

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 434-23	Wellbore No.	1
Well Name	SG 434-23	Common Name	SG 434-23
Project	SG 23-07S-096W	Site	SG 44-23 Pad
Vertical Section Azimuth	235.78 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	1/16/2013	UWI	SG 434-23
Active Datum	KB @5,051.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	Scientific Drilling
Date Started	1/16/2013	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

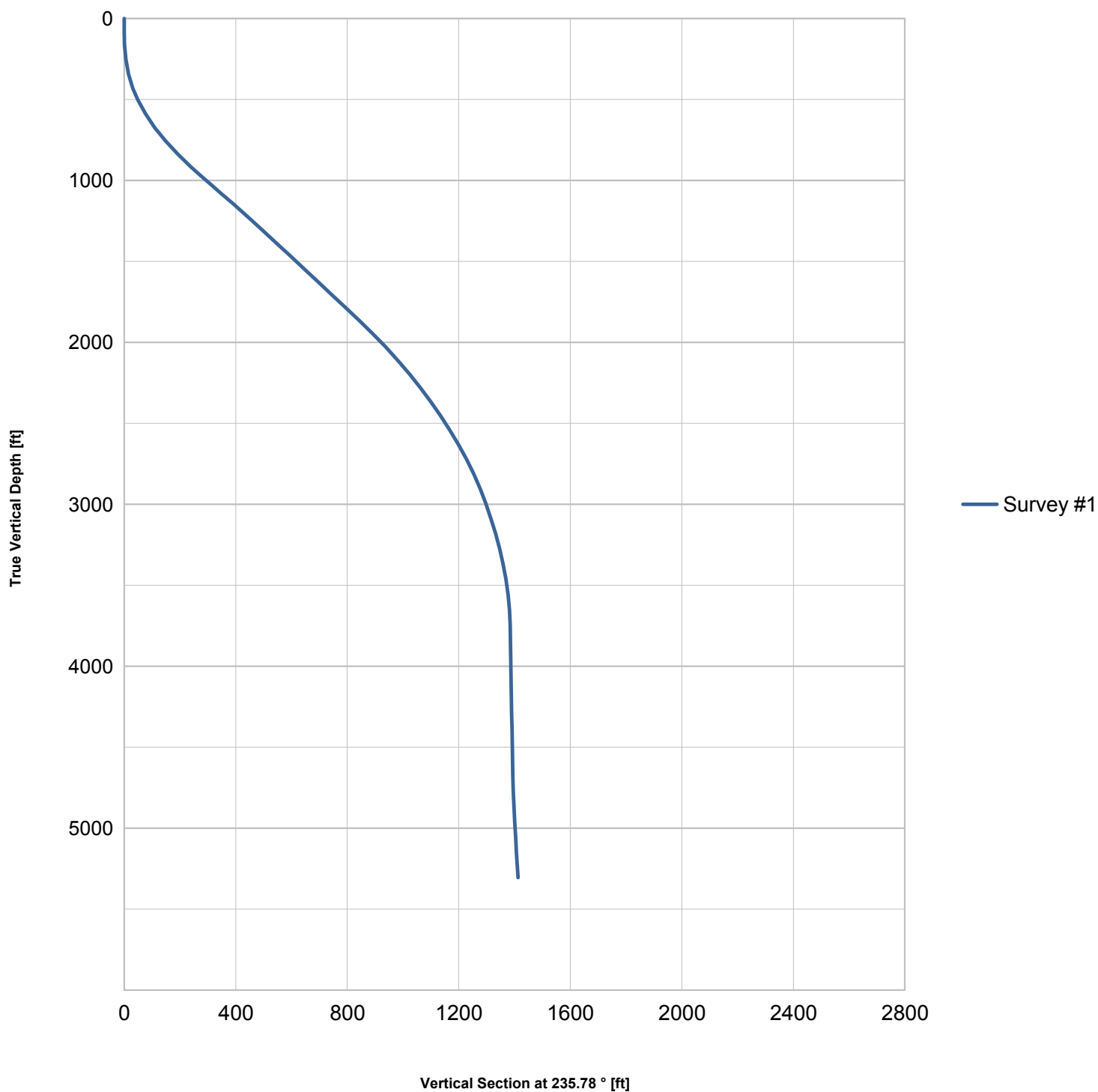
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
1/16/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/16/2013	NORMAL	78.0	0.18	303.84	78.00	0.07	-0.10	0.05	0.23	0.23	0.00	303.84
	NORMAL	162.0	1.67	249.87	161.99	-0.28	-1.36	1.28	1.87	1.77	-64.25	300.71
	NORMAL	253.0	4.31	236.69	252.86	-2.61	-5.46	5.99	2.98	2.90	-14.48	338.76
	NORMAL	344.0	7.92	232.65	343.32	-8.30	-13.31	15.67	3.99	3.97	-4.44	351.19
	NORMAL	434.0	12.40	234.58	431.89	-17.66	-26.12	31.53	4.99	4.98	2.14	5.30
	NORMAL	507.0	15.51	236.95	502.73	-27.53	-40.69	49.13	4.33	4.26	3.25	11.57
	NORMAL	598.0	19.55	237.62	589.48	-42.33	-63.76	76.52	4.45	4.44	0.74	3.18
