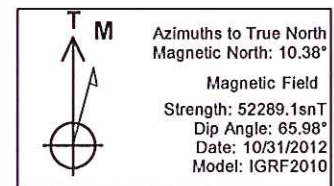
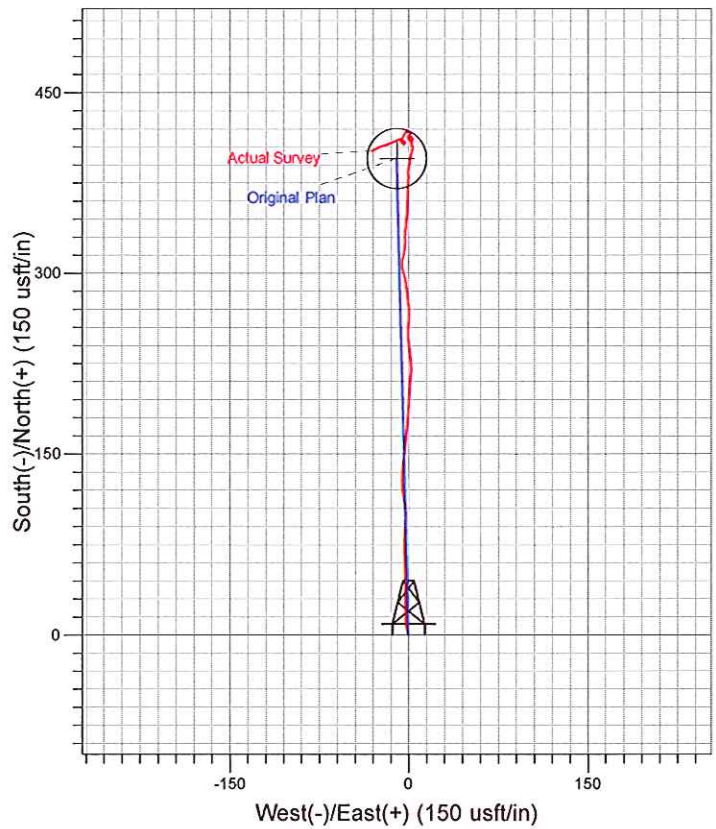
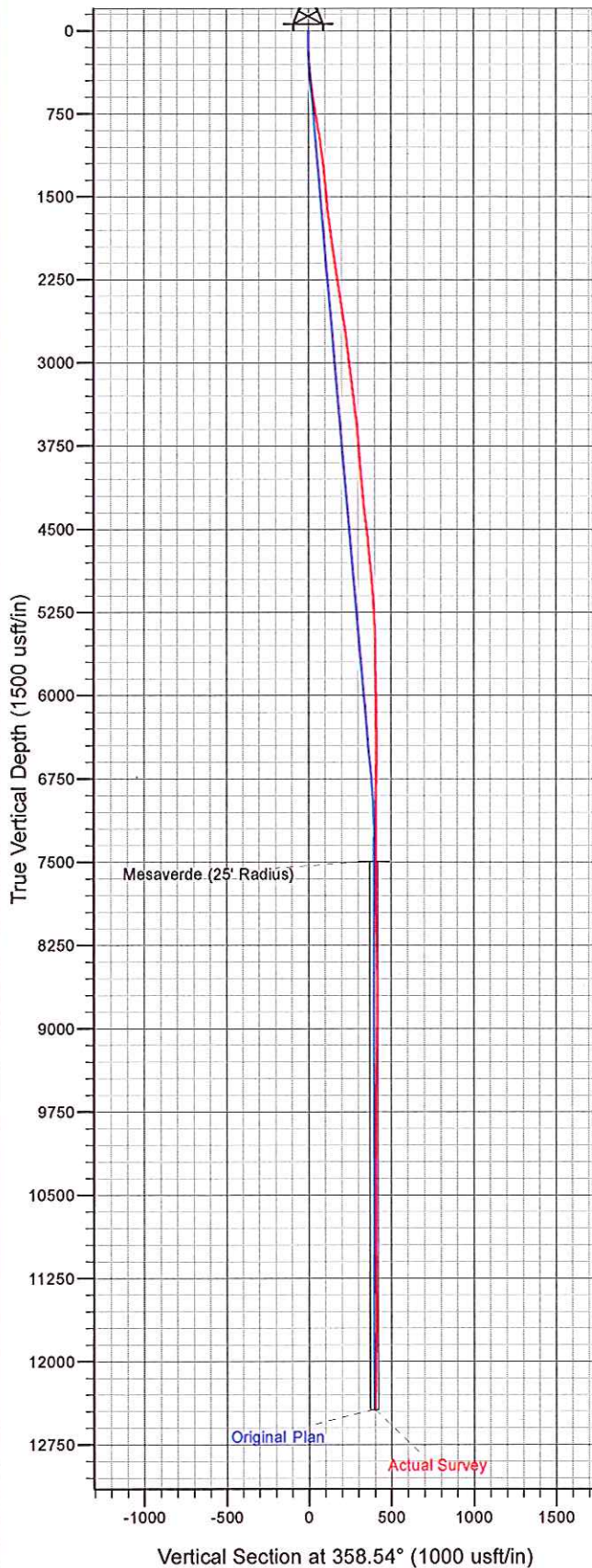




