

OPERATOR: Yates Petroleum Corp.
WELL/LEASE: DOC BHU State Com # 5 H
COUNTY: Eddy Co., New Mexico
Sec. 6, T25S, R30E

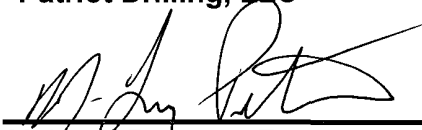
30-015-39792

STATE OF NEW MEXICO
DEVIATION REPORT

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
300	3/4	2,727	3/4
537	1 1/2	2,821	3/4
601	2 3/4	3,010	3/4
715	3 3/4	3,294	1
777	3 3/4	3,482	1
840	2 3/4	3,577	1
935	1 1/2	3,861	1 1/4
1,029	1	3,955	3/4
1,124	1 1/2	4,238	1
1,313	3/4	4,428	1 1/4
1,596	0	4,712	1 1/4
1,690	3/4	5,087	1 1/2
1,785	1	5,463	3/4
1,879	1 1/4	5,983	1 1/4
1,974	1 1/4	6,124	1 1/4
2,068	1 1/2	5,694	1
2,162	1 3/4	6,801	3/4
2,257	1 1/4	7,083	3/4
2,351	3/4	7,471	1 1/2
2,539	1/2		

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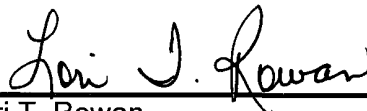
Patriot Drilling, LLC



M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 7th day of May,
2012 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2015



Lori T. Rowan
Notary Public for Ector Co., Texas





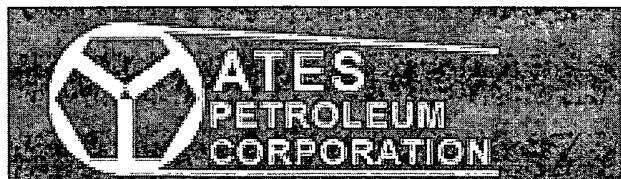
Job Number: SVCO-120541
 Company: Yates Petroleum Corporation
 Lease/Well: DOC BHU ST. COM 5H
 Location: Lea County, NM
 Rig Name: Patriot #5
 RKB: 23'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.45°
 Grid: East To Grid North
 File name: F:\SURVEY\2012SU~1\YATES\CONROE\DOCBHU~1\5H.SVY
 Date/Time: 18-Apr-12 / 16:49
 Curve Name: Surface - 600' M.D. (Rate Gyro)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 89.00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 600' MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.
 Gary Sparks MS Energy Services 4/18/12 Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.62	53.19	100.00	.32	.43	.44	.54	53.19	.62
200.00	.86	84.29	199.99	.72	1.61	1.63	1.77	65.86	.46
300.00	1.27	107.33	299.97	.47	3.42	3.43	3.45	82.21	.59
400.00	1.81	122.26	399.94	-.71	5.81	5.80	5.85	96.92	.67
500.00	2.04	125.08	499.88	-2.57	8.60	8.56	8.98	106.64	.25
Last Survey Depth Recorded									
600.00	2.99	129.13	599.78	-5.24	12.08	11.99	13.17	113.45	.97



Yates Petroleum Corp.

Eddy County (NAD 83)

Doc "BHU" State Com

#5H

OH

Design: OH

PathfinderX & Y Report

02 May, 2012

PATHFINDER[®]
A Schlumberger Company



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Site:	Doc "BHU" State Com	MD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000:1 Single User Db

Project	Eddy County (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Doc "BHU" State Com		
Site Position:		Northing:	419,725.829 usft
From: Map		Easting:	669,388.905 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32.153
		Longitude:	-103.920
		Grid Convergence:	0.22 °

Well	#5H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF200510	12/6/2011	7.67
			Dip Angle
			60.07
			Field Strength
			48,528

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			113.71



Pathfinder
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Site:	Doc "BHU" State Com.	MD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Well:	#5H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

Survey Program		Date	5/2/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	600.0	gyro #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
715.0	13,800.0	MWD #1 (OH)	MWD	MWD - Standard	

