

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 432-22	Wellbore No.	
Well Name	SG 432-22	Common Name	SG 432-22
Project	SG 22-07S-096W	Site	SG 42-22 Pad
Vertical Section Azimuth	274.46 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	7/22/2013	UWI	SG 432-22
Active Datum	KB @5,243.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	Scientific Drilling
Date Started	7/22/2013	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

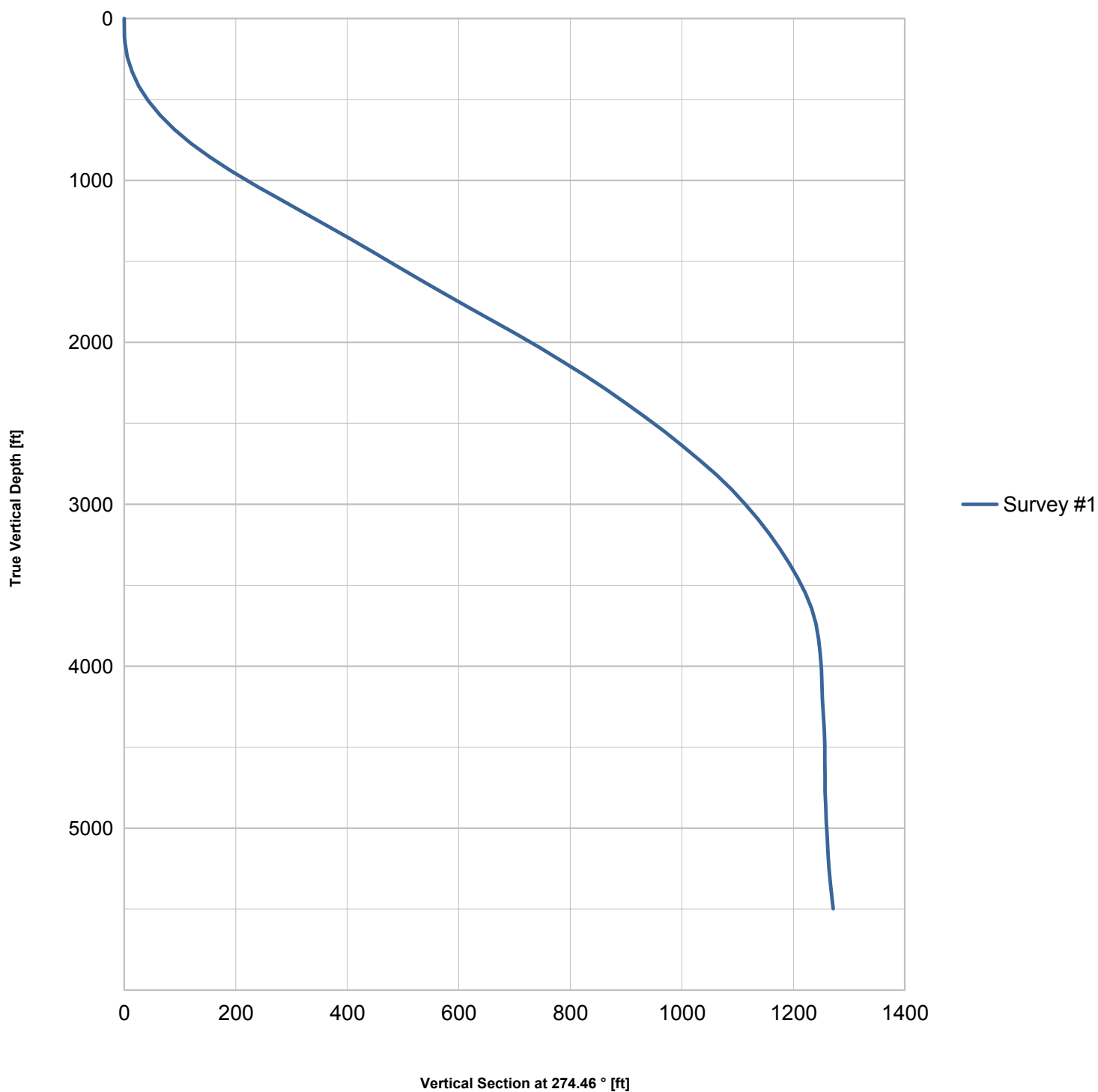
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
7/22/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/2013	NORMAL	117.0	0.63	289.53	117.00	0.22	-0.61	0.62	0.54	0.54	0.00	289.53
	NORMAL	148.0	1.64	285.31	147.99	0.39	-1.19	1.22	3.27	3.26	-13.61	353.16
	NORMAL	239.0	4.08	273.94	238.87	0.96	-5.68	5.74	2.74	2.68	-12.49	341.19
	NORMAL	330.0	6.56	273.51	329.47	1.50	-14.10	14.17	2.73	2.73	-0.47	358.86
	NORMAL	421.0	9.06	273.92	419.62	2.30	-26.44	26.54	2.75	2.75	0.45	1.48
	NORMAL	511.0	12.22	274.06	508.06	3.46	-43.01	43.15	3.51	3.51	0.16	0.54
	NORMAL	603.0	14.68	274.58	597.53	5.08	-64.35	64.55	2.68	2.67	0.57	3.07
	NORMAL	695.0	17.67	273.44	685.88	6.85	-89.91	90.17	3.27	3.25	-1.24	353.39
	NORMAL	787.0	20.75	274.14	772.75	8.87	-120.11	120.44	3.36	3.35	0.76	4.61
	NORMAL	878.0	22.89	274.30	857.22	11.36	-153.84	154.26	2.35	2.35	0.18	1.67
7/23/2013	NORMAL	970.0	25.22	275.75	941.23	14.66	-191.19	191.75	2.61	2.53	1.58	14.90
	NORMAL	1,065.0	26.73	274.76	1,026.63	18.47	-232.62	233.35	1.65	1.59	-1.04	343.53
	NORMAL	1,088.0	27.07	274.63	1,047.14	19.32	-242.99	243.76	1.50	1.48	-0.57	350.13
7/24/2013	NORMAL	1,155.0	27.41	274.64	1,106.71	21.80	-273.56	274.43	0.51	0.51	0.01	0.78
	NORMAL	1,248.0	27.35	273.35	1,189.29	24.78	-316.22	317.19	0.64	-0.06	-1.39	263.65
	NORMAL	1,342.0	27.45	273.66	1,272.75	27.42	-359.40	360.45	0.19	0.11	0.33	55.11
	NORMAL	1,437.0	26.82	272.47	1,357.29	29.74	-402.67	403.76	0.88	-0.66	-1.25	220.22
	NORMAL	1,531.0	26.50	272.12	1,441.30	31.43	-444.81	445.91	0.38	-0.34	-0.37	205.98
