

9/19/2007

Wellbore Diagram

r263

30-015-35509-00-00

MESCAL SE FEDERAL No. 002

Company Name: YATES PETROLEUM CORPORATION**Location:** Sec: 18 T: 21S R: 22E Spot:**String Information**

Lat: 32.4713660919302 Long: -104.746457017404

Property Name: MESCAL SE FEDERAL**County Name:** Eddy**Cement Information****Perforation Information**

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Sqz
0	0			

Formation Information

St Code	Formation	Depth
Pwc	Wolfcamp	4905
PPst	Strawn	7465
Ppat	Atoka	7972
Ppmor	Morrow	8256
Mchs	Chester	8772

Hole: Unknown

TD:

TVD: 0

PBTD:

INCLINATION REPORT		
2. LEASE NAME MESCAL SE FED #2		
3. OPERATOR YATES PETROLEUM		
4. ADDRESS 105 SOUTH 4 TH ST. ARTESSIA, NM 88210		County EDDY

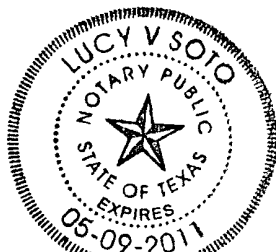
RECORD OF INCLINATION

*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)
200	2.00	1.50	2.62	5.24	5.24
830	6.30	1.75	3.05	19.21	24.45
1374	5.44	1.00	1.75	9.52	33.97
1891	5.17	1.00	1.75	9.04	43.01
2035	1.44	1.00	1.75	2.52	45.53
2445	4.10	3.50	6.11	25.05	70.58
2916	4.71	19.00	33.16	156.18	226.76
3321	4.05	27.75	48.43	196.14	422.90
3730	4.09	31.50	54.98	224.86	647.76
4232	5.02	26.50	46.25	232.17	879.93
4607	3.75	19.50	34.03	127.61	1,007.54
4953	3.46	7.75	13.53	46.81	1,054.35
5488	5.35	3.00	5.24	28.03	1,082.38
5913	4.25	2.00	3.49	14.83	1,097.21
6463	5.50	1.25	2.18	11.99	1,109.20
6871	4.08	0.25	0.44	1.79	1,110.99
7164	2.93	0.25	0.44	1.28	1,112.27
7592	4.28	0.75	1.31	5.60	1,117.87
7875	2.83	0.50	0.87	2.46	1,120.33
8375	5.00	0.50	0.87	4.35	1,124.68
8822	4.47	2.75	4.80	21.45	1,146.13

Bill

Drilling Manager
Lariat Services, Inc.
432-561-5510

Sworn to and subscribed before me this 18th day of July 2007



Lucy V Soto
Notary Public Signature



Gyrodata Incorporated
3811 S. Co. Rd. 1285
Odessa, TX 79765

432/561-8458
Fax: 432/563-7982

SURVEY REPORT
Yates Petroleum
Mescal Fed No. 2
Lariat No. 31
Eddy County, New Mexico
MD0507G_198

24 May 2007

A Gyrodata Directional Survey

for

YATES PETROLEUM

Lease: Mescal Fed Well: No. 2, 4-1/2" Drillpipe
Location: Lariat No. 31, Eddy County, New Mexico

Job Number: MD0507G_198

Run Date: 24 May 2007

Surveyor: Henry Drew

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.471389 deg. N Longitude: 104.746028 deg. W

Azimuth Correction:

Gyro: Bearings are Relative to True North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

A Gyrodata Directional Survey

Yates Petroleum

Lease: Mescal Fed Well: No. 2, 4-1/2" Drillpipe

Location: Lariat No. 31, Eddy County, New Mexico

Job Number: MD0507G_198

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	N 0 0 E	0.00	0.00	0.0 0.0	0.00 N 0.00 E

0 TO 2056 FT. RATE GYROSCOPIC MULTISHOT RUN INSIDE 4-1/2 DRILLPIPE							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO LARIAT NO. 31 R.K.B.							

