

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 524-8	Wellbore No.	
Well Name	KP 524-8	Common Name	KP 524-8
Project	KP 08-06S-91W	Site	KP 24-8 Pad
Vertical Section Azimuth	273.81 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	3/11/2012	UWI	KP 524-8
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	3/11/2012	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 (°)
3/11/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/11/2012	NORMAL	105.0	0.53	287.14	105.00	0.14	-0.46	0.47	0.50	0.50	0.00	287.14
	NORMAL	135.0	1.32	297.95	134.99	0.35	-0.90	0.92	2.69	2.63	36.03	17.90
	NORMAL	166.0	1.76	280.28	165.98	0.60	-1.69	1.72	2.07	1.42	-57.00	303.76
	NORMAL	196.0	2.20	275.54	195.97	0.74	-2.71	2.76	1.56	1.47	-15.80	337.21
	NORMAL	227.0	2.46	268.15	226.94	0.77	-3.97	4.01	1.28	0.84	-23.84	307.14
	NORMAL	257.0	2.73	275.19	256.91	0.82	-5.32	5.37	1.39	0.90	23.47	53.28
	NORMAL	287.0	3.43	270.26	286.87	0.88	-6.93	6.98	2.49	2.33	-16.43	336.80
	NORMAL	348.0	4.31	270.35	347.73	0.91	-11.05	11.09	1.44	1.44	0.15	0.44
	NORMAL	438.0	5.10	269.47	437.42	0.89	-18.43	18.45	0.88	0.88	-0.98	354.34
	NORMAL	530.0	5.37	268.42	529.04	0.73	-26.82	26.81	0.31	0.29	-1.14	339.94
	NORMAL	605.0	6.37	267.44	603.64	0.45	-34.49	34.44	1.34	1.33	-1.31	353.79
	NORMAL	696.0	6.86	275.59	694.04	0.76	-44.94	44.89	1.16	0.54	8.96	66.53
	NORMAL	786.0	7.47	277.26	783.34	2.02	-56.09	56.10	0.72	0.68	1.86	19.68
	NORMAL	877.0	7.30	271.98	873.58	2.97	-67.74	67.79	0.77	-0.19	-5.80	253.33
	NORMAL	967.0	6.05	274.84	962.97	3.56	-78.18	78.25	1.44	-1.39	3.18	166.52
	NORMAL	1,063.0	4.84	273.57	1,058.54	4.24	-87.26	87.35	1.27	-1.26	-1.32	185.06
	NORMAL	1,158.0	5.19	274.18	1,153.17	4.81	-95.55	95.66	0.37	0.37	0.64	8.97
	NORMAL	1,229.0	5.72	273.65	1,223.85	5.26	-102.28	102.41	0.75	0.75	-0.75	354.31
