

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 34-18	Wellbore No.	
Well Name	KP 34-18	Common Name	KP 34-18
Project	KP 18-06S-91W	Site	KP 34-18 Pad
Vertical Section Azimuth	359.45 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	6/1/2012	UWI	KP 34-18
Active Datum	KB @5,944.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	6/1/2012	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 (°)
6/1/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/1/2012	NORMAL	75.0	0.26	7.29	75.00	0.17	0.02	0.17	0.35	0.35	0.00	7.29
	NORMAL	106.0	1.14	50.10	106.00	0.44	0.27	0.43	3.11	2.84	138.10	53.35
	NORMAL	136.0	1.41	30.94	135.99	0.94	0.69	0.94	1.67	0.90	-63.87	292.53
	NORMAL	166.0	1.58	32.26	165.98	1.61	1.10	1.60	0.58	0.57	4.40	12.11
	NORMAL	197.0	2.11	27.33	196.96	2.48	1.59	2.46	1.78	1.71	-15.90	340.85
	NORMAL	227.0	2.29	11.78	226.94	3.56	1.96	3.54	2.07	0.60	-51.83	278.91
	NORMAL	257.0	2.64	20.13	256.91	4.79	2.32	4.77	1.67	1.17	27.83	49.96
	NORMAL	287.0	2.82	16.79	286.88	6.15	2.77	6.12	0.80	0.60	-11.13	316.85
	NORMAL	318.0	2.72	29.62	317.84	7.52	3.36	7.48	2.02	-0.32	41.39	105.53
	NORMAL	348.0	3.34	22.85	347.80	8.94	4.05	8.90	2.38	2.07	-22.57	326.60
	NORMAL	378.0	3.70	35.51	377.75	10.53	4.95	10.49	2.85	1.20	42.20	71.56
	NORMAL	408.0	4.31	34.19	407.67	12.25	6.15	12.20	2.06	2.03	-4.40	350.75
	NORMAL	439.0	4.49	32.87	438.58	14.24	7.46	14.17	0.67	0.58	-4.26	329.98
	NORMAL	469.0	4.49	30.67	468.49	16.23	8.70	16.15	0.57	0.00	-7.33	268.90
	NORMAL	499.0	5.28	25.93	498.38	18.49	9.90	18.39	2.95	2.63	-15.80	330.56
	NORMAL	530.0	5.45	22.15	529.24	21.13	11.08	21.02	1.26	0.55	-12.19	293.80
	NORMAL	539.0	5.81	19.00	538.20	21.96	11.39	21.85	5.27	4.00	-35.00	317.78
	NORMAL	570.0	6.18	15.97	569.03	25.05	12.36	24.93	1.57	1.19	-9.77	317.95
	NORMAL	600.0	6.75	14.33	598.84	28.31	13.24	28.18	2.00	1.90	-5.47	341.23
	NORMAL	631.0	7.29	6.92	629.61	32.02	13.92	31.89	3.40	1.74	-23.90	297.09

2.1.2 Survey Stations (Continued)

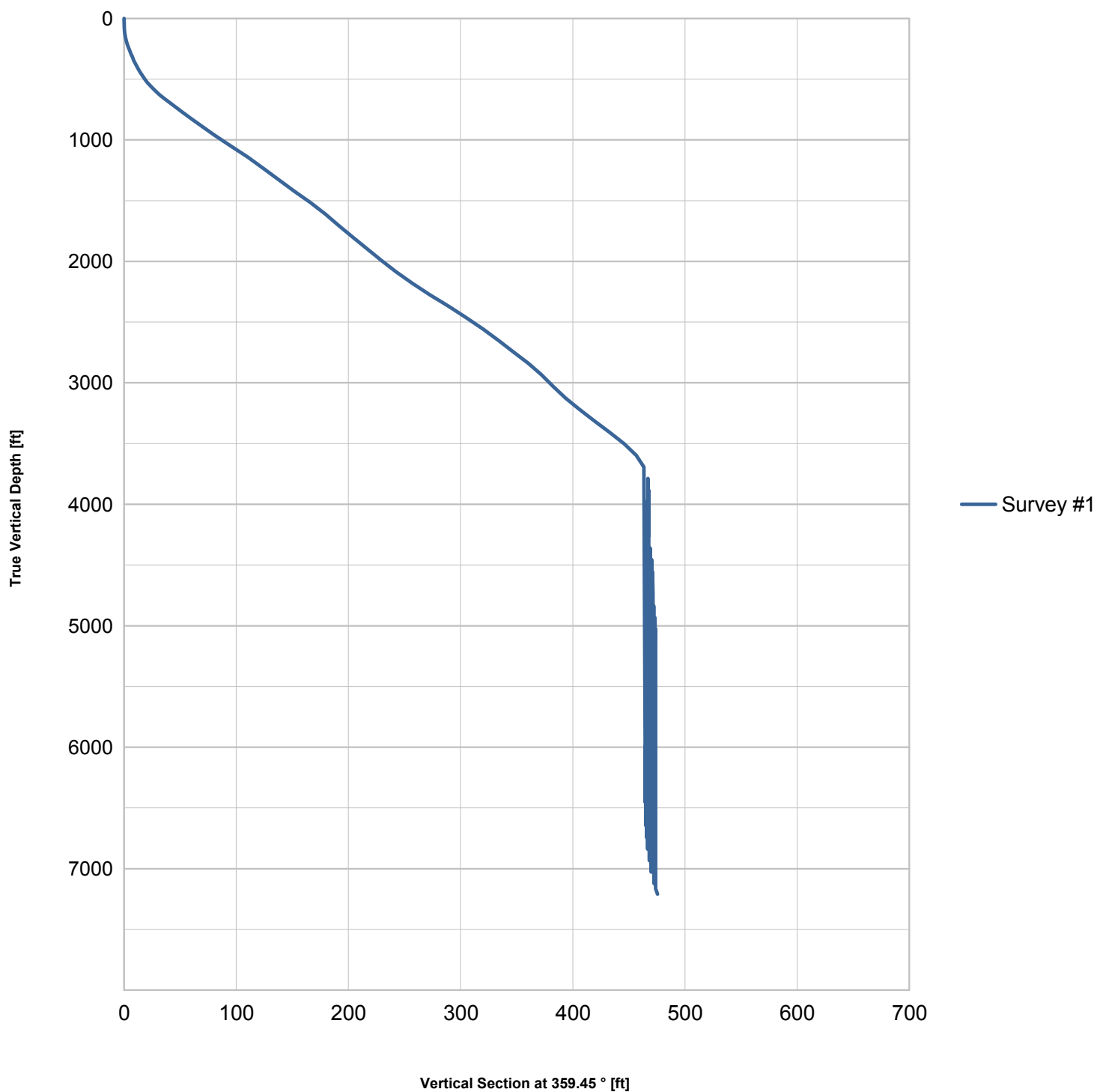
