

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	PA 541-29	Wellbore No.	OH
Well Name	PA 541-29	Common Name	PA 541-29
Project	PA 28-06S-095W	Site	PA 11-28 Pad
Vertical Section Azimuth	221.13 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	11/11/2011	UWI	PA 541-29
Active Datum	KB @5,991.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	11/11/2011	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 (°)
11/11/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/2011	NORMAL	105.0	0.44	38.23	105.00	0.32	0.25	-0.40	0.42	0.42	0.00	38.23
	NORMAL	135.0	0.88	41.84	135.00	0.58	0.47	-0.75	1.47	1.47	12.03	7.21
	NORMAL	166.0	1.85	38.32	165.99	1.15	0.94	-1.49	3.14	3.13	-11.35	353.30
	NORMAL	197.0	2.02	47.55	196.97	1.91	1.66	-2.53	1.14	0.55	29.77	66.05
	NORMAL	227.0	2.46	55.81	226.95	2.63	2.58	-3.68	1.82	1.47	27.53	40.44
	NORMAL	258.0	1.76	64.95	257.93	3.20	3.56	-4.76	2.50	-2.26	29.48	158.84
	NORMAL	288.0	0.79	95.62	287.92	3.38	4.18	-5.30	3.84	-3.23	102.23	159.55
	NORMAL	318.0	0.97	155.74	317.92	3.13	4.49	-5.31	2.98	0.60	200.40	110.04
	NORMAL	349.0	1.58	171.56	348.91	2.47	4.67	-4.93	2.25	1.97	51.03	38.05
	NORMAL	379.0	2.11	197.05	378.89	1.53	4.56	-4.15	3.21	1.77	84.97	70.32
	NORMAL	409.0	2.73	213.49	408.87	0.40	4.01	-2.94	3.08	2.07	54.80	56.64
	NORMAL	440.0	3.26	218.14	439.82	-0.90	3.06	-1.33	1.88	1.71	15.00	26.96
	NORMAL	470.0	4.05	228.78	469.76	-2.27	1.73	0.57	3.46	2.63	35.47	46.04
	NORMAL	501.0	4.84	226.23	500.67	-3.90	-0.04	2.96	2.63	2.55	-8.23	344.68
	NORMAL	532.0	6.16	224.91	531.53	-5.98	-2.15	5.92	4.28	4.26	-4.26	353.87
	NORMAL	563.0	7.21	227.99	562.31	-8.46	-4.77	9.51	3.58	3.39	9.94	20.39
	NORMAL	593.0	7.65	226.58	592.06	-11.09	-7.62	13.37	1.59	1.47	-4.70	336.79
	NORMAL	624.0	8.89	223.07	622.74	-14.26	-10.76	17.82	4.32	4.00	-11.32	336.10
	NORMAL	699.0	11.00	222.30	696.61	-23.79	-19.53	30.77	2.82	2.81	-1.03	356.01
	NORMAL	790.0	12.20	218.30	785.75	-37.76	-31.33	49.05	1.59	1.32	-4.40	324.20

2.1.2 Survey Stations (Continued)

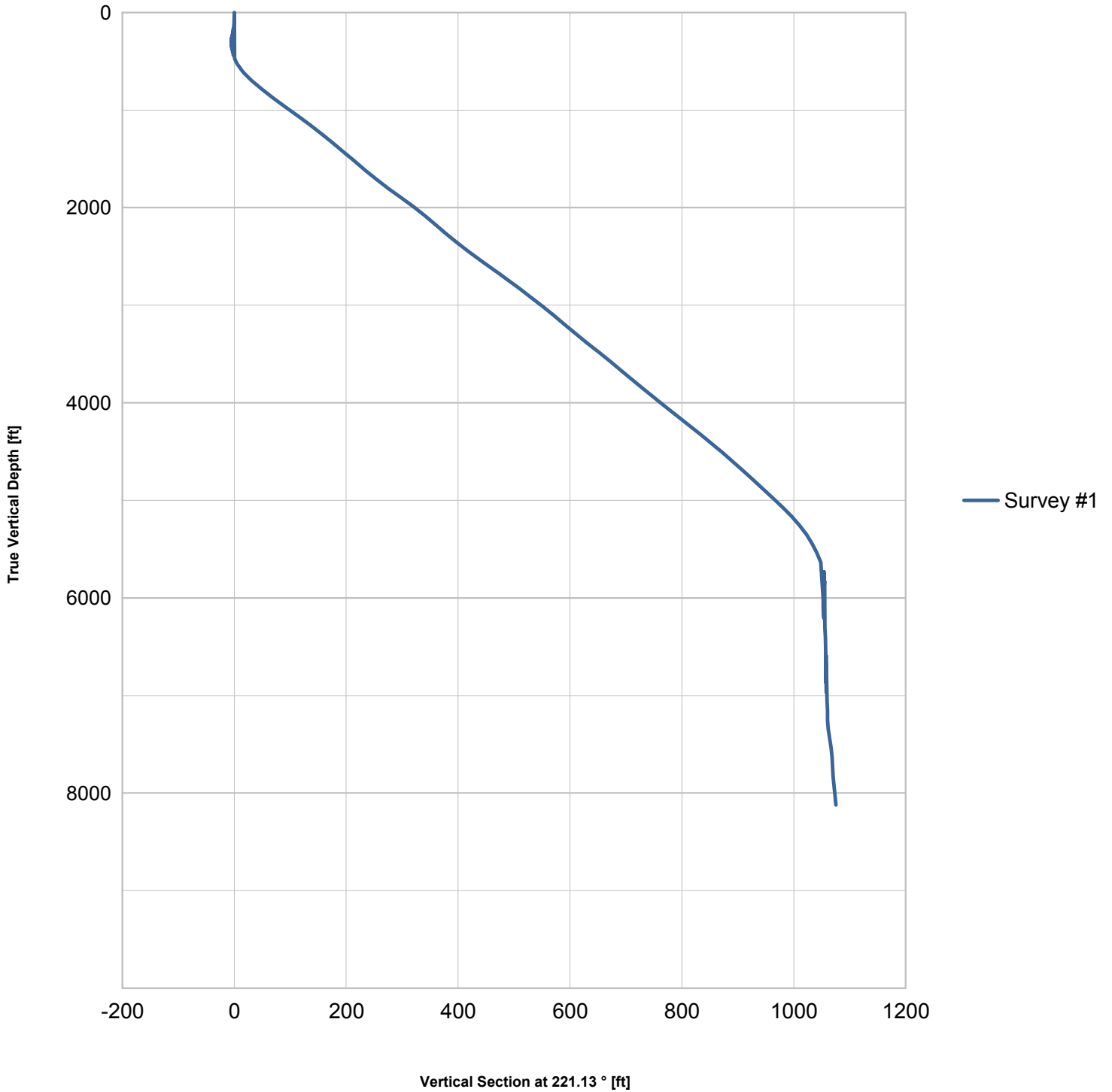
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
11/11/2011	NORMAL	882.0	13.10	217.20	875.52	-53.69	-43.66	69.16	1.01	0.98	-1.20	344.48
