

1 General

1.1 Customer Information

Company	PICEANCE HL
Representative	
Address	

1.2 Well/Wellbore Information

Well	RGU 533-26-198	Wellbore No.	00
Wellbore Legal Name	RGU 533-26-198	Common Wellbore Name	RGU 533-26-198
Project	RG 26-01S-098W	Site	RGU 42-26-198 PAD
Vertical Section Azimuth	181.45 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	12/11/2014	UWI	RGU 533-26-198
Active datum	kb @6,643.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	12/11/2014	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 (°)
12/11/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/11/2014	NORMAL	83.0	0.26	139.04	83.00	-0.14	0.12	0.14	0.31	0.31	0.00	139.04
	NORMAL	177.0	2.11	171.65	176.98	-2.02	0.51	2.00	2.02	1.97	34.69	36.85
	NORMAL	269.0	4.13	187.12	268.84	-6.98	0.35	6.97	2.36	2.20	16.82	30.48
12/12/2014	NORMAL	361.0	7.92	182.72	360.31	-16.60	-0.36	16.61	4.15	4.12	-4.78	350.86
	NORMAL	454.0	12.58	180.53	451.80	-33.14	-0.76	33.15	5.03	5.01	-2.35	354.14
	NORMAL	546.0	16.28	182.72	540.89	-56.05	-1.46	56.06	4.06	4.02	2.38	9.45
	NORMAL	638.0	18.04	181.41	628.79	-83.17	-2.43	83.20	1.96	1.91	-1.42	346.99
	NORMAL	730.0	19.53	180.35	715.89	-112.79	-2.87	112.83	1.66	1.62	-1.15	346.59
	NORMAL	806.0	19.90	178.85	787.43	-138.43	-2.69	138.45	0.82	0.49	-1.97	305.47
	NORMAL	898.0	20.18	177.47	873.86	-169.93	-1.67	169.92	0.60	0.30	-1.50	299.98
	NORMAL	990.0	20.92	175.57	960.01	-202.16	0.29	202.09	1.08	0.80	-2.07	317.08
	NORMAL	1,085.0	20.98	178.20	1,048.73	-236.07	2.14	235.94	0.99	0.06	2.77	87.58
	NORMAL	1,179.0	20.85	183.94	1,136.55	-269.58	1.52	269.46	2.18	-0.14	6.11	96.31
	NORMAL	1,274.0	21.41	184.66	1,225.16	-303.73	-1.05	303.66	0.65	0.59	0.76	25.20
	NORMAL	1,369.0	21.89	184.57	1,313.46	-338.67	-3.87	338.66	0.51	0.51	-0.09	356.00
	NORMAL	1,464.0	21.92	186.53	1,401.60	-373.94	-7.30	374.00	0.77	0.03	2.06	88.56
	NORMAL	1,558.0	21.98	186.96	1,488.79	-408.83	-11.43	408.99	0.18	0.06	0.46	69.73
	NORMAL	1,653.0	21.81	187.62	1,576.93	-443.97	-15.92	444.23	0.31	-0.18	0.69	124.94
	NORMAL	1,748.0	22.14	187.13	1,665.03	-479.23	-20.48	479.59	0.40	0.35	-0.52	330.71
