

OPERATOR
WELL/LEASE
COUNTY

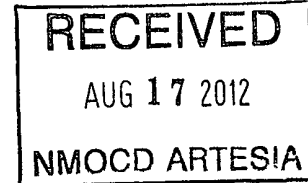
YATES PETROLEUM CORPORATION
SLALOM BPZ FEDERAL #1H
EDDY

511-5100

STATE OF NEW MEXICO
DEVIATION REPORT

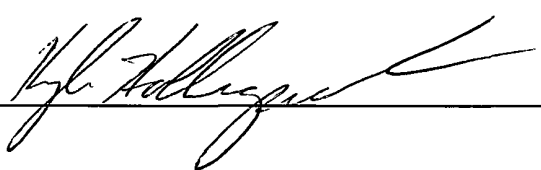
30-015-38541

157	0.30
334	2.91
492	1.51
742	0.79
1,054	2.72
1,684	0.84
1,938	0.56
2,193	0.45
2,447	0.76
2,700	0.08
2,952	0.27
3,268	0.31
3,506	0.89
3,857	0.75
4,204	0.52
4,552	1.04
4,742	0.54
4,995	1.16
5,239	0.80
5,492	1.89
5,745	1.42
5,998	1.37



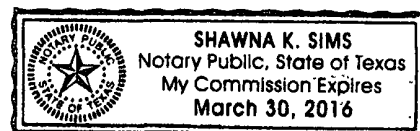
STATE OF TEXAS

COUNTY OF MIDLAND

BY: 

The foregoing instrument was acknowledged before me on 7/16/12, by
Kyle Hollingsworth on behalf of Patterson-UTI Drilling Company LLC.

Shawna K. Sims
Notary Public for Midland County, Texas
My Commission Expires:





Job Number: SVCO-120782

Company: Yates Petroleum Corporation

Lease/Well: Slalom BPZ Federal 1H

Location: Eddy County, NM

Rig Name: Patterson #511

RKB: 22'

G.L. or M.S.L.: GL

State/Country: New Mexico/USA

Declination: 7.55°

Grid: East To Grid North

File name: F:\SURVEY\2012SU~1\YATES\CONROE\SLALOM~1\1H.SVY

Date/Time: 04-Jun-12 / 10:11

Curve Name: Surface - 6045' M.D. (Rate Gyro)



WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 267.72
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 6,045' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.

Joshua Smith 6/4/12
 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	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	1.86	184.53	199.96	-3.24	-.26	.38	3.25	184.53	.93
400.00	1.99	188.40	399.85	-9.91	-1.02	1.41	9.96	185.88	.09
600.00	1.46	168.64	599.76	-15.84	-1.03	1.65	15.87	183.70	.39
800.00	.72	133.66	799.73	-19.21	.39	.38	19.21	178.85	.48
1000.00	1.87	89.16	999.68	-20.03	4.56	-3.76	20.54	167.18	.72
1200.00	2.07	95.03	1199.56	-20.29	11.42	-10.60	23.29	150.64	.14
1400.00	1.08	108.58	1399.48	-21.21	16.80	-15.95	27.06	141.61	.53
1600.00	.62	157.18	1599.46	-22.81	19.01	-18.09	29.69	140.19	.41
1800.00	.27	171.95	1799.45	-24.27	19.50	-18.51	31.13	141.23	.18