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
6/1/2012	NORMAL	661.0	7.89	359.31	659.35	35.97	14.13	35.84	3.90	2.00	-25.37	297.02
	NORMAL	691.0	8.37	353.06	689.05	40.20	13.84	40.06	3.35	1.60	-20.83	295.39
6/2/2012	NORMAL	782.0	8.28	359.93	779.09	53.33	13.03	53.20	1.10	-0.10	7.55	98.56
	NORMAL	832.0	8.37	4.25	828.56	60.56	13.30	60.43	1.26	0.18	8.64	83.95
	NORMAL	959.0	8.97	357.36	954.11	79.67	13.53	79.53	0.94	0.47	-5.43	296.58
	NORMAL	1,054.0	9.67	7.41	1,047.87	94.98	14.21	94.84	1.86	0.74	10.58	71.74
	NORMAL	1,149.0	9.14	2.84	1,141.59	110.43	15.62	110.27	0.96	-0.56	-4.81	232.40
	NORMAL	1,243.0	8.09	350.36	1,234.54	124.40	14.88	124.26	2.27	-1.12	-13.28	234.61
	NORMAL	1,339.0	8.71	348.61	1,329.51	138.19	12.31	138.06	0.70	0.65	-1.82	336.72
	NORMAL	1,434.0	8.35	358.10	1,423.46	152.14	10.66	152.03	1.53	-0.38	9.99	109.01
	NORMAL	1,529.0	8.97	355.99	1,517.38	166.42	9.92	166.32	0.73	0.65	-2.22	331.82
6/3/2012	NORMAL	1,624.0	7.12	2.84	1,611.44	179.69	9.69	179.59	2.19	-1.95	7.21	155.97
	NORMAL	1,721.0	7.21	1.44	1,707.68	191.78	10.14	191.67	0.20	0.09	-1.44	296.57
	NORMAL	1,816.0	7.65	0.21	1,801.88	204.06	10.31	203.95	0.49	0.46	-1.29	339.51
	NORMAL	1,911.0	7.56	353.88	1,896.05	216.60	9.67	216.49	0.89	-0.09	-6.66	260.74
	NORMAL	2,007.0	7.83	348.61	1,991.19	229.29	7.71	229.20	0.79	0.28	-5.49	288.31
	NORMAL	2,103.0	8.35	355.64	2,086.23	242.65	5.89	242.58	1.16	0.54	7.32	65.78
	NORMAL	2,199.0	9.14	357.39	2,181.12	257.22	5.01	257.16	0.87	0.82	1.82	19.48
	NORMAL	2,294.0	9.59	356.34	2,274.85	272.65	4.16	272.60	0.51	0.47	-1.11	338.69
	NORMAL	2,389.0	10.38	354.58	2,368.41	289.07	2.85	289.03	0.89	0.83	-1.85	338.01
	NORMAL	2,484.0	8.88	355.28	2,462.07	304.90	1.43	304.87	1.58	-1.58	0.74	175.88
	NORMAL	2,580.0	9.14	353.88	2,556.89	319.86	0.01	319.85	0.35	0.27	-1.46	319.17
	NORMAL	2,675.0	7.83	1.61	2,650.85	333.83	-0.61	333.82	1.83	-1.38	8.14	142.73
	NORMAL	2,770.0	8.18	1.09	2,744.92	347.06	-0.30	347.05	0.38	0.37	-0.55	348.05
