



PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

30-015-39624

April 20, 2012

COG, LLC
Fasken Center, Tower II
550 West Texas Ave, Suite 1300
Midland, TX 79701

RE: Paint 32 Fee #4H
380' FSL & 190' FWL
Sec. 32, T18S, R25E
Eddy County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Eddie C. LaRue".

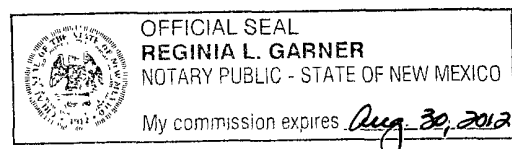
Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 20th day of April, 2012.

A handwritten signature in cursive script, appearing to read "Regina L. Garner".

Notary Public



Paint 32 Fee #4H

Date	Depth	Deviation	Direction	TVD
3/26/2012	82	0.60		
3/26/2012	166	0.70		
3/26/2012	255	0.80		
3/26/2012	343	1.20		
3/26/2012	432	1.50		
3/26/2012	521	1.80		
3/26/2012	609	1.70		
3/27/2012	701	1.60		
3/27/2012	794	1.90		
3/27/2012	887	2.60		
3/27/2012	981	3.00		
3/31/2012	1084	3.90	302.50	
3/31/2012	1177	4.00	305.50	
3/31/2012	1271	3.70	299.60	
4/1/2012	1365	3.70	299.00	
4/1/2012	1459	3.80	301.60	
4/1/2012	1552	3.80	302.30	
4/1/2012	1646	3.60	306.10	
4/1/2012	1739	3.60	303.30	
4/1/2012	1833	3.10	303.40	
4/1/2012	1927	2.60	305.50	
4/2/2012	2037	3.00		
4/2/2012	2131	2.40		
4/2/2012	2255	3.10		
4/2/2012	2349	2.80		
4/2/2012	2412	2.50		
4/2/2012	2568	2.60		
4/2/2012	2693	3.20		
4/2/2012	2849	3.00		
4/3/2012	3099	1.80		
4/3/2012	3410	2.30		
4/3/2012	3754	2.90		
4/7/2012	2050	1.50	28.40	
4/7/2012	2081	4.50	79.80	
4/7/2012	2112	8.00	86.20	
4/7/2012	2143	11.40	87.10	
4/7/2012	2174	14.30	86.60	
4/7/2012	2206	17.10	87.10	
4/8/2012	2237	19.90	88.50	2230.00
4/8/2012	2268	22.70	91.40	2259.00
4/8/2012	2299	25.60	94.50	2282.00
4/8/2012	2330	28.80	94.60	2315.00
4/8/2012	2362	31.90	93.40	2342.00
4/8/2012	2393	35.10	92.30	2368.00
4/8/2012	2518	46.60	89.60	2462.68
4/8/2012	2611	55.00	90.00	2521.00
4/8/2012	2549	49.40	89.90	2483.00
4/8/2012	2642	57.80	89.90	2583.00
4/8/2012	2580	52.20	90.00	2502.00
4/8/2012	2673	60.80	89.20	2554.00
4/8/2012	2704	64.10	88.00	2568.00

