212
State/County: New Mexico/Eddy
Latitude: 32.15, Longitude: -103.76
GRID North is 0.30 Degrees East of True North
VS-Azi: 0.00 Degrees



NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 21 2014
RECEIVED

Depth Reference : RKB = 25 Feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: fin.ut
Minimum Curvature Method
Report Date/Time: 4/10/2014 / 13:51

VES Survey International
Ft. Worth, TX
817-741-3610

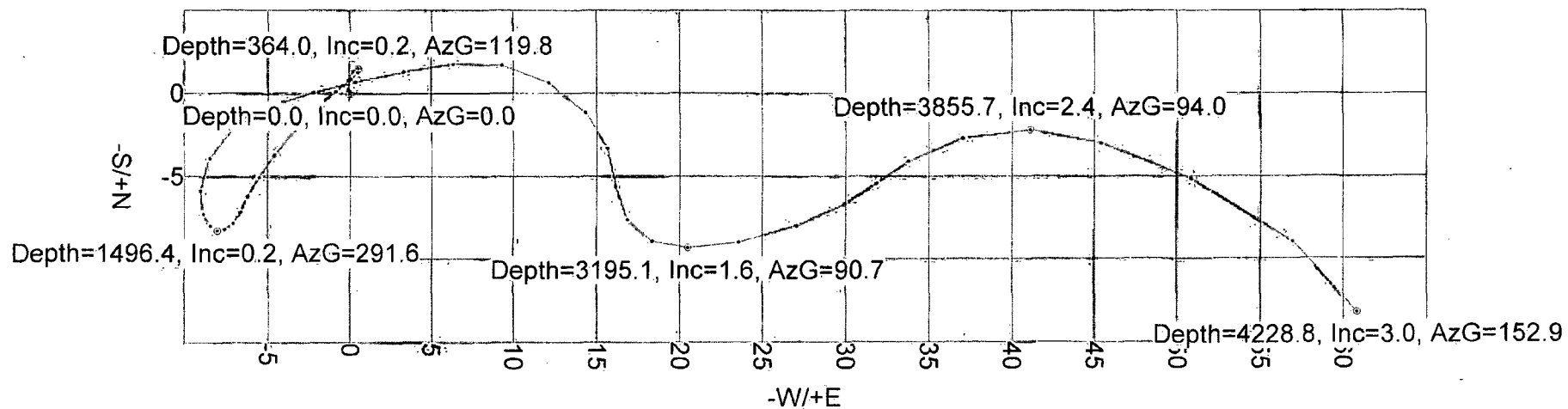
Surveyor: Kenny Gabel
Cotton Draw 10 Fed Com No. 003H / API 30-015-42126

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	****
80.85	0.34	338.55	80.85	0.22	-0.09	0.22	0.24	338.55	0.42
175.22	0.39	20.40	175.22	0.79	-0.08	0.79	0.79	354.31	0.28
269.59	0.36	36.62	269.59	1.33	0.21	1.33	1.34	8.97	0.12
363.96	0.18	119.75	363.95	1.49	0.52	1.49	1.57	19.15	0.40
458.33	0.24	221.21	458.32	1.26	0.52	1.26	1.36	22.26	0.35
552.70	0.53	228.43	552.69	0.82	0.06	0.82	0.82	4.13	0.30
647.07	0.86	234.01	647.06	0.12	-0.84	0.12	0.84	278.19	0.36
741.44	1.02	228.15	741.41	-0.85	-2.03	-0.85	2.20	247.19	0.20
835.81	1.28	222.29	835.76	-2.19	-3.37	-2.19	4.02	236.90	0.30
930.18	1.12	216.43	930.11	-3.72	-4.63	-3.72	5.94	231.20	0.21
1024.55	0.85	211.73	1024.47	-5.06	-5.54	-5.06	7.51	227.61	0.30
1118.92	0.70	207.03	1118.83	-6.17	-6.17	-6.17	8.73	225.02	0.17
1213.29	0.61	202.33	1213.19	-7.15	-6.63	-7.15	9.75	222.84	0.11
1307.66	0.43	229.00	1307.56	-7.84	-7.08	-7.84	10.57	222.09	0.32
1402.03	0.34	240.75	1401.93	-8.21	-7.60	-8.21	11.19	222.77	0.12
1496.40	0.24	291.61	1496.30	-8.28	-8.03	-8.28	11.53	224.12	0.28
1590.77	0.39	315.07	1590.67	-7.98	-8.44	-7.98	11.61	226.62	0.21
1685.14	0.62	338.53	1685.03	-7.27	-8.85	-7.27	11.46	230.60	0.32

