

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 324-8	Wellbore No.	
Well Name	KP 324-8	Common Name	KP 324-8
Project	KP 08-06S-91W	Site	KP 24-8 Pad
Vertical Section Azimuth	333.52 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	3/27/2012	UWI	KP 324-8
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	3/27/2012	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 (°)
3/27/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/27/2012	NORMAL	105.0	1.14	161.98	104.99	-0.99	0.32	-1.03	1.09	1.09	0.00	161.98
	NORMAL	136.0	0.79	1.76	135.99	-1.07	0.43	-1.15	6.14	-1.13	-516.84	188.08
	NORMAL	166.0	2.11	349.63	165.98	-0.32	0.33	-0.44	4.49	4.40	-40.43	340.80
	NORMAL	196.0	2.90	340.22	195.95	0.93	-0.02	0.85	2.96	2.63	-31.37	327.74
	NORMAL	227.0	3.34	330.64	226.91	2.46	-0.73	2.53	2.20	1.42	-30.90	305.31
	NORMAL	257.0	4.22	333.19	256.84	4.21	-1.66	4.50	2.99	2.93	8.50	12.09
	NORMAL	287.0	4.93	340.58	286.75	6.41	-2.59	6.89	3.07	2.37	24.63	43.42
	NORMAL	318.0	5.54	336.36	317.62	9.03	-3.63	9.70	2.33	1.97	-13.61	325.63
	NORMAL	348.0	6.16	328.71	347.46	11.74	-5.04	12.75	3.32	2.07	-25.50	304.64
	NORMAL	378.0	6.69	328.62	377.27	14.60	-6.79	16.10	1.77	1.77	-0.30	358.87
	NORMAL	409.0	7.65	332.23	408.03	17.97	-8.69	19.96	3.42	3.10	11.65	26.94
	NORMAL	439.0	8.53	329.68	437.73	21.66	-10.75	24.18	3.17	2.93	-8.50	336.55
	NORMAL	531.0	10.03	332.05	528.52	34.63	-17.95	39.00	1.68	1.63	2.58	15.47
	NORMAL	622.0	11.70	333.46	617.89	49.88	-25.78	56.15	1.86	1.84	1.55	9.74
	NORMAL	713.0	12.49	335.21	706.87	67.07	-34.03	75.21	0.96	0.87	1.92	25.76
	NORMAL	804.0	13.64	334.07	795.51	85.65	-42.85	95.77	1.30	1.26	-1.25	346.81
	NORMAL	874.0	14.51	332.35	863.41	100.85	-50.53	112.80	1.38	1.24	-2.46	333.49
	NORMAL	964.0	12.94	331.12	950.84	119.66	-60.63	134.14	1.77	-1.74	-1.37	189.93
3/28/2012	NORMAL	1,059.0	11.78	337.72	1,043.64	137.95	-69.44	154.44	1.92	-1.22	6.95	132.58
