

## General

## 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

## 1.2 Well Information

Well	RWF 344-27	Wellbore No.	
Well Name	RWF 344-27	Common Name	RWF 344-27
Project	RU 27-06S-094W	Site	RMV 28-27 Pad
Vertical Section	99.63 (°)	North Reference	True
Azimuth		Origin E/W	
Origin N/S		UWI	RWF 344-27
Spud Date	9/20/2012		
Active Datum	KB @5,323.0ft (above Mean Sea Level)		

## 2 Survey Name

## 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	mostar
Date Started	9/20/2012	Ended	
Tool Name	MWD	Engineer	

## 2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	0.00	0.00	0.00	0.00	0.00

## 2.1.2 Survey Stations

5683

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 (°)
9/20/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/20/2012	NORMAL	72.0	0.18	38.14	72.00	0.09	0.07	0.05	0.25	0.25	0.00	38.14
	NORMAL	163.0	3.26	88.33	162.95	0.28	2.75	2.66	3.46	3.38	55.15	52.70
	NORMAL	254.0	5.63	96.59	253.67	-0.16	9.77	9.66	2.69	2.60	9.08	19.26
	NORMAL	344.0	7.39	97.65	343.09	-1.44	19.89	19.85	1.96	1.96	1.18	4.43
	NORMAL	420.0	9.93	105.23	418.22	-3.81	31.06	31.26	3.66	3.34	9.97	27.98
9/21/2012	NORMAL	512.0	13.41	103.29	508.30	-8.35	49.10	49.81	3.81	3.78	-2.11	352.6
	NORMAL	604.0	15.03	101.89	597.48	-13.26	71.16	72.37	1.80	1.76	-1.52	347.34
	NORMAL	694.0	17.10	99.07	683.96	-17.75	95.65	97.27	2.46	2.30	-3.13	337.98
	NORMAL	785.0	18.64	99.52	770.57	-22.26	123.20	125.19	1.70	1.69	0.49	5.34
	NORMAL	877.0	19.82	99.95	857.43	-27.39	153.07	155.49	1.29	1.28	0.47	7.05
	NORMAL	968.0	21.06	99.95	942.70	-32.88	184.37	187.27	1.36	1.36	0.00	0.00
	NORMAL	1,064.0	21.54	98.20	1,032.15	-38.38	218.80	222.14	0.83	0.50	-1.82	306.24
	NORMAL	1,159.0	21.06	96.61	1,120.66	-42.83	253.02	256.62	0.79	-0.51	-1.67	229.53
	NORMAL	1,255.0	19.65	97.58	1,210.66	-46.94	286.15	289.97	1.51	-1.47	1.01	167.00
	NORMAL	1,350.0	20.35	97.76	1,299.93	-51.28	318.35	322.45	0.74	0.74	0.19	5.1
	NORMAL	1,446.0	20.57	98.55	1,389.87	-56.04	351.57	355.99	0.37	0.23	0.82	51.83
	NORMAL	1,542.0	21.10	98.81	1,479.60	-61.20	385.32	390.13	0.56	0.55	0.27	10.02
	NORMAL	1,609.0	21.80	99.70	1,541.96	-65.14	409.50	414.63	1.15	1.04	1.33	25.35
9/22/2012	NORMAL	1,736.0	23.12	99.78	1,659.32	-73.35	457.32	463.15	1.04	1.04	0.06	1.36
	NORMAL	1,831.0	21.76	100.83	1,747.12	-79.82	493.00	499.41	1.49	-1.43	1.11	164.06

