

## I General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	RWF 24-29	Wellbore No.	OH
Well Name	RWF 24-29	Common Name	RWF 24-29
Project	RU 29-06S-094W	Site	RWF 14-29 Pad
Vertical Section Azimuth	95.47 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	6/19/2013	UWI	RWF 24-29
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	6/19/2013	Ended	6/27/2013
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

6152

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Buird Rate (°/100ft)	Turn (°/100ft)	TFace (°)
6/19/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/20/2013	NORMAL	100.0	1.76	127.88	99.98	-0.94	1.21	1.30	1.76	1.76	0.00	127.88
	NORMAL	129.0	2.11	120.41	128.97	-1.49	2.02	2.16	1.49	1.21	-25.76	320.45
	NORMAL	159.0	2.46	116.10	158.94	-2.05	3.08	3.26	1.30	1.17	-14.37	331.69
	NORMAL	190.0	2.46	103.71	189.92	-2.50	4.32	4.54	1.71	0.00	-39.97	263.8'
	NORMAL	220.0	2.64	98.17	219.89	-2.75	5.63	5.87	1.02	0.60	-18.47	303.35
	NORMAL	250.0	2.73	99.14	249.85	-2.96	7.02	7.27	0.34	0.30	3.23	27.27
	NORMAL	281.0	3.34	94.04	280.81	-3.14	8.65	8.91	2.15	1.97	-16.45	333.56
	NORMAL	311.0	4.84	96.33	310.73	-3.34	10.78	11.05	5.03	5.00	7.63	7.36
	NORMAL	342.0	5.81	95.45	341.60	-3.64	13.64	13.93	3.14	3.13	-2.84	354.75
	NORMAL	372.0	7.39	92.99	371.40	-3.88	17.08	17.37	5.35	5.27	-8.20	348.63
	NORMAL	403.0	8.89	96.86	402.09	-4.27	21.45	21.76	5.15	4.84	12.48	21.99
	NORMAL	433.0	9.50	96.94	431.70	-4.85	26.21	26.55	2.03	2.03	0.27	1.24
	NORMAL	463.0	9.70	95.71	461.28	-5.40	31.18	31.55	0.95	0.67	-4.10	313.67
	NORMAL	493.0	11.09	98.79	490.79	-6.09	36.55	36.96	4.99	4.63	10.27	23.3'
	NORMAL	523.0	11.88	95.67	520.19	-6.84	42.47	42.93	3.35	2.63	-10.40	320.28
	NORMAL	553.0	13.20	97.12	549.47	-7.57	48.94	49.44	4.52	4.40	4.83	14.12
	NORMAL	583.0	13.81	92.46	578.64	-8.15	55.92	56.44	4.16	2.03	-15.53	296.99
	NORMAL	616.0	14.60	92.46	610.63	-8.49	64.01	64.53	2.39	2.39	0.00	0.00
	NORMAL	644.0	15.57	92.81	637.67	-8.83	71.29	71.81	3.48	3.46	1.25	5.53
	NORMAL	675.0	16.45	93.60	667.46	-9.31	79.83	80.35	2.92	2.84	2.55	14.29

