

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	PA 614-29	Wellbore No.	OH
Well Name	PA 614-29	Common Name	PA 614-29
Project	PA 29-06S-095W	Site	DOE 3-W-29 Pad
Vertical Section Azimuth	297.90 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	3/21/2012	UWI	PA 614-29
Active Datum	KB @5,702.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	3/20/2012	Ended	
Tool Name	MWD	Engineer	

#### 2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)

#### 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 (°)

### 2.2 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	3/21/2012	Ended	
Tool Name	MWD	Engineer	

#### 2.2.1 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

#### 2.2.2 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 (°)
3/21/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/21/2012	NORMAL	162.0	0.88	266.80	161.99	-1.01	-0.58	0.04	1.71	0.30	133.38	122.28
	NORMAL	254.0	3.26	265.69	253.93	-1.24	-3.89	2.86	2.59	2.59	-1.21	358.48

## 2.2.2 Survey Stations (Continued)

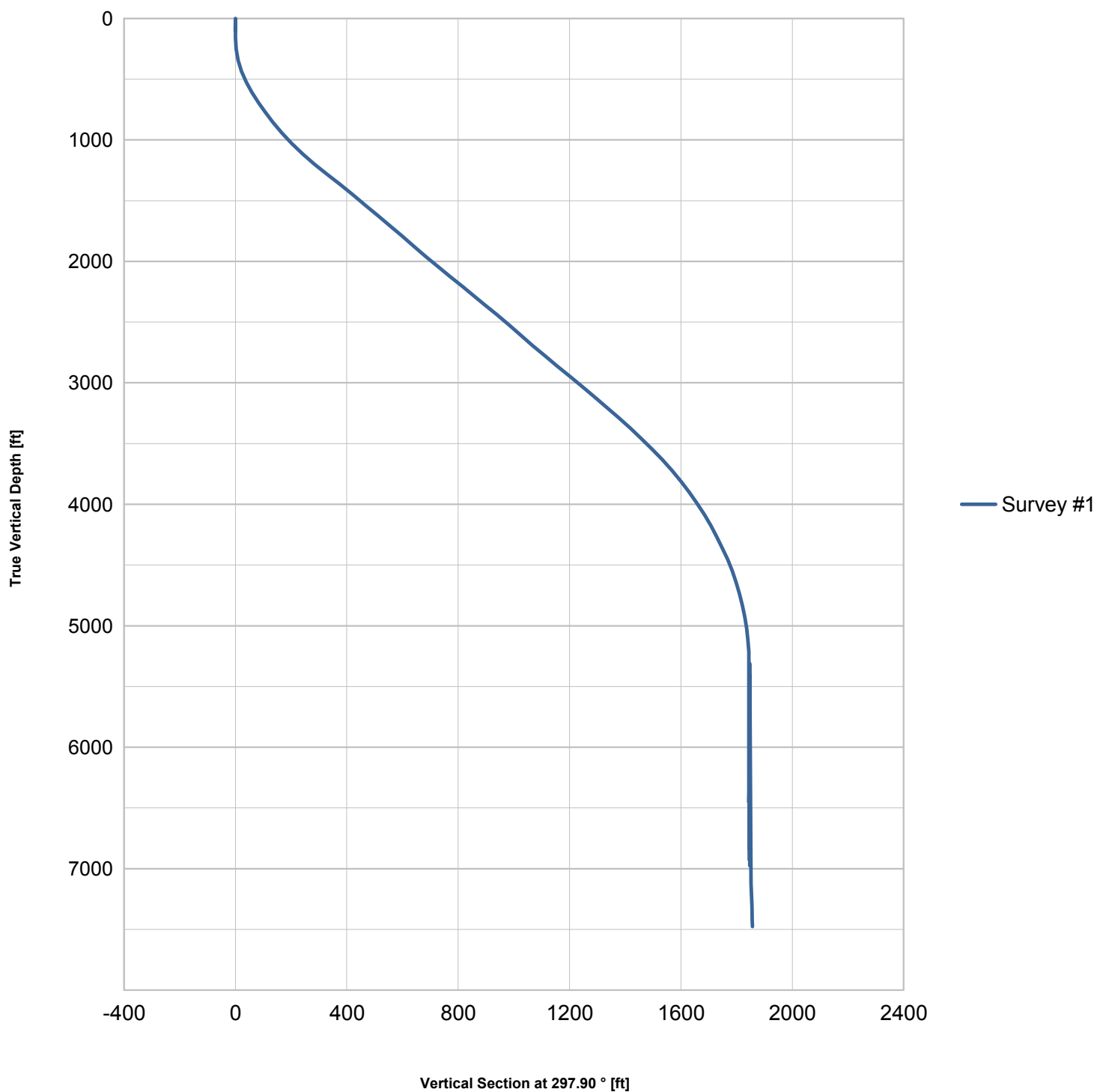
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
3/21/2012	NORMAL	345.0	7.13	266.57	344.54	-1.78	-12.11	9.87	4.25	4.25	0.97	1.62
	NORMAL	436.0	10.91	267.36	434.39	-2.51	-26.36	22.12	4.16	4.15	0.87	2.27
	NORMAL	527.0	14.08	267.19	523.23	-3.45	-46.02	39.06	3.48	3.48	-0.19	359.25
	NORMAL	618.0	16.89	267.45	610.92	-4.58	-70.29	59.97	3.09	3.09	0.29	1.54
	NORMAL	709.0	17.95	275.98	697.75	-3.71	-97.44	84.38	3.04	1.16	9.37	71.57
	NORMAL	783.0	18.47	280.45	768.05	-0.40	-120.31	106.14	2.01	0.70	6.04	71.71
	NORMAL	874.0	18.99	291.17	854.26	7.57	-148.31	134.61	3.82	0.57	11.78	86.51
	NORMAL	966.0	21.10	298.02	940.69	20.76	-176.89	166.04	3.43	2.29	7.45	51.31
	NORMAL	1,062.0	23.48	298.02	1,029.51	37.86	-209.03	202.45	2.48	2.48	0.00	0.00
3/21/2012	NORMAL	102.0	0.70	186.77	102.00	-0.62	-0.07	-0.22	0.69	0.69	0.00	186.77
3/22/2012	NORMAL	1,157.0	25.41	297.50	1,115.99	56.17	-243.82	241.76	2.04	2.03	-0.55	353.40
