

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 334-8	Wellbore No.	
Well Name	KP 334-8	Common Name	KP 334-8
Project	KP 08-06S-91W	Site	KP 24-8 Pad
Vertical Section Azimuth	50.56 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	12/2/2011	UWI	KP 334-8
Active Datum	KB @6,552.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	12/1/2011	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)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
12/1/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/2011	NORMAL	74.0	0.18	76.82	74.00	0.03	0.11	0.10	0.24	0.24	0.00	76.82
	NORMAL	103.0	0.18	17.75	103.00	0.08	0.17	0.18	0.61	0.00	-203.69	240.47
	NORMAL	134.0	0.44	354.37	134.00	0.25	0.17	0.29	0.92	0.84	-75.42	322.05
	NORMAL	165.0	1.06	79.10	165.00	0.42	0.44	0.61	3.58	2.00	273.32	107.98
	NORMAL	195.0	2.02	58.45	194.99	0.75	1.17	1.38	3.65	3.20	-68.83	319.37
	NORMAL	226.0	2.82	49.31	225.96	1.53	2.21	2.68	2.86	2.58	-29.48	329.63
	NORMAL	256.0	3.70	52.21	255.91	2.60	3.54	4.39	2.98	2.93	9.67	12.06
	NORMAL	286.0	5.10	50.63	285.82	4.04	5.33	6.69	4.68	4.67	-5.27	354.26
	NORMAL	317.0	6.69	51.06	316.66	6.05	7.80	9.87	5.13	5.13	1.39	1.80
	NORMAL	347.0	8.01	49.92	346.41	8.50	10.76	13.71	4.43	4.40	-3.80	353.13
	NORMAL	378.0	9.41	50.71	377.05	11.49	14.37	18.40	4.53	4.52	2.55	5.27
	NORMAL	423.0	11.60	51.60	421.29	16.63	20.77	26.61	4.88	4.87	1.98	4.68
	NORMAL	454.0	13.00	51.60	451.58	20.73	25.94	33.21	4.52	4.52	0.00	0.00
	NORMAL	484.0	13.90	47.60	480.76	25.26	31.25	40.18	4.31	3.00	-13.33	312.09
	NORMAL	514.0	14.80	48.30	509.82	30.24	36.77	47.61	3.06	3.00	2.33	11.25
	NORMAL	545.0	15.10	47.20	539.77	35.62	42.69	55.60	1.33	0.97	-3.55	316.06
	NORMAL	577.0	15.60	45.60	570.63	41.46	48.82	64.04	2.05	1.56	-5.00	318.96
	NORMAL	607.0	16.20	47.20	599.48	47.12	54.77	72.24	2.48	2.00	5.33	36.92
	NORMAL	638.0	17.80	49.30	629.13	53.15	61.54	81.29	5.53	5.16	6.77	22.00
	NORMAL	668.0	19.20	50.40	657.58	59.29	68.82	90.81	4.81	4.67	3.67	14.52

2.1.2 Survey Stations (Continued)

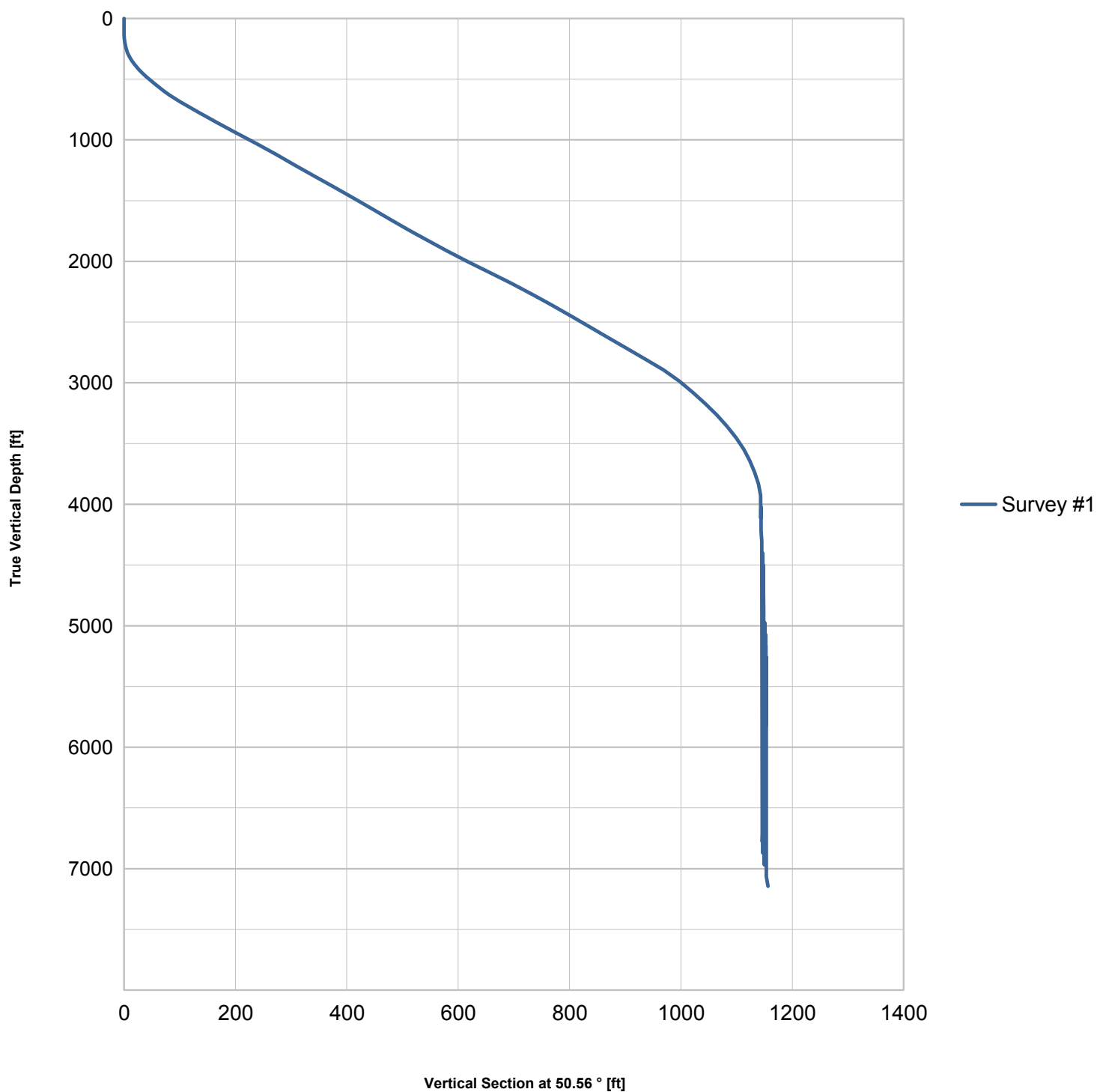
