

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 534-18	Wellbore No.	
Well Name	KP 534-18	Common Name	KP 534-18
Project	KP 18-06S-91W	Site	KP 34-18 Pad
Vertical Section Azimuth	179.54 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	7/29/2012	UWI	KP 534-18
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	7/29/2012	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 (°)
7/29/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/2012	NORMAL	56.0	0.18	74.71	56.00	0.02	0.08	-0.02	0.32	0.32	0.00	74.71
	NORMAL	86.0	0.62	178.42	86.00	-0.13	0.13	0.13	2.28	1.47	345.70	118.49
	NORMAL	116.0	0.88	165.76	116.00	-0.51	0.20	0.51	1.02	0.87	-42.20	321.05
	NORMAL	146.0	1.41	181.93	145.99	-1.10	0.24	1.11	2.05	1.77	53.90	39.62
	NORMAL	176.0	2.20	190.20	175.98	-2.04	0.13	2.04	2.77	2.63	27.57	22.41
	NORMAL	207.0	2.64	188.17	206.95	-3.33	-0.08	3.33	1.45	1.42	-6.55	347.96
	NORMAL	238.0	3.34	185.98	237.91	-4.94	-0.28	4.93	2.29	2.26	-7.06	349.64
	NORMAL	268.0	3.61	181.32	267.85	-6.75	-0.39	6.75	1.30	0.90	-15.53	311.37
	NORMAL	298.0	4.84	182.72	297.77	-8.96	-0.47	8.95	4.11	4.10	4.67	5.49
	NORMAL	328.0	5.19	183.34	327.65	-11.58	-0.61	11.57	1.18	1.17	2.07	9.11
	NORMAL	359.0	6.25	187.29	358.50	-14.65	-0.91	14.64	3.65	3.42	12.74	22.35
	NORMAL	389.0	6.77	183.69	388.31	-18.04	-1.23	18.03	2.20	1.73	-12.00	320.07
	NORMAL	420.0	7.85	180.79	419.05	-21.98	-1.37	21.96	3.68	3.48	-9.35	339.69
	NORMAL	512.0	8.62	175.25	510.11	-35.13	-0.89	35.12	1.20	0.84	-6.02	311.37
	NORMAL	622.0	8.09	182.82	618.94	-51.08	-0.59	51.07	1.11	-0.48	6.88	119.44
	NORMAL	713.0	8.71	182.03	708.96	-64.36	-1.15	64.35	0.69	0.68	-0.87	349.06
	NORMAL	803.0	9.58	178.96	797.82	-78.66	-1.25	78.64	1.11	0.97	-3.41	329.19
	NORMAL	830.0	9.94	178.60	824.43	-83.23	-1.15	83.22	1.35	1.33	-1.33	350.20
7/30/2012	NORMAL	958.0	9.32	180.36	950.62	-104.64	-0.95	104.63	0.54	-0.48	1.38	155.46
	NORMAL	1,054.0	9.59	181.77	1,045.32	-120.41	-1.25	120.39	0.37	0.28	1.47	41.32

