

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 541-28	Wellbore No.	1
Well Name	KP 541-28	Common Name	KP 541-28
Project	KP 28-06S-091W	Site	KP 41-28 Pad
Vertical Section Azimuth	271.46 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	10/13/2011	UWI	KP 541-28
Active Datum	KB @7,079.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	10/13/2011	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 (°)
10/13/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/13/2011	NORMAL	182.0	3.64	216.23	181.88	-4.66	-3.42	3.30	2.00	2.00	0.00	216.23
	NORMAL	238.0	5.29	200.67	237.71	-8.51	-5.38	5.16	3.63	2.95	-27.79	315.79
	NORMAL	329.0	7.52	191.39	328.14	-18.28	-8.03	7.57	2.69	2.45	-10.20	330.44
	NORMAL	420.0	10.02	192.04	418.07	-31.86	-10.86	10.05	2.75	2.75	0.71	2.59
	NORMAL	511.0	12.12	192.34	507.37	-48.93	-14.56	13.30	2.31	2.31	0.33	1.72
	NORMAL	601.0	12.22	196.02	595.35	-67.32	-19.20	17.48	0.87	0.11	4.09	84.46
	NORMAL	692.0	11.32	195.67	684.43	-85.18	-24.27	22.10	0.99	-0.99	-0.38	184.36
10/14/2011	NORMAL	783.0	11.43	194.52	773.64	-102.50	-28.95	26.33	0.28	0.12	-1.26	295.31
	NORMAL	875.0	10.82	192.13	863.92	-119.77	-33.05	29.98	0.83	-0.66	-2.60	215.92
	NORMAL	965.0	11.90	191.32	952.15	-137.13	-36.64	33.14	1.21	1.20	-0.90	351.20
	NORMAL	1,060.0	11.26	195.91	1,045.22	-155.65	-41.11	37.13	1.18	-0.67	4.83	127.02
	NORMAL	1,152.0	10.30	195.03	1,135.59	-172.24	-45.70	41.30	1.06	-1.04	-0.96	189.30
	NORMAL	1,247.0	11.02	192.91	1,228.95	-189.29	-49.94	45.10	0.86	0.76	-2.23	330.38
	NORMAL	1,308.0	11.43	193.11	1,288.79	-200.86	-52.61	47.47	0.68	0.67	0.33	5.52
10/15/2011	NORMAL	1,407.0	11.65	193.30	1,385.79	-220.14	-57.13	51.51	0.23	0.22	0.19	9.90
	NORMAL	1,438.0	11.77	194.44	1,416.14	-226.25	-58.64	52.86	0.84	0.39	3.68	63.15
	NORMAL	1,532.0	11.82	192.72	1,508.16	-244.92	-63.15	56.89	0.38	0.05	-1.83	277.25
	NORMAL	1,626.0	11.86	192.53	1,600.16	-263.74	-67.37	60.63	0.06	0.04	-0.20	315.64
	NORMAL	1,721.0	12.05	193.19	1,693.10	-282.93	-71.75	64.52	0.25	0.20	0.69	36.06
	NORMAL	1,816.0	11.43	193.98	1,786.11	-301.72	-76.29	68.57	0.67	-0.65	0.83	165.85