## 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 (°)
6/20/2013	NORMAL	705.0	17.33	95.01	696.17	-9.97	88.52	89.06	3.24	2.93	4.70	25.64
	NORMAL	776.0	19.52	94.26	763.53	-11.77	110.88	111.50	3.10	3.08	-1.06	353.47
	NORMAL	866.0	21.46	94.88	847.83	-14.29	142.28	143.00	2.17	2.16	0.69	6.67
	NORMAL	957.0	22.86	95.23	932.10	-17.32	176.47	177.32	1.55	1.54	0.38	5.55
	NORMAL	1,052.0	24.80	95.67	1,019.00	-20.97	214.68	215.70	2.05	2.04	0.46	5.44
	NORMAL	1,110.0	25.06	94.26	1,071.60	-23.08	239.03	240.15	1.12	0.45	-2.43	292.99
6/21/2013	NORMAL	1,155.0	24.84	95.05	1,112.40	-24.62	257.95	259.13	0.89	-0.49	1.76	123.79
	NORMAL	1,250.0	23.16	92.59	1,199.18	-27.22	296.50	297.74	2.06	-1.77	-2.59	209.66
	NORMAL	1,346.0	21.85	93.64	1,287.87	-29.21	333.19	334.45	1.43	-1.36	1.09	163.43
	NORMAL	1,441.0	21.80	96.90	1,376.07	-32.45	368.34	369.76	1.28	-0.05	3.43	93.87
	NORMAL	1,536.0	22.15	94.61	1,464.17	-36.01	403.71	405.30	0.97	0.37	-2.41	291.15
	NORMAL	1,631.0	20.88	97.86	1,552.55	-39.76	438.33	440.13	1.83	-1.34	3.42	138.32
	NORMAL	1,726.0	21.01	96.81	1,641.27	-44.10	472.01	474.07	0.42	0.14	-1.11	288.61
	NORMAL	1,822.0	20.66	95.67	1,730.99	-47.81	505.95	508.21	0.56	-0.36	-1.19	228.67
6/22/2013	NORMAL	1,917.0	22.24	97.34	1,819.41	-51.77	540.46	542.94	1.78	1.66	1.76	21.91
	NORMAL	2,012.0	22.68	96.72	1,907.20	-56.21	576.48	579.22	0.53	0.46	-0.65	331.42
	NORMAL	2,108.0	22.90	96.28	1,995.71	-60.41	613.43	616.40	0.29	0.23	-0.46	322.03
	NORMAL	2,203.0	23.03	95.23	2,083.18	-64.13	650.31	653.46	0.45	0.14	-1.11	287.12
	NORMAL	2,298.0	22.50	94.35	2,170.78	-67.20	686.94	690.22	0.66	-0.56	-0.93	212.32
	NORMAL	2,394.0	22.20	94.08	2,259.57	-69.89	723.35	726.71	0.33	-0.31	-0.28	198.77
	NORMAL	2,489.0	22.15	92.59	2,347.54	-71.97	759.14	762.54	0.59	-0.05	-1.57	264.23
	NORMAL	2,584.0	22.29	92.50	2,435.49	-73.57	795.03	798.42	0.15	0.15	-0.09	346.29
	NORMAL	2,680.0	21.89	91.80	2,524.44	-74.92	831.10	834.46	0.50	-0.42	-0.73	213.03
	NORMAL	2,775.0	22.72	94.61	2,612.33	-76.95	867.09	870.48	1.42	0.87	2.96	53.4'
	NORMAL	2,870.0	22.64	96.54	2,699.99	-80.51	903.55	907.11	0.79	-0.08	2.03	97.03
	NORMAL	2,966.0	22.29	96.02	2,788.70	-84.53	940.01	943.79	0.42	-0.36	-0.54	209.34
	NORMAL	3,061.0	22.59	98.92	2,876.51	-89.24	975.95	980.02	1.21	0.32	3.05	76.18
	NORMAL	3,155.0	21.89	98.74	2,963.52	-94.71	1,011.11	1,015.53	0.75	-0.74	-0.19	185.48
	NORMAL	3,251.0	22.73	97.69	3,052.33	-99.91	1,047.18	1,051.93	0.97	0.88	-1.09	334.13
	NORMAL	3,346.0	22.86	95.05	3,139.92	-103.99	1,083.75	1,088.73	1.09	0.14	-2.78	276.03
	NORMAL	3,441.0	22.15	94.96	3,227.68	-107.16	1,119.97	1,125.09	0.75	-0.75	-0.09	182.74
	NORMAL	3,537.0	23.30	95.05	3,316.23	-110.40	1,156.91	1,162.17	1.20	1.20	0.09	1.77
	NORMAL	3,632.0	23.16	94.70	3,403.53	-113.58	1,194.25	1,199.64	0.21	-0.15	-0.37	224.44
	NORMAL	3,727.0	23.08	94.61	3,490.90	-116.61	1,231.43	1,236.94	0.09	-0.08	-0.09	203.79
	NORMAL	3,823.0	23.12	93.82	3,579.20	-119.38	1,268.99	1,274.59	0.33	0.04	-0.82	276.99
6/23/2013	NORMAL	3,918.0	21.27	93.47	3,667.16	-121.66	1,304.80	1,310.46	1.95	-1.95	-0.37	183.93
	NORMAL	4,014.0	19.91	94.17	3,757.02	-123.91	1,338.49	1,344.20	1.44	-1.42	0.73	170.07
	NORMAL	4,108.0	18.77	94.61	3,845.72	-126.28	1,369.53	1,375.33	1.22	-1.21	0.47	172.92
	NORMAL	4,204.0	17.36	95.67	3,936.98	-128.94	1,399.18	1,405.09	1.51	-1.47	1.10	167.38
	NORMAL	4,299.0	16.18	94.17	4,027.94	-131.30	1,426.48	1,432.50	1.32	-1.24	-1.58	199.43
	NORMAL	4,394.0	13.85	99.27	4,119.69	-134.10	1,450.91	1,457.08	2.82	-2.45	5.37	152.88
	NORMAL	4,489.0	13.23	95.58	4,212.05	-136.99	1,472.95	1,479.30	1.12	-0.65	-3.88	232.55
	NORMAL	4,585.0	12.62	95.23	4,305.62	-139.01	1,494.33	1,500.77	0.64	-0.64	-0.36	187.14
	NORMAL	4,680.0	10.64	96.98	4,398.67	-141.02	1,513.37	1,519.92	2.12	-2.08	1.84	170.75
	NORMAL	4,775.0	9.10	100.32	4,492.26	-143.44	1,529.47	1,536.17	1.73	-1.62	3.52	161.25
	NORMAL	4,870.0	8.35	101.20	4,586.16	-146.12	1,543.62	1,550.52	0.80	-0.79	0.93	170.34
	NORMAL	4,966.0	6.86	98.74	4,681.31	-148.35	1,556.13	1,563.18	1.59	-1.55	-2.56	191.1'
	NORMAL	5,061.0	5.23	94.17	4,775.78	-149.52	1,566.06	1,573.18	1.79	-1.72	-4.81	194.19
	NORMAL	5,156.0	4.00	101.82	4,870.47	-150.52	1,573.62	1,580.80	1.45	-1.29	8.05	157.19
	NORMAL	5,251.0	2.81	0.99	4,965.37	-148.87	1,576.90	1,583.91	5.58	-1.25	-106.14	211.4'
	NORMAL	5,347.0	2.07	83.62	5,061.30	-146.32	1,578.67	1,585.43	3.41	-0.77	86.07	141.08
6/24/2013	NORMAL	5,442.0	1.80	77.74	5,156.25	-145.81	1,581.83	1,588.53	0.35	-0.28	-6.19	213.4'
	NORMAL	5,537.0	1.76	76.15	5,251.20	-145.15	1,584.71	1,591.33	0.07	-0.04	-1.67	230.20
	NORMAL	5,632.0	1.63	70.79	5,346.16	-144.35	1,587.40	1,593.93	0.22	-0.14	-5.64	227.99
	NORMAL	5,727.0	1.71	69.65	5,441.12	-143.42	1,590.00	1,596.43	0.09	0.08	-1.20	336.88
	NORMAL	5,822.0	1.45	75.36	5,536.09	-142.62	1,592.50	1,598.84	0.32	-0.27	6.01	151.64
	NORMAL	5,918.0	1.36	71.14	5,632.06	-141.94	1,594.75	1,601.02	0.14	-0.09	-4.40	226.89

