Results of Directional Survey

API number:	30-025-41313			
OGRID:		Operator:	CAZA OPERATING, LLC	
		Property:	WEST COPPERLINE 29 STATE COM	# 1H

surface	ULSTR:	C	29	T	23S	R	34E
				330	FNL	1980	FWL
BH Loc	ULSTR:	N	29	T	23S	R	34E
15035 MD		10605.2 TVD		343	FSL	2000	FWL
				4937	FNL		
Top Perf/OH	ULSTR:	C	29	T	23S	R	34E
10830 MD		10573.7 TVD		735	FNL	2034	FWL
Bot Perf/OH	ULSTR:	N	29	T	23S	R	34E
14886 MD		10603.5 TVD		492	FSL	2002	FWL
				4788	FNL		

	MD	N/S	E/W	VD
	10794	-369.64	57.79	10571.95
TOP PERFS/OH	**10830**	-405.43	54.44	10573.65
	10890	-465.09	48.86	10576.47
	14791	-4362.79	22.20	10601.68
BOT PERFS/OH	**14886**	-4457.77	21.70	10603.51
	14887	-4458.77	21.69	10603.53

NEXT TO LAST	14978	-4549.75	20.66	10604.80
LAST READING	15035	-4606.74	19.67	10605.20
TD	**15035**	-4606.74	19.67	10605.20

Surface Location	330	FN	1980	FW
Projected BHL	4937	FN	2000	FW
Location of				
Top Perfs/OH	735	FN	2034	FW
Bottom Perfs/OH	4788	FN	2002	FW

SUMMARY of Subsurface Locations

Surface Location	C-29-23S-34E	330	FN	1980	FW	Vert. Depth
Top Perfs/OH	C-29-23S-34E	735	FN	2034	FW	10573.65
Bottom Perfs/OH	N-29-23S-34E	4788	FN	2002	FW	10603.51
Projected TD	N-29-23S-34E	4937	FN	2000	FW	10605.20

Company: Caza Oil and Gas
Field: Bell Lake, Bone Spring 5130
County: Lea County
Well Name: West Copperline 29 State come #1H

Job Number: 137118
API Number: 30-025-41313
Permit Number:
Magnetic North: 6.83
Start Date: 09/28/13

Proposed Azimuth: 179.47
Target Inclination: 90.00
Surface Location:
Bottom Hole Location:
End Date:

