

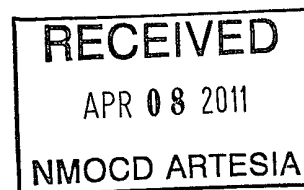


An Operating Unit of Smith International, Inc.

DIRECTIONAL SURVEY REPORT

30-015-37942

YATES PETROLEUM
CHAMAELEON BIN STATE COM #1H - SHC
EDDY COUNTY, NEW MEXICO



PREPARED BY: FRANCISCO SINISTERRA

A handwritten signature in black ink, appearing to be "FR" or similar, located in the lower right quadrant of the page.

Pathfinder Energy Services, Inc.
6213 W. Interstate 20 • Midland, TX • 79706
(432) 681-6000

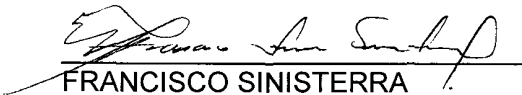
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) BRYANT BLAKEMORE
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 10-26-10 TO 10-27-10
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
CHAMAELEOM BIP STATE COM #1H
EDDY COUNTY, NM
RIG: PATRIOT 5

9. SURVEY CERTIFIED FROM: 477 TO 2098 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 20.99 FEET ON A BEARING OF 101.69 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 2170.00 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.


FRANCISCO SINISTERRA
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 10/26/2010
Date Completed: 10/27/2010

YATES PETROLEUM CORPORATION
CHAMAELEON BIN STATE COM #1H
EDDY COUNTY, NEW MEXICO
Rig: PATRIOT #5
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: BRYANT BLAKEMORE
JESUS GARCIA

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.1.11.6782 N LON: 104.8.27.2387 W
GRID Reference: NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 600976.8000 Y: 371035.4940
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.80° EAST TO GRID
Vertical Section Plane: 181.48
Survey Vert. Reference: 26.50' Rotary Table To Ground
Altitude: 3106.00' Ground To MSL

Measured Depth	2170.00	(feet)
Inclination	3.34	(deg)
Azimuth	34.09	(deg)
True Vertical Depth	2169.21	(feet)
Vertical Section	3.72	(feet)
Survey X cord	600997.36	(feet)
Survey Y cord	371031.24	(feet)
Survey Lat	32.01989883 N	(deg)
Survey Lon	104.14083335 W	(deg)
Rectangular Corr. N/S	4.25 S	(feet)
Rectangular Corr. E/W	20.56 E	(feet)
Closure Distance	20.99	(feet)
Direction of Closure	101.69	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION

CHAMAELEON BIN STATE COM #1H

EDDY COUNTY, NEW MEXICO

Rig: PATRIOT #5

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: BRYANT BLAKEMORE

JESUS GARCIA

Survey Horiz. Reference: WELLHEAD

Ref Coordinates: LAT: 32.1.11.6782 N LON: 104.8.27.2387 W

GRID Reference: NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 600976.8000 Y: 371035.4940

North Aligned To: GRID NORTH

Total Magnetic Correction: 7.80° EAST TO GRID

Vertical Section Plane: 181.48

Survey Vert. Reference: 26.50' Rotary Table To Ground

Altitude: 3106.00' Ground To MSL

Survey Calculations by RX5 V6.03B 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)
ASSUME VERTICAL WELLBORE @ 400' MD.										
400.00	0.00	0.00	400.00	0.00	-0.00	0.00	0.00	0.00@	0.00	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
477.00	0.53	128.75	477.00	77.00	0.22	0.22 S	0.28 E	0.36@	128.75	0.69
568.00	0.62	172.20	567.99	91.00	0.96	0.97 S	0.67 E	1.18@	145.37	0.48
657.00	1.06	153.95	656.99	89.00	2.16	2.19 S	1.10 E	2.45@	153.35	0.57
754.00	0.26	215.75	753.98	97.00	3.14	3.18 S	1.37 E	3.46@	156.74	1.00
849.00	0.35	208.40	848.98	95.00	3.58	3.61 S	1.10 E	3.77@	163.02	0.10
943.00	0.79	202.88	942.97	94.00	4.44	4.46 S	0.71 E	4.51@	170.91	0.47
1037.00	1.14	209.62	1036.96	94.00	5.86	5.87 S	0.00 W	5.87@	180.01	0.39
1131.00	1.93	225.15	1130.92	94.00	7.83	7.79 S	1.59 W	7.95@	191.50	0.94
1225.00	0.70	179.19	1224.90	94.00	9.55	9.49 S	2.70 W	9.86@	195.89	1.63
1319.00	0.62	185.17	1318.89	94.00	10.63	10.57 S	2.74 W	10.91@	194.53	0.11
1413.00	0.53	209.15	1412.89	94.00	11.53	11.45 S	3.00 W	11.84@	194.66	0.27
1507.00	0.26	258.59	1506.89	94.00	11.96	11.87 S	3.42 W	12.36@	196.05	0.44
1601.00	0.88	99.42	1600.88	94.00	12.11	12.03 S	2.91 W	12.38@	193.61	1.20
1695.00	2.29	92.71	1694.85	94.00	12.25	12.24 S	0.32 W	12.25@	181.52	1.51
1790.00	2.02	96.11	1789.78	95.00	12.42	12.51 S	3.24 E	12.92@	165.50	0.31
1884.00	2.81	85.76	1883.70	94.00	12.33	12.52 S	7.18 E	14.43@	150.15	0.96
1978.00	3.52	76.68	1977.55	94.00	11.36	11.68 S	12.29 E	16.95@	133.55	0.92
2071.00	3.61	45.58	2070.38	93.00	8.53	8.97 S	17.16 E	19.36@	117.61	2.06
2098.00	3.34	34.09	2097.33	27.00	7.25	7.73 S	18.20 E	19.78@	113.00	2.76
STRAIGHT LINE PROJECTION TO BIT @ 2170' MD.										
2170.00	3.34	34.09	2169.21	72.00	3.72	4.25 S	20.56 E	20.99@	101.69	0.00