Date	Depth	Deviation	Direction	TVD
4/8/2012	2736	67.40	87.80	2581.00
4/8/2012	2767	70.40	88.20	2592.00
4/8/2012	2798	73.30	88.60	2602.00
4/8/2012	2829	76.00	89.50	2610.00
4/8/2012	2860	79.50	90.00	2617.00
4/9/2012	2954	87.80	90.70	2627.00
4/9/2012	3048	88.30	90.00	2630.00
4/9/2012	3141	88.50	90.00	2633.00
4/9/2012	3235	88.40	90.10	2636.00
4/9/2012	3516	87.60	89.80	2645.00
4/9/2012	3328	88.40	89.90	2639.00
4/9/2012	3609	87.40	89.60	2649
4/9/2012	3422	87.90	89.80	2641.00
4/9/2012	3703	89.00	90.00	2652.00
4/9/2012	3797	88.50	89.80	2654.00
4/9/2012	3890	87.80	89.70	2657.00
4/9/2012	3984	89.30	90.10	2659.00
4/9/2012	4077	88.90	89.30	2701.00
4/10/2012	4171	87.80	90.80	2663.00
4/10/2012	4265	88.30	90.90	2667.00
4/10/2012	4358	88.80	90.30	2669.00
4/10/2012	4451	88.70	90.00	2671.00
4/10/2012	4545	88.60	89.70	2673.00
4/10/2012	4826	90.60	88.40	2679.00
4/10/2012	4638	88.50	89.10	2675.00
4/10/2012	4918	90.60	88.00	2678.00
4/10/2012	4732	88.40	88.60	2678.00
4/10/2012	5013	89.30	89.20	2678.00
4/10/2012	5106	88.90	90.20	2679.00
4/10/2012	5200	88.50	89.70	2681.00
4/11/2012	5293	88.40	89.40	2684.00
4/11/2012	5387	88.50	91.90	2687.00
4/11/2012	5480	88.70	91.70	2689.00
4/11/2012	5761	88.20	90.80	2695.00
4/11/2012	3574	88.80	91.50	2689.00
4/11/2012	5667	88.80	91.40	2693.00
4/11/2012	5855	88.00	90.30	2698.00
4/11/2012	5949	88.50	89.60	2701.00
4/11/2012	6042	88.30	89.10	2704.00
4/11/2012	6136	88.50	89.80	2707.00
4/12/2012	6230	88.30	89.20	2709.00
4/12/2012	6323	89.60	89.90	2711.00
4/12/2012	6417	89.30	89.70	2712.00
4/12/2012	6504	89.30	90.00	2713.00
4/12/2012	6605	89.50	90.30	2714.00
4/12/2012	6698	87.40	91.00	2717.00
4/12/2012	6792	87.50	90.80	2721.00
4/12/2012	6886	87.70	90.40	2725.00
4/13/2012	6979	87.50	90.30	2729.00
4/13/2012	7073	87.30	90.20	2733.00
4/13/2012	7136	87.10	89.90	2736.00



A GYRO TECHNOLOGIES INC. COMPANY

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

April 13, 2012

30-015-39624

COG Operating LLC (Concho)
550 West Texas Avenue Ste. 100
Midland, Texas 79701

Attn: Kanicia Castillo

Re: **Paint 32 Fee 4H**

Please find enclosed a copy of the survey from 0' to 4,034' 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



Company: COG Operating LLC (Concho)
Lease/Well: Paint 32 Fee/4H
Location: S32,T18s,R26e
Rig Name: Silver Oak #8
State/County: New Mexico/Eddy
Latitude: 32.70
GRID North is 0.04 Degrees West of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 17 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: paint 32 fee #4h_ed.ut