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
12/2/2011	NORMAL	699.0	19.70	51.10	686.81	65.82	76.81	101.13	1.78	1.61	2.26	25.32
	NORMAL	790.0	21.40	52.10	772.01	85.65	101.85	133.07	1.91	1.87	1.10	12.14
	NORMAL	882.0	22.10	52.30	857.46	106.54	128.79	167.15	0.77	0.76	0.22	6.14
	NORMAL	973.0	22.30	49.30	941.72	128.27	155.42	201.52	1.26	0.22	-3.30	278.62
	NORMAL	1,069.0	22.30	48.30	1,030.54	152.27	182.83	237.93	0.40	0.00	-1.04	269.54
12/3/2011	NORMAL	1,164.0	21.00	51.30	1,118.84	174.90	209.58	272.96	1.80	-1.37	3.16	140.98
	NORMAL	1,259.0	20.80	50.90	1,207.59	196.18	235.95	306.85	0.26	-0.21	-0.42	215.32
12/4/2011	NORMAL	1,354.0	21.30	49.20	1,296.25	218.09	262.10	340.97	0.83	0.53	-1.79	308.52
	NORMAL	1,450.0	21.50	48.50	1,385.63	241.14	288.48	375.98	0.34	0.21	-0.73	307.74
	NORMAL	1,546.0	21.00	53.40	1,475.11	263.06	315.47	410.74	1.92	-0.52	5.10	108.00
	NORMAL	1,641.0	20.40	52.30	1,563.98	283.33	342.23	444.30	0.75	-0.63	-1.16	212.43
	NORMAL	1,736.0	20.00	51.80	1,653.14	303.51	368.10	477.09	0.46	-0.42	-0.53	203.11
	NORMAL	1,832.0	21.80	50.40	1,742.82	325.02	394.74	511.33	1.95	1.88	-1.46	343.84
	NORMAL	1,928.0	21.50	49.30	1,832.04	347.86	421.81	546.74	0.53	-0.31	-1.15	233.02
	NORMAL	2,023.0	22.50	52.70	1,920.13	370.23	449.47	582.31	1.70	1.05	3.58	53.45
	NORMAL	2,119.0	23.60	51.40	2,008.46	393.35	479.10	619.89	1.26	1.15	-1.35	334.57
	NORMAL	2,215.0	24.20	50.70	2,096.23	417.80	509.35	658.78	0.69	0.63	-0.73	334.38
	NORMAL	2,310.0	22.40	53.40	2,183.48	440.93	538.95	696.33	2.20	-1.89	2.84	150.55
	NORMAL	2,406.0	22.70	52.00	2,272.15	463.24	568.23	733.12	0.64	0.31	-1.46	298.55
	NORMAL	2,501.0	20.60	52.20	2,360.44	484.77	595.88	768.15	2.21	-2.21	0.21	178.08
	NORMAL	2,596.0	21.10	52.30	2,449.22	505.47	622.62	801.95	0.53	0.53	0.11	4.12
	NORMAL	2,692.0	20.40	49.90	2,538.99	526.81	649.09	835.95	1.15	-0.73	-2.50	229.42
	NORMAL	2,787.0	20.60	49.00	2,627.98	548.44	674.37	869.22	0.39	0.21	-0.95	301.97
	NORMAL	2,881.0	21.10	49.90	2,715.82	570.19	699.79	902.67	0.63	0.53	0.96	33.07