	NORMAL	1,155.0	12.13	337.89	1,137.56	156.36	-76.96	174.27	0.37	0.36	0.18	5.83

2.1.2 Survey Stations (Continued)

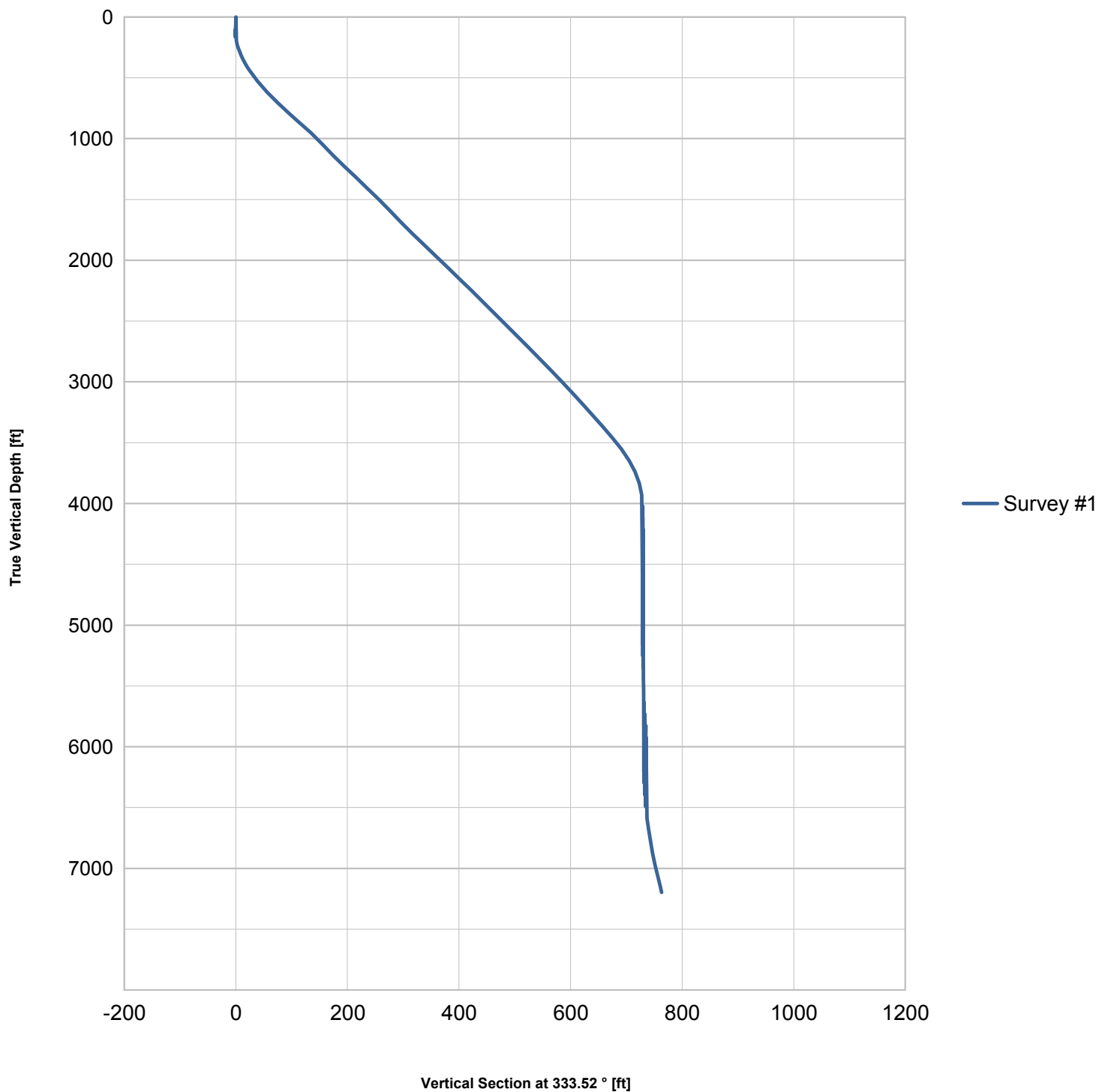
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
3/28/2012	NORMAL	1,251.0	13.01	336.31	1,231.26	175.60	-85.09	195.12	0.98	0.92	-1.65	337.88
3/29/2012	NORMAL	1,339.0	12.93	335.26	1,317.01	193.61	-93.19	214.85	0.28	-0.09	-1.19	250.74
	NORMAL	1,434.0	12.75	334.20	1,409.63	212.70	-102.20	235.96	0.31	-0.19	-1.12	232.10
	NORMAL	1,530.0	12.31	332.09	1,503.35	231.28	-111.61	256.78	0.66	-0.46	-2.20	225.11
	NORMAL	1,626.0	12.22	331.74	1,597.16	249.28	-121.21	277.17	0.12	-0.09	-0.36	219.39
	NORMAL	1,722.0	11.70	331.20	1,691.07	266.75	-130.71	297.05	0.55	-0.54	-0.56	191.88
	NORMAL	1,817.0	12.75	337.54	1,783.92	284.88	-139.35	317.13	1.79	1.11	6.67	55.10
	NORMAL	1,912.0	12.93	337.36	1,876.55	304.38	-147.45	338.19	0.19	0.19	-0.19	347.38
	NORMAL	2,007.0	12.57	333.32	1,969.21	323.43	-156.18	359.14	1.01	-0.38	-4.25	246.05
	NORMAL	2,102.0	12.84	332.62	2,061.88	342.04	-165.68	380.03	0.33	0.28	-0.74	329.97
	NORMAL	2,198.0	12.94	334.20	2,155.46	361.19	-175.26	401.44	0.38	0.10	1.65	74.93
	NORMAL	2,293.0	12.22	335.43	2,248.18	379.91	-184.07	422.13	0.81	-0.76	1.29	160.19
	NORMAL	2,388.0	12.40	330.33	2,341.00	397.92	-193.30	442.36	1.16	0.19	-5.37	276.90
3/30/2012	NORMAL	2,483.0	12.40	331.92	2,433.78	415.78	-203.15	462.74	0.36	0.00	1.67	90.78
	NORMAL	2,579.0	12.40	334.20	2,527.54	434.15	-212.49	483.35	0.51	0.00	2.38	91.11
	NORMAL	2,674.0	12.31	328.40	2,620.35	451.96	-222.24	503.64	1.31	-0.09	-6.11	263.02
	NORMAL	2,769.0	12.13	330.33	2,713.19	469.26	-232.48	523.69	0.47	-0.19	2.03	114.72
	NORMAL	2,864.0	12.40	328.58	2,806.03	486.64	-242.74	543.82	0.48	0.28	-1.84	305.13
	NORMAL	2,959.0	11.70	331.39	2,898.93	503.80	-252.67	563.61	0.96	-0.74	2.96	141.40
	NORMAL	3,055.0	11.78	331.92	2,992.93	520.99	-261.94	583.13	0.14	0.08	0.55	53.69
