

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 31-27	Wellbore No.	
Well Name	SG 31-27	Common Name	SG 31-27
Project	SG 27-07S-096W	Site	SG 41-27 Pad
Vertical Section Azimuth	24.67 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	9/30/2011	UWI	SG 31-27
Active Datum	KB @5,109.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Started	9/30/2011	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)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
9/30/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/30/2011	NORMAL	103.0	0.20	259.60	103.00	-0.03	-0.18	-0.10	0.19	0.19	0.00	259.60
	NORMAL	154.0	0.80	274.70	154.00	-0.02	-0.62	-0.28	1.19	1.18	29.61	20.01
	NORMAL	246.0	3.50	289.00	245.92	0.95	-3.92	-0.77	2.97	2.93	15.54	18.44
	NORMAL	337.0	5.90	276.30	336.61	2.37	-11.19	-2.52	2.86	2.64	-13.96	330.16
	NORMAL	429.0	7.90	278.40	427.94	3.81	-22.15	-5.78	2.19	2.17	2.28	8.24
	NORMAL	520.0	9.80	273.30	517.86	5.17	-36.07	-10.36	2.26	2.09	-5.60	335.03
	NORMAL	611.0	11.40	275.10	607.30	6.41	-52.76	-16.19	1.80	1.76	1.98	12.58
	NORMAL	703.0	13.40	271.20	697.15	7.45	-72.48	-23.49	2.36	2.17	-4.24	335.37
	NORMAL	794.0	15.20	271.60	785.33	8.00	-94.95	-32.36	1.98	1.98	0.44	3.34
	NORMAL	886.0	16.80	270.10	873.76	8.36	-120.30	-42.62	1.80	1.74	-1.63	344.79
	NORMAL	977.0	18.80	270.10	960.40	8.41	-148.12	-54.18	2.20	2.20	0.00	0.00
	NORMAL	1,071.0	20.10	275.30	1,049.04	9.93	-179.35	-65.84	2.30	1.38	5.53	55.57
	NORMAL	1,165.0	19.20	270.30	1,137.57	11.50	-210.89	-77.58	2.03	-0.96	-5.32	239.50
	NORMAL	1,260.0	20.40	270.50	1,226.96	11.73	-243.07	-90.80	1.27	1.26	0.21	3.33
	NORMAL	1,354.0	21.30	270.30	1,314.80	11.96	-276.53	-104.55	0.96	0.96	-0.21	355.38
10/2/2011	NORMAL	1,443.0	22.30	270.10	1,397.43	12.07	-309.58	-118.25	1.13	1.12	-0.22	355.66
	NORMAL	1,538.0	22.70	270.90	1,485.20	12.39	-345.93	-133.13	0.53	0.42	0.84	37.80
	NORMAL	1,632.0	22.40	270.50	1,572.02	12.83	-381.98	-147.77	0.36	-0.32	-0.43	206.90
	NORMAL	1,726.0	22.60	270.30	1,658.86	13.08	-417.95	-162.56	0.23	0.21	-0.21	338.97
	NORMAL	1,820.0	22.80	270.70	1,745.58	13.40	-454.22	-177.41	0.27	0.21	0.43	37.85

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Bulld (°/100ft)	Turn (°/100ft)	TFace (°)
10/2/2011	NORMAL	1,915.0	23.10	269.80	1,833.06	13.56	-491.26	-192.73	0.49	0.32	-0.95	310.11
	NORMAL	2,009.0	22.00	269.80	1,919.87	13.43	-527.31	-207.89	1.17	-1.17	0.00	180.00
	NORMAL	2,104.0	21.10	269.10	2,008.23	13.10	-562.20	-222.75	0.99	-0.95	-0.74	195.62
	NORMAL	2,200.0	18.60	275.80	2,098.53	14.38	-594.72	-235.16	3.52	-2.60	6.98	140.81
	NORMAL	2,296.0	16.90	274.60	2,189.96	17.05	-623.86	-244.90	1.81	-1.77	-1.25	191.57
