



Job Number: SVCO-120693
 Company: Yates Petroleum Corporation
 Lease/Well: Quail BQL State Com 1H
 Location: Eddy County, NM
 Rig Name: Patriot #5
 RKB: 25'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.35°
 Grid: East To Grid North
 File name: F:\SURVEY\2012SU~1\YATES\CONROE\QUAILB~1\1H.SVY
 Date/Time: 14-May-12 / 13:02
 Curve Name: Surface - 1200' M.D. (Rate Gyro)

30-015-38170

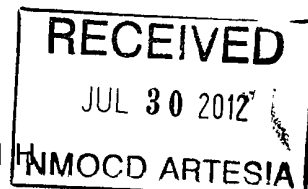
WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 359.67
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surf MD to 1200 MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
Joshua Smith 5-14-12
 MS Energy Services 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
200.00	.35	223.41	200.00	-.44	-.42	-.44	.61	223.41	.17
400.00	.33	76.68	400.00	-.75	-.28	-.75	.80	200.29	.33
600.00	1.12	119.60	599.98	-1.59	1.98	-1.60	2.54	128.71	.45
800.00	1.42	103.40	799.93	-3.13	6.09	-3.16	6.85	117.18	.23
1000.00	1.01	150.07	999.89	-5.23	9.38	-5.28	10.74	119.14	.52
Last Survey Depth Recorded									
1200.00	1.69	182.20	1199.84	-9.70	10.15	-9.76	14.04	133.72	.50

30-015-38170

OPERATOR: Yates Petroleum Corp.
WELL/LEASE: Quail BQL State Com # 1
COUNTY: Eddy Co., New Mexico
Sec. 2, T26S, R30E



STATE OF NEW MEXICO
DEVIATION REPORT

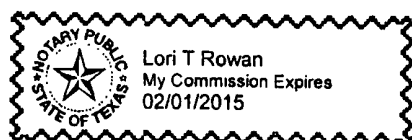
<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
272	1/2	5,556	1/2
509	3/4	5,933	1/4
762	1 1/4	6,121	1/2
952	1	6,309	1/2
1,138	1 1/2	6,688	1/2
1,982	1	6,875	1/2
2,077	1 1/4	7,063	1
2,265	1	7,251	2 1/4
2,360	1 1/4	7,346	1
2,546	1	7,629	2 1/4
2,735	1	7,723	2 1/4
2,829	1	7,912	2
3,018	1 1/4	8,006	2
3,207	1 1/4	8,195	3/4
3,395	1/4	8,384	3/4
3,585	1 3/4	8,479	1 3/4
3,773	3/4	8,762	1/2
3,952	3/4	9,114	3/4
4,234	3/4	9,330	3 1/4
4,424	1/2	9,520	1 3/4
4,613	3/4	9,803	1 3/4
4,991	3/4	9,947	2 1/2
5,180	1/2		

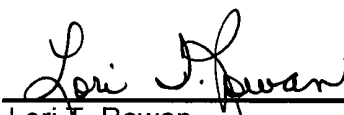
Patriot Drilling, LLC


M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 1st day of
November, 2011 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling,

My Commission Expires: 02/01/2015




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



Yates Petroleum Corp.

Eddy County (NAD 83)

Quail "BQL" State Com

#1H

OH

Design: OH

PathfinderX & Y Report

08 June, 2012

PATHFINDER[®]
A Schlumberger Company



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3246.5usft (Patriot 5)
Site:	Quail "BQL" State Com	MD Reference:	KB = 26.5 @ 3246.5usft (Patriot 5)
Well:	#1H	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
Geo Datum:	North American Datum 1983
Map Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

Site		Quail "BQL" State Com			
Site Position:		Northing:		387,902.344 usft	
From:	Map	Easting:		691,477.236 usft	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
0.0 usft		13-3/16 "		32° 3' 55.788 N	
				103° 50' 55.142 W	
				0.26 °	

Well		#1H				
Well Position	+N/-S	0.0 usft	Northing:	387,902.344 usft	Latitude:	32° 3' 55.788 N
	+E/-W	0.0 usft	Easting:	691,477.236 usft	Longitude:	103° 50' 55.142 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,220.0 usft	

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	4/19/2012	7.59	60.00	48,448

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 8,952.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.67



