

# 1 General

## 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

## 1.2 Well Information

Well	RWF 434-27	Wellbore No.	
Well Name	RWF 434-27	Common Name	RWF 434-27
Project	RU 27-06S-094W	Site	RMV 28-27 Pad
Vertical Section Azimuth	218.76 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	7/1/2012	UWI	RWF 434-27
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	7/1/2012	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

5404

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 (°)
7/1/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/2012	NORMAL	73.0	0.44	352.00	73.00	0.28	-0.04	-0.19	0.60	0.60	0.00	352.00
	NORMAL	163.0	1.76	245.57	162.99	0.05	-1.35	0.80	2.15	1.47	-118.26	240.95
	NORMAL	255.0	2.11	222.45	254.93	-1.79	-3.78	3.76	0.92	0.38	-25.13	282.30
7/2/2012	NORMAL	345.0	3.78	217.88	344.81	-5.35	-6.72	8.38	1.87	1.86	-5.08	349.71
	NORMAL	436.0	5.37	212.78	435.52	-11.30	-10.86	15.61	1.80	1.75	-5.60	343.10
	NORMAL	527.0	5.98	208.83	526.07	-19.03	-15.45	24.52	0.80	0.67	-4.34	325.39
	NORMAL	619.0	7.13	214.10	617.47	-27.96	-20.97	34.93	1.41	1.25	5.73	30.25
	NORMAL	709.0	6.51	214.80	706.83	-36.77	-27.01	45.58	0.70	-0.69	0.78	172.71
	NORMAL	780.0	5.80	223.03	777.43	-42.70	-31.75	53.18	1.59	-1.00	11.59	132.86
	NORMAL	871.0	5.80	225.32	867.96	-49.29	-38.16	62.33	0.25	0.00	2.52	91.14
	NORMAL	962.0	4.92	219.78	958.56	-55.53	-43.93	70.80	1.12	-0.97	-6.09	207.72
	NORMAL	1,070.0	5.72	218.11	1,066.10	-63.32	-50.21	80.81	0.75	0.74	-1.55	348.21
7/3/2012	NORMAL	1,174.0	6.16	220.39	1,169.54	-71.65	-57.03	91.57	0.48	0.42	2.19	29.34
	NORMAL	1,270.0	6.42	218.64	1,264.96	-79.76	-63.72	102.09	0.34	0.27	-1.82	322.72
	NORMAL	1,365.0	7.04	219.34	1,359.30	-88.41	-70.72	113.22	0.66	0.65	0.74	7.88
	NORMAL	1,461.0	7.39	218.99	1,454.54	-97.76	-78.34	125.28	0.37	0.36	-0.36	352.67
	NORMAL	1,557.0	6.33	210.38	1,549.86	-107.13	-84.90	136.69	1.54	-1.10	-8.97	219.91
	NORMAL	1,652.0	5.19	207.21	1,644.38	-115.47	-89.51	146.08	1.25	-1.20	-3.34	194.02
	NORMAL	1,748.0	4.57	212.31	1,740.03	-122.56	-93.54	154.13	0.79	-0.65	5.31	147.54
	NORMAL	1,843.0	4.13	226.90	1,834.76	-128.10	-98.06	161.28	1.25	-0.46	15.36	118.85