	NORMAL	1,252.0	27.44	296.27	1,201.06	75.27	-281.53	284.03	2.21	2.14	-1.29	344.36
	NORMAL	1,348.0	29.81	297.32	1,285.32	96.01	-322.57	330.01	2.52	2.47	1.09	12.45
	NORMAL	1,443.0	29.19	296.09	1,368.01	117.04	-364.36	376.77	0.91	-0.65	-1.29	223.80
	NORMAL	1,539.0	27.26	295.04	1,452.59	136.64	-405.31	422.13	2.08	-2.01	-1.09	193.97
	NORMAL	1,635.0	28.14	296.97	1,537.59	156.21	-445.40	466.73	1.31	0.92	2.01	46.41
	NORMAL	1,730.0	27.08	296.97	1,621.77	176.18	-484.64	510.75	1.12	-1.12	0.00	180.00
	NORMAL	1,826.0	27.79	298.90	1,706.97	196.91	-523.71	554.98	1.19	0.74	2.01	52.25
	NORMAL	1,920.0	26.91	298.38	1,790.47	217.61	-561.61	598.16	0.97	-0.94	-0.55	194.96
	NORMAL	2,014.0	26.38	299.08	1,874.48	237.87	-598.58	640.31	0.66	-0.56	0.74	149.67
	NORMAL	2,110.0	27.26	298.55	1,960.15	258.74	-636.53	683.62	0.95	0.92	-0.55	344.56
3/24/2012	NORMAL	2,298.0	28.05	298.73	2,126.23	301.74	-713.42	771.69	0.55	-0.19	-1.11	249.56
	NORMAL	2,395.0	28.40	301.01	2,211.70	324.59	-753.19	817.53	1.17	0.36	2.35	73.02
	NORMAL	2,460.0	28.58	297.32	2,268.84	339.69	-780.25	848.51	2.72	0.28	-5.68	274.22
	NORMAL	2,556.0	27.87	296.27	2,353.42	360.16	-820.78	893.90	0.90	-0.74	-1.09	214.51
	NORMAL	2,651.0	27.96	294.68	2,437.37	379.29	-860.92	938.34	0.79	0.09	-1.67	276.19
	NORMAL	2,747.0	26.73	295.39	2,522.64	397.94	-900.88	982.38	1.33	-1.28	0.74	165.46
	NORMAL	2,842.0	25.94	296.44	2,607.78	416.36	-938.79	1,024.49	0.97	-0.83	1.11	149.95
	NORMAL	2,938.0	27.26	296.62	2,693.62	435.56	-977.24	1,067.46	1.38	1.38	0.19	3.57
	NORMAL	3,033.0	27.79	297.32	2,777.86	455.47	-1,016.37	1,111.36	0.65	0.56	0.74	31.71
	NORMAL	3,129.0	27.87	299.43	2,862.76	476.77	-1,055.80	1,156.17	1.03	0.08	2.20	86.29
	NORMAL	3,224.0	28.05	298.73	2,946.67	498.41	-1,094.72	1,200.70	0.39	0.19	-0.74	298.43
	NORMAL	3,320.0	27.87	298.55	3,031.47	519.99	-1,134.22	1,245.71	0.21	-0.19	-0.19	205.04
	NORMAL	3,415.0	27.17	297.50	3,115.72	540.62	-1,172.97	1,289.60	0.90	-0.74	-1.11	214.26
	NORMAL	3,511.0	27.08	297.15	3,201.16	560.71	-1,211.85	1,333.37	0.19	-0.09	-0.36	240.42
