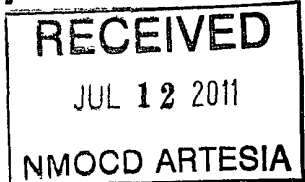




A Schlumberger Company

DIRECTIONAL SURVEY REPORT



YATES PETROLEUM

YADDOCK BQT STATE #1H

EDDY COUNTY, NEW MEXICO

PREPARED BY: FRANCISCO SINISTERRA

Pathfinder

6213 W Interstate 20
Midland, Texas 79706
Tel 432 687 1647
Fax 432 687 1544

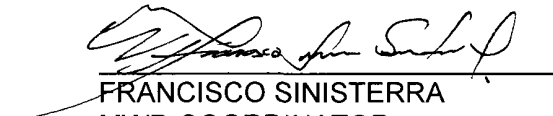


DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) JEREMY HOLMES
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 03-06-11 TO 03-24-11
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
YADDOCK BQT STATE #1H
EDDY COUNTY, NM
RIG: PATTERSON 75
9. SURVEY CERTIFIED FROM: 6028 TO 11072 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4506.95 FEET ON A BEARING OF 267.88 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 11255 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: 03/06/2011
Date Completed: 03/24/2011

YATES PETROLEUM CORPORATION
YADDOCK BQY STATE #1H
EDDY COUNTY COUNTY, NEW MEXICO
Rig:PATTERSON 75
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:JEREMY HOLMES
JAKE NEWHOUSE

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.5.18.8220 N LON:104.1.59.5109 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 634286.6780 Y: 396084.9940
North Aligned To:GRID NORTH
Total Magnetic Correction: 0.00° (WEST TO GRID)
Vertical Section Plane: 268.27
Survey Vert. Reference: 23.00' Kelly Bushing To Ground
Altitude:2926.00' Ground To MSL

Measured Depth	11255.00	(feet)
Inclination	89.96	(deg)
Azimuth	265.52	(deg)
True Vertical Depth	6879.01	(feet)
Vertical Section	4506.84	(feet)
Survey X cord	629782.82	(feet)
Survey Y cord	395918.24	(feet)
Survey Lat	32.08813689 N	(deg)
Survey Lon	104.04774187 W	(deg)
Rectangular Corr. N/S	166.76 S	(feet)
Rectangular Corr. E/W	4503.86 W	(feet)
Closure Distance	4506.95	(feet)
Direction of Closure	267.88	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION

YADDOCK BQY STATE #1H

EDDY COUNTY COUNTY, NEW MEXICO

Rig:PATTERSON 75

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: JEREMY HOLMES

JAKE NEWHOUSE

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.5.18.8220 N LON:104.1.59.5109 W

GRID Reference:NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 634286.6780 Y: 396084.9940

North Aligned To:GRID NORTH

Total Magnetic Correction: 0.00° (WEST TO GRID)

