

Results of Directional Survey

API number:	30-025-40374		
OGRID:		Operator:	YATES PETROLEUM CORP
		Property:	BERRY APN STATE # 2H

surface	ULSTR:	M (E 13)	05	T 21S	R 34E
				2957 FSL	660 FWL

BH Loc	ULSTR:	D (D 4)	05	T 21S	R 34E
15226 MD		10686.6	TVD	327 FNL	629 FWL
				7576 FSL	

Top Perf/OH	ULSTR:	M	05	T 21S	R 34E
10949 MD		10646.4	TVD	3305 FSL	813 FWL

Bot Perf/OH	ULSTR:	D	05	T 21S	R 34E
15125 MD		10687.6	TVD	428 FNL	633 FWL
				7475 FSL	

NOTE: Sec is 7903.5' long left side

	MD	N/S	E/W	VD
	10922	320.60	153.90	10644.6
TOP PERFS/OH	10949	347.52	153.39	10646.37
	10954	352.50	153.30	10646.70
	15060	4452.90	-25.00	10688.20
BOT PERFS/OH	15125	4517.86	-27.35	10687.57
	15226	4618.80	-31.00	10686.60

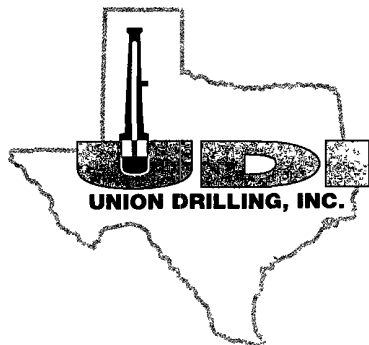
NEXT TO LAST	15060	4452.90	-25.00	10688.20
LAST READING	15226	4618.80	-31.00	10686.60
TD	15226	4618.80	-31.00	10686.60

Surface Location	2957 FS	660 FW
Projected BHL	7576 FS	629 FW
Location of		
Top Perfs/OH	3305 FS	813 FW
Bottom Perfs/OH	7475 FS	633 FW

SUMMARY of Subsurface Locations

Surface Location	M-05-21S-34E	2957 FS	660 FW	Vert. Depth
Top Perfs/OH	M-05-21S-34E	3305 FS	813 FW	10646.37
Bottom Perfs/OH	D-05-21S-34E	7475 FS	633 FW	10687.57
Projected TD	D-05-21S-34E	7576 FS	629 FW	10686.60

JUL 03 2012



HOBBS OCD
JUN 26 2012
RECEIVED

SUR: Lot 13, M-05-21-34e, 2957/S & 660/W
BHL: Lot 4, D-05-21s-34e, 7576/S & 629/W
API # 30-025-40374

Well Name & Number: Berry APN State #002H

API Number: 30-025-40374

Location: 2957 FSL & 660 FWL, Lot E, Sec. 5, Township 21-S, Range 34-E, Lea County, New Mexico

Operator: Yates Petroleum Corporation

Drilling Contractor: Union Drilling, Inc.

The undersigned hereby certifies that he is an authorized representative of the drilling Contractor who drilled the above described well and that deviation survey tests were conducted and he obtained the following results:

RECORD OF INCLINATION

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	*13. Angle of Inclination (Degrees)	14. Displacement per Hundred Feet (Sine of Angle X100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
250	250	.64	1.12	2.79	2.79
495	245	.8	1.40	3.42	6.21
DIRECTIONAL TOOK OVER					

Drilling Contractor: Union Drilling, Inc.

By:

Jim Mayfield
Jim Mayfield

Title: Division Manager

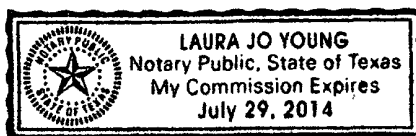
Subscribed and sworn to before me this 23rd Day of May, 2012.

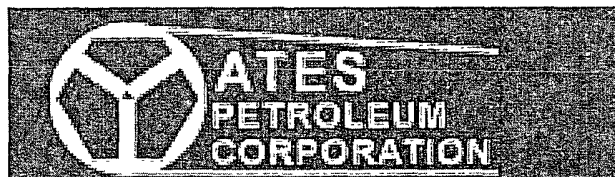
Laura Jo Young
Notary Public

My Commission Expires: July 29, 2014

COUNTY OF TAYLOR)

STATE OF TEXAS)





Yates Petroleum Corp.

Lea County
Berry APN State
#2H
OH

Design: OH

PathfinderX & Y Report

18 May, 2012

HOBBS OCD

JUN 26 2012

RECEIVED

SUR: Lot 13, M-05-21-34e, 2957/S & 660/W
BHL: Lot 4, D-05-21s-34e, 7576/S & 629/W
API # 30-025-40374

PATHFINDER®

A Schlumberger Company



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Site:	Berry APN State	MD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project:	Lea 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: Berry APN State									
Site Position:		Northing:		549,820.168	usft	Latitude:	32 509		
From:	Map	Easting:		798,698 291	usft	Longitude:	-103.498		
Position Uncertainty:		0 0	usft	Slot Radius:		13-3/16	"	Grid Convergence:	0 45 °

Well:	#2H					
Well Position	+N/-S	0 0 usft	Northing:	549,820 168 usft	Latitude:	32 509
	+E/-W	0 0 usft	Easting:	798,698 291 usft	Longitude:	-103 498
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	3,723 0 usft

Wellbore:		OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/29/2011	7 51	60 48	48,785

Design:	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0 0	0 0	0 0	359.56



Pathfinder

PathfinderX & Y Report

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Site:	Berry APN State	MD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey Program		Date: 5/18/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.0	10,000.0	Gyro #1 (OH)	CTG-SR-SS	Continuous gyro - surface ref s/s
10,083.0	15,226.0	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	-3,748.0	0.0	0.0	0.0	0.00	549,820.17	798,698.29
200.0	0.62	41.04	200.0	-3,548.0	0.8	0.7	0.8	0.31	549,820.98	798,699.00
400.0	0.53	64.45	400.0	-3,348.0	2.0	2.3	2.0	0.12	549,822.20	798,700.55
600.0	0.83	66.74	600.0	-3,148.0	3.0	4.4	3.0	0.15	549,823.17	798,702.71
800.0	0.74	68.88	800.0	-2,948.0	4.0	7.0	4.0	0.05	549,824.21	798,705.25
1,000.0	0.42	82.57	999.9	-2,748.1	4.6	8.9	4.5	0.17	549,824.77	798,707.18
1,200.0	0.56	93.65	1,199.9	-2,548.1	4.6	10.6	4.6	0.08	549,824.80	798,708.88
1,400.0	0.71	87.40	1,399.9	-2,348.1	4.6	12.8	4.5	0.08	549,824.79	798,711.09
1,600.0	0.26	127.65	1,599.9	-2,148.1	4.4	14.4	4.3	0.27	549,824.57	798,712.69
1,800.0	0.80	87.79	1,799.9	-1,948.1	4.2	16.2	4.1	0.31	549,824.35	798,714.45
2,000.0	0.53	110.08	1,999.9	-1,748.1	3.9	18.4	3.8	0.18	549,824.09	798,716.71
2,200.0	1.23	105.32	2,199.9	-1,548.1	3.0	21.4	2.9	0.35	549,823.20	798,719.65
2,400.0	1.60	131.90	2,399.8	-1,348.2	0.6	25.5	0.4	0.37	549,820.77	798,723.80
2,600.0	2.75	148.51	2,599.7	-1,148.3	-5.4	30.1	-5.6	0.65	549,814.81	798,728.38
2,800.0	1.89	133.82	2,799.5	-948.5	-11.7	35.0	-12.0	0.52	549,808.44	798,733.27
3,000.0	1.99	116.31	2,999.4	-748.6	-15.6	40.5	-15.9	0.30	549,804.62	798,738.76
3,200.0	1.86	106.07	3,199.3	-548.7	-18.0	46.7	-18.3	0.18	549,802.18	798,744.99
3,400.0	1.85	110.72	3,399.2	-348.8	-20.0	52.8	-20.4	0.08	549,800.14	798,751.13
3,600.0	1.97	99.08	3,599.1	-148.9	-21.7	59.3	-22.2	0.20	549,798.45	798,757.55
3,800.0	1.96	98.47	3,798.9	50.9	-22.8	66.0	-23.3	0.01	549,797.41	798,764.32
4,000.0	1.91	94.51	3,998.8	250.8	-23.5	72.7	-24.1	0.07	549,796.64	798,771.03



