

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 414-27	Wellbore No.	1
Well Name	SG 414-27	Common Name	SG 414-27
Project	SG 27-07S-096W	Site	SG 24-27 Pad
Vertical Section Azimuth	247.51 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	6/7/2012	UWI	SG 414-27
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	6/7/2012	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 (°)
6/7/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/7/2012	NORMAL	69.0	0.44	75.67	69.00	0.07	0.26	-0.26	0.64	0.64	0.00	75.67
	NORMAL	172.0	2.64	244.16	171.97	-0.87	-1.50	1.71	2.98	2.14	163.58	170.13
	NORMAL	264.0	6.42	248.29	263.66	-3.70	-8.18	8.98	4.12	4.11	4.49	6.99
6/8/2012	NORMAL	355.0	11.17	248.82	353.57	-8.77	-21.14	22.88	5.22	5.22	0.58	1.24
	NORMAL	446.0	13.90	248.20	442.39	-16.01	-39.51	42.63	3.00	3.00	-0.68	356.88
	NORMAL	522.0	16.17	247.77	515.78	-23.41	-57.78	62.34	2.99	2.99	-0.57	356.98
	NORMAL	613.0	18.89	246.28	602.55	-34.13	-83.00	89.74	3.03	2.99	-1.64	349.92
	NORMAL	704.0	22.35	247.02	687.71	-46.81	-112.43	121.78	3.81	3.80	0.81	4.65
	NORMAL	796.0	25.27	247.76	771.87	-61.08	-146.71	158.92	3.19	3.17	0.80	6.18
	NORMAL	887.0	28.88	246.96	852.88	-77.04	-184.93	200.33	3.99	3.97	-0.88	353.88
	NORMAL	978.0	32.87	248.60	930.97	-94.65	-228.16	247.01	4.48	4.38	1.80	12.62
	NORMAL	1,073.0	37.86	249.75	1,008.42	-114.16	-279.55	301.96	5.30	5.25	1.21	8.07
	NORMAL	1,169.0	41.07	248.16	1,082.53	-136.10	-336.47	362.94	3.51	3.34	-1.66	341.91
	NORMAL	1,264.0	44.72	246.41	1,152.11	-161.09	-396.09	427.59	4.04	3.84	-1.84	341.28
	NORMAL	1,295.0	46.00	246.53	1,173.90	-169.90	-416.31	449.64	4.14	4.13	0.39	3.86
6/9/2012	NORMAL	1,441.0	46.54	246.20	1,274.82	-212.19	-512.96	555.12	0.40	0.37	-0.23	336.06
	NORMAL	1,536.0	45.73	245.67	1,340.65	-240.12	-575.50	623.59	0.94	-0.85	-0.56	205.07
	NORMAL	1,631.0	44.24	246.06	1,407.84	-267.58	-636.79	690.71	1.60	-1.57	0.41	169.65
	NORMAL	1,726.0	42.59	246.09	1,476.85	-294.06	-696.47	755.98	1.74	-1.74	0.03	179.29
	NORMAL	1,821.0	41.92	247.64	1,547.16	-319.16	-755.20	819.85	1.30	-0.71	1.63	123.31

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)	Bulld Rate (%/100ft)	Turn (%/100ft)	TFace (°)
6/9/2012	NORMAL	1,917.0	39.75	248.38	1,619.79	-342.67	-813.40	882.62	2.32	-2.26	0.77	167.71
	NORMAL	2,012.0	36.19	249.46	1,694.67	-363.71	-867.92	941.04	3.81	-3.75	1.14	169.85
	NORMAL	2,107.0	32.44	247.38	1,773.13	-383.36	-917.72	994.57	4.14	-3.95	-2.19	196.51
	NORMAL	2,202.0	31.04	247.35	1,853.92	-402.59	-963.85	1,044.55	1.47	-1.47	-0.03	180.63
6/10/2012	NORMAL	2,297.0	29.43	246.15	1,935.99	-421.46	-1,007.80	1,092.38	1.81	-1.69	-1.26	200.05
	NORMAL	2,391.0	27.33	246.21	2,018.69	-439.51	-1,048.68	1,137.04	2.23	-2.23	0.06	179.25
	NORMAL	2,486.0	26.10	248.34	2,103.55	-456.02	-1,088.05	1,179.74	1.64	-1.29	2.24	143.05