Pathfinder PathfinderX & Y Report

PATHFINDER
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Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3246.5usft (Patriot 5)
Site:	Quail "BQL" State Com	MD Reference:	KB = 26.5 @ 3246.5usft (Patriot 5)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM.5000.1 Single User Db

Survey Program		Date 6/8/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.0	1,200.0	Gyro #1 (Pilot Hole)	CTG-SR-SS	Continuous gyro - surface ref s/s
1,320.0	8,952.0	MWD #1 (Pilot Hole)	MWD	MWD - Standard
9,046.0	14,156.0	MWD# 1 (OH)	MWD	MWD - Standard

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)	
0.0	0.00	0.00	0.0	-3,246.5	0.0	0.0	0.0	0.00	387,902.34	691,477.24	
200.0	0.35	223.41	200.0	-3,046.5	-0.4	-0.4	-0.4	0.17	387,901.90	691,476.82	
400.0	0.33	76.68	400.0	-2,846.5	-0.8	-0.3	-0.8	0.33	387,901.59	691,476.96	
600.0	1.12	119.60	600.0	-2,646.5	-1.6	2.0	-1.6	0.45	387,900.76	691,479.22	
800.0	1.42	103.40	799.9	-2,446.6	-3.1	6.1	-3.2	0.23	387,899.22	691,483.33	
1,000.0	1.01	150.07	999.9	-2,246.6	-5.2	9.4	-5.3	0.52	387,897.11	691,486.62	
1,200.0	1.69	182.20	1,199.8	-2,046.7	-9.7	10.1	-9.8	0.50	387,892.64	691,487.38	
1,320.0	1.93	182.01	1,319.8	-1,926.7	-13.5	10.0	-13.5	0.20	387,888.85	691,487.24	
1,415.0	1.32	184.30	1,414.7	-1,831.8	-16.2	9.9	-16.2	0.65	387,886.16	691,487.11	
1,508.0	0.53	170.64	1,507.7	-1,738.8	-17.7	9.9	-17.7	0.88	387,884.67	691,487.10	
1,603.0	0.62	222.86	1,602.7	-1,643.8	-18.5	9.6	-18.5	0.54	387,883.86	691,486.82	
1,698.0	0.62	212.73	1,697.7	-1,548.8	-19.3	9.0	-19.3	0.12	387,883.05	691,486.19	
1,793.0	0.88	205.83	1,792.7	-1,453.8	-20.4	8.4	-20.4	0.29	387,881.96	691,485.59	
1,887.0	1.23	221.23	1,886.7	-1,359.8	-21.8	7.4	-21.8	0.48	387,880.55	691,484.62	
1,982.0	0.88	254.83	1,981.7	-1,264.8	-22.7	6.0	-22.8	0.73	387,879.59	691,483.24	
2,077.0	1.06	265.70	2,076.7	-1,169.8	-23.0	4.4	-23.0	0.27	387,879.34	691,481.66	
2,171.0	0.70	321.57	2,170.7	-1,075.8	-22.6	3.2	-22.6	0.94	387,879.72	691,480.44	
2,265.0	0.79	304.31	2,264.6	-981.9	-21.8	2.3	-21.8	0.26	387,880.54	691,479.54	
2,360.0	1.06	308.01	2,359.6	-886.9	-20.9	1.1	-20.9	0.29	387,881.45	691,478.31	
2,453.0	0.97	343.27	2,452.6	-793.9	-19.6	0.2	-19.6	0.67	387,882.73	691,477.41	



