

Deviation Summary

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 44-25	Wellbore No.	00
Wellbore Legal Name	RWF 44-25	Common Wellbore Name	RWF 44-25
Project	RU 25-06S-094W	Site	RWF 43-25 Pad
Vertical Section Azimuth	82.30 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	7/15/2014	UWI	RWF 44-25
Active datum	KB @6,259.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	7/15/2014	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

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
7/15/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/2014	NORMAL	149.0	2.86	129.15	148.94	-2.35	2.88	2.54	1.92	1.92	0.00	129.15
	NORMAL	180.0	4.09	125.10	179.88	-3.47	4.39	3.88	4.04	3.97	-13.06	346.69
	NORMAL	210.0	4.88	121.15	209.79	-4.75	6.35	5.66	2.83	2.63	-13.17	336.67
	NORMAL	240.0	4.66	114.12	239.69	-5.90	8.56	7.69	2.08	-0.73	-23.43	245.90
	NORMAL	271.0	4.84	104.71	270.58	-6.75	10.97	9.97	2.58	0.58	-30.35	278.29
	NORMAL	301.0	4.88	98.91	300.47	-7.27	13.46	12.36	1.64	0.13	-19.33	271.76
	NORMAL	331.0	5.23	93.29	330.36	-7.55	16.08	14.93	2.02	1.17	-18.73	302.43
	NORMAL	361.0	5.76	84.59	360.22	-7.48	18.95	17.77	3.29	1.77	-29.00	298.08
	NORMAL	391.0	5.85	80.54	390.06	-7.09	21.95	20.81	1.40	0.30	-13.50	280.37
	NORMAL	422.0	6.55	77.73	420.88	-6.45	25.24	24.15	2.46	2.26	-9.06	335.16
	NORMAL	452.0	6.86	76.85	450.68	-5.68	28.66	27.64	1.09	1.03	-2.93	341.23
	NORMAL	482.0	7.52	76.77	480.44	-4.83	32.31	31.38	2.20	2.20	-0.27	359.09
	NORMAL	512.0	7.82	77.12	510.17	-3.92	36.21	35.36	1.01	1.00	1.17	9.02
	NORMAL	604.0	8.18	79.58	601.28	-1.34	48.75	48.13	0.54	0.39	2.67	44.78
	NORMAL	695.0	8.57	77.82	691.31	1.26	61.75	61.36	0.51	0.43	-1.93	325.81
	NORMAL	785.0	9.23	78.44	780.22	4.12	75.37	75.25	0.74	0.73	0.69	8.58
	NORMAL	877.0	9.54	74.13	870.99	7.68	89.94	90.15	0.83	0.34	-4.68	291.67
	NORMAL	968.0	10.73	71.67	960.57	12.41	105.23	105.95	1.39	1.31	-2.70	338.80
	NORMAL	1,063.0	9.19	76.24	1,054.14	17.00	121.00	122.18	1.82	-1.62	4.81	155.07
	NORMAL	1,100.0	9.28	77.03	1,090.66	18.37	126.77	128.09	0.42	0.24	2.14	55.02