MD (usft)	Inc. (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,215.5	0.0	0.0	0.0	0.00	419,725.83	669,388.91
100.0	0.62	53.19	100.0	-3,115.5	0.3	0.4	0.3	0.62	419,726.15	669,389.34
200.0	0.86	84.29	200.0	-3,015.5	0.7	1.6	1.2	0.46	419,726.55	669,390.52
300.0	1.27	107.33	300.0	-2,915.5	0.5	3.4	2.9	0.59	419,726.30	669,392.32
400.0	1.81	122.26	399.9	-2,815.6	-0.7	5.8	5.6	0.67	419,725.12	669,394.72
500.0	2.04	125.08	499.9	-2,715.6	-2.6	8.6	8.9	0.25	419,723.26	669,397.51
600.0	2.99	129.13	599.8	-2,615.7	-5.2	12.1	13.2	0.97	419,720.59	669,400.99
715.0	3.52	133.60	714.6	-2,500.9	-9.6	17.0	19.4	0.51	419,716.26	669,405.87
777.0	3.52	135.16	776.5	-2,439.0	-12.2	19.7	22.9	0.15	419,713.60	669,408.59
840.0	2.73	133.08	839.4	-2,376.1	-14.6	22.1	26.2	1.27	419,711.20	669,411.05
935.0	1.23	136.89	934.3	-2,281.2	-16.9	24.5	29.2	1.58	419,708.91	669,413.40
1,029.0	0.97	145.29	1,028.3	-2,187.2	-18.3	25.6	30.8	0.32	419,707.52	669,414.54
1,124.0	1.32	131.52	1,123.3	-2,092.2	-19.7	26.9	32.6	0.47	419,706.14	669,415.82
1,218.0	0.53	181.37	1,217.3	-1,998.2	-20.8	27.7	33.8	1.13	419,704.98	669,416.62
1,313.0	0.62	204.00	1,312.3	-1,903.2	-21.8	27.5	33.9	0.26	419,704.08	669,416.40
1,406.0	0.62	210.28	1,405.3	-1,810.2	-22.6	27.0	33.9	0.07	419,703.18	669,415.94
1,501.0	0.70	196.50	1,500.3	-1,715.2	-23.6	26.6	33.9	0.19	419,702.18	669,415.52
1,596.0	0.62	279.68	1,595.3	-1,620.2	-24.1	25.9	33.4	0.92	419,701.71	669,414.85
1,690.0	0.70	291.64	1,689.3	-1,526.2	-23.8	24.9	32.4	0.17	419,702.01	669,413.81
1,785.0	0.88	278.36	1,784.2	-1,431.3	-23.5	23.6	31.1	0.27	419,702.33	669,412.55
1,879.0	1.06	278.30	1,878.2	-1,337.3	-23.3	22.1	29.6	0.19	419,702.56	669,410.98



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Site:	Doc "BHU" State Com	MD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
1,974.0	1.06	263.75	1,973.2	-1,242.3	-23.2	20.3	28.0	0.28	419,702.59	669,409.23	
2,068.0	1.41	301.13	2,067.2	-1,148.3	-22.7	18.5	26.1	0.91	419,703.09	669,407.38	
2,162.0	1.76	304.83	2,161.2	-1,054.3	-21.3	16.3	23.5	0.39	419,704.52	669,405.20	
2,257.0	1.23	315.54	2,256.1	-959.4	-19.8	14.4	21.1	0.63	419,706.08	669,403.29	
2,351.0	0.53	351.49	2,350.1	-865.4	-18.6	13.6	19.9	0.91	419,707.23	669,402.52	
2,445.0	0.35	329.51	2,444.1	-771.4	-17.9	13.4	19.5	0.26	419,707.90	669,402.31	
2,539.0	0.35	286.89	2,538.1	-677.4	-17.6	13.0	19.0	0.27	419,708.23	669,401.89	
2,633.0	0.35	269.23	2,632.1	-583.4	-17.5	12.4	18.4	0.11	419,708.31	669,401.33	
2,727.0	0.53	243.49	2,726.1	-489.4	-17.7	11.7	17.9	0.28	419,708.12	669,400.65	
2,821.0	0.62	240.04	2,820.1	-395.4	-18.2	10.9	17.3	0.10	419,707.67	669,399.82	
2,916.0	0.97	207.11	2,915.1	-300.4	-19.1	10.1	16.9	0.59	419,706.70	669,399.01	
3,010.0	0.62	214.58	3,009.1	-206.4	-20.3	9.5	16.8	0.39	419,705.57	669,398.36	
3,104.0	0.70	308.49	3,103.1	-112.4	-20.3	8.7	16.2	1.03	419,705.51	669,397.62	
3,199.0	0.70	273.77	3,198.1	-17.4	-19.9	7.7	15.0	0.44	419,705.91	669,396.59	
3,294.0	0.88	303.53	3,293.1	77.6	-19.5	6.5	13.8	0.46	419,706.35	669,395.40	
3,388.0	0.88	309.63	3,387.1	171.6	-18.6	5.3	12.4	0.10	419,707.21	669,394.24	
3,482.0	0.88	322.06	3,481.0	265.5	-17.6	4.3	11.0	0.20	419,708.24	669,393.24	
3,577.0	0.97	321.05	3,576.0	360.5	-16.4	3.4	9.7	0.10	419,709.44	669,392.29	
3,671.0	1.06	326.80	3,670.0	454.5	-15.0	2.4	8.3	0.14	419,710.78	669,391.31	
3,766.0	1.06	329.76	3,765.0	549.5	-13.6	1.5	6.8	0.06	419,712.28	669,390.39	
3,861.0	1.14	329.88	3,860.0	644.5	-12.0	0.6	5.3	0.08	419,713.85	669,389.47	
3,955.0	0.79	25.48	3,954.0	738.5	-10.6	0.4	4.6	1.01	419,715.25	669,389.28	
4,049.0	0.79	51.01	4,048.0	832.5	-9.6	1.2	4.9	0.37	419,716.24	669,390.07	
4,143.0	0.79	48.30	4,141.9	926.4	-8.7	2.1	5.5	0.04	419,717.08	669,391.05	
4,238.0	0.79	52.13	4,236.9	1,021.4	-7.9	3.2	6.1	0.06	419,717.92	669,392.06	
4,333.0	1.06	18.80	4,331.9	1,116.4	-6.7	4.0	6.3	0.62	419,719.15	669,392.86	
4,428.0	1.14	350.59	4,426.9	1,211.4	-4.9	4.1	5.7	0.57	419,720.92	669,392.99	