	NORMAL	1,841.0	22.57	186.63	1,751.04	-514.34	-24.72	514.80	0.51	0.46	-0.54	335.91
	NORMAL	1,936.0	23.08	184.63	1,838.60	-551.01	-28.33	551.55	0.98	0.54	-2.11	302.39

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 (°)
12/12/2014	NORMAL	2,031.0	22.65	180.05	1,926.15	-587.87	-29.85	588.44	1.93	-0.45	-4.82	254.31
	NORMAL	2,125.0	22.19	175.08	2,013.05	-623.66	-28.34	624.18	2.07	-0.49	-5.29	254.07
	NORMAL	2,220.0	22.74	174.75	2,100.84	-659.82	-25.12	660.24	0.59	0.58	-0.35	346.93
12/13/2014	NORMAL	2,315.0	22.12	177.43	2,188.65	-695.97	-22.64	696.32	1.26	-0.65	2.82	122.46
	NORMAL	2,410.0	22.21	179.72	2,276.64	-731.79	-21.75	732.11	0.91	0.09	2.41	85.11
	NORMAL	2,505.0	22.48	179.62	2,364.50	-767.91	-21.54	768.21	0.29	0.28	-0.11	351.94
	NORMAL	2,599.0	22.94	181.07	2,451.22	-804.20	-21.76	804.49	0.77	0.49	1.54	51.26
	NORMAL	2,694.0	22.49	181.22	2,538.85	-840.87	-22.50	841.17	0.48	-0.47	0.16	172.73
	NORMAL	2,788.0	22.87	180.81	2,625.58	-877.11	-23.14	877.42	0.44	0.40	-0.44	337.22
	NORMAL	2,883.0	21.69	179.22	2,713.49	-913.13	-23.16	913.42	1.39	-1.24	-1.67	206.33
	NORMAL	2,978.0	20.72	180.10	2,802.05	-947.49	-22.95	947.76	1.07	-1.02	0.93	162.24
	NORMAL	3,072.0	20.87	179.92	2,889.93	-980.86	-22.96	981.13	0.17	0.16	-0.19	336.84
	NORMAL	3,167.0	20.67	179.23	2,978.76	-1,014.55	-22.71	1,014.80	0.33	-0.21	-0.73	230.42
	NORMAL	3,262.0	20.12	179.89	3,067.80	-1,047.65	-22.45	1,047.88	0.63	-0.58	0.69	157.61
	NORMAL	3,357.0	19.96	180.07	3,157.05	-1,080.21	-22.44	1,080.43	0.18	-0.17	0.19	159.00
	NORMAL	3,452.0	20.29	180.51	3,246.25	-1,112.89	-22.60	1,113.11	0.38	0.35	0.46	24.85
	NORMAL	3,547.0	20.34	179.06	3,335.34	-1,145.87	-22.48	1,146.07	0.53	0.05	-1.53	274.99
	NORMAL	3,642.0	20.49	179.79	3,424.37	-1,179.01	-22.15	1,179.19	0.31	0.16	0.77	59.84
	NORMAL	3,737.0	20.58	179.65	3,513.34	-1,212.33	-21.99	1,212.50	0.11	0.09	-0.15	331.32
	NORMAL	3,831.0	20.57	177.77	3,601.34	-1,245.35	-21.24	1,245.49	0.70	-0.01	-2.00	268.25
	NORMAL	3,926.0	20.45	177.59	3,690.32	-1,278.61	-19.90	1,278.71	0.14	-0.13	-0.19	207.64
	NORMAL	4,021.0	20.26	178.16	3,779.39	-1,311.63	-18.67	1,311.68	0.29	-0.20	0.60	134.05
