

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	GM 41-12	Wellbore No.	
Well Name	GM 41-12	Common Name	GM 41-12
Project	GV 01-07S-096W	Site	GM 44-1 Pad
Vertical Section	190.50 (°)	North Reference	True
Azimuth			
Origin N/S		Origin E/W	
Spud Date	12/2/2012	UWI	GM 41-12
Active Datum	KB @5,230.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	12/2/2012	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

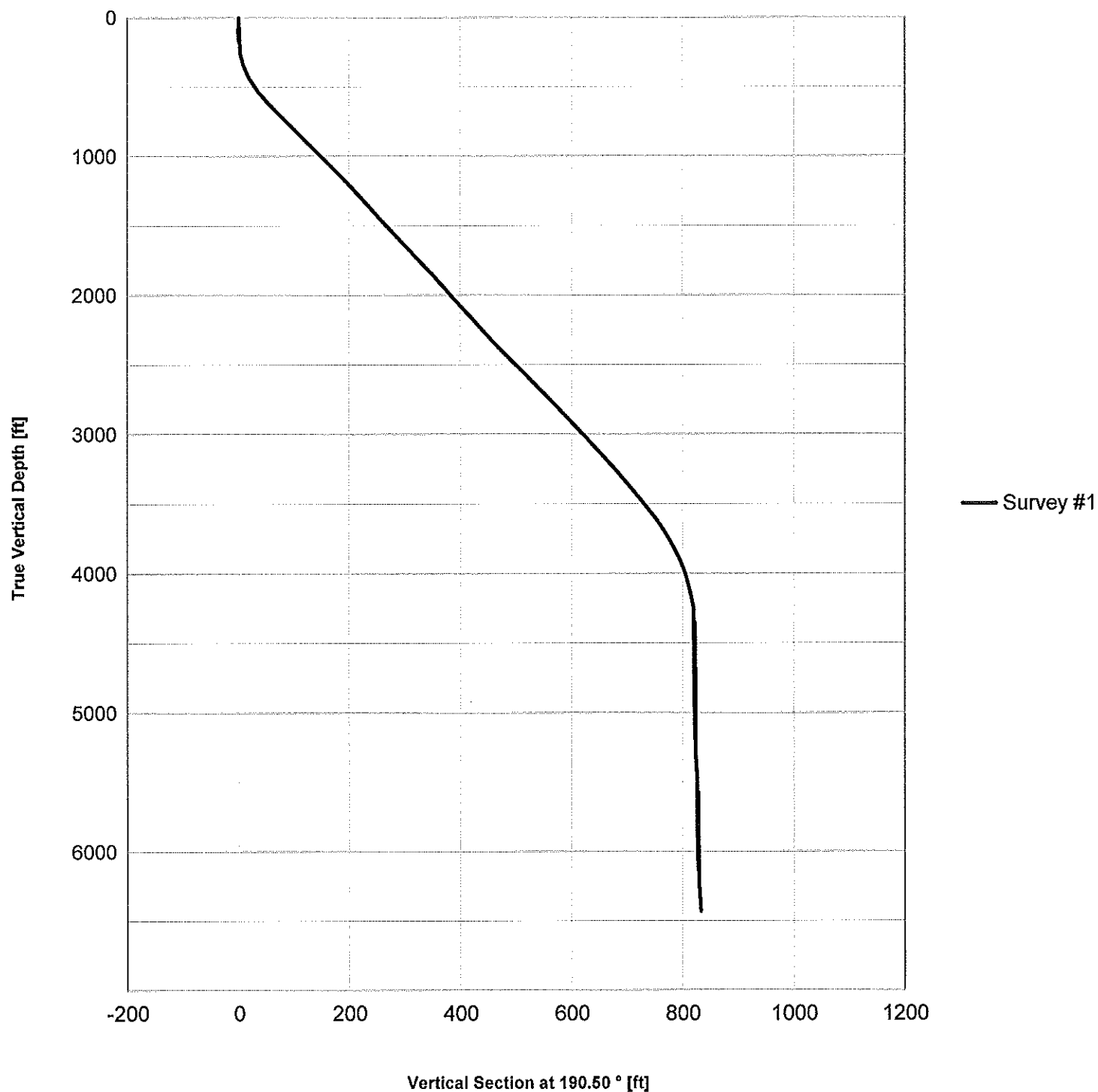
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
12/2/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/2012	NORMAL	74.0	0.79	350.86	74.00	0.50	-0.08	-0.48	1.07	1.07	0.00	350.86
	NORMAL	166.0	1.41	215.95	165.99	0.21	-0.85	-0.06	2.22	0.67	-146.64	209.22
	NORMAL	257.0	2.55	196.35	256.93	-2.64	-2.07	2.97	1.44	1.25	-21.54	319.25
	NORMAL	347.0	5.10	190.28	346.73	-8.49	-3.35	8.96	2.86	2.83	-6.74	347.94
	NORMAL	438.0	7.92	190.81	437.13	-18.63	-5.25	19.28	3.10	3.10	0.58	1.48
	NORMAL	529.0	10.65	189.40	526.93	-33.09	-7.80	33.96	3.01	3.00	-1.55	354.54
	NORMAL	607.0	12.43	190.12	603.35	-48.47	-10.45	49.56	2.29	2.28	0.92	4.98
	NORMAL	697.0	14.55	190.13	690.86	-69.13	-14.14	70.55	2.36	2.36	0.01	0.07
	NORMAL	770.0	14.13	189.16	761.59	-86.96	-17.17	88.63	0.66	-0.58	-1.33	209.30
12/3/2012	NORMAL	876.0	13.78	187.85	864.46	-112.24	-20.96	114.18	0.44	-0.33	-1.24	221.44
	NORMAL	967.0	14.59	191.32	952.69	-134.21	-24.69	136.46	1.29	0.89	3.81	48.08
	NORMAL	1,060.0	14.42	191.86	1,042.72	-157.03	-29.37	159.75	0.23	-0.18	0.58	141.76
	NORMAL	1,154.0	13.72	192.57	1,133.90	-179.37	-34.20	182.59	0.77	-0.74	0.76	166.49
	NORMAL	1,248.0	13.28	191.95	1,225.30	-200.81	-38.86	204.53	0.49	-0.47	-0.66	197.91
	NORMAL	1,342.0	12.60	192.81	1,316.92	-221.37	-43.37	225.56	0.75	-0.72	0.91	164.61
	NORMAL	1,436.0	12.92	189.63	1,408.60	-241.73	-47.40	246.32	0.82	0.34	-3.38	292.94
	NORMAL	1,530.0	12.93	189.05	1,500.21	-262.47	-50.81	267.34	0.14	0.01	-0.62	274.13
	NORMAL	1,624.0	12.67	186.06	1,591.88	-283.11	-53.55	288.13	0.76	-0.28	-3.18	247.12
	NORMAL	1,718.0	13.23	188.23	1,683.49	-304.01	-56.18	309.16	0.79	0.60	2.31	42.03
	NORMAL	1,812.0	13.38	189.47	1,774.97	-325.38	-59.51	330.78	0.34	0.16	1.32	62.88