	NORMAL	2,866.0	7.83	1.61	2,839.98	360.42	0.01	360.41	0.37	-0.36	0.54	168.57
	NORMAL	2,962.0	6.24	5.48	2,935.26	372.16	0.69	372.13	1.73	-1.66	4.03	165.31
	NORMAL	3,057.0	6.33	8.82	3,029.69	382.47	1.99	382.43	0.40	0.09	3.52	77.84
	NORMAL	3,152.0	7.21	356.87	3,124.03	393.60	2.47	393.56	1.74	0.93	-12.58	295.96
	NORMAL	3,248.0	7.83	355.99	3,219.20	406.14	1.68	406.10	0.66	0.65	-0.92	349.04
	NORMAL	3,343.0	8.09	356.16	3,313.29	419.26	0.78	419.24	0.27	0.27	0.18	5.26
	NORMAL	3,438.0	8.35	357.75	3,407.31	432.82	0.06	432.80	0.36	0.27	1.67	41.95
	NORMAL	3,534.0	7.39	354.05	3,502.41	445.93	-0.85	445.92	1.13	-1.00	-3.85	206.00
	NORMAL	3,630.0	5.47	354.23	3,597.80	456.62	-1.95	456.62	2.00	-2.00	0.19	179.49
	NORMAL	3,725.0	2.99	329.27	3,692.54	463.26	-3.67	463.28	3.19	-2.61	-26.27	204.58
	NORMAL	3,821.0	2.29	322.59	3,788.44	466.94	-6.12	466.97	0.80	-0.73	-6.96	200.42
6/4/2012	NORMAL	3,917.0	1.14	212.90	3,884.41	467.66	-7.80	467.71	3.00	-1.20	-114.26	201.88
	NORMAL	4,012.0	1.23	192.16	3,979.39	465.87	-8.53	465.93	0.46	0.09	-21.83	271.36
	NORMAL	4,107.0	0.35	5.30	4,074.39	465.16	-8.72	465.22	1.66	-0.93	182.25	178.48
	NORMAL	4,202.0	0.79	12.51	4,169.38	466.09	-8.55	466.15	0.47	0.46	7.59	12.88
	NORMAL	4,297.0	1.14	43.98	4,264.37	467.41	-7.75	467.46	0.66	0.37	33.13	72.96
	NORMAL	4,392.0	1.32	45.56	4,359.35	468.85	-6.31	468.89	0.19	0.19	1.66	11.46
	NORMAL	4,487.0	1.41	63.31	4,454.32	470.15	-4.49	470.17	0.45	0.09	18.68	86.95
	NORMAL	4,583.0	0.26	4.95	4,550.31	470.89	-3.41	470.90	1.35	-1.20	-60.79	189.86
	NORMAL	4,678.0	0.09	329.09	4,645.31	471.17	-3.43	471.18	0.20	-0.18	-37.75	195.74
	NORMAL	4,774.0	0.18	358.96	4,741.31	471.39	-3.47	471.40	0.12	0.09	31.11	53.60
	NORMAL	4,869.0	0.70	19.89	4,836.30	472.08	-3.28	472.09	0.56	0.55	22.03	27.82
	NORMAL	4,965.0	0.62	19.72	4,932.30	473.12	-2.90	473.13	0.08	-0.08	-0.18	181.32
	NORMAL	5,061.0	0.79	289.19	5,028.29	473.83	-3.35	473.84	1.05	0.18	-94.30	231.55
	NORMAL	5,156.0	0.79	213.96	5,123.29	473.50	-4.34	473.52	1.02	0.00	-79.19	232.39