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Site:	Berry APN State	MD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Well:	#2H	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)	
4,200.0	1.98	92.70	4,198.7	450.7	-24.0	79.5	-24.6	0.05	549,796.22	798,777.80	
4,400.0	1.94	92.65	4,398.6	650.6	-24.3	86.3	-24.9	0.02	549,795.90	798,784.63	
4,600.0	2.05	91.67	4,598.5	850.5	-24.5	93.3	-25.2	0.06	549,795.64	798,791.59	
4,800.0	2.35	89.69	4,798.3	1,050.3	-24.6	101.0	-25.4	0.15	549,795.55	798,799.27	
5,000.0	5.40	125.13	4,997.9	1,249.9	-30.0	112.8	-30.9	1.87	549,790.16	798,811.07	
5,200.0	4.52	86.46	5,197.2	1,449.2	-34.9	128.3	-35.9	1.69	549,785.23	798,826.64	
5,400.0	3.12	94.02	5,396.7	1,648.7	-34.8	141.6	-35.9	0.74	549,785.33	798,839.93	
5,600.0	1.83	124.50	5,596.5	1,848.5	-37.0	149.7	-38.2	0.90	549,783.14	798,847.99	
5,800.0	2.20	142.38	5,796.4	2,048.4	-41.9	154.7	-43.1	0.36	549,778.29	798,852.97	
6,000.0	2.26	153.97	5,996.3	2,248.3	-48.5	158.8	-49.7	0.23	549,771.71	798,857.04	
6,200.0	1.96	153.77	6,196.1	2,448.1	-55.1	162.0	-56.3	0.15	549,765.10	798,860.28	
6,400.0	1.63	158.92	6,396.0	2,648.0	-60.8	164.5	-62.0	0.18	549,759.38	798,862.82	
6,600.0	0.71	181.73	6,596.0	2,848.0	-64.7	165.5	-65.9	0.51	549,755.48	798,863.81	
6,800.0	1.19	159.14	6,796.0	3,048.0	-67.9	166.2	-69.1	0.30	549,752.30	798,864.51	
7,000.0	1.32	158.30	6,995.9	3,247.9	-71.9	167.8	-73.2	0.07	549,748.22	798,866.10	
7,200.0	0.56	183.04	7,195.9	3,447.9	-75.1	168.6	-76.3	0.42	549,745.11	798,866.90	
7,400.0	0.71	179.48	7,395.9	3,647.9	-77.3	168.6	-78.6	0.08	549,742.89	798,866.86	
7,600.0	0.88	165.91	7,595.9	3,847.9	-80.0	169.0	-81.3	0.13	549,740.16	798,867.24	
7,800.0	0.93	142.72	7,795.8	4,047.8	-82.8	170.3	-84.1	0.18	549,737.38	798,868.60	
8,000.0	1.12	143.56	7,995.8	4,247.8	-85.7	172.5	-87.0	0.10	549,734.52	798,870.74	
8,200.0	1.13	128.02	8,195.8	4,447.8	-88.4	175.2	-89.8	0.15	549,731.73	798,873.46	
8,400.0	0.82	134.84	8,395.7	4,647.7	-90.7	177.7	-92.0	0.17	549,729.51	798,876.03	
8,600.0	0.84	141.99	8,595.7	4,847.7	-92.8	179.7	-94.2	0.05	549,727.34	798,877.94	
8,800.0	0.75	176.49	8,795.7	5,047.7	-95.3	180.6	-96.7	0.24	549,724.88	798,878.93	
9,000.0	2.23	149.93	8,995.6	5,247.6	-100.0	182.7	-101.4	0.80	549,720.21	798,880.96	
9,200.0	2.53	136.86	9,195.5	5,447.5	-106.5	187.6	-108.0	0.31	549,713.62	798,885.93	
9,400.0	1.80	176.58	9,395.3	5,647.3	-112.9	190.8	-114.4	0.81	549,707.26	798,889.13	



Pathfinder
PathfinderX & Y Report

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Project:	Lea County	TVD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Site:	Berry APN, State	MD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Well:	#2H	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)	
9,600.0	1.91	176.31	9,595.2	5,847.2	-119.4	191.2	-120.8	0.06	549,700.80	798,889.53	
9,800.0	1.61	155.84	9,795.1	6,047.1	-125.3	192.6	-126.7	0.35	549,694.91	798,890.90	
10,000.0	1.28	162.33	9,995.1	6,247.1	-129.9	194.4	-131.4	0.18	549,690.22	798,892.73	
10,083.0	1.32	192.29	10,078.0	6,330.0	-131.8	194.5	-133.2	0.81	549,688.40	798,892.80	
10,099.0	1.41	191.59	10,094.0	6,346.0	-132.1	194.4	-133.6	0.57	549,688.03	798,892.73	
10,131.0	1.32	163.82	10,126.0	6,378.0	-132.9	194.5	-134.4	2.07	549,687.29	798,892.75	
10,163.0	1.23	49.56	10,158.0	6,410.0	-133.0	194.8	-134.5	6.69	549,687.16	798,893.11	
10,194.0	1.67	353.40	10,189.0	6,441.0	-132.3	195.0	-133.8	4.58	549,687.82	798,893.31	
10,225.0	3.08	324.39	10,220.0	6,472.0	-131.2	194.5	-132.7	5.84	549,688.95	798,892.78	
KOP = 10225.0 'MD, 10220.0 'TVD, -131.2 'N, 194.5 'E											
10,257.0	5.98	328.35	10,251.9	6,503.9	-129.1	193.1	-130.6	9.11	549,691.07	798,891.40	
10,289.0	8.62	327.21	10,283.6	6,535.6	-125.7	190.9	-127.1	8.26	549,694.50	798,889.23	
10,320.0	11.43	323.95	10,314.1	6,566.1	-121.2	187.9	-122.7	9.24	549,698.94	798,886.16	
10,352.0	14.68	325.98	10,345.3	6,597.3	-115.3	183.7	-116.7	10.26	549,704.86	798,882.03	
10,384.0	19.26	331.25	10,375.9	6,627.9	-107.3	178.9	-108.7	15.08	549,712.86	798,877.22	
10,415.0	25.50	333.45	10,404.6	6,656.6	-96.8	173.5	-98.2	20.31	549,723.32	798,871.77	
10,447.0	30.86	336.87	10,432.8	6,684.8	-83.1	167.2	-84.4	17.49	549,737.04	798,865.46	
10,479.0	35.44	343.55	10,459.6	6,711.6	-66.7	161.3	-67.9	18.29	549,753.50	798,859.60	
10,510.0	39.83	351.46	10,484.1	6,736.1	-48.2	157.3	-49.4	21.03	549,771.96	798,855.58	
10,542.0	44.67	356.83	10,507.8	6,759.8	-26.8	155.1	-28.0	18.86	549,793.34	798,853.44	
10,574.0	50.47	358.76	10,529.4	6,781.4	-3.2	154.3	-4.4	18.66	549,816.93	798,852.55	
10,606.0	56.65	359.90	10,548.4	6,800.4	22.5	154.0	21.3	19.52	549,842.66	798,852.25	
10,637.0	61.64	1.04	10,564.3	6,816.3	49.1	154.2	47.9	16.40	549,869.26	798,852.48	
10,669.0	65.60	1.22	10,578.5	6,830.5	77.8	154.8	76.6	12.39	549,897.92	798,853.05	
10,701.0	67.80	1.13	10,591.1	6,843.1	107.1	155.4	105.9	6.88	549,927.30	798,853.65	
10,732.0	69.03	0.52	10,602.6	6,854.6	136.0	155.8	134.8	4.37	549,956.12	798,854.06	
10,764.0	70.96	0.08	10,613.5	6,865.5	166.0	155.9	164.8	6.17	549,986.19	798,854.22	