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 (°)
7/3/2012	NORMAL	1,938.0	4.04	225.84	1,929.52	-132.77	-102.96	167.99	0.12	-0.09	-1.12	219.47
	NORMAL	2,034.0	5.89	226.37	2,025.15	-138.52	-108.95	176.23	1.93	1.93	0.55	1.68
	NORMAL	2,129.0	6.86	218.64	2,119.57	-146.32	-116.02	186.73	1.36	1.02	-8.14	314.61
	NORMAL	2,225.0	7.39	217.41	2,214.82	-155.70	-123.36	198.64	0.57	0.55	-1.28	343.33
7/4/2012	NORMAL	2,321.0	6.68	216.18	2,310.10	-165.11	-130.40	210.39	0.76	-0.74	-1.28	191.37
	NORMAL	2,416.0	5.19	212.13	2,404.59	-173.21	-135.95	220.18	1.63	-1.57	-4.26	193.69
	NORMAL	2,510.0	5.10	211.60	2,498.21	-180.37	-140.40	228.55	0.11	-0.10	-0.56	207.57
	NORMAL	2,606.0	4.57	225.14	2,593.87	-186.70	-145.35	236.58	1.31	-0.55	14.10	121.55
	NORMAL	2,702.0	4.66	221.45	2,689.56	-192.32	-150.64	244.28	0.32	0.09	-3.84	285.02
	NORMAL	2,797.0	4.75	223.03	2,784.24	-198.09	-155.88	252.05	0.17	0.09	1.66	56.01
	NORMAL	2,893.0	4.84	224.79	2,879.90	-203.87	-161.44	260.05	0.18	0.09	1.83	59.42
	NORMAL	2,988.0	4.84	218.81	2,974.57	-209.84	-166.78	268.04	0.53	0.00	-6.29	267.02
	NORMAL	3,084.0	5.19	214.94	3,070.20	-216.55	-171.80	276.42	0.51	0.36	-4.03	314.04
	NORMAL	3,180.0	4.04	218.81	3,165.89	-222.75	-176.41	284.14	1.24	-1.20	4.03	166.77
	NORMAL	3,276.0	4.04	223.91	3,261.65	-227.82	-180.87	290.88	0.37	0.00	5.31	92.54
	NORMAL	3,371.0	4.57	220.04	3,356.38	-233.13	-185.63	298.00	0.64	0.56	-4.07	329.33
	NORMAL	3,467.0	4.04	221.98	3,452.11	-238.57	-190.35	305.20	0.57	-0.55	2.02	165.60
	NORMAL	3,562.0	3.96	218.64	3,546.88	-243.62	-194.64	311.82	0.26	-0.08	-3.52	249.39
	NORMAL	3,658.0	4.22	213.19	3,642.63	-249.16	-198.64	318.65	0.49	0.27	-5.68	301.04
	NORMAL	3,753.0	4.22	219.87	3,737.38	-254.77	-202.80	325.63	0.52	0.00	7.03	93.33
	NORMAL	3,848.0	4.49	220.39	3,832.10	-260.29	-207.45	332.84	0.29	0.28	0.55	8.58
	NORMAL	3,944.0	3.61	216.88	3,927.86	-265.57	-211.70	339.62	0.95	-0.92	-3.66	193.99
	NORMAL	4,039.0	2.02	217.23	4,022.74	-269.29	-214.50	344.28	1.67	-1.67	0.37	179.56
	NORMAL	4,135.0	0.70	219.69	4,118.71	-271.09	-215.90	346.56	1.38	-1.38	2.56	178.70
	NORMAL	4,231.0	0.18	269.79	4,214.71	-271.54	-216.43	347.24	0.63	-0.54	52.19	166.71
	NORMAL	4,327.0	0.26	248.17	4,310.71	-271.62	-216.78	347.52	0.12	0.08	-22.52	302.79
7/6/2012	NORMAL	4,422.0	0.35	225.67	4,405.71	-271.91	-217.19	348.00	0.16	0.10	-23.68	296.33
	NORMAL	4,517.0	0.18	195.96	4,500.71	-272.26	-217.44	348.43	0.23	-0.18	-31.27	204.29
	NORMAL	4,612.0	0.18	157.99	4,595.71	-272.54	-217.43	348.64	0.12	0.00	-39.97	251.02
	NORMAL	4,707.0	0.09	178.03	4,690.71	-272.75	-217.37	348.77	0.11	-0.09	21.09	162.09
