

L 19, 32N, 7W
30-045-29931



PHILLIPS PETROLEUM

Structure : San Juan 32-7 #243

Well : #243

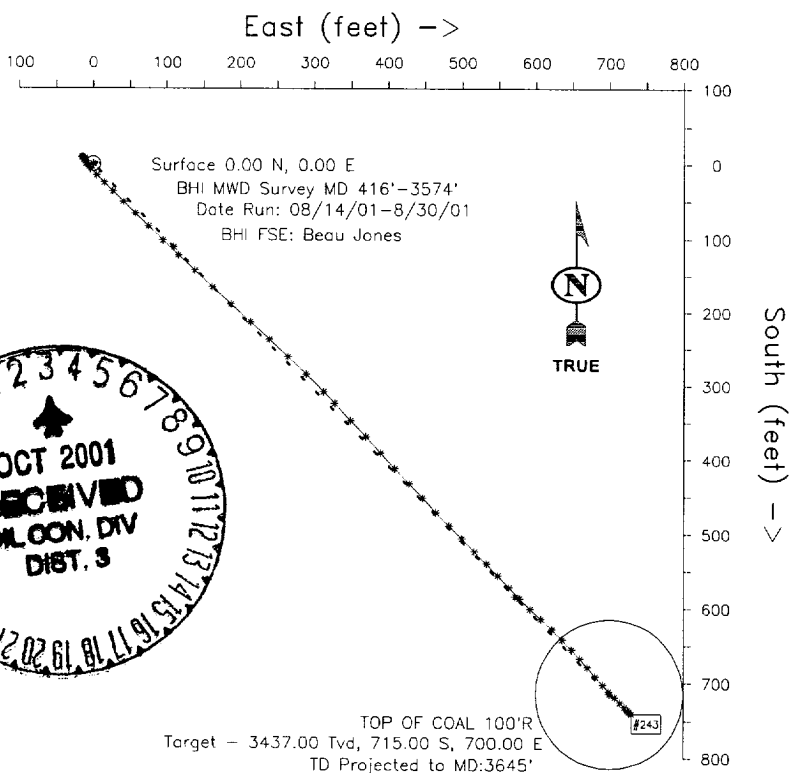
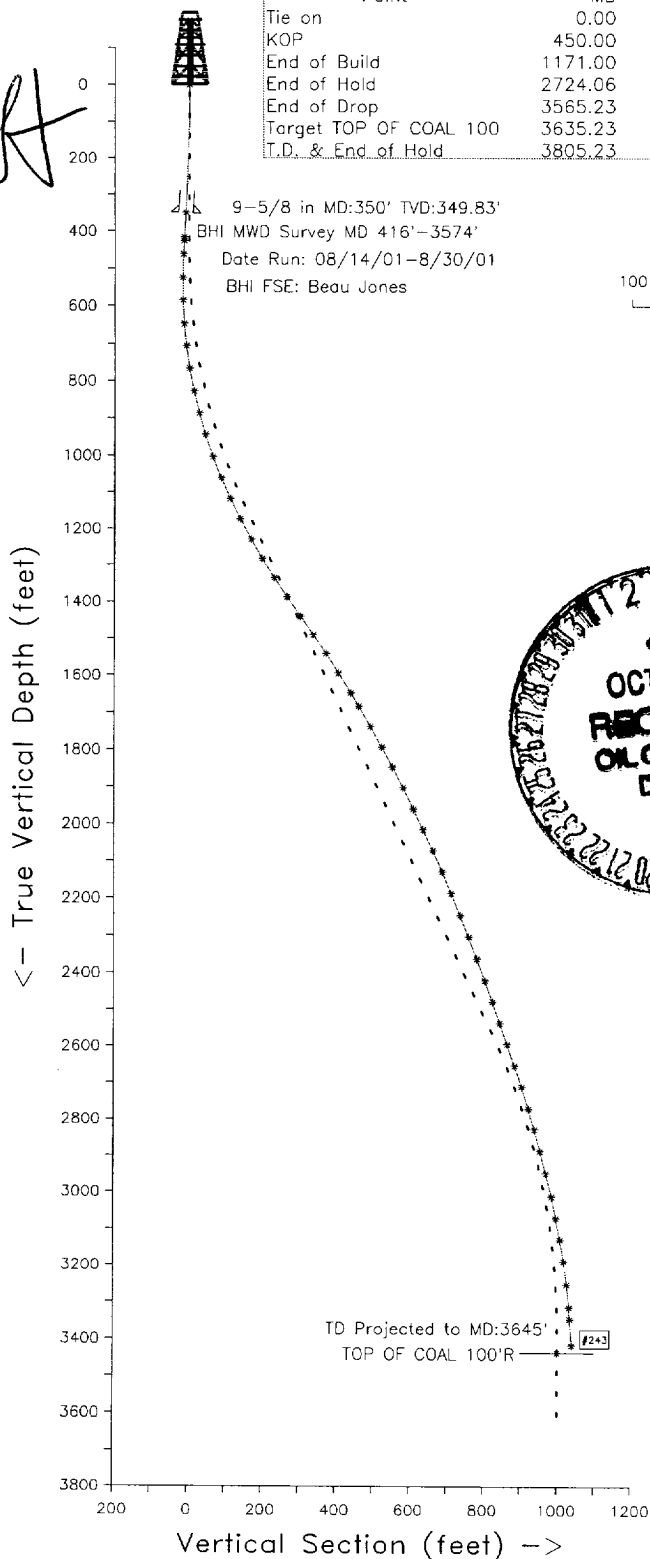
Field : Rio Arriba, New Mexico