	NORMAL	3,150.0	11.52	332.44	3,085.97	537.95	-270.90	602.31	0.30	-0.27	0.55	158.26
	NORMAL	3,245.0	10.90	332.27	3,179.16	554.31	-279.47	620.77	0.65	-0.65	-0.18	182.97
	NORMAL	3,340.0	11.17	331.74	3,272.40	570.37	-288.00	638.95	0.30	0.28	-0.56	339.15
	NORMAL	3,435.0	10.73	332.09	3,365.67	586.29	-296.50	656.99	0.47	-0.46	0.37	171.58
	NORMAL	3,530.0	10.55	332.09	3,459.04	601.79	-304.71	674.52	0.19	-0.19	0.00	180.00
	NORMAL	3,625.0	9.23	330.33	3,552.62	616.10	-312.55	690.82	1.43	-1.39	-1.85	192.03
	NORMAL	3,719.0	7.91	333.67	3,645.57	628.44	-319.15	704.82	1.50	-1.40	3.55	160.99
	NORMAL	3,813.0	5.36	331.04	3,738.93	638.08	-324.15	715.68	2.73	-2.71	-2.80	185.49
3/31/2012	NORMAL	3,909.0	3.69	328.93	3,834.63	644.65	-327.91	723.24	1.75	-1.74	-2.20	184.64
	NORMAL	4,003.0	1.85	319.61	3,928.52	648.40	-330.46	727.72	2.01	-1.96	-9.91	189.13
	NORMAL	4,098.0	0.18	260.20	4,023.50	649.54	-331.60	729.26	1.86	-1.76	-62.54	185.04
	NORMAL	4,193.0	0.18	296.94	4,118.50	649.59	-331.88	729.42	0.12	0.00	38.67	108.37
	NORMAL	4,286.0	0.26	281.99	4,211.50	649.70	-332.22	729.67	0.11	0.09	-16.08	316.71
	NORMAL	4,381.0	0.44	356.35	4,306.50	650.10	-332.45	730.14	0.47	0.19	78.27	108.45
	NORMAL	4,477.0	0.18	133.11	4,402.50	650.37	-332.36	730.34	0.61	-0.27	142.46	167.82
	NORMAL	4,572.0	0.35	61.92	4,497.50	650.40	-332.00	730.20	0.36	0.18	-74.94	258.54
	NORMAL	4,666.0	1.23	226.10	4,591.49	649.84	-332.47	729.91	1.67	0.94	174.66	167.66
	NORMAL	4,761.0	0.79	218.71	4,686.48	648.62	-333.62	729.33	0.48	-0.46	-7.78	192.82
	NORMAL	4,854.0	0.35	241.21	4,779.47	647.98	-334.27	729.05	0.52	-0.47	24.19	163.98
	NORMAL	4,949.0	0.44	319.26	4,874.47	648.12	-334.76	729.39	0.53	0.09	82.16	121.02
	NORMAL	5,044.0	1.14	241.56	4,969.46	647.95	-335.83	729.71	1.19	0.74	-81.79	259.97
	NORMAL	5,139.0	0.97	236.82	5,064.45	647.06	-337.33	729.59	0.20	-0.18	-4.99	204.82
	NORMAL	5,234.0	0.35	240.16	5,159.44	646.47	-338.26	729.48	0.65	-0.65	3.52	178.12