100.00	0.91	209.55	S 29 33 W	0.91	100.00	0.8 209.6	0.69 S 0.39 W
200.00	0.72	195.25	S 15 15 W	0.28	199.99	2.2 205.5	1.99 S 0.95 W
300.00	0.73	166.13	S 13 52 E	0.37	299.98	3.4 196.6	3.21 S 0.96 W
400.00	1.08	177.55	S 2 27 E	0.39	399.97	4.8 189.1	4.77 S 0.77 W
500.00	1.17	178.38	S 1 37 E	0.10	499.95	6.8 185.9	6.74 S 0.70 W
600.00	1.51	177.21	S 2 47 E	0.34	599.92	9.1 183.8	9.08 S 0.60 W
700.00	1.67	190.71	S 10 42 W	0.41	699.88	11.9 183.9	11.83 S 0.81 W
800.00	1.73	182.87	S 2 52 W	0.24	799.84	14.8 184.5	14.78 S 1.16 W
900.00	1.79	177.38	S 2 37 E	0.18	899.79	17.9 183.7	17.85 S 1.16 W
1000.00	1.92	175.65	S 4 21 E	0.14	999.74	21.1 182.6	21.08 S 0.96 W
1100.00	1.68	177.44	S 2 34 E	0.24	1099.69	24.2 181.8	24.22 S 0.77 W
1200.00	1.46	183.12	S 3 7 W	0.27	1199.65	27.0 181.6	26.96 S 0.78 W
1300.00	1.31	193.09	S 13 6 W	0.29	1299.62	29.4 182.2	29.34 S 1.10 W
1400.00	1.48	216.28	S 36 17 W	0.59	1399.59	31.6 183.9	31.50 S 2.13 W
1500.00	1.59	227.27	S 47 16 W	0.31	1499.56	33.7 186.7	33.48 S 3.91 W
1600.00	1.57	229.02	S 49 1 W	0.05	1599.52	35.8 189.6	35.32 S 5.96 W
1700.00	1.60	226.76	S 46 46 W	0.07	1699.48	38.0 192.2	37.17 S 8.01 W
1800.00	1.28	229.88	S 49 53 W	0.34	1799.45	40.1 194.3	38.85 S 9.89 W
1900.00	1.06	230.86	S 50 51 W	0.21	1899.43	41.8 195.9	40.16 S 11.46 W
2000.00	1.00	229.86	S 49 51 W	0.07	1999.41	43.3 197.3	41.30 S 12.84 W