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
7/17/2014	NORMAL	1,205.0	10.15	78.44	1,194.15	22.12	144.09	145.75	0.86	0.83	1.34	15.99
	NORMAL	1,301.0	10.64	78.70	1,288.58	25.55	161.07	163.04	0.51	0.51	0.27	5.60
	NORMAL	1,396.0	10.81	77.99	1,381.92	29.13	178.38	180.67	0.23	0.18	-0.75	321.80
	NORMAL	1,492.0	9.63	82.30	1,476.40	32.08	195.14	197.68	1.46	-1.23	4.49	149.16
	NORMAL	1,587.0	8.53	85.47	1,570.20	33.70	210.04	212.66	1.27	-1.16	3.34	157.10
	NORMAL	1,682.0	8.57	85.73	1,664.15	34.78	224.12	226.76	0.06	0.04	0.27	44.15
	NORMAL	1,778.0	8.57	85.64	1,759.08	35.86	238.39	241.04	0.01	0.00	-0.09	269.96
	NORMAL	1,873.0	8.75	84.94	1,852.99	37.03	252.65	255.33	0.22	0.19	-0.74	329.30
	NORMAL	1,969.0	8.70	83.18	1,947.88	38.54	267.13	269.88	0.28	-0.05	-1.83	258.52
	NORMAL	2,064.0	8.79	85.11	2,041.78	40.01	281.49	284.32	0.32	0.09	2.03	73.90
	NORMAL	2,160.0	8.48	84.67	2,136.69	41.29	295.85	298.72	0.33	-0.32	-0.46	191.81
	NORMAL	2,255.0	8.04	85.03	2,230.71	42.52	309.44	312.35	0.47	-0.46	0.38	173.47
	NORMAL	2,350.0	7.69	84.67	2,324.81	43.68	322.39	325.34	0.37	-0.37	-0.38	187.83
	NORMAL	2,446.0	7.38	83.80	2,419.98	44.95	334.92	337.92	0.34	-0.32	-0.91	199.77
	NORMAL	2,541.0	7.17	83.27	2,514.22	46.30	346.87	349.95	0.23	-0.22	-0.56	197.46
	NORMAL	2,637.0	6.90	83.00	2,609.50	47.71	358.54	361.70	0.28	-0.28	-0.28	186.85
	NORMAL	2,732.0	6.42	83.36	2,703.86	49.02	369.48	372.72	0.51	-0.51	0.38	175.21
	NORMAL	2,828.0	6.33	86.08	2,799.26	50.00	380.09	383.36	0.33	-0.09	2.83	107.94
	NORMAL	2,923.0	7.91	84.41	2,893.53	50.99	391.82	395.12	1.68	1.66	-1.76	351.71
	NORMAL	3,019.0	8.00	84.76	2,988.60	52.25	405.05	408.40	0.11	0.09	0.36	28.46
	NORMAL	3,114.0	9.32	85.38	3,082.52	53.47	419.30	422.69	1.39	1.39	0.65	4.35
	NORMAL	3,209.0	9.67	84.06	3,176.22	54.92	434.91	438.34	0.43	0.37	-1.39	327.46
	NORMAL	3,303.0	9.54	84.94	3,268.90	56.42	450.52	454.01	0.21	-0.14	0.94	131.95
	NORMAL	3,397.0	9.41	86.78	3,361.62	57.54	465.95	469.46	0.35	-0.14	1.96	114.13
	NORMAL	3,493.0	10.02	80.37	3,456.24	59.38	482.02	485.63	1.29	0.64	-6.68	296.24
	NORMAL	3,588.0	9.98	78.52	3,549.80	62.40	498.23	502.10	0.34	-0.04	-1.95	261.99
7/18/2014	NORMAL	3,683.0	9.49	79.58	3,643.43	65.45	514.00	518.14	0.55	-0.52	1.12	160.43
	NORMAL	3,779.0	9.14	79.31	3,738.17	68.30	529.28	533.66	0.37	-0.36	-0.28	186.98
	NORMAL	3,875.0	8.79	79.40	3,832.99	71.06	543.98	548.60	0.36	-0.36	0.09	177.75
	NORMAL	3,970.0	8.75	79.75	3,926.88	73.68	558.23	563.07	0.07	-0.04	0.37	127.03
	NORMAL	4,064.0	8.92	81.07	4,019.77	76.09	572.46	577.50	0.28	0.18	1.40	50.67
	NORMAL	4,160.0	8.84	78.87	4,114.62	78.66	587.05	592.30	0.36	-0.08	-2.29	255.66
	NORMAL	4,256.0	8.57	77.99	4,209.51	81.58	601.29	606.80	0.31	-0.28	-0.92	205.82
	NORMAL	4,350.0	8.18	81.25	4,302.51	84.05	614.75	620.47	0.65	-0.41	3.47	131.00
	NORMAL	4,445.0	7.78	80.98	4,396.59	86.09	627.78	633.65	0.42	-0.42	-0.28	185.22
	NORMAL	4,550.0	7.78	82.74	4,500.62	88.10	641.85	647.86	0.23	0.00	1.68	90.87
	NORMAL	4,645.0	7.82	85.47	4,594.75	89.42	654.67	660.75	0.39	0.04	2.87	85.19
	NORMAL	4,730.0	7.96	85.82	4,678.94	90.31	666.30	672.40	0.17	0.16	0.41	19.11
	NORMAL	4,827.0	8.00	85.55	4,775.00	91.32	679.73	685.84	0.06	0.04	-0.28	316.73
7/19/2014	NORMAL	4,987.0	7.78	88.37	4,933.49	92.49	701.66	707.72	0.28	-0.14	1.76	121.00
	NORMAL	5,083.0	7.78	89.95	5,028.61	92.68	714.65	720.62	0.22	0.00	1.65	90.78
	NORMAL	5,179.0	7.74	90.74	5,123.73	92.61	727.61	733.46	0.12	-0.04	0.82	110.95
	NORMAL	5,273.0	7.21	92.85	5,216.93	92.23	739.83	745.52	0.63	-0.56	2.24	153.66
	NORMAL	5,367.0	6.72	96.10	5,310.23	91.35	751.19	756.66	0.67	-0.52	3.46	142.80
	NORMAL	5,463.0	6.37	98.39	5,405.61	89.98	762.05	767.23	0.45	-0.36	2.39	144.42
7/20/2014	NORMAL	5,559.0	5.63	98.30	5,501.08	88.52	771.97	776.87	0.77	-0.77	-0.09	180.68
	NORMAL	5,654.0	5.41	101.20	5,595.64	86.98	780.98	785.59	0.37	-0.23	3.05	129.70
	NORMAL	5,749.0	5.36	104.89	5,690.22	84.97	789.66	793.92	0.37	-0.05	3.88	100.05
	NORMAL	5,844.0	5.41	100.06	5,784.80	83.05	798.36	802.29	0.48	0.05	-5.08	273.89
	NORMAL	5,940.0	4.88	98.91	5,880.42	81.63	806.85	810.51	0.56	-0.55	-1.20	190.44
	NORMAL	6,035.0	4.00	85.38	5,975.13	81.27	814.14	817.69	1.43	-0.93	-14.24	223.35
	NORMAL	6,130.0	3.65	62.00	6,069.93	82.95	820.12	823.84	1.67	-0.37	-24.61	245.86
	NORMAL	6,226.0	3.21	62.53	6,165.76	85.63	825.20	829.23	0.46	-0.46	0.55	176.14
	NORMAL	6,321.0	2.90	66.31	6,260.62	87.82	829.76	834.04	0.39	-0.33	3.98	148.86
	NORMAL	6,417.0	2.90	67.19	6,356.50	89.74	834.22	838.72	0.05	0.00	0.92	90.44
	NORMAL	6,513.0	2.42	67.36	6,452.40	91.46	838.33	843.03	0.50	-0.50	0.18	179.14