	NORMAL	5,252.0	0.70	208.33	5,219.28	472.44	-4.99	472.46	0.12	-0.09	-5.86	216.33
	NORMAL	5,347.0	0.62	190.58	5,314.27	471.42	-5.36	471.45	0.23	-0.08	-18.68	239.91
6/5/2012	NORMAL	5,441.0	0.44	135.56	5,408.27	470.66	-5.20	470.69	0.55	-0.19	-58.53	224.43
	NORMAL	5,536.0	0.44	110.42	5,503.27	470.27	-4.60	470.30	0.20	0.00	-26.46	257.43
	NORMAL	5,632.0	1.67	234.70	5,599.25	469.34	-5.40	469.37	2.03	1.28	129.46	135.01
	NORMAL	5,728.0	1.50	230.83	5,695.22	467.74	-7.51	467.79	0.21	-0.18	-4.03	210.27
	NORMAL	5,824.0	0.88	226.61	5,791.20	466.44	-9.02	466.50	0.65	-0.65	-4.40	185.94
	NORMAL	5,918.0	0.70	225.56	5,885.19	465.54	-9.96	465.61	0.19	-0.19	-1.12	184.07

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 (°)
6/5/2012	NORMAL	6,013.0	0.53	230.13	5,980.18	464.85	-10.71	464.93	0.19	-0.18	4.81	166.18
	NORMAL	6,107.0	0.18	93.72	6,074.18	464.56	-10.89	464.64	0.71	-0.37	-145.12	190.64
	NORMAL	6,203.0	0.44	96.71	6,170.18	464.51	-10.38	464.59	0.27	0.27	3.11	5.06
	NORMAL	6,299.0	0.62	84.41	6,266.17	464.52	-9.49	464.59	0.22	0.19	-12.81	321.45
6/6/2012	NORMAL	6,394.0	0.88	87.92	6,361.17	464.59	-8.25	464.65	0.28	0.27	3.69	11.78
	NORMAL	6,489.0	1.05	86.34	6,456.15	464.67	-6.66	464.72	0.18	0.18	-1.66	350.31
	NORMAL	6,585.0	1.32	77.37	6,552.13	464.97	-4.70	465.00	0.34	0.28	-9.34	320.97
	NORMAL	6,681.0	1.94	84.58	6,648.09	465.37	-2.00	465.37	0.68	0.65	7.51	21.93
	NORMAL	6,777.0	1.67	73.16	6,744.05	465.93	0.95	465.90	0.47	-0.28	-11.90	227.49
	NORMAL	6,872.0	1.85	67.71	6,839.00	466.91	3.70	466.85	0.26	0.19	-5.74	314.33
	NORMAL	6,966.0	1.67	55.23	6,932.96	468.27	6.23	468.18	0.45	-0.19	-13.28	238.70
	NORMAL	7,062.0	2.20	52.06	7,028.90	470.20	8.83	470.09	0.56	0.55	-3.30	347.00
	NORMAL	7,157.0	2.73	50.83	7,123.81	472.75	12.02	472.61	0.56	0.56	-1.29	353.69
	NORMAL	7,197.0	2.99	48.37	7,163.76	474.04	13.54	473.89	0.72	0.65	-6.15	333.50
	NORMAL	7,242.0	2.99	48.37	7,208.70	475.60	15.29	475.43	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