CATHEDRAL

No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth(ft)	TVD (ft)	VS (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Dist (ft)	Closure Ang (°)	DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
0		0	0.00	0.00		0.00	0.00	0.00	0.00					
1	Gyro	100.00	0.76	178.68	100	100.00	0.66	0.66 S	0.02 E	0.66	178.68	0.76	0.76	178.68
2	Gyro	200.00	0.94	162.54	100	199.99	2.11	2.11 S	0.28 E	2.13	172.52	0.30	0.18	-16.14
3	Gyro	300.00	0.84	174.48	100	299.97	3.63	3.62 S	0.59 E	3.67	170.69	0.21	-0.10	11.94
4	Gyro	400.00	0.83	175.66	100	399.96	5.08	5.07 S	0.72 E	5.12	171.94	0.02	-0.01	1.18
5	Gyro	500.00	0.66	155.07	100	499.96	6.33	6.32 S	1.02 E	6.40	170.86	0.31	-0.17	-20.59
6	Gyro	600.00	0.68	165.43	100	599.95	7.43	7.41 S	1.41 E	7.55	169.24	0.12	0.02	10.36
7	Gyro	700.00	0.69	162.30	100	699.94	8.58	8.56 S	1.74 E	8.74	168.51	0.04	0.01	-3.13
8	Gyro	800.00	0.73	156.46	100	799.93	9.74	9.72 S	2.18 E	9.96	167.37	0.08	0.04	-5.84
9	Gyro	900.00	0.75	152.22	100	899.93	10.91	10.88 S	2.74 E	11.22	165.88	0.06	0.02	-4.24
10	Gyro	1000.00	0.78	166.62	100	999.92	12.15	12.12 S	3.20 E	12.54	165.21	0.19	0.03	14.40
11	Gyro	1100.00	0.83	161.96	100	1099.91	13.51	13.47 S	3.58 E	13.94	165.11	0.08	0.05	-4.66
12	Gyro	1200.00	0.81	170.84	100	1199.90	14.90	14.86 S	3.92 E	15.37	165.23	0.13	-0.02	8.88
13	Gyro	1300.00	0.66	187.70	100	1299.89	16.17	16.13 S	3.95 E	16.61	166.23	0.26	-0.15	16.86
14	Gyro	1400.00	0.67	209.51	100	1399.88	17.24	17.21 S	3.59 E	17.58	168.22	0.25	0.01	21.81
15	Gyro	1500.00	0.65	212.11	100	1499.87	18.23	18.20 S	3.00 E	18.44	170.64	0.04	-0.02	2.60
16	Gyro	1600.00	0.72	217.93	100	1599.87	19.19	19.17 S	2.31 E	19.31	173.13	0.10	0.07	5.82
17	Gyro	1700.00	0.79	220.53	100	1699.86	20.21	20.19 S	1.48 E	20.25	175.82	0.08	0.07	2.60
18	Gyro	1800.00	0.95	234.02	100	1799.85	21.21	21.20 S	0.36 E	21.21	179.03	0.26	0.16	13.49
19	Gyro	1900.00	1.07	234.42	100	1899.83	22.22	22.24 S	1.07 W	22.26	182.76	0.12	0.12	0.40
20	Gyro	2000.00	1.15	246.75	100	1999.81	23.15	23.17 S	2.75 W	23.34	186.77	0.25	0.08	12.33
21	Gyro	2100.00	1.17	255.60	100	2099.79	23.78	23.82 S	4.66 W	24.28	191.08	0.18	0.02	8.85
22	Gyro	2200.00	1.22	274.05	100	2199.77	23.94	24.00 S	6.71 W	24.92	195.63	0.39	0.05	18.45
23	Gyro	2300.00	1.36	296.28	100	2299.75	23.32	23.40 S	8.84 W	25.02	200.69	0.52	0.14	22.23
24	Gyro	2400.00	1.51	307.35	100	2399.72	21.98	22.08 S	10.95 W	24.65	206.38	0.31	0.15	11.07
25	Gyro	2500.00	1.81	318.69	100	2499.67	19.97	20.09 S	13.04 W	23.95	212.99	0.44	0.30	11.34
26	Gyro	2600.00	2.06	333.03	100	2599.62	17.17	17.30 S	14.90 W	22.83	220.73	0.54	0.25	14.34
27	Gyro	2700.00	2.33	342.59	100	2699.54	13.61	13.76 S	16.32 W	21.35	229.86	0.45	0.27	9.56
28	Gyro	2800.00	2.57	351.75	100	2799.45	9.44	9.60 S	17.25 W	19.75	240.90	0.46	0.24	9.16
29	Gyro	2900.00	2.48	356.51	100	2899.36	5.06	5.23 S	17.71 W	18.46	253.56	0.23	-0.09	4.76
30	Gyro	3000.00	2.37	358.69	100	2999.27	0.83	1.00 S	17.89 W	17.91	266.80	0.14	-0.11	2.18
31	Gyro	3100.00	2.28	10.41	100	3099.18	-3.19	3.02 N	17.57 W	17.83	279.76	0.48	-0.09	11.72
32	Gyro	3200.00	2.35	12.60	100	3199.10	-7.14	6.98 N	16.77 W	18.16	292.61	0.11	0.07	2.19

