

Deviation Summary

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	GM 543-12	Wellbore No.	00
Wellbore Legal Name	GM 543-12	Common Wellbore Name	GM 543-12
Project	GV 12-07S-096W	Site	GM 24-12 Pad
Vertical Section Azimuth	70.22 (°)	North reference	
Origin N/S		Origin E/W	
Spud date	7/18/2014	UWI	GM 543-12
Active datum	KB @5,165.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	7/18/2014	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 (°)
7/18/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/2014	NORMAL	103.0	1.58	64.42	102.99	0.61	1.28	1.41	1.53	1.53	0.00	64.42
	NORMAL	133.0	2.38	69.08	132.97	1.01	2.24	2.45	2.72	2.67	15.53	13.71
	NORMAL	163.0	3.08	71.37	162.93	1.49	3.58	3.88	2.36	2.33	7.63	10.00
	NORMAL	193.0	4.66	69.87	192.87	2.17	5.49	5.90	5.28	5.27	-5.00	355.59
	NORMAL	223.0	5.28	68.82	222.75	3.09	7.92	8.50	2.09	2.07	-3.50	351.13
	NORMAL	254.0	6.16	69.96	253.60	4.17	10.81	11.59	2.86	2.84	3.68	7.92
7/19/2014	NORMAL	324.0	9.05	78.01	322.98	6.61	19.73	20.80	4.39	4.13	11.50	24.26
	NORMAL	415.0	12.79	72.91	412.31	11.05	36.36	37.96	4.24	4.11	-5.60	343.00
	NORMAL	505.0	15.74	70.36	499.53	18.09	57.39	60.12	3.35	3.28	-2.83	346.74
	NORMAL	597.0	19.56	66.49	587.19	28.43	83.27	87.98	4.34	4.15	-4.21	341.07
	NORMAL	689.0	23.12	68.25	672.87	41.27	114.18	121.41	3.93	3.87	1.91	11.02
	NORMAL	780.0	26.64	67.90	755.41	55.57	149.69	159.66	3.87	3.87	-0.38	357.45
	NORMAL	871.0	29.14	70.10	835.83	70.79	189.43	202.21	2.97	2.75	2.42	23.35
	NORMAL	962.0	32.18	72.29	914.11	85.71	233.36	248.60	3.56	3.34	2.41	21.12
	NORMAL	1,057.0	36.97	73.17	992.31	101.68	284.83	302.44	5.07	5.04	0.93	6.32
	NORMAL	1,151.0	41.41	72.82	1,065.14	119.06	341.62	361.75	4.73	4.72	-0.37	357.01
	NORMAL	1,245.0	45.54	72.82	1,133.34	138.16	403.39	426.35	4.39	4.39	0.00	0.00
	NORMAL	1,339.0	49.76	70.10	1,196.66	160.29	469.21	495.77	4.97	4.49	-2.89	333.60
	NORMAL	1,434.0	55.16	68.78	1,254.52	186.76	539.70	571.06	5.79	5.68	-1.39	348.62
	NORMAL	1,528.0	60.09	69.92	1,304.84	214.73	613.98	650.42	5.34	5.24	1.21	11.36

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 (°)
7/19/2014	NORMAL	1,622.0	58.46	69.13	1,352.87	242.99	689.67	731.21	1.88	-1.73	-0.84	202.42
	NORMAL	1,705.0	59.52	68.69	1,395.63	268.59	756.04	802.33	1.36	1.28	-0.53	340.30
7/21/2014	NORMAL	1,827.0	60.53	68.51	1,456.58	307.15	854.44	907.97	0.84	0.83	-0.15	351.18
	NORMAL	1,922.0	61.01	68.34	1,502.97	337.63	931.53	990.83	0.53	0.51	-0.18	342.78
	NORMAL	2,016.0	59.65	70.18	1,549.50	366.56	1,007.91	1,072.49	2.23	-1.45	1.86	130.84
	NORMAL	2,110.0	59.65	69.83	1,597.00	394.30	1,084.13	1,153.60	0.32	0.00	-0.37	269.91
	NORMAL	2,204.0	58.46	71.33	1,645.34	421.11	1,160.16	1,234.22	1.86	-1.27	1.60	133.15