	NORMAL	2,392.0	17.00	272.80	2,281.79	18.85	-651.79	-254.92	0.56	0.10	-1.88	279.93
	NORMAL	2,487.0	14.90	270.00	2,373.13	19.53	-677.88	-265.19	2.35	-2.21	-2.95	198.78
	NORMAL	2,575.0	13.30	269.80	2,458.47	19.49	-699.32	-274.17	1.82	-1.82	-0.23	181.65
	NORMAL	2,669.0	12.00	268.20	2,550.19	19.15	-719.90	-283.08	1.43	-1.38	-1.70	194.31
10/3/2011	NORMAL	2,763.0	10.00	270.10	2,642.46	18.86	-737.83	-290.83	2.16	-2.13	2.02	170.66
	NORMAL	2,858.0	9.80	267.50	2,736.04	18.52	-754.15	-297.95	0.52	-0.21	-2.74	244.62
	NORMAL	2,952.0	8.80	268.20	2,828.81	17.94	-769.33	-304.81	1.07	-1.06	0.74	173.89
	NORMAL	3,046.0	7.70	273.10	2,921.83	18.06	-782.81	-310.33	1.39	-1.17	5.21	149.82
	NORMAL	3,140.0	6.10	273.50	3,015.15	18.70	-794.08	-314.45	1.70	-1.70	0.43	178.48
	NORMAL	3,234.0	5.50	274.70	3,108.67	19.38	-803.56	-317.79	0.65	-0.64	1.28	169.17
	NORMAL	3,329.0	4.80	278.40	3,203.28	20.33	-812.02	-320.46	0.82	-0.74	3.89	156.45
	NORMAL	3,411.0	3.80	276.80	3,285.05	21.15	-818.12	-322.25	1.23	-1.22	-1.95	186.04
10/4/2011	NORMAL	3,505.0	3.80	271.80	3,378.85	21.62	-824.32	-324.42	0.35	0.00	-5.32	267.51
	NORMAL	3,599.0	1.90	276.20	3,472.73	21.89	-828.99	-326.12	2.03	-2.02	4.68	175.63
	NORMAL	3,694.0	0.44	272.60	3,567.70	22.07	-830.92	-326.76	1.54	-1.54	-3.79	181.08
	NORMAL	3,788.0	0.53	263.80	3,661.70	22.04	-831.71	-327.12	0.12	0.10	-9.36	315.93
	NORMAL	3,882.0	0.62	240.27	3,755.70	21.74	-832.58	-327.75	0.27	0.10	-25.03	278.83
	NORMAL	3,976.0	1.23	62.64	3,849.69	21.96	-832.13	-327.37	1.97	0.65	-188.97	181.58
	NORMAL	4,070.0	1.19	54.47	3,943.67	22.99	-830.44	-325.73	0.19	-0.04	-8.69	252.88
	NORMAL	4,164.0	0.75	40.94	4,037.66	24.02	-829.24	-324.29	0.52	-0.47	-14.39	200.85
	NORMAL	4,259.0	0.57	23.97	4,132.65	24.92	-828.64	-323.22	0.28	-0.19	-17.86	219.09
	NORMAL	4,353.0	0.66	341.87	4,226.64	25.86	-828.62	-322.36	0.48	0.10	-44.79	259.72
	NORMAL	4,447.0	0.62	316.30	4,320.64	26.74	-829.14	-321.77	0.30	-0.04	-27.20	249.37
	NORMAL	4,541.0	0.79	253.89	4,414.63	26.93	-830.11	-322.01	0.79	0.18	-66.39	250.05
	NORMAL	4,635.0	1.10	224.45	4,508.62	26.11	-831.37	-323.28	0.60	0.33	-31.32	287.26
	NORMAL	4,729.0	1.27	212.67	4,602.60	24.59	-832.56	-325.16	0.32	0.18	-12.53	298.92
	NORMAL	4,824.0	2.02	230.24	4,697.56	22.63	-834.42	-327.71	0.94	0.79	18.49	42.91
	NORMAL	4,918.0	2.24	230.25	4,791.50	20.40	-837.10	-330.87	0.23	0.23	0.01	0.10
	NORMAL	5,012.0	2.68	227.26	4,885.41	17.73	-840.13	-334.55	0.49	0.47	-3.18	342.24
NORMAL	5,106.0	2.64	216.72	4,979.31	14.50	-843.04	-338.70	0.52	-0.04	-11.21	260.07	
NORMAL	5,200.0	2.90	215.31	5,073.20	10.83	-845.71	-343.15	0.29	0.28	-1.50	344.61	
NORMAL	5,278.0	3.34	213.29	5,151.08	7.32	-848.09	-347.34	0.58	0.56	-2.59	344.96	