

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	PA 532-7	Wellbore No.	OH
Well Name	PA 532-7	Common Name	PA 532-7
Project	PA 07-07S-095W	Site	PA 21-7 Pad
Vertical Section	131.26 (°)	North Reference	True
Azimuth		Origin E/W	
Origin N/S		Spud Date	8/3/2011
Active Datum	KB @5,109.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Started	8/3/2011	Ended	8/8/2011
Tool Name	MWD	Engineer	

2.1.1 Tie On Point

MD (ft)	0.0
Inc (°)	0.00
Azi (°)	0.00
TVD (ft)	0.00
N/S (ft)	0.00
E/W (ft)	0.00

2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	Dleg (%/100ft)	Build (%/100ft)	Turn (%/100ft)	TFace (°)
8/3/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/3/2011	NORMAL	105.0	0.18	176.66	105.00	-0.16	0.01	0.12	0.17	0.17	0.00	0.00
	NORMAL	136.0	1.06	123.57	136.00	-0.37	0.25	0.43	3.11	2.84	-171.26	176.66
	NORMAL	166.0	1.14	131.40	165.99	-0.72	0.71	1.01	0.57	0.27	26.10	298.31
	NORMAL	197.0	2.11	136.58	196.98	-1.34	1.33	1.88	3.16	3.13	16.71	11.21
	NORMAL	227.0	2.73	126.65	226.95	-2.17	2.28	3.15	2.49	2.07	-33.10	320.90
	NORMAL	257.0	3.34	134.03	256.91	-3.20	3.48	4.73	2.41	2.03	24.60	36.36
	NORMAL	287.0	4.93	136.41	286.83	-4.74	5.00	6.89	5.33	5.30	7.93	7.35
	NORMAL	317.0	5.63	133.15	316.70	-6.68	6.96	9.64	2.54	2.33	-10.87	335.17
	NORMAL	347.0	6.77	133.15	346.53	-8.90	9.33	12.88	3.80	3.80	0.00	0.00
	NORMAL	378.0	8.18	132.63	377.26	-11.64	12.28	16.91	4.55	4.55	-1.68	357.00
	NORMAL	408.0	9.59	131.92	406.90	-14.76	15.71	21.54	4.71	4.70	-2.37	355.20
	NORMAL	439.0	10.38	132.63	437.43	-18.37	19.69	26.92	2.58	2.55	2.29	9.21
	NORMAL	469.0	11.26	132.98	466.90	-22.20	23.82	32.55	2.94	2.93	1.17	4.44
	NORMAL	499.0	12.05	127.09	496.28	-26.09	28.46	38.60	4.76	2.63	-19.63	300.67
	NORMAL	529.0	12.93	124.98	525.57	-29.90	33.71	45.06	3.30	2.93	-7.03	331.56
	NORMAL	560.0	14.25	123.13	555.70	-33.97	39.75	52.28	4.48	4.26	-5.97	340.87
	NORMAL	590.0	14.96	125.77	584.73	-38.26	45.98	59.79	3.24	2.37	8.80	44.44
	NORMAL	620.0	15.57	129.20	613.68	-43.06	52.24	67.67	3.63	2.03	11.43	57.62
	NORMAL	650.0	16.19	131.40	642.53	-48.37	58.50	75.88	2.88	2.07	7.33	45.22
	NORMAL	680.0	17.24	131.84	671.26	-54.11	64.95	84.51	3.53	3.50	1.47	7.08

