

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	GM 44-31	Wellbore No.	OH
Well Name	GM 44-31	Common Name	GM 44-31
Project	GV 31-06S-096W	Site	GM 333-31 Pad
Vertical Section Azimuth	120.70 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	12/6/2010	UWI	GM 44-31
Active Datum	KB @6,124.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	12/6/2010	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 (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
12/6/2010	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/6/2010	NORMAL	70.0	0.44	139.04	70.00	-0.20	0.18	0.26	0.63	0.63	0.00	139.04
	NORMAL	162.0	2.64	115.49	161.96	-1.38	2.32	2.70	2.44	2.39	-25.60	331.96
	NORMAL	253.0	3.70	123.93	252.82	-3.92	6.65	7.72	1.27	1.16	9.27	28.02
	NORMAL	344.0	6.33	129.11	343.46	-8.73	12.98	15.62	2.93	2.89	5.69	12.36
	NORMAL	417.0	8.03	126.22	415.89	-14.28	20.22	24.67	2.38	2.33	-3.96	346.57
	NORMAL	507.0	10.82	120.43	504.67	-22.27	32.57	39.38	3.27	3.10	-6.43	338.36
	NORMAL	599.0	13.10	119.64	594.67	-31.80	49.08	58.44	2.48	2.48	-0.86	355.51
	NORMAL	690.0	14.95	119.20	682.95	-42.63	68.29	80.49	2.04	2.03	-0.48	356.49
	NORMAL	781.0	17.32	119.99	770.36	-55.13	90.28	105.77	2.62	2.60	0.87	5.67
	NORMAL	873.0	19.79	120.52	857.57	-69.89	115.56	135.04	2.69	2.68	0.58	4.16
	NORMAL	964.0	21.63	121.57	942.69	-86.49	143.12	167.22	2.06	2.02	1.15	11.90
	NORMAL	1,058.0	22.86	120.43	1,029.69	-104.81	173.63	202.80	1.39	1.31	-1.21	340.14
12/8/2010	NORMAL	1,155.0	22.50	120.40	1,119.19	-123.75	205.88	240.20	0.37	-0.37	-0.03	181.83
	NORMAL	1,250.0	22.20	121.10	1,207.05	-142.22	236.93	276.33	0.42	-0.32	0.74	138.74
	NORMAL	1,344.0	22.60	121.60	1,293.96	-160.85	267.52	312.15	0.47	0.43	0.53	25.70
	NORMAL	1,438.0	22.00	121.90	1,380.93	-179.62	297.85	347.81	0.65	-0.64	0.32	169.40
	NORMAL	1,532.0	22.20	117.50	1,468.03	-197.13	328.55	383.15	1.77	0.21	-4.68	274.85
	NORMAL	1,626.0	21.60	117.10	1,555.24	-213.21	359.70	418.14	0.66	-0.64	-0.43	193.78
	NORMAL	1,721.0	21.50	117.10	1,643.60	-229.10	390.77	452.97	0.11	-0.11	0.00	180.00
	NORMAL	1,815.0	21.30	119.60	1,731.12	-245.38	420.95	487.23	0.99	-0.21	2.66	103.53

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 (°)
12/8/2010	NORMAL	1,909.0	21.20	119.30	1,818.73	-262.14	450.61	521.29	0.16	-0.11	-0.32	227.26
	NORMAL	2,004.0	20.20	122.20	1,907.60	-279.28	479.47	554.86	1.51	-1.05	3.05	135.64
