

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	SG 442-23	Wellbore No.	
Well Name	SG 442-23	Common Name	SG 442-23
Project	SG 23-07S-096W	Site	SG 32-23 Pad
Vertical Section Azimuth	102.14 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	11/21/2012	UWI	SG 442-23
Active Datum	KB @5,064.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	11/21/2012	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

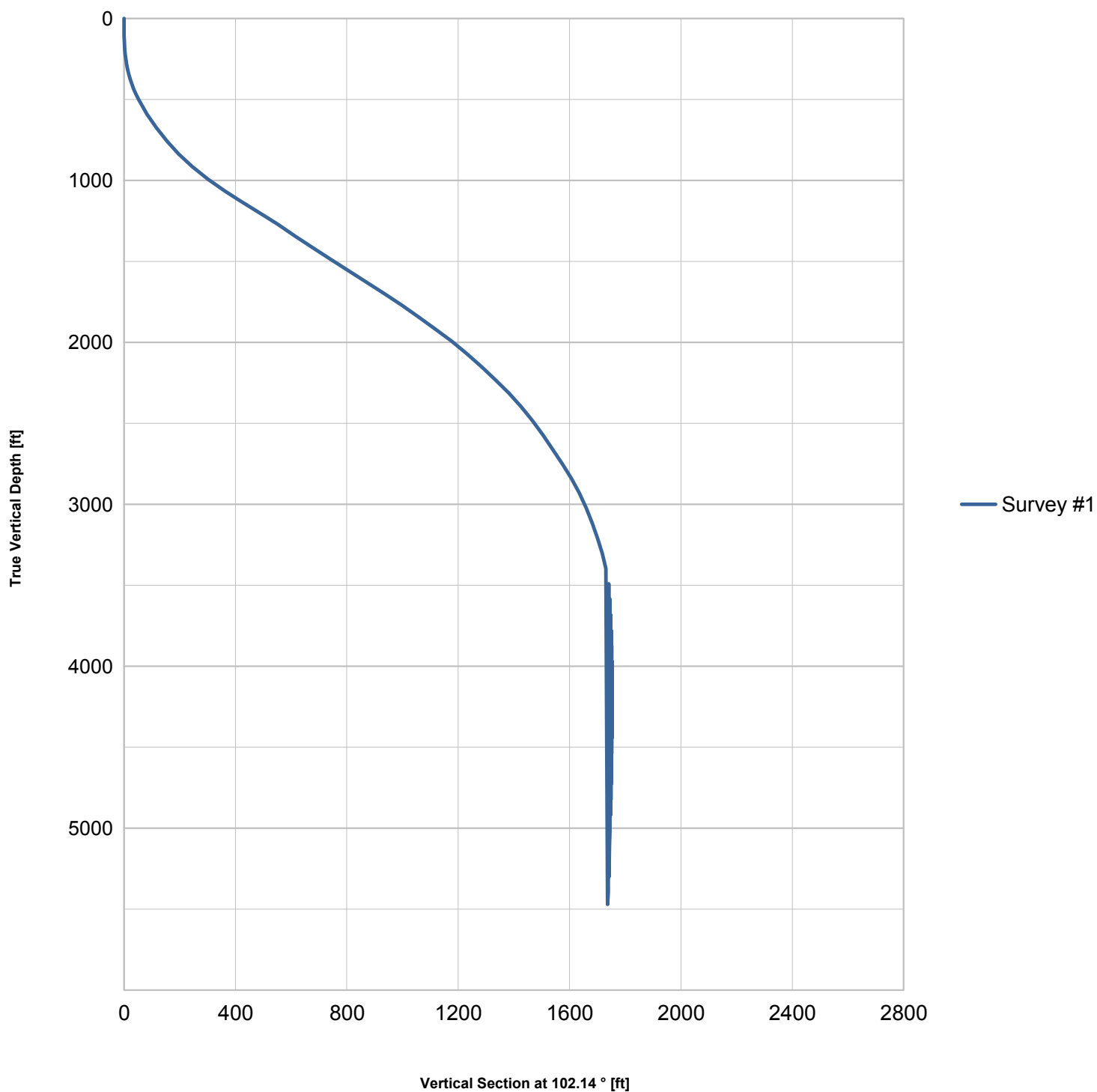
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
11/21/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/2012	NORMAL	75.0	0.35	99.84	75.00	-0.04	0.23	0.23	0.47	0.47	0.00	99.84
	NORMAL	105.0	1.06	121.20	105.00	-0.20	0.55	0.58	2.48	2.37	71.20	31.21
	NORMAL	135.0	1.58	130.61	134.99	-0.61	1.10	1.21	1.87	1.73	31.37	27.38
	NORMAL	166.0	1.85	115.22	165.98	-1.10	1.88	2.07	1.71	0.87	-49.65	292.54
	NORMAL	196.0	2.46	101.87	195.95	-1.44	2.95	3.19	2.62	2.03	-44.50	313.75
	NORMAL	226.0	3.43	106.26	225.91	-1.83	4.44	4.73	3.32	3.23	14.63	15.29
	NORMAL	256.0	4.22	99.40	255.85	-2.26	6.39	6.72	3.04	2.63	-22.87	326.47
	NORMAL	286.0	5.89	98.26	285.73	-2.66	9.00	9.36	5.58	5.57	-3.80	355.99
	NORMAL	317.0	7.57	93.60	316.52	-3.02	12.62	12.97	5.69	5.42	-15.03	339.67
11/22/2012	NORMAL	347.0	8.80	99.40	346.21	-3.51	16.85	17.22	4.93	4.10	19.33	36.77
	NORMAL	378.0	10.38	98.96	376.78	-4.34	21.95	22.37	5.10	5.10	-1.42	357.13
	NORMAL	408.0	12.32	99.76	406.19	-5.30	27.78	28.27	6.49	6.47	2.67	5.03
	NORMAL	438.0	13.55	102.13	435.43	-6.58	34.37	34.98	4.46	4.10	7.90	24.49
	NORMAL	469.0	15.04	103.54	465.46	-8.29	41.83	42.64	4.94	4.81	4.55	13.84
	NORMAL	509.0	16.71	102.54	503.94	-10.75	52.49	53.57	4.23	4.18	-2.50	350.22
	NORMAL	601.0	20.45	103.49	591.13	-17.37	81.04	82.88	4.08	4.07	1.03	5.08
	NORMAL	691.0	23.35	102.72	674.62	-24.97	113.73	116.44	3.24	3.22	-0.86	353.99
	NORMAL	783.0	26.40	103.20	758.08	-33.66	151.44	155.13	3.32	3.32	0.52	4.01
	NORMAL	873.0	29.46	101.61	837.59	-42.68	192.61	197.28	3.50	3.40	-1.77	345.62
	NORMAL	964.0	34.09	100.95	914.93	-52.03	239.59	245.17	5.10	5.09	-0.73	355.43

## 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 (°)
11/22/2012	NORMAL	1,060.0	37.52	101.49	992.77	-62.97	294.67	301.32	3.59	3.57	0.56	5.48
	NORMAL	1,155.0	41.96	102.04	1,065.81	-75.37	354.11	362.04	4.69	4.67	0.58	4.74