A Gyrodata Directional Survey

Yates Petroleum

Lease: Mescal Fed Well: No. 2, 4-1/2" Drillpipe

Location: Lariat No. 31, Eddy County, New Mexico

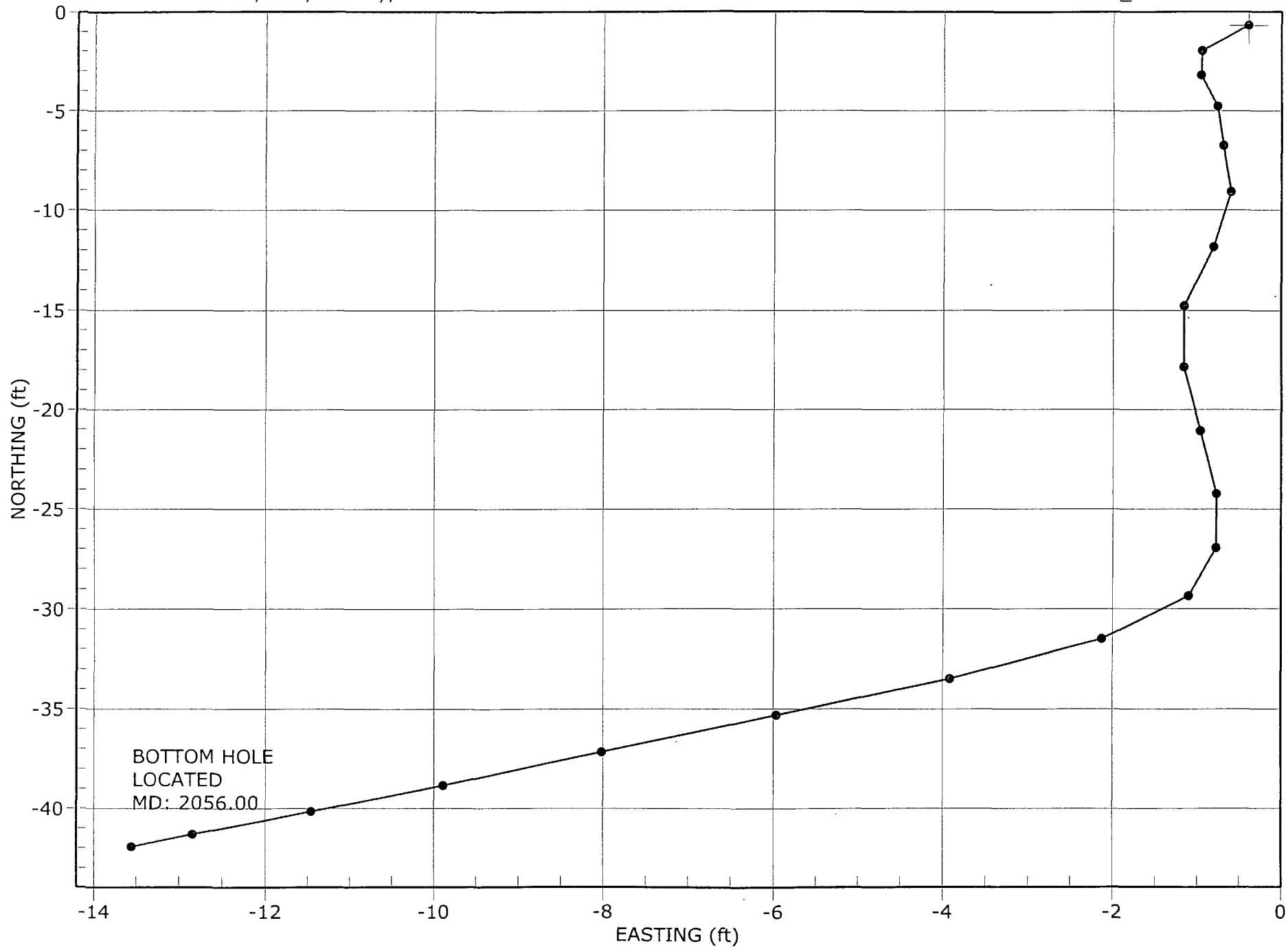
Job Number: MD0507G_198

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING. deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
2056.00	0.94	227.12	S 47 7 W	0.12	2055.40	44.1 197.9	41.93 S 13.55 W

Final Station Closure: Distance: 44.07 ft Az: 197.91 deg.