Well Name: RGU 433-36-198  
 Surface Location: RGU 33-36-198 Pad  
 North American Datum 1983 , US State Plane 1983. Colorado Central Zone  
 Ground Elevation: 6574.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1771035.70	2203487.30	39.91613	-108.33992	A10

KELLY BUSHING @ 6595.00usft (Cyclone 29 (21' RKB) jib)



## I General

### 1.1 Customer Information

Company	PICEANCE HL
Representative	Eric Kolstad
Address	1515 Arapahoe St., Suite 1000 Denver, CO 80202

### 1.2 Well Information

Well	RGU 433-36-198	Wellbore No.	
Well Name	FEDERAL RGU 433-36-198	Common Name	RGU 433-36-198
Project	RG 36-01S-098W	Site	RGU 33-36-198 Pad
Vertical Section Azimuth	358.54 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	10/28/2012	UWI	RGU 433-36-198
Active Datum	KB @6,595.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	10/28/2012	Ended	
Tool Name	MWD	Engineer	

#### 2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	0.00	0.00	0.00	0.00	0.00

#### 2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
10/28/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/28/2012	NORMAL	248.0	1.97	345.69	247.95	4.13	-1.05	4.16	0.79	0.79	0.00	345.69
10/29/2012	NORMAL	340.0	3.17	349.37	339.86	8.16	-1.91	8.21	1.32	1.30	4.00	9.67
	NORMAL	432.0	4.04	1.50	431.68	13.90	-2.30	13.96	1.25	0.95	13.18	47.40
	NORMAL	524.0	5.45	358.60	523.36	21.51	-2.32	21.56	1.55	1.53	-3.15	348.90
	NORMAL	616.0	6.07	358.25	614.89	30.74	-2.58	30.80	0.67	0.67	-0.38	356.58
	NORMAL	708.0	6.24	0.27	706.36	40.60	-2.70	40.66	0.30	0.18	2.20	52.88
	NORMAL	803.0	6.24	359.57	800.80	50.93	-2.71	50.98	0.08	0.00	-0.74	269.65
	NORMAL	897.0	6.71	356.02	894.20	61.52	-3.13	61.58	0.66	0.50	-3.78	317.80
	NORMAL	990.0	5.54	358.87	986.67	71.42	-3.60	71.49	1.30	-1.26	3.06	166.84
	NORMAL	1,084.0	5.19	4.84	1,080.26	80.20	-3.33	80.26	0.70	-0.37	6.35	125.04
	NORMAL	1,179.0	5.05	2.73	1,174.88	88.65	-2.77	88.70	0.25	-0.15	-2.22	232.32
	NORMAL	1,272.0	4.31	0.71	1,267.57	96.24	-2.53	96.27	0.82	-0.80	-2.17	191.55
	NORMAL	1,366.0	3.78	359.22	1,361.33	102.87	-2.53	102.90	0.57	-0.56	-1.59	190.47
	NORMAL	1,461.0	3.95	352.80	1,456.12	109.25	-2.98	109.29	0.49	0.18	-6.76	288.22
	NORMAL	1,556.0	3.69	348.32	1,550.91	115.49	-4.01	115.55	0.42	-0.27	-4.72	226.72
	NORMAL	1,650.0	3.87	353.33	1,644.70	121.60	-4.99	121.69	0.40	0.19	5.33	63.93
	NORMAL	1,745.0	4.75	1.50	1,739.43	128.71	-5.26	128.81	1.13	0.93	8.60	39.02
	NORMAL	1,838.0	5.19	3.79	1,832.08	136.76	-4.88	136.84	0.52	0.47	2.46	25.41
	NORMAL	2,121.0	6.05	8.46	2,113.72	164.29	-1.84	164.28	0.34	0.30	1.65	30.34