Pathfinder
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PATHFINDER
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Company: Yates Petroleum Corp.
Project: Lea County
Site: Berry APN State
Well: #2H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = 25 @ 3748.0usft (UDI #223)
MD Reference: KB = 25 @ 3748.0usft (UDI #223)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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 (S/100usft)	Northing (usft)	Easting (usft)
10,796.0	74.83	359.29	10,622.9	6,874.9	196.6	155.8	195.4	12.32	550,016.77	798,854.05
10,827.0	78.35	359.11	10,630.1	6,882.1	226.7	155.3	225.6	11.37	550,046.92	798,853.63
10,859.0	79.93	359.02	10,636.1	6,888.1	258.2	154.8	257.0	4.95	550,078.34	798,853.11
10,891.0	82.04	359.20	10,641.1	6,893.1	289.8	154.3	288.6	6.62	550,109.94	798,852.62
10,922.0	85.03	359.02	10,644.6	6,896.6	320.6	153.9	319.4	9.66	550,140.73	798,852.15
10,954.0	87.49	358.85	10,646.7	6,898.7	352.5	153.3	351.3	7.71	550,172.66	798,851.55
10,991.0	87.93	359.13	10,648.2	6,900.2	389.5	152.6	388.3	1.41	550,209.62	798,850.90
11,086.0	89.08	359.47	10,650.7	6,902.7	484.4	151.4	483.2	1.26	550,304.58	798,849.74
LP - 11086.0 'MD, 10650.7 'TVD, 484.4 'N, 151.4 'E										
11,181.0	89.43	358.17	10,651.9	6,903.9	579.4	149.5	578.2	1.42	550,399.55	798,847.78
11,276.0	88.37	357.96	10,653.7	6,905.7	674.3	146.3	673.2	1.14	550,494.48	798,844.58
11,371.0	87.32	357.76	10,657.3	6,909.3	769.2	142.7	768.1	1.13	550,589.34	798,841.03
11,466.0	87.67	357.11	10,661.5	6,913.5	864.0	138.5	862.9	0.78	550,684.16	798,836.78
11,561.0	88.72	357.23	10,664.5	6,916.5	958.8	133.8	957.8	1.11	550,778.99	798,832.10
11,656.0	87.85	357.47	10,667.3	6,919.3	1,053.7	129.4	1,052.7	0.95	550,873.85	798,827.71
11,751.0	89.16	358.28	10,669.8	6,921.8	1,148.6	125.9	1,147.6	1.62	550,968.75	798,824.19
11,846.0	87.67	357.58	10,672.4	6,924.4	1,243.5	122.5	1,242.5	1.73	551,063.64	798,820.76
11,941.0	88.29	356.89	10,675.7	6,927.7	1,338.3	117.9	1,337.4	0.98	551,158.47	798,816.18
12,035.0	89.43	356.61	10,677.6	6,929.6	1,432.1	112.6	1,431.2	1.25	551,252.30	798,810.85
12,130.0	89.16	355.18	10,678.8	6,930.8	1,526.9	105.8	1,526.0	1.53	551,347.05	798,804.05
12,225.0	88.29	355.37	10,680.9	6,932.9	1,621.5	97.9	1,620.7	0.94	551,441.70	798,796.22
12,320.0	87.67	355.24	10,684.3	6,936.3	1,716.2	90.2	1,715.4	0.67	551,536.32	798,788.45
12,415.0	87.41	355.31	10,688.3	6,940.3	1,810.7	82.3	1,810.1	0.28	551,630.91	798,780.64
12,510.0	87.93	356.08	10,692.2	6,944.2	1,905.4	75.2	1,904.8	0.98	551,725.57	798,773.51
12,605.0	88.46	357.73	10,695.2	6,947.2	2,000.2	70.1	1,999.6	1.82	551,820.38	798,768.38
12,700.0	89.43	357.09	10,696.9	6,948.9	2,095.1	65.8	2,094.5	1.22	551,915.26	798,764.09
12,795.0	89.78	357.47	10,697.6	6,949.6	2,190.0	61.3	2,189.5	0.54	552,010.15	798,759.58



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25' @ 3748.0usft (UDI #223)
Site:	Berry APN State	MD Reference:	KB = 25' @ 3748.0usft (UDI #223)
Well:	#2H	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)	
12,890.0	90.13	358.12	10,697.7	6,949.7	2,284.9	57.6	2,284.4	0.78	552,105.08	798,755.93	
12,985.0	89.43	357.91	10,698.0	6,950.0	2,379.9	54.3	2,379.4	0.77	552,200.02	798,752.64	
13,080.0	88.64	357.66	10,699.6	6,951.6	2,474.8	50.7	2,474.3	0.87	552,294.94	798,748.97	
13,175.0	90.22	357.61	10,700.6	6,952.6	2,569.7	46.8	2,569.3	1.66	552,389.85	798,745.05	
13,270.0	91.36	357.21	10,699.3	6,951.3	2,664.6	42.5	2,664.2	1.27	552,484.74	798,740.75	
13,365.0	89.16	357.33	10,698.8	6,950.8	2,759.5	37.9	2,759.1	2.32	552,579.63	798,736.23	
13,460.0	88.81	356.90	10,700.5	6,952.5	2,854.3	33.2	2,854.0	0.58	552,674.49	798,731.45	
13,555.0	89.96	356.80	10,701.5	6,953.5	2,949.2	27.9	2,948.9	1.22	552,769.34	798,726.23	
13,649.0	89.87	357.09	10,701.7	6,953.7	3,043.0	22.9	3,042.8	0.32	552,863.21	798,721.22	
13,744.0	89.87	357.48	10,701.9	6,953.9	3,137.9	18.4	3,137.7	0.41	552,958.10	798,716.72	
13,839.0	90.84	357.23	10,701.3	6,953.3	3,232.8	14.0	3,232.6	1.05	553,053.00	798,712.34	
13,934.0	91.54	357.63	10,699.3	6,951.3	3,327.7	9.8	3,327.5	0.85	553,147.88	798,708.08	
14,023.0	89.78	357.64	10,698.3	6,950.3	3,416.6	6.1	3,416.5	1.98	553,236.79	798,704.40	
14,118.0	90.75	357.29	10,697.9	6,949.9	3,511.5	1.9	3,511.4	1.09	553,331.70	798,700.20	
14,213.0	89.87	358.32	10,697.3	6,949.3	3,606.5	-1.7	3,606.4	1.43	553,426.62	798,696.56	
14,308.0	88.90	357.94	10,698.4	6,950.4	3,701.4	-4.8	3,701.3	1.10	553,521.57	798,693.46	
14,403.0	89.69	357.85	10,699.5	6,951.5	3,796.3	-8.3	3,796.3	0.84	553,616.50	798,689.98	
14,498.0	89.96	358.19	10,699.8	6,951.8	3,891.3	-11.6	3,891.2	0.46	553,711.44	798,686.69	
14,593.0	90.75	358.56	10,699.2	6,951.2	3,986.2	-14.3	3,986.2	0.92	553,806.40	798,684.00	
14,680.0	91.10	359.21	10,697.8	6,949.8	4,073.2	-16.0	4,073.2	0.85	553,893.37	798,682.31	
14,775.0	91.19	359.26	10,695.9	6,947.9	4,168.2	-17.3	4,168.2	0.11	553,988.34	798,681.04	
14,870.0	91.54	358.81	10,693.7	6,945.7	4,263.1	-18.9	4,263.2	0.60	554,083.30	798,679.44	
14,965.0	92.24	357.94	10,690.5	6,942.5	4,358.0	-21.5	4,358.1	1.18	554,178.21	798,676.75	
15,060.0	90.57	357.92	10,688.2	6,940.2	4,452.9	-25.0	4,453.0	1.76	554,273.11	798,673.32	
15,226.0	90.57	357.92	10,686.6	6,938.6	4,618.8	-31.0	4,618.9	0.00	554,439.00	798,667.29	
BHL - 15226.0 'MD; 10686.6 'TVD, 4618.8 'N, -31.0 'E											



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Site:	Berry APN State	MD Reference:	KB = 25 @ 3748.0usft (UDI #223)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,225.0	10,220.0	-131.2	194.5	KOP - 10225.0 'MD, 10220.0 'TVD, -131.2 'N, 194.5 'E
11,086.0	10,650.7	484.4	151.4	LP - 11086.0 'MD, 10650.7 'TVD, 484.4 'N, 151.4 'E
15,226.0	10,686.6	4,618.8	-31.0	BHL - 15226.0 'MD, 10686.6 'TVD, 4618.8 'N, -31.0 'E

Checked By: _____	Approved By: _____	Date: _____
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**ATES
PETROLEUM
CORPORATION**

PROJECT DETAILS Lea 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



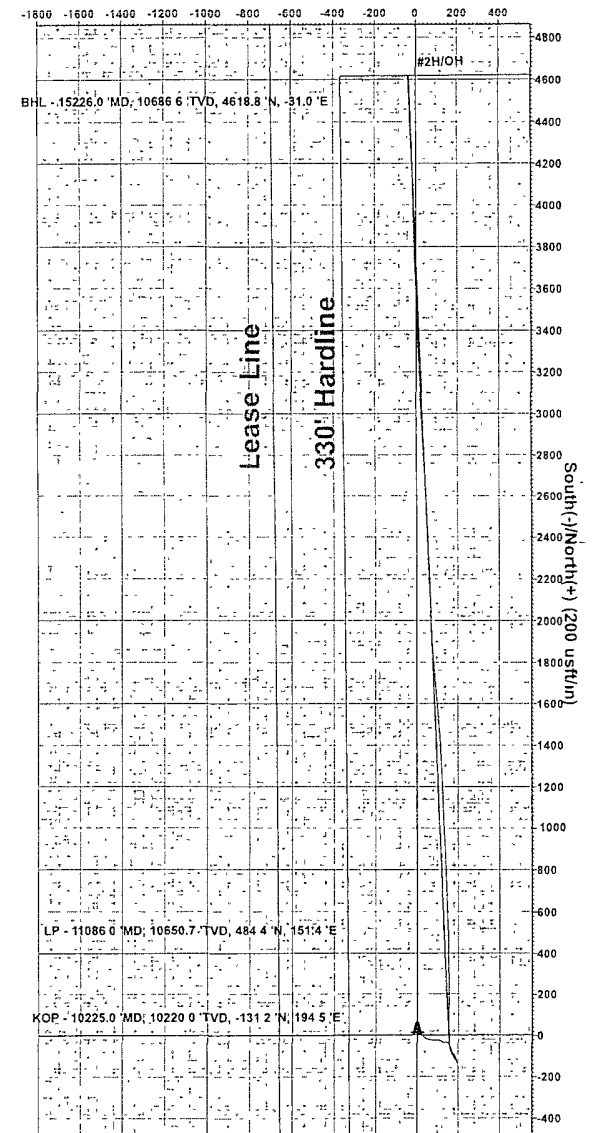
Azimuths to Grid North
True North: -0.45°
Magnetic North: 7.06°