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM CORPORATION		
LEASE / WELL No.:	CHAMAELEON BIN STATE COM	#1H	
WELL LOCATION:	EDDY COUNTY, NEW MEXICO		
COUNTY / STATE / COUNTRY:	EDDY	NEW MEXICO	USA
RIG:	PATRIOT #5		
API WELL No:	30-015-37942		
JOB No:	700000640 WT-WT		
P.O. / AFE No.	102320		
DIRECTIONAL COMPANY:	PATHFINDER ENERGY SERVICES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.81	LWD Calculated:	7.803
		Agreed Upon:	7.8
X =	600976.800000	Feet	Y = 731035.490000
			Feet
SITE LATITUDE:	32.019911 N	SITE LONGITUDE:	104.140900 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	new mexico east
PROPOSED DRIFT DIRECTION:	181.48		
KELLY BUSHING ELEVATION:	26.5		
ALTITUDE:	3106	Feet	WATER DEPTH: N/A
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	400		
DRIFT ANGLE:	0		
DRIFT DIRECTION:	0		
TRUE VERTICAL DEPTH:	400		
VERTICAL SECTION:	0		
RECTANGULAR COORDINATE (N / S) :	0		
RECTANGULAR COORDINATE (E / W) :	0		
CLOSURE DISTANCE / DIRECTION:	0	0	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):			
COPY OF TIE-IN SURVEY REPORT	☐ YES ☒ NO		

WELL PLAN

KICKOFF DEPTH:	400	TOTAL DEPTH:	2200
KICKOFF ANGLE:	0	MAX ANGLE:	0

PES Engineers: Bryant Blakemore
Jesus Garcia

**Signature of both field engineers required if applicable

Directional Driller: Irby LeJeune

DATE: 26-Oct-2010



A Schlumberger Company

PathFinder Energy Services, Inc. Magnetic & Grid Calculations

YATES PETROLEUM
CHAMAELEON BIN STATE COM #1H
EDDY COUNTY, NEW MEXICO
Rig: PATRIOT #5

Wed Oct 20 16:10:05 2010

Coordinates

Latitude: 32.019911 N (32 deg. 1 min. 11.6782 sec.)
Longitude: 104.140900 W (-104 deg. 8 min. 27.2387 sec.)
Elevation: 3132.50 feet.
Calculation Date: Oct/20/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 59.9118 degrees
Total Magnetic Field: 0.48495 gauss
Magnetic Declination: 7.907617 degrees
Horizontal Intensity: 0.243123 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.907617 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 600976.8000 feet
Y: 371035.4940 feet
True to Grid: (convergence) -0.102031 degrees
Magnetic to Grid: 7.805586 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.805586 Degs.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM CORPORATION
CHAMAELEON BIN STATE COM #1H
EDDY COUNTY, NEW MEXICO
Rig:PATRIOT #5

Tue Oct 26 17:12:58 2010

Coordinates

Latitude: 32.019911 N (32 deg. 1 min. 11.6782 sec.)
Longitude: 104.140900 W (-104 deg. 8 min. 27.2387 sec.)
Elevation: 3132.50 feet.
Calculation Date: Oct/26/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 59.9114 degrees
Total Magnetic Field: 0.48494 gauss
Magnetic Declination: 7.905632 degrees
Horizontal Intensity: 0.243117 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.905632 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 600976.8000 feet
Y: 371035.4940 feet
True to Grid: (convergence) -0.102031 degrees
Magnetic to Grid: 7.803601 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.803601 Degs.