2.1.2 Survey Stations (Continued)

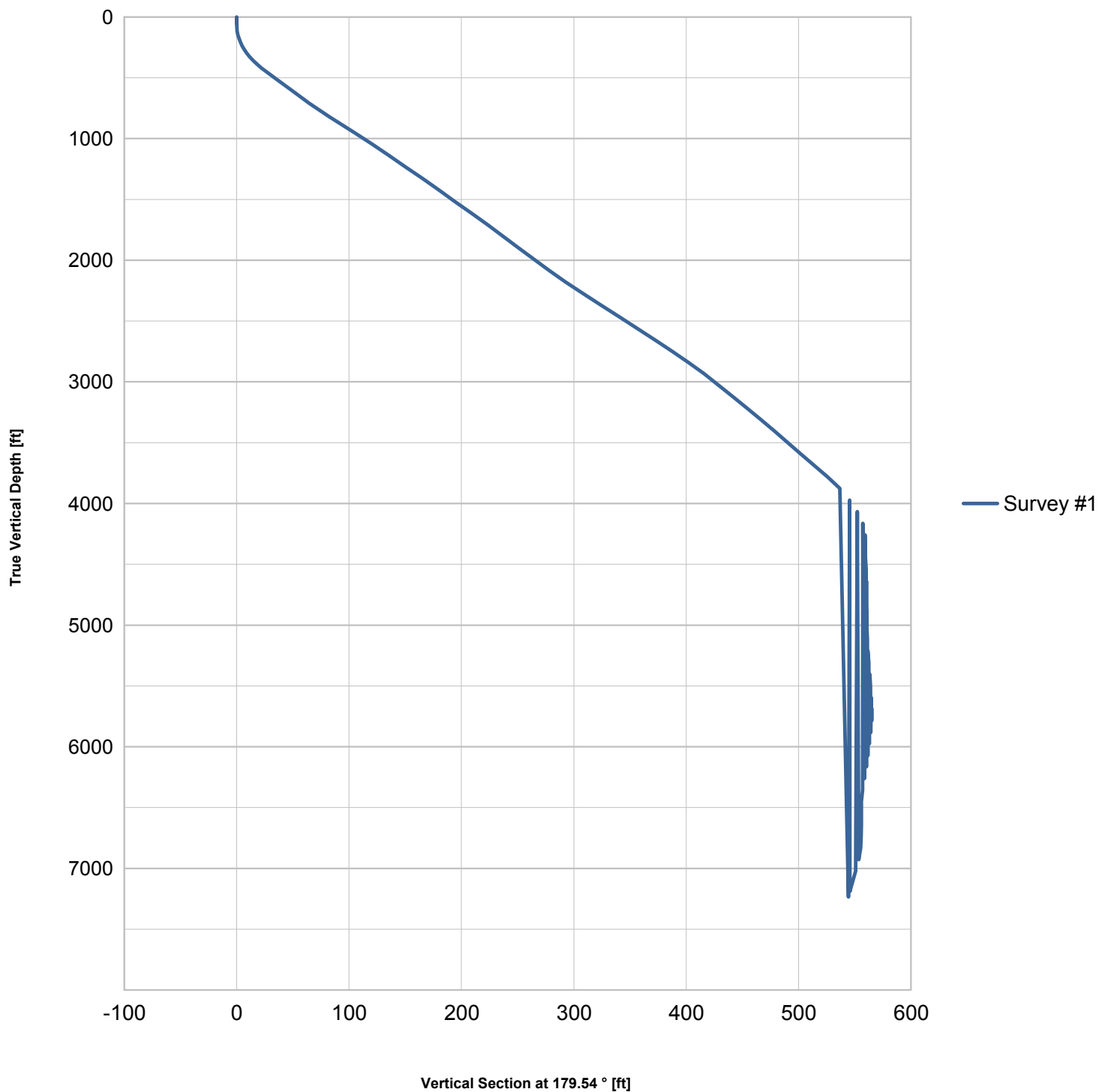
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
7/30/2012	NORMAL	1,149.0	8.79	181.59	1,139.10	-135.57	-1.69	135.55	0.84	-0.84	-0.19	181.97
	NORMAL	1,245.0	8.97	177.55	1,233.95	-150.38	-1.58	150.36	0.68	0.19	-4.21	284.10
	NORMAL	1,340.0	9.23	174.91	1,327.76	-165.37	-0.58	165.36	0.52	0.27	-2.78	300.60
	NORMAL	1,436.0	8.27	181.42	1,422.64	-179.94	-0.07	179.94	1.44	-1.00	6.78	137.30
	NORMAL	1,532.0	8.62	179.13	1,517.60	-194.04	-0.13	194.03	0.51	0.36	-2.39	315.01
	NORMAL	1,628.0	9.06	181.24	1,612.46	-208.79	-0.19	208.78	0.57	0.46	2.20	37.43
	NORMAL	1,724.0	8.18	182.65	1,707.37	-223.17	-0.67	223.15	0.94	-0.92	1.47	167.19
	NORMAL	1,819.0	8.27	183.70	1,801.40	-236.74	-1.42	236.72	0.18	0.09	1.11	59.59
	NORMAL	1,914.0	8.44	171.93	1,895.39	-250.46	-0.88	250.44	1.81	0.18	-12.39	269.83
	NORMAL	2,010.0	8.35	172.80	1,990.37	-264.35	0.98	264.35	0.16	-0.09	0.91	125.75
	NORMAL	2,106.0	8.27	173.16	2,085.36	-278.12	2.68	278.13	0.10	-0.08	0.38	147.14
7/31/2012	NORMAL	2,010.0	8.35	172.80	1,990.37	-264.35	0.98	264.35	0.16	-0.09	0.91	125.75
	NORMAL	2,106.0	8.27	173.16	2,085.36	-278.12	2.68	278.13	0.00	0.00	0.00	0.00
	NORMAL	2,201.0	9.23	177.72	2,179.25	-292.52	3.79	292.54	1.25	1.01	4.80	38.12
	NORMAL	2,297.0	9.50	177.37	2,273.97	-308.12	4.46	308.15	0.29	0.28	-0.36	347.92
	NORMAL	2,393.0	9.59	175.44	2,368.64	-324.01	5.46	324.04	0.35	0.09	-2.01	284.75
	NORMAL	2,488.0	9.59	180.54	2,462.32	-339.81	6.02	339.85	0.89	0.00	5.37	92.51
	NORMAL	2,583.0	9.59	178.43	2,555.99	-355.63	6.16	355.67	0.37	0.00	-2.22	268.96
	NORMAL	2,679.0	9.41	183.88	2,650.68	-371.46	5.85	371.49	0.96	-0.19	5.68	104.00
	NORMAL	2,774.0	8.88	181.94	2,744.47	-386.53	5.07	386.56	0.65	-0.56	-2.04	209.23
	NORMAL	2,869.0	9.32	183.01	2,838.27	-401.55	4.42	401.57	0.50	0.46	1.13	21.57
	NORMAL	2,965.0	7.83	186.87	2,933.20	-415.80	3.23	415.81	1.66	-1.55	4.02	160.78
	NORMAL	3,060.0	7.74	175.09	3,027.33	-428.60	3.00	428.61	1.68	-0.09	-12.40	260.95
	NORMAL	3,155.0	7.74	172.62	3,121.46	-441.32	4.37	441.34	0.35	0.00	-2.60	268.78
	NORMAL	3,250.0	7.47	175.26	3,215.63	-453.82	5.71	453.85	0.46	-0.28	2.78	129.00
	NORMAL	3,345.0	7.56	176.50	3,309.81	-466.21	6.60	466.25	0.20	0.09	1.31	61.59
	NORMAL	3,441.0	7.21	186.34	3,405.02	-478.50	6.32	478.54	1.37	-0.36	10.25	110.31
	NORMAL	3,535.0	7.04	182.65	3,498.29	-490.12	5.40	490.14	0.52	-0.18	-3.93	247.80