## 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 (°)
9/22/2012	NORMAL	1,926.0	20.31	100.74	1,835.79	-86.21	526.50	533.50	1.53	-1.53	-0.09	181.23
	NORMAL	2,021.0	21.23	101.62	1,924.62	-92.74	559.54	567.17	1.02	0.97	0.93	19.15
	NORMAL	2,117.0	19.52	98.81	2,014.61	-98.70	592.42	600.58	2.05	-1.78	-2.93	208.46
	NORMAL	2,212.0	19.21	98.55	2,104.23	-103.46	623.56	632.08	0.34	-0.33	-0.27	195.42
	NORMAL	2,308.0	20.18	99.07	2,194.62	-108.41	655.53	664.43	1.03	1.01	0.54	10.49
	NORMAL	2,404.0	21.41	102.77	2,284.37	-114.90	688.97	698.49	1.87	1.28	3.85	48.62
	NORMAL	2,498.0	21.93	103.21	2,371.72	-122.70	722.80	733.14	0.58	0.55	0.47	17.56
	NORMAL	2,594.0	21.32	99.25	2,460.97	-129.60	757.47	768.48	1.65	-0.64	-4.13	245.48
	NORMAL	2,689.0	21.80	98.11	2,549.32	-134.87	791.98	803.39	0.67	0.51	-1.20	318.36
	NORMAL	2,785.0	21.06	97.67	2,638.69	-139.69	826.73	838.44	0.79	-0.77	-0.46	192.05
	NORMAL	2,880.0	20.79	99.87	2,727.42	-144.85	860.25	872.36	0.87	-0.28	2.32	109.99
	NORMAL	2,976.0	21.45	100.74	2,816.97	-151.05	894.28	906.95	0.76	0.69	0.91	25.81
	NORMAL	3,072.0	20.79	98.55	2,906.52	-156.85	928.38	941.54	1.07	-0.69	-2.28	229.07
9/23/2012	NORMAL	3,167.0	20.57	97.14	2,995.40	-161.43	961.61	975.07	0.57	-0.23	-1.48	245.50
	NORMAL	3,263.0	20.13	97.41	3,085.41	-165.66	994.73	1,008.42	0.47	-0.46	0.28	168.08
	NORMAL	3,359.0	19.82	98.72	3,175.64	-170.26	1,027.20	1,041.20	0.57	-0.32	1.36	125.33
	NORMAL	3,454.0	19.74	97.84	3,265.03	-174.89	1,059.01	1,073.34	0.32	-0.08	-0.93	254.55
	NORMAL	3,549.0	20.48	97.76	3,354.24	-179.32	1,091.37	1,105.99	0.78	0.78	-0.08	357.83
	NORMAL	3,645.0	21.67	97.76	3,443.82	-183.98	1,125.57	1,140.49	1.24	1.24	0.00	0.00
	NORMAL	3,741.0	22.07	98.37	3,532.91	-189.00	1,160.98	1,176.24	0.48	0.42	0.64	29.88
	NORMAL	3,836.0	21.93	100.92	3,620.99	-194.96	1,196.06	1,211.81	1.02	-0.15	2.68	99.52
	NORMAL	3,931.0	21.23	100.83	3,709.33	-201.55	1,230.37	1,246.75	0.74	-0.74	-0.09	182.67
	NORMAL	4,027.0	19.47	99.95	3,799.34	-207.58	1,263.20	1,280.13	1.86	-1.83	-0.92	189.45
	NORMAL	4,123.0	19.65	99.78	3,889.80	-213.09	1,294.87	1,312.27	0.20	0.19	-0.18	342.37
	NORMAL	4,218.0	19.96	99.87	3,979.18	-218.58	1,326.58	1,344.45	0.33	0.33	0.09	5.66
	NORMAL	4,314.0	18.50	99.78	4,069.82	-223.97	1,357.74	1,376.07	1.52	-1.52	-0.09	181.12
	NORMAL	4,409.0	17.23	100.83	4,160.24	-229.18	1,386.41	1,405.21	1.38	-1.34	1.11	166.27
9/24/2012	NORMAL	4,504.0	15.43	101.71	4,251.40	-234.39	1,412.61	1,431.91	1.91	-1.89	0.93	172.55
	NORMAL	4,600.0	13.85	102.85	4,344.28	-239.54	1,436.32	1,456.15	1.67	-1.65	1.19	170.22
	NORMAL	4,695.0	11.69	106.81	4,436.93	-244.85	1,456.62	1,477.05	2.45	-2.27	4.17	159.86
	NORMAL	4,791.0	10.73	110.68	4,531.10	-250.82	1,474.29	1,495.47	1.27	-1.00	4.03	143.80
	NORMAL	4,886.0	9.71	107.16	4,624.59	-256.30	1,490.22	1,512.09	1.26	-1.07	-3.71	209.76