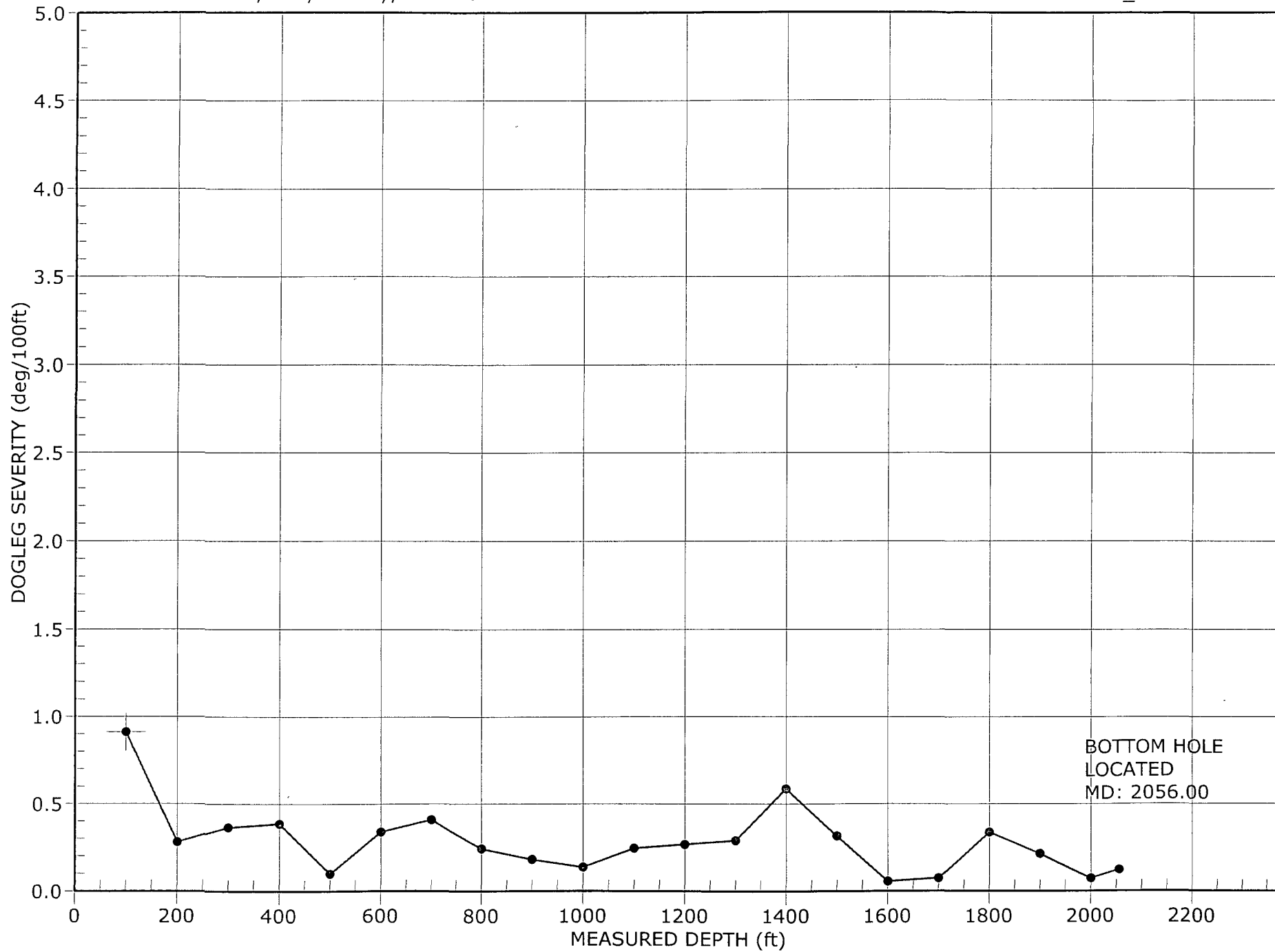
Yates Petroleum
Well: Mescal Fed No. 2 4-1/2" Drillpipe
Location: Lariat No. 31, Eddy County, New Mexico