	NORMAL	4,103.0	19.85	176.25	3,856.42	-1,339.72	-17.30	1,339.72	0.94	-0.50	-2.33	237.06
12/16/2014	NORMAL	4,211.0	18.48	176.93	3,958.43	-1,375.11	-15.19	1,375.05	1.29	-1.27	0.63	171.07
	NORMAL	4,306.0	18.21	181.66	4,048.61	-1,404.98	-14.81	1,404.90	1.59	-0.28	4.98	102.52
	NORMAL	4,400.0	19.03	183.10	4,137.69	-1,434.96	-16.06	1,434.91	1.00	0.87	1.53	29.96
	NORMAL	4,495.0	21.87	180.68	4,226.69	-1,468.13	-17.11	1,468.09	3.12	2.99	-2.55	342.28
12/17/2014	NORMAL	4,590.0	21.26	182.72	4,315.04	-1,503.03	-18.14	1,503.01	1.02	-0.64	2.15	130.08
	NORMAL	4,685.0	22.29	183.63	4,403.26	-1,538.21	-20.10	1,538.23	1.14	1.08	0.96	18.57
	NORMAL	4,779.0	23.18	184.22	4,489.96	-1,574.46	-22.59	1,574.52	0.98	0.95	0.63	14.64
	NORMAL	4,874.0	23.75	182.95	4,577.10	-1,612.21	-24.95	1,612.32	0.80	0.60	-1.34	317.84
	NORMAL	4,969.0	23.23	181.98	4,664.23	-1,650.04	-26.58	1,650.18	0.68	-0.55	-1.02	216.19
	NORMAL	5,064.0	22.46	184.07	4,751.78	-1,686.86	-28.52	1,687.04	1.18	-0.81	2.20	134.46
	NORMAL	5,159.0	21.05	183.20	4,840.01	-1,722.00	-30.76	1,722.23	1.52	-1.48	-0.92	192.48
	NORMAL	5,253.0	22.27	183.37	4,927.37	-1,756.64	-32.75	1,756.90	1.30	1.30	0.18	3.02
	NORMAL	5,348.0	22.06	183.45	5,015.35	-1,792.42	-34.88	1,792.72	0.22	-0.22	0.08	171.86
	NORMAL	5,443.0	22.92	182.69	5,103.13	-1,828.70	-36.82	1,829.05	0.96	0.91	-0.80	340.97
	NORMAL	5,538.0	22.49	181.02	5,190.77	-1,865.35	-38.01	1,865.71	0.82	-0.45	-1.76	235.53
	NORMAL	5,633.0	21.37	180.76	5,278.89	-1,900.82	-38.56	1,901.19	1.18	-1.18	-0.27	184.83
	NORMAL	5,727.0	21.69	181.51	5,366.33	-1,935.31	-39.25	1,935.69	0.45	0.34	0.80	41.05
	NORMAL	5,822.0	21.65	181.28	5,454.62	-1,970.38	-40.10	1,970.77	0.10	-0.04	-0.24	244.67
	NORMAL	5,917.0	20.23	181.45	5,543.34	-2,004.32	-40.91	2,004.72	1.50	-1.49	0.18	177.63
	NORMAL	6,012.0	19.10	181.55	5,632.80	-2,036.28	-41.75	2,036.69	1.19	-1.19	0.11	178.34
	NORMAL	6,107.0	18.24	182.23	5,722.80	-2,066.68	-42.74	2,067.10	0.93	-0.91	0.72	166.12
	NORMAL	6,201.0	17.01	183.02	5,812.39	-2,095.11	-44.04	2,095.55	1.33	-1.31	0.84	169.37
	NORMAL	6,296.0	15.50	184.33	5,903.59	-2,121.64	-45.73	2,122.12	1.64	-1.59	1.38	166.98
