

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	PA 341-29	Wellbore No.	OH
Well Name	PA 341-29	Common Name	PA 341-29
Project	PA 28-06S-095W	Site	PA 11-28 Pad
Vertical Section Azimuth	262.08 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	10/26/2011	UWI	PA 341-29
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	10/26/2011	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 (°)
10/26/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/26/2011	NORMAL	167.0	0.35	63.98	167.00	0.22	0.46	-0.48	0.21	0.21	0.00	63.98
	NORMAL	198.0	0.26	323.53	198.00	0.32	0.50	-0.54	1.52	-0.29	-324.03	212.77
	NORMAL	228.0	0.35	340.66	228.00	0.46	0.43	-0.49	0.42	0.30	57.10	54.15
	NORMAL	259.0	0.44	286.51	259.00	0.59	0.29	-0.36	1.19	0.29	-174.68	255.49
	NORMAL	289.0	1.14	292.59	288.99	0.73	-0.10	0.00	2.35	2.33	20.27	9.88
	NORMAL	319.0	1.85	268.51	318.98	0.84	-0.86	0.74	3.11	2.37	-80.27	306.04
	NORMAL	350.0	2.38	265.69	349.96	0.77	-2.00	1.88	1.74	1.71	-9.10	347.48
	NORMAL	380.0	3.34	266.13	379.93	0.67	-3.50	3.37	3.20	3.20	1.47	1.53
	NORMAL	410.0	3.96	252.25	409.87	0.29	-5.35	5.26	3.58	2.07	-46.27	298.00
	NORMAL	441.0	4.84	255.85	440.77	-0.35	-7.64	7.62	2.97	2.84	11.61	19.22
	NORMAL	471.0	5.87	257.00	470.64	-1.01	-10.36	10.40	3.45	3.43	3.83	6.52
	NORMAL	502.0	7.57	260.77	501.43	-1.69	-13.92	14.02	5.66	5.48	12.16	16.43
	NORMAL	533.0	8.18	260.89	532.14	-2.37	-18.12	18.27	1.97	1.97	0.39	1.60
	NORMAL	564.0	9.50	260.86	562.77	-3.12	-22.82	23.03	4.26	4.26	-0.10	359.79
	NORMAL	594.0	10.65	266.40	592.30	-3.69	-28.03	28.27	5.01	3.83	18.47	42.87
	NORMAL	624.0	11.52	266.92	621.74	-4.03	-33.79	34.02	2.92	2.90	1.73	6.81
10/27/2011	NORMAL	701.0	11.50	261.90	697.20	-5.52	-49.07	49.36	1.30	-0.03	-6.52	266.40
	NORMAL	792.0	12.10	259.80	786.27	-8.49	-67.44	67.96	0.81	0.66	-2.31	323.38
	NORMAL	884.0	12.90	259.60	876.09	-12.05	-87.03	87.86	0.87	0.87	-0.22	356.81
	NORMAL	975.0	12.20	261.20	964.92	-15.35	-106.52	107.62	0.86	-0.77	1.76	154.37

2.1.2 Survey Stations (Continued)

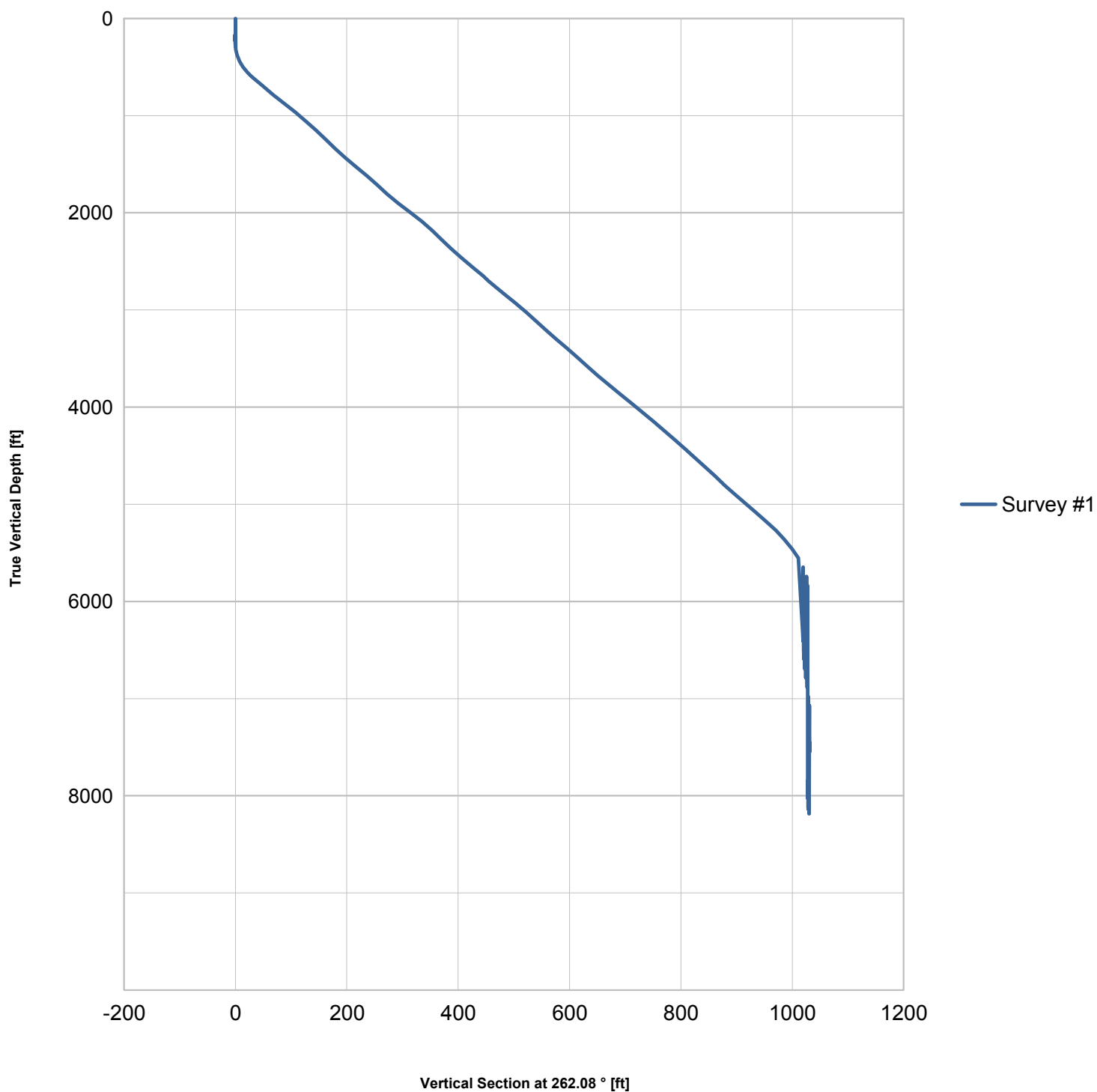
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
10/27/2011	NORMAL	1,071.0	10.70	264.50	1,059.01	-17.76	-125.42	126.67	1.70	-1.56	3.44	158.02
	NORMAL	1,166.0	11.40	263.60	1,152.24	-19.65	-143.53	144.86	0.76	0.74	-0.95	345.71