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2000.00	.13	194.74	1999.45	-24.96	19.50	-18.50	31.68	142.00	.08
2200.00	.11	183.52	2199.45	-25.37	19.43	-18.41	31.96	142.55	.02
2400.00	.23	213.30	2399.45	-25.90	19.20	-18.16	32.24	143.44	.07
2600.00	.09	221.66	2599.45	-26.35	18.88	-17.81	32.41	144.38	.07
2800.00	.10	149.27	2799.45	-26.62	18.86	-17.79	32.62	144.68	.06
3000.00	.16	352.76	2999.45	-26.49	18.92	-17.85	32.55	144.47	.13
3200.00	.23	4.60	3199.45	-25.81	18.91	-17.87	32.00	143.77	.04
3400.00	.87	326.74	3399.44	-24.14	18.11	-17.14	30.18	143.12	.35
3600.00	.78	340.70	3599.42	-21.59	16.83	-15.96	27.37	142.06	.11
3800.00	.94	331.00	3799.40	-18.87	15.58	-14.82	24.47	140.45	.11
4000.00	.96	334.50	3999.37	-15.92	14.07	-13.42	21.25	138.54	.03
4200.00	1.02	337.76	4199.34	-12.76	12.67	-12.16	17.99	135.20	.04
4400.00	1.12	328.68	4399.30	-9.45	10.98	-10.60	14.49	130.70	.10
4600.00	.83	313.82	4599.28	-6.77	8.92	-8.65	11.20	127.20	.19
4800.00	1.04	341.01	4799.25	-4.05	7.29	-7.12	8.34	119.09	.24
5000.00	1.30	344.95	4999.21	-.15	6.11	-6.10	6.11	91.37	.14
5200.00	.97	339.35	5199.17	3.63	4.92	-5.06	6.11	53.59	.17
5400.00	1.25	290.70	5399.13	5.98	2.28	-2.52	6.40	20.88	.47
5600.00	1.32	277.39	5599.08	7.05	-2.04	1.76	7.34	343.84	.15
5800.00	1.09	283.97	5799.04	7.81	-6.17	5.86	9.95	321.67	.13
6000.00	1.19	283.47	5999.00	8.75	-10.04	9.68	13.32	311.08	.05
Last Survey Depth Recorded									
6045.00	1.56	275.57	6043.99	8.92	-11.10	10.74	14.24	308.77	.92



Yates Petroleum Corp.

Eddy County (NAD 83)

Slalom "BPZ" Federal

#1H

OH

Design: OH

PathfinderX & Y Report

22 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 = 18.8 @ 3486.8usft (Patterson 511)
Site:	Slalom "BPZ" Federal	MD Reference:	KB' = 18.8 @ 3486.8usft (Patterson 511)
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	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Slalom "BPZ" Federal		
Site Position:		Northing:	635,326.050 usft
From:	Map	Easting:	637,436.850 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 44' 46.171 N
		Longitude:	104° 1' 14.759 W
		Grid Convergence:	0 17 "

Well	#1H					
Well Position	+N/-S	0.0 usft	Northing:	635,326.050 usft	Latitude:	32° 44' 46.171 N
	+E/-W	0.0 usft	Easting:	637,436.850 usft	Longitude:	104° 1' 14.759 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,468.0 usft

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	4/12/2012	7.72	60 60	48,837

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	267.72



Pathfinder PathfinderX & Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 18.8 @ 3486.8usft (Patterson 511)
Site:	Slalom "BPZ" Federal	MD Reference:	KB = 18.8 @ 3486.8usft (Patterson 511)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

Survey Program		Date 6/22/2012			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200.0	6,045.0	Gyro #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
6,174.0	12,239.0	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	-3,486.8	0.0	0.0	0.0	0.00	635,326.05	637,436.85	
200.0	1.86	184.53	200.0	-3,286.8	-3.2	-0.3	0.4	0.93	635,322.81	637,436.59	
400.0	1.99	188.40	399.9	-3,086.9	-9.9	-1.0	1.4	0.09	635,316.14	637,435.83	
600.0	1.46	168.64	599.8	-2,887.0	-15.8	-1.0	1.7	0.39	635,310.21	637,435.82	
800.0	0.72	133.66	799.7	-2,687.1	-19.2	0.4	0.4	0.48	635,306.84	637,437.24	
1,000.0	1.87	89.16	999.7	-2,487.1	-20.0	4.6	-3.8	0.72	635,306.02	637,441.41	
1,200.0	2.07	95.03	1,199.6	-2,287.2	-20.3	11.4	-10.6	0.14	635,305.76	637,448.27	
1,400.0	1.08	108.58	1,399.5	-2,087.3	-21.2	16.8	-15.9	0.53	635,304.84	637,453.65	
1,600.0	0.62	157.18	1,599.5	-1,887.3	-22.8	19.0	-18.1	0.41	635,303.24	637,455.86	
1,800.0	0.27	171.95	1,799.5	-1,687.3	-24.3	19.5	-18.5	0.18	635,301.78	637,456.35	
2,000.0	0.13	194.74	1,999.5	-1,487.3	-25.0	19.5	-18.5	0.08	635,301.09	637,456.35	
2,200.0	0.11	183.52	2,199.5	-1,287.3	-25.4	19.4	-18.4	0.02	635,300.68	637,456.28	
2,400.0	0.23	213.30	2,399.5	-1,087.3	-25.9	19.2	-18.2	0.07	635,300.15	637,456.05	
2,600.0	0.09	221.66	2,599.5	-887.3	-26.4	18.9	-17.8	0.07	635,299.70	637,455.73	
2,800.0	0.10	149.27	2,799.5	-687.3	-26.6	18.9	-17.8	0.06	635,299.43	637,455.71	
3,000.0	0.16	352.76	2,999.5	-487.3	-26.5	18.9	-17.8	0.13	635,299.56	637,455.77	
3,200.0	0.23	4.60	3,199.4	-287.4	-25.8	18.9	-17.9	0.04	635,300.24	637,455.76	
3,400.0	0.87	326.74	3,399.4	-87.4	-24.1	18.1	-17.1	0.35	635,301.91	637,454.96	
3,600.0	0.78	340.70	3,599.4	112.6	-21.6	16.8	-16.0	0.11	635,304.46	637,453.68	
3,800.0	0.94	331.00	3,799.4	312.6	-18.9	15.6	-14.8	0.11	635,307.18	637,452.43	
4,000.0	0.96	334.50	3,999.4	512.6	-15.9	14.1	-13.4	0.03	635,310.13	637,450.92	