Minimum Curvature Method

Report Date/Time: 4/13/2012 / 14:22

Vaughn Energy Services

Gardendale,Texas

432-563-5444

Surveyor: Seth Hardin

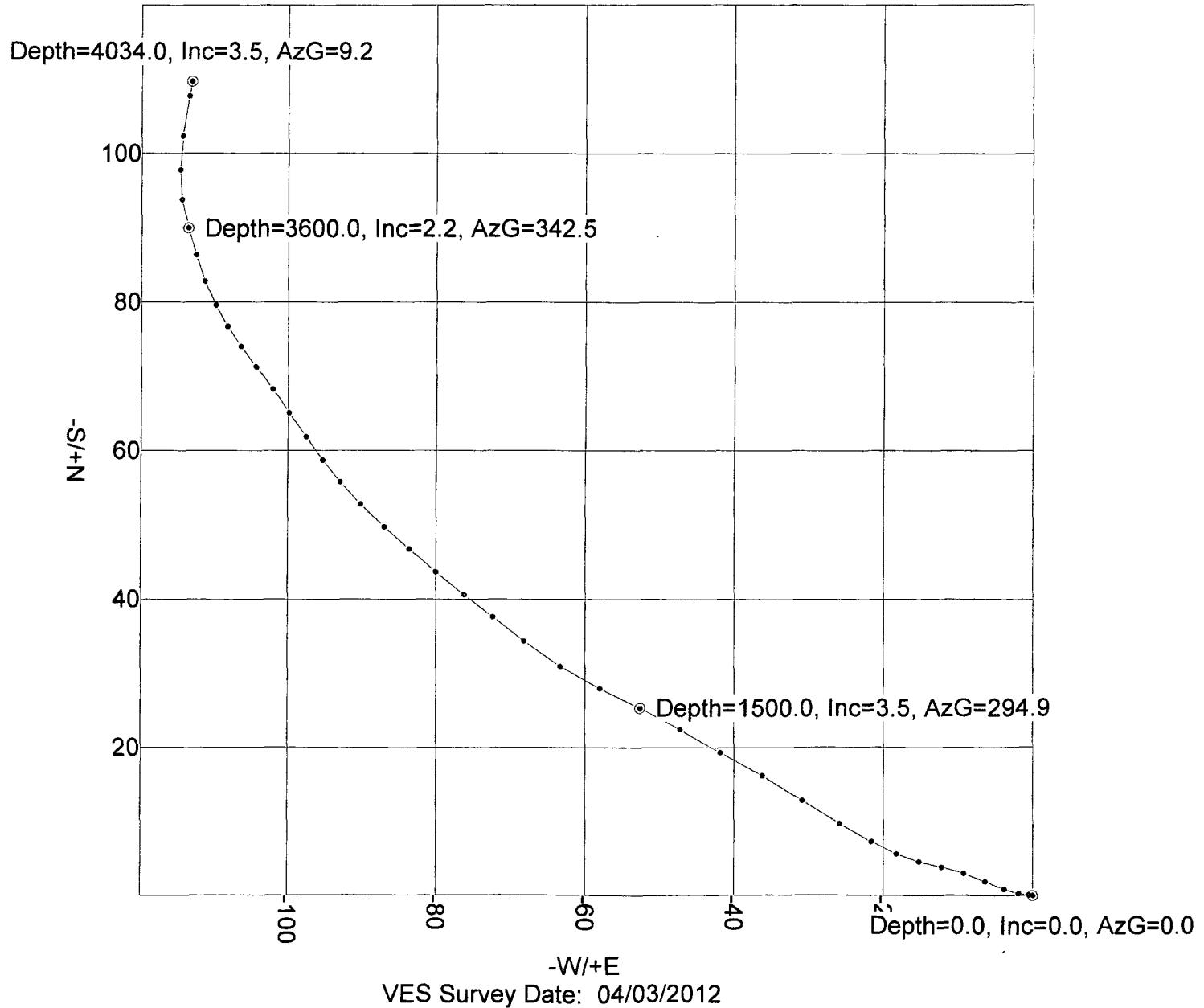
Paint 32 Fee 4H / API 30-015-39624

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W 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	****
100.00	0.61	277.01	100.00	0.07	-0.53	0.54	277.01	0.61
200.00	0.91	280.91	199.99	0.28	-1.84	1.86	278.66	0.30
300.00	1.41	290.09	299.97	0.85	-3.78	3.88	282.74	0.54
400.00	1.70	294.13	399.93	1.88	-6.29	6.57	286.67	0.30
500.00	1.82	287.22	499.88	2.96	-9.16	9.63	287.91	0.25
600.00	1.74	283.76	599.84	3.79	-12.16	12.74	287.33	0.14
700.00	1.86	283.42	699.79	4.53	-15.21	15.87	286.59	0.12
800.00	1.86	294.33	799.73	5.58	-18.27	19.10	286.98	0.35
900.00	2.46	298.30	899.66	7.26	-21.64	22.82	288.56	0.61
1000.00	3.14	300.14	999.54	9.65	-25.89	27.63	290.45	0.69
1100.00	3.60	304.37	1099.37	12.80	-30.85	33.40	292.53	0.52
1200.00	3.72	300.05	1199.17	16.19	-36.25	39.70	294.07	0.30
1300.00	3.62	298.24	1298.96	19.31	-41.83	46.07	294.78	0.15
1400.00	3.54	301.62	1398.77	22.42	-47.24	52.29	295.39	0.22
1500.00	3.49	294.89	1498.58	25.32	-52.63	58.40	295.69	0.42
1600.00	3.41	297.34	1598.40	27.97	-58.03	64.42	295.73	0.17
1700.00	3.57	301.34	1698.21	30.95	-63.33	70.49	296.05	0.29
1800.00	3.31	307.84	1798.03	34.34	-68.26	76.41	296.70	0.47