## 2.1.2 Survey Stations (Continued)

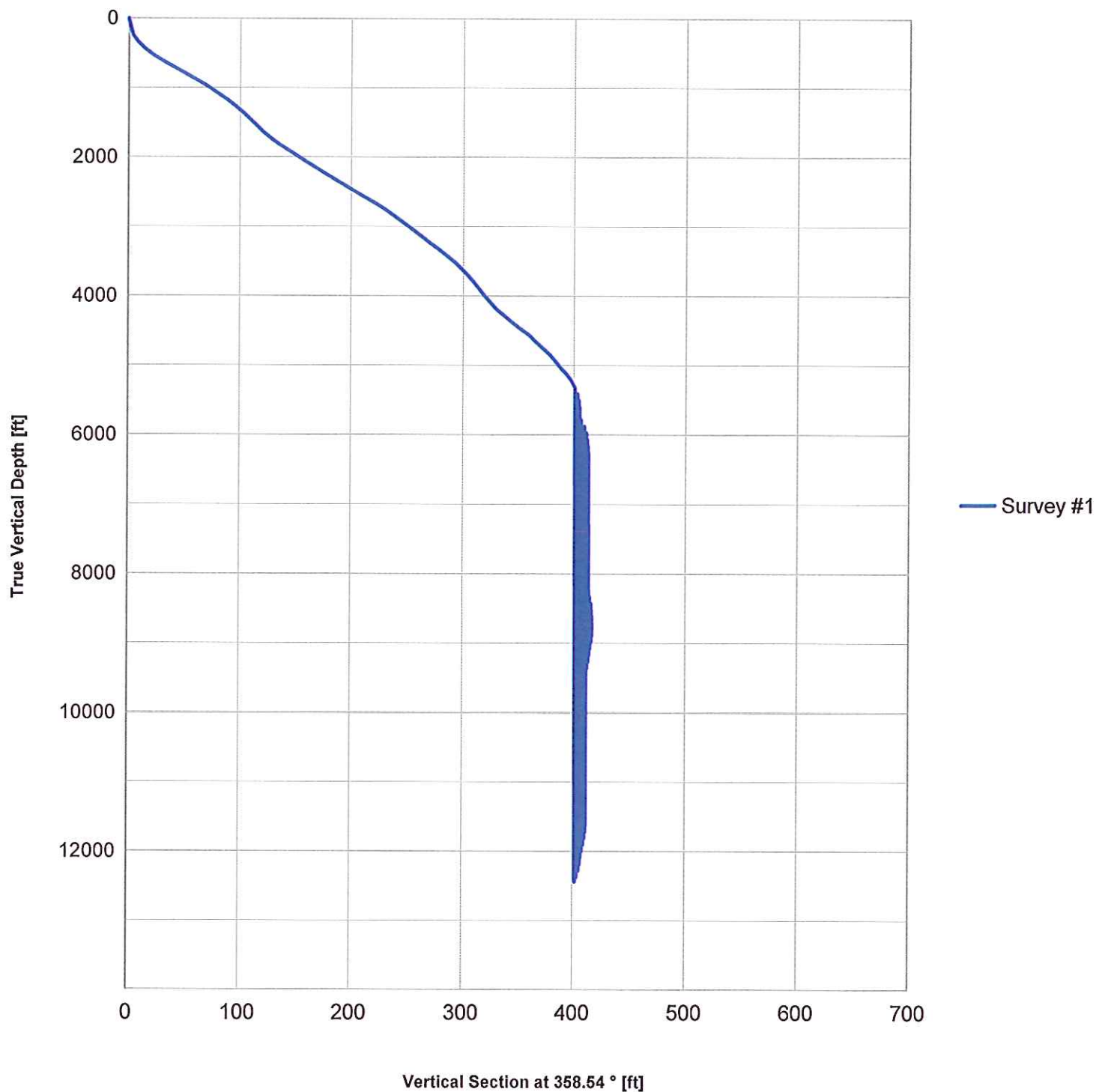
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
10/29/2012	NORMAL	2,310.0	5.72	1.24	2,301.73	183.55	-0.17	183.50	0.43	-0.17	-3.82	242.41
	NORMAL	2,594.0	6.33	6.34	2,584.16	213.26	1.86	213.15	0.29	0.21	1.80	43.82
10/30/2012	NORMAL	2,688.0	5.63	358.25	2,677.65	223.02	2.29	222.89	1.16	-0.74	-8.61	226.31
	NORMAL	2,782.0	5.36	352.92	2,771.22	231.99	1.61	231.87	0.61	-0.29	-5.67	239.49
	NORMAL	2,877.0	4.75	351.13	2,865.85	240.28	0.46	240.19	0.66	-0.64	-1.88	193.61
	NORMAL	2,971.0	4.92	359.66	2,959.52	248.16	-0.17	248.08	0.79	0.18	9.07	80.97
	NORMAL	3,065.0	4.66	3.11	3,053.19	256.00	0.02	255.92	0.41	-0.28	3.67	133.78
	NORMAL	3,157.0	4.52	4.75	3,144.89	263.34	0.52	263.24	0.21	-0.15	1.78	137.66
	NORMAL	3,251.0	4.75	353.53	3,238.59	270.90	0.39	270.80	0.99	0.24	-11.94	278.60
	NORMAL	3,346.0	4.75	353.59	3,333.26	278.72	-0.49	278.64	0.01	0.00	0.06	90.03
	NORMAL	3,441.0	4.57	352.63	3,427.95	286.38	-1.42	286.32	0.21	-0.19	-1.01	202.95
	NORMAL	3,535.0	4.40	349.55	3,521.66	293.64	-2.55	293.61	0.31	-0.18	-3.28	233.26
12/31/2012	NORMAL	3,727.0	2.74	341.48	3,713.28	305.24	-5.35	305.27	0.90	-0.86	-4.20	192.84
	NORMAL	3,821.0	3.62	15.08	3,807.14	310.23	-5.29	310.27	2.15	0.94	35.74	82.14
	NORMAL	3,916.0	2.32	12.14	3,902.01	315.01	-4.10	315.01	1.38	-1.37	-3.09	185.22
	NORMAL	4,010.0	3.37	6.74	3,995.90	319.61	-3.38	319.59	1.15	1.12	-5.74	342.97
	NORMAL	4,104.0	2.73	357.37	4,089.76	324.59	-3.16	324.57	0.86	-0.68	-9.97	213.30
	NORMAL	4,199.0	3.61	5.28	4,184.62	329.83	-2.99	329.80	1.03	0.93	8.33	30.42