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 = 18 8 @ 3486.8usft (Patterson 511)
Site:	Slalom "BPZ" Federal	MD Reference:	KB = 18 8 @ 3486.8usft (Patterson 511)
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)	
4,200.0	1.02	337.76	4,199.3	712.5	-12.8	12.7	-12.2	0.04	635,313.29	637,449.52	
4,400.0	1.12	328.68	4,399.3	912.5	-9.4	11.0	-10.6	0.10	635,316.60	637,447.83	
4,600.0	0.83	313.82	4,599.3	1,112.5	-6.8	8.9	-8.6	0.19	635,319.28	637,445.77	
4,800.0	1.04	341.01	4,799.2	1,312.4	-4.1	7.3	-7.1	0.24	635,322.00	637,444.14	
5,000.0	1.30	344.95	4,999.2	1,512.4	-0.1	6.1	-6.1	0.14	635,325.90	637,442.96	
5,200.0	0.97	339.35	5,199.2	1,712.4	3.6	4.9	-5.1	0.17	635,329.68	637,441.77	
5,400.0	1.25	290.70	5,399.1	1,912.3	6.0	2.3	-2.5	0.47	635,332.03	637,439.13	
5,600.0	1.32	277.39	5,599.1	2,112.3	7.1	-2.0	1.8	0.15	635,333.10	637,434.81	
5,800.0	1.09	283.97	5,799.0	2,312.2	7.8	-6.2	5.9	0.13	635,333.86	637,430.68	
6,000.0	1.19	283.47	5,999.0	2,512.2	8.8	-10.0	9.7	0.05	635,334.80	637,426.81	
6,045.0	1.56	275.57	6,044.0	2,557.2	8.9	-11.1	10.7	0.92	635,334.97	637,425.75	
6,174.0	1.32	293.90	6,172.9	2,686.1	9.7	-14.2	13.8	0.40	635,335.74	637,422.64	
6,365.0	1.14	259.77	6,363.9	2,877.1	10.2	-18.1	17.7	0.39	635,336.29	637,418.76	
6,566.0	1.41	270.68	6,564.9	3,078.1	9.9	-22.5	22.1	0.18	635,335.97	637,414.32	
6,751.0	1.49	272.38	6,749.8	3,263.0	10.0	-27.2	26.8	0.05	635,336.10	637,409.64	
6,942.0	2.02	278.13	6,940.7	3,453.9	10.6	-33.0	32.6	0.29	635,336.68	637,403.83	
7,133.0	0.62	18.62	7,131.7	3,644.9	12.1	-36.0	35.5	1.16	635,338.13	637,400.82	
7,323.0	0.97	107.34	7,321.7	3,834.9	12.6	-34.2	33.6	0.60	635,338.63	637,402.69	
7,355.0	1.06	125.99	7,353.6	3,866.8	12.3	-33.7	33.1	1.06	635,338.37	637,403.19	
7,387.0	0.97	171.59	7,385.6	3,898.8	11.9	-33.4	32.9	2.47	635,337.93	637,403.46	
7,419.0	2.20	230.80	7,417.6	3,930.8	11.2	-33.8	33.3	5.93	635,337.27	637,403.03	
KOP - 7419.0 'MD, 7417.6 'TVD, 11.2 'N, -33.8 'E											
7,450.0	4.40	247.82	7,448.6	3,961.8	10.4	-35.4	34.9	7.69	635,336.45	637,401.47	
7,482.0	7.47	257.75	7,480.4	3,993.6	9.5	-38.6	38.1	10.08	635,335.54	637,398.30	
7,514.0	11.17	263.15	7,512.0	4,025.2	8.7	-43.7	43.3	11.87	635,334.73	637,393.18	
7,546.0	15.12	264.22	7,543.1	4,056.3	7.9	-50.9	50.5	12.37	635,333.94	637,385.95	
7,577.0	19.35	263.33	7,572.7	4,085.9	6.9	-60.0	59.7	13.67	635,332.94	637,376.82	