Pathfinder PathfinderX & Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H:
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26 5 @ 3246.5usft (Patriot 5)
Site:	Quail "BQL" State Com	MD Reference:	KB = 26 5 @ 3246 5usft (Patriot 5)
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 (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,546.0	0.88	341.68	2,545.6	-700.9	-18.2	-0.3	-18.2	0.10	387,884.16	691,476.95	
2,641.0	0.70	350.02	2,640.6	-605.9	-16.9	-0.6	-16.9	0.22	387,885.43	691,476.62	
2,735.0	0.79	346.12	2,734.6	-511.9	-15.7	-0.9	-15.7	0.11	387,886.62	691,476.37	
2,829.0	0.79	339.49	2,828.6	-417.9	-14.5	-1.2	-14.5	0.10	387,887.86	691,475.99	
2,924.0	0.70	333.81	2,923.6	-322.9	-13.4	-1.7	-13.3	0.12	387,888.99	691,475.50	
3,017.0	1.06	45.09	3,016.6	-229.9	-12.2	-1.4	-12.2	1.15	387,890.11	691,475.86	
3,113.0	1.23	43.95	3,112.5	-134.0	-10.9	0.0	-10.9	0.18	387,891.48	691,477.20	
3,207.0	1.06	55.90	3,206.5	-40.0	-9.7	1.4	-9.7	0.31	387,892.69	691,478.62	
3,302.0	0.26	55.90	3,301.5	55.0	-9.0	2.3	-9.1	0.84	387,893.31	691,479.53	
3,395.0	0.18	292.53	3,394.5	148.0	-8.9	2.3	-8.9	0.42	387,893.48	691,479.57	
3,490.0	0.79	132.89	3,489.5	243.0	-9.3	2.7	-9.3	1.01	387,893.09	691,479.91	
3,585.0	1.76	142.26	3,584.5	338.0	-10.9	4.0	-10.9	1.04	387,891.49	691,481.28	
3,679.0	0.53	123.99	3,678.5	432.0	-12.2	5.3	-12.3	1.35	387,890.11	691,482.53	
3,773.0	0.35	128.69	3,772.5	526.0	-12.7	5.9	-12.7	0.20	387,889.68	691,483.11	
3,952.0	0.62	135.61	3,951.5	705.0	-13.7	7.0	-13.7	0.15	387,888.65	691,484.22	
4,047.0	0.53	109.09	4,046.5	800.0	-14.2	7.8	-14.2	0.29	387,888.14	691,484.99	
4,141.0	0.44	113.48	4,140.5	894.0	-14.5	8.5	-14.5	0.10	387,887.85	691,485.73	
4,235.0	0.62	123.49	4,234.5	988.0	-14.9	9.3	-15.0	0.21	387,887.43	691,486.49	
4,424.0	0.35	351.96	4,423.4	1,176.9	-14.9	10.0	-15.0	0.47	387,887.44	691,487.26	
4,613.0	0.53	359.62	4,612.4	1,365.9	-13.5	9.9	-13.5	0.10	387,888.88	691,487.17	
4,803.0	0.44	348.78	4,802.4	1,555.9	-11.9	9.8	-11.9	0.07	387,890.48	691,487.03	
4,991.0	0.53	351.27	4,990.4	1,743.9	-10.3	9.5	-10.4	0.05	387,892.04	691,486.75	
5,180.0	0.35	338.87	5,179.4	1,932.9	-8.9	9.2	-8.9	0.11	387,893.45	691,486.41	
5,368.0	0.35	16.27	5,367.4	2,120.9	-7.8	9.1	-7.9	0.12	387,894.53	691,486.37	
5,556.0	0.26	302.53	5,555.4	2,308.9	-7.0	8.9	-7.1	0.20	387,895.31	691,486.17	
5,744.0	0.18	296.89	5,743.4	2,496.9	-6.7	8.3	-6.7	0.04	387,895.68	691,485.55	
5,933.0	0.18	161.94	5,932.4	2,685.9	-6.8	8.1	-6.9	0.18	387,895.53	691,485.37	