	NORMAL	1,230.0	42.75	102.56	1,121.23	-86.13	403.48	412.57	1.15	1.05	0.69	24.11
11/23/2012	NORMAL	1,339.0	43.74	100.38	1,200.63	-100.97	476.66	487.23	1.64	0.91	-2.00	302.74
	NORMAL	1,434.0	41.23	101.34	1,270.69	-113.04	539.67	551.37	2.73	-2.64	1.01	165.87
	NORMAL	1,530.0	40.44	99.67	1,343.32	-124.49	601.38	614.11	1.40	-0.82	-1.74	233.49
	NORMAL	1,625.0	42.15	100.82	1,414.69	-135.65	663.07	676.77	1.97	1.80	1.21	24.37
	NORMAL	1,720.0	42.51	101.17	1,484.93	-147.85	725.87	740.73	0.45	0.38	0.37	33.34
	NORMAL	1,816.0	41.89	103.80	1,556.05	-161.78	788.82	805.20	1.95	-0.65	2.74	110.31
	NORMAL	1,911.0	42.42	101.87	1,626.48	-175.94	850.98	868.95	1.47	0.56	-2.03	291.54
	NORMAL	2,007.0	42.11	104.60	1,697.53	-190.72	913.82	933.49	1.94	-0.32	2.84	100.59
	NORMAL	2,103.0	40.70	106.88	1,769.54	-207.92	974.92	996.84	2.15	-1.47	2.38	133.93
	NORMAL	2,199.0	38.86	106.79	1,843.31	-225.71	1,033.71	1,058.06	1.92	-1.92	-0.09	181.76
	NORMAL	2,294.0	38.99	106.00	1,917.22	-242.56	1,090.97	1,117.58	0.54	0.14	-0.83	284.37
11/24/2012	NORMAL	2,390.0	36.66	106.09	1,993.04	-258.83	1,147.55	1,176.32	2.43	-2.43	0.09	178.68
	NORMAL	2,485.0	34.55	104.51	2,070.28	-273.44	1,200.88	1,231.53	2.42	-2.22	-1.66	202.92
	NORMAL	2,581.0	32.26	103.28	2,150.41	-286.14	1,252.18	1,284.35	2.49	-2.39	-1.28	195.96
	NORMAL	2,676.0	31.03	100.90	2,231.29	-296.60	1,300.90	1,334.19	1.84	-1.29	-2.51	224.42
	NORMAL	2,771.0	29.54	96.33	2,313.33	-303.81	1,348.23	1,381.97	2.89	-1.57	-4.81	235.16
	NORMAL	2,867.0	26.33	98.44	2,398.14	-309.55	1,392.83	1,426.78	3.50	-3.34	2.20	163.81
	NORMAL	2,962.0	23.82	97.30	2,484.18	-315.08	1,432.70	1,466.92	2.69	-2.64	-1.20	190.38
	NORMAL	3,058.0	22.29	96.68	2,572.51	-319.66	1,470.01	1,504.36	1.61	-1.59	-0.65	188.73
	NORMAL	3,154.0	21.27	96.60	2,661.66	-323.78	1,505.39	1,539.82	1.06	-1.06	-0.08	181.63
	NORMAL	3,250.0	21.41	97.48	2,751.07	-328.06	1,540.06	1,574.61	0.36	0.15	0.92	66.80
	NORMAL	3,345.0	18.64	99.06	2,840.32	-332.71	1,572.26	1,607.06	2.97	-2.92	1.66	169.69
	NORMAL	3,440.0	15.91	100.11	2,931.03	-337.39	1,600.07	1,635.24	2.89	-2.87	1.11	173.98
	NORMAL	3,536.0	14.20	94.58	3,023.73	-340.64	1,624.77	1,660.07	2.32	-1.78	-5.76	217.38
	NORMAL	3,631.0	12.31	93.70	3,116.20	-342.22	1,646.49	1,681.64	2.00	-1.99	-0.93	185.67
