

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	PA 522-7	Wellbore No.	
Well Name	PA 522-7	Common Name	PA 522-7
Project	PA 07-07S-095W	Site	PA 21-7 Pad
Vertical Section Azimuth	194.06 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	8/22/2011	UWI	PA 522-7
Active Datum	KB @5,109.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Started	8/22/2011	Ended	8/28/2011
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)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
8/22/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/22/2011	NORMAL	105.0	0.44	190.81	105.00	-0.40	-0.08	0.40	0.42	0.42	0.00	190.81
	NORMAL	136.0	1.50	203.29	135.99	-0.89	-0.26	0.92	3.47	3.42	40.26	17.56
	NORMAL	167.0	2.20	207.25	166.98	-1.79	-0.69	1.90	2.29	2.26	12.77	12.33
	NORMAL	197.0	3.17	200.21	196.94	-3.08	-1.24	3.29	3.41	3.23	-23.47	337.68
	NORMAL	227.0	4.57	194.24	226.88	-5.01	-1.82	5.31	4.85	4.67	-19.90	340.95
	NORMAL	257.0	5.19	198.81	256.77	-7.46	-2.55	7.85	2.44	2.07	15.23	34.38
	NORMAL	287.0	6.25	187.73	286.62	-10.36	-3.21	10.83	5.09	3.53	-36.93	308.22
	NORMAL	318.0	7.30	187.91	317.40	-13.98	-3.71	14.47	3.39	3.39	0.58	1.25
	NORMAL	348.0	8.45	188.45	347.12	-18.05	-4.29	18.55	3.84	3.83	1.80	3.95
	NORMAL	378.0	9.15	191.16	376.76	-22.57	-5.08	23.13	2.71	2.33	9.03	31.98
	NORMAL	408.0	9.59	192.30	406.36	-27.35	-6.07	28.01	1.59	1.47	3.80	23.43
	NORMAL	439.0	11.09	194.94	436.86	-32.76	-7.39	33.57	5.07	4.84	8.52	18.83
	NORMAL	469.0	12.58	197.40	466.22	-38.66	-9.11	39.72	5.24	4.97	8.20	19.91
	NORMAL	499.0	13.28	196.26	495.46	-45.09	-11.06	46.42	2.48	2.33	-3.80	339.42
8/23/2011	NORMAL	530.0	14.60	196.70	525.55	-52.25	-13.18	53.89	4.27	4.26	1.42	4.80
	NORMAL	570.0	16.03	195.79	564.13	-62.39	-16.13	64.44	3.63	3.58	-2.28	350.02
	NORMAL	600.0	17.13	196.39	592.88	-70.62	-18.50	73.00	3.71	3.67	2.00	9.13
	NORMAL	630.0	18.42	194.74	621.45	-79.44	-20.95	82.15	4.62	4.30	-5.50	337.88
	NORMAL	660.0	19.55	192.96	649.81	-88.92	-23.29	91.91	4.23	3.77	-5.93	332.02