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
7/20/2014	NORMAL	6,608.0	2.68	37.04	6,547.31	94.00	841.52	846.53	1.43	0.27	-31.92	265.51
7/21/2014	NORMAL	6,706.0	2.42	30.27	6,645.21	97.62	843.94	849.41	0.41	-0.27	-6.91	225.85
	NORMAL	6,802.0	2.15	25.26	6,741.13	101.00	845.73	851.64	0.35	-0.28	-5.22	214.01
	NORMAL	6,898.0	1.89	21.92	6,837.07	104.10	847.09	853.40	0.30	-0.27	-3.48	202.70
	NORMAL	6,994.0	1.36	16.56	6,933.04	106.66	848.01	854.65	0.57	-0.55	-5.58	193.33
	NORMAL	7,089.0	1.14	11.29	7,028.01	108.66	848.51	855.42	0.26	-0.23	-5.55	204.97
	NORMAL	7,185.0	0.61	333.93	7,124.00	110.06	848.48	855.57	0.78	-0.55	-38.92	209.47
	NORMAL	7,280.0	0.88	284.80	7,218.99	110.70	847.55	854.74	0.70	0.28	-51.72	267.06
	NORMAL	7,376.0	1.14	287.18	7,314.98	111.17	845.92	853.19	0.27	0.27	2.48	10.36
7/22/2014	NORMAL	7,480.0	3.96	320.40	7,418.87	114.24	842.65	850.36	2.95	2.71	31.94	44.94
	NORMAL	7,565.0	2.29	323.65	7,503.74	117.87	839.77	847.99	1.97	-1.96	3.82	175.57
	NORMAL	7,660.0	1.01	297.11	7,598.70	119.78	837.90	846.39	1.53	-1.35	-27.94	198.03
	NORMAL	7,756.0	1.05	275.22	7,694.69	120.25	836.27	844.84	0.41	0.04	-22.80	264.79
	NORMAL	7,852.0	1.41	252.63	7,790.67	119.98	834.27	842.82	0.62	0.38	-23.53	294.94
	NORMAL	7,946.0	2.15	250.61	7,884.62	119.05	831.50	839.95	0.79	0.79	-2.15	354.14
	NORMAL	8,040.0	2.50	244.99	7,978.54	117.59	827.98	836.27	0.44	0.37	-5.98	324.09
	NORMAL	8,135.0	2.81	238.40	8,073.44	115.50	824.12	832.16	0.46	0.33	-6.94	312.12
	NORMAL	8,230.0	3.47	231.98	8,168.30	112.51	819.87	827.55	0.79	0.69	-6.76	328.72
7/23/2014	NORMAL	8,327.0	3.47	226.18	8,265.12	108.67	815.44	822.64	0.36	0.00	-5.98	267.11
	NORMAL	8,421.0	3.96	228.29	8,358.92	104.54	810.96	817.66	0.54	0.52	2.24	16.64
	NORMAL	8,517.0	4.35	223.10	8,454.67	99.67	806.00	812.09	0.56	0.41	-5.41	313.44
	NORMAL	8,708.0	4.09	223.01	8,645.15	89.40	796.40	801.20	0.14	-0.14	-0.05	181.41
	NORMAL	8,803.0	4.26	223.45	8,739.90	84.36	791.67	795.83	0.18	0.18	0.46	10.89
	NORMAL	8,855.0	3.91	220.91	8,791.77	81.62	789.18	793.00	0.76	-0.67	-4.88	206.07
	NORMAL	8,900.0	3.91	220.91	8,836.66	79.30	787.17	790.70	0.00	0.00	0.00	0.00