



30-015-38262

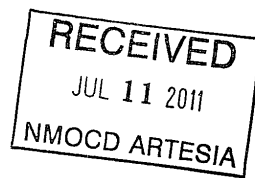
Yates Petroleum Corp.

Eddy County
Yaddock "BQY" State
#1H
OH

Survey: MWD #1

Pathfinder X & Y Survey Report

25 March, 2011



PATHFINDER
A Schlumberger Company



Pathfinder
Pathfinder X & Y Survey Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	Well2 @ 2949.00usft (23'KB Correction Patterson #75)
Site:	Yaddock "BQY" State	MD Reference:	Well2 @ 2949.00usft (23'KB Correction Patterson #75)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM:5000.1 Single User.Db

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

Site		Yaddock "BQY" State					
Site Position:		Northing:	396,084.994	usft	Latitude:	32° 5' 18.822 N	
From:	Map	Easting:	634,286.678	usft	Longitude:	104° 1' 59.511 W	
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.16 °

Well:	#1H					
Well Position	+N/-S	0.00 usft	Northing:	396,084.994 usft	Latitude:	32° 5' 18.822 N
	+E/-W	0.00 usft	Easting:	634,286.678 usft	Longitude:	104° 1' 59.511 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,926.00 usft

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/21/11	7.82	59.99	48,517

Design: OH				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.00		
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	268.27



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Site:	Yaddock, "BQY" State	MD Reference:	Well2 @ 2949.00usft (23'KB Correction Patterson #75)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM-5000.1 Single User.Db

Survey Program		Date	03/25/11			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description		
200.00	5,924.00	GYRO (OH)	CB-GYRO-MS	Camera based gyro multishot		
6,028.00	11,255.00	MWD #1 (OH)	MWD	MWD - Standard		

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (1/100usft)	Northing (usft)	Easting (usft)
5,924.00	0.50	172.61	5,923.37	-2,974.37	-3.31	-4.44	4.54	0.00	396,081.68	634,282.23
6,028.00	0.62	173.07	6,027.37	-3,078.37	-4.32	-4.32	4.45	0.12	396,080.68	634,282.36
6,124.00	0.79	166.39	6,123.36	-3,174.36	-5.48	-4.10	4.26	0.20	396,079.52	634,282.58
6,219.00	0.70	158.66	6,218.35	-3,269.35	-6.65	-3.73	3.93	0.14	396,078.34	634,282.94
6,321.00	0.79	155.49	6,320.34	-3,371.34	-7.87	-3.22	3.45	0.10	396,077.12	634,283.46
6,417.00	0.79	156.06	6,416.33	-3,467.33	-9.08	-2.67	2.95	0.01	396,075.91	634,284.01
6,448.00	0.62	242.23	6,447.33	-3,498.33	-9.36	-2.73	3.02	3.13	396,075.64	634,283.94
KOP-6448.00'MD,0.62°INC,242.23°AZI,6447.33'TVD										
6,480.00	2.73	287.22	6,479.32	-3,530.32	-9.21	-3.62	3.89	7.29	396,075.78	634,283.06
6,512.00	5.80	292.99	6,511.22	-3,562.22	-8.35	-5.83	6.08	9.67	396,076.64	634,280.85
6,544.00	9.58	295.40	6,542.93	-3,593.93	-6.58	-9.73	9.92	11.85	396,078.42	634,276.95
6,576.00	13.28	297.23	6,574.29	-3,625.29	-3.75	-15.40	15.51	11.62	396,081.24	634,271.27
6,607.00	16.80	298.35	6,604.22	-3,655.22	0.00	-22.51	22.50	11.39	396,085.00	634,264.16
6,638.00	20.22	296.76	6,633.62	-3,684.62	4.54	-31.24	31.09	11.15	396,089.54	634,255.44
6,670.00	23.83	294.42	6,663.28	-3,714.28	9.71	-42.07	41.76	11.61	396,094.70	634,244.61
6,702.00	27.61	291.12	6,692.10	-3,743.10	15.06	-54.88	54.40	12.63	396,100.05	634,231.80
6,734.00	31.74	287.13	6,719.90	-3,770.90	20.21	-69.85	69.21	14.30	396,105.20	634,216.83
6,766.00	36.05	284.52	6,746.46	-3,797.46	25.05	-87.02	86.22	14.21	396,110.05	634,199.66
6,797.00	40.27	281.71	6,770.83	-3,821.83	29.37	-105.67	104.73	14.72	396,114.37	634,181.01
6,829.00	44.49	278.18	6,794.47	-3,845.47	33.07	-126.90	125.85	15.14	396,118.07	634,159.77
6,861.00	48.19	273.89	6,816.56	-3,867.56	35.48	-149.91	148.78	15.09	396,120.47	634,136.76