	NORMAL	6,390.0	14.11	184.00	5,994.46	-2,145.60	-47.48	2,146.11	1.48	-1.48	-0.35	183.31
	NORMAL	6,485.0	12.64	184.16	6,086.89	-2,167.52	-49.04	2,168.06	1.55	-1.55	0.17	178.64
	NORMAL	6,580.0	11.24	185.94	6,179.83	-2,187.09	-50.75	2,187.68	1.52	-1.47	1.87	166.13
	NORMAL	6,675.0	11.25	181.58	6,273.01	-2,205.57	-51.97	2,206.18	0.89	0.01	-4.59	268.54
	NORMAL	6,769.0	11.89	178.91	6,365.10	-2,224.42	-52.04	2,225.02	0.89	0.68	-2.84	318.77
12/18/2014	NORMAL	6,864.0	10.90	180.24	6,458.22	-2,243.18	-51.89	2,243.78	1.08	-1.04	1.40	165.79
	NORMAL	6,959.0	9.87	180.88	6,551.67	-2,260.31	-52.05	2,260.90	1.09	-1.08	0.67	173.92
	NORMAL	7,054.0	9.52	181.24	6,645.31	-2,276.30	-52.35	2,276.90	0.37	-0.37	0.38	170.35
	NORMAL	7,148.0	8.21	177.77	6,738.19	-2,290.78	-52.25	2,291.37	1.50	-1.39	-3.69	200.50
	NORMAL	7,243.0	7.83	182.15	6,832.26	-2,304.03	-52.23	2,304.61	0.76	-0.40	4.61	124.03
	NORMAL	7,338.0	7.59	182.04	6,926.40	-2,316.76	-52.70	2,317.35	0.25	-0.25	-0.12	183.46

2.1.2 Survey Stations (Continued)

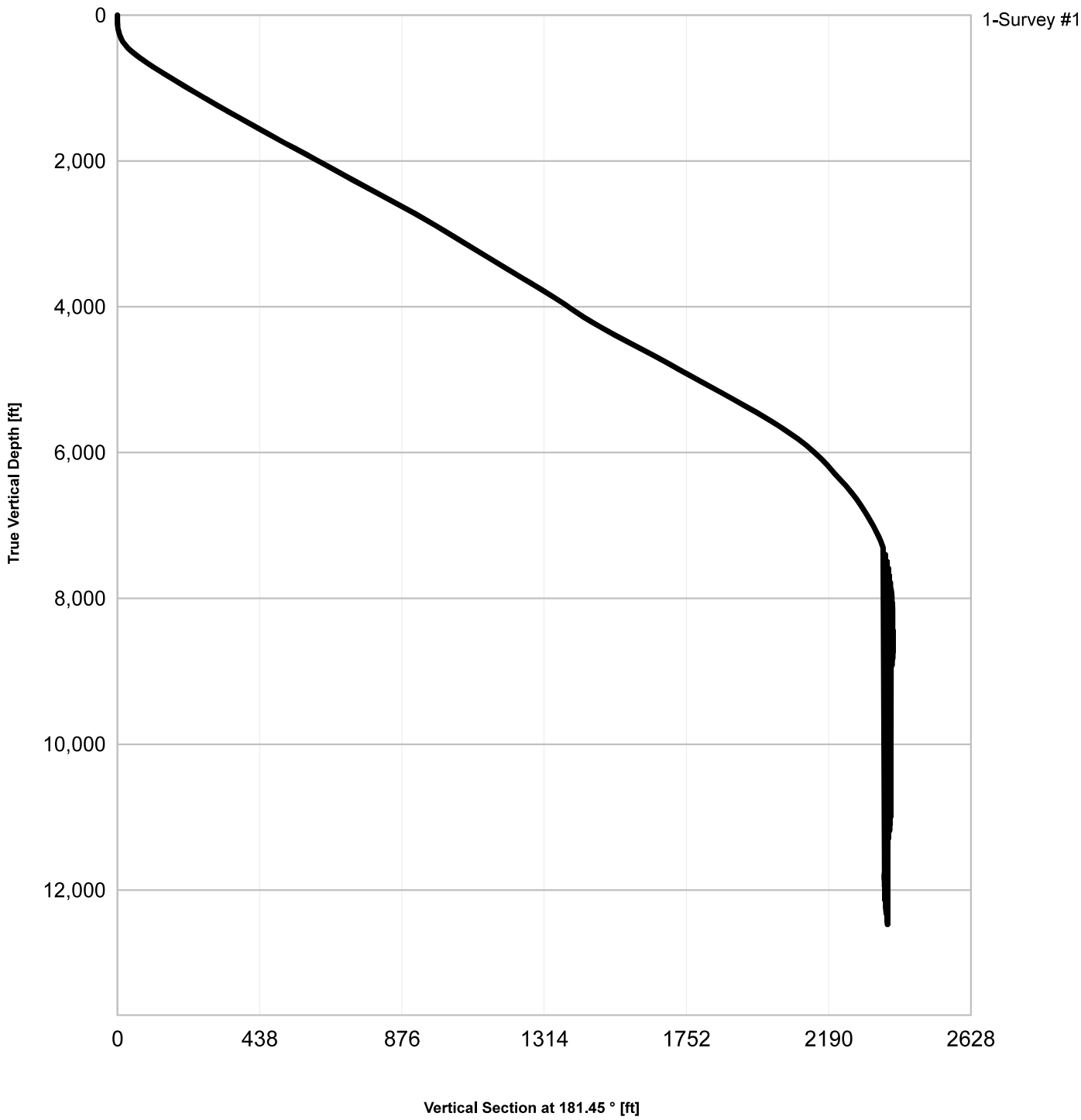
Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	Tface (°)
12/18/2014	NORMAL	7,433.0	7.28	180.36	7,020.60	-2,329.05	-52.96	2,329.65	0.40	-0.33	-1.77	214.21
	NORMAL	7,528.0	5.92	175.91	7,114.97	-2,339.96	-52.65	2,340.54	1.53	-1.43	-4.68	198.41
	NORMAL	7,624.0	5.67	167.88	7,210.48	-2,349.53	-51.30	2,350.08	0.88	-0.26	-8.36	248.90
	NORMAL	7,719.0	4.64	153.15	7,305.10	-2,357.55	-48.58	2,358.02	1.76	-1.08	-15.51	224.93
	NORMAL	7,814.0	4.63	155.32	7,399.79	-2,364.46	-45.24	2,364.85	0.18	-0.01	2.28	94.34
	NORMAL	7,909.0	2.41	157.59	7,494.60	-2,369.79	-42.88	2,370.12	2.34	-2.34	2.39	177.54
	NORMAL	8,004.0	2.48	156.84	7,589.52	-2,373.53	-41.31	2,373.81	0.08	0.07	-0.79	335.06
	NORMAL	8,099.0	1.76	155.57	7,684.45	-2,376.75	-39.90	2,377.00	0.76	-0.76	-1.34	183.10
	NORMAL	8,194.0	1.76	154.11	7,779.41	-2,379.39	-38.66	2,379.60	0.05	0.00	-1.54	269.27
12/19/2014	NORMAL	8,289.0	1.58	164.37	7,874.37	-2,381.96	-37.67	2,382.15	0.37	-0.19	10.80	126.11
	NORMAL	8,384.0	1.98	176.06	7,969.32	-2,384.86	-37.20	2,385.04	0.57	0.42	12.31	48.17
	NORMAL	8,476.0	1.45	105.43	8,061.29	-2,386.76	-35.97	2,386.90	2.21	-0.58	-76.77	222.39
