

## I General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	RWF 313-29	Wellbore No.	OH
Well Name	RWF 313-29	Common Name	RWF 313-29
Project	RU 29-06S-094W	Site	RWF 14-29 Pad
Vertical Section Azimuth	3.41 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	4/8/2013	UWI	RWF 313-29
Active Datum	KB @5,445.2ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	4/8/2013	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

5464

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 (°)
4/8/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/8/2013	NORMAL	102.0	1.50	34.28	101.98	1.10	0.75	1.15	1.47	1.47	0.00	34.28
	NORMAL	132.0	1.94	24.35	131.97	1.89	1.18	1.96	1.77	1.47	-33.09	320.86
	NORMAL	163.0	1.32	5.45	162.96	2.72	1.43	2.80	2.62	-2.00	-60.97	211.74
	NORMAL	194.0	0.44	19.60	193.96	3.19	1.51	3.28	2.90	-2.84	45.65	173.13
	NORMAL	224.0	1.41	356.92	223.95	3.67	1.53	3.75	3.39	3.23	-75.60	327.73
4/9/2013	NORMAL	254.0	1.50	358.33	253.94	4.43	1.49	4.51	0.32	0.30	4.70	22.40
	NORMAL	285.0	2.90	3.43	284.92	5.62	1.53	5.70	4.56	4.52	16.45	10.5°
	NORMAL	316.0	4.31	355.69	315.86	7.56	1.49	7.64	4.80	4.55	-24.97	337.07
	NORMAL	347.0	4.57	357.36	346.77	9.96	1.34	10.02	0.94	0.84	5.39	27.27
	NORMAL	377.0	5.54	1.23	376.65	12.60	1.32	12.66	3.43	3.23	12.90	21.30
	NORMAL	408.0	6.60	0.26	407.47	15.88	1.36	15.93	3.44	3.42	-3.13	353.99
	NORMAL	439.0	7.83	4.31	438.23	19.76	1.53	19.82	4.29	3.97	13.06	24.48
	NORMAL	470.0	8.53	4.48	468.91	24.16	1.87	24.23	2.26	2.26	0.55	2.06
	NORMAL	531.0	8.80	0.00	529.22	33.34	2.22	33.41	1.19	0.44	-7.34	289.58
	NORMAL	622.0	11.00	359.03	618.86	48.98	2.07	49.02	2.42	2.42	-1.07	355.19
	NORMAL	713.0	11.52	3.78	708.11	66.73	2.52	66.76	1.17	0.57	5.22	63.07
	NORMAL	785.0	12.33	4.36	778.55	81.57	3.58	81.64	1.14	1.13	0.81	8.70
	NORMAL	877.0	11.96	3.32	868.49	100.88	4.88	100.99	0.47	-0.40	-1.13	210.09
	NORMAL	969.0	12.93	2.76	958.33	120.68	5.93	120.82	1.06	1.05	-0.61	352.63
	NORMAL	1,064.0	10.99	3.15	1,051.26	140.34	6.94	140.50	2.04	-2.04	0.41	177.8°