Pathfinder
Pathfinder X & Y Survey Report

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Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	Well2 @ 2949.00usft (23 KB Correction Patterson #75)
Site:	Yaddock, BQY, State	MD Reference:	Well2 @ 2949.00usft (23 KB Correction Patterson #75)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000:1 Single User.Db

Survey											
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)	
6,893.00	51.97	268.98	6,837.10	-3,888.10	36.06	-174.43	173.26	16.67	396,121.06	634,112.25	
6,924.00	55.05	263.94	6,855.54	-3,906.54	34.50	-199.29	198.16	16.41	396,119.50	634,087.39	
6,956.00	57.86	259.34	6,873.23	-3,924.23	30.61	-225.66	224.63	14.85	396,115.60	634,061.02	
6,988.00	61.20	261.46	6,889.45	-3,940.45	26.02	-252.85	251.95	11.90	396,111.01	634,033.83	
7,020.00	65.16	262.14	6,903.89	-3,954.89	21.95	-281.11	280.32	12.52	396,106.94	634,005.57	
7,051.00	69.12	264.23	6,915.93	-3,966.93	18.57	-309.47	308.76	14.20	396,103.56	633,977.21	
7,083.00	73.78	265.34	6,926.11	-3,977.11	15.82	-339.67	339.04	14.93	396,100.81	633,947.01	
7,115.00	78.70	265.91	6,933.72	-3,984.72	13.45	-370.65	370.08	15.47	396,098.44	633,916.03	
7,132.00	81.25	265.90	6,936.68	-3,987.68	12.25	-387.35	386.80	15.00	396,097.25	633,899.33	
7,164.00	85.12	266.15	6,940.47	-3,991.47	10.05	-419.04	418.54	12.12	396,095.04	633,867.64	
7,195.00	88.46	266.83	6,942.21	-3,993.21	8.16	-449.93	449.48	10.99	396,093.15	633,836.75	
EOC:7195.00°MD,88.46°INC,266.83°AZI,6942.21°TVD											
7,227.00	89.34	266.90	6,942.82	-3,993.82	6.41	-481.87	481.46	2.76	396,091.40	633,804.80	
7,259.00	90.92	267.05	6,942.75	-3,993.75	4.72	-513.83	513.45	4.96	396,089.71	633,772.85	
7,354.00	91.54	266.78	6,940.71	-3,991.71	-0.39	-608.67	608.40	0.71	396,084.60	633,678.01	
7,449.00	91.80	267.15	6,937.94	-3,988.94	-5.42	-703.49	703.34	0.48	396,079.57	633,583.18	
7,545.00	90.75	267.00	6,935.81	-3,986.81	-10.32	-799.34	799.29	1.10	396,074.68	633,487.33	
7,640.00	91.45	267.16	6,933.98	-3,984.98	-15.16	-894.20	894.25	0.76	396,069.84	633,392.48	
7,735.00	90.57	268.06	6,932.31	-3,983.31	-19.12	-989.10	989.23	1.32	396,065.88	633,297.58	
7,831.00	91.36	268.31	6,930.69	-3,981.69	-22.16	-1,085.04	1,085.21	0.86	396,062.84	633,201.64	
7,925.00	90.75	268.54	6,928.96	-3,979.96	-24.74	-1,178.99	1,179.20	0.69	396,060.25	633,107.69	
8,021.00	92.42	269.50	6,926.30	-3,977.30	-26.38	-1,274.93	1,275.15	2.01	396,058.61	633,011.75	
8,116.00	91.71	269.16	6,922.88	-3,973.88	-27.49	-1,369.86	1,370.07	0.83	396,057.50	632,916.81	
8,211.00	89.52	267.18	6,921.86	-3,972.86	-30.53	-1,464.80	1,465.05	3.11	396,054.47	632,821.88	
8,307.00	89.87	267.40	6,922.37	-3,973.37	-35.07	-1,560.69	1,561.04	0.43	396,049.93	632,725.99	
8,402.00	90.22	267.64	6,922.30	-3,973.30	-39.18	-1,655.60	1,656.03	0.45	396,045.82	632,631.08	
8,497.00	91.71	267.50	6,920.70	-3,971.70	-43.20	-1,750.50	1,751.01	1.58	396,041.79	632,536.18	



Pathfinder
Pathfinder X & Y Survey Report



Company:	Yates Petroleum Corp.	Local Coordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	Well2 @ 2949.00usft (23'KB Correction Patterson #75)
Site:	Yaddock "BOY" State	MD Reference:	Well2 @ 2949.00usft (23'KB Correction Patterson #75)
Well:	#1H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1' Single User Db