2.1.2 Survey Stations (Continued)

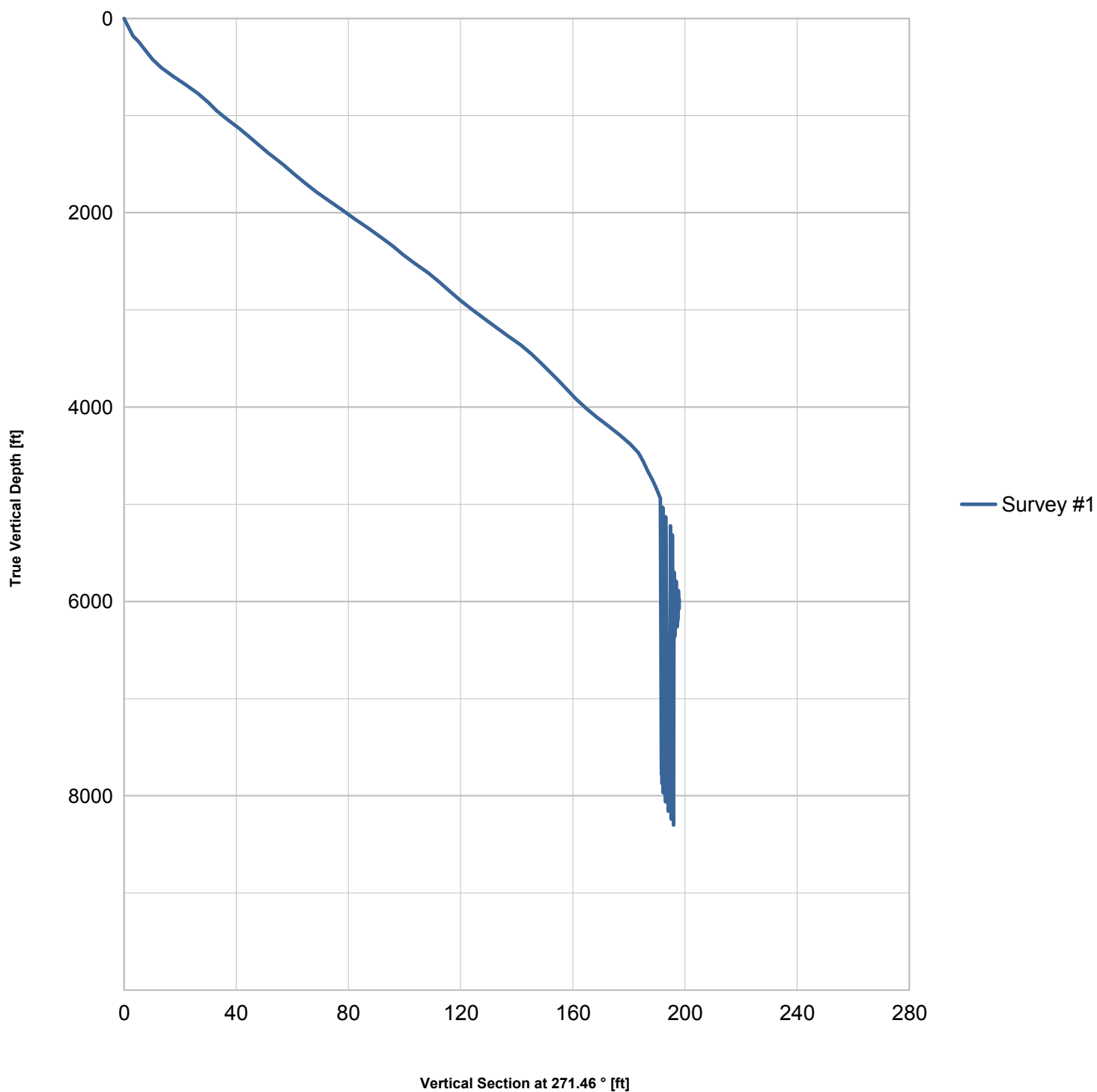
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
10/15/2011	NORMAL	1,910.0	11.95	196.74	1,878.16	-320.08	-81.34	73.16	0.81	0.55	2.94	48.44
	NORMAL	2,005.0	10.79	194.98	1,971.29	-338.08	-86.47	77.83	1.27	-1.22	-1.85	195.79
	NORMAL	2,099.0	10.79	196.94	2,063.63	-355.00	-91.31	82.23	0.39	0.00	2.09	90.96
	NORMAL	2,194.0	11.17	196.08	2,156.89	-372.35	-96.45	86.93	0.44	0.40	-0.91	336.26
	NORMAL	2,288.0	11.87	195.12	2,249.00	-390.43	-101.49	91.51	0.77	0.74	-1.02	344.21
	NORMAL	2,381.0	11.34	193.85	2,340.10	-408.54	-106.18	95.73	0.63	-0.57	-1.37	205.11
	NORMAL	2,475.0	11.74	192.47	2,432.20	-426.85	-110.45	99.54	0.52	0.43	-1.47	324.71
	NORMAL	2,569.0	11.17	197.08	2,524.33	-444.89	-115.19	103.82	1.15	-0.61	4.90	124.15
	NORMAL	2,664.0	10.20	196.17	2,617.68	-461.77	-120.24	108.43	1.04	-1.02	-0.96	189.42
	NORMAL	2,758.0	10.18	193.76	2,710.20	-477.83	-124.53	112.32	0.45	-0.02	-2.56	266.13
	NORMAL	2,853.0	10.14	194.44	2,803.71	-494.08	-128.61	115.98	0.13	-0.04	0.72	108.78
	NORMAL	2,948.0	9.73	195.63	2,897.28	-509.91	-132.86	119.83	0.48	-0.43	1.25	153.99
	NORMAL	3,042.0	11.00	194.30	2,989.75	-526.25	-137.22	123.76	1.37	1.35	-1.41	348.67
	NORMAL	3,136.0	11.55	196.13	3,081.93	-543.98	-142.05	128.14	0.70	0.59	1.95	33.95
	NORMAL	3,230.0	11.60	192.89	3,174.02	-562.24	-146.77	132.40	0.69	0.05	-3.45	272.81
	NORMAL	3,324.0	12.25	196.39	3,265.99	-581.02	-151.69	136.84	1.03	0.69	3.72	49.77
10/16/2011	NORMAL	3,417.0	11.63	193.52	3,356.98	-599.60	-156.67	141.34	0.92	-0.67	-3.09	222.36
	NORMAL	3,513.0	10.88	192.97	3,451.13	-617.83	-160.96	145.17	0.79	-0.78	-0.57	187.88
	NORMAL	3,608.0	10.76	192.02	3,544.45	-635.25	-164.82	148.58	0.23	-0.13	-1.00	235.60
	NORMAL	3,702.0	10.61	191.65	3,636.82	-652.30	-168.40	151.72	0.18	-0.16	-0.39	204.39
	NORMAL	3,796.0	10.72	192.99	3,729.19	-669.30	-172.11	155.00	0.29	0.12	1.43	66.74
	NORMAL	3,890.0	10.55	190.20	3,821.58	-686.29	-175.60	158.06	0.58	-0.18	-2.97	250.36
	NORMAL	3,984.0	10.95	192.18	3,913.93	-703.48	-179.01	161.02	0.58	0.43	2.11	43.69
	NORMAL	4,077.0	11.16	192.94	4,005.20	-720.89	-182.88	164.46	0.27	0.23	0.82	35.13
	NORMAL	4,172.0	10.92	194.51	4,098.44	-738.56	-187.20	168.32	0.40	-0.25	1.65	129.37
	NORMAL	4,266.0	9.67	197.84	4,190.93	-754.69	-191.85	172.56	1.47	-1.33	3.54	156.17
	NORMAL	4,360.0	8.62	196.61	4,283.73	-768.96	-196.28	176.62	1.14	-1.12	-1.31	189.94
10/17/2011	NORMAL	4,453.0	7.28	199.65	4,375.84	-781.19	-200.25	180.28	1.51	-1.44	3.27	164.08