	NORMAL	3,606.0	26.02	299.08	3,286.14	580.70	-1,249.31	1,375.82	1.44	-1.12	2.03	141.72
	NORMAL	3,701.0	25.41	299.43	3,371.73	600.85	-1,285.27	1,417.03	0.66	-0.64	0.37	166.18
	NORMAL	3,797.0	24.62	300.54	3,458.73	621.13	-1,320.43	1,457.60	0.96	-0.82	1.16	149.79
	NORMAL	3,892.0	23.65	301.54	3,545.42	641.15	-1,353.72	1,496.38	1.11	-1.02	1.05	157.60
	NORMAL	3,987.0	22.35	303.12	3,632.87	660.99	-1,385.09	1,533.39	1.51	-1.37	1.66	155.32
	NORMAL	4,083.0	20.58	301.19	3,722.21	679.70	-1,414.81	1,568.41	1.98	-1.84	-2.01	200.86
3/24/2012	NORMAL	2,203.0	28.23	299.78	2,042.46	279.85	-674.33	726.90	1.21	1.04	1.32	31.10
3/25/2012	NORMAL	4,178.0	18.64	301.36	3,811.69	696.25	-1,442.06	1,600.24	2.04	-2.04	0.18	178.40
	NORMAL	4,273.0	17.76	300.13	3,901.94	711.43	-1,467.56	1,629.87	1.01	-0.93	-1.29	203.00
	NORMAL	4,368.0	16.44	300.48	3,992.74	725.52	-1,491.67	1,657.78	1.39	-1.39	0.37	175.71
	NORMAL	4,463.0	15.48	300.31	4,084.08	738.74	-1,514.20	1,683.88	1.01	-1.01	-0.18	182.71
	NORMAL	4,558.0	13.19	300.66	4,176.11	750.66	-1,534.48	1,707.37	2.41	-2.41	0.37	178.00
	NORMAL	4,654.0	12.40	303.65	4,269.73	761.96	-1,552.48	1,728.57	1.07	-0.82	3.11	141.48
	NORMAL	4,749.0	12.49	303.65	4,362.50	773.30	-1,569.52	1,748.94	0.09	0.09	0.00	0.00
	NORMAL	4,845.0	10.99	301.54	4,456.49	783.84	-1,585.96	1,768.40	1.62	-1.56	-2.20	194.94
	NORMAL	4,941.0	8.97	298.38	4,551.03	792.19	-1,600.35	1,785.02	2.18	-2.10	-3.29	193.62
	NORMAL	5,036.0	7.47	292.93	4,645.05	798.12	-1,612.55	1,798.58	1.78	-1.58	-5.74	204.77
	NORMAL	5,131.0	7.03	291.34	4,739.29	802.64	-1,623.65	1,810.51	0.51	-0.46	-1.67	203.73
	NORMAL	5,227.0	5.80	288.36	4,834.69	806.30	-1,633.73	1,821.13	1.33	-1.28	-3.10	193.67
	NORMAL	5,321.0	4.66	282.73	4,928.30	808.64	-1,641.96	1,829.50	1.33	-1.21	-5.99	201.45
3/26/2012	NORMAL	5,417.0	3.30	290.10	5,024.06	810.45	-1,648.36	1,836.00	1.51	-1.42	7.68	163.04
	NORMAL	5,512.0	2.73	297.50	5,118.93	812.43	-1,652.94	1,840.97	0.73	-0.60	7.79	149.33