Location : Rio Arriba, New Mexico

Created by land
Date plotted : 7-Sep-2001
Plot Reference is PG 2DSX 07/20/01 rc.
Coordinates are in feet reference slot #1.
True Vertical Depths are reference rotary table.
EWPJSJ243
--- Baker Hughes INTEQ ---

WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100
Tie on	0.00	0.00	135.61	0.00	0.00	0.00	0.00	0.00
KOP	450.00	0.00	135.61	450.00	0.00	0.00	0.00	0.00
End of Build	1171.00	25.24	135.61	1147.92	-111.63	109.29	156.23	3.50
End of Hold	2724.06	25.24	135.61	2552.77	-584.76	572.49	818.35	0.00
End of Drop	3565.23	0.00	135.61	3367.00	-715.00	700.00	1000.61	3.00
Target TOP OF COAL 100	3635.23	0.00	135.61	3437.00	-715.00	700.00	1000.61	0.00
T.D. & End of Hold	3805.23	0.00	135.61	3607.00	-715.00	700.00	1000.61	0.00



BHI MWD 416'-3574'
PROJECTED B.H.L.
1040.41' ON AZIMUTH 135.43 DEGS
FROM SURFACE LOCATION
S-741.25' E-730.08
MD:3645' TVD:3416.72'

1715/S 300/W
SHL

TD Projected to MD:3645'
TOP OF COAL 100'R

973.75/S
SHL 1030/W



INTEQ

Azimuth 135.61 with reference 0.00 N, 0.00 E from slot #1

PHILLIPS PETROLEUM
San Juan 32-7 #243

#243
slot #1
Rio Arriba, New Mexico
Rio Arriba, New Mexico

S U R V E Y L I S T I N G

by
Baker Hughes INTEQ

Your ref : BHI MWD 416'-3574'
Our ref : svy1754
License :

Date printed : 7-Sep-2001
Date created : 6-Sep-2001
Last revised : 7-Sep-2001

Field is centred on 1247675.189,2183081.720,999.00000,N
Structure is centred on 1247675.189,2183081.720,999.00000,N

Slot location is n36 58 18.769,w105 16 26.812
Slot Grid coordinates are N 2183081.720, E 1247675.189
Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico West (3003), Spheroid: NAD 83

