

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	SG 431-22	Wellbore No.	00
Well Name	SG 431-22	Common Name	SG 431-22
Project	SG 22-07S-096W	Site	SG 42-22 Pad
Vertical Section Azimuth	287.62 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	8/1/2013	UWI	SG 431-22
Active Datum	KB @5,243.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	8/1/2013	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

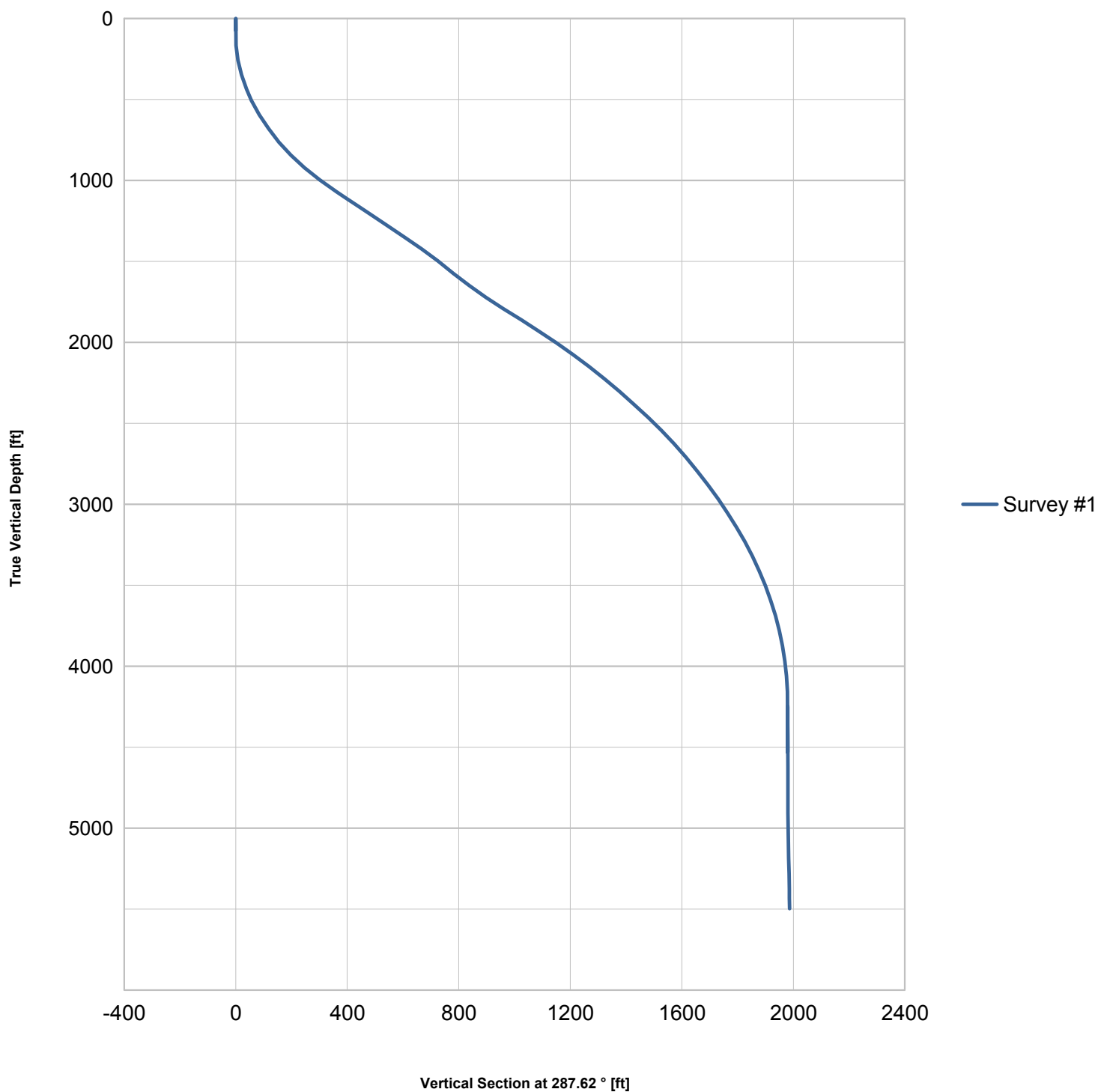
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
8/1/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/1/2013	NORMAL	75.0	0.18	41.40	75.00	0.09	0.08	-0.05	0.24	0.24	0.00	41.40
	NORMAL	167.0	2.20	299.36	166.98	1.06	-1.37	1.62	2.44	2.20	-110.91	253.46
	NORMAL	259.0	6.07	286.35	258.72	3.30	-7.57	8.22	4.30	4.21	-14.14	339.82
	NORMAL	349.0	9.94	289.60	347.83	7.25	-19.46	20.74	4.33	4.30	3.61	8.28
	NORMAL	440.0	12.76	288.54	437.04	13.08	-36.39	38.64	3.11	3.10	-1.16	355.25
	NORMAL	512.0	15.65	288.55	506.83	18.70	-53.14	56.31	4.01	4.01	0.01	0.05
	NORMAL	604.0	19.92	288.51	594.41	27.62	-79.78	84.40	4.64	4.64	-0.04	359.82
	NORMAL	696.0	22.60	283.98	680.15	36.87	-111.80	117.72	3.41	2.91	-4.92	326.37
	NORMAL	788.0	25.19	285.45	764.26	46.36	-147.84	154.93	2.89	2.82	1.60	13.62
	NORMAL	879.0	30.78	291.36	844.60	60.01	-188.23	197.56	6.85	6.14	6.49	29.03
	NORMAL	971.0	34.94	294.98	921.87	79.72	-234.06	247.21	5.00	4.52	3.93	26.81
	NORMAL	1,064.0	37.81	291.71	996.75	101.52	-284.70	302.07	3.72	3.09	-3.52	324.63
8/2/2013	NORMAL	1,158.0	40.36	286.97	1,069.73	121.07	-340.60	361.27	4.18	2.71	-5.04	308.61
	NORMAL	1,206.0	40.89	285.12	1,106.16	129.70	-370.63	392.51	2.74	1.10	-3.85	293.05
	NORMAL	1,279.0	41.54	285.13	1,161.07	142.25	-417.06	440.56	0.89	0.89	0.01	0.58
	NORMAL	1,342.0	41.57	283.85	1,208.22	152.71	-457.52	482.28	1.35	0.05	-2.03	271.54
	NORMAL	1,437.0	40.66	284.31	1,279.79	167.91	-518.12	544.63	1.01	-0.96	0.48	161.79
	NORMAL	1,531.0	41.05	283.87	1,350.89	182.87	-577.75	606.01	0.52	0.41	-0.47	323.41
	NORMAL	1,624.0	39.92	285.03	1,421.62	197.93	-636.22	666.29	1.46	-1.22	1.25	146.76
8/3/2013	NORMAL	1,720.0	35.63	286.04	1,497.48	213.65	-692.87	725.04	4.51	-4.47	1.05	172.19