Magnetic Field
Strength: 48785.4snT
Dip Angle: 60.48°
Date: 11/29/2011
Model: IGRF200510

PATHFINDER®

A Schlumberger Company

West(-)/East(+) (200 usft/in)



Project: Lea County
Site: Berry APN State
Well: #2H
Wellbore: OH
Plan: Post Gyro Plan #4 (#2H/OH)

EOW

WELL DETAILS #2H

Ground Elevation - 3723.0
RKB Elevation: KB = 25 @ 3748.0usft (UDI #223)
Rig Name UDI #223

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	549820.168	798698.291	32.509	-103.498	

SECTION DETAILS

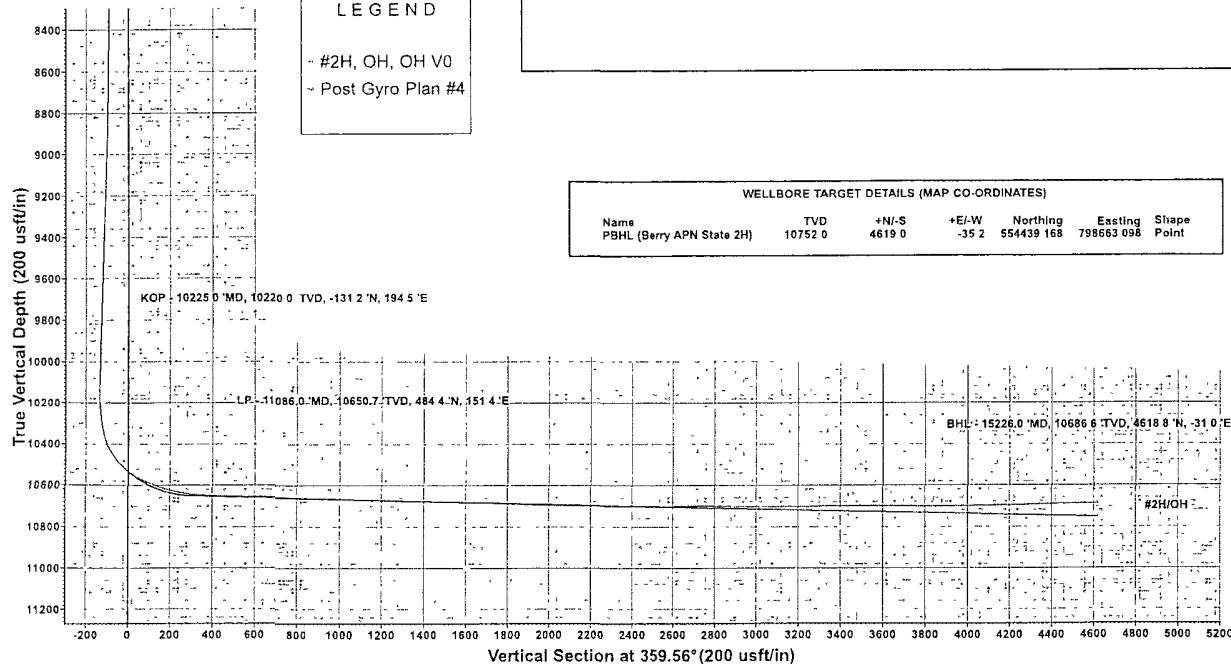
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
10542.0	44.67	356.83	10507.8	-26.8	155.1	0.00	0.00	-28.0	
10909.8	88.65	357.68	10650.0	302.2	139.8	11.96	1.22	301.2	
15231.3	88.65	357.68	10752.0	4619.0	-35.2	0.00	0.00	4619.1	PBHL (Berry APN State 2H)

LEGEND

- #2H, OH, OH V0
- Post Gyro Plan #4

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (Berry APN State 2H)	10752.0	4619.0	-35.2	554439.168	798698.038	Point



Plan Post Gyro Plan #4 (#2H/OH)

Created By Sam Biffle Date 8/24, May 18 2012

Checked _____ Date _____

Notes:
- See Pathfinder
- See Log
- See Plan
- See Data

PATHFINDER[®]

A Schlumberger Company

HOBBS OCD

JUN 26 2012

RECEIVED

DIRECTIONAL SURVEY REPORT

YATES PETROLEUM

BERRY APN STATE #2H - SHC

LEA COUNTY, NEW MEXICO

SUR: Lot 13, M-05-21-34e, 2957/S & 660/W
BHL: Lot 4, D-05-21s-34e, 7576/S & 629/W
API # 30-025-40374

PREPARED BY: JUAN ALCOCER

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) KIRK DAVIS
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 4-10-12 TO 4-20-12
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: LEA COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
BERRY APN STATE #2H - SHC
LEA COUNTY, NM
RIG: UDI 223
9. SURVEY CERTIFIED FROM: 570 TO 5,819 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 150.26 FEET ON A BEARING OF 113.96 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 5,938 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



JUAN ALCOCER
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 04/10/2012
Date Completed: 04/20/2012

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H/API 30-025-40374
LEA COUNTY, NM
Rig:UDI 223
PathFinder Office Supervisor: JUAN ALCOCER
PathFinder Field Engineers:KIRK DAVIS

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.30.31.4847 N LON:103.29.54.5104 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 798698.2910 Y: 549820.1680
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.02° EAST TO GRID
Vertical Section Plane: 359.56
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude:3723.00' Ground To MSL

Measured Depth	5938.00	(feet)
Inclination	2.37	(deg)
Azimuth	164.34	(deg)
True Vertical Depth	5934.64	(feet)
Vertical Section	-62.09	(feet)
Survey X cord	798835.60	(feet)
Survey Y cord	549759.13	(feet)
Survey Lat	32.50857505 N	(deg)
Survey Lon	103.49803129 W	(deg)
Rectangular Corr. N/S	61.03 S	(feet)
Rectangular Corr. E/W	137.31 E	(feet)
Closure Distance	150.26	(feet)
Direction of Closure	113.96	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H/API 30-025-40374

LEA COUNTY, NM

Rig:UDI 223

PathFinder Office Supervisor: JUAN ALCOCER

PathFinder Field Engineers: KIRK DAVIS

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.30.31.4847 N LON:103.29.54.5104 W

GRID Reference:NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 798698.2910 Y: 549820.1680

North Aligned To:GRID NORTH

Total Magnetic Correction: 7.02° EAST TO GRID

Vertical Section Plane: 359.56

Survey Vert. Reference: 25.00' Rotary Table To Ground

Altitude:3723.00' Ground To MSL

Survey Calculations by RX5 V6.04A using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular (ft)	Offsets (ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
ASSUMED VERTICAL WELLBORE AT 470.00'MD.										
470.00	0.00	0.00	470.00	0.00	0.00	0.00	0.00	0.00@	0.00	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
570.00	0.79	64.15	570.00	100.00	0.30	0.30 N	0.62 E	0.69@	64.15	0.79
617.00	0.88	58.79	616.99	47.00	0.62	0.63 N	1.22 E	1.37@	62.74	0.25
775.00	0.70	60.72	774.98	158.00	1.71	1.73 N	3.10 E	3.55@	60.84	0.12
965.00	0.62	59.40	964.96	190.00	2.78	2.82 N	5.00 E	5.74@	60.56	0.04
1155.00	0.62	81.29	1154.95	190.00	3.45	3.50 N	6.90 E	7.74@	63.10	0.12
1345.00	0.62	92.80	1344.94	190.00	3.54	3.60 N	8.94 E	9.64@	68.04	0.06
1535.00	0.44	105.90	1534.93	190.00	3.27	3.35 N	10.67 E	11.18@	72.55	0.11
1724.00	0.35	108.53	1723.93	189.00	2.88	2.97 N	11.91 E	12.28@	75.99	0.05
1914.00	0.53	99.22	1913.92	190.00	2.54	2.65 N	13.33 E	13.59@	78.77	0.10
2104.00	1.32	95.35	2103.90	190.00	2.18	2.30 N	16.38 E	16.54@	82.00	0.42
2294.00	1.41	132.44	2293.85	190.00	0.37	0.52 N	20.28 E	20.29@	88.53	0.46
2484.00	2.11	145.36	2483.76	190.00	-4.12	3.93 S	24.00 E	24.32@	99.31	0.42
2674.00	2.55	153.62	2673.60	190.00	-10.81	10.60 S	27.86 E	29.81@	110.83	0.29
2864.00	1.76	138.77	2863.47	190.00	-16.82	16.58 S	31.66 E	35.74@	117.64	0.51
3054.00	1.67	124.79	3053.38	190.00	-20.63	20.35 S	35.86 E	41.23@	119.58	0.23
3244.00	1.58	116.00	3243.31	190.00	-23.39	23.08 S	40.49 E	46.61@	119.69	0.14
3434.00	2.20	113.46	3433.20	190.00	-26.04	25.68 S	46.19 E	52.85@	119.08	0.33
3618.00	1.67	117.15	3617.10	184.00	-28.71	28.31 S	51.81 E	59.04@	118.65	0.30
3807.00	1.67	111.35	3806.02	189.00	-31.01	30.57 S	56.83 E	64.53@	118.28	0.09
3998.00	1.85	109.76	3996.93	191.00	-33.10	32.63 S	62.32 E	70.35@	117.63	0.10
4188.00	1.76	108.53	4186.83	190.00	-35.11	34.59 S	67.98 E	76.27@	116.97	0.05