	NORMAL	3,630.0	7.21	183.18	3,592.56	-501.88	4.80	501.91	0.19	0.18	0.56	21.40
	NORMAL	3,725.0	7.39	189.68	3,686.79	-513.86	3.44	513.87	0.89	0.19	6.84	80.94
	NORMAL	3,821.0	7.21	191.09	3,782.01	-525.86	1.25	525.85	0.26	-0.19	1.47	135.83
	NORMAL	3,916.0	5.98	180.36	3,876.39	-536.66	0.07	536.64	1.83	-1.29	-11.29	219.81
	NORMAL	4,012.0	4.57	172.98	3,971.98	-545.45	0.50	545.44	1.63	-1.47	-7.69	202.05
	NORMAL	4,107.0	3.52	180.71	4,066.74	-552.13	0.93	552.12	1.24	-1.11	8.14	156.38
	NORMAL	4,203.0	2.29	179.48	4,162.62	-556.99	0.91	556.98	1.28	-1.28	-1.28	182.29
	NORMAL	4,298.0	0.26	171.75	4,257.59	-559.10	0.96	559.09	2.14	-2.14	-8.14	180.99
	NORMAL	4,394.0	0.62	70.67	4,353.59	-559.15	1.48	559.14	0.75	0.38	-105.29	238.07
	NORMAL	4,490.0	0.62	170.69	4,449.58	-559.49	2.05	559.49	0.99	0.00	104.19	140.01
	NORMAL	4,585.0	1.23	261.40	4,544.57	-560.15	1.13	560.14	1.46	0.64	95.48	117.31
	NORMAL	4,680.0	0.97	265.97	4,639.56	-560.36	-0.68	560.33	0.29	-0.27	4.81	163.63
8/1/2012	NORMAL	4,776.0	0.79	263.68	4,735.58	-560.21	-2.03	560.18	0.19	-0.19	-2.39	189.91
	NORMAL	4,872.0	0.53	256.47	4,831.57	-560.39	-3.12	560.35	0.28	-0.27	-7.51	194.13
	NORMAL	4,967.0	0.26	114.44	4,926.57	-560.58	-3.35	560.54	0.79	-0.28	-149.51	192.28
	NORMAL	5,062.0	0.44	110.93	5,021.57	-560.80	-2.81	560.76	0.19	0.19	-3.69	351.45
	NORMAL	5,158.0	0.88	112.86	5,117.56	-561.22	-1.79	561.19	0.46	0.46	2.01	3.86
	NORMAL	5,253.0	1.32	97.22	5,212.55	-561.64	-0.03	561.62	0.56	0.46	-16.46	317.71
	NORMAL	5,348.0	0.70	162.96	5,307.53	-562.33	1.23	562.32	1.28	-0.65	69.20	148.27
	NORMAL	5,444.0	0.44	167.00	5,403.53	-563.25	1.48	563.25	0.27	-0.27	4.21	173.23
	NORMAL	5,539.0	1.05	103.90	5,498.52	-563.82	2.41	563.82	0.99	0.64	-66.42	272.15
	NORMAL	5,635.0	1.14	114.97	5,594.50	-564.43	4.13	564.45	0.24	0.09	11.53	72.55
	NORMAL	5,730.0	0.53	125.87	5,689.49	-565.09	5.34	565.11	0.66	-0.64	11.47	170.81
	NORMAL	5,826.0	0.70	326.44	5,785.49	-564.86	5.38	564.88	1.26	0.18	-166.07	191.72
	NORMAL	5,922.0	0.62	315.19	5,881.49	-564.00	4.69	564.02	0.16	-0.08	-11.72	232.77
	NORMAL	6,017.0	0.97	8.45	5,976.48	-562.84	4.44	562.86	0.82	0.37	56.06	92.93
	NORMAL	6,113.0	0.70	20.58	6,072.47	-561.49	4.77	561.51	0.33	-0.28	12.64	152.75
8/2/2012	NORMAL	6,206.0	0.97	25.67	6,165.46	-560.25	5.31	560.27	0.30	0.29	5.47	17.92
	NORMAL	6,301.0	1.23	31.12	6,260.44	-558.65	6.18	558.68	0.29	0.27	5.74	24.66