	NORMAL	2,977.0	20.30	49.50	2,805.62	592.14	725.67	936.60	0.85	-0.83	-0.42	189.84
	NORMAL	3,073.0	19.10	50.40	2,896.00	612.96	750.44	968.95	1.29	-1.25	0.94	166.23
	NORMAL	3,169.0	15.80	52.70	2,987.57	630.90	772.94	997.73	3.51	-3.44	2.40	169.29
	NORMAL	3,264.0	13.40	51.00	3,079.50	645.67	791.79	1,021.66	2.57	-2.53	-1.79	189.30
	NORMAL	3,360.0	13.70	55.40	3,172.83	659.12	809.79	1,044.12	1.12	0.31	4.58	75.92
	NORMAL	3,455.0	11.40	49.50	3,265.56	671.61	826.19	1,064.72	2.77	-2.42	-6.21	206.28
	NORMAL	3,550.0	10.60	49.20	3,358.81	683.42	839.95	1,082.84	0.84	-0.84	-0.32	183.95
	NORMAL	3,645.0	9.20	48.60	3,452.39	694.15	852.26	1,099.17	1.48	-1.47	-0.63	183.92
	NORMAL	3,741.0	7.40	52.30	3,547.38	703.01	862.91	1,113.02	1.95	-1.88	3.85	165.30
	NORMAL	3,836.0	5.50	48.60	3,641.78	709.76	871.17	1,123.68	2.05	-2.00	-3.89	190.51
	NORMAL	3,931.0	4.80	50.90	3,736.39	715.28	877.67	1,132.21	0.77	-0.74	2.42	164.71
12/5/2011	NORMAL	4,026.0	4.00	71.80	3,831.12	718.82	883.90	1,139.27	1.87	-0.84	22.00	126.68
	NORMAL	4,121.0	2.50	116.30	3,925.98	718.94	888.90	1,143.21	2.97	-1.58	46.84	141.66
	NORMAL	4,217.0	1.20	305.40	4,021.96	718.59	889.96	1,143.81	3.84	-1.35	-178.02	182.95
	NORMAL	4,312.0	2.00	313.50	4,116.92	720.31	887.95	1,143.34	0.87	0.84	8.53	19.86
	NORMAL	4,407.0	1.50	355.40	4,211.88	722.69	886.65	1,143.85	1.41	-0.53	44.11	131.41
	NORMAL	4,502.0	1.30	355.50	4,306.85	725.00	886.46	1,145.18	0.21	-0.21	0.11	179.35
	NORMAL	4,598.0	1.90	5.60	4,402.81	727.67	886.53	1,146.93	0.69	0.63	10.52	30.28
	NORMAL	4,693.0	0.30	268.00	4,497.79	729.23	886.44	1,147.84	2.07	-1.68	-102.74	188.72
	NORMAL	4,789.0	0.50	204.70	4,593.79	728.84	886.01	1,147.27	0.47	0.21	-65.94	260.43
	NORMAL	4,883.0	0.40	138.80	4,687.79	728.22	886.06	1,146.91	0.53	-0.11	-70.11	227.32
	NORMAL	4,978.0	0.60	59.20	4,782.79	728.23	886.70	1,147.41	0.69	0.21	-83.79	243.70
	NORMAL	5,073.0	0.90	41.10	4,877.78	729.04	887.62	1,148.64	0.40	0.32	-19.05	312.42
	NORMAL	5,168.0	1.20	30.90	4,972.76	730.46	888.62	1,150.31	0.37	0.32	-10.74	322.91
	NORMAL	5,263.0	0.50	94.30	5,067.75	731.28	889.54	1,151.55	1.13	-0.74	66.74	155.39