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
1779.51	1.14	1.99	1779.39	-5.86	-9.01	-5.86	10.75	236.96	0.66
1873.88	1.38	25.45	1873.74	-3.89	-8.49	-3.89	9.34	245.35	0.60
1968.25	1.66	48.91	1968.08	-1.97	-6.97	-1.97	7.24	254.21	0.72
2062.62	1.63	72.37	2062.41	-0.67	-4.66	-0.67	4.71	261.87	0.71
2156.99	1.45	74.80	2156.74	0.05	-2.23	0.05	2.23	271.39	0.20
2251.36	1.76	77.24	2251.08	0.69	0.34	0.69	0.77	26.16	0.34
2345.73	1.90	79.67	2345.40	1.29	3.29	1.29	3.53	68.62	0.17
2440.10	1.85	82.11	2439.72	1.78	6.33	1.78	6.58	74.33	0.10
2534.47	1.82	101.12	2534.04	1.70	9.31	1.70	9.46	79.67	0.64
2628.84	1.87	120.12	2628.36	0.64	12.11	0.64	12.13	87.00	0.65
2723.21	1.63	139.13	2722.69	-1.15	14.32	-1.15	14.37	94.60	0.66
2817.58	1.50	158.14	2817.03	-3.31	15.66	-3.31	16.01	101.95	0.56
2911.95	1.39	177.14	2911.37	-5.60	16.18	-5.60	17.12	109.10	0.52
3006.32	1.32	145.51	3005.71	-7.64	16.85	-7.64	18.50	114.39	0.79
3100.69	1.16	113.88	3100.06	-8.92	18.34	-8.92	20.39	115.95	0.73
3195.06	1.55	90.70	3194.40	-9.33	20.49	-9.33	22.51	114.47	0.71
3289.43	2.22	78.89	3288.72	-8.99	23.56	-8.99	25.22	110.88	0.82
3383.80	2.23	69.66	3383.02	-8.00	27.08	-8.00	28.24	106.46	0.38
3478.17	1.63	60.42	3477.34	-6.70	29.97	-6.70	30.71	102.60	0.71
3572.54	1.17	51.19	3571.68	-5.43	31.89	-5.43	32.35	99.67	0.54
3666.91	1.71	57.96	3666.02	-4.08	33.83	-4.08	34.08	96.88	0.60
3761.28	2.59	72.73	3760.32	-2.70	37.06	-2.70	37.16	94.17	1.09
3855.65	2.44	93.95	3854.60	-2.21	41.09	-2.21	41.15	93.07	0.99
3950.02	2.90	105.18	3948.87	-2.97	45.40	-2.97	45.50	93.74	0.74
4044.39	4.29	116.40	4043.06	-5.17	50.87	-5.17	51.13	95.80	1.64
4138.76	4.45	127.63	4137.15	-8.97	56.93	-8.97	57.63	98.95	0.92
4228.76	3.05	152.88	4226.96	-13.23	60.79	-13.23	62.21	102.28	2.37



VES Survey International
Ft. Worth, TX
817-741-3610
Surveyor: Kenny Gabel
Cotton Draw 10 Fed Com No. 003H / API 30-015-42126





COTTON DRAW 10 FED COM 3H

WEST UNRESTRICTED

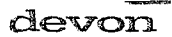
Directional Survey

District DELAWARE BASIN	County EDDY	Field Name PADUCA	Project Group DELAWARE BASIN REG	State/Province NM
Surface Legal Location SEC10 T25S R31E	API/UWI 3001542126	Latitude (°) 32° 9' 6.09" N	Longitude (°) 103° 45' 39.944" W	Ground Elev... 3,427.40
			KB - GL (ft) 25.00	Orig KB Elev (ft) 3,452.40
				Tubing Head Elevation (ft)

Wellbores				
Wellbore Name OH	Parent Wellbore	SAP Well ID 34796	Kick Off Depth (ftKB)	Vertical Section Direction (°)
Actual Deviation Survey GYRO/NWD, Proposed? No		Definitive? Yes	Proposed? No	Proposed Deviation Survey

Deviation Survey					
Date 4/4/2014	Description GYRO/NWD				
MD Tie In (ftKB)	TVD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	NSTie In (ft)	EW Tie In (ft)

Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/4/2014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	80.85	0.34	338.55	80.85	-0.20	0.22	-0.09	0.42	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	175.22	0.39	20.40	175.22	-0.76	0.78	-0.08	0.28	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	269.59	0.36	36.62	269.59	-1.34	1.32	0.21	0.12	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	363.96	0.18	119.75	363.95	-1.56	1.49	0.52	0.41	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	458.33	0.24	221.21	458.32	-1.34	1.27	0.51	0.35	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	552.70	0.53	228.43	552.69	-0.82	0.83	0.06	0.31	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	647.07	0.86	234.01	647.06	0.04	0.12	-0.84	0.36	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	741.44	1.02	231.77	741.41	1.19	-0.81	-2.07	0.17	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	835.81	1.28	216.73	835.76	2.77	-2.18	-3.36	0.42	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	930.18	1.12	216.43	930.11	4.55	-3.77	-4.54	0.17	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,024.55	0.85	207.11	1,024.47	6.05	-5.13	-5.41	0.33	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,118.92	0.70	194.03	1,118.83	7.29	-6.31	-5.87	0.24	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,213.29	0.61	209.10	1,213.19	8.35	-7.31	-6.25	0.21	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,307.66	0.43	229.00	1,307.56	9.10	-7.98	-6.76	0.27	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,402.03	0.34	240.75	1,401.93	9.56	-8.35	-7.28	0.13	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,496.40	0.24	291.61	1,496.30	9.70	-8.42	-7.70	0.28	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,590.77	0.39	3.94	1,590.67	9.35	-8.02	-7.87	0.41	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,685.14	0.62	40.20	1,685.03	8.58	-7.31	-7.51	0.41	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,779.51	1.14	48.54	1,779.39	7.40	-6.30	-6.48	0.57	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,873.88	1.38	50.39	1,873.74	5.78	-4.95	-4.90	0.26	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	1,968.25	1.66	89.15	1,968.08	4.63	-4.21	-2.66	1.10	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,062.62	1.63	72.37	2,062.41	3.72	-3.78	-0.01	0.51	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,156.99	1.45	58.98	2,156.75	2.29	-2.76	2.29	0.43	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,251.36	1.76	68.14	2,251.08	0.71	-1.61	4.66	0.43	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,345.73	1.90	75.14	2,345.40	-0.74	-0.67	7.51	0.28	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,440.10	1.85	82.11	2,439.72	-1.91	-0.05	10.54	0.25	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,534.47	1.82	339.44	2,534.06	-3.67	1.56	11.52	3.04	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,628.84	1.87	112.24	2,628.41	-4.65	2.38	12.42	3.58	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,723.21	1.63	193.49	2,722.75	-3.00	0.49	13.53	2.42	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,817.58	1.50	65.94	2,817.10	-2.36	-0.31	14.34	2.98	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	2,911.95	1.39	177.14	2,911.46	-1.96	-0.95	15.53	2.53	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,006.32	1.32	119.89	3,005.80	-0.49	-2.64	16.53	1.38	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,100.69	1.16	113.88	3,100.15	0.09	-3.56	18.35	0.22	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,195.06	1.55	90.70	3,194.49	0.08	-3.97	20.49	0.70	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,289.43	2.22	88.89	3,288.81	-0.51	-3.95	23.60	0.71	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,383.80	2.23	83.56	3,383.11	-1.43	-3.71	27.25	0.22	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,478.17	1.63	66.88	3,477.43	-2.72	-2.97	30.31	0.86	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,572.54	1.17	39.17	3,571.77	-4.31	-1.70	32.15	0.85	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,666.91	1.71	49.29	3,666.11	-6.26	-0.03	33.83	0.63	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,761.28	2.59	82.73	3,760.42	-8.02	1.15	37.01	1.59	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,855.65	2.44	99.93	3,854.70	-8.71	1.08	41.10	0.81	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	3,950.02	2.90	113.73	3,948.97	-8.20	-0.23	45.27	0.83	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	4,044.39	4.29	134.22	4,043.15	-5.71	-3.65	49.98	1.98	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	4,138.76	4.45	127.63	4,137.25	-2.11	-8.35	55.41	0.56	GYRO	VAUHGN ENERGY SERVICES
4/4/2014	4,228.76	3.05	152.88	4,227.06	1.36	-12.61	59.27	2.37	GYRO	VAUHGN ENERGY SERVICES
4/6/2014	4,349.00	2.51	124.29	4,347.16	4.94	-16.94	62.90	1.22	MWD	BAKER HUGHES INTEQ