Pathfinder PathfinderX & Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Site:	Doc "BHU" State Com	MD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
4,523.0	1.14	347.99	4,521.9	1,306.4	-3.1	3.7	4.6	0.05	419,722.77	669,392.64	
4,617.0	1.23	344.92	4,615.9	1,400.4	-1.2	3.3	3.5	0.12	419,724.66	669,392.18	
4,712.0	1.23	342.58	4,710.9	1,495.4	0.8	2.7	2.2	0.05	419,726.62	669,391.61	
4,807.0	1.23	344.27	4,805.8	1,590.3	2.7	2.1	0.8	0.04	419,728.57	669,391.03	
4,993.0	1.41	336.43	4,991.8	1,776.3	6.8	0.7	-2.1	0.14	419,732.59	669,389.57	
5,087.0	1.32	330.06	5,085.8	1,870.3	8.8	-0.3	-3.8	0.19	419,734.59	669,388.57	
5,181.0	0.79	317.33	5,179.7	1,964.2	10.2	-1.3	-5.3	0.61	419,736.00	669,387.59	
5,275.0	0.44	228.07	5,273.7	2,058.2	10.4	-2.0	-6.0	0.96	419,736.24	669,386.88	
5,463.0	0.62	232.33	5,461.7	2,246.2	9.3	-3.4	-6.8	0.10	419,735.14	669,385.54	
5,558.0	0.79	231.76	5,556.7	2,341.2	8.6	-4.3	-7.4	0.18	419,734.42	669,384.62	
5,653.0	1.14	216.65	5,651.7	2,436.2	7.4	-5.4	-7.9	0.45	419,733.25	669,383.54	
5,747.0	0.62	194.49	5,745.7	2,530.2	6.2	-6.1	-8.0	0.65	419,732.01	669,382.85	
5,935.0	1.06	185.86	5,933.7	2,718.2	3.5	-6.5	-7.3	0.24	419,729.30	669,382.42	
6,124.0	1.06	193.06	6,122.6	2,907.1	0.0	-7.1	-6.5	0.07	419,725.85	669,381.85	
6,218.0	0.44	213.45	6,216.6	3,001.1	-1.1	-7.5	-6.4	0.71	419,724.71	669,381.45	
6,312.0	0.44	203.68	6,310.6	3,095.1	-1.8	-7.8	-6.4	0.08	419,724.07	669,381.11	
6,406.0	0.53	175.51	6,404.6	3,189.1	-2.5	-7.9	-6.2	0.27	419,723.31	669,381.00	
6,500.0	0.70	163.83	6,498.6	3,283.1	-3.5	-7.7	-5.7	0.22	419,722.33	669,381.19	
6,594.0	0.79	161.31	6,592.6	3,377.1	-4.7	-7.3	-4.8	0.10	419,721.16	669,381.56	
6,707.0	0.97	157.49	6,705.6	3,490.1	-6.3	-6.7	-3.6	0.17	419,719.54	669,382.18	
6,801.0	0.62	157.22	6,799.6	3,584.1	-7.5	-6.2	-2.7	0.37	419,718.33	669,382.68	
6,896.0	0.70	139.63	6,894.6	3,679.1	-8.4	-5.7	-1.8	0.23	419,717.42	669,383.25	
6,990.0	0.53	155.71	6,988.6	3,773.1	-9.2	-5.1	-1.0	0.26	419,716.58	669,383.80	
7,083.0	0.53	221.81	7,081.6	3,866.1	-10.0	-5.2	-0.8	0.62	419,715.87	669,383.69	
7,190.0	0.70	220.31	7,188.6	3,973.1	-10.8	-6.0	-1.1	0.16	419,715.00	669,382.94	
7,283.0	0.70	229.55	7,281.6	4,066.1	-11.6	-6.8	-1.5	0.12	419,714.20	669,382.14	
7,377.0	0.44	205.18	7,375.6	4,160.1	-12.3	-7.4	-1.8	0.37	419,713.50	669,381.55	