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3246.5usft (Patriot 5)
Site:	Quail "BQL" State Com	MD Reference:	KB = 26.5 @ 3246.5usft (Patriot 5)
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 (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
6,121.0	0.26	236.40	6,120.4	2,873.9	-7.3	7.9	-7.4	0.15	387,895.01	691,485.11	
6,309.0	0.44	179.06	6,308.4	3,061.9	-8.3	7.5	-8.3	0.20	387,894.05	691,484.77	
6,497.0	0.62	210.56	6,496.4	3,249.9	-9.9	7.0	-9.9	0.18	387,892.46	691,484.26	
6,686.0	0.35	252.51	6,685.4	3,438.9	-10.9	6.0	-11.0	0.23	387,891.40	691,483.19	
6,875.0	0.35	177.40	6,874.4	3,627.9	-11.7	5.4	-11.7	0.23	387,890.65	691,482.67	
7,063.0	0.94	189.38	7,062.4	3,815.9	-13.8	5.2	-13.8	0.32	387,888.56	691,482.44	
7,157.0	1.08	196.09	7,156.4	3,909.9	-15.4	4.8	-15.4	0.19	387,886.95	691,482.07	
7,251.0	2.11	233.22	7,250.3	4,003.8	-17.3	3.2	-17.3	1.50	387,885.06	691,480.44	
7,346.0	0.79	263.24	7,345.3	4,098.8	-18.4	1.2	-18.4	1.56	387,883.93	691,478.39	
7,440.0	0.70	321.46	7,439.3	4,192.8	-18.0	0.1	-18.0	0.78	387,884.31	691,477.39	
7,534.0	1.49	306.43	7,533.3	4,286.8	-16.9	-1.2	-16.9	0.89	387,885.48	691,476.04	
7,629.0	2.02	317.46	7,628.2	4,381.7	-14.9	-3.3	-14.9	0.66	387,887.45	691,473.92	
7,723.0	2.02	337.88	7,722.2	4,475.7	-12.1	-5.1	-12.1	0.76	387,890.20	691,472.17	
7,817.0	1.85	310.99	7,816.1	4,569.6	-9.6	-6.8	-9.6	0.97	387,892.73	691,470.41	
7,912.0	1.93	322.37	7,911.1	4,664.6	-7.3	-9.0	-7.3	0.40	387,895.01	691,468.27	
8,006.0	1.93	325.11	8,005.0	4,758.5	-4.8	-10.8	-4.7	0.10	387,897.56	691,466.40	
8,100.0	1.76	270.36	8,099.0	4,852.5	-3.5	-13.2	-3.4	1.81	387,898.87	691,464.05	
8,195.0	0.53	328.89	8,194.0	4,947.5	-3.1	-14.9	-3.0	1.63	387,899.25	691,462.36	
8,289.0	0.79	280.14	8,288.0	5,041.5	-2.6	-15.7	-2.5	0.63	387,899.74	691,461.50	
8,384.0	0.70	341.49	8,382.9	5,136.4	-1.9	-16.6	-1.8	0.80	387,900.40	691,460.67	
8,479.0	1.76	80.11	8,477.9	5,231.4	-1.1	-15.3	-1.1	2.09	387,901.20	691,461.93	
8,573.0	0.62	63.70	8,571.9	5,325.4	-0.7	-13.4	-0.6	1.25	387,901.68	691,463.80	
8,668.0	0.18	264.83	8,666.9	5,420.4	-0.5	-13.1	-0.4	0.83	387,901.89	691,464.12	
8,762.0	0.26	240.48	8,760.9	5,514.4	-0.6	-13.5	-0.5	0.13	387,901.77	691,463.78	
8,857.0	0.26	229.02	8,855.9	5,609.4	-0.8	-13.8	-0.7	0.05	387,901.53	691,463.43	
8,952.0	0.53	221.21	8,950.9	5,704.4	-1.3	-14.3	-1.2	0.29	387,901.05	691,462.98	
9,046.0	0.26	189.94	9,044.9	5,798.4	-1.8	-14.6	-1.7	0.36	387,900.52	691,462.66	



