

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 44-22	Wellbore No.	
Well Name	SG 44-22	Common Name	SG 44-22
Project	SG 23-07S-096W	Site	SG 14-23 Pad
Vertical Section Azimuth	244.65 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	12/17/2011	UWI	SG 44-22
Active Datum	KB @5,094.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SCIENTIFIC
Started	12/17/2011	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 (°)
12/17/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/2011	NORMAL	112.0	1.06	290.39	111.99	0.36	-0.97	0.72	0.95	0.95	0.00	290.39
	NORMAL	142.0	2.11	263.23	141.98	0.39	-1.78	1.44	4.21	3.50	-90.53	310.33
	NORMAL	174.0	2.55	260.77	173.96	0.21	-3.07	2.68	1.41	1.38	-7.69	345.96
	NORMAL	203.0	3.08	251.19	202.92	-0.15	-4.44	4.08	2.44	1.83	-33.03	313.55
	NORMAL	233.0	3.87	236.07	232.87	-0.97	-6.04	5.88	4.01	2.63	-50.40	303.05
	NORMAL	261.0	4.84	235.37	260.78	-2.17	-7.80	7.98	3.47	3.46	-2.50	356.51
	NORMAL	293.0	5.37	239.41	292.66	-3.70	-10.20	10.80	2.00	1.66	12.63	36.17
	NORMAL	323.0	5.98	246.27	322.51	-5.04	-12.84	13.76	3.04	2.03	22.87	51.48
	NORMAL	352.0	6.77	246.09	351.33	-6.34	-15.79	16.98	2.73	2.72	-0.62	358.46
	NORMAL	384.0	7.92	246.97	383.07	-7.97	-19.54	21.07	3.61	3.59	2.75	6.02
	NORMAL	414.0	9.24	247.76	412.73	-9.69	-23.67	25.54	4.42	4.40	2.63	5.49
	NORMAL	444.0	10.73	247.94	442.28	-11.65	-28.49	30.73	4.97	4.97	0.60	1.29
	NORMAL	475.0	12.14	245.57	472.66	-14.08	-34.13	36.87	4.79	4.55	-7.65	340.41
	NORMAL	505.0	13.55	245.13	501.91	-16.87	-40.19	43.54	4.71	4.70	-1.47	355.82
	NORMAL	535.0	15.04	242.67	530.98	-20.13	-46.84	50.95	5.36	4.97	-8.20	336.63
	NORMAL	566.0	16.19	240.91	560.84	-24.08	-54.19	59.28	4.01	3.71	-5.68	336.76
	NORMAL	597.0	16.72	242.67	590.57	-28.23	-61.93	68.05	2.35	1.71	5.68	44.09
	NORMAL	625.0	17.24	245.65	617.35	-31.79	-69.29	76.22	3.62	1.86	10.64	60.57
	NORMAL	658.0	18.12	246.80	648.79	-35.83	-78.46	86.24	2.87	2.67	3.48	22.20
	NORMAL	688.0	19.35	246.71	677.20	-39.63	-87.31	95.87	4.10	4.10	-0.30	358.61

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)	Build (%/100ft)	Turn (%/100ft)	TFace (°)
12/17/2011	NORMAL	717.0	20.50	246.01	704.46	-43.59	-96.36	105.75	4.05	3.97	-2.41	347.95
	NORMAL	761.0	22.12	243.78	745.45	-50.39	-110.83	121.74	4.12	3.68	-5.07	332.38
	NORMAL	791.0	23.48	243.05	773.11	-55.59	-121.23	133.36	4.63	4.53	-2.43	347.91
	NORMAL	821.0	24.80	243.49	800.48	-61.11	-132.19	145.62	4.44	4.40	1.47	7.96
	NORMAL	852.0	25.94	243.93	828.49	-66.99	-144.10	158.90	3.73	3.68	1.42	9.59
	NORMAL	882.0	27.00	244.28	855.35	-72.83	-156.13	172.27	3.57	3.53	1.17	8.53
	NORMAL	912.0	28.31	244.81	881.92	-78.81	-168.70	186.20	4.44	4.37	1.77	10.87
	NORMAL	942.0	29.72	244.99	908.15	-84.98	-181.88	200.75	4.71	4.70	0.60	3.62