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Site:	Doc "BHU" State Com	MD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
7,471.0	1.41	151.90	7,469.5	4,254.0	-13.7	-7.0	-0.9	1.28	419,712.16	669,381.94	
7,495.0	1.58	160.91	7,493.5	4,278.0	-14.2	-6.7	-0.4	1.21	419,711.58	669,382.19	
7,527.0	1.85	134.41	7,525.5	4,310.0	-15.0	-6.2	0.4	2.59	419,710.81	669,382.70	
7,558.0	4.57	97.27	7,556.5	4,341.0	-15.5	-4.6	2.0	10.61	419,710.30	669,384.28	
KOP - 7558.0 MD, 7556.5 TVD, -15.5° N, -4.6° E											
7,590.0	8.62	88.29	7,588.3	4,372.8	-15.6	-1.0	5.4	13.02	419,710.21	669,387.95	
7,621.0	12.31	89.13	7,618.7	4,403.2	-15.5	4.7	10.5	11.91	419,710.33	669,393.58	
7,652.0	15.39	87.42	7,648.8	4,433.3	-15.3	12.1	17.2	10.02	419,710.56	669,400.99	
7,684.0	18.47	86.45	7,679.4	4,463.9	-14.8	21.4	25.5	9.67	419,711.07	669,410.29	
7,715.0	21.10	85.17	7,708.6	4,493.1	-14.0	31.9	34.8	8.60	419,711.84	669,420.76	
7,746.0	24.53	85.39	7,737.2	4,521.7	-13.0	43.8	45.4	11.07	419,712.83	669,432.74	
7,776.0	28.49	84.77	7,764.0	4,548.5	-11.8	57.2	57.1	13.23	419,713.98	669,446.07	
7,808.0	32.71	85.27	7,791.6	4,576.1	-10.4	73.4	71.4	13.21	419,715.39	669,462.30	
7,839.0	36.05	85.24	7,817.1	4,601.6	-9.0	90.8	86.8	10.77	419,716.84	669,479.74	
7,871.0	39.66	86.33	7,842.4	4,626.9	-7.6	110.4	104.1	11.47	419,718.28	669,499.32	
7,902.0	43.09	87.62	7,865.7	4,650.2	-6.5	130.9	122.4	11.40	419,719.35	669,519.78	
7,934.0	46.52	88.07	7,888.4	4,672.9	-5.6	153.4	142.7	10.76	419,720.19	669,542.31	
7,965.0	50.21	88.18	7,909.0	4,693.5	-4.9	176.6	163.6	11.91	419,720.95	669,565.46	
7,997.0	54.43	88.08	7,928.5	4,713.0	-4.1	201.9	186.5	13.19	419,721.78	669,590.77	
8,028.0	58.56	88.72	7,945.6	4,730.1	-3.3	227.7	209.8	13.43	419,722.50	669,616.60	
8,059.0	63.14	88.30	7,960.7	4,745.2	-2.6	254.8	234.3	14.82	419,723.20	669,643.66	
8,091.0	67.71	88.40	7,974.0	4,758.5	-1.8	283.8	260.6	14.28	419,724.04	669,672.74	
8,122.0	71.84	88.64	7,984.7	4,769.2	-1.0	312.9	286.9	13.34	419,724.79	669,701.82	
8,154.0	75.36	88.29	7,993.8	4,778.3	-0.2	343.6	314.7	11.05	419,725.61	669,732.50	
8,185.0	78.52	89.16	8,000.8	4,785.3	0.5	373.8	342.1	10.55	419,726.28	669,762.68	
8,217.0	83.01	89.30	8,005.9	4,790.4	0.9	405.4	370.8	14.04	419,726.71	669,794.26	
8,248.0	85.82	89.42	8,008.9	4,793.4	1.2	436.2	398.9	9.07	419,727.05	669,825.11	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5' @ 3215.5usft (Patriot 5)