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No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth(ft)	TVD (ft)	VS (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Dist (ft)	Closure Ang (°)	DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
33	Gyro	3300.00	2.29	14.68	100	3299.02	-11.06	10.91 N	15.81 W	19.21	304.62	0.10	-0.06	2.08
34	Gyro	3400.00	2.65	26.93	100	3398.93	-15.04	14.91 N	14.26 W	20.63	316.27	0.64	0.36	12.25
35	Gyro	3500.00	2.70	26.76	100	3498.82	-19.18	19.07 N	12.15 W	22.62	327.50	0.05	0.05	-0.17
36	Gyro	3600.00	2.79	27.49	100	3598.70	-23.43	23.33 N	9.97 W	25.37	336.87	0.10	0.09	0.73
37	Gyro	3700.00	2.97	29.94	100	3698.58	-27.81	27.74 N	7.55 W	28.75	344.77	0.22	0.18	2.45
38	Gyro	3800.00	2.98	28.57	100	3798.44	-32.31	32.27 N	5.02 W	32.65	351.16	0.07	0.01	-1.37
39	Gyro	3900.00	2.52	34.23	100	3898.33	-36.39	36.37 N	2.54 W	36.46	356.01	0.53	-0.46	5.66
40	Gyro	4000.00	1.95	47.86	100	3998.25	-39.32	39.33 N	0.04 W	39.33	359.94	0.78	-0.57	13.63
41	Gyro	4100.00	2.10	72.48	100	4098.19	-40.99	41.02 N	2.97 E	41.13	4.14	0.88	0.15	24.62
42	Gyro	4200.00	2.64	88.42	100	4198.11	-41.57	41.63 N	7.02 E	42.22	9.57	0.85	0.54	15.94
43	Gyro	4300.00	2.81	98.62	100	4297.99	-41.22	41.33 N	11.75 E	42.97	15.87	0.51	0.17	10.20
44	Gyro	4400.00	2.75	110.22	100	4397.88	-39.98	40.13 N	16.42 E	43.36	22.25	0.56	-0.06	11.60
45	Gyro	4500.00	2.56	104.39	100	4497.77	-38.56	38.75 N	20.84 E	44.00	28.27	0.33	-0.19	-5.83
46	Gyro	4600.00	2.69	90.17	100	4597.67	-37.95	38.19 N	25.34 E	45.83	33.57	0.66	0.13	-14.22
47	Gyro	4700.00	3.10	75.00	100	4697.54	-38.60	38.88 N	30.30 E	49.30	37.93	0.87	0.41	-15.17
48	Gyro	4800.00	3.35	69.15	100	4797.38	-40.29	40.62 N	35.65 E	54.04	41.27	0.41	0.25	-5.85
49	Gyro	4900.00	3.13	67.97	100	4897.22	-42.30	42.68 N	40.91 E	59.12	43.78	0.23	-0.22	-1.18
50	Gyro	5000.00	2.49	64.55	100	4997.10	-44.22	44.64 N	45.40 E	63.67	45.48	0.66	-0.64	-3.42
51	Gyro	5100.00	2.38	67.83	100	5097.01	-45.90	46.36 N	49.28 E	67.66	46.75	0.18	-0.11	3.28
52	Gyro	5200.00	1.43	65.06	100	5196.95	-47.18	47.67 N	52.34 E	70.79	47.67	0.95	-0.95	-2.77
53	Gyro	5300.00	1.24	70.50	100	5296.93	-48.05	48.56 N	54.49 E	72.98	48.30	0.23	-0.19	5.44
54	Gyro	5400.00	1.25	67.88	100	5396.90	-48.80	49.33 N	56.52 E	75.02	48.89	0.06	0.01	-2.62
55	Gyro	5500.00	1.27	71.22	100	5496.88	-49.55	50.10 N	58.58 E	77.08	49.46	0.08	0.02	3.34
56	Gyro	5600.00	1.19	72.31	100	5596.86	-50.20	50.77 N	60.62 E	79.07	50.05	0.08	-0.08	1.09
57	Gyro	5700.00	0.90	78.81	100	5696.84	-50.66	51.24 N	62.38 E	80.72	50.60	0.31	-0.29	6.50
58	Gyro	5800.00	0.87	77.81	100	5796.83	-50.96	51.55 N	63.89 E	82.09	51.10	0.03	-0.03	-1.00
59	Gyro	5900.00	0.71	58.99	100	5896.82	-51.42	52.03 N	65.16 E	83.39	51.40	0.30	-0.16	-18.82
60	Gyro	6000.00	0.60	53.10	100	5996.81	-52.05	52.66 N	66.11 E	84.52	51.46	0.13	-0.11	-5.89
61	Gyro	6100.00	0.61	54.95	100	6096.81	-52.66	53.28 N	66.97 E	85.58	51.49	0.02	0.01	1.85
62	Gyro	6200.00	0.65	50.91	100	6196.80	-53.31	53.94 N	67.84 E	86.68	51.51	0.06	0.04	-4.04
63	Gyro	6300.00	0.51	34.24	100	6296.79	-54.03	54.67 N	68.53 E	87.67	51.42	0.22	-0.14	-16.67
64	Gyro	6400.00	0.61	43.80	100	6396.79	-54.78	55.42 N	69.15 E	88.62	51.29	0.14	0.10	9.56
65	Gyro	6500.00	0.68	41.78	100	6496.78	-55.60	56.25 N	69.92 E	89.73	51.18	0.07	0.07	-2.02
66	Gyro	6600.00	0.74	42.58	100	6596.78	-56.51	57.17 N	70.75 E	90.96	51.06	0.06	0.06	0.80
67	Gyro	6700.00	0.53	33.47	100	6696.77	-57.37	58.03 N	71.44 E	92.04	50.91	0.23	-0.21	-9.11