3/13/2012	NORMAL	1,355.0	6.00	279.20	1,349.19	6.72	-115.05	115.24	0.50	0.22	4.40	66.48
	NORMAL	1,450.0	6.20	279.40	1,443.66	8.35	-125.01	125.29	0.21	0.21	0.21	6.17

2.1.2 Survey Stations (Continued)

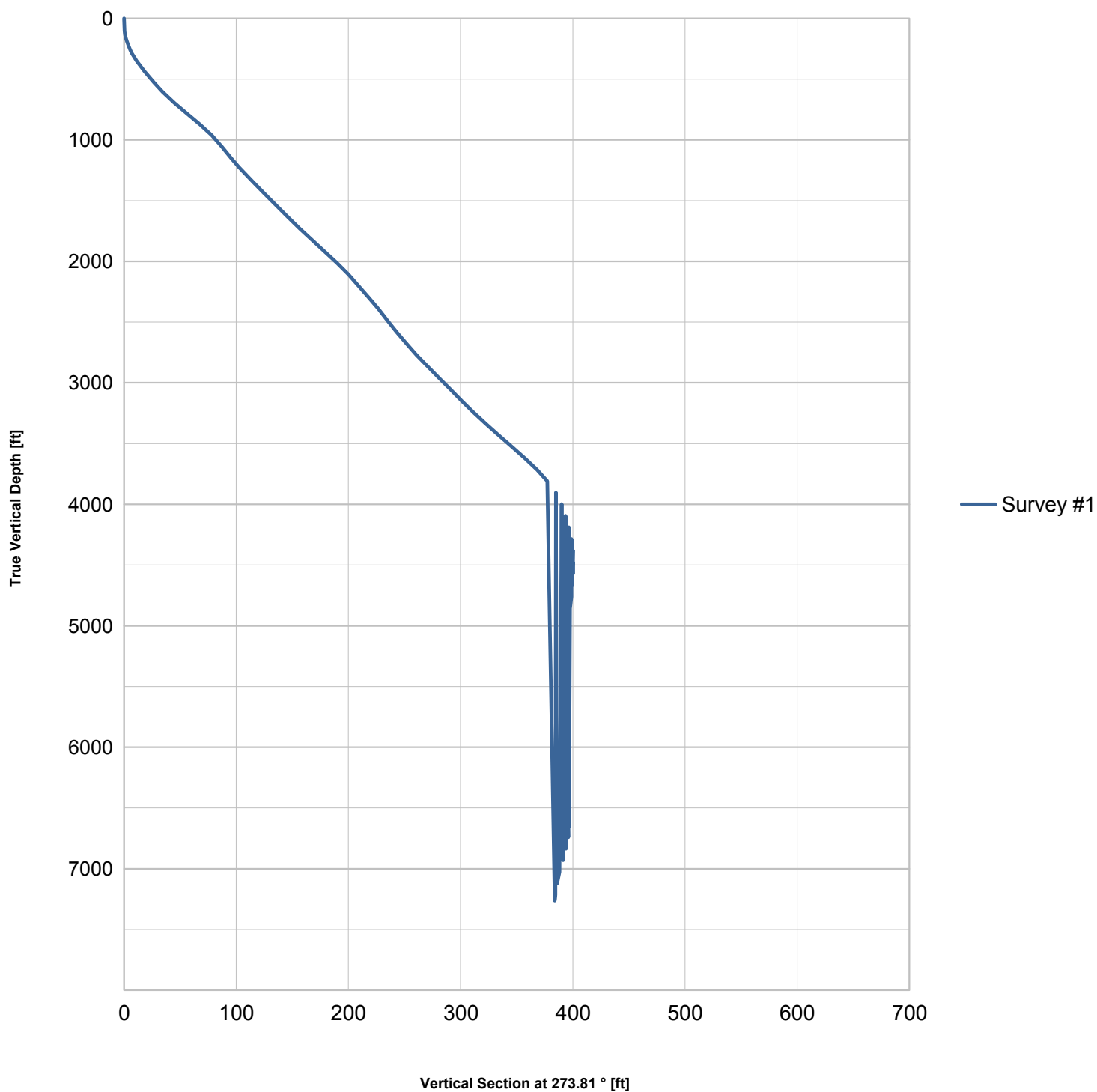
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
3/13/2012	NORMAL	1,545.0	6.20	267.90	1,538.10	9.00	-135.20	135.50	1.31	0.00	-12.11	264.28
	NORMAL	1,642.0	6.30	267.10	1,634.53	8.54	-145.75	146.00	0.14	0.10	-0.82	318.55
	NORMAL	1,737.0	6.50	273.20	1,728.94	8.57	-156.33	156.55	0.75	0.21	6.42	76.66
	NORMAL	1,833.0	6.70	273.00	1,824.30	9.17	-167.34	167.58	0.21	0.21	-0.21	353.34
	NORMAL	1,928.0	6.60	276.20	1,918.66	10.05	-178.31	178.58	0.40	-0.11	3.37	106.69
	NORMAL	2,023.0	6.80	273.90	2,013.01	11.02	-189.34	189.66	0.35	0.21	-2.42	305.55
	NORMAL	2,118.0	5.60	274.10	2,107.45	11.74	-199.58	199.92	1.26	-1.26	0.21	179.07
	NORMAL	2,213.0	5.50	273.40	2,202.01	12.34	-208.75	209.11	0.13	-0.11	-0.74	213.75
	NORMAL	2,308.0	5.40	274.60	2,296.58	12.97	-217.75	218.13	0.16	-0.11	1.26	131.86
	NORMAL	2,404.0	4.90	275.80	2,392.19	13.74	-226.33	226.74	0.53	-0.52	1.25	168.44
	NORMAL	2,499.0	4.70	277.10	2,486.86	14.63	-234.23	234.68	0.24	-0.21	1.37	152.10
	NORMAL	2,594.0	5.40	278.30	2,581.49	15.76	-242.51	243.02	0.75	0.74	1.26	9.18
	NORMAL	2,690.0	5.20	283.40	2,677.08	17.42	-251.22	251.82	0.53	-0.21	5.31	115.53
	NORMAL	2,784.0	5.80	275.50	2,770.65	18.86	-260.09	260.77	1.03	0.64	-8.40	304.42
	NORMAL	2,880.0	6.00	276.90	2,866.14	19.93	-269.90	270.62	0.26	0.21	1.46	36.43
	NORMAL	2,975.0	6.20	278.70	2,960.60	21.30	-279.90	280.69	0.29	0.21	1.89	44.62
	NORMAL	3,070.0	6.20	279.20	3,055.05	22.90	-290.03	290.91	0.06	0.00	0.53	90.25
	NORMAL	3,165.0	6.10	270.60	3,149.50	23.77	-300.14	301.06	0.97	-0.11	-9.05	259.54
	NORMAL	3,260.0	6.40	269.70	3,243.94	23.80	-310.49	311.38	0.33	0.32	-0.95	341.47