Site:	Doc "BHU" State Com	MD Reference:	KB = 26' 5" @ 3215.5usft (Patriot 5)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
8,311.0	88.99	89.67	8,011.8	4,796.3	1.7	499.1	456.3	5.05	419,727.55	669,888.03	
8,342.0	89.69	89.78	8,012.1	4,796.6	1.9	530.1	484.6	2.29	419,727.70	669,919.03	
LP - 8342.0 MD, 8012.1 TVD, 1.9° N, 530.1° E											
8,437.0	90.57	90.56	8,011.9	4,796.4	1.6	625.1	571.7	1.24	419,727.42	670,014.03	
8,530.0	90.66	90.00	8,010.9	4,795.4	1.1	718.1	657.1	0.61	419,726.96	670,107.02	
8,625.0	90.75	89.80	8,009.7	4,794.2	1.3	813.1	744.0	0.23	419,727.13	670,202.01	
8,718.0	88.81	89.39	8,010.1	4,794.6	2.0	906.1	828.9	2.13	419,727.79	670,295.00	
8,812.0	88.29	89.43	8,012.5	4,797.0	2.9	1,000.1	914.5	0.55	419,728.76	670,388.97	
8,907.0	87.67	88.89	8,015.8	4,800.3	4.3	1,095.0	1,000.9	0.87	419,730.15	670,483.90	
9,000.0	88.29	88.85	8,019.1	4,803.6	6.2	1,187.9	1,085.2	0.67	419,731.98	670,576.82	
9,094.0	87.93	88.26	8,022.2	4,806.7	8.5	1,281.8	1,170.3	0.73	419,734.35	670,670.74	
9,189.0	88.20	88.55	8,025.4	4,809.9	11.2	1,376.7	1,256.1	0.42	419,736.99	670,765.65	
9,283.0	88.37	88.78	8,028.2	4,812.7	13.4	1,470.7	1,341.2	0.30	419,739.18	670,859.58	
9,377.0	88.37	88.87	8,030.9	4,815.4	15.3	1,564.6	1,426.5	0.10	419,741.11	670,953.52	
9,472.0	90.22	89.51	8,032.1	4,816.6	16.6	1,659.6	1,512.9	2.06	419,742.45	671,048.50	
9,566.0	88.81	88.71	8,032.9	4,817.4	18.1	1,753.6	1,598.4	1.72	419,743.91	671,142.49	
9,660.0	88.46	88.47	8,035.1	4,819.6	20.4	1,847.5	1,683.4	0.45	419,746.22	671,236.43	
9,754.0	88.64	89.09	8,037.5	4,822.0	22.4	1,941.5	1,768.7	0.69	419,748.22	671,330.38	
9,849.0	89.60	89.63	8,038.9	4,823.4	23.5	2,036.5	1,855.2	1.16	419,749.28	671,425.36	
9,943.0	89.60	89.42	8,039.6	4,824.1	24.2	2,130.4	1,940.9	0.22	419,750.06	671,519.35	
10,037.0	89.60	89.55	8,040.3	4,824.8	25.1	2,224.4	2,026.7	0.14	419,750.91	671,613.35	
10,131.0	90.13	89.79	8,040.5	4,825.0	25.6	2,318.4	2,112.5	0.62	419,751.45	671,707.35	
10,226.0	89.69	89.29	8,040.6	4,825.1	26.4	2,413.4	2,199.2	0.70	419,752.21	671,802.34	
10,320.0	90.66	89.21	8,040.3	4,824.8	27.6	2,507.4	2,284.8	1.04	419,753.44	671,896.33	
10,414.0	89.96	88.83	8,039.8	4,824.3	29.2	2,601.4	2,370.2	0.85	419,755.05	671,990.32	
10,509.0	89.78	88.87	8,040.0	4,824.5	31.1	2,696.4	2,456.4	0.19	419,756.96	672,085.30	
10,572.0	89.25	89.19	8,040.6	4,825.1	32.2	2,759.4	2,513.6	0.98	419,758.02	672,148.29	