	NORMAL	2,098.0	20.90	123.50	1,995.62	-297.19	507.19	587.83	0.89	0.74	1.38	33.71
	NORMAL	2,192.0	20.10	124.00	2,083.67	-315.47	534.56	620.71	0.87	-0.85	0.53	167.89
	NORMAL	2,287.0	21.80	123.30	2,172.38	-334.29	562.84	654.63	1.81	1.79	-0.74	351.30
	NORMAL	2,381.0	21.30	121.80	2,259.81	-352.87	591.94	689.13	0.79	-0.53	-1.60	227.08
	NORMAL	2,476.0	21.60	123.20	2,348.23	-371.53	621.24	723.85	0.62	0.32	1.47	60.28
	NORMAL	2,570.0	20.90	122.90	2,435.84	-390.11	649.79	757.89	0.75	-0.74	-0.32	188.69
	NORMAL	2,664.0	21.30	124.60	2,523.54	-408.92	677.92	791.68	0.78	0.43	1.81	57.63
	NORMAL	2,758.0	20.70	120.10	2,611.30	-426.94	706.35	825.33	1.83	-0.64	-4.79	247.50
	NORMAL	2,853.0	20.40	117.30	2,700.26	-442.96	735.59	858.65	1.08	-0.32	-2.95	251.72
	NORMAL	2,947.0	19.60	115.80	2,788.59	-457.34	764.34	890.71	1.01	-0.85	-1.60	211.97
	NORMAL	3,041.0	20.80	117.20	2,876.81	-471.83	793.38	923.08	1.38	1.28	1.49	22.60
	NORMAL	3,135.0	22.00	119.80	2,964.33	-488.21	823.51	957.35	1.63	1.28	2.77	39.54
	NORMAL	3,229.0	21.50	119.00	3,051.63	-505.31	853.85	992.17	0.62	-0.53	-0.85	210.29
	NORMAL	3,324.0	22.50	120.40	3,139.72	-522.95	884.76	1,027.75	1.19	1.05	1.47	28.33
	NORMAL	3,418.0	22.20	120.00	3,226.65	-540.93	915.65	1,063.49	0.36	-0.32	-0.43	206.70
12/9/2010	NORMAL	3,513.0	22.20	119.40	3,314.61	-558.71	946.83	1,099.38	0.24	0.00	-0.63	269.72
	NORMAL	3,607.0	21.60	118.50	3,401.83	-575.69	977.51	1,134.42	0.73	-0.64	-0.96	208.81
	NORMAL	3,701.0	21.10	118.00	3,489.38	-591.89	1,007.65	1,168.61	0.57	-0.53	-0.53	199.77
	NORMAL	3,795.0	20.60	119.20	3,577.22	-607.90	1,037.03	1,202.05	0.70	-0.53	1.28	140.06
	NORMAL	3,890.0	18.30	119.90	3,666.79	-623.49	1,064.55	1,233.67	2.43	-2.42	0.74	174.54
	NORMAL	3,984.0	16.90	118.80	3,756.39	-637.43	1,089.32	1,262.08	1.53	-1.49	-1.17	192.84
	NORMAL	4,079.0	16.30	119.80	3,847.43	-650.70	1,112.99	1,289.22	0.70	-0.63	1.05	155.02
	NORMAL	4,173.0	15.30	119.20	3,937.88	-663.31	1,135.26	1,314.80	1.08	-1.06	-0.64	188.99
	NORMAL	4,267.0	13.40	116.80	4,028.94	-674.27	1,155.81	1,338.07	2.12	-2.02	-2.55	196.22
	NORMAL	4,361.0	12.00	120.30	4,120.64	-684.11	1,173.97	1,358.71	1.70	-1.49	3.72	152.91
	NORMAL	4,456.0	10.30	120.40	4,213.85	-693.40	1,189.82	1,377.08	1.79	-1.79	0.11	179.40
	NORMAL	4,550.0	9.30	125.60	4,306.48	-702.07	1,203.25	1,393.05	1.42	-1.06	5.53	141.03
12/10/2010	NORMAL	4,645.0	7.60	121.90	4,400.44	-709.86	1,214.82	1,406.98	1.88	-1.79	-3.89	195.91