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)
8,593.00	90.92	269.51	6,918.49	-3,969.49	-45.71	-1,846.44	1,846.97	2.25	396,039.29	632,440.24
8,688.00	90.84	270.82	6,917.04	-3,968.04	-45.43	-1,941.42	1,941.91	1.38	396,039.56	632,345.26
8,783.00	89.87	270.31	6,916.45	-3,967.45	-44.50	-2,036.41	2,036.83	1.15	396,040.50	632,250.26
8,879.00	89.43	270.24	6,917.03	-3,968.03	-44.04	-2,132.41	2,132.77	0.46	396,040.96	632,154.27
8,974.00	89.25	269.00	6,918.13	-3,969.13	-44.67	-2,227.40	2,227.73	1.32	396,040.33	632,059.28
9,070.00	89.96	268.10	6,918.79	-3,969.79	-47.09	-2,323.37	2,323.73	1.19	396,037.90	631,963.31
9,165.00	89.96	268.12	6,918.86	-3,969.86	-50.23	-2,418.31	2,418.73	0.02	396,034.77	631,868.36
9,260.00	90.04	267.57	6,918.86	-3,969.86	-53.80	-2,513.25	2,513.73	0.59	396,031.19	631,773.43
9,355.00	90.22	267.79	6,918.64	-3,969.64	-57.65	-2,608.17	2,608.72	0.30	396,027.35	631,678.51
9,451.00	90.48	267.90	6,918.05	-3,969.05	-61.26	-2,704.10	2,704.72	0.29	396,023.74	631,582.58
9,546.00	90.31	267.76	6,917.40	-3,968.40	-64.85	-2,799.03	2,799.71	0.23	396,020.14	631,487.65
9,641.00	91.45	268.06	6,915.94	-3,966.94	-68.32	-2,893.95	2,894.70	1.24	396,016.68	631,392.73
9,737.00	92.42	268.23	6,912.70	-3,963.70	-71.42	-2,989.85	2,990.64	1.03	396,013.57	631,296.83
9,832.00	91.80	267.65	6,909.20	-3,960.20	-74.84	-3,084.72	3,085.57	0.89	396,010.16	631,201.96
9,927.00	91.98	267.33	6,906.07	-3,957.07	-78.99	-3,179.58	3,180.51	0.39	396,006.00	631,107.10
10,023.00	91.54	266.52	6,903.12	-3,954.12	-84.14	-3,275.39	3,276.44	0.96	396,000.85	631,011.29
10,118.00	89.87	266.13	6,901.95	-3,952.95	-90.23	-3,370.19	3,371.37	1.81	395,994.76	630,916.49
10,214.00	89.96	266.07	6,902.09	-3,953.09	-96.76	-3,465.96	3,467.31	0.11	395,988.24	630,820.71
10,309.00	89.96	265.32	6,902.16	-3,953.16	-103.89	-3,560.70	3,562.21	0.79	395,981.10	630,725.98
10,405.00	92.33	265.57	6,900.24	-3,951.24	-111.51	-3,656.37	3,658.07	2.48	395,973.48	630,630.31
10,500.00	92.15	265.13	6,896.53	-3,947.53	-119.21	-3,750.98	3,752.87	0.50	395,965.79	630,535.70
10,595.00	92.77	265.82	6,892.45	-3,943.45	-126.70	-3,845.60	3,847.67	0.98	395,958.30	630,441.08
10,691.00	93.74	266.36	6,887.00	-3,938.00	-133.23	-3,941.22	3,943.44	1.16	395,951.76	630,345.46
10,786.00	91.98	268.03	6,882.26	-3,933.26	-137.87	-4,035.98	4,038.30	2.55	395,947.12	630,250.70
10,881.00	91.73	267.65	6,879.18	-3,930.18	-141.45	-4,130.86	4,133.25	0.48	395,943.54	630,155.82
10,976.00	89.34	265.36	6,878.30	-3,929.30	-147.24	-4,225.67	4,228.19	3.48	395,937.75	630,061.01
11,072.00	89.96	265.52	6,878.88	-3,929.88	-154.87	-4,321.36	4,324.07	0.67	395,930.12	629,965.32



Pathfinder
Pathfinder X & Y Survey Report



Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	Well2 @ 2949.00usft (23'KB Correction Patterson #75)
Site:	Yaddock "BOY" State	MD Reference:	Well2 @ 2949.00usft (23'KB Correction Patterson #75)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM-5000.1, Single User Db

Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)
11,255.00	89.96	265.52	6,879.01	-3,930.01	-169.17	-4,503.80	4,506.86	0.00	395,915.82	629,782.88
BHL-11255.00°MD,89.96°INC,265.52°AZI, 6879.01°TVD, 4506.86°VS, -169.17°N, -4503.80°E										

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		N-S (usft)	E-W (usft)	
6,448.00	6,447.33	-9.36	-2.73	KOP-6448.00°MD,0.62°INC,242.23°AZI,6447.33°TVD
7,195.00	6,942.21	8.16	-449.93	EOC-7195.00°MD,88.46°INC,266.83°AZI,6942.21°TVD
11,255.00	6,879.01	-169.17	-4,503.80	BHL-11255.00°MD,89.96°INC,265.52°AZI, 6879.01°TVD, 4506.86°VS, -169.17°N

Checked By: _____	Approved By: _____	Date: _____
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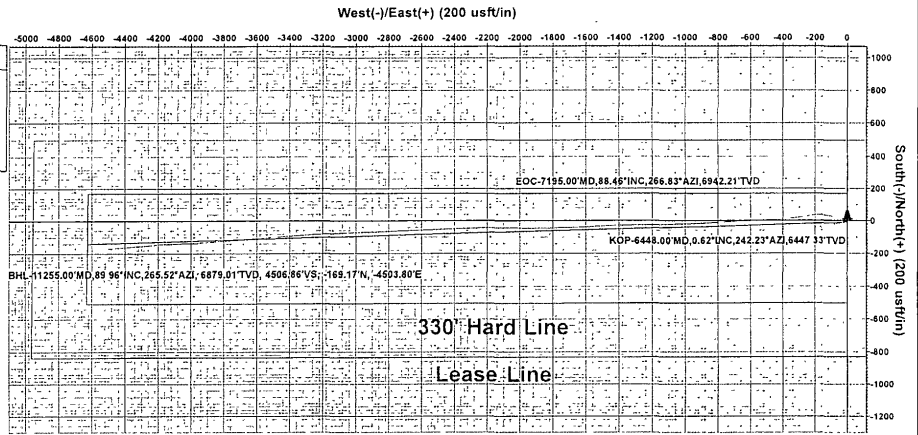
True North: -0.16° Azimuths to Grid North
Magnetic North: 7.66°

Magnetic Field
Strength: 48517.25nT
Dip Angle: 69.99°
Date: 02/21/2011
Model: IGRF2010

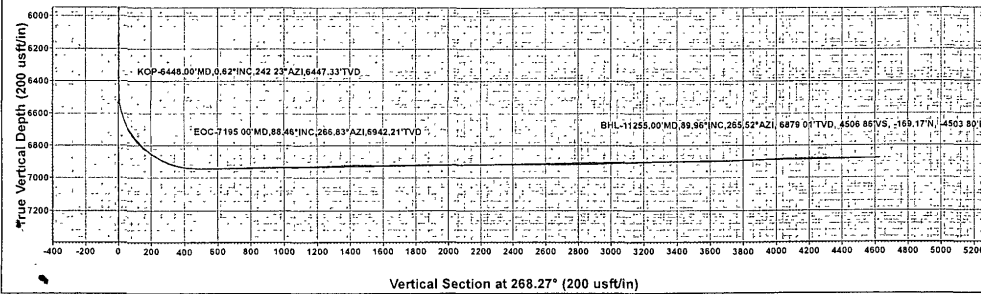
PATHFINDER
A Schlumberger Company

SECTION DETAILS									
MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	VSecl	Target
5924.00	0.50	172.61	5923.37	-3.31	-4.44	0.00	0.00	4.54	
6468.00	0.50	172.61	6467.35	-9.02	-3.83	0.00	0.00	4.07	
7225.67	90.90	268.42	6945.00	-25.60	-488.34	12.00	95.80	488.89	
11366.75	90.90	268.42	6879.95	-139.76	-4627.33	0.00	0.00	4629.44	PBHL(Yaddock#1H)

Project: Eddy County
Site: Yaddock "BQY" State
Well: #1H
Wellbore: OH
Plan: Plan #4 (#1H/OH)



WELL DETAILS #1H						
Ground Elevation: 2926.00						
RKB Elevation: Well @ 2949.00 ush (23° KB Correction Patterson #75)						
Rig Name: 23° KB Correction Patterson #75						
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Spot
0.00	0.00	395084.994	634286.678	32° 5' 18.822 N	104° 1' 59.511 W	



Vertical Section at 268.27° (200 usft/in)

PROJECT DETAILS: Eddy County
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

Plan: Plan #4 (#1H/OH)	
Created By: Nate Bingham	Date: 8/29, March 25 2011
Checked: _____	Date: _____