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68	Gyro	6800.00	0.50	52.76	100	6796.77	-58.01	58.68 N	72.04 E	92.92	50.84	0.18	-0.03	19.29
69	Gyro	6900.00	0.23	49.37	100	6896.76	-58.40	59.07 N	72.54 E	93.55	50.84	0.27	-0.27	-3.39
70	Gyro	7000.00	0.16	298.29	100	6996.76	-58.60	59.27 N	72.57 E	93.70	50.76	0.32	-0.07	-111.08
71	Gyro	7100.00	0.31	282.99	100	7096.76	-58.73	59.40 N	72.19 E	93.48	50.55	0.16	0.15	-15.30
72	Gyro	7200.00	0.35	274.35	100	7196.76	-58.82	59.48 N	71.62 E	93.10	50.29	0.06	0.04	-8.64
73	Gyro	7300.00	0.51	236.06	100	7296.76	-58.60	59.26 N	70.94 E	92.44	50.13	0.32	0.16	-38.29
74	Gyro	7400.00	1.13	252.46	100	7396.75	-58.06	58.71 N	69.63 E	91.08	49.87	0.66	0.62	16.40
75	Gyro	7500.00	1.22	256.66	100	7496.73	-57.54	58.17 N	67.66 E	89.22	49.31	0.12	0.09	4.20
76	Gyro	7600.00	0.87	256.09	100	7596.71	-57.13	57.74 N	65.89 E	87.61	48.77	0.35	-0.35	-0.57
77	Gyro	7700.00	0.72	257.93	100	7696.70	-56.83	57.43 N	64.53 E	86.38	48.34	0.15	-0.15	1.84
78	Gyro	7800.00	0.83	251.20	100	7796.69	-56.47	57.06 N	63.23 E	85.17	47.94	0.14	0.11	-6.73
79	Gyro	7900.00	0.73	248.58	100	7896.68	-56.02	56.59 N	61.96 E	83.91	47.59	0.11	-0.10	-2.62
80	Gyro	8000.00	0.76	256.27	100	7996.67	-55.64	56.20 N	60.72 E	82.74	47.21	0.10	0.03	7.69
81	Gyro	8100.00	0.69	241.72	100	8096.66	-55.21	55.76 N	59.54 E	81.58	46.88	0.20	-0.07	-14.55
82	Gyro	8200.00	0.83	215.54	100	8196.66	-54.34	54.89 N	58.59 E	80.28	46.87	0.37	0.14	-26.18
83	Gyro	8300.00	0.68	202.99	100	8296.65	-53.21	53.75 N	57.94 E	79.03	47.15	0.22	-0.15	-12.55
84	Gyro	8400.00	0.74	217.32	100	8396.64	-52.16	52.69 N	57.32 E	77.86	47.41	0.19	0.06	14.33
85	Gyro	8500.00	0.75	206.48	100	8496.63	-51.07	51.59 N	56.63 E	76.61	47.67	0.14	0.01	-10.84
86	Gyro	8600.00	0.86	221.41	100	8596.62	-49.92	50.44 N	55.84 E	75.25	47.91	0.24	0.11	14.93
87	Gyro	8700.00	0.77	207.30	100	8696.61	-48.77	49.28 N	55.04 E	73.88	48.16	0.22	-0.09	-14.11
88	Gyro	8800.00	1.29	224.47	100	8796.60	-47.38	47.88 N	53.94 E	72.13	48.41	0.60	0.52	17.17
89	Gyro	8900.00	1.12	213.71	100	8896.57	-45.78	46.27 N	52.61 E	70.06	48.67	0.28	-0.17	-10.76
90	Gyro	9000.00	1.38	232.13	100	8996.55	-44.24	44.71 N	51.12 E	67.92	48.82	0.48	0.26	18.42
91	Gyro	9100.00	1.72	247.19	100	9096.51	-42.94	43.39 N	48.79 E	65.29	48.35	0.53	0.34	15.06
92	Gyro	9200.00	1.36	248.31	100	9196.48	-41.94	42.37 N	46.30 E	62.76	47.54	0.36	-0.36	1.12
93	Gyro	9300.00	1.25	270.23	100	9296.45	-41.53	41.94 N	44.11 E	60.86	46.44	0.51	-0.11	21.92
94	Gyro	9400.00	1.26	282.96	100	9396.43	-41.80	42.19 N	41.94 E	59.49	44.83	0.28	0.01	12.73
95	Gyro	9500.00	1.97	297.18	100	9496.39	-42.86	43.22 N	39.34 E	58.45	42.31	0.81	0.71	14.22
96	Gyro	9600.00	1.88	303.76	100	9596.33	-44.58	44.92 N	36.45 E	57.85	39.06	0.24	-0.09	6.58
97	Gyro	9700.00	2.03	298.78	100	9696.27	-46.37	46.68 N	33.53 E	57.48	35.69	0.23	0.15	-4.98
98	Gyro	9800.00	2.08	275.70	100	9796.21	-47.43	47.72 N	30.18 E	56.46	32.31	0.82	0.05	-23.08
99	Gyro	9900.00	2.19	277.16	100	9896.14	-47.89	48.13 N	26.47 E	54.93	28.81	0.12	0.11	1.46
100	Gyro	10000.00	2.21	266.50	100	9996.07	-48.04	48.25 N	22.65 E	53.31	25.15	0.41	0.02	-10.66
101	MWD	10048.00	0.70	208.70	48	10044.05	-47.74	47.94 N	21.59 E	52.58	24.24	4.02	-3.15	-120.42
102	MWD	10096.00	4.20	154.60	48	10092.00	-45.89	46.10 N	22.20 E	51.16	25.72	7.98	7.29	-112.71