	NORMAL	690.0	23.18	235.53	675.15	-60.83	-91.69	110.03	4.03	3.95	-2.27	347.18
	NORMAL	781.0	27.00	234.88	757.55	-82.85	-123.37	148.60	4.21	4.20	-0.71	355.58
	NORMAL	873.0	29.64	235.41	838.53	-107.79	-159.18	192.24	2.88	2.87	0.58	5.67
	NORMAL	964.0	32.40	235.09	916.51	-134.52	-197.71	239.13	3.04	3.03	-0.35	356.44
	NORMAL	1,026.0	33.33	234.47	968.58	-153.92	-225.19	272.77	1.60	1.50	-1.00	339.85
1/17/2013	NORMAL	1,120.0	34.21	235.00	1,046.72	-184.09	-267.85	325.01	0.99	0.94	0.56	18.73
	NORMAL	1,151.0	34.10	235.61	1,072.38	-194.00	-282.16	342.42	1.16	-0.35	1.97	108.06
1/18/2013	NORMAL	1,246.0	33.65	234.78	1,151.25	-224.22	-325.64	395.36	0.68	-0.47	-0.87	225.45
	NORMAL	1,340.0	32.86	235.02	1,229.86	-253.86	-367.81	446.90	0.85	-0.84	0.26	170.64
	NORMAL	1,433.0	32.10	234.24	1,308.31	-282.76	-408.54	496.83	0.93	-0.82	-0.84	208.53
	NORMAL	1,527.0	32.11	236.56	1,387.94	-311.13	-449.66	546.78	1.31	0.01	2.47	90.52
	NORMAL	1,621.0	32.01	236.00	1,467.60	-338.82	-491.16	596.68	0.33	-0.11	-0.60	251.17
	NORMAL	1,713.0	32.20	234.66	1,545.53	-366.64	-531.37	645.57	0.80	0.21	-1.46	284.37