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 (°)
12/3/2012	NORMAL	1,906.0	13.22	189.94	1,866.44	-346.70	-63.16	352.40	0.21	-0.17	0.50	146.18
	NORMAL	2,000.0	12.32	189.61	1,958.12	-367.17	-66.69	373.18	0.96	-0.96	-0.35	184.47
	NORMAL	2,095.0	12.94	189.75	2,050.82	-387.65	-70.18	393.95	0.65	0.65	0.15	2.89
	NORMAL	2,190.0	12.66	189.75	2,143.46	-408.39	-73.74	414.99	0.29	-0.29	0.00	180.00
	NORMAL	2,285.0	12.32	188.44	2,236.21	-428.68	-76.99	435.53	0.47	-0.36	-1.38	219.17
	NORMAL	2,377.0	13.63	189.95	2,325.86	-449.06	-80.31	456.18	1.47	1.42	1.64	15.25
	NORMAL	2,471.0	13.75	191.44	2,417.19	-470.92	-84.44	478.42	0.40	0.13	1.59	71.93
	NORMAL	2,564.0	13.80	192.78	2,507.51	-492.57	-89.08	500.56	0.35	0.05	1.44	81.74
12/4/2012	NORMAL	2,658.0	13.78	191.88	2,598.80	-514.46	-93.87	522.95	0.23	-0.02	-0.96	264.24
	NORMAL	2,752.0	13.97	190.42	2,690.06	-536.57	-98.22	545.49	0.42	0.20	-1.55	297.78
	NORMAL	2,845.0	13.81	190.37	2,780.34	-558.53	-102.25	567.82	0.17	-0.17	-0.05	184.27
	NORMAL	2,938.0	13.39	190.05	2,870.74	-580.06	-106.13	589.68	0.46	-0.45	-0.34	190.00
	NORMAL	3,033.0	13.17	189.62	2,963.19	-601.56	-109.86	611.50	0.25	-0.23	-0.45	203.97
	NORMAL	3,127.0	12.94	190.12	3,054.77	-622.48	-113.50	632.74	0.27	-0.24	0.53	154.09
	NORMAL	3,220.0	13.05	191.88	3,145.38	-643.00	-117.49	653.64	0.44	0.12	1.89	75.33
	NORMAL	3,314.0	12.83	192.54	3,237.00	-663.57	-121.94	674.68	0.28	-0.23	0.70	146.43
	NORMAL	3,408.0	11.81	192.08	3,328.83	-683.17	-126.22	694.73	1.09	-1.09	-0.49	185.27
	NORMAL	3,501.0	11.85	187.64	3,419.86	-701.94	-129.48	713.78	0.98	0.04	-4.77	270.34
	NORMAL	3,595.0	11.61	187.29	3,511.89	-720.89	-131.96	732.87	0.27	-0.26	-0.37	196.34
	NORMAL	3,690.0	10.74	188.37	3,605.09	-739.13	-134.46	751.26	0.94	-0.92	1.14	167.00
	NORMAL	3,784.0	9.15	188.21	3,697.68	-755.19	-136.81	767.48	1.69	-1.69	-0.17	180.92
	NORMAL	3,878.0	7.92	187.18	3,790.63	-769.01	-138.68	781.41	1.32	-1.31	-1.10	186.58
	NORMAL	3,972.0	6.73	183.46	3,883.87	-780.94	-139.83	793.34	1.36	-1.27	-3.96	199.89
	NORMAL	4,066.0	5.10	191.16	3,977.36	-790.54	-140.97	802.99	1.92	-1.73	8.19	157.84
	NORMAL	4,159.0	3.54	197.92	4,070.10	-797.32	-142.65	809.97	1.76	-1.68	7.27	165.27