	NORMAL	4,739.0	6.40	118.80	4,493.74	-715.67	1,224.69	1,418.43	1.34	-1.28	-3.30	195.94
	NORMAL	4,833.0	5.50	112.20	4,587.23	-719.89	1,233.45	1,428.13	1.20	-0.96	-7.02	213.99
	NORMAL	4,927.0	4.50	103.30	4,680.88	-722.44	1,241.21	1,436.10	1.34	-1.06	-9.47	213.42
	NORMAL	5,022.0	2.90	113.20	4,775.68	-724.25	1,247.05	1,442.04	1.81	-1.68	10.42	163.12
	NORMAL	5,116.0	1.90	111.50	4,869.59	-725.76	1,250.69	1,445.94	1.07	-1.06	-1.81	183.22
	NORMAL	5,210.0	1.50	149.80	4,963.55	-727.39	1,252.75	1,448.55	1.25	-0.43	40.74	127.86
	NORMAL	5,305.0	2.00	129.50	5,058.51	-729.52	1,254.66	1,451.27	0.83	0.53	-21.37	298.45
	NORMAL	5,399.0	1.70	89.20	5,152.47	-730.54	1,257.32	1,454.08	1.39	-0.32	-42.87	237.40
12/11/2010	NORMAL	5,493.0	1.60	96.10	5,246.43	-730.66	1,260.02	1,456.47	0.24	-0.11	7.34	120.14
	NORMAL	5,588.0	1.30	73.20	5,341.40	-730.49	1,262.37	1,458.40	0.68	-0.32	-24.11	231.50
	NORMAL	5,682.0	1.00	87.70	5,435.38	-730.15	1,264.21	1,459.81	0.44	-0.32	15.43	142.97
	NORMAL	5,777.0	0.20	101.70	5,530.37	-730.15	1,265.20	1,460.66	0.85	-0.84	14.74	176.56
	NORMAL	5,871.0	0.60	268.40	5,624.37	-730.20	1,264.87	1,460.40	0.85	0.43	177.34	170.01
	NORMAL	5,965.0	0.70	257.00	5,718.36	-730.34	1,263.82	1,459.57	0.17	0.11	-12.13	301.92
	NORMAL	6,059.0	1.10	232.60	5,812.35	-731.02	1,262.54	1,458.82	0.58	0.43	-25.96	303.59
	NORMAL	6,153.0	0.60	190.10	5,906.34	-732.05	1,261.74	1,458.65	0.82	-0.53	-45.21	211.65
	NORMAL	6,247.0	1.10	218.50	6,000.33	-733.24	1,261.09	1,458.70	0.68	0.53	30.21	54.90
	NORMAL	6,342.0	0.60	111.10	6,095.33	-734.14	1,260.99	1,459.07	1.48	-0.53	-113.05	204.11
12/12/2010	NORMAL	6,436.0	0.50	125.40	6,189.32	-734.55	1,261.78	1,459.96	0.18	-0.11	15.21	133.08
	NORMAL	6,531.0	1.00	181.10	6,284.31	-735.62	1,262.10	1,460.79	0.87	0.53	58.63	85.60
	NORMAL	6,625.0	1.80	212.30	6,378.29	-737.69	1,261.30	1,461.15	1.15	0.85	33.19	59.93
	NORMAL	6,719.0	2.30	221.40	6,472.23	-740.35	1,259.26	1,460.76	0.63	0.53	9.68	37.67
	NORMAL	6,813.0	2.40	220.10	6,566.15	-743.27	1,256.75	1,460.09	0.12	0.11	-1.38	331.29
	NORMAL	6,908.0	2.00	220.00	6,661.08	-746.06	1,254.40	1,459.49	0.42	-0.42	-0.11	180.50
	NORMAL	7,002.0	1.80	219.50	6,755.03	-748.46	1,252.41	1,459.00	0.21	-0.21	-0.53	184.49
	NORMAL	7,067.0	1.80	222.40	6,819.99	-750.00	1,251.07	1,458.64	0.14	0.00	4.46	91.45
	NORMAL	7,112.0	1.80	222.40	6,864.97	-751.04	1,250.11	1,458.35	0.00	0.00	0.00	0.00