	NORMAL	4,293.0	4.84	5.71	4,278.36	336.72	-2.32	336.67	1.31	1.31	0.46	1.69
	NORMAL	4,387.0	3.69	2.29	4,372.10	343.69	-1.80	343.63	1.25	-1.22	-3.64	190.77
	NORMAL	4,482.0	5.70	5.23	4,466.77	351.45	-1.25	351.36	2.13	2.12	3.09	8.29
	NORMAL	4,576.0	4.22	0.89	4,560.42	359.55	-0.77	359.46	1.62	-1.57	-4.62	192.07
	NORMAL	4,671.0	3.25	359.75	4,655.22	365.74	-0.73	365.64	1.02	-1.02	-1.20	183.8'
	NORMAL	4,764.0	4.40	6.07	4,748.01	371.92	-0.36	371.81	1.32	1.24	6.80	23.3'
	NORMAL	4,858.0	3.52	359.48	4,841.78	378.40	-0.01	378.27	1.05	-0.94	-7.01	204.09
	NORMAL	4,953.0	2.37	348.41	4,936.66	383.24	-0.43	383.12	1.35	-1.21	-11.65	200.86
	NORMAL	5,047.0	3.96	17.76	5,030.52	388.23	0.17	388.10	2.36	1.69	31.22	60.84
	NORMAL	5,140.0	2.99	6.51	5,123.35	393.70	1.42	393.54	1.27	-1.04	-12.10	209.58
	NORMAL	5,235.0	2.29	11.43	5,218.24	398.02	2.08	397.84	0.77	-0.74	5.18	164.5'
	NORMAL	5,329.0	1.76	9.59	5,312.19	401.29	2.69	401.09	0.57	-0.56	-1.96	186.07
	NORMAL	5,423.0	1.14	18.47	5,406.16	403.60	3.23	403.38	0.70	-0.66	9.45	164.48
	NORMAL	5,517.0	0.62	353.77	5,500.14	404.99	3.47	404.77	0.67	-0.55	-26.28	204.19
	NORMAL	5,609.0	0.35	291.45	5,592.14	405.59	3.16	405.37	0.60	-0.29	-67.74	214.12
	NORMAL	5,704.0	0.79	257.26	5,687.14	405.55	2.25	405.36	0.57	0.46	-35.99	304.36
	NORMAL	5,798.0	2.02	23.12	5,781.12	406.93	2.27	406.74	2.73	1.31	133.89	140.3'
	NORMAL	5,893.0	1.67	12.23	5,876.07	409.82	3.22	409.61	0.52	-0.37	-11.46	219.69
	NORMAL	5,987.0	0.79	357.55	5,970.05	411.81	3.48	411.59	0.99	-0.94	-15.62	192.46