	NORMAL	973.0	14.10	217.40	963.96	-70.71	-56.63	90.51	1.10	1.10	0.22	2.79
11/12/2011	NORMAL	1,069.0	13.20	219.70	1,057.25	-88.44	-70.74	113.14	1.09	-0.94	2.40	150.02
	NORMAL	1,164.0	13.00	224.90	1,149.78	-104.35	-85.21	134.64	1.26	-0.21	5.47	102.16
	NORMAL	1,260.0	12.80	224.80	1,243.36	-119.54	-100.32	156.03	0.21	-0.21	-0.10	186.32
	NORMAL	1,354.0	11.40	226.70	1,335.27	-133.30	-114.42	175.67	1.55	-1.49	2.02	165.05
	NORMAL	1,450.0	12.30	226.00	1,429.22	-146.92	-128.68	195.30	0.95	0.94	-0.73	350.58
	NORMAL	1,546.0	11.60	225.50	1,523.14	-160.78	-142.92	215.11	0.74	-0.73	-0.52	188.17
	NORMAL	1,642.0	11.50	217.20	1,617.20	-175.17	-155.59	234.29	1.73	-0.10	-8.65	262.50
	NORMAL	1,737.0	12.30	216.80	1,710.16	-190.82	-167.38	253.82	0.85	0.84	-0.42	353.92
	NORMAL	1,833.0	13.40	221.10	1,803.76	-207.39	-180.82	275.15	1.52	1.15	4.48	43.11
	NORMAL	1,928.0	14.20	221.80	1,896.02	-224.37	-195.82	297.81	0.86	0.84	0.74	12.13
	NORMAL	2,024.0	12.60	223.40	1,989.40	-240.76	-210.86	320.04	1.71	-1.67	1.67	167.73
	NORMAL	2,120.0	12.10	224.10	2,083.18	-255.59	-225.06	340.55	0.54	-0.52	0.73	163.67
	NORMAL	2,215.0	11.30	221.80	2,176.20	-269.68	-238.19	359.81	0.97	-0.84	-2.42	209.12
	NORMAL	2,311.0	11.80	220.70	2,270.26	-284.13	-250.86	379.03	0.57	0.52	-1.15	335.69
	NORMAL	2,406.0	12.60	221.90	2,363.11	-299.21	-264.12	399.10	0.88	0.84	1.26	18.18
	NORMAL	2,502.0	12.70	217.00	2,456.79	-315.43	-277.46	420.10	1.12	0.10	-5.10	272.93
	NORMAL	2,598.0	14.20	217.00	2,550.15	-333.26	-290.90	442.37	1.56	1.56	0.00	0.00
11/13/2011	NORMAL	2,693.0	13.50	221.10	2,642.39	-350.93	-305.20	465.08	1.27	-0.74	4.32	127.48
	NORMAL	2,730.0	13.50	221.80	2,678.37	-357.40	-310.92	473.72	0.44	0.00	1.89	90.34
11/14/2011	NORMAL	2,787.0	14.00	222.70	2,733.73	-367.43	-320.03	487.26	0.95	0.88	1.58	23.60
	NORMAL	2,882.0	12.90	220.90	2,826.13	-383.89	-334.77	509.35	1.24	-1.16	-1.89	199.96
	NORMAL	2,978.0	12.60	220.50	2,919.76	-399.95	-348.58	530.54	0.33	-0.31	-0.42	196.20
	NORMAL	3,073.0	12.40	219.50	3,012.51	-415.70	-361.80	551.10	0.31	-0.21	-1.05	226.77
	NORMAL	3,169.0	11.80	218.10	3,106.38	-431.38	-374.41	571.20	0.70	-0.63	-1.46	205.38
	NORMAL	3,265.0	11.90	221.60	3,200.33	-446.51	-387.04	590.90	0.76	0.10	3.65	83.79