	NORMAL	1,624.0	26.03	273.53	1,524.70	33.46	-485.91	487.04	0.84	-0.51	1.52	127.62
	NORMAL	1,720.0	26.75	277.14	1,610.70	37.44	-528.38	529.69	1.83	0.75	3.76	67.46

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 (°)
7/24/2013	NORMAL	1,814.0	26.82	277.92	1,694.61	42.99	-570.37	571.99	0.38	0.07	0.83	79.09
	NORMAL	1,909.0	27.37	277.91	1,779.19	48.95	-613.23	615.18	0.58	0.58	-0.01	359.52
	NORMAL	2,004.0	27.33	274.44	1,863.57	53.64	-656.60	658.79	1.68	-0.04	-3.65	267.02
	NORMAL	2,097.0	27.66	274.25	1,946.07	56.89	-699.41	701.72	0.37	0.35	-0.20	345.03
	NORMAL	2,192.0	25.81	273.67	2,030.91	59.85	-742.05	744.45	1.97	-1.95	-0.61	187.77
	NORMAL	2,285.0	25.61	273.00	2,114.70	62.20	-782.32	784.79	0.38	-0.22	-0.72	235.17
	NORMAL	2,381.0	24.67	274.41	2,201.61	64.83	-823.02	825.57	1.16	-0.98	1.47	148.13
	NORMAL	2,475.0	22.68	274.56	2,287.69	67.78	-860.65	863.31	2.12	-2.12	0.16	178.33
	NORMAL	2,569.0	22.24	274.39	2,374.56	70.58	-896.45	899.22	0.47	-0.47	-0.18	188.32
	NORMAL	2,663.0	21.56	273.29	2,461.78	72.93	-931.43	934.28	0.84	-0.72	-1.17	210.60
	NORMAL	2,757.0	20.75	272.38	2,549.44	74.61	-965.31	968.19	0.93	-0.86	-0.97	201.65
	NORMAL	2,852.0	19.46	271.19	2,638.65	75.64	-997.95	1,000.81	1.42	-1.36	-1.25	197.04
	NORMAL	2,947.0	19.10	272.34	2,728.32	76.60	-1,029.30	1,032.14	0.55	-0.38	1.21	134.02
	NORMAL	3,041.0	17.86	275.62	2,817.48	78.64	-1,059.01	1,061.92	1.72	-1.32	3.49	141.57
	NORMAL	3,135.0	15.65	274.32	2,907.48	81.01	-1,086.00	1,089.01	2.38	-2.35	-1.38	189.00
	NORMAL	3,229.0	14.37	271.40	2,998.27	82.25	-1,110.31	1,113.34	1.58	-1.36	-3.11	209.17
	NORMAL	3,323.0	13.96	277.07	3,089.42	83.93	-1,133.22	1,136.32	1.54	-0.44	6.03	109.20
	NORMAL	3,417.0	11.50	278.60	3,181.10	86.73	-1,153.74	1,156.99	2.64	-2.62	1.63	172.94
	NORMAL	3,512.0	11.15	275.29	3,274.25	88.99	-1,172.25	1,175.62	0.78	-0.37	-3.48	240.08
	NORMAL	3,605.0	10.29	280.12	3,365.63	91.28	-1,189.38	1,192.88	1.34	-0.92	5.19	136.10