## 2.2.2 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 (°)
3/26/2012	NORMAL	5,608.0	1.80	334.40	5,214.86	814.85	-1,655.61	1,844.47	1.75	-0.97	38.44	140.05
	NORMAL	5,703.0	1.60	332.50	5,309.82	817.37	-1,656.87	1,846.76	0.22	-0.21	-2.00	194.79
	NORMAL	5,798.0	0.30	160.20	5,404.81	818.31	-1,657.40	1,847.67	2.00	-1.37	-181.37	181.21
	NORMAL	5,893.0	0.90	182.20	5,499.80	817.33	-1,657.34	1,847.16	0.67	0.63	23.16	32.24
	NORMAL	5,988.0	1.20	168.70	5,594.79	815.61	-1,657.18	1,846.21	0.41	0.32	-14.21	313.61
	NORMAL	6,084.0	0.80	172.70	5,690.77	813.96	-1,656.90	1,845.19	0.42	-0.42	4.17	172.10
	NORMAL	6,179.0	0.30	254.40	5,785.77	813.24	-1,657.05	1,844.98	0.86	-0.53	86.00	158.58
	NORMAL	6,275.0	0.50	207.90	5,881.77	812.80	-1,657.49	1,845.17	0.38	0.21	-48.44	276.95
3/27/2012	NORMAL	6,370.0	1.10	224.60	5,976.76	811.78	-1,658.32	1,845.43	0.67	0.63	17.58	29.72
	NORMAL	6,466.0	0.20	142.50	6,072.75	811.00	-1,658.87	1,845.54	1.14	-0.94	-85.52	190.47
	NORMAL	6,561.0	0.70	180.10	6,167.75	810.28	-1,658.77	1,845.12	0.58	0.53	39.58	50.30
	NORMAL	6,656.0	0.30	164.80	6,262.74	809.46	-1,658.70	1,844.68	0.44	-0.42	-16.11	190.91
	NORMAL	6,752.0	1.10	211.40	6,358.74	808.43	-1,659.12	1,844.56	0.96	0.83	48.54	60.30
	NORMAL	6,847.0	0.80	197.50	6,453.72	807.02	-1,659.79	1,844.50	0.40	-0.32	-14.63	210.72
	NORMAL	6,942.0	0.70	332.50	6,548.72	806.91	-1,660.26	1,844.86	1.46	-0.11	142.11	159.08
	NORMAL	7,038.0	0.10	237.60	6,644.72	807.38	-1,660.60	1,845.38	0.75	-0.63	-98.85	188.00
	NORMAL	7,134.0	1.10	214.40	6,740.71	806.58	-1,661.19	1,845.53	1.05	1.04	-24.17	334.56
	NORMAL	7,229.0	0.80	207.20	6,835.70	805.23	-1,662.01	1,845.62	0.34	-0.32	-7.58	198.12
	NORMAL	7,324.0	1.70	236.50	6,930.68	803.87	-1,663.49	1,846.29	1.13	0.95	30.84	50.63
	NORMAL	7,369.0	2.20	244.40	6,975.65	803.12	-1,664.83	1,847.12	1.26	1.11	17.56	32.25
3/28/2012	NORMAL	7,515.0	3.10	264.10	7,121.49	801.51	-1,671.28	1,852.07	0.87	0.62	13.49	55.47
	NORMAL	7,705.0	2.10	189.20	7,311.34	797.54	-1,676.95	1,855.22	1.72	-0.53	-39.42	218.48
	NORMAL	7,826.0	3.10	234.40	7,432.23	793.45	-1,679.96	1,855.97	1.82	0.83	37.36	87.78
	NORMAL	7,871.0	3.10	234.40	7,477.16	792.03	-1,681.94	1,857.06	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



### 3.2 Plan View