	NORMAL	4,548.0	6.51	194.33	4,470.15	-792.08	-203.61	183.36	1.05	-0.81	-5.60	217.05
	NORMAL	4,642.0	5.94	189.21	4,563.60	-802.04	-205.71	185.21	0.85	-0.61	-5.45	221.72
	NORMAL	4,736.0	5.01	193.10	4,657.17	-810.84	-207.42	186.69	1.06	-0.99	4.14	160.17
	NORMAL	4,829.0	4.65	194.84	4,749.84	-818.44	-209.30	188.38	0.42	-0.39	1.87	158.72
	NORMAL	4,923.0	3.43	194.33	4,843.60	-824.85	-210.97	189.89	1.30	-1.30	-0.54	181.43
	NORMAL	5,018.0	2.89	197.68	4,938.46	-829.88	-212.41	191.19	0.60	-0.57	3.53	162.79
	NORMAL	5,112.0	2.28	189.20	5,032.36	-833.99	-213.42	192.11	0.76	-0.65	-9.02	207.90
	NORMAL	5,207.0	2.25	206.31	5,127.29	-837.52	-214.55	193.14	0.71	-0.03	18.01	101.07
10/18/2011	NORMAL	5,302.0	2.29	207.69	5,222.21	-840.87	-216.26	194.77	0.07	0.04	1.45	54.49
	NORMAL	5,397.0	1.78	177.19	5,317.16	-844.03	-217.07	195.50	1.24	-0.54	-32.11	230.07
	NORMAL	5,492.0	1.67	173.94	5,412.11	-846.88	-216.85	195.20	0.15	-0.12	-3.42	220.03
	NORMAL	5,588.0	1.49	185.98	5,508.08	-849.51	-216.83	195.12	0.39	-0.19	12.54	124.40
	NORMAL	5,683.0	1.56	195.20	5,603.04	-851.99	-217.30	195.52	0.27	0.07	9.71	78.72
	NORMAL	5,777.0	0.97	202.33	5,697.02	-853.96	-217.94	196.11	0.65	-0.63	7.59	168.61
	NORMAL	5,872.0	0.88	222.45	5,792.01	-855.24	-218.74	196.88	0.35	-0.09	21.18	115.39
10/19/2011	NORMAL	5,968.0	0.97	201.71	5,888.00	-856.54	-219.54	197.64	0.36	0.09	-21.60	274.52
	NORMAL	6,061.0	0.35	199.16	5,980.99	-857.54	-219.92	198.00	0.67	-0.67	-2.74	181.44
	NORMAL	6,156.0	0.42	150.41	6,075.99	-858.12	-219.84	197.91	0.34	0.07	-51.32	256.97
10/20/2011	NORMAL	6,250.0	0.62	163.65	6,169.98	-858.90	-219.53	197.58	0.25	0.21	14.09	37.73
	NORMAL	6,343.0	0.60	135.66	6,262.98	-859.73	-219.05	197.07	0.32	-0.02	-30.10	252.24
	NORMAL	6,438.0	0.45	115.70	6,357.98	-860.25	-218.37	196.38	0.25	-0.16	-21.01	220.95
	NORMAL	6,532.0	0.70	155.39	6,451.97	-860.93	-217.79	195.79	0.48	0.27	42.22	78.78
	NORMAL	6,627.0	1.04	178.03	6,546.96	-862.32	-217.52	195.48	0.50	0.36	23.83	57.01
	NORMAL	6,722.0	0.72	154.29	6,641.95	-863.72	-217.23	195.16	0.50	-0.34	-24.99	217.27
	NORMAL	6,817.0	0.71	152.77	6,736.94	-864.78	-216.71	194.60	0.02	-0.01	-1.60	241.44
	NORMAL	6,912.0	0.52	155.17	6,831.94	-865.70	-216.25	194.13	0.20	-0.20	2.53	173.48
	NORMAL	7,006.0	0.41	173.00	6,925.93	-866.42	-216.03	193.89	0.19	-0.12	18.97	135.93
10/21/2011	NORMAL	7,102.0	0.51	165.63	7,021.93	-867.17	-215.89	193.72	0.12	0.10	-7.68	325.67
	NORMAL	7,197.0	0.45	212.31	7,116.93	-867.90	-215.98	193.80	0.40	-0.06	49.14	121.58