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	2.74	308.58	1897.89	37.60	-72.41	81.59	297.44	0.57
2000.00	2.83	307.51	1997.78	40.59	-76.23	86.36	298.03	0.11
2100.00	2.78	310.71	2097.66	43.67	-80.03	91.17	298.62	0.17
2200.00	2.64	310.68	2197.54	46.75	-83.61	95.79	299.21	0.14
2300.00	2.51	311.75	2297.44	49.71	-86.99	100.19	299.75	0.13
2400.00	2.53	316.16	2397.35	52.76	-90.15	104.46	300.34	0.19
2500.00	2.15	319.33	2497.26	55.78	-92.90	108.36	300.98	0.40
2600.00	2.18	323.01	2597.19	58.72	-95.27	111.91	301.65	0.14
2700.00	2.28	324.59	2697.12	61.85	-97.56	115.52	302.37	0.12
2800.00	2.27	324.78	2797.04	65.09	-99.86	119.20	303.10	0.01
2900.00	2.23	323.13	2896.96	68.27	-102.17	122.88	303.75	0.08
3000.00	2.06	323.00	2996.89	71.27	-104.43	126.43	304.31	0.17
3100.00	1.82	324.02	3096.83	74.00	-106.44	129.64	304.81	0.24
3200.00	1.94	327.94	3196.78	76.72	-108.27	132.70	305.32	0.17
3300.00	1.83	332.72	3296.72	79.57	-109.90	135.68	305.90	0.19
3400.00	2.22	338.80	3396.66	82.79	-111.34	138.75	306.64	0.44
3500.00	2.10	344.17	3496.59	86.36	-112.54	141.85	307.50	0.23
3600.00	2.18	342.53	3596.52	89.94	-113.61	144.90	308.37	0.11
3700.00	2.33	351.36	3696.44	93.76	-114.49	147.98	309.32	0.37
3800.00	2.29	1.20	3796.36	97.76	-114.75	150.75	310.43	0.40
3900.00	2.92	7.46	3896.26	102.29	-114.38	153.44	311.81	0.69
4000.00	3.35	10.60	3996.11	107.69	-113.51	156.46	313.49	0.47
4034.00	3.51	9.17	4030.05	109.69	-113.16	157.60	314.11	0.53



Vaughn Energy Services
Gardendale, Texas
432-563-5444
Surveyor: Seth Hardin
Paint 32 Fee 4H / API 30-015-39624





Job Number: PB-12162
 Company: Concho Oil and Gas
 Lease/Well: Paint 32 FEE #4H
 Location: Artesia
 Rig Name: Silver Oak #8
 RKB: ☐
 G.L. or M.S.L.: ☐

State/Country: New Mexico/USA
 Declination: ☐
 Grid: ☐
 File name: C:\DOCUME~1\ADMINI~1\DESKTOP\PAINT32.SVY
 Date/Time: 13-Apr-12 / 01:42
 Curve Name: C:\DOCUME~1\XPMUSER\DESKTOP\GYRO.TXT

Crescent Directional Drilling

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 89.64
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie in									
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.61	277.01	100.00	.06	-.53	-.53	.53	277.01	.61
200.00	.91	280.91	199.99	.28	-1.84	-1.83	1.86	278.68	.30
300.00	1.41	290.09	299.97	.85	-3.77	-3.77	3.87	282.75	.53
400.00	1.70	294.13	399.93	1.88	-6.28	-6.27	6.56	286.68	.31
500.00	1.82	287.22	499.88	2.96	-9.15	-9.13	9.62	287.92	.24
600.00	1.74	283.76	599.84	3.79	-12.14	-12.12	12.72	287.33	.13
700.00	1.86	283.42	699.79	4.53	-15.20	-15.17	15.86	286.59	.12
800.00	1.86	294.33	799.73	5.57	-18.25	-18.22	19.09	286.98	.35
900.00	2.46	298.30	899.66	7.26	-21.62	-21.58	22.81	288.56	.62
1000.00	3.14	300.14	999.54	9.65	-25.88	-25.82	27.62	290.45	.69
1100.00	3.60	304.37	1099.37	12.80	-30.84	-30.76	33.39	292.54	.52
1200.00	3.72	300.05	1199.17	16.20	-36.24	-36.14	39.69	294.08	.30
1300.00	3.62	298.24	1298.96	19.31	-41.83	-41.71	46.07	294.79	.15
1400.00	3.54	301.62	1398.77	22.43	-47.24	-47.10	52.29	295.40	.23
1500.00	3.49	294.89	1498.58	25.33	-52.63	-52.47	58.41	295.70	.42
1600.00	3.41	297.34	1598.40	27.97	-58.03	-57.85	64.42	295.74	.17
1700.00	3.57	301.34	1698.21	30.96	-63.33	-63.14	70.49	296.05	.29
1800.00	3.31	307.84	1798.03	34.35	-68.27	-68.05	76.43	296.71	.47
1900.00	2.74	308.58	1897.89	37.61	-72.42	-72.18	81.60	297.44	.57
2000.00	2.83	307.51	1997.77	40.60	-76.25	-75.99	86.38	298.04	.10
2050.00	1.50	28.40	2047.75	41.93	-76.91	-76.65	87.60	298.60	5.97
2081.00	4.50	79.80	2078.70	42.50	-75.52	-75.26	86.66	299.37	12.10
2112.00	8.00	86.20	2109.52	42.86	-72.17	-71.90	83.94	300.71	11.49
2143.00	11.40	87.10	2140.07	43.16	-66.96	-66.69	79.66	302.80	10.98