	NORMAL	3,361.0	11.80	219.80	3,294.28	-461.45	-399.90	610.61	0.40	-0.10	-1.88	253.98
	NORMAL	3,456.0	12.60	224.40	3,387.14	-476.31	-413.37	630.67	1.32	0.84	4.84	52.81
11/15/2011	NORMAL	3,552.0	12.70	223.00	3,480.81	-491.51	-427.89	651.67	0.34	0.10	-1.46	287.38
	NORMAL	3,648.0	11.60	224.40	3,574.66	-506.13	-441.84	671.85	1.19	-1.15	1.46	165.69
	NORMAL	3,743.0	11.60	223.90	3,667.72	-519.83	-455.14	690.93	0.11	0.00	-0.53	269.76
	NORMAL	3,839.0	12.10	221.60	3,761.67	-534.31	-468.52	710.63	0.72	0.52	-2.40	315.50
	NORMAL	3,935.0	12.10	220.70	3,855.54	-549.46	-481.76	730.75	0.20	0.00	-0.94	269.56
	NORMAL	4,030.0	12.20	220.20	3,948.41	-564.68	-494.73	750.75	0.15	0.11	-0.53	313.29
	NORMAL	4,126.0	12.20	220.90	4,042.24	-580.10	-507.92	771.03	0.15	0.00	0.73	90.34
	NORMAL	4,222.0	12.40	220.00	4,136.04	-595.66	-521.19	791.48	0.29	0.21	-0.94	315.77
	NORMAL	4,317.0	12.70	220.40	4,228.77	-611.42	-534.51	812.12	0.33	0.32	0.42	16.35
	NORMAL	4,412.0	12.30	219.70	4,321.52	-627.16	-547.74	832.68	0.45	-0.42	-0.74	200.40
	NORMAL	4,507.0	12.00	219.50	4,414.39	-642.57	-560.49	852.67	0.32	-0.32	-0.21	187.89
	NORMAL	4,602.0	11.50	219.70	4,507.40	-657.47	-572.82	872.01	0.53	-0.53	0.21	175.44
	NORMAL	4,698.0	11.10	217.40	4,601.54	-672.18	-584.54	890.79	0.63	-0.42	-2.40	227.29
	NORMAL	4,793.0	11.20	219.80	4,694.75	-686.53	-596.00	909.14	0.50	0.11	2.53	79.02
	NORMAL	4,888.0	10.70	222.70	4,788.02	-700.10	-607.89	927.18	0.78	-0.53	3.05	133.65
	NORMAL	4,983.0	10.60	222.70	4,881.38	-713.00	-619.80	944.73	0.11	-0.11	0.00	180.00
	NORMAL	5,078.0	10.60	221.30	4,974.76	-725.99	-631.49	962.21	0.27	0.00	-1.47	269.31
	NORMAL	5,173.0	10.60	221.40	5,068.14	-739.11	-643.04	979.68	0.02	0.00	0.11	90.05
11/16/2011	NORMAL	5,269.0	9.00	218.40	5,162.74	-751.62	-653.54	996.01	1.75	-1.67	-3.13	196.23
	NORMAL	5,364.0	8.30	229.90	5,256.66	-761.86	-663.40	1,010.21	1.96	-0.74	12.11	117.65
	NORMAL	5,459.0	7.00	228.60	5,350.81	-770.10	-672.99	1,022.73	1.38	-1.37	-1.37	186.94
	NORMAL	5,555.0	5.60	238.10	5,446.23	-776.45	-681.35	1,033.01	1.81	-1.46	9.90	147.99
	NORMAL	5,650.0	4.80	234.40	5,540.84	-781.21	-688.52	1,041.31	0.91	-0.84	-3.89	200.91
	NORMAL	5,745.0	4.00	225.80	5,635.56	-785.84	-694.13	1,048.48	1.09	-0.84	-9.05	215.28