Pathfinder

PathfinderX & Y Report



Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Site:	Doc "BHU" State Com	MD Reference:	KB = 26.5 @ 3215.5usft (Patnot 5)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
10,634.0	88.37	89.02	8,041.9	4,826.4	33.2	2,821.4	2,570.0	1.45	419,758.99	672,210.26	
10,697.0	87.41	89.02	8,044.2	4,828.7	34.2	2,884.3	2,627.2	1.52	419,760.07	672,273.21	
10,792.0	88.29	89.23	8,047.8	4,832.3	35.7	2,979.2	2,713.5	0.95	419,761.52	672,368.13	
10,886.0	88.20	88.67	8,050.6	4,835.1	37.4	3,073.2	2,798.8	0.60	419,763.24	672,462.07	
10,980.0	87.85	89.17	8,053.9	4,838.4	39.2	3,167.1	2,884.1	0.65	419,765.01	672,556.00	
11,073.0	87.58	88.94	8,057.6	4,842.1	40.7	3,260.0	2,968.6	0.38	419,766.54	672,648.91	
11,168.0	87.58	89.20	8,061.6	4,846.1	42.3	3,354.9	3,054.8	0.27	419,768.08	672,743.81	
11,262.0	87.93	89.22	8,065.3	4,849.8	43.6	3,448.8	3,140.3	0.37	419,769.38	672,837.73	
11,357.0	88.29	89.57	8,068.4	4,852.9	44.6	3,543.8	3,226.8	0.53	419,770.38	672,932.68	
11,451.0	89.34	89.82	8,070.4	4,854.9	45.1	3,637.7	3,312.7	1.15	419,770.88	673,026.65	
11,547.0	90.04	90.16	8,070.9	4,855.4	45.1	3,733.7	3,400.6	0.81	419,770.90	673,122.65	
11,641.0	90.48	90.50	8,070.4	4,854.9	44.5	3,827.7	3,486.9	0.59	419,770.36	673,216.65	
11,735.0	90.04	90.27	8,070.0	4,854.5	43.9	3,921.7	3,573.2	0.53	419,769.73	673,310.65	
11,757.0	89.69	89.13	8,070.1	4,854.6	44.0	3,943.7	3,593.3	5.42	419,769.84	673,332.64	
11,852.0	90.22	89.06	8,070.1	4,854.6	45.5	4,038.7	3,679.7	0.56	419,771.34	673,427.63	
11,946.0	89.43	89.24	8,070.4	4,854.9	46.9	4,132.7	3,765.2	0.86	419,772.74	673,521.62	
12,041.0	89.96	89.33	8,070.9	4,855.4	48.1	4,227.7	3,851.7	0.57	419,773.92	673,616.61	
12,135.0	89.69	89.44	8,071.2	4,855.7	49.1	4,321.7	3,937.3	0.31	419,774.93	673,710.61	
12,229.0	89.16	89.85	8,072.2	4,856.7	49.7	4,415.7	4,023.1	0.71	419,775.51	673,804.60	
12,323.0	88.29	89.48	8,074.3	4,858.8	50.2	4,509.7	4,109.0	1.01	419,776.06	673,898.57	
12,418.0	88.90	89.79	8,076.6	4,861.1	50.8	4,604.6	4,195.7	0.72	419,776.67	673,993.54	
12,513.0	88.64	88.52	8,078.6	4,863.1	52.2	4,699.6	4,282.1	1.36	419,778.07	674,088.51	
12,607.0	88.11	88.15	8,081.3	4,865.8	55.0	4,793.5	4,367.0	0.69	419,780.80	674,182.43	
12,702.0	88.90	88.48	8,083.8	4,868.3	57.8	4,888.4	4,452.8	0.90	419,783.59	674,277.35	
12,797.0	88.90	88.82	8,085.6	4,870.1	60.0	4,983.4	4,538.8	0.36	419,785.83	674,372.31	
12,892.0	89.08	88.45	8,087.3	4,871.8	62.3	5,078.4	4,624.8	0.43	419,788.09	674,467.27	
12,987.0	88.99	88.37	8,088.9	4,873.4	64.9	5,173.3	4,710.7	0.13	419,790.73	674,562.22	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Site:	Doc "BHU" State Com	MD Reference:	KB = 26.5 @ 3215.5usft (Patriot 5)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
13,081.0	87.93	88.40	8,091.4	4,875.9	67.5	5,267.2	4,795.7	1.13	419,793.37	674,656.15	
13,175.0	88.11	88.34	8,094.6	4,879.1	70.2	5,361.1	4,880.6	0.20	419,796.05	674,750.05	
13,270.0	88.11	89.31	8,097.8	4,882.3	72.2	5,456.1	4,966.7	1.02	419,797.99	674,844.98	
13,364.0	90.57	90.23	8,098.9	4,883.4	72.5	5,550.1	5,052.6	2.79	419,798.37	674,938.96	
13,459.0	89.87	90.57	8,098.5	4,883.0	71.9	5,645.1	5,139.8	0.82	419,797.71	675,033.96	
13,553.0	89.69	91.56	8,098.9	4,883.4	70.1	5,739.0	5,226.6	1.07	419,795.96	675,127.94	
13,648.0	89.60	92.11	8,099.4	4,883.9	67.1	5,834.0	5,314.8	0.59	419,792.92	675,222.89	
13,722.0	89.96	92.10	8,099.7	4,884.2	64.4	5,907.9	5,383.6	0.49	419,790.20	675,296.84	
13,800.0	89.96	92.10	8,099.8	4,884.3	61.5	5,985.9	5,456.1	0.00	419,787.34	675,374.79	
BHL - 13800.0 'MD, 8099.8 'TVD, 61.5 'N, 5985.9 'E											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,558.0	7,556.5	-15.5	-4.6	KOP - 7558.0 'MD, 7556.5 'TVD, -15.5 'N, -4.6 'E
8,342.0	8,012.1	1.9	530.1	LP - 8342.0 'MD, 8012.1 'TVD, 1.9 'N, 530.1 'E
13,800.0	8,099.8	61.5	5,985.9	BHL - 13800.0 'MD, 8099.8 'TVD, 61.5 'N, 5985.9 'E