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H/API 30-025-40374
LEA COUNTY, NM
RIG:UDI 223

Page 02/02

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
4299.00	1.49	109.24	4297.79	111.00	-36.15	35.61 S	70.95 E	79.39@	116.65	0.24
4394.00	1.14	112.84	4392.76	95.00	-36.94	36.38 S	72.99 E	81.56@	116.49	0.38
4584.00	2.11	100.89	4582.68	190.00	-38.37	37.78 S	78.17 E	86.82@	115.79	0.54
4679.00	1.85	107.22	4677.63	95.00	-39.18	38.56 S	81.35 E	90.03@	115.36	0.36
4774.00	2.11	99.31	4772.57	95.00	-39.95	39.30 S	84.54 E	93.23@	114.93	0.40
4869.00	2.90	99.74	4867.48	95.00	-40.67	39.99 S	88.64 E	97.24@	114.28	0.83
4964.00	5.19	93.24	4962.24	95.00	-41.37	40.64 S	95.29 E	103.60@	113.09	2.45
5058.00	4.92	94.38	5055.87	94.00	-41.98	41.18 S	103.56 E	111.45@	111.69	0.31
5153.00	4.75	96.40	5150.53	95.00	-42.79	41.93 S	111.53 E	119.15@	110.61	0.25
5248.00	3.78	103.96	5245.27	95.00	-44.04	43.13 S	118.48 E	126.08@	110.00	1.18
5343.00	3.17	105.28	5340.09	95.00	-45.53	44.58 S	124.05 E	131.82@	109.77	0.65
5439.00	2.64	110.82	5435.97	96.00	-47.05	46.06 S	128.68 E	136.67@	109.70	0.62
5534.00	2.02	137.45	5530.89	95.00	-49.08	48.07 S	131.85 E	140.34@	110.03	1.30
5629.00	1.58	148.70	5625.85	95.00	-51.45	50.42 S	133.67 E	142.86@	110.67	0.59
5724.00	1.85	158.89	5720.80	95.00	-54.01	52.97 S	134.90 E	144.93@	111.44	0.43
5819.00	2.37	164.34	5815.74	95.00	-57.34	56.30 S	135.98 E	147.18@	112.49	0.59
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 5938'MD.										
5938.00	2.37	164.34	5934.64	119.00	-62.09	61.03 S	137.31 E	150.26@	113.96	0.00



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM CORPORATION		
LEASE / WELL No.:	BERRY APN STATE	#2H	
WELL LOCATION:	LEA COUNTY		
COUNTY / STATE / COUNTRY:	LEA	NM	USA
RIG:	UDI 223		
API WELL No:	30-025-40374		
JOB No:	12MLD0139		
P.O. / AFE No.	11-233-0		
DIRECTIONAL COMPANY:	P.E.S.		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.06	LWD Calculated:	7.02
Agreed Upon:	7.02		
X =	798698.291000	Feet	Y = 549820.168000
			Feet
SITE LATITUDE:	32.508746 N	SITE LONGITUDE:	103.498475 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☒	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	359.56		
KELLY BUSHING ELEVATION:	25		
ALTITUDE:	3723	Feet	WATER DEPTH: N/A
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	470		
DRIFT ANGLE:	0		
DRIFT DIRECTION:	0		
TRUE VERTICAL DEPTH:	470		
VERTICAL SECTION:	0		
RECTANGULAR COORDINATE (N / S) :	0		
RECTANGULAR COORDINATE (E / W) :	0		
CLOSURE DISTANCE / DIRECTION:			
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	ASSUMED VERTICAL		
COPY OF TIE-IN SURVEY REPORT	☐ YES ☒ NO		

WELL PLAN

KICKOFF DEPTH:	10160	TOTAL DEPTH:	15053
KICKOFF ANGLE:	0	MAX ANGLE:	88.41

PES Engineers: KIRK DAVIS

**Signature of both field engineers required if applicable

Directional Driller: PHILLIP GARRISON

DATE: 9-Apr-2012

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Yates Petroleum Corporation
Berry APN State #2H
Lea County, NM
Rig:UDI 223

Thu Apr 05 17:05:22 2012

Coordinates

Latitude: 32.508746 N (32 deg. 30 min. 31.4847 sec.)
Longitude: 103.498475 W (-103 deg. 29 min. 54.5104 sec.)
Elevation: 3748.00 feet.
Calculation Date: Apr/05/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4435 degrees
Total Magnetic Field: 0.48713 gauss
Magnetic Declination: 7.473387 degrees
Horizontal Intensity: 0.240293 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.473387 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 798698.2910 feet
Y: 549820.1680 feet
True to Grid: (convergence) -0.448699 degrees
Magnetic to Grid: 7.024687 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.024687 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H
LEA COUNTY
Rig:UDI 223

*FIELD
CALCULATIONS*

Mon Apr 09 21:48:23 2012

Coordinates

Latitude: 32.508746 N (32 deg. 30 min. 31.4847 sec.)
Longitude: 103.498475 W (-103 deg. 29 min. 54.5104 sec.)
Elevation: 3748.00 feet.
Calculation Date: Apr/09/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4432 degrees
Total Magnetic Field: 0.48712 gauss
Magnetic Declination: 7.472033 degrees
Horizontal Intensity: 0.240290 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.472033 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 798698.2910 feet
Y: 549820.1680 feet
True to Grid: (convergence) -0.448699 degrees
Magnetic to Grid: 7.023334 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.023334 Degr.



A Schlumberger Company

DIRECTIONAL SURVEY REPORT

YATES PETROLEUM

BERRY APN STATE #2H

LEA COUNTY, NEW MEXICO

HOBBS OCD

JUN 26 2012

RECEIVED

PREPARED BY: JUAN ALCOCER

SUR: Lot 13, M-05-21-34e, 2957/S & 660/W
BHL: Lot 4, D-05-21s-34e, 7576/S & 629/W
API # 30-025-40374

Pathfinder

6213 WGR 112
Midland, Texas 79706
Tel (432)687-1647
Fax (432)687-1544

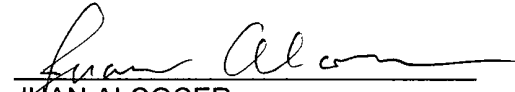


DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) DAVID PHILLIPS
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 4-29-12 TO 5-18-12
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: LEA COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
BERRY APN STATE #2H
LEA COUNTY, NM
RIG: UDI 223
9. SURVEY CERTIFIED FROM: 10,083 TO 15,060 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4,618.93 FEET ON A BEARING OF 359.62 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 15,226 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.


JUAN ALCOCER
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 04/29/2012
Date Completed: 05/18/2012

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H / API# 30-025-40374
LEA COUNTY, NM
Rig:UDI 223
PathFinder Office Supervisor: JUAN ALCOCER
PathFinder Field Engineers:D. PHILLIPS
A. FOURNIER

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.30.31.4847 N LON:103.29.54.5104 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 798698.2910 Y: 549820.1680
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.02° EAST TO GRID
Vertical Section Plane: 359.56
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude:3723.00' Ground To MSL

Measured Depth	15226.00	(feet)
Inclination	90.57	(deg)
Azimuth	357.92	(deg)
True Vertical Depth	10686.57	(feet)
Vertical Section	4618.92	(feet)
Survey X cord	798667.30	(feet)
Survey Y cord	554438.99	(feet)
Survey Lat	32.52144120 N	(deg)
Survey Lon	103.49845831 W	(deg)
Rectangular Corr. N/S	4618.82 N	(feet)
Rectangular Corr. E/W	30.99 W	(feet)
Closure Distance	4618.93	(feet)
Direction of Closure	359.62	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H / API# 30-025-40374
LEA COUNTY, NM

Rig: UDI 223

PathFinder Office Supervisor: JUAN ALCOCER

PathFinder Field Engineers: D. PHILLIPS

A. FOURNIER

Survey Horiz. Reference: WELLHEAD

Ref Coordinates: LAT: 32.30.31.4847 N LON: 103.29.54.5104 W

GRID Reference: NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 798698.2910 Y: 549820.1680