Reference North is True North

PHILLIPS PETROLEUM

San Juan 32-7 #243, #243

Rio Arriba, New Mexico, Rio Arriba, New Mexico

SURVEY LISTING

Page 1

Your ref : BHI MWD 416'-3574'

Last revised : 7-Sep-2001

Measured Incln. Azimuth	True Vert	R E C T A N G U L A R	Dogleg	Vert
Depth	Depth	C O O R D I N A T E S	Deg/100ft	Sect
0.00	0.00	0.00 N	0.00 E	0.00
416.00	3.70 302.60	7.23 N	11.31 W	0.89
427.00	3.70 302.80	7.62 N	11.91 W	0.12
462.00	3.00 295.90	8.63 N	13.68 W	2.30
525.00	0.20 220.00	9.27 N	15.24 W	4.69
585.00	2.30 167.70	8.01 N	15.05 W	3.64
647.00	4.80 141.75	4.76 N	13.18 W	4.70
706.00	7.00 143.50	0.07 S	9.51 W	3.74
768.00	9.60 136.75	6.88 S	3.72 W	4.47
830.00	12.30 133.50	15.19 S	4.62 E	4.47
890.00	14.90 133.05	24.86 S	14.89 E	4.34
950.00	17.20 135.85	36.49 S	26.71 E	4.04
1013.00	20.00 134.55	50.73 S	40.88 E	4.49
1075.00	22.80 134.30	66.57 S	57.03 E	4.52
1137.00	24.90 133.40	83.93 S	75.12 E	3.44
1199.00	26.60 134.25	102.58 S	94.54 E	2.81
1262.00	28.70 133.60	122.86 S	115.60 E	3.37
1323.00	31.00 133.10	143.69 S	137.68 E	3.79
1385.00	32.80 132.40	165.93 S	161.75 E	2.96
1447.00	34.60 133.10	189.28 S	187.00 E	2.97
1511.00	34.80 132.50	214.04 S	213.73 E	0.62
1572.00	34.80 133.50	237.78 S	239.19 E	0.94
1634.00	32.60 133.60	261.48 S	264.13 E	3.55
1697.00	33.30 134.00	285.19 S	288.86 E	1.16
1760.00	31.20 135.70	308.89 S	312.70 E	3.63
				302.46
				337.24
				371.62
				405.87
				439.48

All data is in feet unless otherwise stated.

Coordinates from slot #1 and TVD from rotary table.

Bottom hole distance is 1040.41 on azimuth 135.43 degrees from wellhead.

Vertical section is from wellhead on azimuth 135.61 degrees.

Calculation uses the minimum curvature method.

Presented by Baker Hughes INTEQ

PHILLIPS PETROLEUM

San Juan 32-7 #243, #243

Rio Arriba, New Mexico, Rio Arriba, New Mexico

SURVEY LISTING

Page 2

Your ref : BHI MWD 416'-3574'