	NORMAL	691.0	20.35	192.49	678.95	-99.23	-25.61	102.48	2.63	2.58	-1.52	348.44

2.1.2 Survey Stations (Continued)

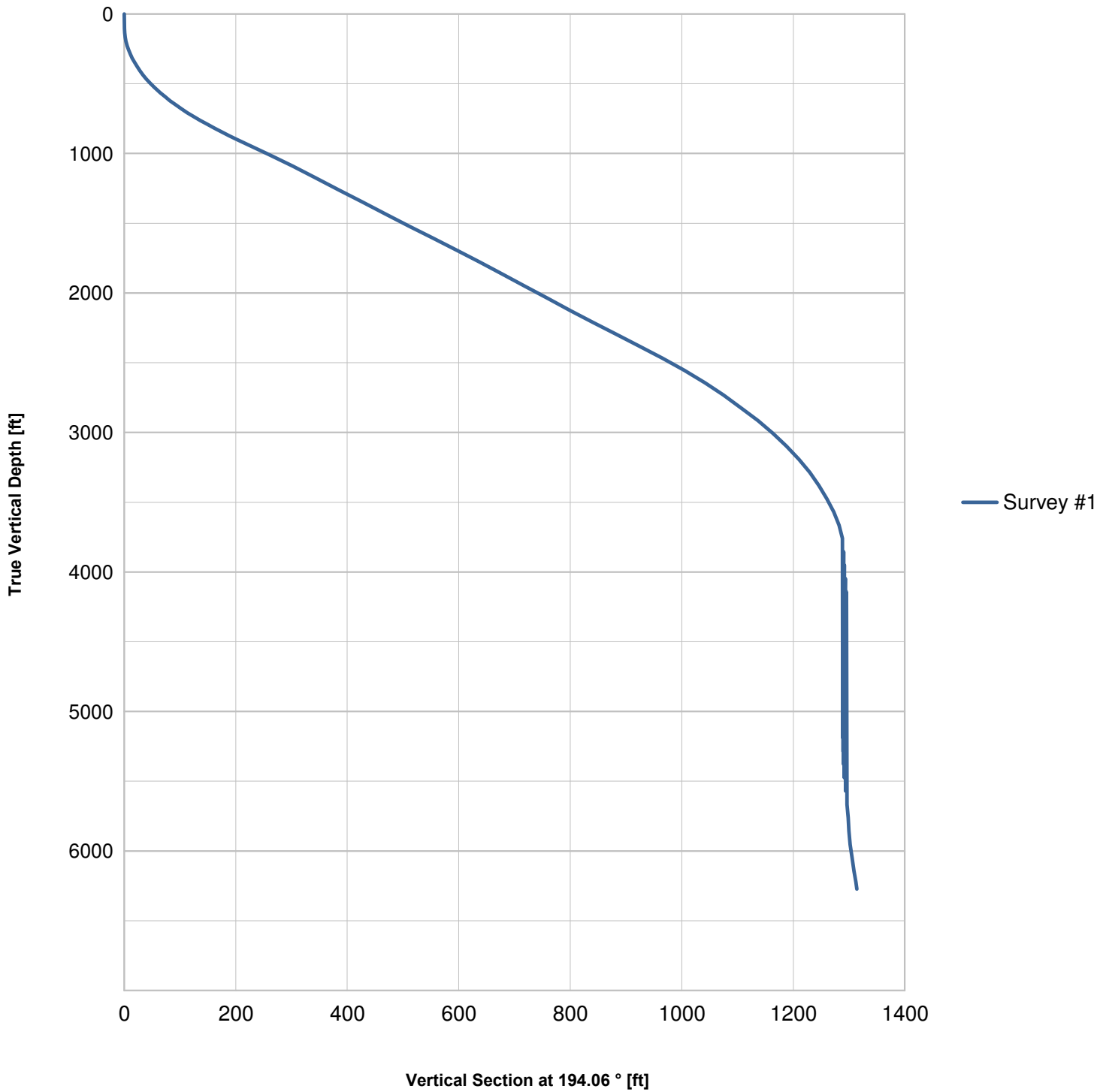
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
8/23/2011	NORMAL	721.0	21.50	192.67	706.97	-109.69	-27.95	113.19	3.84	3.83	0.60	3.28
	NORMAL	751.0	22.52	193.49	734.79	-120.64	-30.49	124.44	3.55	3.40	2.73	17.15
	NORMAL	781.0	23.58	194.05	762.39	-132.05	-33.29	136.18	3.61	3.53	1.87	11.94
	NORMAL	812.0	24.82	194.16	790.67	-144.37	-36.39	148.89	4.00	4.00	0.35	2.13
	NORMAL	842.0	25.90	193.07	817.78	-156.86	-39.41	161.74	3.92	3.60	-3.63	336.13
	NORMAL	872.0	26.26	192.66	844.72	-169.72	-42.35	174.92	1.34	1.20	-1.37	333.22
	NORMAL	903.0	26.73	193.54	872.47	-183.19	-45.48	188.75	1.98	1.52	2.84	40.27
8/24/2011	NORMAL	932.0	27.27	192.81	898.30	-196.01	-48.48	201.91	2.18	1.86	-2.52	328.14
	NORMAL	1,054.0	28.10	192.50	1,006.34	-251.31	-60.90	258.58	0.69	0.68	-0.25	350.02
	NORMAL	1,150.0	26.40	192.50	1,091.68	-294.22	-70.41	302.52	1.77	-1.77	0.00	180.00
	NORMAL	1,245.0	25.50	196.70	1,177.11	-334.44	-80.86	344.06	2.15	-0.95	4.42	117.97
	NORMAL	1,339.0	25.90	193.50	1,261.81	-373.78	-91.47	384.80	1.54	0.43	-3.40	284.63
	NORMAL	1,435.0	26.10	193.30	1,348.10	-414.72	-101.22	426.88	0.23	0.21	-0.21	336.24
	NORMAL	1,530.0	25.60	192.50	1,433.59	-455.09	-110.47	468.30	0.64	-0.53	-0.84	214.54
	NORMAL	1,626.0	26.40	195.30	1,519.88	-495.93	-120.59	510.37	1.53	0.83	2.92	58.17
	NORMAL	1,722.0	26.60	194.70	1,605.79	-537.30	-131.68	553.20	0.35	0.21	-0.63	306.49
	NORMAL	1,817.0	26.30	194.00	1,690.85	-578.30	-142.17	595.51	0.46	-0.32	-0.74	225.79
	NORMAL	1,913.0	25.40	193.00	1,777.24	-619.00	-151.94	637.36	1.04	-0.94	-1.04	205.40
	NORMAL	2,008.0	24.60	196.20	1,863.34	-657.84	-162.04	677.50	1.65	-0.84	3.37	122.05
	NORMAL	2,104.0	25.40	196.30	1,950.35	-696.79	-173.40	718.04	0.83	0.83	0.10	3.07
	NORMAL	2,200.0	25.30	195.60	2,037.10	-736.31	-184.69	759.12	0.33	-0.10	-0.73	251.23
	NORMAL	2,297.0	24.60	194.90	2,125.05	-775.78	-195.46	800.03	0.78	-0.72	-0.72	202.55