Checked By: _____ Approved By: _____ Date: _____

Project: Eddy County (NAD 83)
 Site: Doc "BHU" State Com
 Well: #5H
 Wellbore: OH
 Plan: Plan #4 (#5H/OH)

PATHFINDER
 A Schlumberger Company

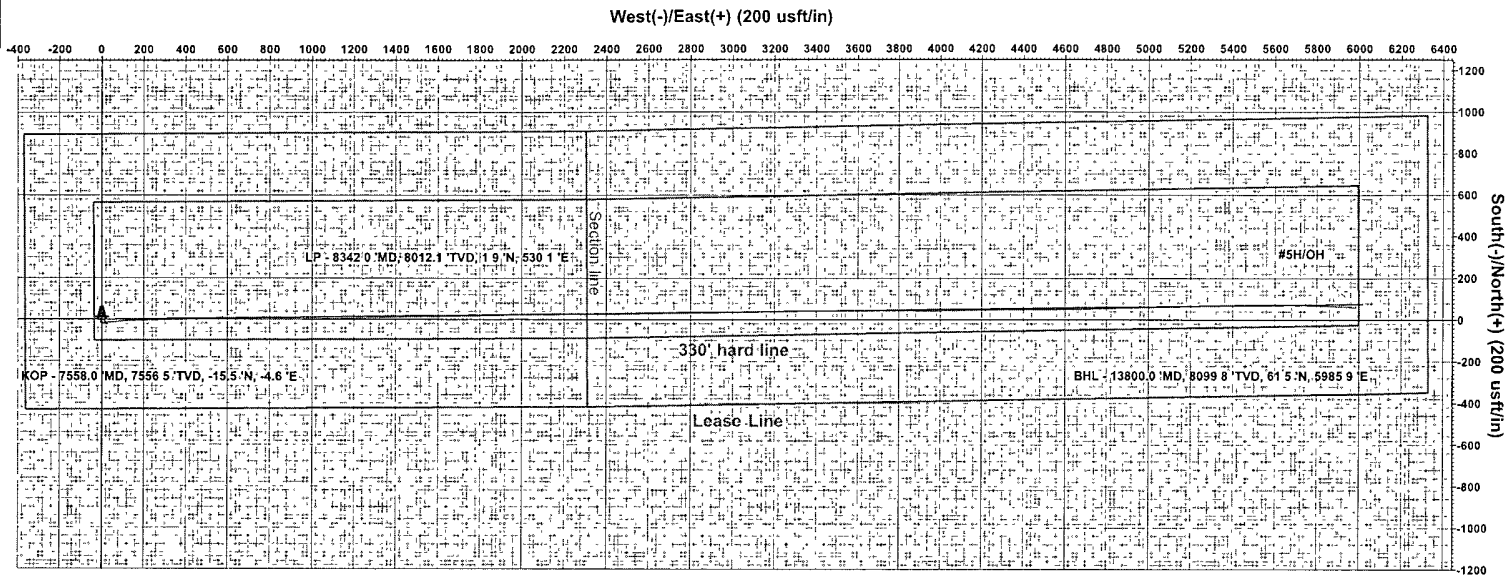


PROJECT DETAILS: Eddy County (NAD 83)
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level
 Local North: Grid