Pathfinder

PathfinderX & Y Report



Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 18.8 @ 3486.8usft (Patterson 511)
Site:	Slalom "BPZ" Federal	MD Reference:	KB = 18.8 @ 3486.8usft (Patterson 511)
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)	
7,609.0	23.74	263.70	7,602.5	4,115.7	5.6	-71.7	71.4	13.73	635,331.61	637,365.15	
7,641.0	27.79	263.05	7,631.3	4,144.5	4.0	-85.5	85.3	12.69	635,330.00	637,351.34	
7,673.0	31.13	262.25	7,659.2	4,172.4	1.9	-101.1	101.0	10.51	635,327.98	637,335.73	
7,704.0	34.03	261.99	7,685.3	4,198.5	-0.4	-117.7	117.6	9.37	635,325.69	637,319.20	
7,736.0	36.58	262.59	7,711.4	4,224.6	-2.8	-136.0	136.0	8.04	635,323.22	637,300.87	
7,768.0	38.87	263.76	7,736.7	4,249.9	-5.2	-155.4	155.5	7.50	635,320.90	637,281.43	
7,800.0	41.50	263.86	7,761.1	4,274.3	-7.4	-175.9	176.1	8.22	635,318.67	637,260.91	
7,831.0	44.49	263.37	7,783.8	4,297.0	-9.7	-196.9	197.2	9.71	635,316.32	637,239.90	
7,863.0	48.63	263.58	7,805.8	4,319.0	-12.4	-220.0	220.3	12.95	635,313.68	637,216.82	
7,895.0	53.29	264.85	7,826.0	4,339.2	-14.9	-244.8	245.1	14.88	635,311.18	637,192.10	
7,927.0	58.56	267.00	7,843.9	4,357.1	-16.7	-271.2	271.6	17.38	635,309.32	637,165.67	
7,959.0	61.55	268.73	7,859.9	4,373.1	-17.8	-298.9	299.4	10.45	635,308.29	637,137.97	
7,991.0	64.19	270.14	7,874.5	4,387.7	-18.0	-327.4	327.8	9.13	635,308.01	637,109.49	
8,026.0	70.26	271.36	7,888.0	4,401.2	-17.6	-359.6	360.0	17.64	635,308.44	637,077.24	
8,054.0	70.26	271.82	7,897.5	4,410.7	-16.9	-386.0	386.3	1.55	635,309.17	637,050.90	
8,086.0	71.93	273.00	7,907.8	4,421.0	-15.6	-416.2	416.5	6.28	635,310.45	637,020.65	
8,117.0	74.74	273.59	7,916.7	4,429.9	-13.9	-445.8	446.0	9.25	635,312.16	636,991.01	
8,149.0	77.65	273.70	7,924.3	4,437.5	-11.9	-476.9	477.0	9.10	635,314.13	636,960.00	
8,181.0	78.52	273.11	7,931.0	4,444.2	-10.1	-508.1	508.1	3.26	635,315.99	636,928.74	
8,213.0	79.76	273.43	7,937.0	4,450.2	-8.3	-539.5	539.4	4.00	635,317.78	636,897.37	
8,244.0	84.42	272.73	7,941.3	4,454.5	-6.6	-570.1	569.9	15.20	635,319.43	636,866.71	
8,271.0	88.64	272.58	7,942.9	4,456.1	-5.4	-597.1	596.8	15.64	635,320.68	636,839.80	
8,305.0	92.95	271.23	7,942.4	4,455.6	-4.2	-631.0	630.7	13.28	635,321.81	636,805.83	
LP - 8305.0 MD, 7942.4 TVD, -4.2 N, -631.0 E											
8,366.0	91.80	269.55	7,939.9	4,453.1	-3.8	-692.0	691.6	3.34	635,322.22	636,744.89	
8,430.0	90.57	268.20	7,938.6	4,451.8	-5.1	-755.9	755.5	2.85	635,320.97	636,680.91	
8,493.0	88.81	267.83	7,938.9	4,452.1	-7.3	-818.9	818.5	2.85	635,318.79	636,617.96	