## 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 (°)
8/3/2013	NORMAL	1,814.0	36.42	288.13	1,573.51	229.90	-745.71	780.32	1.55	0.84	2.22	58.12
	NORMAL	1,909.0	38.09	290.79	1,649.13	249.08	-799.91	837.78	2.44	1.76	2.80	45.02
	NORMAL	2,004.0	40.79	291.48	1,722.49	270.85	-856.19	898.01	2.88	2.84	0.73	9.49
	NORMAL	2,097.0	43.09	290.48	1,791.66	293.09	-914.23	960.06	2.58	2.47	-1.08	343.42
	NORMAL	2,192.0	42.51	290.72	1,861.37	315.80	-974.65	1,024.52	0.63	-0.61	0.25	164.38
	NORMAL	2,285.0	41.74	288.45	1,930.35	336.72	-1,033.41	1,086.85	1.83	-0.83	-2.44	242.34
	NORMAL	2,381.0	40.15	287.39	2,002.86	356.08	-1,093.26	1,149.76	1.81	-1.66	-1.10	203.20
	NORMAL	2,475.0	38.84	286.23	2,075.39	373.38	-1,150.48	1,209.53	1.60	-1.39	-1.23	208.94
	NORMAL	2,569.0	37.02	286.56	2,149.54	389.68	-1,205.91	1,267.30	1.95	-1.94	0.35	173.77
	NORMAL	2,663.0	35.44	286.44	2,225.36	405.46	-1,259.18	1,322.84	1.68	-1.68	-0.13	182.52
	NORMAL	2,757.0	33.73	287.61	2,302.74	421.07	-1,310.20	1,376.19	1.95	-1.82	1.24	159.26
	NORMAL	2,852.0	32.43	286.88	2,382.34	436.45	-1,359.72	1,428.04	1.43	-1.37	-0.77	196.73
	NORMAL	2,947.0	31.98	286.52	2,462.73	451.00	-1,408.21	1,478.66	0.51	-0.47	-0.38	202.94
	NORMAL	3,040.0	29.61	288.07	2,542.61	465.13	-1,453.67	1,526.27	2.69	-2.55	1.67	162.15
	NORMAL	3,135.0	27.81	289.08	2,625.93	479.66	-1,496.93	1,571.90	1.96	-1.89	1.06	165.36
	NORMAL	3,229.0	26.06	288.15	2,709.73	493.26	-1,537.28	1,614.47	1.91	-1.86	-0.99	193.12
	NORMAL	3,323.0	25.21	290.31	2,794.48	506.64	-1,575.67	1,655.11	1.34	-0.90	2.30	133.26
	NORMAL	3,417.0	23.31	289.68	2,880.17	519.85	-1,611.96	1,693.70	2.04	-2.02	-0.67	187.47
	NORMAL	3,512.0	22.25	290.28	2,967.76	532.42	-1,646.53	1,730.45	1.14	-1.12	0.63	167.91
	NORMAL	3,605.0	20.80	290.57	3,054.27	544.32	-1,678.51	1,764.53	1.56	-1.56	0.31	175.94
	NORMAL	3,698.0	19.03	289.44	3,141.71	555.17	-1,708.27	1,796.18	1.95	-1.90	-1.22	191.74
	NORMAL	3,791.0	17.94	292.43	3,229.91	565.68	-1,735.81	1,825.61	1.55	-1.17	3.22	140.40
	NORMAL	3,886.0	15.93	293.55	3,320.79	576.47	-1,761.29	1,853.16	2.14	-2.12	1.18	171.32