COTTON DRAW 10 FED COM 3H

WEST UNRESTRICTED

Directional Survey

District	County	Field Name	Project Group	State/Province			
DELAWARE BASIN	EDDY	PADUCA	DELAWARE BASIN REG	NM			
Surface Legal Location	API/UWI	Latitude (")	Longitude (")	Ground Elev...	KB - GL (ft)	Ong KB Elev (ft)	Tucing Head Elevation (ft)
SEC10 T2S5 R31E	3001542126	32° 9' 6.09" N	103° 45' 39.944" W	3,427.40	25.00	3,452.40	

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/6/2014	4,444.00	1.24	152.17	4,442.11	6.57	-19.02	65.10	1.61	MWD	BAKER HUGHES INTEQ
4/6/2014	4,538.00	1.92	234.28	4,536.09	8.51	-20.84	64.30	2.27	MWD	BAKER HUGHES INTEQ
4/6/2014	4,632.00	3.72	260.76	4,629.97	10.69	-22.25	60.01	2.32	MWD	BAKER HUGHES INTEQ
4/6/2014	4,727.00	3.54	260.91	4,724.78	12.74	-23.21	54.07	0.19	MWD	BAKER HUGHES INTEQ
4/6/2014	4,822.00	4.14	273.83	4,819.57	14.15	-23.44	47.75	1.10	MWD	BAKER HUGHES INTEQ
4/6/2014	4,916.00	3.98	276.00	4,913.33	14.82	-22.88	41.12	0.24	MWD	BAKER HUGHES INTEQ
4/6/2014	5,010.00	3.86	271.88	5,007.11	15.58	-22.43	34.72	0.33	MWD	BAKER HUGHES INTEQ
4/6/2014	5,105.00	3.74	274.79	5,101.90	16.39	-22.07	28.43	0.24	MWD	BAKER HUGHES INTEQ
4/6/2014	5,200.00	3.82	273.65	5,196.70	17.10	-21.61	22.19	0.12	MWD	BAKER HUGHES INTEQ
4/6/2014	5,294.00	3.69	268.73	5,290.50	18.12	-21.48	16.04	0.37	MWD	BAKER HUGHES INTEQ
4/6/2014	5,389.00	4.00	270.28	5,385.28	19.35	-21.53	9.67	0.34	MWD	BAKER HUGHES INTEQ
4/6/2014	5,483.00	3.86	268.22	5,479.06	20.63	-21.61	3.23	0.21	MWD	BAKER HUGHES INTEQ
4/6/2014	5,578.00	3.96	273.74	5,573.84	21.72	-21.49	-3.24	0.41	MWD	BAKER HUGHES INTEQ
4/7/2014	5,672.00	3.84	268.76	5,667.62	22.77	-21.35	-9.63	0.38	MWD	BAKER HUGHES INTEQ
4/7/2014	5,767.00	4.21	270.55	5,762.39	24.05	-21.39	-16.29	0.41	MWD	BAKER HUGHES INTEQ
4/7/2014	5,861.00	4.18	268.47	5,856.14	25.38	-21.45	-23.17	0.16	MWD	BAKER HUGHES INTEQ
4/7/2014	5,956.00	4.20	271.86	5,950.88	26.65	-21.42	-30.11	0.26	MWD	BAKER HUGHES INTEQ
4/7/2014	6,050.00	4.01	269.90	6,044.64	27.80	-21.32	-36.83	0.25	MWD	BAKER HUGHES INTEQ
4/7/2014	6,144.00	3.77	266.06	6,138.43	29.20	-21.54	-43.20	0.38	MWD	BAKER HUGHES INTEQ
4/7/2014	6,238.00	3.77	272.81	6,232.22	30.41	-21.60	-49.37	0.47	MWD	BAKER HUGHES INTEQ
4/7/2014	6,333.00	3.81	268.06	6,327.01	31.53	-21.55	-55.65	0.33	MWD	BAKER HUGHES INTEQ
4/7/2014	6,427.00	3.59	266.72	6,420.82	32.93	-21.83	-61.71	0.25	MWD	BAKER HUGHES INTEQ
4/7/2014	6,521.00	3.71	269.75	6,514.63	34.22	-22.01	-67.69	0.24	MWD	BAKER HUGHES INTEQ
4/7/2014	6,615.00	3.58	271.64	6,608.44	35.26	-21.94	-73.66	0.19	MWD	BAKER HUGHES INTEQ
4/7/2014	6,709.00	3.52	276.09	6,702.26	35.96	-21.55	-79.46	0.30	MWD	BAKER HUGHES INTEQ