	NORMAL	4,981.0	8.31	104.44	4,718.42	-260.38	1,504.52	1,526.88	1.54	-1.47	-2.86	195.58
9/25/2012	NORMAL	5,077.0	7.21	101.98	4,813.53	-263.36	1,517.13	1,539.81	1.20	-1.15	-2.56	195.55
	NORMAL	5,172.0	4.04	92.40	4,908.07	-264.74	1,526.31	1,549.09	3.47	-3.34	-10.08	191.77
	NORMAL	5,268.0	2.64	89.76	5,003.90	-264.87	1,531.90	1,554.62	1.47	-1.46	-2.75	184.95
	NORMAL	5,363.0	1.23	89.94	5,098.85	-264.86	1,535.11	1,557.78	1.48	-1.48	0.19	179.84
	NORMAL	5,459.0	0.53	5.56	5,194.84	-264.42	1,536.18	1,558.77	1.34	-0.73	-87.90	204.12
	NORMAL	5,555.0	0.48	22.87	5,290.83	-263.61	1,536.38	1,558.83	0.17	-0.05	18.03	116.67
	NORMAL	5,650.0	0.31	304.39	5,385.83	-263.09	1,536.32	1,558.69	0.54	-0.18	-82.61	216.00
	NORMAL	5,746.0	0.75	327.33	5,481.83	-262.42	1,535.77	1,558.03	0.50	0.46	23.90	37.52
	NORMAL	5,841.0	1.50	317.31	5,576.81	-260.98	1,534.59	1,556.63	0.81	0.79	-10.55	340.26
	NORMAL	5,937.0	1.05	336.56	5,672.78	-259.25	1,533.39	1,555.15	0.64	-0.47	20.05	145.76
	NORMAL	6,033.0	1.32	329.96	5,768.76	-257.49	1,532.49	1,553.97	0.31	0.28	-6.88	329.86
9/26/2012	NORMAL	6,128.0	1.23	328.21	5,863.74	-255.67	1,531.40	1,552.59	0.10	-0.09	-1.84	202.52
	NORMAL	6,224.0	1.01	305.05	5,959.72	-254.31	1,530.17	1,551.15	0.52	-0.23	-24.13	232.81
	NORMAL	6,319.0	1.36	280.66	6,054.70	-253.62	1,528.37	1,549.26	0.64	0.37	-25.67	292.16
	NORMAL	6,415.0	1.41	264.57	6,150.67	-253.52	1,526.08	1,546.98	0.41	0.05	-16.76	269.24
	NORMAL	6,511.0	0.13	303.77	6,246.66	-253.57	1,524.81	1,545.74	1.37	-1.33	40.83	176.41
	NORMAL	6,606.0	0.44	48.98	6,341.66	-253.27	1,525.00	1,545.88	0.52	0.33	110.75	120.03
	NORMAL	6,701.0	0.44	143.20	6,436.66	-253.33	1,525.49	1,546.37	0.68	0.00	99.18	137.11
	NORMAL	6,797.0	0.92	217.38	6,532.66	-254.23	1,525.24	1,546.28	0.94	0.50	77.27	102.06
	NORMAL	6,892.0	0.92	217.38	6,627.64	-255.45	1,524.32	1,545.57	0.00	0.00	0.00	0.00
9/28/2012	NORMAL	6,988.0	0.31	21.03	6,723.64	-255.82	1,523.94	1,545.26	1.27	-0.64	170.47	175.90
	NORMAL	7,084.0	0.31	92.40	6,819.64	-255.58	1,524.30	1,545.57	0.38	0.00	74.34	125.68
	NORMAL	7,179.0	0.57	136.60	6,914.64	-255.94	1,524.88	1,546.20	0.43	0.27	46.53	76.06
	NORMAL	7,275.0	1.14	153.22	7,010.63	-257.14	1,525.64	1,547.15	0.64	0.59	17.31	31.97

## 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 (°)
9/28/2012	NORMAL	7,370.0	1.10	169.21	7,105.61	-258.88	1,526.23	1,548.03	0.33	-0.04	16.83	105.24
	NORMAL	7,466.0	1.45	180.02	7,201.58	-261.00	1,526.40	1,548.56	0.44	0.36	11.26	39.98
	NORMAL	7,561.0	2.07	194.26	7,296.54	-263.86	1,525.98	1,548.62	0.79	0.65	14.99	42.46
	NORMAL	7,656.0	2.46	204.81	7,391.47	-267.38	1,524.70	1,547.95	0.60	0.41	11.11	52.26
	NORMAL	7,751.0	2.55	211.84	7,486.37	-271.02	1,522.73	1,546.61	0.34	0.09	7.40	77.20
	NORMAL	7,846.0	2.99	212.72	7,581.26	-274.90	1,520.28	1,544.84	0.47	0.46	0.93	5.96
	NORMAL	7,900.0	2.99	212.72	7,635.19	-277.27	1,518.76	1,543.74	0.00	0.00	0.00	0.00