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103	MWD	10128.00	6.80	151.50	32	10123.85	-43.15	43.37 N	23.61 E	49.38	28.56	8.17	8.13	-9.69
104	MWD	10159.00	9.70	155.90	31	10154.53	-39.14	39.37 N	25.55 E	46.94	32.98	9.57	9.35	14.19
105	MWD	10191.00	12.30	157.10	32	10185.94	-33.51	33.77 N	27.98 E	43.86	39.64	8.16	8.13	3.75
106	MWD	10223.00	14.70	161.80	32	10217.05	-26.49	26.77 N	30.58 E	40.64	48.79	8.24	7.50	14.69
107	MWD	10255.00	17.60	164.4	32	10247.79	-17.95	18.26 N	33.14 E	37.84	61.16	9.34	9.06	-440.63
108	MWD	10286.00	20.80	166.40	31	10277.06	-8.06	8.39 N	35.70 E	36.67	76.78	10.54	10.32	-450.97
109	MWD	10318.00	24.60	165.50	32	10306.58	3.94	3.59 S	38.70 E	38.87	95.29	11.92	11.88	-430.31
110	MWD	10350.00	28.70	165.50	32	10335.17	17.87	17.48 S	42.30 E	45.77	112.45	12.81	12.81	-415.31
111	MWD	10382.00	32.60	167.20	32	10362.70	33.76	33.33 S	46.13 E	56.91	125.85	12.48	12.19	-404.69
112	MWD	10413.00	36.00	170.20	31	10388.30	50.91	50.46 S	49.54 E	70.71	135.53	12.25	10.97	-411.29
113	MWD	10445.00	39.70	173.30	32	10413.57	70.37	69.88 S	52.33 E	87.31	143.17	13.00	11.56	-394.69
114	MWD	10477.00	43.90	173.00	32	10437.42	91.56	91.06 S	54.88 E	106.31	148.92	13.14	13.13	-391.88
115	MWD	10509.00	47.90	174.80	32	10459.68	114.43	113.90 S	57.30 E	127.50	153.29	13.14	12.50	-379.38
116	MWD	10541.00	51.60	177.00	32	10480.36	138.80	138.26 S	59.04 E	150.33	156.88	12.70	11.56	-374.69
117	MWD	10572.00	54.90	178.00	31	10498.90	163.62	163.07 S	60.12 E	173.80	159.76	10.95	10.65	-380.65
118	MWD	10604.00	59.00	178.40	32	10516.35	190.43	189.87 S	60.96 E	199.42	162.20	12.86	12.81	-356.25
119	MWD	10636.00	64.00	179.20	32	10531.62	218.54	217.98 S	61.54 E	226.50	164.23	15.78	15.63	-344.06
120	MWD	10667.00	68.30	180.10	31	10544.15	246.88	246.32 S	61.71 E	253.94	165.94	14.12	13.87	-342.26
121	MWD	10699.00	73.10	179.90	32	10554.72	277.07	276.52 S	61.71 E	283.32	167.42	15.01	15.00	-319.69
122	MWD	10731.00	77.80	181.00	32	10562.76	308.03	307.48 S	61.46 E	313.56	168.70	15.06	14.69	-306.56
123	MWD	10762.00	81.80	183.50	31	10568.25	338.50	337.96 S	60.26 E	343.29	169.89	15.15	12.90	-310.00
124	MWD	10794.00	84.90	185.40	32	10571.95	370.16	369.64 S	57.79 E	374.13	171.11	11.34	9.69	-293.13
125	MWD	10890.00	89.70	185.30	96	10576.47	465.52	465.09 S	48.86 E	467.65	174.00	5.00	5.00	-98.13
126	MWD	10985.00	91.20	185.30	95	10575.73	560.02	559.68 S	40.08 E	561.11	175.90	1.58	1.58	-99.37
127	MWD	11080.00	90.90	183.80	95	10573.99	654.63	654.36 S	32.55 E	655.17	177.15	1.61	-0.32	-98.95
128	MWD	11175.00	91.30	183.60	95	10572.16	749.35	749.14 S	26.42 E	749.61	177.98	0.47	0.42	-97.37
129	MWD	11270.00	91.30	183.20	95	10570.01	844.11	843.95 S	20.79 E	844.21	178.59	0.42	0.00	-98.32
130	MWD	11365.00	90.20	182.40	95	10568.77	938.94	938.83 S	16.15 E	938.97	179.01	1.43	-1.16	-100.84
131	MWD	11461.00	87.40	181.00	96	10570.78	1034.83	1034.75 S	13.30 E	1034.84	179.26	3.26	-2.92	-98.44
132	MWD	11556.00	87.90	180.90	95	10574.67	1129.72	1129.66 S	11.72 E	1129.72	179.41	0.54	0.53	-97.05
133	MWD	11651.00	88.80	180.20	95	10577.41	1224.66	1224.61 S	10.81 E	1224.66	179.49	1.20	0.95	-96.21
134	MWD	11746.00	89.50	180.50	95	10578.82	1319.64	1319.60 S	10.23 E	1319.64	179.56	0.80	0.74	-95.05
135	MWD	11841.00	89.90	180.80	95	10579.31	1414.62	1414.59 S	9.15 E	1414.62	179.63	0.53	0.42	-95.37
136	MWD	11936.00	89.90	181.00	95	10579.48	1509.59	1509.58 S	7.66 E	1509.60	179.71	0.21	0.00	-95.37
137	MWD	12031.00	90.20	181.20	95	10579.40	1604.55	1604.56 S	5.84 E	1604.57	179.79	0.38	0.32	-96.32