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2174.00	14.30	86.60	2170.29	43.54	-60.08	-59.80	74.20	305.93	9.36
2206.00	17.10	87.10	2201.09	44.02	-51.43	-51.15	67.69	310.56	8.76
2237.00	19.90	88.50	2230.49	44.38	-41.60	-41.32	60.83	316.85	9.14
2268.00	22.70	91.40	2259.37	44.38	-30.35	-30.07	53.76	325.63	9.65
2299.00	25.60	94.50	2287.65	43.70	-17.69	-17.41	47.15	337.97	10.21
2330.00	28.80	94.60	2315.22	42.58	-3.56	-3.30	42.73	355.22	10.32
2362.00	31.90	93.40	2342.83	41.46	12.56	12.82	43.32	16.86	9.87
2393.00	35.10	92.30	2368.68	40.62	29.65	29.90	50.29	36.13	10.51
2424.00	38.20	91.50	2393.55	40.01	48.14	48.39	62.60	50.27	10.12
2455.00	41.20	90.40	2417.40	39.68	67.94	68.19	78.68	59.71	9.94
2486.00	44.10	90.00	2440.19	39.61	88.94	89.19	97.36	65.99	9.40
2518.00	46.60	89.60	2462.68	39.69	111.70	111.95	118.55	70.44	7.86
2549.00	49.40	89.90	2483.42	39.79	134.74	134.98	140.49	73.55	9.06
2580.00	52.50	90.00	2502.95	39.81	158.81	159.06	163.72	75.93	10.00
2611.00	55.00	90.00	2521.28	39.81	183.81	184.05	188.07	77.78	8.06
2642.00	57.80	89.90	2538.43	39.84	209.62	209.87	213.38	79.24	9.04
2673.00	60.80	89.20	2554.26	40.05	236.28	236.52	239.65	80.38	9.87
2704.00	64.10	88.00	2568.59	40.72	263.75	264.00	266.87	81.22	11.18
2736.00	67.40	87.80	2581.74	41.79	292.90	293.16	295.87	81.88	10.33
2767.00	70.40	88.20	2592.89	42.80	321.80	322.06	324.63	82.42	9.75
2798.00	73.30	88.60	2602.55	43.62	351.24	351.51	353.94	82.92	9.43
2829.00	76.00	89.50	2610.76	44.12	381.13	381.40	383.68	83.40	9.15
2860.00	79.50	90.00	2617.33	44.25	411.42	411.69	413.79	83.86	11.40
2954.00	87.80	90.70	2627.72	43.67	504.76	505.02	506.64	85.05	8.86
3048.00	88.30	90.00	2630.92	43.10	598.70	598.96	600.25	85.88	.91
3141.00	88.50	90.00	2633.52	43.10	691.67	691.92	693.01	86.43	.22
3235.00	88.40	90.10	2636.06	43.02	785.63	785.89	786.81	86.87	.15
3359.00	88.40	89.90	2639.52	43.02	909.58	909.83	910.60	87.29	.16
3422.00	87.90	89.80	2641.55	43.18	972.55	972.80	973.51	87.46	.81
3516.00	87.60	89.80	2645.24	43.51	1066.48	1066.73	1067.36	87.66	.32
3609.00	87.40	89.60	2649.30	44.00	1159.39	1159.64	1160.22	87.83	.30
3703.00	89.00	90.00	2652.25	44.33	1253.34	1253.59	1254.12	87.97	1.75
3797.00	88.50	89.80	2654.30	44.49	1347.31	1347.57	1348.05	88.11	.57
3890.00	87.80	89.70	2657.31	44.90	1440.26	1440.52	1440.96	88.21	.76
3984.00	89.30	90.10	2659.69	45.06	1534.23	1534.48	1534.89	88.32	1.65
4077.00	88.90	89.30	2661.15	45.55	1627.22	1627.47	1627.85	88.40	.96
4171.00	87.80	90.80	2663.85	45.46	1721.17	1721.42	1721.77	88.49	1.98
4265.00	88.30	90.90	2667.05	44.07	1815.11	1815.35	1815.64	88.61	.54
4358.00	88.80	90.30	2669.40	43.10	1908.07	1908.31	1908.56	88.71	.84
4450.00	88.70	90.00	2671.41	42.86	2000.05	2000.28	2000.51	88.77	.34
4544.00	88.60	89.70	2673.63	43.10	2094.02	2094.25	2094.47	88.82	.34
4637.00	88.50	89.10	2675.98	44.08	2186.99	2187.22	2187.43	88.85	.65
4731.00	88.40	88.60	2678.52	45.96	2280.93	2281.18	2281.40	88.85	.54
4825.00	90.60	88.40	2679.34	48.42	2374.89	2375.15	2375.39	88.83	2.35
4918.00	90.60	88.00	2678.37	51.34	2467.84	2468.12	2468.38	88.81	.43