	NORMAL	3,726.0	11.25	94.22	3,209.20	-343.56	1,665.84	1,700.83	1.12	-1.12	0.55	174.54
	NORMAL	3,822.0	9.14	99.94	3,303.68	-345.56	1,682.69	1,717.73	2.44	-2.20	5.96	157.16
	NORMAL	3,916.0	7.08	99.94	3,396.73	-347.85	1,695.75	1,730.98	2.19	-2.19	0.00	180.00
	NORMAL	4,011.0	4.44	100.20	3,491.25	-349.51	1,705.14	1,740.51	2.78	-2.78	0.27	179.56
	NORMAL	4,106.0	1.67	98.18	3,586.10	-350.36	1,710.13	1,745.56	2.92	-2.92	-2.13	181.22
	NORMAL	4,201.0	1.19	92.20	3,681.07	-350.60	1,712.48	1,747.92	0.53	-0.51	-6.29	194.30
	NORMAL	4,297.0	0.92	101.34	3,777.06	-350.79	1,714.24	1,749.67	0.33	-0.28	9.52	152.58
	NORMAL	4,392.0	0.75	97.30	3,872.05	-351.02	1,715.60	1,751.05	0.19	-0.18	-4.25	197.09
	NORMAL	4,487.0	0.35	78.76	3,967.04	-351.04	1,716.50	1,751.94	0.46	-0.42	-19.52	194.90
11/25/2012	NORMAL	4,583.0	0.44	118.92	4,063.04	-351.16	1,717.11	1,752.56	0.30	0.09	41.83	92.77
	NORMAL	4,678.0	0.66	179.04	4,158.04	-351.88	1,717.44	1,753.03	0.61	0.23	63.28	100.99
	NORMAL	4,773.0	1.01	196.09	4,253.03	-353.24	1,717.22	1,753.10	0.45	0.37	17.95	44.10
	NORMAL	4,868.0	1.36	207.51	4,348.00	-355.04	1,716.46	1,752.74	0.44	0.37	12.02	39.81
	NORMAL	4,964.0	1.67	208.66	4,443.97	-357.28	1,715.27	1,752.04	0.32	0.32	1.20	6.18
	NORMAL	5,059.0	0.48	250.93	4,538.95	-358.62	1,714.23	1,751.31	1.43	-1.25	44.49	166.20
	NORMAL	5,154.0	0.61	245.83	4,633.95	-358.96	1,713.39	1,750.56	0.15	0.14	-5.37	336.97
	NORMAL	5,249.0	0.83	235.02	4,728.94	-359.56	1,712.36	1,749.69	0.27	0.23	-11.38	322.83
	NORMAL	5,345.0	1.14	249.53	4,824.93	-360.29	1,710.90	1,748.41	0.41	0.32	15.11	46.23
	NORMAL	5,441.0	1.27	254.71	4,920.91	-360.91	1,708.98	1,746.66	0.18	0.14	5.40	42.57
	NORMAL	5,536.0	1.41	219.20	5,015.88	-362.09	1,707.22	1,745.19	0.87	0.15	-37.38	261.52
	NORMAL	5,631.0	1.67	273.77	5,110.85	-362.91	1,705.10	1,743.29	1.51	0.27	57.44	107.98
	NORMAL	5,726.0	1.98	23.60	5,205.83	-361.31	1,704.38	1,742.25	3.15	0.33	115.61	141.49
	NORMAL	5,821.0	2.20	230.63	5,300.80	-360.96	1,703.63	1,741.44	4.28	0.23	-161.02	194.25
11/26/2012	NORMAL	5,917.0	2.55	230.98	5,396.72	-363.48	1,700.54	1,738.95	0.36	0.36	0.36	2.55
	NORMAL	5,945.0	2.33	234.14	5,424.69	-364.20	1,699.60	1,738.18	0.92	-0.79	11.29	150.13
	NORMAL	5,990.0	2.33	234.14	5,469.66	-365.27	1,698.12	1,736.96	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



### 3.2 Plan View