Last revised : 7-Sep-2001

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
1802.00	30.80	137.10	1682.65	324.55 S 327.61 E	1.96	461.10
1865.00	30.00	137.20	1736.99	347.93 S 349.30 E	1.27	492.97
1927.00	28.70	137.10	1791.03	370.20 S 369.96 E	2.10	523.35
1989.00	27.60	137.50	1845.69	391.70 S 389.80 E	1.80	552.59
2052.00	26.20	137.10	1901.87	412.65 S 409.13 E	2.24	581.08
2116.00	26.10	136.40	1959.32	433.19 S 428.45 E	0.51	609.28
2177.00	25.70	136.60	2014.20	452.52 S 446.79 E	0.67	635.92
2240.00	23.90	135.50	2071.38	471.55 S 465.13 E	2.95	662.34
2302.00	23.70	135.40	2128.11	489.38 S 482.68 E	0.33	687.36
2365.00	22.40	135.50	2186.08	506.96 S 499.98 E	2.06	712.03
2429.00	22.40	135.40	2245.25	524.34 S 517.09 E	0.06	736.41
2491.00	21.50	135.90	2302.76	540.91 S 533.29 E	1.48	759.59
2553.00	20.60	136.00	2360.62	556.91 S 548.78 E	1.45	781.86
2616.00	20.00	135.80	2419.71	572.61 S 563.99 E	0.96	803.71
2677.00	18.90	135.30	2477.22	587.11 S 578.21 E	1.82	824.03
2739.00	18.90	133.80	2535.88	601.20 S 592.52 E	0.78	844.10
2800.00	19.20	133.00	2593.54	614.88 S 606.99 E	0.65	864.00
2862.00	19.40	133.50	2652.06	628.92 S 621.91 E	0.42	884.47
2923.00	17.80	135.90	2709.87	642.59 S 635.75 E	2.91	903.92
2986.00	16.40	135.90	2770.08	655.89 S 648.64 E	2.22	922.45
3046.00	14.80	137.50	2827.87	667.62 S 659.71 E	2.76	938.58
3107.00	14.80	139.80	2886.85	679.32 S 670.01 E	0.96	954.13
3170.00	14.60	137.90	2947.79	691.36 S 680.52 E	0.83	970.09
3235.00	12.40	137.10	3010.99	702.55 S 690.77 E	3.40	985.26
3294.00	10.90	135.50	3068.77	711.17 S 698.99 E	2.60	997.17

All data is in feet unless otherwise stated.

Coordinates from slot #1 and TVD from rotary table.

Bottom hole distance is 1040.41 on azimuth 135.43 degrees from wellhead.

Vertical section is from wellhead on azimuth 135.61 degrees.

Calculation uses the minimum curvature method.

Presented by Baker Hughes INTEQ

PHILLIPS PETROLEUM
San Juan 32-7 #243, #243
Rio Arriba, New Mexico, Rio Arriba, New Mexico

SURVEY LISTING Page 3
Your ref : BHI MWD 416'-3574'
Last revised : 7-Sep-2001

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
3355.00	10.40	135.10	3128.72	719.18 S 706.92 E	0.83	1008.44
3416.00	8.90	133.80	3188.85	726.35 S 714.21 E	2.48	1018.66
3480.00	6.60	133.50	3252.26	732.31 S 720.45 E	3.59	1027.29
3542.00	4.50	131.60	3313.97	736.38 S 724.86 E	3.40	1033.28
3574.00	4.00	133.20	3345.88	737.97 S 726.61 E	1.61	1035.64
3645.00	3.70	133.50	3416.72	741.25 S 730.08 E	0.42	1040.41 TD Projected to MD:3645'

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 1040.41 on azimuth 135.43 degrees from wellhead.
Vertical section is from wellhead on azimuth 135.61 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

PHILLIPS PETROLEUM
San Juan 32-7 #243,#243
Rio Arriba, New Mexico,Rio Arriba, New Mexico

SURVEY LISTING Page 4
Your ref : BHI MWD 416'-3574'
Last revised : 7-Sep-2001

Comments in wellpath

MD	TVD	Rectangular Coords.	Comment
416.00	415.71	7.23 N 11.31 W	BHI MWD Survey MD 416'-3574'
427.00	426.69	7.62 N 11.91 W	Date Run: 08/14/01-8/30/01
462.00	461.63	8.63 N 13.68 W	BHI FSE: Beau Jones
3645.00	3416.72	741.25 S 730.08 E	TD Projected to MD:3645'

Casing positions in string 'A'

Top MD	Top TVD	Rectangular Coords.	Bot MD	Bot TVD	Rectangular Coords.	Casing
0.00	0.00	0.00N 0.00E	350.00	349.83	5.12N 8.01W	9-5/8 in MD:350'

TVD:349.

Targets associated with this wellpath

Target name	Geographic Location	T.V.D.	Rectangular Coordinates	Revised
TOP OF COAL 100'R		3437.00	715.00S 700.00E	6-Sep-2001