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 = 18.8 @ 3486.8usft (Patterson 511)
Site:	Slalom "BPZ" Federal	MD Reference:	KB = 18.8 @ 3486.8usft (Patterson 511)
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)
8,555.0	88.81	266.98	7,940.2	4,453.4	-10.1	-880.8	880.5	1.37	635,315.98	636,556.03
8,619.0	88.55	266.85	7,941.7	4,454.9	-13.5	-944.7	944.5	0.45	635,312.54	636,492.14
8,682.0	87.23	267.48	7,944.0	4,457.2	-16.6	-1,007.6	1,007.4	2.32	635,309.42	636,429.26
8,745.0	87.49	267.90	7,946.9	4,460.1	-19.2	-1,070.5	1,070.4	0.78	635,306.89	636,366.38
8,809.0	87.58	268.01	7,949.6	4,462.8	-21.4	-1,134.4	1,134.3	0.22	635,304.60	636,302.48
8,872.0	87.49	267.91	7,952.3	4,465.5	-23.7	-1,197.3	1,197.3	0.21	635,302.36	636,239.58
8,936.0	87.49	268.21	7,955.1	4,468.3	-25.9	-1,261.2	1,261.2	0.47	635,300.20	636,175.68
8,999.0	87.58	268.12	7,957.9	4,471.1	-27.9	-1,324.1	1,324.1	0.20	635,298.18	636,112.77
9,063.0	87.49	267.79	7,960.6	4,473.8	-30.1	-1,388.0	1,388.1	0.53	635,295.90	636,048.87
9,127.0	87.67	268.08	7,963.3	4,476.5	-32.5	-1,451.9	1,452.0	0.53	635,293.60	635,984.97
9,190.0	87.85	268.50	7,965.8	4,479.0	-34.3	-1,514.8	1,515.0	0.72	635,291.72	635,922.05
9,254.0	87.93	268.57	7,968.1	4,481.3	-36.0	-1,578.7	1,578.9	0.17	635,290.08	635,858.11
9,317.0	88.11	268.77	7,970.3	4,483.5	-37.4	-1,641.7	1,641.9	0.43	635,288.62	635,795.16
9,381.0	88.72	268.35	7,972.1	4,485.3	-39.0	-1,705.6	1,705.8	1.16	635,287.01	635,731.21
9,444.0	88.81	267.88	7,973.4	4,486.6	-41.1	-1,768.6	1,768.8	0.76	635,284.94	635,668.26
9,508.0	88.81	268.18	7,974.8	4,488.0	-43.3	-1,832.5	1,832.8	0.47	635,282.74	635,604.31
9,572.0	88.90	268.39	7,976.0	4,489.2	-45.2	-1,896.5	1,896.8	0.36	635,280.83	635,540.35
9,635.0	88.99	268.04	7,977.2	4,490.4	-47.2	-1,959.5	1,959.8	0.57	635,278.87	635,477.39
9,699.0	89.43	268.49	7,978.1	4,491.3	-49.1	-2,023.4	2,023.8	0.98	635,276.93	635,413.43
9,762.0	88.99	266.97	7,979.0	4,492.2	-51.6	-2,086.4	2,086.8	2.51	635,274.43	635,350.49
9,826.0	89.08	267.23	7,980.0	4,493.2	-54.9	-2,150.3	2,150.8	0.43	635,271.20	635,286.58
9,889.0	89.08	266.94	7,981.0	4,494.2	-58.1	-2,213.2	2,213.7	0.46	635,267.99	635,223.67
9,953.0	89.43	267.20	7,981.9	4,495.1	-61.3	-2,277.1	2,277.7	0.68	635,264.72	635,159.76
10,016.0	88.99	266.72	7,982.7	4,495.9	-64.7	-2,340.0	2,340.7	1.03	635,261.38	635,096.85
10,080.0	89.25	266.88	7,983.7	4,496.9	-68.2	-2,403.9	2,404.7	0.48	635,257.81	635,032.96
10,144.0	89.16	266.85	7,984.6	4,497.8	-71.7	-2,467.8	2,468.7	0.15	635,254.31	634,969.06
10,207.0	89.43	267.19	7,985.4	4,498.6	-75.0	-2,530.7	2,531.7	0.69	635,251.03	634,906.15