	NORMAL	2,581.0	24.44	249.80	2,189.46	-470.52	-1,125.92	1,220.28	1.87	-1.75	1.54	160.08
	NORMAL	2,676.0	22.04	249.16	2,276.74	-483.65	-1,161.03	1,257.74	2.54	-2.53	-0.67	185.71
	NORMAL	2,772.0	21.08	248.49	2,366.02	-496.39	-1,193.93	1,293.00	1.03	-1.00	-0.70	194.07
	NORMAL	2,867.0	20.22	249.15	2,454.92	-508.50	-1,225.16	1,326.50	0.94	-0.91	0.69	165.16
	NORMAL	2,962.0	19.04	247.79	2,544.40	-520.20	-1,254.85	1,358.40	1.33	-1.24	-1.43	200.53
	NORMAL	3,058.0	17.47	245.39	2,635.56	-532.12	-1,282.45	1,388.47	1.81	-1.64	-2.50	204.45
	NORMAL	3,153.0	15.47	245.43	2,726.66	-543.33	-1,306.94	1,415.38	2.11	-2.11	0.04	179.69
	NORMAL	3,248.0	13.79	246.67	2,818.58	-553.08	-1,328.86	1,439.36	1.80	-1.77	1.31	170.04
	NORMAL	3,343.0	12.47	249.42	2,911.09	-561.17	-1,348.86	1,460.94	1.54	-1.39	2.89	156.01
	NORMAL	3,438.0	10.76	252.35	3,004.15	-567.46	-1,366.92	1,480.03	1.90	-1.80	3.08	162.40
	NORMAL	3,534.0	8.19	253.67	3,098.83	-572.10	-1,382.02	1,495.76	2.69	-2.68	1.38	175.82
	NORMAL	3,629.0	5.43	250.37	3,193.15	-575.52	-1,392.75	1,506.98	2.93	-2.91	-3.47	186.43
	NORMAL	3,724.0	4.86	250.09	3,287.77	-578.40	-1,400.77	1,515.49	0.60	-0.60	-0.29	182.38
	NORMAL	3,819.0	3.89	242.29	3,382.49	-581.27	-1,407.41	1,522.71	1.20	-1.02	-8.21	207.68
	NORMAL	3,914.0	2.35	230.26	3,477.35	-584.01	-1,411.76	1,527.78	1.75	-1.62	-12.66	197.10
	NORMAL	4,010.0	1.34	223.00	3,573.30	-586.09	-1,414.04	1,530.69	1.08	-1.05	-7.56	189.42
	NORMAL	4,105.0	0.91	263.47	3,668.28	-586.99	-1,415.54	1,532.42	0.92	-0.45	42.60	137.64
	NORMAL	4,200.0	0.10	119.36	3,763.27	-587.11	-1,416.22	1,533.10	1.04	-0.85	-151.69	183.39
6/11/2012	NORMAL	4,296.0	0.51	99.75	3,859.27	-587.23	-1,415.73	1,532.68	0.43	0.43	-20.43	335.78
	NORMAL	4,390.0	0.23	81.90	3,953.27	-587.27	-1,415.13	1,532.15	0.32	-0.30	-18.99	193.62
	NORMAL	4,486.0	0.31	112.04	4,049.27	-587.34	-1,414.70	1,531.77	0.17	0.08	31.40	76.25
	NORMAL	4,581.0	0.35	133.71	4,144.27	-587.64	-1,414.25	1,531.47	0.14	0.04	22.81	83.26
	NORMAL	4,676.0	0.40	161.46	4,239.27	-588.15	-1,413.93	1,531.38	0.20	0.05	29.21	88.77
	NORMAL	4,771.0	0.70	178.76	4,334.26	-589.05	-1,413.81	1,531.61	0.36	0.32	18.21	37.80
	NORMAL	4,866.0	0.88	222.80	4,429.25	-590.16	-1,414.30	1,532.49	0.65	0.19	46.36	96.29
	NORMAL	4,962.0	1.11	221.78	4,525.24	-591.40	-1,415.42	1,533.99	0.24	0.24	-1.06	355.09
	NORMAL	5,057.0	1.27	225.65	4,620.22	-592.82	-1,416.78	1,535.80	0.19	0.17	4.07	28.61
	NORMAL	5,152.0	1.70	222.73	4,715.19	-594.59	-1,418.49	1,538.06	0.46	0.45	-3.07	348.56
	NORMAL	5,248.0	1.85	225.33	4,811.14	-596.73	-1,420.56	1,540.78	0.18	0.16	2.71	29.53
	NORMAL	5,320.0	1.95	223.46	4,883.10	-598.43	-1,422.23	1,542.98	0.16	0.14	-2.60	327.26
	NORMAL	5,395.0	2.05	221.51	4,958.06	-600.36	-1,424.00	1,545.35	0.16	0.13	-2.60	324.79