	NORMAL	2,391.0	26.10	194.40	2,210.00	-814.72	-205.63	840.27	1.61	1.60	-0.53	351.65
	NORMAL	2,487.0	26.00	193.30	2,296.25	-855.65	-215.72	882.42	0.51	-0.10	-1.15	257.81
	NORMAL	2,582.0	25.50	193.70	2,381.81	-895.78	-225.36	923.69	0.56	-0.53	0.42	161.01
	NORMAL	2,678.0	25.50	193.20	2,468.46	-935.98	-234.97	965.02	0.22	0.00	-0.52	269.77
	NORMAL	2,774.0	23.60	192.80	2,555.78	-974.84	-243.95	1,004.90	1.99	-1.98	-0.42	184.82
	NORMAL	2,870.0	21.50	192.10	2,644.43	-1,010.78	-251.89	1,041.70	2.21	-2.19	-0.73	186.96
	NORMAL	2,965.0	19.40	190.50	2,733.44	-1,043.32	-258.42	1,074.85	2.29	-2.21	-1.68	194.16
	NORMAL	3,060.0	19.30	190.50	2,823.08	-1,074.27	-264.15	1,106.26	0.11	-0.11	0.00	180.00
	NORMAL	3,156.0	17.50	194.70	2,914.17	-1,103.84	-270.71	1,136.53	2.33	-1.88	4.38	145.61
	NORMAL	3,252.0	14.90	194.20	3,006.35	-1,129.77	-277.40	1,163.31	2.71	-2.71	-0.52	182.83
	NORMAL	3,347.0	14.40	193.90	3,098.26	-1,153.08	-283.23	1,187.34	0.53	-0.53	-0.32	188.48
	NORMAL	3,444.0	12.80	193.00	3,192.54	-1,175.26	-288.55	1,210.15	1.66	-1.65	-0.93	187.10
	NORMAL	3,539.0	10.60	196.30	3,285.56	-1,193.90	-293.37	1,229.40	2.42	-2.32	3.47	164.69
	NORMAL	3,635.0	8.90	195.30	3,380.17	-1,209.54	-297.81	1,245.65	1.78	-1.77	-1.04	185.20
	NORMAL	3,730.0	8.30	195.60	3,474.10	-1,223.23	-301.59	1,259.85	0.63	-0.63	0.32	175.87
	NORMAL	3,826.0	6.70	197.40	3,569.28	-1,235.25	-305.13	1,272.37	1.68	-1.67	1.88	172.54
	NORMAL	3,922.0	4.70	188.10	3,664.80	-1,244.49	-307.36	1,281.87	2.29	-2.08	-9.69	200.21
	NORMAL	4,017.0	2.30	191.90	3,759.61	-1,250.21	-308.30	1,287.65	2.54	-2.53	4.00	176.37
	NORMAL	4,113.0	1.10	241.20	3,855.57	-1,252.54	-309.50	1,290.20	1.86	-1.25	51.35	152.21
	NORMAL	4,209.0	1.10	227.40	3,951.56	-1,253.60	-310.99	1,291.60	0.28	0.00	-14.38	263.10
	NORMAL	4,304.0	1.30	230.30	4,046.54	-1,254.91	-312.49	1,293.23	0.22	0.21	3.05	18.34
	NORMAL	4,400.0	1.40	223.90	4,142.51	-1,256.45	-314.14	1,295.13	0.19	0.10	-6.67	300.33
	NORMAL	4,495.0	1.00	354.20	4,237.50	-1,256.46	-315.03	1,295.35	2.30	-0.42	137.16	159.56