	NORMAL	2,298.0	58.55	70.89	1,694.44	447.06	1,236.00	1,314.36	0.41	0.10	-0.47	283.37
	NORMAL	2,392.0	58.64	70.36	1,743.43	473.68	1,311.68	1,394.59	0.49	0.10	-0.56	281.11
	NORMAL	2,487.0	58.77	70.01	1,792.77	501.19	1,388.05	1,475.77	0.34	0.14	-0.37	293.40
	NORMAL	2,581.0	59.69	71.08	1,840.86	528.10	1,464.20	1,556.53	1.37	0.98	1.12	44.71
	NORMAL	2,675.0	59.91	71.08	1,888.15	554.47	1,541.05	1,637.76	0.23	0.23	0.00	0.00
	NORMAL	2,770.0	59.91	71.15	1,935.78	581.09	1,618.81	1,719.95	0.08	0.00	0.09	90.02
	NORMAL	2,864.0	60.09	71.24	1,982.78	607.33	1,695.88	1,801.34	0.21	0.19	0.10	23.44
7/22/2014	NORMAL	2,958.0	60.26	69.57	2,029.53	634.68	1,772.70	1,882.89	1.55	0.18	-1.78	276.28
	NORMAL	3,053.0	60.40	69.92	2,076.56	663.26	1,850.14	1,965.43	0.35	0.15	0.37	65.37
	NORMAL	3,147.0	60.62	70.10	2,122.83	691.23	1,927.03	2,047.25	0.29	0.23	0.19	35.50
	NORMAL	3,241.0	61.10	70.27	2,168.60	719.06	2,004.27	2,129.35	0.53	0.51	0.18	17.23
	NORMAL	3,335.0	59.08	69.83	2,215.47	746.86	2,080.86	2,210.83	2.19	-2.15	-0.47	190.58
	NORMAL	3,429.0	59.21	70.18	2,263.68	774.45	2,156.69	2,291.52	0.35	0.14	0.37	66.69
	NORMAL	3,523.0	59.43	70.10	2,311.64	801.91	2,232.72	2,372.37	0.25	0.23	-0.09	342.61
	NORMAL	3,618.0	57.27	67.99	2,361.49	830.82	2,308.24	2,453.21	2.96	-2.27	-2.22	219.20
	NORMAL	3,712.0	56.22	69.31	2,413.04	859.44	2,381.45	2,531.78	1.62	-1.12	1.40	133.93
	NORMAL	3,806.0	53.80	68.60	2,466.94	887.08	2,453.32	2,608.77	2.65	-2.57	-0.76	193.31
	NORMAL	3,901.0	52.40	68.69	2,523.98	914.75	2,524.07	2,684.71	1.48	-1.47	0.09	177.08
	NORMAL	3,995.0	50.15	69.13	2,582.78	941.14	2,592.49	2,758.02	2.42	-2.39	0.47	171.46
	NORMAL	4,089.0	48.97	70.71	2,643.75	965.71	2,659.67	2,829.55	1.79	-1.26	1.68	134.97
	NORMAL	4,183.0	46.68	70.63	2,706.86	988.76	2,725.40	2,899.21	2.44	-2.44	-0.09	181.46
	NORMAL	4,278.0	44.53	70.71	2,773.32	1,011.23	2,789.45	2,967.08	2.26	-2.26	0.08	178.50
	NORMAL	4,372.0	42.73	70.80	2,841.36	1,032.61	2,850.69	3,031.94	1.92	-1.91	0.10	178.06
	NORMAL	4,465.0	41.27	72.03	2,910.47	1,052.45	2,909.66	3,094.15	1.80	-1.57	1.32	151.04
	NORMAL	4,559.0	38.64	67.64	2,982.53	1,073.19	2,966.31	3,154.48	4.10	-2.80	-4.67	225.32
7/23/2014	NORMAL	4,653.0	36.31	67.02	3,057.13	1,095.22	3,019.09	3,211.59	2.51	-2.48	-0.66	188.95
	NORMAL	4,747.0	34.59	67.37	3,133.70	1,116.36	3,069.34	3,266.03	1.84	-1.83	0.37	173.41
	NORMAL	4,842.0	33.85	69.13	3,212.25	1,136.16	3,118.95	3,319.42	1.30	-0.78	1.85	127.51
	NORMAL	4,936.0	31.60	71.24	3,291.33	1,153.41	3,166.74	3,370.23	2.68	-2.39	2.24	154.00
	NORMAL	5,030.0	28.00	70.89	3,372.89	1,168.56	3,210.93	3,416.93	3.83	-3.83	-0.37	182.61
	NORMAL	5,124.0	26.20	72.03	3,456.56	1,182.15	3,251.53	3,459.74	2.01	-1.91	1.32	163.13
	NORMAL	5,218.0	24.26	71.24	3,541.59	1,194.73	3,289.57	3,499.79	2.10	-2.06	-0.95	190.66