	NORMAL	3,355.0	7.10	271.80	3,338.28	23.95	-321.65	322.53	0.78	0.74	2.21	20.47
	NORMAL	3,451.0	7.00	269.20	3,433.55	24.06	-333.43	334.29	0.35	-0.10	-2.71	251.31
	NORMAL	3,546.0	7.00	268.80	3,527.84	23.86	-345.00	345.83	0.05	0.00	-0.42	269.80
	NORMAL	3,640.0	7.00	273.90	3,621.14	24.13	-356.44	357.26	0.66	0.00	5.43	92.53
3/14/2012	NORMAL	3,735.0	6.10	277.10	3,715.52	25.14	-367.23	368.09	1.02	-0.95	3.37	159.51
	NORMAL	3,829.0	5.10	275.10	3,809.07	26.13	-376.35	377.25	1.08	-1.06	-2.13	190.05
	NORMAL	3,925.0	4.10	262.70	3,904.77	26.08	-384.00	384.89	1.46	-1.04	-12.92	218.77
	NORMAL	4,019.0	2.80	236.30	3,998.60	24.37	-389.25	390.00	2.15	-1.38	-28.09	218.03
	NORMAL	4,115.0	2.30	238.80	4,094.50	22.08	-392.84	393.44	0.53	-0.52	2.60	168.71
	NORMAL	4,210.0	1.90	246.70	4,189.44	20.47	-395.92	396.41	0.52	-0.42	8.32	148.01
	NORMAL	4,306.0	1.30	258.40	4,285.40	19.62	-398.45	398.87	0.71	-0.63	12.19	157.20
	NORMAL	4,401.0	0.70	191.30	4,380.39	18.83	-399.62	399.99	1.28	-0.63	-70.63	212.11
	NORMAL	4,498.0	0.50	191.80	4,477.38	17.84	-399.82	400.12	0.21	-0.21	0.52	178.75
	NORMAL	4,593.0	0.30	143.30	4,572.38	17.23	-399.76	400.02	0.40	-0.21	-51.05	216.72
	NORMAL	4,687.0	1.00	157.70	4,666.38	16.27	-399.30	399.50	0.76	0.74	15.32	20.40
	NORMAL	4,782.0	0.60	132.80	4,761.37	15.17	-398.62	398.75	0.55	-0.42	-26.21	209.00
	NORMAL	4,878.0	0.90	87.80	4,857.36	14.86	-397.50	397.61	0.66	0.31	-46.87	273.28
	NORMAL	4,973.0	1.20	72.10	4,952.34	15.19	-395.80	395.94	0.43	0.32	-16.53	308.17
	NORMAL	5,068.0	1.10	69.80	5,047.32	15.81	-394.00	394.18	0.12	-0.11	-2.42	203.63
	NORMAL	5,164.0	0.30	90.20	5,143.32	16.13	-392.89	393.09	0.86	-0.83	21.25	172.72
	NORMAL	5,259.0	0.40	357.80	5,238.31	16.46	-392.65	392.88	0.54	0.11	-97.26	231.60
3/15/2012	NORMAL	5,354.0	0.90	26.20	5,333.31	17.46	-392.33	392.63	0.61	0.53	29.89	47.54