Vertical Section Plane: 268.27

Survey Vert. Reference: 23.00' Kelly Bushing To Ground

Altitude:2926.00' Ground To MSL

Survey Calculations by RX5 V6.03D 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 MS GYRO SURVEYS										
200.00	0.25	296.66	200.00	0.00	0.38	0.20 N	0.39 W	0.43@	296.91	0.00
400.00	0.75	299.52	399.99	200.00	1.88	1.04 N	1.91 W	2.18@	298.43	0.25
600.00	0.75	300.38	599.97	200.00	4.11	2.34 N	4.18 W	4.79@	299.26	0.01
800.00	1.00	293.24	799.95	200.00	6.80	3.69 N	6.92 W	7.84@	298.11	0.14
1000.00	1.25	249.09	999.92	200.00	10.44	3.60 N	10.56 W	11.16@	288.85	0.44
1200.00	1.50	238.94	1199.86	200.00	14.79	1.48 N	14.84 W	14.91@	275.68	0.17
1400.00	1.00	229.80	1399.81	200.00	18.43	1.00 S	18.41 W	18.44@	266.88	0.27
1600.00	1.50	227.65	1599.76	200.00	21.79	3.89 S	21.68 W	22.03@	259.82	0.25
1800.00	1.00	222.09	1799.71	200.00	24.98	6.95 S	24.79 W	25.74@	254.33	0.26
2000.00	0.75	204.95	1999.69	200.00	26.78	9.43 S	26.51 W	28.14@	250.41	0.18
2200.00	1.50	71.80	2199.67	200.00	24.86	9.80 S	24.57 W	26.46@	248.25	1.04
2400.00	1.75	79.66	2399.59	200.00	19.33	8.44 S	19.08 W	20.86@	246.15	0.17
2600.00	1.50	54.51	2599.51	200.00	14.13	6.37 S	13.95 W	15.33@	245.46	0.37
2800.00	1.00	41.38	2799.46	200.00	10.76	3.54 S	10.66 W	11.23@	251.64	0.29
3000.00	0.75	29.34	2999.44	200.00	8.89	1.09 S	8.87 W	8.93@	263.00	0.15
3200.00	0.75	36.29	3199.42	200.00	7.41	1.11 N	7.45 W	7.53@	278.46	0.05
3400.00	0.50	54.21	3399.41	200.00	5.88	2.67 N	5.97 W	6.54@	294.13	0.16
3600.00	0.25	10.06	3599.41	200.00	5.07	3.61 N	5.18 W	6.32@	304.88	0.18
3800.00	0.25	20.02	3799.41	200.00	4.82	4.45 N	4.96 W	6.66@	311.93	0.02
4000.00	0.25	15.98	3999.40	200.00	4.53	5.28 N	4.69 W	7.06@	318.41	0.01
4200.00	0.25	280.93	4199.40	200.00	4.82	5.78 N	5.00 W	7.64@	319.18	0.19
4400.00	0.25	189.89	4399.40	200.00	5.33	5.44 N	5.50 W	7.73@	314.68	0.18
4600.00	0.25	143.85	4599.40	200.00	5.17	4.66 N	5.32 W	7.07@	311.21	0.10
4800.00	0.25	138.31	4799.40	200.00	4.65	3.98 N	4.77 W	6.21@	309.83	0.01
5000.00	0.25	196.76	4999.40	200.00	4.50	3.23 N	4.60 W	5.63@	305.08	0.12

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
YADDOCK BQY STATE #1H
EDDY COUNTY COUNTY, NEW MEXICO
RIG:PATTERSON 75

Page 02/04

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
5200.00	0.50	194.22	5199.39	200.00	4.88	1.97 N	4.94 W	5.32@	291.72	0.13
5400.00	0.50	174.68	5399.38	200.00	5.07	0.25 N	5.08 W	5.08@	272.87	0.09
5600.00	0.25	185.78	5599.38	200.00	5.07	1.05 S	5.04 W	5.15@	258.26	0.13
5800.00	0.50	155.97	5799.38	200.00	4.80	2.28 S	4.73 W	5.25@	244.27	0.16
TIE INTO MS GYRO SURVEY @ 5924' MD										
5924.00	0.50	172.61	5923.37	0.00	4.54	3.31 S	4.44 W	5.54@	233.30	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS										
6028.00	0.62	173.07	6027.37	104.00	4.44	4.32 S	4.31 W	6.10@	224.97	0.12
6123.00	0.79	166.39	6122.36	95.00	4.26	5.47 S	4.10 W	6.83@	216.86	0.20
6219.00	0.70	158.66	6218.35	96.00	3.93	6.65 S	3.73 W	7.63@	209.26	0.14
6321.00	0.79	155.49	6320.34	102.00	3.45	7.87 S	3.21 W	8.50@	202.18	0.10
6417.00	0.79	156.06	6416.33	96.00	2.94	9.08 S	2.67 W	9.47@	196.36	0.01
6448.00	0.62	242.23	6447.33	31.00	3.01	9.36 S	2.73 W	9.75@	196.26	3.13
6480.00	2.73	287.22	6479.32	32.00	3.89	9.21 S	3.61 W	9.89@	201.40	7.29
6512.00	5.80	292.99	6511.22	32.00	6.08	8.35 S	5.83 W	10.18@	214.90	9.67
6544.00	9.58	295.40	6542.93	32.00	9.92	6.58 S	9.72 W	11.74@	235.91	11.85
6576.00	13.28	297.23	6574.29	32.00	15.50	3.75 S	15.40 W	15.85@	256.30	11.62
6607.00	16.80	298.35	6604.22	31.00	22.50	0.00 N	22.51 W	22.51@	270.01	11.39
6638.00	20.22	296.76	6633.62	31.00	31.09	4.54 N	31.24 W	31.57@	278.28	11.15
6670.00	23.83	294.42	6663.28	32.00	41.75	9.71 N	42.06 W	43.17@	283.00	11.61
6702.00	27.61	291.12	6692.10	32.00	54.39	15.06 N	54.87 W	56.90@	285.34	12.63
6734.00	31.74	287.13	6719.90	32.00	69.20	20.21 N	69.84 W	72.71@	286.14	14.30
6766.00	36.05	284.52	6746.46	32.00	86.21	25.05 N	87.01 W	90.54@	286.06	14.21
6797.00	40.27	281.71	6770.83	31.00	104.73	29.37 N	105.66 W	109.67@	285.54	14.72
6829.00	44.49	278.18	6794.47	32.00	125.84	33.07 N	126.90 W	131.14@	284.61	15.14
6861.00	48.19	273.89	6816.56	32.00	148.77	35.48 N	149.91 W	154.05@	283.31	15.09
6893.00	51.97	268.98	6837.10	32.00	173.26	36.06 N	174.43 W	178.11@	281.68	16.67
6924.00	55.05	263.94	6855.54	31.00	198.15	34.50 N	199.28 W	202.25@	279.82	16.41