Company: Caza Oil and Gas
Field: Bell Lake, Bone Spring 5130
County: Lea County
Well Name: West Copperline 29 State come #1H

Job Number: 137118
API Number: 30-025-41313
Permit Number:
Magnetic North: 6.83
Start Date: 09/28/13

Proposed Azimuth: 179.47
Target Inclination: 90.00
Surface Location:
Bottom Hole Location:
End Date:

CATHEDRAL

No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth(ft)	TVD (ft)	VS (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Dist (ft)	Closure Ang (°)	DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
138	MWD	12125.00	89.50	179.40	94	10579.64	1698.53	1698.56 S	5.35 E	1698.57	179.82	2.05	-0.74	-96.91
139	MWD	12220.00	90.10	178.90	95	10579.97	1793.53	1793.54 S	6.76 E	1793.56	179.78	0.82	0.63	-93.37
140	MWD	12316.00	90.70	179.10	96	10579.30	1889.52	1889.53 S	8.43 E	1889.55	179.74	0.66	0.63	-91.04
141	MWD	12411.00	91.50	179.00	95	10577.48	1984.50	1984.50 S	10.01 E	1984.52	179.71	0.85	0.84	-92.53
142	MWD	12506.00	91.20	178.80	95	10575.24	2079.47	2079.45 S	11.83 E	2079.49	179.67	0.38	-0.32	-93.79
143	MWD	12601.00	89.90	179.70	95	10574.33	2174.46	2174.44 S	13.07 E	2174.48	179.66	1.66	-1.37	-92.74
144	MWD	12696.00	90.70	179.40	95	10573.83	2269.46	2269.43 S	13.82 E	2269.47	179.65	0.90	0.84	-95.47
145	MWD	12791.00	89.00	179.10	95	10574.08	2364.46	2364.42 S	15.06 E	2364.47	179.64	1.82	-1.79	-95.37
146	MWD	12886.00	88.80	179.40	95	10575.90	2459.44	2459.39 S	16.31 E	2459.45	179.62	0.38	-0.21	-94.84
147	MWD	12982.00	89.00	179.80	95	10577.73	2554.42	2554.37 S	16.97 E	2554.43	179.62	0.47	0.21	-93.44
148	MWD	13077.00	89.70	180.10	95	10578.81	2649.41	2649.37 S	17.05 E	2649.42	179.63	0.80	0.74	-94.42
149	MWD	13172.00	90.10	180.30	95	10578.97	2744.40	2744.37 S	16.72 E	2744.42	179.65	0.47	0.42	-94.21
150	MWD	13267.00	90.60	180.70	95	10578.39	2839.39	2839.36 S	15.89 E	2839.40	179.68	0.67	0.53	-95.47