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
5012.00	89.30	89.20	2678.45	53.64	2561.81	2562.10	2562.37	88.80	1.88
5105.00	88.90	90.20	2679.91	54.13	2654.80	2655.08	2655.35	88.83	1.16
5199.00	88.50	89.70	2682.04	54.21	2748.77	2749.06	2749.31	88.87	.68
5292.00	88.40	89.40	2684.56	54.94	2841.73	2842.02	2842.27	88.89	.34
5386.00	88.50	91.90	2687.10	53.87	2935.69	2935.97	2936.18	88.95	2.66
5478.00	88.70	91.70	2689.35	50.98	3027.61	3027.87	3028.04	89.04	.31
5573.00	88.80	91.50	2691.42	48.33	3122.55	3122.80	3122.93	89.11	.24
5666.00	88.80	91.40	2693.37	45.98	3215.50	3215.73	3215.83	89.18	.11
5760.00	88.20	90.80	2695.83	44.18	3309.45	3309.67	3309.75	89.24	.90
5854.00	88.00	90.30	2698.95	43.27	3403.40	3403.60	3403.67	89.27	.57
5948.00	88.50	89.60	2701.82	43.36	3497.35	3497.56	3497.62	89.29	.91
6041.00	88.30	89.10	2704.42	44.41	3590.31	3590.52	3590.58	89.29	.58
6135.00	88.50	89.80	2707.04	45.31	3684.27	3684.48	3684.55	89.30	.77
6229.00	88.30	89.20	2709.66	46.13	3778.23	3778.44	3778.51	89.30	.67
6322.00	89.60	89.90	2711.37	46.86	3871.21	3871.42	3871.49	89.31	1.59
6416.00	89.30	89.70	2712.27	47.19	3965.20	3965.42	3965.48	89.32	.38
6509.00	89.30	90.00	2713.41	47.43	4058.19	4058.41	4058.47	89.33	.32
6604.00	89.30	90.30	2714.57	47.19	4153.19	4153.40	4153.45	89.35	.32
6697.00	87.40	91.00	2717.25	46.13	4246.14	4246.34	4246.39	89.38	2.18
6791.00	87.50	90.80	2721.43	44.66	4340.03	4340.23	4340.26	89.41	.24
6885.00	87.70	90.40	2725.36	43.67	4433.94	4434.13	4434.16	89.44	.48
7072.00	87.30	90.20	2733.52	42.69	4620.76	4620.94	4620.96	89.47	.24
7136.00	87.10	89.90	2736.65	42.64	4684.69	4684.86	4684.88	89.48	.56
PTTD									
7192.00	87.10	89.90	2739.48	42.74	4740.61	4740.79	4740.81	89.48	.00