	NORMAL	3,980.0	14.32	291.22	3,411.53	585.84	-1,783.95	1,877.59	1.83	-1.71	-2.48	199.57
	NORMAL	4,074.0	12.57	290.18	3,502.95	593.57	-1,804.39	1,899.41	1.88	-1.86	-1.11	187.36
	NORMAL	4,168.0	11.47	291.32	3,594.89	600.50	-1,822.70	1,918.96	1.20	-1.17	1.21	168.38
	NORMAL	4,262.0	9.41	290.25	3,687.33	606.56	-1,838.61	1,935.96	2.20	-2.19	-1.14	184.85
	NORMAL	4,356.0	7.78	296.63	3,780.27	612.07	-1,851.51	1,949.92	2.01	-1.73	6.79	152.80
	NORMAL	4,449.0	6.34	295.35	3,872.56	617.09	-1,861.78	1,961.23	1.56	-1.55	-1.38	185.60
8/4/2013	NORMAL	4,544.0	3.93	301.39	3,967.17	621.03	-1,869.30	1,969.59	2.60	-2.54	6.36	170.35
	NORMAL	4,638.0	3.43	323.66	4,060.99	624.98	-1,873.72	1,974.99	1.60	-0.53	23.69	120.17
	NORMAL	4,733.0	1.67	309.14	4,155.89	628.14	-1,876.48	1,978.58	1.96	-1.85	-15.28	193.00
	NORMAL	4,826.0	0.37	282.83	4,248.87	629.06	-1,877.82	1,980.14	1.45	-1.40	-28.29	186.99
	NORMAL	4,920.0	0.34	145.61	4,342.87	628.90	-1,877.96	1,980.22	0.70	-0.03	-145.98	200.44
	NORMAL	5,014.0	0.15	143.20	4,436.87	628.57	-1,877.73	1,979.90	0.20	-0.20	-2.56	181.90
	NORMAL	5,108.0	0.27	256.44	4,530.87	628.42	-1,877.87	1,979.99	0.38	0.13	120.47	135.96
	NORMAL	5,200.0	0.63	215.47	4,622.87	627.96	-1,878.37	1,980.33	0.50	0.39	-44.53	296.47
	NORMAL	5,294.0	0.59	212.49	4,716.86	627.13	-1,878.93	1,980.62	0.05	-0.04	-3.17	216.94
	NORMAL	5,389.0	0.89	201.57	4,811.85	626.03	-1,879.47	1,980.79	0.35	0.32	-11.49	329.29
	NORMAL	5,484.0	1.14	195.93	4,906.84	624.43	-1,880.00	1,980.81	0.28	0.26	-5.94	335.38
	NORMAL	5,578.0	1.23	220.23	5,000.82	622.76	-1,880.91	1,981.18	0.54	0.10	25.85	92.14
	NORMAL	5,672.0	1.58	223.95	5,094.79	621.06	-1,882.46	1,982.14	0.38	0.37	3.96	16.47
	NORMAL	5,764.0	1.69	230.23	5,186.75	619.28	-1,884.38	1,983.43	0.23	0.12	6.83	61.62
	NORMAL	5,858.0	1.32	224.79	5,280.72	617.63	-1,886.21	1,984.67	0.42	-0.39	-5.79	198.41
	NORMAL	5,953.0	1.48	214.97	5,375.69	615.84	-1,887.68	1,985.54	0.30	0.17	-10.34	298.73
	NORMAL	6,009.0	1.55	224.21	5,431.67	614.71	-1,888.62	1,986.09	0.45	0.12	16.50	78.66
	NORMAL	6,074.0	1.55	224.21	5,496.65	613.45	-1,889.85	1,986.88	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



### 3.2 Plan View