Pathfinder PathfinderX & Y Report



Company: Yates Petroleum Corp.
Project: Eddy County (NAD 83)
Site: Quail "BQL" State Com
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 26.5 @ 3246.5usft (Patriot 5)
MD Reference: KB = 26.5 @ 3246.5usft (Patriot 5)
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 (°/100usft)	Northing (usft)	Easting (usft)	
9,141.0	0.70	183.55	9,139.9	5,893.4	-2.6	-14.7	-2.5	0.47	387,899.73	691,462.58	
9,235.0	1.58	205.00	9,233.9	5,987.4	-4.4	-15.2	-4.3	1.02	387,897.98	691,462.00	
9,274.0	5.63	347.56	9,272.8	6,026.3	-3.0	-15.9	-2.9	17.82	387,899.36	691,461.36	
KOP - 9274.0 MD, 9272.8 TVD, 3.0° N, -15.9° E											
9,306.0	11.17	352.29	9,304.5	6,058.0	1.6	-16.6	1.7	17.43	387,903.97	691,460.61	
9,337.0	16.18	355.49	9,334.6	6,088.1	8.9	-17.4	9.0	16.34	387,911.25	691,459.86	
9,369.0	20.49	358.22	9,364.9	6,118.4	19.0	-17.9	19.1	13.73	387,921.30	691,459.34	
9,401.0	24.27	0.02	9,394.5	6,148.0	31.1	-18.1	31.2	12.00	387,933.48	691,459.17	
9,432.0	27.44	0.76	9,422.4	6,175.9	44.7	-18.0	44.8	10.28	387,947.00	691,459.26	
9,464.0	29.90	0.99	9,450.5	6,204.0	60.0	-17.7	60.1	7.70	387,962.35	691,459.50	
9,495.0	32.01	1.74	9,477.1	6,230.6	75.9	-17.4	76.0	6.92	387,978.29	691,459.88	
9,527.0	33.77	2.10	9,504.0	6,257.5	93.3	-16.8	93.4	5.53	387,995.65	691,460.47	
9,559.0	36.49	2.02	9,530.1	6,283.6	111.7	-16.1	111.8	8.50	388,014.05	691,461.13	
9,590.0	39.92	1.56	9,554.5	6,308.0	130.9	-15.5	131.0	11.10	388,033.21	691,461.72	
9,622.0	43.18	0.76	9,578.4	6,331.9	152.1	-15.1	152.2	10.32	388,054.43	691,462.15	
9,653.0	45.73	0.06	9,600.5	6,354.0	173.8	-14.9	173.9	8.38	388,076.14	691,462.30	
9,685.0	48.01	359.33	9,622.4	6,375.9	197.1	-15.1	197.2	7.32	388,099.49	691,462.17	
9,716.0	51.70	358.31	9,642.4	6,395.9	220.8	-15.6	220.9	12.17	388,123.18	691,461.68	
9,748.0	55.31	358.20	9,661.4	6,414.9	246.5	-16.3	246.6	11.28	388,148.89	691,460.90	
9,779.0	59.27	358.51	9,678.2	6,431.7	272.6	-17.1	272.7	12.80	388,174.96	691,460.15	
9,810.0	63.84	358.69	9,692.9	6,446.4	299.9	-17.8	300.0	14.75	388,202.20	691,459.48	
9,842.0	66.83	359.15	9,706.3	6,459.8	328.9	-18.3	329.0	9.43	388,231.27	691,458.94	
9,873.0	70.52	359.52	9,717.6	6,471.1	357.8	-18.6	357.9	11.96	388,260.14	691,458.60	
9,905.0	73.51	359.74	9,727.5	6,481.0	388.2	-18.8	388.3	9.37	388,290.57	691,458.41	
9,937.0	76.50	359.81	9,735.7	6,489.2	419.1	-18.9	419.2	9.35	388,321.48	691,458.29	
9,968.0	80.28	359.86	9,742.0	6,495.5	449.5	-19.0	449.6	12.19	388,351.84	691,458.20	
10,006.0	86.53	358.45	9,746.3	6,499.8	487.2	-19.6	487.3	16.85	388,389.56	691,457.64	