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (")	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	Dleg (/100ft)	Build (/100ft)	Turn (/100ft)	Tface (°)
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8/3/2011	NORMAL	711.0	17.77	131.48	700.83	-60.30	71.92	93.83	1.74	1.71	-1.16	348.28
NORMAL		751.0	19.43	132.55	738.74	-68.85	81.39	106.59	4.24	4.15	2.68	12.13
NORMAL		781.0	20.26	132.94	766.96	-75.76	88.87	116.77	2.80	2.77	1.30	9.25
NORMAL		812.0	21.28	132.44	795.94	-83.21	96.95	127.76	3.34	3.29	-1.61	349.90
NORMAL		842.0	22.20	130.69	823.81	-90.58	105.27	138.87	3.75	3.07	-5.83	324.02
NORMAL		872.0	23.12	130.52	851.49	-98.10	114.04	150.42	3.07	3.07	-0.57	355.85
NORMAL		903.0	23.84	130.93	879.92	-106.16	123.40	162.77	2.38	2.32	1.32	12.97
NORMAL		932.0	24.64	130.71	906.37	-113.94	132.41	174.68	2.78	2.76	-0.76	353.46
NORMAL		962.0	25.65	131.57	933.52	-122.33	142.01	187.43	3.58	3.37	2.87	20.28
NORMAL		994.0	26.80	132.14	962.23	-131.77	152.54	201.57	3.68	3.59	1.78	12.61
NORMAL		1,026.0	28.16	131.26	990.62	-141.59	163.57	216.33	4.44	4.25	-2.75	342.98
NORMAL		1,058.0	28.88	131.34	1,018.73	-151.67	175.05	231.61	2.25	2.25	0.25	3.07
NORMAL		1,089.0	29.22	131.20	1,045.83	-161.60	186.36	246.66	1.12	1.10	-0.45	348.63
NORMAL		1,121.0	29.56	131.45	1,073.72	-171.97	198.15	262.37	1.13	1.06	0.78	19.95
NORMAL		1,153.0	29.83	131.29	1,101.51	-182.45	210.05	278.22	0.88	0.84	-0.50	343.57
NORMAL		1,185.0	30.29	131.53	1,129.21	-193.05	222.07	294.25	1.49	1.44	0.75	14.75
8/4/2011	NORMAL	1,247.0	31.10	130.40	1,182.52	-213.80	245.97	325.90	1.60	1.31	-1.82	324.06
NORMAL		1,340.0	29.20	130.10	1,262.94	-243.98	281.62	372.60	2.05	-2.04	-0.32	184.40
NORMAL		1,436.0	28.90	129.50	1,346.86	-273.82	317.43	419.20	0.44	-0.31	-0.63	223.90
NORMAL		1,522.0	28.80	132.30	1,430.95	-304.14	352.43	465.51	1.41	-0.10	2.92	95.46
NORMAL		1,627.0	29.20	131.30	1,514.04	-334.83	386.77	511.56	0.66	0.42	-1.05	309.09
NORMAL		1,723.0	29.60	129.90	1,597.68	-365.50	422.55	558.68	0.83	0.42	-1.46	299.59
NORMAL		1,819.0	29.00	132.20	1,681.40	-396.34	457.98	605.65	1.33	-0.63	2.40	119.06
8/5/2011	NORMAL	1,914.0	28.30	135.50	1,764.77	-427.87	490.83	651.14	1.82	-0.74	3.47	115.31
NORMAL		2,010.0	28.60	133.80	1,849.18	-460.01	523.36	696.79	0.90	0.31	-1.77	289.58
NORMAL		2,105.0	28.90	132.00	1,932.47	-491.10	556.83	742.46	0.96	0.32	-1.89	288.32
NORMAL		2,201.0	29.50	130.20	2,016.27	-521.88	592.13	789.29	1.11	0.63	-1.88	303.56
NORMAL		2,297.0	29.30	129.30	2,099.91	-552.02	628.36	836.40	0.51	-0.21	-0.94	245.25
NORMAL		2,393.0	29.20	128.50	2,183.67	-581.47	664.86	883.26	0.42	-0.10	-0.83	255.30
NORMAL		2,488.0	29.20	130.80	2,266.60	-611.04	700.54	929.58	1.18	0.00	2.42	91.00
NORMAL		2,584.0	28.70	133.80	2,350.61	-642.30	734.91	976.03	1.60	-0.52	3.13	110.31
NORMAL		2,680.0	28.70	132.70	2,434.81	-673.89	768.49	1,022.10	0.55	0.00	-1.15	269.52
NORMAL		2,775.0	28.40	131.60	2,518.26	-704.36	802.14	1,067.50	0.64	-0.32	-1.16	239.81
NORMAL		2,871.0	28.30	131.30	2,602.75	-734.53	836.31	1,113.08	0.18	-0.10	-0.31	234.80
NORMAL		2,966.0	26.40	131.50	2,687.12	-763.39	869.05	1,156.73	2.00	-2.00	0.21	177.32
NORMAL		3,062.0	24.10	131.50	2,773.95	-790.53	899.72	1,197.67	2.40	-2.40	0.00	180.00
NORMAL		3,157.0	22.60	130.80	2,861.16	-815.31	928.07	1,235.33	1.61	-1.58	-0.74	190.16
NORMAL		3,253.0	20.50	132.70	2,950.45	-838.76	964.39	1,270.58	2.30	-2.19	1.98	162.50
NORMAL		3,349.0	19.00	133.10	3,040.80	-860.84	978.15	1,303.01	1.57	-1.56	0.42	175.04
NORMAL		3,445.0	17.50	129.30	3,131.97	-880.66	1,000.73	1,333.05	1.99	-1.56	-3.96	216.63
NORMAL		3,540.0	15.70	126.40	3,223.01	-897.34	1,022.13	1,360.14	2.09	-1.89	-3.05	203.33
NORMAL		3,636.0	13.90	126.40	3,315.82	-911.89	1,041.87	1,384.57	1.88	-1.88	0.00	180.00
NORMAL		3,732.0	12.40	126.90	3,409.30	-924.92	1,059.40	1,406.34	1.57	-1.56	0.52	175.91
NORMAL		3,828.0	10.70	123.60	3,503.35	-936.04	1,075.06	1,425.45	1.90	-1.77	-3.44	199.63
NORMAL		3,923.0	10.10	124.30	3,596.79	-945.62	1,089.29	1,442.46	0.65	-0.63	0.74	168.45
NORMAL		4,019.0	8.30	119.30	3,691.56	-953.75	1,102.29	1,457.60	2.05	-1.88	-5.21	201.49
8/6/2011	NORMAL	4,114.0	6.30	123.60	3,785.78	-960.00	1,112.61	1,469.47	2.18	-2.11	4.53	166.85
NORMAL		4,210.0	5.70	126.00	3,881.26	-965.71	1,120.86	1,479.44	0.68	-0.63	2.50	158.50
NORMAL		4,306.0	4.70	125.80	3,976.86	-970.82	1,127.90	1,488.10	1.04	-1.04	-0.21	180.94
NORMAL		4,401.0	2.80	136.60	4,071.65	-974.78	1,132.65	1,494.29	2.13	-2.00	11.37	164.94
NORMAL		4,497.0	2.70	132.70	4,167.54	-978.02	1,135.93	1,498.88	0.22	-0.10	-4.06	239.94
NORMAL		4,592.0	2.20	135.70	4,262.46	-980.84	1,138.84	1,502.94	0.54	-0.53	3.16	167.11
NORMAL		4,687.0	2.30	136.40	4,357.38	-983.52	1,141.43	1,506.65	0.11	0.11	0.74	15.72
NORMAL		4,783.0	0.60	125.00	4,453.35	-985.21	1,143.17	1,509.07	1.79	-1.77	-11.88	183.96
NORMAL		4,878.0	0.70	155.20	4,548.34	-986.02	1,143.82	1,510.10	0.37	0.11	31.79	89.19
NORMAL		4,974.0	1.00	193.50	4,644.33	-987.37	1,143.87	1,511.02	0.65	0.31	39.90	82.21
NORMAL		5,069.0	1.20	303.40	4,739.32	-987.62	1,142.85	1,510.42	1.90	0.21	115.68	141.30