4/7/2014	6,804.00	3.39	274.34	6,797.09	36.51	-21.02	-85.16	0.18	MWD	BAKER HUGHES INTEQ
4/7/2014	6,898.00	3.41	268.68	6,890.92	37.40	-20.88	-90.73	0.36	MWD	BAKER HUGHES INTEQ
4/7/2014	6,993.00	3.39	267.07	6,985.75	38.65	-21.09	-96.36	0.10	MWD	BAKER HUGHES INTEQ
4/7/2014	7,182.00	3.08	263.22	7,174.45	41.50	-21.97	-106.98	0.20	MWD	BAKER HUGHES INTEQ
4/7/2014	7,276.00	2.74	271.92	7,268.33	42.60	-22.19	-111.74	0.59	MWD	BAKER HUGHES INTEQ
4/7/2014	7,371.00	3.69	273.05	7,363.18	43.36	-21.96	-117.06	1.00	MWD	BAKER HUGHES INTEQ
4/7/2014	7,465.00	3.73	273.62	7,456.98	44.14	-21.60	-123.13	0.06	MWD	BAKER HUGHES INTEQ
4/7/2014	7,559.00	3.65	273.59	7,550.79	44.89	-21.22	-129.17	0.09	MWD	BAKER HUGHES INTEQ
4/8/2014	7,654.00	4.34	264.35	7,645.56	46.28	-21.39	-135.76	0.99	MWD	BAKER HUGHES INTEQ
4/8/2014	7,748.00	4.11	267.75	7,739.30	48.04	-21.87	-142.67	0.36	MWD	BAKER HUGHES INTEQ
4/8/2014	7,842.00	3.89	267.85	7,833.07	49.51	-22.12	-149.22	0.23	MWD	BAKER HUGHES INTEQ
4/8/2014	7,937.00	3.91	267.35	7,927.85	50.97	-22.39	-155.68	0.04	MWD	BAKER HUGHES INTEQ
4/8/2014	8,031.00	3.86	266.95	8,021.64	52.47	-22.71	-162.04	0.06	MWD	BAKER HUGHES INTEQ
4/8/2014	8,125.00	3.78	267.79	8,115.43	53.92	-23.00	-168.29	0.10	MWD	BAKER HUGHES INTEQ
4/8/2014	8,220.00	3.66	262.32	8,210.23	55.57	-23.52	-174.43	0.39	MWD	BAKER HUGHES INTEQ
4/8/2014	8,314.00	3.37	266.05	8,304.05	57.22	-24.11	-180.16	0.39	MWD	BAKER HUGHES INTEQ
4/8/2014	8,408.00	3.07	266.96	8,397.90	58.52	-24.44	-185.43	0.32	MWD	BAKER HUGHES INTEQ
4/8/2014	8,502.00	3.54	267.60	8,491.75	59.78	-24.69	-190.84	0.50	MWD	BAKER HUGHES INTEQ
4/9/2014	8,597.00	4.01	267.40	8,586.54	61.21	-24.97	-197.09	0.49	MWD	BAKER HUGHES INTEQ
4/9/2014	8,691.00	4.81	262.10	8,680.26	63.23	-25.66	-204.28	0.95	MWD	BAKER HUGHES INTEQ
4/9/2014	8,786.00	4.48	260.57	8,774.95	65.78	-26.81	-211.88	0.37	MWD	BAKER HUGHES INTEQ
4/9/2014	8,880.00	4.25	259.98	8,868.68	68.28	-28.02	-218.93	0.25	MWD	BAKER HUGHES INTEQ
4/9/2014	8,974.00	3.83	268.83	8,962.44	70.16	-28.69	-225.50	0.80	MWD	BAKER HUGHES INTEQ
4/9/2014	9,069.00	3.70	267.47	9,057.24	71.51	-28.89	-231.74	0.17	MWD	BAKER HUGHES INTEQ
4/9/2014	9,163.00	3.59	270.31	9,151.05	72.74	-29.01	-237.71	0.22	MWD	BAKER HUGHES INTEQ
4/9/2014	9,257.00	3.32	264.50	9,244.88	74.03	-29.25	-243.36	0.47	MWD	BAKER HUGHES INTEQ
4/9/2014	9,352.00	3.04	257.77	9,339.73	75.78	-30.05	-248.56	0.49	MWD	BAKER HUGHES INTEQ
4/9/2014	9,446.00	2.79	256.17	9,433.61	77.71	-31.12	-253.22	0.28	MWD	BAKER HUGHES INTEQ
4/10/2014	9,540.00	2.72	256.19	9,527.50	79.58	-32.20	-257.61	0.07	MWD	BAKER HUGHES INTEQ
4/10/2014	9,635.00	2.06	253.86	9,622.42	81.29	-33.22	-261.44	0.70	MWD	BAKER HUGHES INTEQ