Pathfinder PathfinderX & Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26 5 @ 3246.5usft (Patriot 5)
Site:	Quail "BQL" State Com	MD Reference:	KB = 26 5 @ 3246.5usft (Patriot 5)
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 (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
10,037.0	89.25	357.71	9,747.5	6,501.0	518.2	-20.6	518.3	9.09	388,420.52	691,456.60	
LP - 10037.0 MD, 9747.5 TVD, 518.2 N, -20.6 E											
10,068.0	90.04	358.10	9,747.7	6,501.2	549.2	-21.8	549.3	2.84	388,451.50	691,455.47	
10,132.0	91.10	358.76	9,747.0	6,500.5	613.1	-23.5	613.3	1.95	388,515.47	691,453.72	
10,227.0	91.28	358.98	9,745.1	6,498.6	708.1	-25.4	708.2	0.30	388,610.43	691,451.84	
10,321.0	88.20	358.17	9,745.5	6,499.0	802.0	-27.7	802.2	3.39	388,704.39	691,449.50	
10,416.0	89.69	358.34	9,747.2	6,500.7	897.0	-30.6	897.1	1.58	388,799.33	691,446.61	
10,510.0	90.40	0.10	9,747.2	6,500.7	991.0	-31.9	991.1	2.02	388,893.31	691,445.33	
10,604.0	90.31	359.78	9,746.6	6,500.1	1,085.0	-32.0	1,085.1	0.35	388,987.31	691,445.23	
10,698.0	89.87	0.54	9,746.4	6,499.9	1,179.0	-31.7	1,179.1	0.93	389,081.31	691,445.50	
10,793.0	91.28	2.15	9,745.5	6,499.0	1,273.9	-29.5	1,274.1	2.25	389,176.28	691,447.73	
10,887.0	89.25	1.26	9,745.0	6,498.5	1,367.9	-26.7	1,368.0	2.36	389,270.23	691,450.52	
10,982.0	90.04	359.88	9,745.6	6,499.1	1,462.9	-25.8	1,463.0	1.67	389,365.22	691,451.47	
11,077.0	89.60	358.23	9,745.9	6,499.4	1,557.9	-27.3	1,558.0	1.80	389,460.20	691,449.90	
11,171.0	89.25	357.98	9,746.9	6,500.4	1,651.8	-30.4	1,651.9	0.46	389,554.14	691,446.79	
11,266.0	88.99	357.55	9,748.3	6,501.8	1,746.7	-34.1	1,746.9	0.53	389,649.06	691,443.09	
11,360.0	89.78	357.33	9,749.3	6,502.8	1,840.6	-38.3	1,840.8	0.87	389,742.96	691,438.89	
11,454.0	89.96	358.70	9,749.5	6,503.0	1,934.6	-41.6	1,934.8	1.47	389,836.90	691,435.63	
11,549.0	90.22	358.60	9,749.4	6,502.9	2,029.5	-43.8	2,029.7	0.29	389,931.87	691,433.40	
11,642.0	90.04	359.25	9,749.2	6,502.7	2,122.5	-45.6	2,122.7	0.73	390,024.86	691,431.65	
11,736.0	90.57	359.37	9,748.7	6,502.2	2,216.5	-46.7	2,216.7	0.58	390,118.85	691,430.52	
11,831.0	90.75	359.95	9,747.6	6,501.1	2,311.5	-47.3	2,311.7	0.64	390,213.84	691,429.96	
11,925.0	91.10	0.24	9,746.1	6,499.6	2,405.5	-47.1	2,405.7	0.48	390,307.83	691,430.11	
12,020.0	91.36	1.03	9,744.0	6,497.5	2,500.5	-46.1	2,500.7	0.88	390,402.80	691,431.16	
12,114.0	89.69	0.70	9,743.2	6,496.7	2,594.4	-44.7	2,594.7	1.81	390,496.78	691,432.58	