	NORMAL	5,449.0	0.20	195.00	5,428.31	17.97	-392.05	392.37	1.15	-0.74	177.68	177.97
	NORMAL	5,544.0	1.30	195.70	5,523.30	16.77	-392.38	392.63	1.16	1.16	0.74	0.83
	NORMAL	5,639.0	1.10	194.60	5,618.27	14.85	-392.90	393.02	0.21	-0.21	-1.16	186.02
	NORMAL	5,716.0	0.90	180.60	5,695.26	13.53	-393.10	393.13	0.41	-0.26	-18.18	223.84
	NORMAL	5,811.0	0.90	167.20	5,790.25	12.06	-392.94	392.87	0.22	0.00	-14.11	263.30
	NORMAL	5,907.0	1.00	144.20	5,886.24	10.64	-392.28	392.12	0.41	0.10	-23.96	273.01
3/16/2012	NORMAL	6,002.0	0.90	214.20	5,981.23	9.35	-392.22	391.97	1.15	-0.11	73.68	129.30
	NORMAL	6,096.0	0.90	227.30	6,075.22	8.24	-393.17	392.85	0.22	0.00	13.94	96.55
	NORMAL	6,192.0	0.90	237.50	6,171.21	7.33	-394.36	393.98	0.17	0.00	10.63	95.10
	NORMAL	6,286.0	0.70	285.30	6,265.20	7.08	-395.54	395.14	0.72	-0.21	50.85	129.65
	NORMAL	6,381.0	0.70	325.80	6,360.19	7.71	-396.43	396.06	0.51	0.00	42.63	110.25
	NORMAL	6,477.0	1.10	356.20	6,456.18	9.12	-396.82	396.55	0.64	0.42	31.67	65.92
	NORMAL	6,572.0	1.60	0.80	6,551.15	11.36	-396.86	396.74	0.54	0.53	4.84	14.54
	NORMAL	6,667.0	2.30	6.60	6,646.10	14.58	-396.62	396.71	0.76	0.74	6.11	18.66
	NORMAL	6,762.0	3.00	19.70	6,741.00	18.81	-395.56	395.94	0.97	0.74	13.79	47.54
	NORMAL	6,857.0	3.30	32.00	6,835.85	23.47	-393.28	393.97	0.78	0.32	12.95	72.29

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 (°)
3/16/2012	NORMAL	6,952.0	2.90	40.80	6,930.71	27.61	-390.26	391.23	0.65	-0.42	9.26	134.39
	NORMAL	7,048.0	3.30	38.40	7,026.57	31.61	-386.95	388.20	0.44	0.42	-2.50	340.82
	NORMAL	7,143.0	2.00	27.50	7,121.47	35.22	-384.49	385.98	1.46	-1.37	-11.47	195.80
	NORMAL	7,237.0	2.50	26.20	7,215.40	38.52	-382.83	384.54	0.53	0.53	-1.38	353.52
	NORMAL	7,283.0	2.50	26.20	7,261.35	40.32	-381.94	383.78	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