	NORMAL	4,591.0	1.10	344.30	4,333.48	-1,254.74	-315.36	1,293.77	0.22	0.10	-10.31	293.85
	NORMAL	4,686.0	1.10	342.20	4,428.47	-1,252.99	-315.89	1,292.20	0.04	0.00	-2.21	268.95
	NORMAL	4,781.0	1.30	332.40	4,523.45	-1,251.17	-316.67	1,290.62	0.30	0.21	-10.32	309.29
8/26/2011	NORMAL	4,877.0	0.60	67.80	4,619.44	-1,250.02	-316.71	1,289.51	1.54	-0.73	99.38	156.23
	NORMAL	4,973.0	0.30	51.10	4,715.43	-1,249.67	-316.05	1,289.01	0.34	-0.31	-17.40	195.42
	NORMAL	5,067.0	0.40	90.70	4,809.43	-1,249.52	-315.53	1,288.74	0.27	0.11	42.13	88.16
	NORMAL	5,161.0	0.30	80.50	4,903.43	-1,249.48	-314.96	1,288.56	0.12	-0.11	-10.85	206.89
	NORMAL	5,257.0	0.50	96.10	4,999.43	-1,249.48	-314.29	1,288.41	0.24	0.21	16.25	36.52
	NORMAL	5,352.0	0.60	106.20	5,094.42	-1,249.67	-313.40	1,288.37	0.15	0.11	10.63	49.24
	NORMAL	5,448.0	0.80	119.50	5,190.42	-1,250.14	-312.34	1,288.56	0.27	0.21	13.85	45.87
	NORMAL	5,545.0	0.80	147.80	5,287.41	-1,251.04	-311.38	1,289.21	0.40	0.00	29.18	104.15
	NORMAL	5,639.0	0.70	176.60	5,381.40	-1,252.17	-311.00	1,290.21	0.41	-0.11	30.64	118.95

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
8/26/2011	NORMAL	5,733.0	1.10	200.40	5,475.39	-1,253.59	-311.28	1,291.66	0.57	0.43	25.32	55.38
	NORMAL	5,828.0	1.40	201.90	5,570.36	-1,255.52	-312.03	1,293.71	0.32	0.32	1.58	6.98
	NORMAL	5,924.0	1.80	202.50	5,666.33	-1,258.00	-313.05	1,296.37	0.42	0.42	0.63	2.70
	NORMAL	6,019.0	0.70	221.30	5,761.30	-1,259.82	-314.00	1,298.36	1.22	-1.16	19.79	168.78
	NORMAL	6,115.0	1.10	208.80	5,857.29	-1,261.07	-314.83	1,299.77	0.46	0.42	-13.02	327.52
	NORMAL	6,211.0	1.80	210.00	5,953.26	-1,263.18	-316.03	1,302.11	0.73	0.73	1.25	3.08
	NORMAL	6,305.0	2.10	206.50	6,047.20	-1,266.00	-317.54	1,305.21	0.34	0.32	-3.72	336.59
	NORMAL	6,400.0	2.40	206.90	6,142.13	-1,269.33	-319.21	1,308.85	0.32	0.32	0.42	3.20
8/27/2011	NORMAL	6,479.0	2.30	207.40	6,221.07	-1,272.21	-320.69	1,312.01	0.13	-0.13	0.63	168.66
	NORMAL	6,529.0	2.30	207.40	6,271.02	-1,274.00	-321.61	1,313.96	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