	NORMAL	8,573.0	1.47	104.30	8,158.26	-2,387.39	-33.58	2,387.47	0.04	0.02	-1.16	304.22
	NORMAL	8,668.0	0.93	75.12	8,253.24	-2,387.49	-31.65	2,387.53	0.84	-0.57	-30.72	214.57
	NORMAL	8,763.0	0.62	126.18	8,348.23	-2,387.60	-30.49	2,387.60	0.76	-0.33	53.75	138.25
12/20/2014	NORMAL	8,858.0	0.41	151.04	8,443.23	-2,388.20	-29.92	2,388.19	0.32	-0.22	26.17	145.20
	NORMAL	8,953.0	0.18	293.71	8,538.23	-2,388.44	-29.89	2,388.43	0.59	-0.24	150.18	168.84
	NORMAL	9,047.0	0.61	253.29	8,632.22	-2,388.52	-30.50	2,388.53	0.52	0.46	-43.00	305.72
	NORMAL	9,142.0	0.74	284.87	8,727.22	-2,388.51	-31.58	2,388.54	0.41	0.14	33.24	86.98
	NORMAL	9,237.0	0.96	4.94	8,822.21	-2,387.56	-32.10	2,387.61	1.16	0.23	84.28	121.27
	NORMAL	9,331.0	2.14	357.40	8,916.17	-2,385.02	-32.12	2,385.07	1.27	1.26	-8.02	346.41
	NORMAL	9,426.0	1.54	338.70	9,011.13	-2,382.06	-32.66	2,382.12	0.89	-0.63	-19.68	215.93
	NORMAL	9,522.0	1.41	336.69	9,107.09	-2,379.77	-33.60	2,379.86	0.15	-0.14	-2.09	200.70
	NORMAL	9,617.0	2.13	345.19	9,202.05	-2,376.99	-34.51	2,377.10	0.80	0.76	8.95	24.32
	NORMAL	9,712.0	2.15	329.95	9,296.98	-2,373.74	-35.85	2,373.89	0.60	0.02	-16.04	264.39
	NORMAL	9,807.0	2.15	315.56	9,391.92	-2,370.93	-37.99	2,371.13	0.57	0.00	-15.15	262.81
	NORMAL	9,901.0	2.38	294.08	9,485.85	-2,368.87	-41.01	2,369.15	0.93	0.24	-22.85	274.26
	NORMAL	9,996.0	1.63	279.03	9,580.79	-2,367.86	-44.14	2,368.21	0.96	-0.79	-15.84	207.71
12/21/2014	NORMAL	10,091.0	0.17	315.42	9,675.77	-2,367.54	-45.58	2,367.94	1.58	-1.54	38.31	176.14
	NORMAL	10,186.0	0.29	258.83	9,770.77	-2,367.49	-45.91	2,367.89	0.26	0.13	-59.57	267.56
	NORMAL	10,281.0	1.05	127.56	9,865.77	-2,368.07	-45.46	2,368.46	1.33	0.80	-138.18	218.77
	NORMAL	10,376.0	1.01	142.78	9,960.75	-2,369.26	-44.26	2,369.63	0.29	-0.04	16.02	105.88
	NORMAL	10,470.0	1.11	161.61	10,054.74	-2,370.79	-43.47	2,371.13	0.38	0.11	20.03	83.53
	NORMAL	10,565.0	0.74	181.66	10,149.73	-2,372.27	-43.20	2,372.61	0.51	-0.39	21.11	148.55
	NORMAL	10,660.0	1.19	212.55	10,244.71	-2,373.72	-43.75	2,374.07	0.71	0.47	32.52	65.28