	NORMAL	1,262.0	9.90	264.90	1,246.59	-21.44	-161.17	162.59	1.58	-1.56	1.35	171.54
	NORMAL	1,357.0	10.40	263.40	1,340.10	-23.15	-177.83	179.32	0.60	0.53	-1.58	331.40
	NORMAL	1,453.0	11.30	262.40	1,434.38	-25.39	-195.76	197.39	0.96	0.94	-1.04	347.70
	NORMAL	1,548.0	12.20	261.90	1,527.39	-28.04	-214.92	216.73	0.95	0.95	-0.53	353.30
	NORMAL	1,644.0	11.50	263.30	1,621.35	-30.59	-234.47	236.45	0.79	-0.73	1.46	158.36
	NORMAL	1,739.0	10.60	261.50	1,714.58	-32.98	-252.52	254.65	1.01	-0.95	-1.89	200.09
	NORMAL	1,835.0	11.40	259.90	1,808.82	-35.95	-270.59	272.96	0.89	0.83	-1.67	338.33
	NORMAL	1,931.0	12.40	260.40	1,902.76	-39.33	-290.09	292.75	1.05	1.04	0.52	6.13
	NORMAL	2,026.0	13.40	257.80	1,995.36	-43.36	-310.91	313.92	1.22	1.05	-2.74	328.60
	NORMAL	2,122.0	12.20	262.70	2,088.97	-47.00	-331.85	335.16	1.68	-1.25	5.10	140.24
	NORMAL	2,218.0	10.00	265.20	2,183.17	-48.99	-350.22	353.63	2.35	-2.29	2.60	168.88
	NORMAL	2,313.0	10.10	264.10	2,276.71	-50.53	-366.72	370.19	0.23	0.11	-1.16	296.97
	NORMAL	2,409.0	10.70	263.60	2,371.14	-52.39	-383.95	387.51	0.63	0.63	-0.52	351.20
	NORMAL	2,504.0	11.60	263.10	2,464.34	-54.52	-402.20	405.87	0.95	0.95	-0.53	353.62
	NORMAL	2,600.0	12.50	263.40	2,558.23	-56.88	-422.10	425.91	0.94	0.94	0.31	4.13
10/28/2011	NORMAL	2,695.0	10.70	264.40	2,651.28	-58.92	-441.09	445.00	1.91	-1.89	1.05	174.12
	NORMAL	2,748.0	11.00	265.70	2,703.34	-59.78	-451.03	454.96	0.73	0.57	2.45	39.84
10/30/2011	NORMAL	2,787.0	11.60	265.70	2,741.58	-60.35	-458.65	462.59	1.54	1.54	0.00	0.00
	NORMAL	2,883.0	12.40	258.90	2,835.49	-63.06	-478.39	482.52	1.69	0.83	-7.08	296.15
	NORMAL	2,978.0	11.90	258.50	2,928.36	-66.98	-498.00	502.48	0.53	-0.53	-0.42	189.36
	NORMAL	3,074.0	11.30	255.30	3,022.40	-71.34	-516.79	521.69	0.92	-0.63	-3.33	225.44
	NORMAL	3,170.0	11.10	259.20	3,116.57	-75.46	-534.97	540.26	0.82	-0.21	4.06	106.70
	NORMAL	3,266.0	10.50	258.00	3,210.87	-79.01	-552.60	558.22	0.67	-0.63	-1.25	199.96
	NORMAL	3,362.0	11.90	266.10	3,305.04	-81.50	-571.04	576.82	2.19	1.46	8.44	52.36
	NORMAL	3,552.0	11.00	263.10	3,491.25	-85.20	-608.65	614.58	0.56	-0.53	-1.05	200.82
	NORMAL	3,648.0	10.60	264.10	3,585.54	-87.21	-626.52	632.56	0.46	-0.42	1.04	155.39
	NORMAL	3,744.0	12.10	256.10	3,679.67	-90.53	-645.07	651.40	2.26	1.56	-8.33	309.64