	NORMAL	973.0	30.95	245.43	934.91	-91.55	-196.09	216.40	4.03	3.97	1.42	10.43
	NORMAL	1,004.0	32.10	244.99	961.33	-98.34	-210.80	232.61	3.78	3.71	-1.42	348.50
	NORMAL	1,034.0	32.89	244.28	986.64	-105.25	-225.37	248.73	2.92	2.63	-2.37	333.93
	NORMAL	1,065.0	33.50	243.27	1,012.58	-112.75	-240.59	265.70	2.66	1.97	-3.26	317.38
	NORMAL	1,096.0	34.56	243.32	1,038.27	-120.55	-256.09	283.04	3.42	3.42	0.16	1.53
	NORMAL	1,127.0	35.79	243.58	1,063.61	-128.53	-272.06	300.90	4.00	3.97	0.84	7.05
	NORMAL	1,159.0	37.06	244.05	1,089.35	-136.91	-289.11	319.89	4.06	3.97	1.47	12.58
	NORMAL	1,190.0	37.81	244.11	1,113.97	-145.15	-306.06	338.74	2.42	2.42	0.19	2.81
	NORMAL	1,221.0	38.51	244.90	1,138.34	-153.39	-323.35	357.89	2.75	2.26	2.55	35.20
	NORMAL	1,253.0	39.43	245.50	1,163.22	-161.83	-341.62	378.01	3.11	2.88	1.88	22.54
	NORMAL	1,284.0	40.71	245.69	1,186.95	-170.08	-359.79	397.97	4.15	4.13	0.61	5.53
	NORMAL	1,315.0	41.50	244.81	1,210.30	-178.61	-378.30	418.34	3.16	2.55	-2.84	323.45
	NORMAL	1,348.0	41.86	244.46	1,234.95	-188.01	-398.13	440.29	1.30	1.09	-1.06	326.99
	NORMAL	1,378.0	42.65	243.67	1,257.16	-196.83	-416.27	460.46	3.17	2.63	-2.63	325.79
	NORMAL	1,391.0	43.00	243.49	1,266.69	-200.77	-424.18	469.29	2.85	2.69	-1.38	340.66
12/19/2011	NORMAL	1,474.0	45.02	241.30	1,326.39	-227.50	-475.27	526.91	3.05	2.43	-2.64	322.22
	NORMAL	1,535.0	44.41	242.79	1,369.74	-247.62	-513.17	569.78	1.99	-1.00	2.44	120.72
	NORMAL	1,630.0	42.82	246.39	1,438.52	-275.76	-572.33	635.29	3.10	-1.67	3.79	123.92
	NORMAL	1,725.0	43.67	247.56	1,507.72	-301.21	-632.23	700.31	1.23	0.89	1.23	43.75
	NORMAL	1,819.0	43.63	248.12	1,575.74	-325.68	-692.32	765.10	0.41	-0.04	0.60	96.11
	NORMAL	1,914.0	42.12	245.08	1,645.37	-351.32	-751.64	829.68	2.70	-1.59	-3.20	232.76
	NORMAL	2,008.0	40.19	244.64	1,716.14	-377.60	-807.64	891.54	2.08	-2.05	-0.47	188.37
	NORMAL	2,102.0	37.97	243.13	1,789.10	-403.66	-860.85	950.78	2.57	-2.36	-1.61	202.63
	NORMAL	2,197.0	35.17	244.72	1,865.40	-428.56	-911.67	1,007.37	3.11	-2.95	1.67	161.94
	NORMAL	2,291.0	35.08	244.78	1,942.28	-451.63	-960.58	1,061.45	0.10	-0.10	0.06	159.04
	NORMAL	2,386.0	32.53	244.03	2,021.21	-474.45	-1,008.25	1,114.30	2.72	-2.68	-0.79	188.98
	NORMAL	2,480.0	30.46	244.37	2,101.36	-495.83	-1,052.46	1,163.41	2.21	-2.20	0.36	175.24
	NORMAL	2,575.0	27.26	245.60	2,184.55	-515.24	-1,094.00	1,209.25	3.43	-3.37	1.29	170.03
	NORMAL	2,669.0	25.23	244.47	2,268.86	-532.77	-1,131.68	1,250.81	2.22	-2.16	-1.20	193.32
	NORMAL	2,764.0	23.70	243.29	2,355.32	-550.07	-1,167.01	1,290.15	1.69	-1.61	-1.24	197.18
	NORMAL	2,858.0	21.98	243.85	2,441.95	-566.32	-1,199.68	1,326.63	1.84	-1.83	0.60	173.06
	NORMAL	2,953.0	19.56	243.57	2,530.77	-581.24	-1,229.88	1,360.31	2.55	-2.55	-0.29	182.22