7/25/2013	NORMAL	3,696.0	8.97	279.60	3,455.35	93.89	-1,204.38	1,208.04	1.45	-1.45	-0.57	183.51
	NORMAL	3,791.0	7.83	285.74	3,549.33	96.88	-1,217.91	1,221.76	1.53	-1.20	6.46	144.81
	NORMAL	3,886.0	5.89	290.84	3,643.65	100.37	-1,228.70	1,232.78	2.14	-2.04	5.37	165.09
	NORMAL	3,980.0	3.96	292.25	3,737.29	103.32	-1,236.21	1,240.50	2.06	-2.05	1.50	177.11
	NORMAL	4,074.0	2.19	285.22	3,831.16	105.02	-1,240.95	1,245.36	1.92	-1.88	-7.48	188.53
	NORMAL	4,168.0	1.67	287.50	3,925.10	105.90	-1,243.99	1,248.46	0.56	-0.55	2.43	172.74
	NORMAL	4,262.0	0.79	312.38	4,019.08	106.75	-1,245.77	1,250.30	1.07	-0.94	26.47	160.78
	NORMAL	4,356.0	0.84	335.18	4,113.07	107.81	-1,246.54	1,251.15	0.35	0.05	24.26	92.75
	NORMAL	4,449.0	0.95	295.02	4,206.06	108.76	-1,247.53	1,252.21	0.67	0.12	-43.18	259.47
	NORMAL	4,544.0	1.00	280.03	4,301.05	109.24	-1,249.06	1,253.77	0.27	0.05	-15.78	273.53
	NORMAL	4,638.0	1.43	241.49	4,395.03	108.82	-1,250.89	1,255.57	0.96	0.46	-41.00	277.58
	NORMAL	4,733.0	0.21	167.23	4,490.02	108.08	-1,251.90	1,256.51	1.46	-1.28	-78.17	188.38
	NORMAL	4,826.0	1.23	193.99	4,583.01	106.95	-1,252.10	1,256.63	1.13	1.10	28.77	31.94
	NORMAL	4,920.0	1.00	174.85	4,676.99	105.15	-1,252.27	1,256.66	0.46	-0.24	-20.36	228.97
	NORMAL	5,014.0	0.81	228.60	4,770.98	103.90	-1,252.70	1,256.98	0.89	-0.20	57.18	128.58
	NORMAL	5,108.0	1.58	208.93	4,864.96	102.32	-1,253.82	1,257.98	0.92	0.82	-20.93	321.88
	NORMAL	5,200.0	1.14	229.32	4,956.93	100.62	-1,255.13	1,259.15	0.70	-0.48	22.16	142.17
	NORMAL	5,294.0	1.49	224.57	5,050.91	99.14	-1,256.70	1,260.60	0.39	0.37	-5.05	340.32
	NORMAL	5,389.0	1.49	220.71	5,145.88	97.32	-1,258.37	1,262.13	0.11	0.00	-4.06	268.07
	NORMAL	5,484.0	1.66	227.73	5,240.84	95.46	-1,260.19	1,263.80	0.27	0.18	7.39	52.16
	NORMAL	5,578.0	2.65	230.77	5,334.77	93.17	-1,262.88	1,266.30	1.06	1.05	3.23	8.11
	NORMAL	5,675.0	2.55	231.43	5,431.67	90.40	-1,266.31	1,269.50	0.11	-0.10	0.68	163.66
	NORMAL	5,740.0	2.55	231.43	5,496.61	88.60	-1,268.57	1,271.62	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