	NORMAL	5,358.0	1.00	76.60	5,162.74	731.44	890.76	1,152.59	0.57	0.53	-18.63	326.11
	NORMAL	5,453.0	0.50	164.50	5,257.74	731.24	891.68	1,153.17	1.16	-0.53	92.53	153.02
	NORMAL	5,548.0	0.20	57.40	5,352.74	730.93	891.93	1,153.17	0.62	-0.32	-112.74	198.89
	NORMAL	5,642.0	0.90	157.80	5,446.73	730.33	892.35	1,153.11	1.02	0.74	106.81	112.27
	NORMAL	5,737.0	0.90	140.90	5,541.72	729.06	893.10	1,152.88	0.28	0.00	-17.79	261.55
	NORMAL	5,832.0	0.60	128.10	5,636.71	728.17	893.96	1,152.99	0.36	-0.32	-13.47	202.89
	NORMAL	5,927.0	0.50	182.40	5,731.71	727.45	894.34	1,152.82	0.54	-0.11	57.16	127.20
	NORMAL	6,022.0	0.30	346.60	5,826.71	727.28	894.26	1,152.65	0.83	-0.21	172.84	174.09

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 (°)
12/6/2011	NORMAL	6,118.0	1.00	263.80	5,922.70	727.44	893.37	1,152.06	1.05	0.73	-86.25	260.02
	NORMAL	6,211.0	1.30	276.10	6,015.68	727.46	891.52	1,150.64	0.42	0.32	13.23	45.71
	NORMAL	6,307.0	0.20	106.30	6,111.68	727.53	890.59	1,149.97	1.56	-1.15	-176.88	181.36
	NORMAL	6,401.0	0.80	126.50	6,205.67	727.09	891.28	1,150.23	0.66	0.64	21.49	26.63
	NORMAL	6,497.0	1.00	82.40	6,301.66	726.80	892.65	1,151.10	0.73	0.21	-45.94	263.29
	NORMAL	6,592.0	1.30	127.60	6,396.65	726.26	894.32	1,152.05	0.97	0.32	47.58	95.20
12/7/2011	NORMAL	6,687.0	1.90	183.10	6,491.61	724.03	895.09	1,151.22	1.66	0.63	58.42	98.12
	NORMAL	6,783.0	1.60	247.30	6,587.58	721.92	893.77	1,148.86	1.96	-0.31	66.87	129.87
	NORMAL	6,878.0	1.50	280.00	6,682.54	721.62	891.32	1,146.78	0.92	-0.11	34.42	112.62
	NORMAL	6,974.0	1.30	329.50	6,778.52	722.78	889.53	1,146.14	1.24	-0.21	51.56	123.55
	NORMAL	7,069.0	2.20	358.20	6,873.47	725.53	888.93	1,147.42	1.29	0.95	30.21	59.19
	NORMAL	7,165.0	2.60	3.30	6,969.39	729.55	888.99	1,150.02	0.47	0.42	5.31	30.66
	NORMAL	7,260.0	2.90	7.00	7,064.28	734.08	889.41	1,153.22	0.37	0.32	3.89	32.47
	NORMAL	7,295.0	3.10	9.40	7,099.23	735.90	889.67	1,154.58	0.67	0.57	6.86	33.33
	NORMAL	7,340.0	3.10	9.40	7,144.17	738.30	890.07	1,156.41	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