1/1/2013	NORMAL	6,081.0	0.79	298.05	6,064.04	412.76	2.88	412.55	0.83	0.00	-63.30	240.25
	NORMAL	6,175.0	0.79	286.71	6,158.03	413.25	1.69	413.07	0.17	0.00	-12.06	264.33
	NORMAL	6,269.0	1.06	288.20	6,252.02	413.71	0.24	413.57	0.29	0.29	1.59	5.84
	NORMAL	6,363.0	0.35	195.04	6,346.01	413.70	-0.66	413.59	1.21	-0.76	-99.11	197.94
	NORMAL	6,457.0	0.62	173.42	6,440.01	412.92	-0.68	412.80	0.34	0.29	-23.00	314.74
	NORMAL	6,552.0	0.79	210.42	6,535.00	411.85	-0.95	411.74	0.50	0.18	38.95	88.68
	NORMAL	6,646.0	0.46	60.93	6,629.00	411.47	-0.95	411.36	1.29	-0.35	-159.03	191.14
	NORMAL	6,741.0	0.52	109.70	6,724.00	411.51	-0.21	411.38	0.43	0.06	51.34	106.69
	NORMAL	6,835.0	0.62	112.33	6,817.99	411.17	0.66	411.02	0.11	0.11	2.80	15.98
	NORMAL	6,929.0	0.76	170.08	6,911.99	410.37	1.24	410.20	0.72	0.15	61.44	108.45
	NORMAL	7,024.0	0.64	51.61	7,006.98	410.07	1.77	409.90	1.27	-0.13	-124.71	207.85
	NORMAL	7,119.0	0.27	42.09	7,101.98	410.57	2.33	410.38	0.40	-0.39	-10.02	186.8'
	NORMAL	7,213.0	0.07	124.26	7,195.98	410.70	2.53	410.50	0.29	-0.21	87.41	165.09
	NORMAL	7,308.0	0.34	172.48	7,290.98	410.39	2.61	410.19	0.31	0.28	50.76	58.3'
	NORMAL	7,402.0	0.42	202.58	7,384.98	409.80	2.52	409.60	0.23	0.09	32.02	83.67
	NORMAL	7,496.0	0.79	214.02	7,478.97	408.94	2.02	408.76	0.41	0.39	12.17	23.86
	NORMAL	7,590.0	0.62	33.23	7,572.97	408.83	1.94	408.65	1.50	-0.18	190.65	179.65
	NORMAL	7,685.0	0.39	21.89	7,667.97	409.56	2.34	409.37	0.26	-0.24	-11.94	197.85
	NORMAL	7,779.0	0.18	319.14	7,761.96	409.97	2.36	409.77	0.37	-0.22	-66.76	207.49
	NORMAL	7,874.0	0.21	300.66	7,856.96	410.17	2.12	409.98	0.07	0.03	-19.45	286.07