Inrun
Gyrodata
MD0507G_198 DEFINITIVE



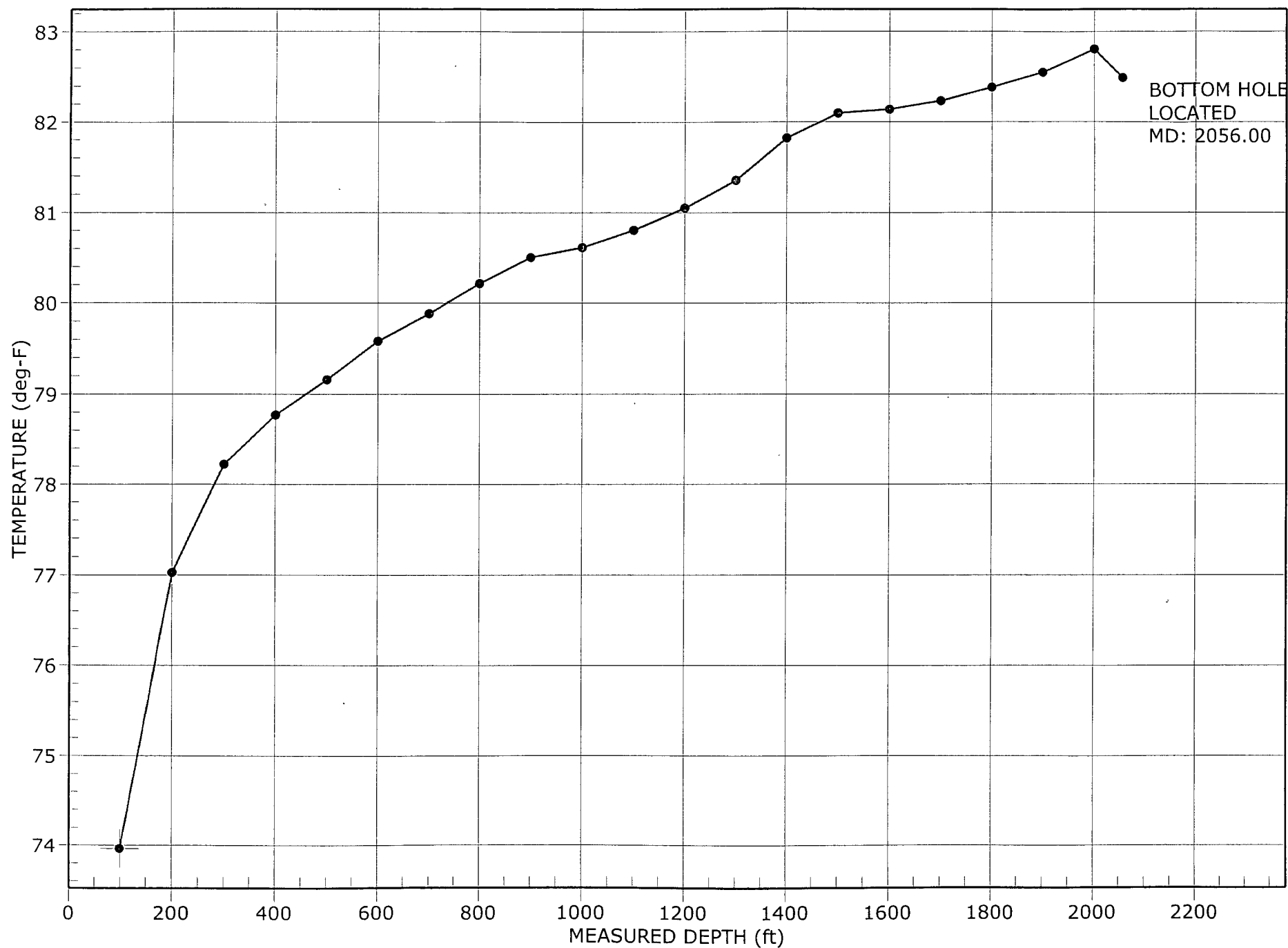
Yates Petroleum
Well: Mescal Fed No. 2 4-1/2" Drillpipe
Location: Lariat No. 31, Eddy County, New Mexico

Inrun
Gyrodata
MD0507G_198 DEFINITIVE



Yates Petroleum
Well: Mescal Fed No. 2 4-1/2" Drillpipe
Location: Lariat No. 31, Eddy County, New Mexico

Inrun
Gyrodata
MD0507G_198 DEFINITIVE



DIRECTIONAL SURVEY REPORT

YATES PETROLEUM

MESCAL #2

EDDY COUNTY, NEW MEXICO

PREPARED BY: FRANCISCO SINISTERRA

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) TREVOR SUTTON
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 04/20/07 TO 04/29/07
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
MESCAL #2
EDDY COUNTY, NM
RIG: LARIAT #31
9. SURVEY CERTIFIED FROM: 2099 TO 5964 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 889.95 FEET ON A BEARING OF 355.89 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 6007 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



Francisco Sinisterra
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 06/15/2007
Date Completed: 06/15/2007

YATES PETROLEUM
MESCAL #2
Eddy COUNTY, New Mexico
Rig:Lariat # 31
PathFinder Office Supervisor: Marcus Mitcham
PathFinder Field Engineers:T. Sutton