## 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 (°)
4/11/2013	NORMAL	1,165.0	11.12	5.34	1,150.39	159.65	8.37	159.86	0.44	0.13	2.17	73.88
	NORMAL	1,260.0	11.78	6.22	1,243.50	178.41	10.28	178.71	0.72	0.69	0.93	15.26
	NORMAL	1,355.0	12.09	6.22	1,336.45	197.94	12.41	198.33	0.33	0.33	0.00	0.00
	NORMAL	1,450.0	11.69	8.24	1,429.41	217.36	14.86	217.86	0.61	-0.42	2.13	134.85
	NORMAL	1,546.0	11.16	1.13	1,523.51	236.27	16.44	236.83	1.57	-0.55	-7.41	245.92
	NORMAL	1,641.0	10.95	1.39	1,616.75	254.48	16.84	255.03	0.23	-0.22	0.27	166.77
	NORMAL	1,736.0	11.52	0.60	1,709.93	272.99	17.16	273.53	0.62	0.60	-0.83	344.50
	NORMAL	1,832.0	11.30	2.79	1,804.03	291.97	17.72	292.51	0.51	-0.23	2.28	117.99
	NORMAL	1,927.0	10.99	3.67	1,897.24	310.30	18.75	310.87	0.37	-0.33	0.93	151.68
	NORMAL	2,022.0	10.55	2.71	1,990.56	328.03	19.74	328.62	0.50	-0.46	-1.01	201.71
	NORMAL	2,117.0	10.20	3.67	2,084.01	345.11	20.69	345.73	0.41	-0.37	1.01	154.18
	NORMAL	2,213.0	10.95	2.00	2,178.38	362.70	21.55	363.34	0.84	0.78	-1.74	336.95
	NORMAL	2,308.0	10.81	1.55	2,271.67	380.63	22.11	381.27	0.17	-0.15	-0.48	211.25
	NORMAL	2,403.0	11.56	2.44	2,364.87	399.04	22.75	399.69	0.81	0.79	0.94	13.46
	NORMAL	2,499.0	11.69	0.69	2,458.90	418.38	23.28	419.02	0.39	0.14	-1.82	289.38
	NORMAL	2,594.0	11.65	359.98	2,551.93	437.59	23.39	438.21	0.16	-0.04	-0.75	254.09
	NORMAL	2,689.0	11.69	5.78	2,644.97	456.76	24.36	457.40	1.24	0.04	6.11	90.89
	NORMAL	2,784.0	11.82	3.76	2,737.98	476.04	25.97	476.75	0.45	0.14	-2.13	286.54
	NORMAL	2,880.0	11.16	2.88	2,832.06	495.13	27.08	495.87	0.71	-0.69	-0.92	194.44
	NORMAL	2,975.0	11.91	7.98	2,925.14	514.02	28.90	514.83	1.33	0.79	5.37	56.19
	NORMAL	3,071.0	11.87	6.84	3,019.08	533.64	31.45	534.56	0.25	-0.04	-1.19	259.78
	NORMAL	3,165.0	11.34	6.13	3,111.16	552.43	33.59	553.45	0.58	-0.56	-0.76	194.73
	NORMAL	3,260.0	10.86	3.32	3,204.38	570.65	35.11	571.72	0.76	-0.51	-2.96	227.05
	NORMAL	3,356.0	11.08	2.09	3,298.63	588.89	35.97	589.99	0.33	0.23	-1.28	312.62
	NORMAL	3,451.0	11.39	1.83	3,391.81	607.39	36.60	608.49	0.33	0.33	-0.27	350.59
	NORMAL	3,547.0	11.74	7.45	3,485.86	626.55	38.17	627.71	1.23	0.36	5.85	75.5'
4/12/2013	NORMAL	3,642.0	12.09	7.45	3,578.81	646.00	40.71	647.28	0.37	0.37	0.00	0.00
	NORMAL	3,737.0	12.40	6.22	3,671.65	666.00	43.11	667.39	0.43	0.33	-1.29	319.32
	NORMAL	3,833.0	11.69	4.38	3,765.54	685.95	44.96	687.41	0.84	-0.74	-1.92	207.5'
	NORMAL	3,928.0	11.34	4.55	3,858.63	704.85	46.44	706.37	0.37	-0.37	0.18	174.55
	NORMAL	4,023.0	10.81	358.05	3,951.86	723.07	46.88	724.58	1.43	-0.56	-6.84	243.83
	NORMAL	4,118.0	11.30	358.05	4,045.10	741.28	46.26	742.71	0.52	0.52	0.00	0.00
	NORMAL	4,213.0	11.30	356.99	4,138.26	759.87	45.45	761.23	0.22	0.00	-1.12	269.48
	NORMAL	4,309.0	10.99	357.61	4,232.45	778.41	44.58	779.68	0.35	-0.32	0.65	159.17
	NORMAL	4,404.0	11.12	358.66	4,325.68	796.61	43.99	797.82	0.25	0.14	1.11	57.67
	NORMAL	4,499.0	11.52	357.61	4,418.84	815.25	43.38	816.39	0.47	0.42	-1.11	332.22
	NORMAL	4,594.0	11.21	3.76	4,511.98	833.94	43.59	835.06	1.32	-0.33	6.47	107.35
	NORMAL	4,690.0	11.16	4.64	4,606.15	852.51	44.95	853.68	0.19	-0.05	0.92	106.76
	NORMAL	4,785.0	9.49	7.28	4,699.61	869.45	46.69	870.69	1.83	-1.76	2.78	165.48
	NORMAL	4,880.0	7.21	4.64	4,793.60	883.16	48.16	884.46	2.43	-2.40	-2.78	188.24
	NORMAL	4,976.0	5.19	6.31	4,889.03	893.48	49.13	894.82	2.11	-2.10	1.74	175.73
	NORMAL	5,071.0	3.38	5.17	4,983.76	900.54	49.85	901.91	1.91	-1.91	-1.20	182.13
	NORMAL	5,166.0	2.68	7.54	5,078.63	905.53	50.39	906.93	0.75	-0.74	2.49	171.04
	NORMAL	5,261.0	2.07	349.79	5,173.55	909.42	50.38	910.81	1.00	-0.64	-18.68	221.69
	NORMAL	5,356.0	1.10	10.44	5,268.51	912.01	50.24	913.38	1.17	-1.02	21.74	159.56
	NORMAL	5,452.0	0.75	23.71	5,364.50	913.49	50.66	914.89	0.43	-0.36	13.82	155.05
4/13/2013	NORMAL	5,547.0	0.83	2.53	5,459.49	914.75	50.94	916.16	0.32	0.08	-22.29	274.56
	NORMAL	5,642.0	1.27	9.39	5,554.47	916.47	51.14	917.89	0.48	0.46	7.22	19.39
	NORMAL	5,737.0	1.10	23.63	5,649.45	918.35	51.68	919.80	0.36	-0.18	14.99	126.99
	NORMAL	5,832.0	0.83	27.76	5,744.44	919.79	52.37	921.28	0.29	-0.28	4.35	167.6'
	NORMAL	5,928.0	1.23	343.46	5,840.43	921.39	52.40	922.88	0.90	0.42	-46.15	273.36
	NORMAL	6,023.0	1.23	345.22	5,935.40	923.36	51.85	924.81	0.04	0.00	1.85	90.88
	NORMAL	6,118.0	1.01	345.48	6,030.39	925.15	51.38	926.57	0.23	-0.23	0.27	178.8'
	NORMAL	6,213.0	0.70	350.23	6,125.38	926.54	51.07	927.93	0.33	-0.33	5.00	169.49
	NORMAL	6,309.0	0.70	2.71	6,221.37	927.70	51.00	929.09	0.16	0.00	13.00	96.24
	NORMAL	6,404.0	0.97	359.89	6,316.36	929.08	51.02	930.47	0.29	0.28	-2.97	349.93
	NORMAL	6,499.0	0.83	12.82	6,411.35	930.56	51.17	931.96	0.26	-0.15	13.61	130.93

