

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 434-27	Wellbore No.	1
Well Name	SG 434-27	Common Name	SG 434-27
Project	SG 27-07S-096W	Site	SG 24-27 Pad
Vertical Section Azimuth	121.25 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	6/12/2012	UWI	SG 434-27
Active Datum	KB @5,038.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	Scientific Drilling
Date Started	6/12/2012	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 (°)
6/12/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/12/2012	NORMAL	111.0	0.79	113.73	111.00	-0.31	0.70	0.76	0.71	0.71	0.00	113.73
	NORMAL	172.0	2.38	119.18	171.97	-1.09	2.19	2.44	2.62	2.61	8.93	8.14
	NORMAL	264.0	5.81	117.86	263.72	-4.20	7.98	9.00	3.73	3.73	-1.43	357.77
	NORMAL	355.0	8.09	121.03	354.05	-9.66	17.54	20.00	2.54	2.51	3.48	11.13
	NORMAL	431.0	10.35	121.89	429.06	-16.02	27.92	32.18	2.98	2.97	1.13	3.91
	NORMAL	522.0	13.13	121.67	518.15	-25.77	43.66	50.69	3.06	3.05	-0.24	358.97
	NORMAL	613.0	15.94	121.95	606.23	-37.81	63.06	73.53	3.09	3.09	0.31	1.57
	NORMAL	704.0	19.63	121.04	692.86	-52.31	86.77	101.32	4.07	4.05	-1.00	355.26
	NORMAL	796.0	22.93	122.37	778.58	-69.88	115.16	134.70	3.62	3.59	1.45	8.94
	NORMAL	887.0	27.26	122.36	860.97	-90.53	147.75	173.28	4.76	4.76	-0.01	359.94
	NORMAL	978.0	31.13	121.29	940.40	-113.91	185.47	217.65	4.29	4.25	-1.18	351.85
	NORMAL	1,073.0	33.89	120.87	1,020.50	-140.26	229.19	268.71	2.91	2.91	-0.44	355.15
	NORMAL	1,169.0	34.23	119.05	1,100.03	-167.11	275.77	322.45	1.12	0.35	-1.90	287.69
6/13/2012	NORMAL	1,205.0	35.42	118.30	1,129.59	-176.97	293.81	342.99	3.51	3.31	-2.08	339.90
	NORMAL	1,346.0	35.19	117.89	1,244.66	-215.35	365.70	424.35	0.23	-0.16	-0.29	225.69
	NORMAL	1,441.0	33.96	120.31	1,322.88	-241.54	412.80	478.21	1.94	-1.29	2.55	132.84
	NORMAL	1,536.0	34.69	122.34	1,401.34	-269.40	458.55	531.78	1.43	0.77	2.14	58.31
	NORMAL	1,631.0	35.23	123.58	1,479.20	-299.02	504.22	586.19	0.94	0.57	1.31	53.27
	NORMAL	1,726.0	35.53	121.57	1,556.65	-328.62	550.57	641.17	1.27	0.32	-2.12	283.63
	NORMAL	1,821.0	34.38	121.25	1,634.52	-356.99	597.02	695.60	1.23	-1.21	-0.34	188.93

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 (°)
6/13/2012	NORMAL	1,917.0	33.65	118.96	1,714.09	-383.93	643.47	749.28	1.54	-0.76	-2.39	239.38
	NORMAL	2,012.0	32.35	119.91	1,793.76	-409.35	688.53	800.99	1.47	-1.37	1.00	158.69
	NORMAL	2,107.0	30.26	120.04	1,874.93	-434.01	731.29	850.34	2.20	-2.20	0.14	178.20
	NORMAL	2,202.0	26.22	121.02	1,958.60	-456.82	770.01	895.27	4.28	-4.25	1.03	173.88
	NORMAL	2,297.0	23.74	121.57	2,044.71	-477.65	804.29	935.39	2.62	-2.61	0.58	174.90
6/14/2012	NORMAL	2,391.0	21.12	121.01	2,131.59	-496.28	834.93	971.25	2.80	-2.79	-0.60	184.40