	NORMAL	5,841.0	2.40	203.30	5,731.41	-790.02	-697.32	1,053.73	2.09	-1.67	-23.44	207.26
	NORMAL	5,937.0	1.00	101.20	5,827.38	-792.03	-697.30	1,055.23	2.90	-1.46	-106.35	200.55
	NORMAL	6,032.0	1.20	46.70	5,922.37	-791.50	-695.76	1,053.83	1.08	0.21	-57.37	252.77
11/17/2011	NORMAL	6,128.0	0.40	71.00	6,018.36	-790.71	-694.71	1,052.54	0.89	-0.83	25.31	168.85

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 (°)
11/17/2011	NORMAL	6,224.0	0.50	203.30	6,114.36	-790.98	-694.56	1,052.64	0.86	0.10	137.81	153.34
	NORMAL	6,320.0	0.80	206.50	6,210.35	-791.97	-695.03	1,053.69	0.31	0.31	3.33	8.50
	NORMAL	6,414.0	1.40	222.80	6,304.33	-793.40	-696.10	1,055.47	0.71	0.64	17.34	35.85
	NORMAL	6,509.0	0.20	341.10	6,399.32	-794.09	-696.94	1,056.55	1.58	-1.26	124.53	173.28
	NORMAL	6,604.0	0.50	182.40	6,494.32	-794.35	-697.01	1,056.79	0.73	0.32	-167.05	195.26
	NORMAL	6,700.0	0.60	205.10	6,590.32	-795.22	-697.24	1,057.60	0.25	0.10	23.65	76.98
	NORMAL	6,794.0	0.00	125.80	6,684.32	-795.67	-697.45	1,058.07	0.64	-0.64	0.00	180.00
	NORMAL	6,888.0	0.30	12.40	6,778.32	-795.43	-697.40	1,057.86	0.32	0.32	0.00	12.40
	NORMAL	6,983.0	0.30	320.70	6,873.32	-794.99	-697.50	1,057.60	0.28	0.00	-54.42	244.15
	NORMAL	7,078.0	0.60	231.40	6,968.31	-795.11	-698.05	1,058.05	0.70	0.32	-94.00	244.00
	NORMAL	7,173.0	1.10	221.30	7,063.30	-796.10	-699.04	1,059.45	0.55	0.53	-10.63	338.23
11/18/2011	NORMAL	7,268.0	0.50	114.60	7,158.30	-796.96	-699.26	1,060.24	1.40	-0.63	-112.32	201.06
	NORMAL	7,363.0	0.60	156.00	7,253.29	-797.59	-698.69	1,060.33	0.42	0.11	43.58	97.17
	NORMAL	7,457.0	1.50	198.00	7,347.28	-799.21	-698.87	1,061.67	1.20	0.96	44.68	62.85
	NORMAL	7,553.0	1.90	192.90	7,443.23	-801.96	-699.61	1,064.23	0.45	0.42	-5.31	336.72
	NORMAL	7,649.0	1.60	197.20	7,539.19	-804.79	-700.36	1,066.86	0.34	-0.31	4.48	158.50
	NORMAL	7,744.0	1.10	153.40	7,634.17	-806.87	-700.34	1,068.41	1.17	-0.53	-46.11	223.37
	NORMAL	7,840.0	1.40	146.90	7,730.14	-808.68	-699.29	1,069.08	0.35	0.31	-6.77	331.43
	NORMAL	7,936.0	1.90	162.20	7,826.10	-811.17	-698.16	1,070.22	0.69	0.52	15.94	49.20
	NORMAL	8,231.0	1.90	162.20	8,120.94	-820.49	-695.17	1,075.27	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