## 2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
1/2/2013	NORMAL	7,968.0	0.35	291.54	7,950.96	410.36	1.70	410.19	0.16	0.15	-9.70	337.75
	NORMAL	8,062.0	0.70	238.90	8,044.96	410.17	0.94	410.01	0.60	0.37	-56.00	277.66
	NORMAL	8,157.0	1.23	12.49	8,139.95	410.87	0.67	410.72	1.88	0.56	140.62	150.08
	NORMAL	8,251.0	1.32	8.71	8,233.93	412.92	1.05	412.76	0.13	0.10	-4.02	315.04
	NORMAL	8,346.0	1.14	18.64	8,328.91	414.90	1.52	414.73	0.29	-0.19	10.45	135.07
	NORMAL	8,440.0	0.44	0.99	8,422.90	416.15	1.82	415.96	0.78	-0.74	-18.78	190.49
	NORMAL	8,535.0	0.53	298.31	8,517.89	416.72	1.44	416.55	0.54	0.09	-65.98	247.32
	NORMAL	8,629.0	0.61	285.78	8,611.89	417.06	0.58	416.91	0.16	0.09	-13.33	296.32
	NORMAL	8,723.0	0.71	267.60	8,705.88	417.17	-0.49	417.05	0.25	0.11	-19.34	286.25
	NORMAL	8,818.0	0.97	272.21	8,800.87	417.18	-1.88	417.09	0.28	0.27	4.85	16.88
	NORMAL	8,912.0	0.35	195.92	8,894.87	416.93	-2.75	416.87	1.01	-0.66	-81.16	200.97
	NORMAL	9,006.0	0.70	200.93	8,988.86	416.12	-3.04	416.06	0.38	0.37	5.33	9.98
	NORMAL	9,100.0	0.88	215.69	9,082.86	415.00	-3.66	414.96	0.29	0.19	15.70	56.04
	NORMAL	9,194.0	0.29	167.01	9,176.85	414.18	-4.03	414.15	0.77	-0.63	-51.79	197.55
	NORMAL	9,289.0	0.62	211.74	9,271.85	413.51	-4.25	413.48	0.49	0.35	47.08	70.97
1/3/2013	NORMAL	9,383.0	1.30	219.76	9,365.83	412.26	-5.20	412.26	0.74	0.72	8.53	15.21
	NORMAL	9,477.0	1.23	212.53	9,459.81	410.59	-6.42	410.62	0.19	-0.07	-7.69	242.73
	NORMAL	9,572.0	0.35	135.05	9,554.80	409.52	-6.76	409.56	1.27	-0.93	-81.56	196.49
	NORMAL	9,665.0	0.61	148.08	9,647.80	408.90	-6.30	408.93	0.30	0.28	14.01	29.38
	NORMAL	9,759.0	0.44	31.74	9,741.80	408.78	-5.85	408.80	0.95	-0.18	-123.77	206.09
	NORMAL	9,854.0	0.35	275.02	9,836.80	409.12	-5.95	409.14	0.71	-0.09	-122.86	207.63
	NORMAL	9,949.0	0.70	52.04	9,931.79	409.50	-5.78	409.52	1.04	0.37	144.23	151.03
	NORMAL	10,043.0	0.53	56.52	10,025.79	410.09	-4.96	410.09	0.19	-0.18	4.77	166.44
	NORMAL	10,138.0	0.18	220.09	10,120.79	410.22	-4.69	410.21	0.74	-0.37	172.18	175.86
	NORMAL	10,232.0	0.88	203.14	10,214.78	409.45	-5.07	409.44	0.76	0.74	-18.03	338.8'