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 = 18.8 @ 3486.8usft (Patterson 511)
Site:	Slalom "BPZ" Federal	MD Reference:	KB = 18.8 @ 3486.8usft (Patterson 511)
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)	
10,270.0	89.60	266.87	7,985.9	4,499.1	-78.3	-2,593.6	2,594.7	0.58	635,247.77	634,843.24	
10,334.0	89.16	267.66	7,986.6	4,499.8	-81.3	-2,657.5	2,658.7	1.41	635,244.72	634,779.31	
10,397.0	89.08	267.18	7,987.6	4,500.8	-84.2	-2,720.5	2,721.7	0.77	635,241.88	634,716.39	
10,461.0	90.48	266.70	7,987.8	4,501.0	-87.6	-2,784.4	2,785.6	2.31	635,238.46	634,652.48	
10,525.0	92.24	267.31	7,986.3	4,499.5	-90.9	-2,848.3	2,849.6	2.91	635,235.12	634,588.59	
10,588.0	92.51	267.57	7,983.7	4,496.9	-93.7	-2,911.1	2,912.6	0.59	635,232.31	634,525.70	
10,652.0	92.42	267.52	7,981.0	4,494.2	-96.5	-2,975.0	2,976.5	0.16	635,229.57	634,461.82	
10,715.0	91.28	267.03	7,978.9	4,492.1	-99.5	-3,037.9	3,039.5	1.97	635,226.58	634,398.93	
10,779.0	91.36	267.27	7,977.4	4,490.6	-102.7	-3,101.8	3,103.5	0.40	635,223.40	634,335.02	
10,842.0	91.54	267.42	7,975.8	4,489.0	-105.6	-3,164.7	3,166.4	0.37	635,220.48	634,272.11	
10,906.0	91.63	267.48	7,974.1	4,487.3	-108.4	-3,228.7	3,230.4	0.17	635,217.63	634,208.20	
10,969.0	91.63	267.50	7,972.3	4,485.5	-111.2	-3,291.6	3,293.4	0.03	635,214.87	634,145.29	
11,028.0	91.63	268.10	7,970.6	4,483.8	-113.4	-3,350.5	3,352.4	1.02	635,212.61	634,086.35	
11,091.0	92.15	268.14	7,968.5	4,481.7	-115.5	-3,413.4	3,415.3	0.83	635,210.55	634,023.42	
11,154.0	91.89	268.66	7,966.3	4,479.5	-117.3	-3,476.4	3,478.3	0.92	635,208.79	633,960.49	
11,218.0	91.89	268.35	7,964.2	4,477.4	-118.9	-3,540.3	3,542.2	0.48	635,207.12	633,896.54	
11,281.0	92.33	267.66	7,961.9	4,475.1	-121.1	-3,603.2	3,605.2	1.30	635,204.93	633,833.62	
11,345.0	91.89	267.53	7,959.5	4,472.7	-123.8	-3,667.1	3,669.1	0.72	635,202.24	633,769.72	
11,408.0	91.71	267.80	7,957.5	4,470.7	-126.4	-3,730.0	3,732.1	0.51	635,199.68	633,706.81	
11,472.0	92.24	267.86	7,955.3	4,468.5	-128.8	-3,794.0	3,796.1	0.83	635,197.26	633,642.89	
11,536.0	91.89	267.77	7,953.0	4,466.2	-131.2	-3,857.9	3,860.0	0.56	635,194.82	633,578.98	
11,599.0	91.63	267.72	7,951.1	4,464.3	-133.7	-3,920.8	3,923.0	0.42	635,192.34	633,516.06	
11,662.0	91.80	267.09	7,949.2	4,462.4	-136.6	-3,983.7	3,986.0	1.04	635,189.49	633,453.15	
11,725.0	91.19	266.68	7,947.6	4,460.8	-140.0	-4,046.6	4,048.9	1.17	635,186.07	633,390.27	
11,788.0	92.42	265.83	7,945.6	4,458.8	-144.1	-4,109.4	4,111.9	2.37	635,181.95	633,327.43	
11,850.0	91.80	265.66	7,943.3	4,456.5	-148.7	-4,171.2	4,173.8	1.04	635,177.36	633,265.65	
11,914.0	91.54	266.32	7,941.4	4,454.6	-153.2	-4,235.0	4,237.8	1.11	635,172.88	633,201.83	