	NORMAL	4,252.0	3.52	189.93	4,162.92	-802.87	-144.03	815.67	0.53	-0.02	-8.59	263.69
12/5/2012	NORMAL	4,346.0	1.95	186.10	4,256.81	-807.30	-144.69	820.15	1.68	-1.67	-4.07	184.73
	NORMAL	4,441.0	1.05	169.81	4,351.78	-809.76	-144.71	822.58	1.04	-0.95	-17.15	197.36
	NORMAL	4,535.0	0.90	53.89	4,445.77	-810.18	-143.96	822.85	1.76	-0.16	-123.32	209.29
	NORMAL	4,629.0	0.65	53.70	4,539.76	-809.43	-142.94	821.92	0.27	-0.27	-0.20	180.49
	NORMAL	4,723.0	0.72	56.83	4,633.76	-808.79	-142.01	821.12	0.08	0.07	3.33	29.70
	NORMAL	4,816.0	0.22	169.50	4,726.75	-808.64	-141.49	820.89	0.89	-0.54	121.15	165.84
	NORMAL	4,909.0	0.36	261.86	4,819.75	-808.86	-141.75	821.15	0.46	0.15	99.31	123.14
	NORMAL	5,002.0	0.71	246.05	4,912.75	-809.14	-142.56	821.57	0.40	0.38	-17.00	329.10
	NORMAL	5,097.0	0.05	257.09	5,007.75	-809.38	-143.14	821.92	0.70	-0.69	11.62	179.17
	NORMAL	5,191.0	0.17	165.18	5,101.75	-809.53	-143.15	822.06	0.19	0.13	-97.78	251.86
	NORMAL	5,285.0	0.60	190.24	5,195.74	-810.15	-143.20	822.68	0.48	0.46	26.66	34.23
	NORMAL	5,380.0	0.68	195.87	5,290.74	-811.18	-143.44	823.74	0.11	0.08	5.93	41.01
12/6/2012	NORMAL	5,473.0	0.88	209.53	5,383.73	-812.33	-143.94	824.96	0.29	0.22	14.69	49.88
	NORMAL	5,566.0	1.38	214.14	5,476.71	-813.88	-144.92	826.66	0.55	0.54	4.96	12.62
	NORMAL	5,661.0	1.04	229.77	5,571.69	-815.38	-146.22	828.38	0.50	-0.36	16.45	143.49
	NORMAL	5,756.0	0.89	337.74	5,666.68	-815.26	-147.16	828.42	1.65	-0.16	113.65	147.21
	NORMAL	5,850.0	0.66	351.47	5,760.67	-814.05	-147.52	827.30	0.31	-0.24	14.61	147.81
	NORMAL	5,945.0	0.65	266.61	5,855.67	-813.54	-148.14	826.91	0.93	-0.01	-89.33	227.09
	NORMAL	6,039.0	1.27	268.88	5,949.66	-813.59	-149.71	827.25	0.66	0.66	2.41	4.65
	NORMAL	6,134.0	1.97	276.44	6,044.62	-813.43	-152.39	827.58	0.77	0.74	7.96	20.78
	NORMAL	6,228.0	2.29	264.90	6,138.55	-813.41	-155.86	828.20	0.57	0.34	-12.28	300.87
	NORMAL	6,322.0	2.82	255.88	6,232.46	-814.14	-159.98	829.66	0.71	0.56	-9.60	318.25
	NORMAL	6,414.0	2.59	257.02	6,324.36	-815.16	-164.20	831.43	0.26	-0.25	1.24	167.40
	NORMAL	6,460.0	2.60	259.78	6,370.31	-815.58	-166.24	832.22	0.27	0.02	6.00	86.80
	NORMAL	6,520.0	2.60	259.78	6,430.25	-816.06	-168.91	833.18	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