	NORMAL	5,312.0	22.73	67.99	3,627.80	1,207.75	3,324.69	3,537.25	2.13	-1.63	-3.46	218.78
	NORMAL	5,407.0	21.14	67.72	3,715.92	1,221.12	3,357.56	3,572.70	1.68	-1.67	-0.28	183.50
	NORMAL	5,501.0	19.87	68.08	3,803.96	1,233.51	3,388.07	3,605.60	1.36	-1.35	0.38	174.50
	NORMAL	5,595.0	18.46	68.43	3,892.75	1,244.95	3,416.73	3,636.44	1.50	-1.50	0.37	175.51
	NORMAL	5,689.0	17.80	69.39	3,982.09	1,255.48	3,444.02	3,665.68	0.77	-0.70	1.02	156.10
7/24/2014	NORMAL	5,783.0	17.36	69.48	4,071.69	1,265.45	3,470.60	3,694.07	0.47	-0.47	0.10	176.51
	NORMAL	5,878.0	14.77	68.25	4,162.98	1,274.91	3,495.13	3,720.35	2.75	-2.73	-1.29	186.90
	NORMAL	5,972.0	12.22	66.41	4,254.38	1,283.33	3,515.38	3,742.26	2.75	-2.71	-1.96	188.66
7/25/2014	NORMAL	6,067.0	11.74	65.00	4,347.31	1,291.44	3,533.35	3,761.91	0.59	-0.51	-1.48	210.68
	NORMAL	6,159.0	9.63	67.37	4,437.71	1,298.35	3,548.94	3,778.92	2.34	-2.29	2.58	169.40
	NORMAL	6,253.0	7.52	68.78	4,530.65	1,303.61	3,561.93	3,792.92	2.26	-2.24	1.50	175.01
	NORMAL	6,348.0	6.20	63.59	4,624.97	1,308.14	3,572.32	3,804.23	1.53	-1.39	-5.46	202.60
	NORMAL	6,442.0	3.87	65.97	4,718.60	1,311.69	3,579.76	3,812.44	2.49	-2.48	2.53	176.06
	NORMAL	6,536.0	2.42	80.47	4,812.46	1,313.31	3,584.62	3,817.56	1.75	-1.54	15.43	158.36
	NORMAL	6,631.0	0.40	118.00	4,907.42	1,313.48	3,586.89	3,819.75	2.23	-2.13	39.51	173.39
	NORMAL	6,725.0	0.40	183.65	5,001.42	1,313.00	3,587.16	3,819.84	0.46	0.00	69.84	122.82
	NORMAL	6,819.0	0.53	218.37	5,095.42	1,312.33	3,586.87	3,819.34	0.32	0.14	36.94	83.27

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 (°)
7/25/2014	NORMAL	6,914.0	0.61	238.76	5,190.42	1,311.73	3,586.16	3,818.48	0.23	0.08	21.46	78.88
	NORMAL	7,007.0	0.79	249.31	5,283.41	1,311.24	3,585.14	3,817.35	0.24	0.19	11.34	40.96
	NORMAL	7,101.0	0.88	256.85	5,377.40	1,310.85	3,583.83	3,815.98	0.15	0.10	8.02	54.49
7/26/2014	NORMAL	7,196.0	1.23	251.94	5,472.38	1,310.37	3,582.15	3,814.24	0.38	0.37	-5.17	343.05
	NORMAL	7,290.0	1.71	255.99	5,566.35	1,309.72	3,579.83	3,811.84	0.52	0.51	4.31	14.24
	NORMAL	7,384.0	2.02	254.76	5,660.30	1,308.94	3,576.87	3,808.79	0.33	0.33	-1.31	352.03
	NORMAL	7,479.0	2.29	257.04	5,755.23	1,308.08	3,573.41	3,805.24	0.30	0.28	2.40	18.76
	NORMAL	7,573.0	2.29	251.59	5,849.16	1,307.06	3,569.79	3,801.49	0.23	0.00	-5.80	267.28
	NORMAL	7,667.0	2.46	258.80	5,943.08	1,306.08	3,566.03	3,797.62	0.37	0.18	7.67	64.00
	NORMAL	7,761.0	2.64	251.68	6,036.99	1,305.00	3,562.00	3,793.46	0.39	0.19	-7.57	296.02
	NORMAL	7,855.0	2.64	248.08	6,130.89	1,303.52	3,557.94	3,789.14	0.18	0.00	-3.83	268.20
	NORMAL	7,905.0	2.46	247.37	6,180.84	1,302.67	3,555.88	3,786.91	0.37	-0.36	-1.42	189.60
	NORMAL	7,955.0	2.46	247.37	6,230.79	1,301.85	3,553.90	3,784.77	0.00	0.00	0.00	0.00