	NORMAL	3,047.0	17.05	243.60	2,620.01	-594.37	-1,256.32	1,389.83	2.67	-2.67	0.03	179.80
	NORMAL	3,142.0	15.47	243.00	2,711.20	-606.31	-1,280.09	1,416.42	1.67	-1.66	-0.63	185.78
	NORMAL	3,236.0	13.18	246.47	2,802.28	-616.29	-1,301.09	1,439.66	2.60	-2.44	3.69	161.12
	NORMAL	3,331.0	10.61	245.35	2,895.23	-624.26	-1,318.97	1,459.24	2.72	-2.71	-1.18	184.59
	NORMAL	3,425.0	10.59	243.80	2,987.63	-631.68	-1,334.58	1,476.53	0.30	-0.02	-1.65	265.23
12/20/2011	NORMAL	3,520.0	8.64	244.48	3,081.29	-638.61	-1,348.86	1,492.39	2.06	-2.05	0.72	177.00
	NORMAL	3,614.0	6.95	244.04	3,174.41	-644.14	-1,360.34	1,505.14	1.80	-1.80	-0.47	181.80
	NORMAL	3,709.0	5.69	242.85	3,268.83	-648.81	-1,369.70	1,515.60	1.33	-1.33	-1.25	185.34
	NORMAL	3,803.0	3.96	247.27	3,362.50	-652.19	-1,376.84	1,523.50	1.88	-1.84	4.70	170.07
	NORMAL	3,898.0	1.80	254.35	3,457.37	-653.86	-1,381.30	1,528.24	2.30	-2.27	7.45	174.17
	NORMAL	3,992.0	0.30	118.08	3,551.36	-654.37	-1,382.51	1,529.55	2.16	-1.60	-144.97	185.87
	NORMAL	4,087.0	0.65	140.67	3,646.36	-654.91	-1,381.95	1,529.28	0.41	0.37	23.78	39.76
	NORMAL	4,181.0	0.70	178.19	3,740.35	-655.89	-1,381.59	1,529.38	0.46	0.05	39.91	102.54
	NORMAL	4,276.0	0.70	312.84	3,835.35	-656.08	-1,382.00	1,529.82	1.36	0.00	141.74	157.32
	NORMAL	4,371.0	0.79	291.39	3,930.34	-655.44	-1,383.03	1,530.49	0.31	0.09	-22.58	276.96
	NORMAL	4,465.0	1.06	269.69	4,024.33	-655.21	-1,384.51	1,531.72	0.47	0.29	-23.09	296.44
	NORMAL	4,560.0	0.79	8.21	4,119.32	-654.57	-1,385.29	1,532.15	1.49	-0.28	103.71	146.42

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)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
12/21/2011	NORMAL	5,616.0	0.80	260.37	5,175.24	-647.63	-1,390.98	1,534.32	0.14	-0.14	0.00	180.00
12/21/2011	NORMAL	4,654.0	0.88	15.68	4,213.31	-653.23	-1,385.00	1,531.32	0.15	0.10	7.95	54.19
	NORMAL	4,748.0	0.82	14.11	4,307.30	-651.89	-1,384.65	1,530.42	0.07	-0.06	-1.67	200.43
	NORMAL	4,843.0	0.62	10.50	4,402.29	-650.72	-1,384.39	1,529.69	0.22	-0.21	-3.80	190.98
	NORMAL	4,937.0	0.26	331.65	4,496.29	-650.03	-1,384.39	1,529.40	0.48	-0.38	-41.33	201.34
	NORMAL	5,032.0	0.26	301.68	4,591.29	-649.73	-1,384.68	1,529.53	0.14	0.00	-31.55	255.02
	NORMAL	5,126.0	0.45	284.63	4,685.29	-649.53	-1,385.22	1,529.93	0.23	0.20	-18.14	322.22
	NORMAL	5,221.0	0.79	300.18	4,780.28	-649.10	-1,386.15	1,530.58	0.40	0.36	16.37	34.25
	NORMAL	5,315.0	0.78	309.37	4,874.27	-648.37	-1,387.20	1,531.22	0.13	-0.01	9.78	99.13
	NORMAL	5,410.0	0.65	303.34	4,969.26	-647.66	-1,388.15	1,531.78	0.16	-0.14	-6.35	207.07
	NORMAL	5,504.0	0.88	267.31	5,063.26	-647.40	-1,389.32	1,532.72	0.55	0.24	-38.33	276.80
	NORMAL	5,559.0	0.88	260.37	5,118.25	-647.50	-1,390.16	1,533.52	0.19	0.00	-12.62	266.53

1380
- 187
1203