1/4/2013	NORMAL	10,326.0	0.79	204.71	10,308.77	408.19	-5.62	408.20	0.10	-0.10	1.67	166.52
	NORMAL	10,420.0	0.53	34.99	10,402.77	407.96	-5.65	407.97	1.40	-0.28	-180.55	184.13
	NORMAL	10,515.0	0.62	101.87	10,497.77	408.21	-4.89	408.21	0.67	0.09	70.40	116.68
	NORMAL	10,609.0	0.79	171.48	10,591.76	407.47	-4.30	407.45	0.87	0.18	74.05	114.96
	NORMAL	10,703.0	0.53	62.67	10,685.76	407.03	-3.81	406.99	1.15	-0.28	-115.76	207.57
	NORMAL	10,797.0	0.54	37.32	10,779.75	407.58	-3.16	407.53	0.25	0.01	-26.97	259.7'
1/5/2013	NORMAL	10,892.0	0.88	7.92	10,874.75	408.66	-2.79	408.60	0.51	0.36	-30.95	297.69
	NORMAL	10,985.0	0.44	318.44	10,967.74	409.63	-2.93	409.57	0.73	-0.47	-53.20	209.38
	NORMAL	11,078.0	0.62	230.55	11,060.74	409.58	-3.55	409.54	0.80	0.19	-94.51	236.05
	NORMAL	11,172.0	0.79	254.28	11,154.73	409.08	-4.57	409.07	0.36	0.18	25.24	72.0'
	NORMAL	11,267.0	0.44	25.76	11,249.73	409.23	-5.04	409.23	1.19	-0.37	138.40	163.05
	NORMAL	11,361.0	0.53	344.80	11,343.72	409.98	-5.00	409.97	0.37	0.10	-43.57	263.47
	NORMAL	11,455.0	0.53	22.33	11,437.72	410.80	-4.95	410.79	0.36	0.00	39.93	108.76
	NORMAL	11,550.0	0.44	298.84	11,532.72	411.38	-5.10	411.38	0.68	-0.09	-87.88	222.32
	NORMAL	11,644.0	0.70	263.94	11,626.71	411.50	-5.99	411.51	0.45	0.28	-37.13	288.5'
	NORMAL	11,738.0	1.23	249.71	11,720.70	411.08	-7.50	411.14	0.61	0.56	-15.14	328.44
	NORMAL	11,832.0	1.58	252.17	11,814.67	410.34	-9.68	410.45	0.38	0.37	2.62	11.0'
	NORMAL	11,926.0	1.93	239.77	11,908.63	409.14	-12.28	409.32	0.55	0.37	-13.19	306.36
	NORMAL	12,019.0	1.93	246.54	12,001.58	407.73	-15.07	407.98	0.25	0.00	7.28	93.38
1/6/2013	NORMAL	12,112.0	1.93	254.01	12,094.52	406.68	-18.02	407.00	0.27	0.00	8.03	93.73
	NORMAL	12,206.0	2.02	257.09	12,188.47	405.87	-21.15	406.28	0.15	0.10	3.28	51.25
	NORMAL	12,299.0	2.20	243.99	12,281.40	404.72	-24.35	405.21	0.55	0.19	-14.09	283.84
	NORMAL	12,392.0	2.81	244.17	12,374.32	402.95	-28.01	403.53	0.66	0.66	0.19	0.83
	NORMAL	12,455.0	2.81	244.17	12,437.24	401.60	-30.79	402.25	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



3.2 Plan View