North Aligned To: GRID NORTH

Total Magnetic Correction: 7.02° EAST TO GRID

Vertical Section Plane: 359.56

Survey Vert. Reference: 25.00' Rotary Table To Ground

Altitude: 3723.00' Ground To MSL

Survey Calculations by RX5 V6.04A using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE MULTI SHOT GYRO SURVEYS.										
200.00	0.62	41.04	200.00	0.00	0.81	0.82 N	0.72 E	1.09@	41.22	0.00
400.00	0.53	64.45	399.99	200.00	2.01	2.03 N	2.26 E	3.04@	48.05	0.12
600.00	0.83	66.74	599.97	200.00	2.97	3.00 N	4.43 E	5.35@	55.85	0.15
800.00	0.74	68.88	799.95	200.00	3.99	4.04 N	6.96 E	8.05@	59.87	0.05
1000.00	0.42	82.57	999.94	200.00	4.53	4.60 N	8.89 E	10.01@	62.65	0.17
1200.00	0.56	93.65	1199.94	200.00	4.55	4.63 N	10.60 E	11.56@	66.38	0.08
1400.00	0.71	87.40	1399.92	200.00	4.53	4.63 N	12.81 E	13.62@	70.14	0.08
1600.00	0.26	127.65	1599.92	200.00	4.29	4.41 N	14.41 E	15.06@	72.99	0.27
1800.00	0.80	87.79	1799.91	200.00	4.06	4.18 N	16.16 E	16.69@	75.49	0.31
2000.00	0.53	110.08	1999.90	200.00	3.78	3.92 N	18.42 E	18.84@	77.99	0.19
2200.00	1.23	105.32	2199.87	200.00	2.87	3.03 N	21.36 E	21.58@	81.92	0.35
2400.00	1.60	131.90	2399.81	200.00	0.41	0.60 N	25.51 E	25.52@	88.65	0.37
2600.00	2.75	148.51	2599.67	200.00	-5.59	5.35 S	30.10 E	30.57@	100.09	0.65
2800.00	1.89	133.82	2799.50	200.00	-12.00	11.73 S	34.98 E	36.90@	108.54	0.52
3000.00	1.99	116.31	2999.39	200.00	-15.86	15.55 S	40.47 E	43.36@	111.02	0.30
3200.00	1.86	106.07	3199.28	200.00	-18.35	17.99 S	46.71 E	50.05@	111.06	0.18
3400.00	1.85	110.72	3399.17	200.00	-20.44	20.03 S	52.84 E	56.51@	110.76	0.08
3600.00	1.97	99.08	3599.06	200.00	-22.17	21.72 S	59.26 E	63.11@	110.12	0.20
3800.00	1.96	98.47	3798.94	200.00	-23.27	22.76 S	66.04 E	69.85@	109.02	0.01
4000.00	1.91	94.51	3998.83	200.00	-24.09	23.53 S	72.74 E	76.45@	107.92	0.07
4200.00	1.98	92.70	4198.71	200.00	-24.56	23.95 S	79.52 E	83.04@	106.76	0.05
4400.00	1.94	92.65	4398.60	200.00	-24.93	24.27 S	86.35 E	89.70@	105.70	0.02
4600.00	2.05	91.67	4598.48	200.00	-25.25	24.53 S	93.31 E	96.48@	104.73	0.06

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H / API# 30-025-40374
LEA COUNTY, NM
RIG:UDI 223

Page 02/05

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
4800.00	2.35	89.69	4798.33	200.00	-25.39	24.61 S	100.98 E	103.94@	103.70	0.16
5000.00	5.40	125.13	4997.87	200.00	-30.87	30.01 S	112.78 E	116.71@	104.90	1.87
5200.00	4.52	86.46	5197.17	200.00	-35.92	34.94 S	128.35 E	133.02@	105.23	1.69
5400.00	3.12	94.02	5396.73	200.00	-35.92	34.83 S	141.65 E	145.87@	103.82	0.74
5600.00	1.83	124.50	5596.54	200.00	-38.17	37.02 S	149.71 E	154.22@	103.89	0.90
5800.00	2.20	142.38	5796.42	200.00	-43.06	41.87 S	154.68 E	160.25@	105.15	0.36
6000.00	2.26	153.97	5996.27	200.00	-49.68	48.46 S	158.76 E	165.99@	106.97	0.23
6200.00	1.96	153.77	6196.14	200.00	-56.31	55.07 S	162.00 E	171.10@	108.77	0.15
6400.00	1.63	158.92	6396.04	200.00	-62.05	60.79 S	164.53 E	175.40@	110.28	0.18
6600.00	0.71	181.73	6595.99	200.00	-65.95	64.68 S	165.52 E	177.71@	111.35	0.51
6800.00	1.19	159.14	6795.97	200.00	-69.14	67.86 S	166.22 E	179.54@	112.21	0.30
7000.00	1.32	158.30	6995.92	200.00	-73.23	71.94 S	167.81 E	182.58@	113.21	0.07
7200.00	0.56	183.04	7195.89	200.00	-76.35	75.06 S	168.61 E	184.57@	114.00	0.42
7400.00	0.71	179.48	7395.88	200.00	-78.57	77.28 S	168.57 E	185.44@	114.63	0.08
7600.00	0.88	165.91	7595.86	200.00	-81.30	80.01 S	168.96 E	186.94@	115.34	0.13
7800.00	0.93	142.72	7795.83	200.00	-84.09	82.79 S	170.31 E	189.37@	115.92	0.18
8000.00	1.12	143.56	7995.80	200.00	-86.97	85.65 S	172.46 E	192.56@	116.41	0.10
8200.00	1.13	128.02	8195.76	200.00	-89.78	88.44 S	175.17 E	196.23@	116.79	0.15
8400.00	0.82	134.84	8395.74	200.00	-92.02	90.66 S	177.74 E	199.53@	117.02	0.17
8600.00	0.84	141.99	8595.72	200.00	-94.20	92.83 S	179.66 E	202.22@	117.32	0.05
8800.00	0.75	176.49	8795.70	200.00	-96.67	95.29 S	180.64 E	204.23@	117.81	0.24
9000.00	2.23	149.93	8995.63	200.00	-101.36	99.96 S	182.67 E	208.23@	118.69	0.80
9200.00	2.53	136.86	9195.45	200.00	-107.99	106.55 S	187.64 E	215.78@	119.59	0.31
9400.00	1.80	176.58	9395.32	200.00	-114.37	112.91 S	190.85 E	221.74@	120.61	0.81
9600.00	1.91	176.31	9595.22	200.00	-120.83	119.37 S	191.25 E	225.44@	121.97	0.06
9800.00	1.61	155.84	9795.12	200.00	-126.73	125.26 S	192.61 E	229.76@	123.04	0.35
** TIED-IN TO MULTI SHOT GYRO SURVEY AT 10000'MD.										
10000.00	1.28	162.33	9995.06	200.00	-131.44	129.95 S	194.44 E	233.87@	123.76	0.18
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
10083.00	1.32	192.29	10078.04	83.00	-133.26	131.77 S	194.52 E	234.95@	124.11	0.81

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H / API# 30-025-40374
LEA COUNTY, NM
RIG:UDI 223

Page 03/05

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
10099.00	1.41	191.59	10094.04	16.00	-133.63	132.14 S	194.44 E	235.09@	124.20	0.57
10131.00	1.32	163.82	10126.03	32.00	-134.37	132.88 S	194.46 E	235.53@	124.35	2.07
10163.00	1.23	49.56	10158.02	32.00	-134.50	133.01 S	194.83 E	235.90@	124.32	6.69
10194.00	1.67	353.40	10189.01	31.00	-133.84	132.35 S	195.03 E	235.69@	124.16	4.58
10225.00	3.08	324.39	10219.99	31.00	-132.71	131.22 S	194.49 E	234.62@	124.01	5.84
10257.00	5.98	328.35	10251.88	32.00	-130.58	129.10 S	193.12 E	232.30@	123.76	9.11
10289.00	8.62	327.21	10283.62	32.00	-127.13	125.67 S	190.94 E	228.58@	123.35	8.26
10320.00	11.43	323.95	10314.14	31.00	-122.67	121.23 S	187.88 E	223.59@	122.83	9.24
10352.00	14.68	325.98	10345.31	32.00	-116.71	115.30 S	183.74 E	216.92@	122.11	10.25
10384.00	19.26	331.25	10375.91	32.00	-108.68	107.31 S	178.93 E	208.64@	120.95	15.08
10415.00	25.50	333.45	10404.57	31.00	-98.18	96.85 S	173.48 E	198.69@	119.17	20.31
10447.00	30.86	336.87	10432.76	32.00	-84.41	83.13 S	167.17 E	186.70@	116.44	17.49
10479.00	35.44	343.55	10459.56	32.00	-67.91	66.67 S	161.32 E	174.55@	112.45	18.29
10510.00	39.83	351.46	10484.12	31.00	-49.42	48.21 S	157.29 E	164.52@	107.04	21.03
10542.00	44.67	356.83	10507.80	32.00	-28.02	26.83 S	155.15 E	157.45@	99.81	18.86
10574.00	50.47	358.76	10529.39	32.00	-4.42	3.24 S	154.26 E	154.29@	91.20	18.66
10606.00	56.63	359.90	10548.39	32.00	21.31	22.49 N	153.97 E	155.60@	81.69	19.46
10637.00	61.64	1.04	10564.29	31.00	47.90	49.09 N	154.19 E	161.82@	72.34	16.47
10669.00	65.60	1.22	10578.50	32.00	76.55	77.75 N	154.76 E	173.19@	63.33	12.39
10701.00	67.80	1.13	10591.16	32.00	105.93	107.13 N	155.36 E	188.72@	55.41	6.88
10732.00	69.03	0.52	10602.56	31.00	134.75	135.95 N	155.78 E	206.76@	48.89	4.37
10764.00	70.96	0.08	10613.51	32.00	164.82	166.02 N	155.93 E	227.77@	43.21	6.17
10796.00	74.83	359.29	10622.92	32.00	195.39	196.60 N	155.76 E	250.82@	38.39	12.32
10827.00	78.35	359.11	10630.11	31.00	225.54	226.74 N	155.34 E	274.85@	34.42	11.37
10859.00	79.93	359.02	10636.14	32.00	256.97	258.16 N	154.83 E	301.03@	30.95	4.95
10891.00	82.04	359.20	10641.15	32.00	288.57	289.76 N	154.34 E	328.30@	28.04	6.62
10922.00	85.03	359.02	10644.64	31.00	319.37	320.56 N	153.86 E	355.57@	25.64	9.66