COTTON DRAW 10 FED COM 3H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name PADUCA	Project Group DELAWARE BASIN REG	State/Province NM
Surface Legal Location SEC10 T25S R31E	API/UWI 3001542126	Latitude (°) 32° 9' 6.09" N	Longitude (°) 103° 45' 39.944" W	Ground Elev... 3,427.40
			KB - GL (ft) 25.00	Orig KB Elev (ft) 3,452.40
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ftKB)	Incl. (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/10/2014	9,729.00	2.25	241.93	9,716.35	83.21	-34.55	-264.69	0.52	MWD	BAKER HUGHES INTEQ
4/11/2014	9,781.00	1.37	238.32	9,768.33	84.27	-35.36	-266.12	1.71	MWD	BAKER HUGHES INTEQ
4/12/2014	9,812.00	4.35	230.01	9,799.28	85.43	-36.31	-267.33	9.68	MWD	BAKER HUGHES INTEQ
4/12/2014	9,844.00	6.17	223.96	9,831.15	87.81	-38.33	-269.46	5.94	MWD	BAKER HUGHES INTEQ
4/12/2014	9,875.00	9.36	227.67	9,861.86	91.22	-41.23	-272.48	10.41	MWD	BAKER HUGHES INTEQ
4/12/2014	9,907.00	12.38	224.27	9,893.28	96.16	-45.44	-276.80	9.64	MWD	BAKER HUGHES INTEQ
4/12/2014	9,938.00	14.38	226.13	9,923.44	102.07	-50.48	-281.89	6.60	MWD	BAKER HUGHES INTEQ
4/12/2014	9,970.00	18.58	219.13	9,954.12	109.79	-57.20	-287.98	14.50	MWD	BAKER HUGHES INTEQ
4/12/2014	10,002.00	20.71	217.71	9,984.26	119.32	-65.63	-294.66	6.82	MWD	BAKER HUGHES INTEQ
4/12/2014	10,033.00	23.56	218.88	10,012.97	129.67	-74.79	-301.90	9.30	MWD	BAKER HUGHES INTEQ
4/12/2014	10,065.00	25.40	218.03	10,042.09	141.41	-85.17	-310.14	5.85	MWD	BAKER HUGHES INTEQ
4/12/2014	10,096.00	28.22	217.52	10,069.76	153.86	-96.23	-318.70	9.13	MWD	BAKER HUGHES INTEQ
4/12/2014	10,128.00	30.93	218.84	10,097.59	167.87	-108.64	-328.47	8.71	MWD	BAKER HUGHES INTEQ
4/12/2014	10,159.00	32.43	217.71	10,123.97	182.31	-121.42	-338.55	5.20	MWD	BAKER HUGHES INTEQ
4/14/2014	10,193.00	33.28	216.12	10,152.53	198.86	-136.17	-349.63	3.56	MWD	BAKER HUGHES INTEQ
4/14/2014	10,224.00	35.17	214.38	10,178.16	214.72	-150.41	-359.68	6.87	MWD	BAKER HUGHES INTEQ
4/14/2014	10,255.00	38.04	213.98	10,203.04	231.68	-165.70	-370.07	9.29	MWD	BAKER HUGHES INTEQ
4/14/2014	10,287.00	41.67	214.05	10,227.60	250.51	-182.69	-381.54	11.34	MWD	BAKER HUGHES INTEQ
4/14/2014	10,318.00	45.21	212.90	10,250.11	270.17	-200.47	-393.29	11.70	MWD	BAKER HUGHES INTEQ
4/14/2014	10,350.00	48.49	211.52	10,271.99	291.89	-220.23	-405.72	10.72	MWD	BAKER HUGHES INTEQ
4/14/2014	10,382.00	52.18	210.30	10,292.41	315.01	-241.36	-418.37	11.90	MWD	BAKER HUGHES INTEQ
4/14/2014	10,413.00	55.63	208.98	10,310.68	338.70	-263.13	-430.75	11.65	MWD	BAKER HUGHES INTEQ
4/14/2014	10,445.00	58.85	206.67	10,327.99	364.42	-286.93	-443.30	11.75	MWD	BAKER HUGHES INTEQ
4/15/2014	10,476.00	62.87	206.19	10,343.08	390.48	-311.17	-455.34	13.04	MWD	BAKER HUGHES INTEQ
4/15/2014	10,508.00	66.81	206.14	10,356.68	418.39	-337.16	-468.11	12.31	MWD	BAKER HUGHES INTEQ
4/15/2014	10,539.00	70.69	205.67	10,367.92	446.27	-363.15	-480.73	12.60	MWD	BAKER HUGHES INTEQ