	NORMAL	10,755.0	1.28	244.08	10,339.69	-2,375.01	-45.23	2,375.40	0.71	0.09	33.19	98.41
	NORMAL	10,849.0	1.55	243.24	10,433.66	-2,376.05	-47.31	2,376.48	0.29	0.29	-0.89	355.19
12/22/2014	NORMAL	11,038.0	1.11	232.88	10,622.61	-2,378.30	-51.06	2,378.83	0.26	-0.23	-5.48	203.54
	NORMAL	11,133.0	1.51	238.04	10,717.59	-2,379.52	-52.85	2,380.09	0.44	0.42	5.43	19.02
	NORMAL	11,227.0	0.89	249.22	10,811.57	-2,380.43	-54.59	2,381.05	0.70	-0.66	11.89	164.84
	NORMAL	11,322.0	0.18	286.57	10,906.56	-2,380.65	-55.42	2,381.29	0.79	-0.75	39.32	171.68
	NORMAL	11,417.0	1.04	26.55	11,001.56	-2,379.84	-55.18	2,380.47	1.14	0.91	105.24	109.38
	NORMAL	11,511.0	1.12	40.52	11,095.54	-2,378.38	-54.20	2,378.99	0.29	0.09	14.86	80.16
12/23/2014	NORMAL	11,606.0	1.23	15.60	11,190.52	-2,376.69	-53.32	2,377.28	0.55	0.12	-26.23	269.50
	NORMAL	11,702.0	2.92	29.09	11,286.46	-2,373.56	-51.85	2,374.11	1.82	1.76	14.05	22.93
	NORMAL	11,797.0	1.90	23.47	11,381.37	-2,370.00	-50.05	2,370.51	1.10	-1.07	-5.92	190.25
	NORMAL	11,987.0	1.38	332.20	11,571.30	-2,365.09	-49.86	2,365.59	0.79	-0.27	-26.98	226.09
	NORMAL	12,081.0	1.26	321.21	11,665.28	-2,363.28	-51.04	2,363.82	0.30	-0.13	-11.69	239.21
	NORMAL	12,176.0	0.80	46.52	11,760.27	-2,362.01	-51.21	2,362.55	1.51	-0.48	89.80	146.28
	NORMAL	12,208.0	0.78	72.40	11,792.26	-2,361.79	-50.84	2,362.32	1.11	-0.06	80.87	106.09
12/24/2014	NORMAL	12,271.0	0.20	113.05	11,855.26	-2,361.70	-50.33	2,362.22	1.02	-0.92	64.52	168.28
	NORMAL	12,366.0	0.32	151.42	11,950.26	-2,362.00	-50.05	2,362.51	0.22	0.13	40.39	75.63
	NORMAL	12,460.0	0.59	210.43	12,044.26	-2,362.65	-50.17	2,363.16	0.54	0.29	62.78	91.84
	NORMAL	12,555.0	0.93	213.37	12,139.25	-2,363.72	-50.84	2,364.25	0.36	0.36	3.09	8.01
	NORMAL	12,650.0	1.35	226.89	12,234.23	-2,365.12	-52.09	2,365.68	0.52	0.44	14.23	39.52
	NORMAL	12,744.0	1.75	228.43	12,328.20	-2,366.83	-53.97	2,367.44	0.43	0.43	1.64	6.72
	NORMAL	12,831.0	2.43	224.91	12,415.14	-2,369.02	-56.26	2,369.69	0.80	0.78	-4.05	347.55

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 (°)
12/24/2014	NORMAL	12,885.0	2.43	224.91	12,469.09	-2,370.64	-57.88	2,371.35	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