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (")	Azi (")	TVD (ft)	N/S (ft)	EW (ft)	V. Sec (ft)	Dleg (/100ft)	Build (/100ft)	Turn (/100ft)	TFace (")
8/6/2011	NORMAL	5,162.0	1.70	319.70	4,832.29	-986.04	1,141.15	1,508.10	0.69	0.54	17.53	47.86
	NORMAL	5,258.0	1.20	315.30	4,928.26	-984.24	1,139.52	1,505.68	0.53	-0.52	-4.58	190.36
	NORMAL	5,354.0	1.50	315.70	5,024.24	-982.62	1,137.93	1,503.43	0.31	0.31	0.42	2.00
	NORMAL	5,442.0	1.50	303.40	5,112.21	-981.16	1,136.17	1,501.14	0.37	0.00	-13.98	263.85
	NORMAL	5,545.0	1.10	308.10	5,215.18	-979.81	1,134.26	1,498.82	0.40	-0.39	4.56	167.41
	NORMAL	5,640.0	1.30	260.80	5,310.16	-979.42	1,132.48	1,497.22	1.03	0.21	-49.79	257.13
8/7/2011	NORMAL	5,734.0	1.50	261.40	5,404.13	-979.78	1,130.21	1,495.75	0.21	0.21	0.64	4.49
	NORMAL	5,829.0	0.30	277.40	5,499.12	-979.93	1,128.74	1,494.74	1.28	-1.26	16.84	176.10
	NORMAL	5,925.0	0.50	336.60	5,595.12	-979.51	1,128.32	1,494.15	0.45	0.21	61.67	95.85
	NORMAL	6,021.0	1.00	283.70	5,691.11	-978.93	1,127.34	1,493.03	0.84	0.52	-55.10	277.38
	NORMAL	6,116.0	2.10	189.80	5,786.08	-980.45	1,126.24	1,493.20	2.51	1.16	-98.84	241.40
	NORMAL	6,212.0	3.30	182.60	5,881.98	-984.94	1,125.81	1,495.85	1.30	1.25	-7.50	340.60
	NORMAL	6,306.0	4.60	191.00	5,975.75	-991.35	1,124.97	1,499.44	1.51	1.38	8.94	28.22
	NORMAL	6,401.0	3.90	199.30	6,070.49	-998.13	1,123.18	1,502.57	0.98	-0.74	8.74	142.78
	NORMAL	6,497.0	0.20	358.20	6,166.42	-1,001.05	1,122.09	1,503.67	4.26	-3.85	165.52	178.99
	NORMAL	6,593.0	0.30	296.70	6,262.42	-1,000.77	1,121.86	1,503.32	0.28	0.10	-64.06	257.83
	NORMAL	6,650.0	0.30	296.70	6,319.42	-1,000.64	1,121.60	1,503.03	0.00	0.00	0.00	0.00