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
YADDOCK BQY STATE #1H
EDDY COUNTY COUNTY, NEW MEXICO
RIG:PATTERSON 75

Page 03/04

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)
6956.00	57.86	259.34	6873.23	32.00	224.63	30.61 N	225.65 W	227.72@	277.72	14.85
6988.00	61.20	261.46	6889.45	32.00	251.94	26.02 N	252.84 W	254.18@	275.88	11.90
7020.00	65.16	262.14	6903.89	32.00	280.31	21.95 N	281.10 W	281.96@	274.46	12.52
7051.00	69.12	264.23	6915.93	31.00	308.76	18.57 N	309.46 W	310.02@	273.43	14.20
7083.00	73.78	265.34	6926.11	32.00	339.03	15.82 N	339.66 W	340.03@	272.67	14.93
7115.00	78.70	265.91	6933.72	32.00	370.07	13.45 N	370.65 W	370.89@	272.08	15.47
7132.00	81.25	265.90	6936.68	17.00	386.79	12.25 N	387.34 W	387.53@	271.81	15.00
7164.00	85.12	266.15	6940.47	32.00	418.54	10.05 N	419.03 W	419.15@	271.37	12.12
7195.00	88.46	266.83	6942.21	31.00	449.47	8.16 N	449.92 W	450.00@	271.04	11.00
7227.00	89.34	266.90	6942.82	32.00	481.45	6.41 N	481.87 W	481.91@	270.76	2.76
7259.00	90.92	267.05	6942.75	32.00	513.45	4.72 N	513.82 W	513.84@	270.53	4.96
7354.00	91.54	266.78	6940.71	95.00	608.40	0.39 S	608.66 W	608.66@	269.96	0.71
7449.00	91.80	267.15	6937.94	95.00	703.33	5.42 S	703.49 W	703.51@	269.56	0.48
7545.00	90.75	267.00	6935.81	96.00	799.29	10.32 S	799.34 W	799.40@	269.26	1.11
7640.00	91.45	267.16	6933.98	95.00	894.25	15.16 S	894.20 W	894.32@	269.03	0.76
7735.00	90.57	268.06	6932.31	95.00	989.22	19.12 S	989.10 W	989.28@	268.89	1.33
7831.00	91.36	268.31	6930.69	96.00	1085.21	22.16 S	1085.03 W	1085.26@	268.83	0.86
7925.00	90.75	268.54	6928.96	94.00	1179.19	24.74 S	1178.98 W	1179.24@	268.80	0.69
8021.00	92.42	269.50	6926.30	96.00	1275.14	26.38 S	1274.93 W	1275.20@	268.81	2.01
8116.00	91.71	269.16	6922.88	95.00	1370.06	27.49 S	1369.86 W	1370.13@	268.85	0.83
8211.00	89.52	267.18	6921.86	95.00	1465.05	30.53 S	1464.79 W	1465.11@	268.81	3.11
8307.00	89.87	267.40	6922.37	96.00	1561.03	35.07 S	1560.69 W	1561.08@	268.71	0.43
8402.00	90.22	267.64	6922.30	95.00	1656.02	39.18 S	1655.60 W	1656.06@	268.64	0.45
8497.00	91.71	269.02	6920.70	95.00	1751.00	41.94 S	1750.54 W	1751.04@	268.63	2.14
8593.00	90.92	269.51	6918.50	96.00	1846.96	43.18 S	1846.50 W	1847.01@	268.66	0.97
8688.00	90.84	270.82	6917.04	95.00	1941.90	42.90 S	1941.49 W	1941.96@	268.73	1.38
8783.00	89.87	270.31	6916.45	95.00	2036.82	41.97 S	2036.48 W	2036.91@	268.82	1.15
8879.00	89.43	270.24	6917.03	96.00	2132.76	41.51 S	2132.48 W	2132.88@	268.88	0.46