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H / API# 30-025-40374
LEA COUNTY, NM
RIG:UDI 223

Page 04/05

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
10954.00	87.49	358.85	10646.73	32.00	351.30	352.48 N	153.27 E	384.36@	23.50	7.71
10991.00	87.93	359.13	10648.21	37.00	388.26	389.45 N	152.61 E	418.28@	21.40	1.41
11086.00	89.08	359.47	10650.69	95.00	483.23	484.41 N	151.45 E	507.53@	17.36	1.26
11181.00	89.43	358.17	10651.92	95.00	578.21	579.38 N	149.50 E	598.35@	14.47	1.42
11276.00	88.37	357.96	10653.75	95.00	673.16	674.30 N	146.29 E	689.99@	12.24	1.14
11371.00	87.32	357.76	10657.32	95.00	768.05	769.17 N	142.75 E	782.30@	10.51	1.12
11466.00	87.67	357.11	10661.47	95.00	862.89	863.98 N	138.50 E	875.01@	9.11	0.78
11561.00	88.72	357.23	10664.46	95.00	957.76	958.82 N	133.81 E	968.11@	7.94	1.11
11656.00	87.85	357.47	10667.31	95.00	1052.65	1053.67 N	129.42 E	1061.59@	7.00	0.95
11751.00	89.16	358.28	10669.78	95.00	1147.57	1148.57 N	125.90 E	1155.45@	6.26	1.62
11846.00	87.67	357.58	10672.41	95.00	1242.49	1243.47 N	122.47 E	1249.49@	5.62	1.73
11941.00	88.29	356.89	10675.76	95.00	1337.35	1338.30 N	117.89 E	1343.48@	5.03	0.98
12035.00	89.43	356.61	10677.63	94.00	1431.22	1432.13 N	112.56 E	1436.55@	4.49	1.25
12130.00	89.16	355.18	10678.80	95.00	1526.02	1526.87 N	105.76 E	1530.53@	3.96	1.53
12225.00	88.29	355.37	10680.91	95.00	1620.73	1621.53 N	97.94 E	1624.48@	3.46	0.94
12320.00	87.67	355.24	10684.26	95.00	1715.41	1716.15 N	90.17 E	1718.52@	3.01	0.67
12415.00	87.41	355.31	10688.34	95.00	1810.05	1810.74 N	82.35 E	1812.61@	2.60	0.28
12510.00	87.93	356.08	10692.20	95.00	1904.76	1905.39 N	75.22 E	1906.88@	2.26	0.98
12605.00	88.46	357.73	10695.19	95.00	1999.60	2000.20 N	70.10 E	2001.43@	2.01	1.82
12700.00	89.43	357.09	10696.94	95.00	2094.52	2095.09 N	65.81 E	2096.12@	1.80	1.22
12795.00	89.78	357.47	10697.60	95.00	2189.44	2189.98 N	61.30 E	2190.84@	1.60	0.54
12890.00	90.13	358.12	10697.67	95.00	2284.40	2284.91 N	57.64 E	2285.63@	1.45	0.78
12985.00	89.43	357.91	10698.04	95.00	2379.36	2379.85 N	54.35 E	2380.47@	1.31	0.77
13080.00	88.64	357.66	10699.64	95.00	2474.30	2474.76 N	50.68 E	2475.28@	1.17	0.87
13175.00	90.22	357.61	10700.58	95.00	2569.24	2569.67 N	46.76 E	2570.10@	1.04	1.66
13270.00	91.36	357.21	10699.27	95.00	2664.16	2664.57 N	42.47 E	2664.91@	0.91	1.27
13365.00	89.16	357.33	10698.84	95.00	2759.08	2759.45 N	37.94 E	2759.71@	0.79	2.32

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H / API# 30-025-40374
LEA COUNTY, NM
RIG:UDI 223

Page 05/05

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL		Closure		DLS
						Rectangular	Offsets	Dist	Dir	
						(ft)	(ft)	(ft)	(deg)	(dg/100ft)
13460.00	88.81	356.90	10700.52	95.00	2853.98	2854.32 N	33.16 E	2854.51@	0.67	0.58
13555.00	89.96	356.80	10701.54	95.00	2948.86	2949.17 N	27.94 E	2949.30@	0.54	1.22
13649.00	89.87	357.09	10701.68	94.00	3042.77	3043.03 N	22.93 E	3043.12@	0.43	0.32
13744.00	89.87	357.48	10701.90	95.00	3137.69	3137.93 N	18.43 E	3137.98@	0.34	0.41
13839.00	90.84	357.23	10701.31	95.00	3232.62	3232.82 N	14.05 E	3232.85@	0.25	1.05
13934.00	91.54	357.63	10699.34	95.00	3327.53	3327.70 N	9.79 E	3327.72@	0.17	0.85
14023.00	89.78	357.64	10698.31	89.00	3416.47	3416.62 N	6.12 E	3416.62@	0.10	1.98
14118.00	90.75	357.29	10697.87	95.00	3511.41	3511.52 N	1.92 E	3511.52@	0.03	1.09
14213.00	89.87	358.32	10697.36	95.00	3606.36	3606.45 N	1.72 W	3606.45@	359.97	1.43
14308.00	88.90	357.94	10698.38	95.00	3701.32	3701.39 N	4.82 W	3701.40@	359.93	1.10
14403.00	89.69	357.85	10699.55	95.00	3796.27	3796.32 N	8.31 W	3796.33@	359.87	0.84
14498.00	89.96	358.19	10699.84	95.00	3891.24	3891.26 N	11.59 W	3891.28@	359.83	0.46
14593.00	90.75	358.56	10699.25	95.00	3986.21	3986.22 N	14.29 W	3986.25@	359.79	0.92
14680.00	91.10	359.21	10697.84	87.00	4073.20	4073.19 N	15.98 W	4073.23@	359.78	0.85
14775.00	91.19	359.26	10695.95	95.00	4168.18	4168.17 N	17.25 W	4168.20@	359.76	0.11
14870.00	91.54	358.81	10693.68	95.00	4263.15	4263.13 N	18.85 W	4263.17@	359.75	0.60
14965.00	92.24	357.94	10690.55	95.00	4358.07	4358.03 N	21.54 W	4358.09@	359.72	1.18
15060.00	90.57	357.92	10688.22	95.00	4453.00	4452.94 N	24.97 W	4453.01@	359.68	1.76
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 15226' MD.										
15226.00	90.57	357.92	10686.57	166.00	4618.92	4618.82 N	30.99 W	4618.93@	359.62	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM CORPORATION		
LEASE / WELL No.:	BERRY APN STATE	#2H	
WELL LOCATION:	LEA COUNTY		
COUNTY / STATE / COUNTRY:	LEA	NM	USA
RIG:	UDI 223		
API WELL No:	30-025-40374		
JOB No:	12MLD0139		
P.O. / AFE No.	11-233-0		
DIRECTIONAL COMPANY:	P.E.S.		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.06	LWD Calculated:	7.02
Agreed Upon:		7.02	
X =	798698.291000	Feet	Y =
549820.168000		Feet	
SITE LATITUDE:	32.508746 N	SITE LONGITUDE:	103.498475 W
GRID SYSTEM:	TRUE ☐ UTM ☒	LAMBERT ☒	ZONE:
NEW MEXICO EAST			
PROPOSED DRIFT DIRECTION:	359 56		
KELLY BUSHING ELEVATION:	25		
ALTITUDE:	3723	Feet	WATER DEPTH:
N/A		Feet	

TIE-IN SURVEY

MEASURED DEPTH:	10000		
DRIFT ANGLE:	1.28		
DRIFT DIRECTION:	162.33		
TRUE VERTICAL DEPTH:	9995.06		
VERTICAL SECTION:	-131.44		
RECTANGULAR COORDINATE (N / S) :	-129.95		
RECTANGULAR COORDINATE (E / W) :	194.44		
CLOSURE DISTANCE / DIRECTION:	233.86	123.76	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	MS GYRO SURVEYS		
COPY OF TIE-IN SURVEY REPORT	☒ YES		☐ NO

WELL PLAN

KICKOFF DEPTH:	10134	TOTAL DEPTH:	15226
KICKOFF ANGLE:	0	MAX ANGLE:	88.62

PES Engineers.