	NORMAL	3,840.0	11.90	255.70	3,773.57	-95.39	-664.43	671.24	0.23	-0.21	-0.42	202.38
	NORMAL	3,935.0	12.20	260.40	3,866.48	-99.49	-683.82	691.01	1.08	0.32	4.95	75.31
	NORMAL	4,031.0	12.10	261.00	3,960.33	-102.75	-703.76	711.21	0.17	-0.10	0.63	128.67
	NORMAL	4,126.0	12.10	260.60	4,053.22	-105.94	-723.42	731.12	0.09	0.00	-0.42	269.80
	NORMAL	4,223.0	11.40	266.10	4,148.19	-108.25	-743.01	750.84	1.36	-0.72	5.67	124.68
	NORMAL	4,318.0	11.60	266.10	4,241.28	-109.54	-761.91	769.74	0.21	0.21	0.00	0.00
	NORMAL	4,413.0	11.50	266.30	4,334.36	-110.80	-780.89	788.71	0.11	-0.11	0.21	158.27
	NORMAL	4,508.0	10.90	263.60	4,427.55	-112.41	-799.27	807.13	0.84	-0.63	-2.84	219.84
	NORMAL	4,603.0	10.90	264.30	4,520.84	-114.30	-817.13	825.08	0.14	0.00	0.74	90.34
	NORMAL	4,698.0	10.80	262.00	4,614.14	-116.44	-834.88	842.96	0.47	-0.11	-2.42	255.87
	NORMAL	4,794.0	10.70	260.00	4,708.45	-119.23	-852.56	860.86	0.40	-0.10	-2.08	254.01
10/30/2011	NORMAL	3,457.0	11.50	264.10	3,398.07	-83.14	-590.23	596.05	0.60	-0.42	-2.11	224.42
10/31/2011	NORMAL	4,890.0	10.40	259.70	4,802.83	-122.33	-869.87	878.42	0.32	-0.31	-0.31	190.23
	NORMAL	4,984.0	11.30	262.00	4,895.15	-125.13	-887.33	896.11	1.06	0.96	2.45	26.82
	NORMAL	5,079.0	11.60	260.60	4,988.26	-127.99	-905.97	914.97	0.43	0.32	-1.47	316.50
	NORMAL	5,174.0	11.50	264.70	5,081.34	-130.42	-924.83	933.98	0.87	-0.11	4.32	98.95
	NORMAL	5,269.0	11.10	262.20	5,174.50	-132.54	-943.32	952.58	0.67	-0.42	-2.63	229.55
	NORMAL	5,365.0	10.30	268.20	5,268.83	-134.06	-961.05	970.36	1.43	-0.83	6.25	128.61
	NORMAL	5,459.0	8.60	272.10	5,361.55	-134.07	-976.48	985.63	1.93	-1.81	4.15	161.28
	NORMAL	5,555.0	8.00	269.60	5,456.55	-133.85	-990.33	999.33	0.73	-0.63	-2.60	209.79
	NORMAL	5,651.0	6.40	276.80	5,551.79	-133.26	-1,002.32	1,011.12	1.91	-1.67	7.50	154.12
	NORMAL	5,746.0	4.50	282.40	5,646.35	-131.84	-1,011.22	1,019.74	2.07	-2.00	5.89	167.14
	NORMAL	5,842.0	2.50	250.40	5,742.18	-131.73	-1,016.87	1,025.32	2.84	-2.08	-33.33	209.11
	NORMAL	5,937.0	1.20	195.10	5,837.13	-133.38	-1,019.08	1,027.74	2.18	-1.37	-58.21	208.51
	NORMAL	6,033.0	1.70	58.50	5,933.12	-133.61	-1,018.13	1,026.83	2.81	0.52	-142.29	205.63
	NORMAL	6,129.0	1.80	58.00	6,029.07	-132.07	-1,015.64	1,024.15	0.11	0.10	-0.52	351.07