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.28.17.0184 N LON:104.44.45.8196 W
GRID Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 372715.0299 Y: 535452.4746
North Aligned To:GRID NORTH
Total Magnetic Correction: 8.82° EAST TO GRID
Vertical Section Plane: 356.63
Survey Vert. Reference: 19.50' Kelly Bushing To Ground
Altitude:4515.00' Ground To MSL

Measured Depth	6007.00	(feet)
Inclination	1.57	(deg)
Azimuth	209.65	(deg)
True Vertical Depth	5797.36	(feet)
Vertical Section	889.88	(feet)
Survey X cord	372651.31	(feet)
Survey Y cord	536340.14	(feet)
Survey Lat	32.47383336 N	(deg)
Survey Lon	104.74627873 W	(deg)
Rectangular Corr. N/S	887.67 N	(feet)
Rectangular Corr. E/W	63.72 W	(feet)
Closure Distance	889.95	(feet)
Direction of Closure	355.89	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM

MESCAL #2

Eddy COUNTY, New Mexico

Rig:Lariat # 31

PathFinder Office Supervisor: Marcus Mitcham

PathFinder Field Engineers: T. Sutton

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.28.17.0184 N LON:104.44.45.8196 W

Reference:NAD27 new mexico east Transverse Mercator

Ref GRID Coord: X: 372715.0299 Y: 535452.4746

North Aligned To:GRID NORTH

Total Magnetic Correction: 8.82° EAST TO GRID

Vertical Section Plane: 356.63

Survey Vert. Reference: 19.50' Kelly Bushing To Ground

Altitude:4515.00' Ground To MSL

Survey Calculations by PathCalc v1.95U using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
The following are Gyrodata surveys.										
0.00	0.00	0.00	-0.00	0.00	-0.03	0.03 S	0.00 E	0.03@	175.54	0.00
100.00	0.91	209.55	99.99	100.00	-0.70	0.72 S	0.39 W	0.82@	208.31	0.91
200.00	0.72	195.25	199.98	100.00	-1.96	2.02 S	0.95 W	2.23@	205.10	0.28
300.00	0.73	166.13	299.97	100.00	-3.18	3.24 S	0.96 W	3.38@	196.46	0.36
400.00	1.08	177.55	399.96	100.00	-4.75	4.80 S	0.77 W	4.86@	189.06	0.39
500.00	1.17	178.38	499.94	100.00	-6.71	6.77 S	0.70 W	6.80@	185.88	0.09
600.00	1.51	177.21	599.92	100.00	-9.05	9.10 S	0.60 W	9.12@	183.79	0.34
700.00	1.67	190.71	699.88	100.00	-11.78	11.85 S	0.81 W	11.88@	183.91	0.41
800.00	1.73	182.87	799.83	100.00	-14.70	14.79 S	1.16 W	14.83@	184.47	0.24
900.00	1.79	177.38	899.79	100.00	-17.76	17.86 S	1.16 W	17.90@	183.72	0.18
1000.00	1.92	175.65	999.73	100.00	-21.00	21.09 S	0.96 W	21.11@	182.61	0.14
1100.00	1.68	177.44	1099.68	100.00	-24.14	24.22 S	0.77 W	24.24@	181.82	0.25
1200.00	1.46	183.12	1199.65	100.00	-26.87	26.96 S	0.77 W	26.97@	181.64	0.27
1300.00	1.31	193.09	1299.62	100.00	-29.23	29.34 S	1.10 W	29.37@	182.15	0.28
1400.00	1.48	216.28	1399.59	100.00	-31.32	31.50 S	2.12 W	31.57@	183.86	0.58
1500.00	1.59	227.27	1499.55	100.00	-33.19	33.48 S	3.91 W	33.71@	186.66	0.31
1600.00	1.57	229.02	1599.51	100.00	-34.91	35.32 S	5.96 W	35.82@	189.58	0.05
1700.00	1.60	226.76	1699.48	100.00	-36.64	37.18 S	8.01 W	38.03@	192.16	0.07
1800.00	1.28	229.88	1799.45	100.00	-38.20	38.85 S	9.88 W	40.09@	194.27	0.33
1900.00	1.06	230.86	1899.42	100.00	-39.41	40.16 S	11.46 W	41.76@	195.92	0.22
2000.00	1.00	229.86	1999.41	100.00	-40.48	41.30 S	12.84 W	43.25@	197.27	0.06
** Tie-in to Gyrodata.										
2056.00	0.94	227.12	2055.40	56.00	-41.06	41.93 S	13.55 W	44.07@	197.91	0.14