151	MWD	13362.00	89.60	180.10	95	10578.23	2934.37	2934.36 S	15.23 E	2934.40	179.70	1.23	-1.05	-95.47
152	MWD	13458.00	90.00	180.20	96	10578.56	3030.36	3030.35 S	14.98 E	3030.39	179.72	0.43	0.42	-93.13
153	MWD	13553.00	90.70	180.60	95	10577.98	3125.35	3125.35 S	14.31 E	3125.38	179.74	0.85	0.74	-95.68
154	MWD	13648.00	89.30	180.10	95	10577.98	3220.33	3220.35 S	13.73 E	3220.37	179.76	1.56	-1.47	-95.47
155	MWD	13743.00	89.90	180.00	95	10578.64	3315.33	3315.34 S	13.65 E	3315.37	179.76	0.64	0.63	-94.32
156	MWD	13839.00	90.50	180.50	96	10578.31	3411.32	3411.34 S	13.23 E	3411.37	179.78	0.81	0.62	-94.06
157	MWD	13934.00	89.70	178.90	95	10578.14	3506.31	3506.33 S	13.73 E	3506.36	179.78	1.88	-0.84	-94.74
158	MWD	14029.00	90.50	179.20	95	10577.98	3601.31	3601.32 S	15.30 E	3601.35	179.76	0.90	0.84	-94.32
159	MWD	14124.00	89.30	178.90	95	10578.14	3696.30	3696.31 S	16.88 E	3696.34	179.74	1.30	-1.26	-97.47
160	MWD	14219.00	86.60	178.70	95	10581.54	3791.23	3791.22 S	18.87 E	3791.26	179.71	2.85	-2.84	-96.74
161	MWD	14315.00	87.00	178.90	96	10586.90	3887.07	3887.04 S	20.87 E	3887.10	179.69	0.47	0.42	-94.48
162	MWD	14410.00	88.00	179.70	95	10591.04	3981.98	3981.94 S	22.03 E	3982.01	179.68	1.35	1.05	-95.58
163	MWD	14505.00	88.10	179.90	95	10594.28	4076.92	4076.89 S	22.36 E	4076.95	179.69	0.24	0.11	-96.11
164	MWD	14601.00	88.40	180.20	96	10597.21	4172.87	4172.84 S	22.28 E	4172.90	179.69	0.44	0.31	-95.10
165	MWD	14696.00	88.60	179.80	95	10599.69	4267.83	4267.81 S	22.28 E	4267.87	179.70	0.47	0.21	-96.00
166	MWD	14791.00	89.00	180.30	95	10601.68	4362.81	4362.79 S	22.20 E	4362.85	179.71	0.67	0.42	-95.79
167	MWD	14887.00	88.80	180.30	96	10603.53	4458.78	4458.77 S	21.69 E	4458.82	179.72	0.21	-0.21	-94.48
168	MWD	14978.00	89.60	181.00	91	10604.80	4549.75	4549.75 S	20.66 E	4549.80	179.74	1.17	0.88	-99.67
169	PTB	15035.00	89.60	181.00	57	10605.20	4606.73	4606.74 S	19.67 E	4606.79	179.76	0.00	0.00	-317.54