	NORMAL	4,803.0	0.18	175.92	4,786.71	-272.98	-217.36	348.94	0.09	0.09	-2.20	355.78
	NORMAL	4,899.0	0.53	161.68	4,882.71	-273.55	-217.20	349.29	0.37	0.36	-14.83	338.66
	NORMAL	4,994.0	0.44	341.68	4,977.70	-273.62	-217.18	349.33	1.02	-0.09	-189.47	180.00
	NORMAL	5,089.0	0.53	356.63	5,072.70	-272.84	-217.32	348.81	0.16	0.09	15.74	62.21
	NORMAL	5,185.0	0.35	356.80	5,168.70	-272.10	-217.36	348.26	0.19	-0.19	0.18	179.67
	NORMAL	5,280.0	0.35	18.25	5,263.70	-271.53	-217.29	347.77	0.14	0.00	22.58	100.72
	NORMAL	5,376.0	0.18	216.18	5,359.70	-271.38	-217.29	347.65	0.55	-0.18	-168.82	186.07
	NORMAL	5,471.0	0.26	240.79	5,454.70	-271.60	-217.56	348.00	0.13	0.08	25.91	62.49
	NORMAL	5,567.0	0.18	51.12	5,550.70	-271.61	-217.64	348.05	0.46	-0.08	177.43	176.05
	NORMAL	5,662.0	0.26	83.46	5,645.69	-271.50	-217.31	347.75	0.15	0.08	34.04	74.08
	NORMAL	5,758.0	0.53	77.31	5,741.69	-271.37	-216.66	347.25	0.28	0.28	-6.41	347.99
	NORMAL	5,853.0	0.53	52.35	5,836.69	-271.01	-215.88	346.48	0.24	0.00	-26.27	257.52
7/9/2012	NORMAL	5,949.0	0.35	72.21	5,932.69	-270.65	-215.25	345.80	0.24	-0.19	20.69	149.37
	NORMAL	6,045.0	0.53	89.61	6,028.68	-270.56	-214.53	345.28	0.23	0.19	18.13	45.50
	NORMAL	6,140.0	0.70	73.97	6,123.68	-270.39	-213.53	344.53	0.25	0.18	-16.46	307.36
	NORMAL	6,236.0	0.70	89.09	6,219.67	-270.22	-212.38	343.67	0.19	0.00	15.75	97.56
	NORMAL	6,331.0	0.79	110.71	6,314.66	-270.44	-211.19	343.10	0.31	0.09	22.76	83.25
	NORMAL	6,427.0	0.62	149.20	6,410.66	-271.12	-210.30	343.08	0.51	-0.18	40.09	128.30
	NORMAL	6,523.0	0.97	246.06	6,506.65	-271.90	-210.78	343.98	1.26	0.36	100.90	127.38
	NORMAL	6,618.0	0.97	241.49	6,601.64	-272.61	-212.22	345.44	0.08	0.00	-4.81	267.72
	NORMAL	6,713.0	0.70	208.62	6,696.63	-273.50	-213.20	346.75	0.57	-0.28	-34.60	224.84
	NORMAL	6,809.0	0.88	173.64	6,792.62	-274.75	-213.40	347.85	0.53	0.19	-36.44	272.39
	NORMAL	6,904.0	1.05	188.58	6,887.60	-276.34	-213.45	349.11	0.32	0.18	15.73	63.58
	NORMAL	7,000.0	0.88	227.95	6,983.59	-277.70	-214.13	350.60	0.70	-0.18	41.01	123.51
	NORMAL	7,096.0	1.32	234.10	7,079.57	-278.84	-215.57	352.40	0.47	0.46	6.41	18.11
	NORMAL	7,191.0	1.50	223.93	7,174.55	-280.38	-217.32	354.69	0.32	0.19	-10.71	300.57
	NORMAL	7,287.0	1.50	237.97	7,270.51	-281.95	-219.26	357.13	0.38	0.00	14.63	97.02

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 (°)
7/9/2012	NORMAL	7,382.0	1.94	236.39	7,365.47	-283.50	-221.65	359.83	0.47	0.46	-1.66	353.06
	NORMAL	7,478.0	1.94	230.06	7,461.41	-285.44	-224.25	362.98	0.22	0.00	-6.59	266.84
	NORMAL	7,545.0	2.29	223.38	7,528.37	-287.14	-226.04	365.42	0.64	0.52	-9.97	321.47