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
YADDOCK BQY STATE #1H
EDDY COUNTY COUNTY, NEW MEXICO
RIG:PATTERSON 75

Page 04/04

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)
8974.00	89.25	269.02	6918.13	95.00	2227.72	42.12 S	2227.47 W	2227.87@	268.92	1.30
9070.00	89.96	268.10	6918.79	96.00	2323.72	44.53 S	2323.43 W	2323.86@	268.90	1.21
9165.00	89.96	268.12	6918.86	95.00	2418.72	47.66 S	2418.38 W	2418.85@	268.87	0.02
9260.00	90.04	267.57	6918.86	95.00	2513.72	51.24 S	2513.31 W	2513.84@	268.83	0.59
9355.00	90.22	267.79	6918.64	95.00	2608.71	55.08 S	2608.24 W	2608.82@	268.79	0.30
9451.00	90.48	267.81	6918.05	96.00	2704.71	58.77 S	2704.16 W	2704.80@	268.76	0.27
9546.00	90.31	267.76	6917.40	95.00	2799.70	62.44 S	2799.09 W	2799.79@	268.72	0.19
9641.00	91.45	268.06	6915.94	95.00	2894.68	65.90 S	2894.01 W	2894.76@	268.70	1.24
9737.00	92.42	268.23	6912.70	96.00	2990.63	69.01 S	2989.91 W	2990.70@	268.68	1.03
9832.00	91.80	267.65	6909.20	95.00	3085.56	72.42 S	3084.78 W	3085.63@	268.66	0.89
9927.00	91.98	267.33	6906.07	95.00	3180.50	76.58 S	3179.64 W	3180.56@	268.62	0.39
10023.00	91.54	266.52	6903.12	96.00	3276.43	81.73 S	3275.45 W	3276.47@	268.57	0.96
10118.00	89.87	266.13	6901.95	95.00	3371.36	87.82 S	3370.25 W	3371.39@	268.51	1.81
10214.00	89.96	266.07	6902.09	96.00	3467.29	94.34 S	3466.03 W	3467.31@	268.44	0.11
10309.00	89.96	265.32	6902.16	95.00	3562.20	101.48 S	3560.76 W	3562.20@	268.37	0.79
10405.00	92.33	265.57	6900.24	96.00	3658.05	109.10 S	3656.43 W	3658.05@	268.29	2.48
10500.00	92.15	265.13	6896.53	95.00	3752.86	116.79 S	3751.04 W	3752.86@	268.22	0.50
10595.00	92.77	265.82	6892.45	95.00	3847.66	124.28 S	3845.66 W	3847.67@	268.15	0.98
10691.00	93.74	266.36	6887.00	96.00	3943.43	130.82 S	3941.28 W	3943.45@	268.10	1.16
10786.00	91.98	268.03	6882.26	95.00	4038.29	135.46 S	4036.04 W	4038.31@	268.08	2.55
10881.00	91.73	267.65	6879.18	95.00	4133.24	139.04 S	4130.92 W	4133.26@	268.07	0.48
10976.00	89.34	265.36	6878.30	95.00	4228.17	144.83 S	4225.73 W	4228.21@	268.04	3.48
11072.00	89.96	265.52	6878.88	96.00	4324.05	152.46 S	4321.42 W	4324.11@	267.98	0.67
STRAIGHT LINE PROJECTION TO BIT @ 11255' MD										
11255.00	89.96	265.52	6879.01	183.00	4506.84	166.76 S	4503.86 W	4506.95@	267.88	0.00