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 = 18.8 @ 3486.8usft (Patterson 511)
Site:	Slalom "BPZ" Federal	MD Reference:	KB = 18.8 @ 3486.8usft (Patterson 511)
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)	
11,977.0	92.42	266.78	7,939.3	4,452.5	-157.0	-4,297.9	4,300.7	1.58	635,169.09	633,138.98	
12,040.0	91.98	267.04	7,936.8	4,450.0	-160.3	-4,360.7	4,363.7	0.81	635,165.70	633,076.12	
12,103.0	91.45	266.82	7,935.0	4,448.2	-163.7	-4,423.6	4,426.6	0.91	635,162.33	633,013.24	
12,166.0	91.19	266.72	7,933.5	4,446.7	-167.3	-4,486.5	4,489.6	0.44	635,158.78	632,950.36	
12,239.0	91.19	266.72	7,932.0	4,445.2	-171.4	-4,559.4	4,562.6	0.00	635,154.60	632,877.49	
BHL - 12239.0 'MD, 7932.0 'TVD, -171.4 'N, -4559.4 'E - BHL= FNL-646.87', FWL-385.23', FSL-671.16'											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,419.0	7,417.6	11.2	-33.8	KOP - 7419.0 'MD, 7417.6 'TVD, 11.2 'N, -33.8 'E
8,305.0	7,942.4	-4.2	-631.0	LP - 8305.0 'MD, 7942.4 'TVD, -4.2 'N, -631.0 'E
12,239.0	7,932.0	-171.4	-4,559.4	BHL - 12239.0 'MD, 7932.0 'TVD, -171.4 'N, -4559.4 'E
12,239.0	7,932.0	-171.4	-4,559.4	BHL= FNL-646.87', FWL-385.23', FSL-671.16'

Checked By: _____ Approved By: _____ Date: _____



**PATTERSON
PETROLEUM
CORPORATION**

Project: Eddy County (NAD 83)
Site: Sialom "BPZ" Federal
Well: #1H
Wellbore: OH
Plan: Post Gyro Plan #4

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

PATHFINDER®

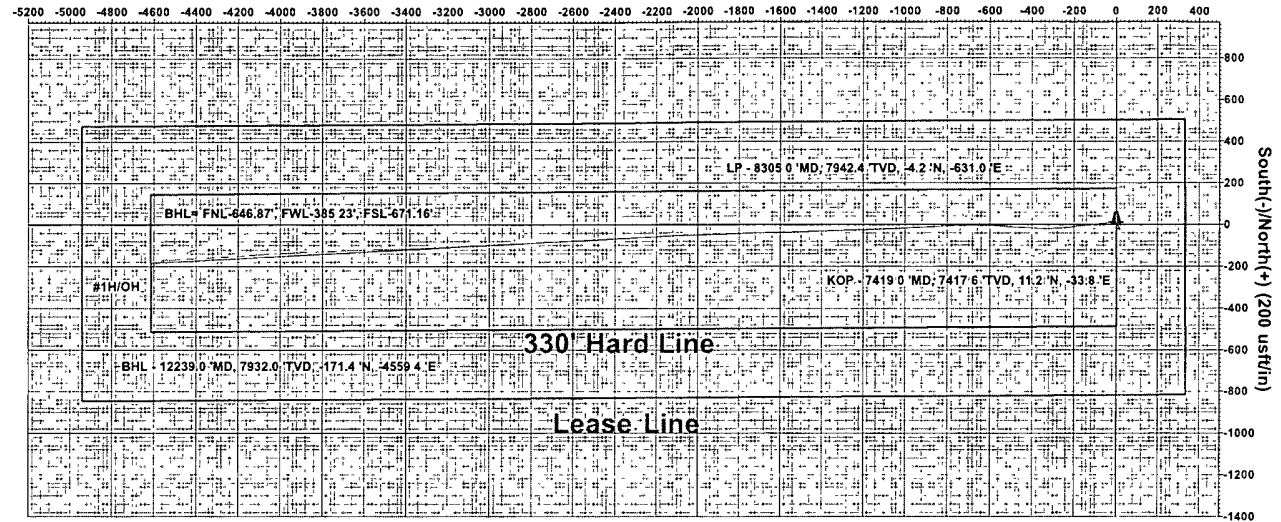
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WELL DETAILS #1H

Ground Elevation: 3468.0
RKB Elevation: KB = 18.8 @ 3466.8usft (Patterson 511)
Rig Name: Patterson 511

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	635326.050	637436.850	32° 44' 46.171" N	104° 1' 14.759" W	