## 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 (°)
4/13/2013	NORMAL	6,594.0	1.45	359.54	6,506.33	932.43	51.32	933.83	0.71	0.65	-13.98	330.19
4/14/2013	NORMAL	6,690.0	1.58	353.74	6,602.29	934.96	51.16	936.35	0.21	0.14	-6.04	307.37
	NORMAL	6,785.0	1.45	342.76	6,697.26	937.41	50.66	938.77	0.33	-0.14	-11.56	240.45
	NORMAL	6,880.0	1.45	342.67	6,792.23	939.71	49.95	941.01	0.00	0.00	-0.09	269.96
	NORMAL	6,975.0	0.83	22.40	6,887.21	941.49	49.85	942.79	1.02	-0.65	41.82	146.83
	NORMAL	7,071.0	0.53	62.21	6,983.21	942.34	50.51	943.68	0.56	-0.31	41.47	141.25
	NORMAL	7,166.0	0.66	131.20	7,078.20	942.19	51.31	943.57	0.72	0.14	72.62	115.46
	NORMAL	7,261.0	0.83	137.62	7,173.19	941.32	52.19	942.75	0.20	0.18	6.76	29.39
	NORMAL	7,357.0	0.83	147.38	7,269.18	940.22	53.03	941.71	0.15	0.00	10.17	94.88
	NORMAL	7,452.0	1.05	160.82	7,364.17	938.82	53.69	940.35	0.33	0.23	14.15	51.91
	NORMAL	7,547.0	1.41	158.45	7,459.15	936.91	54.40	938.48	0.38	0.38	-2.49	350.77
4/15/2013	NORMAL	7,672.0	1.14	144.47	7,584.12	934.46	55.69	936.12	0.33	-0.22	-11.18	222.20
	NORMAL	7,738.0	1.01	151.24	7,650.11	933.42	56.35	935.12	0.28	-0.20	10.26	139.02
	NORMAL	7,833.0	0.61	147.38	7,745.10	932.26	57.03	934.00	0.42	-0.42	-4.06	185.84
	NORMAL	7,928.0	0.66	131.91	7,840.09	931.47	57.71	933.25	0.19	0.05	-16.28	278.43
	NORMAL	8,025.0	0.66	131.91	7,937.09	930.72	58.54	932.56	0.00	0.00	0.00	0.00