

7/10/96

San Juan County

New Mexico

Expires 6-10-97

True Copy of the Original

Sheri J. Bradshaw

Halliburton Drilling Systems

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Survey Report

Date: 8/21/96

Time: 5:45 pm

Wellpath ID: AMOCO2R

Date Created: 8/9/96

Last Revision: 8/21/96

Calculated using the Minimum Curvature Method

Computed using WIN-CADDS REV2.2.2

Vertical Section Plane: N 90.00 E

Survey Reference: WELLHEAD

Vertical Section Reference: WELLHEAD

Closure Reference: WELLHEAD

TVD Reference: WELLHEAD

AMOCO
SAN JUAN
ATLANTIC
LS#2-R
AMOCOSS

G-24-31N-10W

RECEIVED
OCT 10 1996
OIL CON. DIV.
DIST. 3

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		DLS (dg/100ft)
0.00	0.00	N 0.00 E	0.00	0.00	0.00	0.00 N	0.00 E	0.00
236.00	0.75	N 70.00 W	236.00	235.99	-1.45	0.53 N	1.45W	0.32
312.00	1.00	S 21.00 W	76.00	311.99	-2.16	0.08 N	2.16W	1.63
341.00	1.50	S 35.00 E	29.00	340.98	-2.03	0.47 S	2.03W	4.32
402.00	6.00	S 54.00 E	61.00	401.84	1.01	3.00 S	1.01 E	7.55
465.00	7.50	S 60.00 E	63.00	464.40	7.23	6.99 S	7.23 E	2.63
586.00	8.50	S 64.00 E	121.00	584.22	22.11	14.86 S	22.11 E	0.95
864.00	12.50	S 68.00 E	278.00	857.51	68.49	35.14 S	68.49 E	1.46
958.00	13.50	S 67.00 E	94.00	949.10	88.02	43.24 S	88.02 E	1.09
1052.00	14.00	S 66.00 E	94.00	1040.41	108.51	52.15 S	108.51 E	0.59
1144.00	14.00	S 66.00 E	92.00	1129.68	128.84	61.21 S	128.84 E	0.00
1265.00	15.00	S 66.00 E	121.00	1246.82	156.52	73.53 S	156.52 E	0.83
1434.00	14.00	S 65.00 E	169.00	1410.44	195.03	91.06 S	195.03 E	0.61
1559.00	12.00	S 64.00 E	125.00	1532.23	220.41	103.15 S	220.41 E	1.61
1683.00	10.25	S 61.00 E	124.00	1653.89	241.65	114.15 S	241.65 E	1.49
1992.00	8.00	S 54.00 E	309.00	1958.97	283.10	140.12 S	283.10 E	0.81
2351.00	6.00	S 50.00 E	359.00	2315.28	317.68	166.87 S	317.68 E	0.57
2580.00	5.75	S 49.00 E	229.00	2543.08	335.51	182.09 S	335.51 E	0.12
2889.00	4.00	S 53.00 E	309.00	2850.95	355.80	198.73 S	355.80 E	0.58
3574.00	1.00	S 86.00 W	685.00	3535.46	368.93	213.54 S	368.93 E	0.70

4/16/96

San Juan County
New Mexico

Expires 6-16-97

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Sheri L. Bradshaw

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Page 1

Survey Report

Date: 9/3/96

Time: 9:50 am

Wellpath ID: sidetrak

Date Created: 8/26/96

Last Revision: 9/3/96

Calculated using the Minimum Curvature Method

Computed using WIN-CADDS REV2.2.2

Vertical Section Plane: N 90.00-E

Survey Reference: WELLHEAD

Vertical Section Reference: WELLHEAD

Closure Reference: WELLHEAD

TVD Reference: WELLHEAD

AMOCO
SAN JUAN
ATLANTIC
LS#2-R
sidetrakRECEIVED
OCT 10 1996
OIL CON. DIV.
DIST. 3

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		DLS (dg/100ft)
3574.00	1.00	S 86.00 W	0.00	3535.46	368.93	213.54 S	368.93 E	0.00
3635.00	2.50	S 36.00 W	61.00	3596.43	367.62	214.65 S	367.62 E	3.29
3727.00	0.75	S 19.00 W	92.00	3688.39	366.24	216.85 S	366.24 E	1.95
3820.00	3.25	N 71.00 E	93.00	3781.35	368.54	216.56 S	368.54 E	4.04
3882.00	4.50	N 84.00 E	62.00	3843.21	372.62	215.74 S	372.62 E	2.45
3945.00	4.50	N 37.00 E	63.00	3906.03	376.58	213.50 S	376.56 E	5.69
4035.00	5.00	N 20.00 E	90.00	3995.73	380.03	207.00 S	380.03 E	1.65
4096.00	5.00	N 20.00 E	61.00	4056.49	381.85	202.00 S	381.85 E	0.00
4159.00	5.75	N 15.00 E	63.00	4119.22	383.60	196.37 S	383.60 E	1.40
4219.00	7.25	N 15.00 E	60.00	4178.83	385.36	189.81 S	385.36 E	2.50
4281.00	7.25	N 17.00 E	62.00	4240.33	387.52	182.29 S	387.52 E	0.41
4343.00	6.00	N 28.00 E	62.00	4301.92	390.18	175.69 S	390.18 E	2.86
4433.00	8.00	N 37.00 E	90.00	4391.25	396.16	166.53 S	396.16 E	2.53
4495.00	9.00	N 41.00 E	62.00	4452.57	401.94	159.43 S	401.94 E	1.87
4597.00	8.50	N 44.00 E	102.00	4553.38	412.41	147.99 S	412.41 E	0.66
4691.00	8.00	N 41.00 E	94.00	4646.41	421.53	138.05 S	421.53 E	0.70
4907.00	8.50	N 26.00 E	216.00	4860.20	438.39	112.36 S	438.39 E	1.02
5467.00	3.50	N 11.00 E	560.00	5416.98	459.81	58.34 S	459.81 E	0.93
6171.00	1.00	N 54.00 W	704.00	6120.46	458.94	33.63 S	458.94 E	0.46
6186.00	1.00	N 54.00 W	15.00	6135.45	458.73	33.48 S	458.73 E	0.00