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

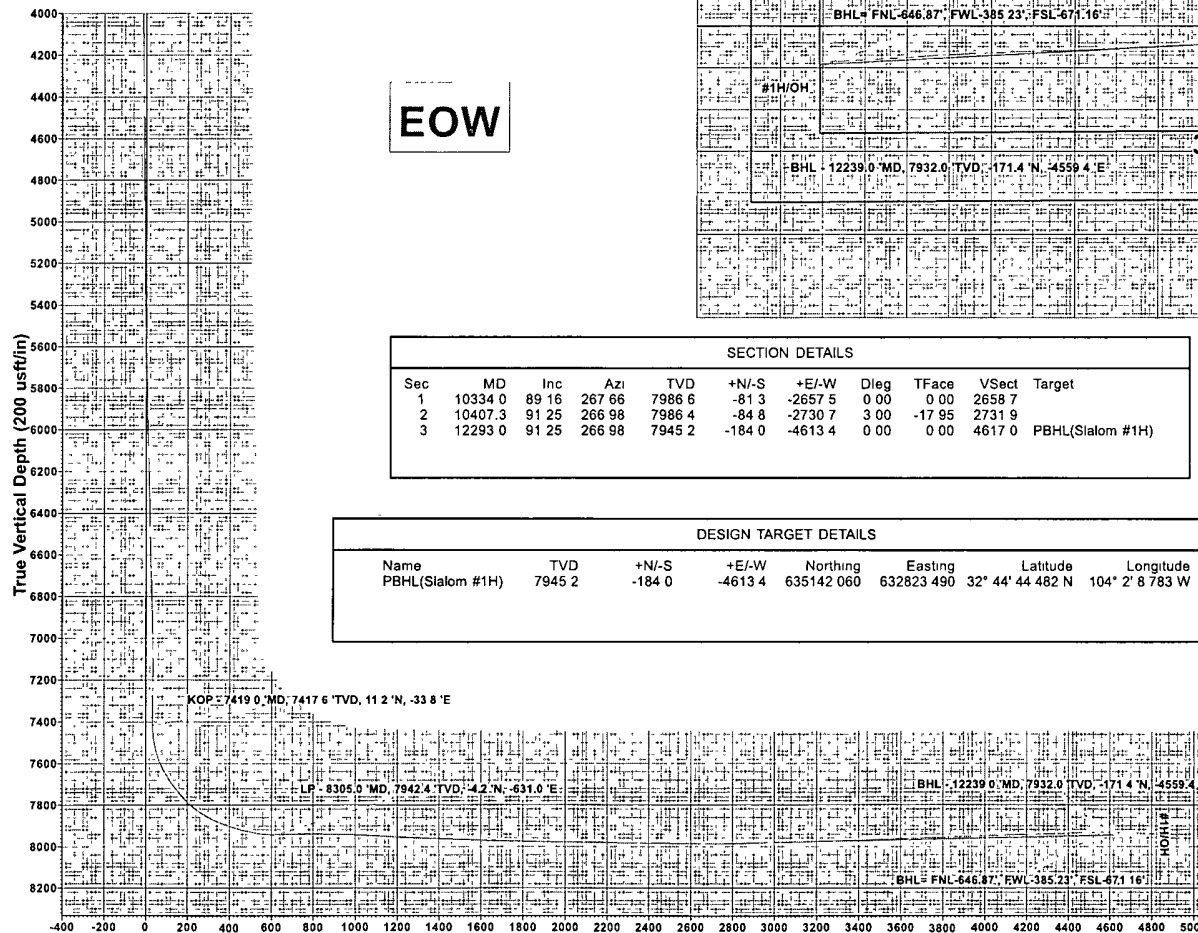


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	10334.0	89.16	267.66	7986.6	-81.3	-2657.5	0.00	0.00	2658.7	
2	10407.3	91.25	266.98	7986.4	-84.8	-2730.7	3.00	-17.95	2731.9	
3	12293.0	91.25	266.98	7945.2	-184.0	-4613.4	0.00	0.00	4617.0	PBHL(Sialom #1H)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL(Sialom #1H)	7945.2	-184.0	-4613.4	635142.060	632823.490	32° 44' 44.482" N	104° 2' 8.783" W



Vertical Section at 267.72° (200 usft/in)



Azimuths to Grid North
True North -0.17°
Magnetic North 7.55°

Magnetic Field
Strength 48837.3nT
Dip Angle 60.60°
Date 4/12/2012
Model IGRF200510

Plan Post Gyro Plan #4 (#1H/OH)

Created By Sam Biffle Date 8/42, June 22 2012

Checked _____ Date _____

Yates Petroleum Corp.
Eddy County, NM 87001
Sialom "BPZ" Federal
Well #1H
Post Gyro Plan #4