4/15/2014	10,571.00	74.45	205.23	10,377.50	475.80	-390.71	-493.85	11.82	MWD	BAKER HUGHES INTEQ
4/15/2014	10,602.00	78.18	205.37	10,384.83	504.94	-417.94	-506.72	12.04	MWD	BAKER HUGHES INTEQ
4/15/2014	10,634.00	82.12	204.33	10,390.31	535.51	-446.54	-519.96	12.72	MWD	BAKER HUGHES INTEQ
4/15/2014	10,688.00	88.24	203.41	10,394.84	587.89	-495.72	-541.72	11.46	MWD	BAKER HUGHES INTEQ
4/15/2014	10,719.00	89.14	202.42	10,395.55	618.18	-524.27	-553.79	4.32	MWD	BAKER HUGHES INTEQ
4/15/2014	10,814.00	88.98	201.11	10,397.11	711.41	-612.48	-589.01	1.39	MWD	BAKER HUGHES INTEQ
4/15/2014	10,908.00	89.60	199.98	10,398.28	804.02	-700.50	-622.00	1.37	MWD	BAKER HUGHES INTEQ
4/15/2014	11,002.00	90.80	199.62	10,397.95	896.84	-788.94	-653.84	1.33	MWD	BAKER HUGHES INTEQ
4/15/2014	11,096.00	90.49	198.69	10,396.89	989.82	-877.73	-684.68	1.04	MWD	BAKER HUGHES INTEQ
4/15/2014	11,191.00	91.02	196.44	10,395.64	1,084.13	-968.28	-713.34	2.43	MWD	BAKER HUGHES INTEQ
4/15/2014	11,285.00	90.99	194.15	10,393.99	1,177.81	-1,058.93	-738.13	2.44	MWD	BAKER HUGHES INTEQ
4/15/2014	11,379.00	90.86	192.38	10,392.47	1,271.70	-1,150.41	-759.70	1.89	MWD	BAKER HUGHES INTEQ
4/15/2014	11,473.00	89.57	191.04	10,392.12	1,365.68	-1,242.45	-778.78	1.98	MWD	BAKER HUGHES INTEQ
4/15/2014	11,567.00	89.32	188.66	10,393.03	1,459.66	-1,335.05	-794.86	2.55	MWD	BAKER HUGHES INTEQ
4/15/2014	11,662.00	90.22	188.32	10,393.41	1,554.58	-1,429.01	-808.88	1.01	MWD	BAKER HUGHES INTEQ
4/15/2014	11,756.00	90.31	186.09	10,392.98	1,648.40	-1,522.26	-820.67	2.37	MWD	BAKER HUGHES INTEQ
4/15/2014	11,851.00	90.34	184.61	10,392.44	1,742.98	-1,616.84	-829.53	1.56	MWD	BAKER HUGHES INTEQ
4/15/2014	11,945.00	91.32	185.15	10,391.07	1,836.48	-1,710.49	-837.52	1.19	MWD	BAKER HUGHES INTEQ
4/18/2014	12,040.00	91.17	184.07	10,389.01	1,930.91	-1,805.16	-845.16	1.15	MWD	BAKER HUGHES INTEQ
4/18/2014	12,134.00	90.06	182.78	10,388.00	2,024.14	-1,898.98	-850.77	1.81	MWD	BAKER HUGHES INTEQ
4/18/2014	12,229.00	89.01	181.38	10,388.77	2,118.06	-1,993.91	-854.22	1.84	MWD	BAKER HUGHES INTEQ
4/18/2014	12,323.00	89.63	182.02	10,389.89	2,210.88	-2,087.86	-857.01	0.95	MWD	BAKER HUGHES INTEQ
4/18/2014	12,417.00	88.02	180.97	10,391.82	2,303.64	-2,181.81	-859.46	2.04	MWD	BAKER HUGHES INTEQ
4/18/2014	12,512.00	88.52	180.58	10,394.68	2,397.17	-2,276.75	-860.74	0.67	MWD	BAKER HUGHES INTEQ
4/18/2014	12,606.00	89.14	180.40	10,396.60	2,489.66	-2,370.73	-861.55	0.69	MWD	BAKER HUGHES INTEQ
4/18/2014	12,700.00	89.82	180.71	10,397.46	2,582.17	-2,464.72	-862.46	0.80	MWD	BAKER HUGHES INTEQ
4/18/2014	12,795.00	88.67	180.48	10,398.71	2,675.68	-2,559.71	-863.44	1.23	MWD	BAKER HUGHES INTEQ
4/18/2014	12,889.00	89.17	180.52	10,400.48	2,768.17	-2,653.69	-864.26	0.53	MWD	BAKER HUGHES INTEQ
4/18/2014	12,983.00	89.66	180.56	10,401.44	2,860.69	-2,747.68	-865.15	0.52	MWD	BAKER HUGHES INTEQ