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM		
LEASE / WELL No.:			
WELL LOCATION:	EDDY COUNTY		
COUNTY / STATE / COUNTRY:	EDDY COUNTY	NEW MEXICO	USA
RIG:	PATTERSON 75		
API WELL No:	30-015-38262		
JOB No:	700001785 WT-WT		
P.O. / AFE No.	10.30.90		
DIRECTIONAL COMPANY:	PATHFINDER		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.66	LWD Calculated:	7.66
		Agreed Upon:	7.66
X = 634286.6767 Feet		Y = 396084.9931 Feet	
SITE LATITUDE:	32.08856167 N	SITE LONGITUDE:	104.03319749 W
GRID SYSTEM:	TRUE ☐ UTM ☐ LAMBERT ☐ ZONE:		
PROPOSED DRIFT DIRECTION:			
KELLY BUSHING ELEVATION: 23			
ALTITUDE:	Feet	WATER DEPTH:	Feet

WPlat

DD

TIE-IN SURVEY

MEASURED DEPTH:	5924		
DRIFT ANGLE:	0.5		
DRIFT DIRECTION:	268.27		
TRUE VERTICAL DEPTH:	5923.37		
VERTICAL SECTION:	4.54		
RECTANGULAR COORDINATE (N / S):	-3.31		
RECTANGULAR COORDINATE (E / W):	-4.44		
CLOSURE DISTANCE / DIRECTION:	5.54	233.32	
SURVEY CALCULATION METHOD:	AA ☐	MC ☐	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	MS SURVEY		
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO		

WELL PLAN

Wall Plot

KICKOFF DEPTH:	TOTAL DEPTH:
KICKOFF ANGLE:	MAX ANGLE:

PES Engineers: _____

**Signature of both field engineers required if applicable

Directional Driller: _____

DATE: _____



CUSTOMER: YATES PETROLEUM

JOB NUMBER: SVCO-110269

WELL NAME: YADDOCK BOY STATE #1H

LOCATION: EDDY COUNTY, NEW MEXICO

SURVEY DATE: 2011/03/15

SURVEYOR: S. SMITH

VERTICAL SEC: 268.27

DECLINATION: 7.66 TO GRID

COMMENTS: PATTERSON 75
RKB 23'
TBUSSEIL@YATESPETROLEUM.COM
MIKE@YATESPETROLEUM.COM

MEASURED DEPTH	VERTICAL DEPTH	VERTICAL SECTION	INCLINATION ANGLE	BEARING AZIMUTH	COORDINATES		DOG-LEG PER 100	STATION DISPLACEMENT	DISPLACEMENT DIRECTION
					LATITUDE	DEPARTURE			
200	200	0.38	0.25	296.66	0.2	-0.39	0.13	0.44	296.66
400	399.99	1.89	0.75	299.52	1.04	-1.92	0.25	2.18	298.38
600	599.97	4.11	0.75	300.38	2.34	-4.19	0.01	4.8	299.23
800	799.95	6.81	1	293.24	3.69	-6.92	0.14	7.84	298.09
1000	999.92	10.45	1.25	249.09	3.6	-10.56	0.44	11.16	288.84
1200	1199.86	14.79	1.5	238.94	1.48	-14.84	0.17	14.91	275.68
1400	1399.81	18.44	1	229.8	-1	-18.42	0.27	18.44	266.89
1600	1599.76	21.79	1.5	227.65	-3.89	-21.68	0.25	22.03	259.82
1800	1799.71	24.99	1	222.09	-6.95	-24.79	0.26	25.75	254.34
2000	1999.69	26.78	0.75	204.95	-9.43	-26.51	0.18	28.14	250.41
2200	2199.67	24.86	1.5	71.8	-9.8	-24.58	1.04	26.46	248.26
2400	2399.59	19.33	1.75	79.66	-8.44	-19.09	0.17	20.87	246.15
2600	2599.51	14.14	1.5	54.51	-6.37	-13.95	0.37	15.33	245.46
2800	2799.46	10.77	1	41.38	-3.54	-10.66	0.29	11.24	251.64
3000	2999.44	8.9	0.75	29.34	-1.09	-8.87	0.15	8.94	263.01
3200	3199.42	7.42	0.75	36.29	1.11	-7.45	0.05	7.54	278.45
3400	3399.41	5.89	0.5	54.21	2.67	-5.97	0.16	6.54	294.12
3600	3599.41	5.08	0.25	10.06	3.61	-5.19	0.18	6.32	304.86
3800	3799.41	4.82	0.25	20.02	4.45	-4.96	0.02	6.67	311.91
4000	3999.4	4.53	0.25	15.98	5.28	-4.69	0.01	7.07	318.39
4200	4199.4	4.82	0.25	280.93	5.78	-5	0.18	7.65	319.16
4400	4399.4	5.34	0.25	189.89	5.44	-5.5	0.18	7.74	314.65
4600	4599.4	5.18	0.25	143.85	4.66	-5.32	0.1	7.07	311.18
4800	4799.4	4.65	0.25	138.31	3.98	-4.77	0.01	6.21	309.8
5000	4999.4	4.51	0.25	196.76	3.23	-4.61	0.12	5.63	305.05
5200	5199.39	4.89	0.5	194.22	1.97	-4.95	0.13	5.33	291.7
5400	5399.38	5.07	0.5	174.68	0.25	-5.08	0.08	5.09	272.87
5600	5599.38	5.07	0.25	185.78	-1.05	-5.05	0.13	5.15	258.26
5800	5799.38	4.8	0.5	155.97	-2.28	-4.73	0.15	5.25	244.29
5924	5923.37	4.54	0.5	172.61	-3.31	-4.44	0.12	5.54	233.32

MS ENERGY SERVICES
ODESSA, TEXAS

PAGE:

3 NUMBER: SVCO-110269

WELL NAME: YADDOCK BQY STATE #1

OUTRUN SURVEY
BY MINIMUM CURVATURE

MEAS DEPTH	VERT DEPTH	VERT SECT	L/P PROP	INCL	BEARING AZIMUTH	COORDINATES LATITUDE DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISP	DIRECTI
0 0	0 00	0 00	0 000	00 00	000 00	0 00 N 0 00 L	0 00		0.00	AT 000
200 0	200 00	0 38	0 207	00 25	296 66	0 20 N 0 39 U	0 13	0 25	0 44	AT 296
400 0	399 99	1 89	1 094	00 75	299 52	1 04 N 1 92 U	0 25	0 50	2 18	AT 298
600 0	599 97	4 11	2 469	00 75	300 36	2 34 N 4 19 W	0 01	0 01	4 80	AT 299
800 0	799 95	6 81	3 901	01 00	293 24	3 69 N 6 92 W	0 14	0 27	7 84	AT 298
1000 0	999 92	10 45	3 921	01 25	249 09	3 60 N 10 56 U	0 44	0 88	11 16	AT 288
1200 0	1199 86	14 79	1 922	01 50	238 94	1 48 N 14 84 U	0 17	0 35	14 91	AT 275
1400 0	1399 81	18 44	-0.446	01 00	229 60	1 00 S 18 42 W	0 27	0 54	18 44	AT 266
1600 0	1599 76	21 79	-3.236	01 50	227 65	3 89 S 21 68 W	0 25	0 50	22 03	AT 259
1800 0	1799 71	24 99	-6.199	01 00	222 09	6 95 S 24 79 W	0 26	0 51	25 75	AT 254
2000 0	1999 69	26 78	-8 628	00 75	204 95	9 43 S 26 51 U	0 18	0 36	26 14	AT 250
2200 0	2199 67	24 86	-9.055	01 50	071 80	9 80 S 24 58 U	1 04	2 09	26 46	AT 248
2400 0	2399 59	19 35	-7.856	01 75	079 66	8 44 S 19 09 U	0 17	0 33	20 87	AT 246
2600 0	2599 51	14 14	-5.944	01 50	054 51	6 31 S 13 95 U	0 37	0 75	15 33	AT 245
2800 0	2799 46	10 77	-3 215	01 00	041 36	3 54 S 10 66 W	0 29	0 57	11 24	AT 251
3000 0	2999 44	8 90	-0 820	00 75	029 34	1 09 S 8 87 U	0 15	0 31	8 94	AT 263
3200 0	3199 42	7 42	1.332	00 75	036 29	1 11 N 7 45 W	0 05	0 09	7 54	AT 278
3400 0	3399 41	5 89	2 852	00 50	054 21	2 67 N 5 97 U	0 16	0 31	6 54	AT 294
3600 0	3599 41	5 08	3.768	00 25	010 06	3 63 N 5 19 U	0 18	0 36	6 32	AT 304
3800 0	3799 41	4 82	4 601	00 25	020 02	4 45 N 4 56 U	0 02	0 04	6 67	AT 311
4000 0	3999 40	4 53	5 422	00 25	015 98	5 29 N 4 69 U	0 01	0 02	7 07	AT 318
4200 0	4199 40	4 62	5 933	00 25	280 93	5 78 N 5 00 U	0 18	0 37	7 65	AT 319
4400 0	4399 40	5 34	5 601	00 25	189 89	5 44 N 5 50 U	0 18	0 36	7 74	AT 314
4600 0	4599 40	5 18	4 814	00 25	143 85	4 66 N 5 32 W	0 10	0 20	7 07	AT 311
4800 0	4799 40	4 65	4.119	00 25	136 31	3 98 N 4 77 W	0 01	0 02	6 21	AT 309
5000 0	4999 40	4 51	3.371	00 25	196 76	3 33 N 4 61 U	0 12	0 24	5 63	AT 305
5200 0	5199 39	4 89	2 118	00 50	194 22	1 97 N 4 95 U	0 13	0 25	5 32	AT 291
5400 0	5399 38	5 07	0 408	00 50	174 68	0 25 N 5 08 W	0 08	0 17	5 09	AT 272
5600 0	5599 38	5 07	-0 895	00 25	189 78	1 05 S 5 05 W	0 13	0 26	5 15	AT 258
5800 0	5799 39	1 80	-2 135	00 50	155 97	2 28 S 4 73 W	0 15	0 31	5 25	AT 244
5924 0	5923 37	4 54	-3 174	00 50	172 61	3 31 S 4 44 U	0 12	0 14	5 54	AT 233

* THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF *
* 5924.00 FEET EQUALS 5.54 FEET AT 233 32 *

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM
YADDOCK "BQY" STATE #1H
EDDY COUNTY, NEW MEXICO
Rig: PATTERSON 75

Wed Mar 02 12:08:03 2011

Coordinates

Latitude: 32.088562 N (32 deg. 5 min. 18.8220 sec.)
Longitude: 104.033197 W (-104 deg. 1 min. 59.5109 sec.)
Elevation: 2949.00 feet.
Calculation Date: Mar/02/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 59.9867 degrees
Total Magnetic Field: 0.48514 gauss
Magnetic Declination: 7.820647 degrees
Horizontal Intensity: 0.242669 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.820647 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 634286.6780 feet
Y: 396084.9940 feet
True to Grid: (convergence) -0.159442 degrees
Magnetic to Grid: 7.661205 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.661205 Degs.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM
YADDOCK BQY STATE 1H

Field

Rig: PATTERSON 75

Tue Mar 15 16:52:15 2011

Coordinates

Latitude: 32.088562 N (32 deg. 5 min. 18.8220 sec.)
Longitude: 104.033197 W (-104 deg. 1 min. 59.5110 sec.)
Elevation: 23.00 feet.
Calculation Date: Mar/15/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 59.9858 degrees
Total Magnetic Field: 0.48533 gauss
Magnetic Declination: 7.817814 degrees
Horizontal Intensity: 0.242767 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.817814 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 634286.6767 feet
Y: 396084.9931 feet
True to Grid: (convergence) -0.159442 degrees
Magnetic to Grid: 7.658372 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.658372 Degs.