Azimuths to Grid North
 True North: -0.22°
 Magnetic North: 7.45°

Magnetic Field
 Strength: 48528.2snT
 Dip Angle: 60.07°
 Date: 12/6/2011
 Model: IGRF200510



WELL DETAILS #5H

Ground Elevation: 3189.0
 RKB Elevation: KB = 26.5 @ 3215.5usft (Patriot 5)
 Rig Name: Patriot 5

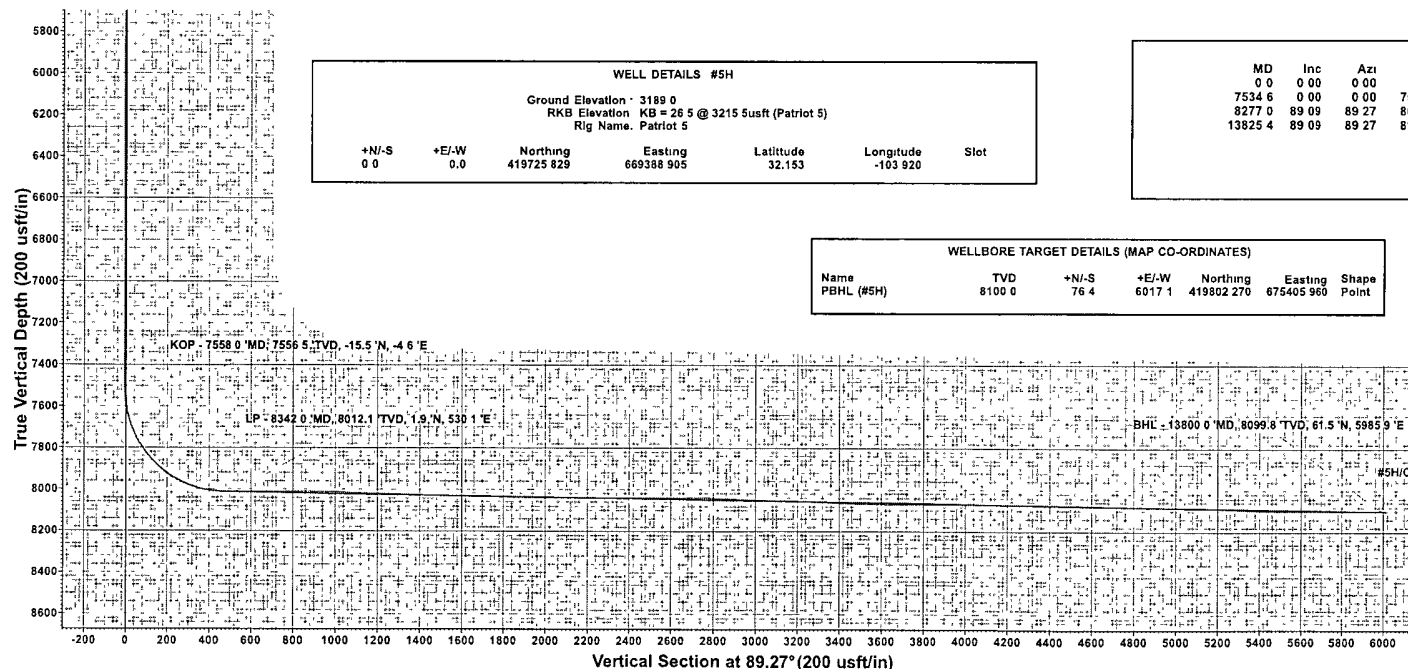
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	419725.829	669388.905	32.153	-103.920	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
7534.6	0.00	0.00	7534.6	0.0	0.0	0.00	0.00	0.0	
8277.0	89.09	89.27	8012.0	6.0	469.9	12.00	89.27	469.9	
13825.4	89.09	89.27	8100.0	76.4	6017.1	0.00	0.00	6017.5	PBHL (#5H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (#5H)	8100.0	76.4	6017.1	419802.270	675405.960	Point



EOW

Plan: Plan #4 (#5H/OH)

Created By: Sam Biffle Date: 9/10, May 02 2012

Checked: _____ Date: _____

Well Information Card
 Date: 9/10, May 02 2012
 User: Sam Biffle
 Project: #5H
 Well: #5H