COTTON DRAW 10 FED COM 3H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name PADUCA	Project Group DELAWARE BASIN REG	State/Province NM
Surface Legal Location SEC10 T25S R31E	API/UWI 3001542126	Latitude (°) 32° 9' 6.09" N	Longitude (°) 103° 45' 39.944" W	Ground Elev... 3,427.40
			KB - GL (ft) 25.00	Orig KB Elev (ft) 3,452.40
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/18/2014	13,078.00	90.00	180.96	10,401.72	2,954.25	-2,842.67	-866.41	0.55	MWD	BAKER HUGHES INTEQ
4/18/2014	13,172.00	89.20	180.26	10,402.38	3,046.79	-2,936.66	-867.41	1.13	MWD	BAKER HUGHES INTEQ
4/18/2014	13,266.00	89.66	180.27	10,403.31	3,139.22	-3,030.65	-867.85	0.49	MWD	BAKER HUGHES INTEQ
4/18/2014	13,360.00	88.58	179.87	10,404.76	3,231.59	-3,124.64	-867.96	1.23	MWD	BAKER HUGHES INTEQ
4/18/2014	13,455.00	89.38	180.01	10,406.45	3,324.89	-3,219.62	-867.86	0.85	MWD	BAKER HUGHES INTEQ
4/18/2014	13,549.00	90.18	180.06	10,406.81	3,417.26	-3,313.62	-867.92	0.85	MWD	BAKER HUGHES INTEQ
4/18/2014	13,644.00	88.52	179.57	10,407.89	3,510.53	-3,408.61	-867.61	1.82	MWD	BAKER HUGHES INTEQ
4/18/2014	13,738.00	89.11	179.92	10,409.83	3,602.79	-3,502.59	-867.19	0.73	MWD	BAKER HUGHES INTEQ
4/18/2014	13,832.00	90.22	180.28	10,410.38	3,695.18	-3,596.59	-867.36	1.24	MWD	BAKER HUGHES INTEQ
4/18/2014	13,927.00	91.42	180.76	10,409.02	3,788.66	-3,691.57	-868.22	1.36	MWD	BAKER HUGHES INTEQ
4/18/2014	14,021.00	90.80	181.29	10,407.20	3,881.30	-3,785.54	-869.90	0.87	MWD	BAKER HUGHES INTEQ
4/18/2014	14,115.00	89.01	180.72	10,407.35	3,973.95	-3,879.52	-871.55	2.00	MWD	BAKER HUGHES INTEQ
4/18/2014	14,210.00	89.97	181.79	10,408.20	4,067.64	-3,974.49	-873.63	1.51	MWD	BAKER HUGHES INTEQ
4/18/2014	14,304.00	90.68	181.75	10,407.67	4,160.50	-4,068.44	-876.53	0.76	MWD	BAKER HUGHES INTEQ
4/18/2014	14,398.00	91.60	182.13	10,405.80	4,253.37	-4,162.37	-879.72	1.06	MWD	BAKER HUGHES INTEQ
4/18/2014	14,493.00	88.98	181.73	10,405.32	4,347.25	-4,257.31	-882.91	2.79	MWD	BAKER HUGHES INTEQ
4/18/2014	14,587.00	88.80	181.94	10,407.14	4,440.10	-4,351.24	-885.92	0.29	MWD	BAKER HUGHES INTEQ
4/18/2014	14,682.00	89.69	182.14	10,408.39	4,534.00	-4,446.17	-889.31	0.96	MWD	BAKER HUGHES INTEQ
4/18/2014	14,776.00	90.46	182.22	10,408.27	4,626.96	-4,540.10	-892.88	0.82	MWD	BAKER HUGHES INTEQ
4/18/2014	14,871.00	91.54	182.48	10,406.61	4,720.93	-4,635.01	-896.78	1.17	MWD	BAKER HUGHES INTEQ
4/18/2014	14,943.00	92.28	182.49	10,404.21	4,792.14	-4,706.90	-899.90	1.03	MWD	BAKER HUGHES INTEQ
4/18/2014	15,000.00	92.28	182.49	10,401.94	4,848.51	-4,763.80	-902.37	0.00	BIT	BAKER HUGHES INTEQ