	NORMAL	6,225.0	1.40	53.70	6,125.04	-130.58	-1,013.42	1,021.74	0.43	-0.42	-4.48	194.57
	NORMAL	6,320.0	1.30	74.50	6,220.01	-129.60	-1,011.44	1,019.65	0.52	-0.11	21.89	111.81

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 (°)
10/31/2011	NORMAL	6,415.0	0.70	328.60	6,315.00	-128.82	-1,010.71	1,018.81	1.72	-0.63	-111.47	204.29
	NORMAL	6,510.0	0.80	303.70	6,409.99	-127.95	-1,011.56	1,019.54	0.36	0.11	-26.21	274.35
	NORMAL	6,605.0	0.40	278.40	6,504.99	-127.54	-1,012.44	1,020.36	0.50	-0.42	-26.63	201.30
11/2/2011	NORMAL	6,700.0	0.60	269.40	6,599.99	-127.49	-1,013.26	1,021.17	0.23	0.21	-9.47	334.02
	NORMAL	6,795.0	1.10	249.00	6,694.97	-127.83	-1,014.61	1,022.55	0.61	0.53	-21.47	318.35
	NORMAL	6,888.0	1.40	228.10	6,787.95	-128.90	-1,016.29	1,024.36	0.58	0.32	-22.47	292.60
	NORMAL	6,984.0	2.00	226.30	6,883.91	-130.85	-1,018.38	1,026.69	0.63	0.63	-1.88	354.01
	NORMAL	7,079.0	1.80	218.30	6,978.86	-133.16	-1,020.50	1,029.11	0.35	-0.21	-8.42	229.03
	NORMAL	7,173.0	1.40	196.50	7,072.82	-135.42	-1,021.74	1,030.65	0.77	-0.43	-23.19	226.11
	NORMAL	7,268.0	0.60	92.20	7,167.81	-136.55	-1,021.57	1,030.64	1.74	-0.84	-109.79	200.59
	NORMAL	7,363.0	0.10	54.40	7,262.81	-136.52	-1,021.01	1,030.08	0.55	-0.53	-39.79	186.71
	NORMAL	7,458.0	1.10	226.20	7,357.80	-137.11	-1,021.60	1,030.75	1.26	1.05	180.84	172.48
	NORMAL	7,553.0	1.10	183.30	7,452.79	-138.65	-1,022.31	1,031.66	0.85	0.00	-45.16	248.55
	NORMAL	7,649.0	0.80	91.70	7,548.78	-139.59	-1,021.69	1,031.18	1.44	-0.31	-95.42	215.47
	NORMAL	7,744.0	0.80	68.10	7,643.77	-139.36	-1,020.41	1,029.88	0.34	0.00	-24.84	258.20
	NORMAL	7,841.0	0.60	141.10	7,740.77	-139.50	-1,019.47	1,028.97	0.87	-0.21	75.26	137.43
	NORMAL	7,936.0	0.50	53.50	7,835.76	-139.64	-1,018.82	1,028.35	0.81	-0.11	-92.21	220.79
	NORMAL	8,032.0	0.30	26.30	7,931.76	-139.17	-1,018.37	1,027.84	0.28	-0.21	-28.33	210.46
	NORMAL	8,127.0	0.30	197.50	8,026.76	-139.18	-1,018.34	1,027.80	0.63	0.00	180.21	175.60
	NORMAL	8,222.0	1.60	208.80	8,121.74	-140.58	-1,019.05	1,028.70	1.38	1.37	11.89	13.88
	NORMAL	8,240.0	1.80	218.60	8,139.74	-141.02	-1,019.35	1,029.06	1.96	1.11	54.44	60.44
	NORMAL	8,285.0	1.80	218.60	8,184.71	-142.13	-1,020.23	1,030.08	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