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 (°)
10/21/2011	NORMAL	7,291.0	0.47	115.85	7,210.93	-868.38	-215.83	193.64	0.73	0.02	-102.62	222.88
10/22/2011	NORMAL	7,387.0	0.53	116.37	7,306.92	-868.75	-215.08	192.87	0.06	0.06	0.54	4.59
	NORMAL	7,480.0	0.30	71.60	7,399.92	-868.86	-214.46	192.26	0.41	-0.25	-48.14	213.68
	NORMAL	7,575.0	0.26	72.69	7,494.92	-868.72	-214.02	191.82	0.04	-0.04	1.15	172.96
	NORMAL	7,668.0	0.26	9.76	7,587.92	-868.45	-213.78	191.59	0.29	0.00	-67.67	238.54
	NORMAL	7,763.0	0.48	354.64	7,682.92	-867.84	-213.78	191.60	0.25	0.23	-15.92	328.38
	NORMAL	7,858.0	0.88	358.24	7,777.91	-866.72	-213.84	191.69	0.42	0.42	3.79	7.90
	NORMAL	7,953.0	1.39	356.77	7,872.89	-864.84	-213.93	191.83	0.54	0.54	-1.55	356.00
10/23/2011	NORMAL	8,049.0	1.32	344.09	7,968.86	-862.61	-214.30	192.25	0.32	-0.07	-13.21	250.57
	NORMAL	8,143.0	1.06	327.31	8,062.84	-860.84	-215.07	193.06	0.46	-0.28	-17.85	225.08
	NORMAL	8,238.0	1.03	323.96	8,157.83	-859.41	-216.04	194.08	0.07	-0.03	-3.53	242.18
	NORMAL	8,320.0	1.03	315.00	8,239.81	-858.29	-217.00	195.06	0.20	0.00	-10.93	265.52
	NORMAL	8,380.0	1.03	308.44	8,299.80	-857.57	-217.80	195.88	0.20	0.00	-10.93	266.72

3 Charts

3.1 Vertical Section View



3.2 Plan View