## 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 (°)
6/24/2013	NORMAL	6,013.0	1.27	76.07	5,727.03	-141.33	1,596.84	1,603.04	0.15	-0.09	5.19	130.95
6/25/2013	NORMAL	6,108.0	1.19	83.98	5,822.01	-140.97	1,598.84	1,605.00	0.20	-0.08	8.33	119.15
	NORMAL	6,204.0	1.01	84.59	5,917.99	-140.78	1,600.67	1,606.80	0.19	-0.19	0.64	176.58
	NORMAL	6,299.0	0.92	93.64	6,012.98	-140.75	1,602.27	1,608.39	0.19	-0.09	9.53	125.03
	NORMAL	6,394.0	0.75	119.48	6,107.97	-141.11	1,603.57	1,609.72	0.43	-0.18	27.20	126.85
	NORMAL	6,489.0	0.75	126.43	6,202.96	-141.78	1,604.61	1,610.82	0.10	0.00	7.32	93.47
	NORMAL	6,585.0	0.66	124.49	6,298.95	-142.47	1,605.57	1,611.84	0.10	-0.09	-2.02	193.89
	NORMAL	6,680.0	0.57	135.66	6,393.95	-143.12	1,606.35	1,612.68	0.16	-0.09	11.76	132.39
	NORMAL	6,775.0	0.75	143.39	6,488.94	-143.95	1,607.06	1,613.46	0.21	0.19	8.14	30.22
	NORMAL	6,870.0	0.92	133.37	6,583.93	-144.98	1,607.98	1,614.48	0.24	0.18	-10.55	314.26
	NORMAL	6,965.0	1.05	128.27	6,678.92	-146.04	1,609.22	1,615.81	0.16	0.14	-5.37	323.44
	NORMAL	7,061.0	0.97	128.10	6,774.90	-147.09	1,610.55	1,617.24	0.08	-0.08	-0.18	182.06
	NORMAL	7,153.0	1.01	124.32	6,866.89	-148.02	1,611.83	1,618.60	0.08	0.04	-4.11	299.59
6/26/2013	NORMAL	7,251.0	1.19	114.12	6,964.87	-148.93	1,613.47	1,620.32	0.27	0.18	-10.41	307.42
	NORMAL	7,347.0	1.58	107.44	7,060.84	-149.73	1,615.65	1,622.56	0.44	0.41	-6.96	334.15
	NORMAL	7,442.0	1.89	102.96	7,155.80	-150.47	1,618.42	1,625.40	0.36	0.33	-4.72	334.12
	NORMAL	7,537.0	2.07	97.78	7,250.74	-151.06	1,621.65	1,628.66	0.27	0.19	-5.45	312.56
	NORMAL	7,633.0	2.02	99.36	7,346.68	-151.57	1,625.04	1,632.08	0.08	-0.05	1.65	132.35
	NORMAL	7,728.0	2.11	110.34	7,441.62	-152.45	1,628.33	1,635.44	0.43	0.09	11.56	82.7
	NORMAL	7,823.0	2.20	114.65	7,536.55	-153.82	1,631.62	1,638.86	0.20	0.09	4.54	63.12
	NORMAL	7,919.0	2.02	108.94	7,632.49	-155.13	1,634.90	1,642.24	0.29	-0.19	-5.95	226.60
	NORMAL	8,014.0	1.89	121.95	7,727.43	-156.51	1,637.81	1,645.27	0.49	-0.14	13.69	112.76
	NORMAL	8,100.0	1.89	121.95	7,813.39	-158.01	1,640.22	1,647.81	0.00	0.00	0.00	0.00