D PHILLIPS

**Signature of both field engineers required if applicable

Directional Driller: PHILLIP GARRISON

DATE: 29-Apr-2012



Company:	YATES PETROLEUM CORPORATION	Operator:	JOSHUA SMITH
Lease / Well:	BARRY APN STATE 002H	Job Number:	SVCO-120604
County/Parish:	LEA COUNTY	Probe Serial #	E 469
State:	NEW MEXICO	Proposed Direction:	359.56
Date:	04/28/12	Mag. Declination:	7.06 EAST TO GRID
API#:	30-025-40374	Rig / RKB:	UDI #223 / RKB 25 FEET
Dir. Company:	PATHFINDER	Tie-In From:	N / A
FIELD USE ONLY, DEFINITIVE SURVEY WILL COME FROM MS Survey OFFICES			

TIE-IN Survey					
Measured Depth (ft.)	Inclination	Azimuth Bearing	Vertical Depth	Coordinates (+N/-S) (+E/-W)	
0	0.00	0.00	0.00	0.00	0.00

Rate Gyro Survey Report									
Measured Depth (ft.)	Inclination	Azimuth Bearing	Vertical Depth	Vertical Section	Coordinates (+N/-S) (+E/-W)		Dog-Leg / 100 ft.	Closure Distance	Closure Direction
200	0.62	41.04	200.00	0.81	0.82	0.71	0.31	1.08	41.04°
400	0.53	64.45	399.99	2.01	2.03	2.26	0.12	3.04	47.99°
600	0.83	66.74	599.97	2.97	3.00	4.42	0.15	5.34	55.82°
800	0.74	68.88	799.95	3.99	4.04	6.96	0.05	8.04	59.86°
1000	0.42	82.57	999.94	4.53	4.60	8.89	0.17	10.01	62.64°
1200	0.56	93.65	1199.93	4.55	4.63	10.59	0.08	11.56	66.37°
1400	0.71	87.40	1399.92	4.53	4.63	12.80	0.08	13.61	70.13°
1600	0.26	127.65	1599.92	4.29	4.41	14.40	0.27	15.06	72.99°
1800	0.80	87.79	1799.91	4.06	4.18	16.16	0.31	16.69	75.49°
2000	0.53	110.08	1999.89	3.78	3.92	18.42	0.18	18.83	77.99°
2200	1.23	105.32	2199.87	2.87	3.03	21.36	0.35	21.57	81.92°
2400	1.60	131.90	2399.81	0.41	0.60	25.51	0.37	25.51	88.65°
2600	2.75	148.51	2599.66	-5.59	-5.35	30.09	0.65	30.56	100.09°
2800	1.89	133.82	2799.50	-12.00	-11.73	34.98	0.52	36.89	108.54°
3000	1.99	116.31	2999.39	-15.86	-15.55	40.47	0.30	43.36	111.02°
3200	1.86	106.07	3199.27	-18.35	-17.99	46.70	0.18	50.05	111.07°
3400	1.85	110.72	3399.17	-20.44	-20.03	52.84	0.08	56.51	110.76°
3600	1.97	99.08	3599.06	-22.17	-21.72	59.25	0.20	63.11	110.13°
3800	1.96	98.47	3798.94	-23.27	-22.76	66.03	0.01	69.84	109.02°
4000	1.91	94.51	3998.83	-24.09	-23.53	72.74	0.07	76.45	107.92°
4200	1.98	92.70	4198.71	-24.56	-23.95	79.51	0.05	83.04	106.76°
4400	1.94	92.65	4398.60	-24.93	-24.27	86.34	0.02	89.69	105.70°
4600	2.05	91.67	4598.47	-25.25	-24.53	93.30	0.06	96.47	104.73°
4800	2.35	89.69	4798.33	-25.39	-24.61	100.98	0.15	103.93	103.70°
5000	5.40	125.13	4997.87	-30.87	-30.01	112.78	1.87	116.70	104.90°
5200	4.52	86.46	5197.17	-35.92	-34.94	128.35	1.69	133.02	105.23°
5400	3.12	94.02	5396.72	-35.92	-34.83	141.64	0.74	145.86	103.82°
5600	1.83	124.50	5596.54	-38.17	-37.02	149.70	0.90	154.21	103.89°
5800	2.20	142.38	5796.42	-43.06	-41.87	154.68	0.36	160.25	105.15°
6000	2.26	153.97	5996.27	-49.68	-48.46	158.75	0.23	165.98	106.97°
6200	1.96	153.77	6196.13	-56.31	-55.07	161.99	0.15	171.10	108.78°
6400	1.63	158.92	6396.03	-62.05	-60.79	164.53	0.18	175.40	110.28°
6600	0.71	181.73	6595.99	-65.95	-64.68	165.51	0.51	177.71	111.35°
6800	1.19	159.14	6795.96	-69.14	-67.86	166.22	0.30	179.54	112.21°
7000	1.32	158.30	6995.92	-73.23	-71.95	167.81	0.07	182.58	113.21°
7200	0.56	183.04	7195.89	-76.35	-75.06	168.61	0.42	184.56	114.00°

7400	0.71	179.48	7395.88	-78.57	-77.28	168.57	0.08	185.44	114.63°
7600	0.88	165.91	7595.86	-81.30	-80.01	168.95	0.13	186.94	115.34°
7800	0.93	142.72	7795.83	-84.09	-82.79	170.31	0.18	189.36	115.92°
8000	1.12	143.56	7995.80	-86.97	-85.65	172.45	0.10	192.55	116.41°
8200	1.13	128.02	8195.76	-89.78	-88.44	175.17	0.15	196.23	116.79°
8400	0.82	134.84	8395.73	-92.02	-90.66	177.74	0.17	199.52	117.03°
8600	0.84	141.99	8595.71	-94.20	-92.83	179.65	0.05	202.22	117.32°
8800	0.75	176.49	8795.69	-96.67	-95.29	180.64	0.24	204.23	117.81°
9000	2.23	149.93	8995.62	-101.36	-99.96	182.67	0.80	208.23	118.69°
9200	2.53	136.86	9195.45	-107.99	-106.55	187.63	0.31	215.78	119.59°
9400	1.80	176.58	9395.32	-114.37	-112.91	190.84	0.81	221.74	120.61°
9600	1.91	176.31	9595.21	-120.83	-119.37	191.24	0.06	225.44	121.97°
9800	1.61	155.84	9795.12	-126.73	-125.26	192.61	0.35	229.75	123.04°
10000	1.28	162.33	9995.06	-131.44	-129.95	194.44	0.18	233.86	123.76°

PathFinder Energy Services, Inc. Magnetic & Grid Calculations

Yates Petroleum Corporation
Berry APN State #2H
Lea County, NM
Rig:UDI 223

Thu Apr 05 17:05:22 2012

Coordinates

Latitude: 32.508746 N (32 deg. 30 min. 31.4847 sec.)
Longitude: 103.498475 W (-103 deg. 29 min. 54.5104 sec.)
Elevation: 3748.00 feet.
Calculation Date: Apr/05/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4435 degrees
Total Magnetic Field: 0.48713 gauss
Magnetic Declination: 7.473387 degrees
Horizontal Intensity: 0.240293 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.473387 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 798698.2910 feet
Y: 549820.1680 feet
True to Grid: (convergence) -0.448699 degrees
Magnetic to Grid: 7.024687 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.024687 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM CORPORATION
BERRY APN STATE #2H
LEA COUNTY
Rig:UDI 223

*FIELD
CALCULATIONS*

Mon Apr 09 21:48:23 2012

Coordinates

Latitude: 32.508746 N (32 deg. 30 min. 31.4847 sec.)
Longitude: 103.498475 W (-103 deg. 29 min. 54.5104 sec.)
Elevation: 3748.00 feet.
Calculation Date: Apr/09/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4432 degrees
Total Magnetic Field: 0.48712 gauss
Magnetic Declination: 7.472033 degrees
Horizontal Intensity: 0.240290 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.472033 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 798698.2910 feet
Y: 549820.1680 feet
True to Grid: (convergence) -0.448699 degrees
Magnetic to Grid: 7.023334 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.023334 Degr.