4/1/2012	NORMAL	5,330.0	0.53	298.34	5,255.44	646.54	-338.90	729.82	0.47	0.19	60.60	98.90
	NORMAL	5,425.0	0.09	90.92	5,350.43	646.75	-339.21	730.15	0.64	-0.46	160.61	176.11
	NORMAL	5,520.0	0.53	2.15	5,445.43	647.18	-339.12	730.50	0.56	0.46	-93.44	261.56
	NORMAL	5,615.0	0.35	4.61	5,540.43	647.91	-339.08	731.13	0.19	-0.19	2.59	175.24
	NORMAL	5,711.0	0.62	355.12	5,636.43	648.72	-339.10	731.87	0.29	0.28	-9.89	338.65
	NORMAL	5,806.0	1.41	9.71	5,731.41	650.39	-338.95	733.29	0.87	0.83	15.36	25.50
	NORMAL	5,901.0	1.32	34.20	5,826.39	652.44	-338.14	734.77	0.62	-0.09	25.78	110.88
	NORMAL	5,996.0	0.97	72.29	5,921.37	653.59	-336.76	735.18	0.86	-0.37	40.09	132.92
	NORMAL	6,091.0	1.23	147.27	6,016.35	652.98	-335.44	734.04	1.43	0.27	78.93	118.73
	NORMAL	6,186.0	1.06	151.56	6,111.34	651.35	-334.47	732.15	0.20	-0.18	4.52	155.37
4/3/2012	NORMAL	6,281.0	1.23	255.27	6,206.32	650.32	-335.04	731.48	1.90	0.18	109.17	138.51
	NORMAL	6,377.0	0.97	274.61	6,302.31	650.12	-336.84	732.11	0.47	-0.27	20.15	134.41
	NORMAL	6,472.0	1.14	285.33	6,397.29	650.43	-338.56	733.15	0.27	0.18	11.28	54.70
	NORMAL	6,567.0	1.23	331.56	6,492.27	651.58	-339.95	734.80	0.98	0.09	48.66	108.03

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 (°)
4/4/2012	NORMAL	6,662.0	1.58	341.41	6,587.24	653.72	-340.86	737.12	0.45	0.37	10.37	39.60
	NORMAL	6,757.0	1.93	352.13	6,682.20	656.54	-341.49	739.93	0.50	0.37	11.28	48.61
	NORMAL	6,853.0	2.37	359.69	6,778.13	660.13	-341.73	743.25	0.54	0.46	7.88	36.62
	NORMAL	6,948.0	2.81	10.06	6,873.03	664.39	-341.33	746.88	0.67	0.46	10.92	52.06
	NORMAL	7,043.0	3.08	343.69	6,967.91	669.13	-341.64	751.26	1.44	0.28	-27.76	267.91
	NORMAL	7,138.0	2.99	318.03	7,062.78	673.42	-344.01	756.16	1.42	-0.09	-27.01	253.46
	NORMAL	7,228.0	3.17	325.59	7,152.66	677.22	-346.99	760.89	0.49	0.20	8.40	69.91
	NORMAL	7,273.0	3.17	325.59	7,197.59	679.27	-348.40	763.36	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