12,209.0	90.13	359.87	9,743.3	6,496.8	2,689.4	-44.2	2,689.6	0.99	390,591.78	691,433.06	
12,304.0	90.31	359.40	9,743.0	6,496.5	2,784.4	-44.8	2,784.6	0.53	390,686.78	691,432.45	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26 5 @ 3246 5usft (Patriot 5)
Site:	Quail "BQL" State Com	MD Reference:	KB = 26 5 @ 3246 5usft (Patriot 5)
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 (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
12,399.0	91.01	0.93	9,741.9	6,495.4	2,879.4	-44.5	2,879.6	1.77	390,781.77	691,432.72	
12,494.0	89.60	1.12	9,741.4	6,494.9	2,974.4	-42.8	2,974.6	1.50	390,876.75	691,434.42	
12,587.0	89.25	1.29	9,742.3	6,495.8	3,067.4	-40.9	3,067.6	0.42	390,969.72	691,436.38	
12,682.0	89.34	1.21	9,743.5	6,497.0	3,162.3	-38.8	3,162.5	0.13	391,064.69	691,438.45	
12,777.0	90.48	0.26	9,743.6	6,497.1	3,257.3	-37.6	3,257.5	1.56	391,159.68	691,439.67	
12,871.0	89.52	359.55	9,743.6	6,497.1	3,351.3	-37.7	3,351.5	1.27	391,253.68	691,439.51	
12,964.0	89.78	358.57	9,744.2	6,497.7	3,444.3	-39.2	3,444.5	1.09	391,346.66	691,437.99	
13,059.0	90.31	358.42	9,744.1	6,497.6	3,539.3	-41.7	3,539.5	0.58	391,441.63	691,435.49	
13,135.0	90.75	358.09	9,743.4	6,496.9	3,615.2	-44.1	3,615.4	0.72	391,517.59	691,433.18	
13,247.0	91.45	358.90	9,741.3	6,494.8	3,727.2	-47.0	3,727.4	0.96	391,629.53	691,430.24	
13,341.0	91.28	358.14	9,739.0	6,492.5	3,821.1	-49.4	3,821.3	0.83	391,723.47	691,427.81	
13,435.0	91.54	358.81	9,736.7	6,490.2	3,915.1	-51.9	3,915.3	0.76	391,817.41	691,425.31	
13,529.0	92.51	359.74	9,733.4	6,486.9	4,009.0	-53.1	4,009.2	1.43	391,911.34	691,424.12	
13,624.0	91.45	358.80	9,730.1	6,483.6	4,103.9	-54.3	4,104.2	1.49	392,006.27	691,422.91	
13,719.0	90.66	359.29	9,728.3	6,481.8	4,198.9	-55.9	4,199.2	0.98	392,101.24	691,421.33	
13,813.0	90.48	359.50	9,727.4	6,480.9	4,292.9	-56.9	4,293.1	0.29	392,195.23	691,420.34	
13,908.0	90.92	359.46	9,726.3	6,479.8	4,387.9	-57.8	4,388.1	0.47	392,290.22	691,419.47	
14,002.0	91.10	359.33	9,724.6	6,478.1	4,481.9	-58.8	4,482.1	0.24	392,384.20	691,418.48	
14,156.0	91.10	359.33	9,721.6	6,475.1	4,635.8	-60.6	4,636.1	0.00	392,538.16	691,416.68	
BHL - 14156.0 'MD, 9721.6 'TVD, 4635.8 'N, -60.6 'E											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,274.0	9,272.8	-3.0	-15.9	KOP - 9274.0 'MD, 9272.8 'TVD, -3.0 'N, -15.9 'E
10,037.0	9,747.5	518.2	-20.6	LP - 10037.0 'MD, 9747.5 'TVD, 518.2 'N, -20.6 'E
14,156.0	9,721.6	4,635.8	-60.6	BHL - 14156.0 'MD, 9721.6 'TVD, 4635.8 'N, -60.6 'E