	NORMAL	2,486.0	21.05	121.46	2,220.23	-514.00	864.16	1,005.43	0.19	-0.07	0.47	113.59
	NORMAL	2,581.0	18.93	121.23	2,309.50	-530.90	891.89	1,037.90	2.23	-2.23	-0.24	182.02
	NORMAL	2,676.0	16.42	121.49	2,400.01	-545.91	916.52	1,066.74	2.64	-2.64	0.27	178.32
	NORMAL	2,772.0	14.54	121.34	2,492.52	-559.26	938.38	1,092.37	1.96	-1.96	-0.16	181.15
	NORMAL	2,867.0	12.40	121.01	2,584.91	-570.72	957.31	1,114.49	2.25	-2.25	-0.35	181.90
	NORMAL	2,962.0	10.41	122.27	2,678.03	-580.56	973.31	1,133.28	2.11	-2.09	1.33	173.48
	NORMAL	3,058.0	8.55	121.76	2,772.71	-588.95	986.72	1,149.09	1.94	-1.94	-0.53	182.33
	NORMAL	3,153.0	7.21	120.87	2,866.81	-595.72	997.84	1,162.11	1.42	-1.41	-0.94	184.76
	NORMAL	3,248.0	5.39	126.01	2,961.23	-601.41	1,006.57	1,172.52	2.00	-1.92	5.41	165.32
	NORMAL	3,343.0	3.08	129.95	3,055.97	-605.67	1,012.13	1,179.49	2.45	-2.43	4.15	174.78
	NORMAL	3,438.0	1.56	135.33	3,150.89	-608.23	1,015.00	1,183.27	1.61	-1.60	5.66	174.53
	NORMAL	3,534.0	0.38	97.14	3,246.87	-609.20	1,016.23	1,184.82	1.34	-1.23	-39.78	190.55
	NORMAL	3,629.0	0.65	36.89	3,341.87	-608.80	1,016.87	1,185.16	0.60	0.28	-63.42	264.19
	NORMAL	3,724.0	0.21	69.29	3,436.87	-608.31	1,017.36	1,185.32	0.51	-0.46	34.11	166.61
	NORMAL	3,819.0	0.23	199.99	3,531.87	-608.43	1,017.45	1,185.47	0.42	0.02	137.58	154.15
	NORMAL	3,914.0	0.30	241.59	3,626.87	-608.73	1,017.17	1,185.38	0.21	0.07	43.79	91.63
	NORMAL	4,010.0	0.47	253.67	3,722.86	-608.96	1,016.57	1,184.99	0.20	0.18	12.58	31.65
	NORMAL	4,105.0	0.81	256.61	3,817.86	-609.22	1,015.54	1,184.25	0.36	0.36	3.09	6.99
	NORMAL	4,200.0	0.51	227.91	3,912.85	-609.66	1,014.58	1,183.65	0.46	-0.32	-30.21	214.03
6/15/2012	NORMAL	4,296.0	0.63	188.10	4,008.85	-610.47	1,014.18	1,183.73	0.42	0.12	-41.47	266.31
	NORMAL	4,390.0	0.34	145.93	4,102.84	-611.21	1,014.27	1,184.19	0.47	-0.31	-44.86	211.13
	NORMAL	4,486.0	0.24	89.76	4,198.84	-611.45	1,014.63	1,184.62	0.30	-0.10	-58.51	224.01
	NORMAL	4,581.0	0.38	131.86	4,293.84	-611.66	1,015.06	1,185.10	0.27	0.15	44.32	80.65
	NORMAL	4,676.0	0.86	180.51	4,388.84	-612.58	1,015.29	1,185.77	0.71	0.51	51.21	73.75
	NORMAL	4,771.0	1.48	199.48	4,483.82	-614.45	1,014.87	1,186.39	0.76	0.65	19.97	41.72
	NORMAL	4,866.0	1.91	215.62	4,578.78	-616.89	1,013.54	1,186.52	0.67	0.45	16.99	56.25
	NORMAL	4,962.0	2.53	218.00	4,674.70	-619.86	1,011.31	1,186.15	0.65	0.65	2.48	9.65
	NORMAL	5,057.0	2.87	217.86	4,769.60	-623.39	1,008.56	1,185.63	0.36	0.36	-0.15	358.82
	NORMAL	5,152.0	2.73	218.21	4,864.48	-627.05	1,005.70	1,185.08	0.15	-0.15	0.37	173.21
	NORMAL	5,184.0	2.99	219.28	4,896.44	-628.29	1,004.70	1,184.87	0.83	0.81	3.34	12.14
	NORMAL	5,259.0	2.99	219.28	4,971.34	-631.32	1,002.22	1,184.32	0.00	0.00	0.00	0.00