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 (°)
8/2/2012	NORMAL	6,396.0	1.14	356.32	6,355.42	-556.83	6.65	556.87	0.75	-0.09	-36.63	245.69
	NORMAL	6,490.0	0.79	272.12	6,449.41	-555.88	5.94	555.91	1.40	-0.37	-89.57	216.55
	NORMAL	6,585.0	0.79	270.36	6,544.40	-555.85	4.63	555.87	0.03	0.00	-1.85	269.12
	NORMAL	6,681.0	0.62	276.51	6,640.39	-555.79	3.46	555.80	0.19	-0.18	6.41	159.06
	NORMAL	6,777.0	0.35	287.76	6,736.39	-555.64	2.66	555.64	0.30	-0.28	11.72	166.14
	NORMAL	6,872.0	0.70	327.49	6,831.39	-555.06	2.07	555.06	0.51	0.37	41.82	67.17
8/3/2012	NORMAL	6,968.0	1.50	341.55	6,927.37	-553.37	1.36	553.37	0.87	0.83	14.65	25.76
	NORMAL	7,063.0	1.76	351.05	7,022.33	-550.75	0.74	550.74	0.39	0.27	10.00	50.92
	NORMAL	7,159.0	1.85	358.96	7,118.28	-547.75	0.48	547.73	0.28	0.09	8.24	74.12
	NORMAL	7,230.0	1.76	11.44	7,189.25	-545.53	0.68	545.52	0.57	-0.13	17.58	109.08
	NORMAL	7,275.0	1.73	22.44	7,234.23	-544.23	1.07	544.22	0.75	-0.07	24.44	100.60

3 Charts

3.1 Vertical Section View



3.2 Plan View