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 (°)
1/18/2013	NORMAL	1,807.0	31.72	236.50	1,625.29	-394.77	-572.40	695.32	1.16	-0.51	1.96	117.01
	NORMAL	1,900.0	31.53	235.25	1,704.48	-422.12	-612.77	744.08	0.73	-0.20	-1.34	253.30
	NORMAL	1,993.0	31.61	236.26	1,783.71	-449.52	-653.02	792.77	0.58	0.09	1.09	81.83
	NORMAL	2,088.0	31.76	235.21	1,864.55	-477.61	-694.26	842.66	0.60	0.16	-1.11	284.77
	NORMAL	2,182.0	30.00	234.47	1,945.23	-505.39	-733.70	890.90	1.92	-1.87	-0.79	191.86
	NORMAL	2,276.0	28.72	234.71	2,027.15	-532.09	-771.26	936.98	1.37	-1.36	0.26	174.85
	NORMAL	2,370.0	27.17	236.58	2,110.19	-556.96	-807.61	981.02	1.89	-1.65	1.99	151.34
	NORMAL	2,464.0	25.70	236.51	2,194.36	-580.03	-842.53	1,022.86	1.56	-1.56	-0.07	181.18
	NORMAL	2,557.0	23.88	235.18	2,278.79	-601.91	-874.80	1,061.85	2.05	-1.96	-1.43	196.43
	NORMAL	2,652.0	22.44	237.15	2,366.13	-622.72	-905.82	1,099.21	1.72	-1.52	2.07	152.62
	NORMAL	2,746.0	21.31	237.75	2,453.36	-641.57	-935.34	1,134.22	1.23	-1.20	0.64	169.09
	NORMAL	2,841.0	19.95	238.71	2,542.26	-659.20	-963.79	1,167.66	1.48	-1.43	1.01	166.48
	NORMAL	2,935.0	18.64	239.12	2,630.98	-675.24	-990.39	1,198.67	1.40	-1.39	0.44	174.29
	NORMAL	3,028.0	17.13	238.80	2,719.49	-689.96	-1,014.86	1,227.19	1.63	-1.62	-0.34	183.57
	NORMAL	3,122.0	15.12	235.44	2,809.79	-704.09	-1,036.80	1,253.27	2.36	-2.14	-3.57	203.30
	NORMAL	3,216.0	13.36	235.83	2,900.89	-717.15	-1,055.88	1,276.39	1.88	-1.87	0.41	177.07
	NORMAL	3,312.0	11.79	236.02	2,994.59	-728.86	-1,073.19	1,297.29	1.64	-1.64	0.20	178.58
	NORMAL	3,406.0	10.37	236.80	3,086.83	-738.86	-1,088.24	1,315.36	1.52	-1.51	0.83	174.36
	NORMAL	3,501.0	9.75	235.31	3,180.37	-748.12	-1,102.00	1,331.95	0.71	-0.65	-1.57	202.04
	NORMAL	3,596.0	8.18	236.75	3,274.21	-756.40	-1,114.27	1,346.75	1.67	-1.65	1.52	172.58
	NORMAL	3,690.0	6.92	236.41	3,367.39	-763.20	-1,124.58	1,359.10	1.34	-1.34	-0.36	181.86
1/19/2013	NORMAL	3,784.0	5.56	236.58	3,460.83	-768.84	-1,133.10	1,369.32	1.45	-1.45	0.18	179.31
	NORMAL	3,878.0	3.99	236.84	3,554.50	-773.14	-1,139.64	1,377.14	1.67	-1.67	0.28	179.34
	NORMAL	3,972.0	2.26	240.74	3,648.36	-775.84	-1,143.99	1,382.26	1.85	-1.84	4.15	174.94
	NORMAL	4,066.0	0.61	229.41	3,742.33	-777.07	-1,145.99	1,384.60	1.77	-1.76	-12.05	184.13
	NORMAL	4,160.0	0.72	217.07	3,836.32	-777.86	-1,146.73	1,385.66	0.19	0.12	-13.13	301.25
	NORMAL	4,253.0	0.32	218.49	3,929.32	-778.53	-1,147.24	1,386.46	0.43	-0.43	1.53	178.86
	NORMAL	4,348.0	0.57	250.38	4,024.32	-778.90	-1,147.85	1,387.17	0.36	0.26	33.57	61.43
	NORMAL	4,441.0	0.83	241.91	4,117.31	-779.37	-1,148.88	1,388.29	0.30	0.28	-9.11	334.03
	NORMAL	4,533.0	0.36	192.58	4,209.30	-779.97	-1,149.53	1,389.16	0.71	-0.51	-53.62	204.64
	NORMAL	4,626.0	0.50	231.09	4,302.30	-780.51	-1,149.91	1,389.78	0.34	0.15	41.41	84.27
	NORMAL	4,721.0	1.00	227.74	4,397.29	-781.33	-1,150.85	1,391.01	0.53	0.53	-3.53	353.31
	NORMAL	4,816.0	0.35	210.12	4,492.29	-782.13	-1,151.61	1,392.10	0.71	-0.68	-18.55	189.03
	NORMAL	4,910.0	0.63	199.98	4,586.28	-782.87	-1,151.93	1,392.77	0.31	0.30	-10.79	337.68
	NORMAL	5,005.0	0.88	218.30	4,681.27	-783.93	-1,152.56	1,393.89	0.36	0.26	19.28	53.40
	NORMAL	5,100.0	1.40	231.42	4,776.25	-785.23	-1,153.92	1,395.75	0.61	0.55	13.81	33.32
	NORMAL	5,193.0	1.43	229.89	4,869.23	-786.68	-1,155.69	1,398.03	0.05	0.03	-1.65	307.68
	NORMAL	5,288.0	1.84	233.65	4,964.19	-788.35	-1,157.83	1,400.74	0.45	0.43	3.96	16.55
1/20/2013	NORMAL	5,381.0	1.98	231.78	5,057.14	-790.23	-1,160.29	1,403.83	0.16	0.15	-2.01	335.07
	NORMAL	5,475.0	2.18	232.37	5,151.07	-792.33	-1,162.98	1,407.24	0.21	0.21	0.63	6.41
	NORMAL	5,564.0	2.20	232.45	5,240.01	-794.40	-1,165.68	1,410.63	0.02	0.02	0.09	8.73
	NORMAL	5,629.0	2.21	232.51	5,304.96	-795.92	-1,167.66	1,413.13	0.02	0.02	0.09	13.03

3 Charts

3.1 Vertical Section View



3.2 Plan View