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD:83)	TVD Reference:	KB = 26.5 @ 3246.5usft (Patriot 5)
Site:	Quail "BQL" State Com	MD Reference:	KB = 26.5 @ 3246.5usft (Patriot 5)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000:1 Single User Db

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

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: -0.26°
Magnetic North: 7.33°

Magnetic Field
Strength: 48447.7nT
Dip Angle: 60.00°
Date: 4/19/2012
Model: IGRF200510

PATHFINDER®

A Schlumberger Company

Project: Eddy County (NAD 83)
Site: Quail "BQL" State Com
Well: #1H
Wellbore: OH
Plan: Plan #3 (#1H/OH)

EOW

WELL DETAILS #1H

Ground Elevation: 3220.0
RKB Elevation: KB = 26.5 @ 3246 Susft (Patriot 5)
Rig Name: Patriot 5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Spot
0.0	0.0	387902.344	691477.236	32° 3' 55.788 N	103° 50' 55.142 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

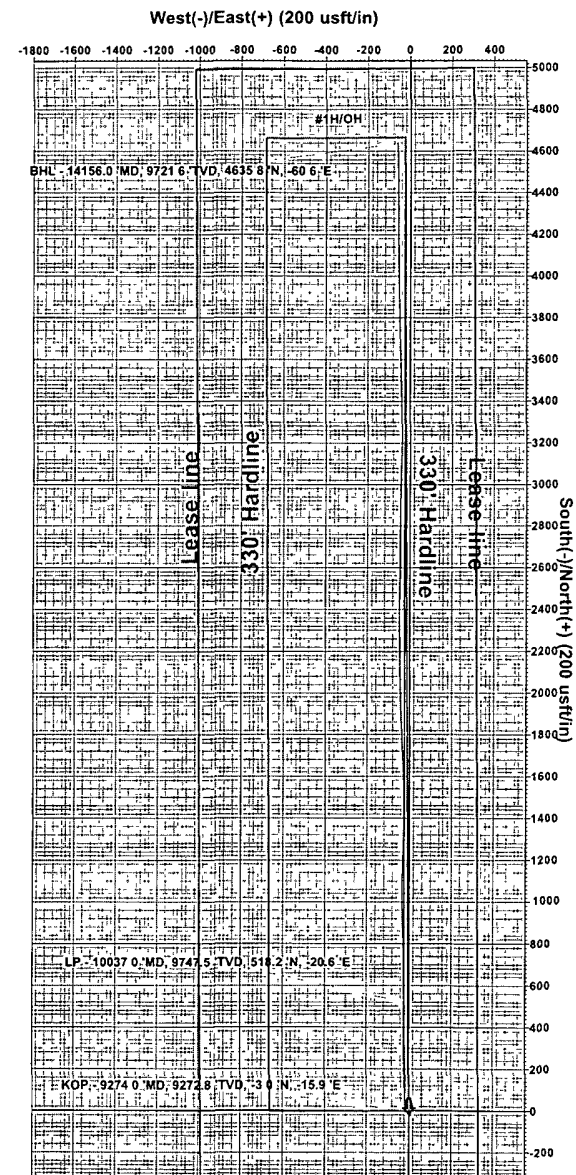
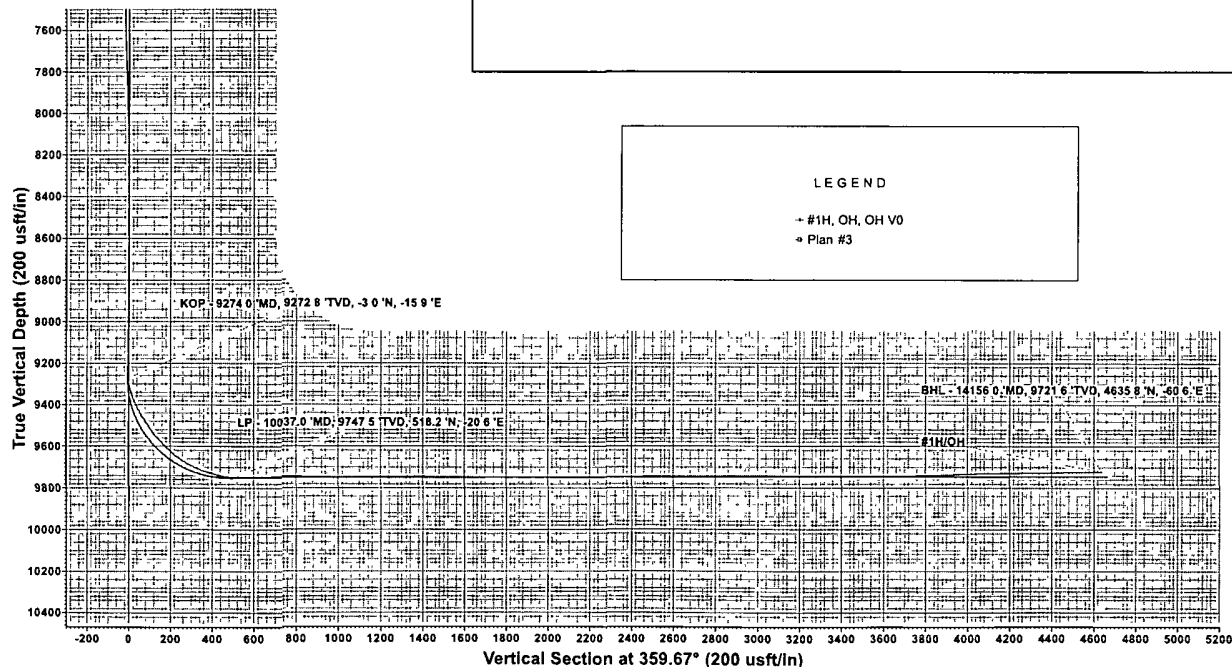
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(Quail #1H)	9745.0	4666.1	-26.8	392568.467	691450.406	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Target
9258.2	1.97	198.80	9257.1	-5.3	-18.0	0.00	0.00	-5.2	
10024.3	90.07	359.93	9750.0	472.5	-22.1	12.00	161.12	472.6	
14217.9	90.07	359.93	9745.0	4666.1	-26.8	0.00	0.00	4666.2	PBHL(Quail #1H)

LEGEND

→ #1H, OH, OH V0
→ Plan #3



Plan Plan #3 (#1H/OH)

Created By: Sam Bille Date: 6/18/2012
Checked: _____ Date: _____

Printed On: 6/18/2012
Time: 10:10 AM
User: Sam Bille
Job: 10037.0 MD, 9747.5 TVD, 518.2° N, -20.6° E