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
MESCAL #2
Eddy COUNTY, New Mexico
RIG:Lariat # 31

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
The following are Pathfinder MWD surveys.										
2099.00	1.06	304.66	2098.40	43.00	-41.04	41.94 S	14.14 W	44.26@	198.62	2.92
2131.00	1.85	323.56	2130.38	32.00	-40.43	41.36 S	14.69 W	43.89@	199.55	2.86
2162.00	1.93	327.87	2161.37	31.00	-39.55	40.52 S	15.26 W	43.29@	200.64	0.53
2194.00	2.20	335.34	2193.35	32.00	-38.50	39.50 S	15.80 W	42.54@	201.81	1.19
2225.00	2.29	338.76	2224.32	31.00	-37.36	38.38 S	16.28 W	41.69@	202.98	0.52
2256.00	2.37	345.53	2255.30	31.00	-36.14	37.18 S	16.66 W	40.75@	204.13	0.92
2287.00	2.37	349.84	2286.27	31.00	-34.88	35.93 S	16.93 W	39.72@	205.23	0.57
2319.00	2.37	353.00	2318.24	32.00	-33.56	34.63 S	17.13 W	38.63@	206.32	0.41
2350.00	2.46	3.90	2349.22	31.00	-32.26	33.33 S	17.16 W	37.49@	207.25	1.51
2382.00	2.90	4.16	2381.18	32.00	-30.78	31.83 S	17.06 W	36.12@	208.19	1.38
2413.00	3.25	6.19	2412.14	31.00	-29.13	30.18 S	16.91 W	34.59@	209.26	1.18
2445.00	3.61	5.31	2444.08	32.00	-27.24	28.27 S	16.72 W	32.84@	210.59	1.14
2476.00	3.87	9.00	2475.01	31.00	-25.25	26.27 S	16.46 W	31.00@	212.08	1.14
2508.00	4.13	8.47	2506.94	32.00	-23.07	24.06 S	16.12 W	28.96@	213.83	0.82
2539.00	4.48	7.50	2537.85	31.00	-20.79	21.76 S	15.80 W	26.89@	215.99	1.15
2570.00	4.75	7.06	2568.75	31.00	-18.34	19.28 S	15.49 W	24.73@	218.77	0.88
2602.00	5.63	6.63	2600.62	32.00	-15.49	16.41 S	15.14 W	22.33@	222.70	2.75
2633.00	6.51	6.19	2631.44	31.00	-12.26	13.15 S	14.78 W	19.78@	228.33	2.84
2664.00	7.83	3.90	2662.20	31.00	-8.43	9.30 S	14.44 W	17.18@	237.23	4.36
2695.00	8.97	2.76	2692.87	31.00	-3.93	4.78 S	14.18 W	14.97@	251.39	3.72
2727.00	11.08	3.64	2724.38	32.00	1.60	0.79 N	13.87 W	13.89@	273.24	6.61
2758.00	13.10	2.67	2754.69	31.00	8.05	7.27 N	13.51 W	15.35@	298.27	6.55
2790.00	14.42	1.09	2785.77	32.00	15.63	14.87 N	13.27 W	19.93@	318.26	4.29
2821.00	15.48	0.38	2815.72	31.00	23.61	22.87 N	13.17 W	26.39@	330.07	3.47
2853.00	16.97	1.09	2846.44	32.00	32.52	31.81 N	13.05 W	34.38@	337.69	4.70
2884.00	18.64	0.82	2875.96	31.00	41.98	41.29 N	12.90 W	43.26@	342.66	5.39

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
MESCAL #2
Eddy COUNTY, New Mexico
RIG:Lariat # 31

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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)
2916.00	18.91	0.91	2906.25	32.00	52.25	51.59 N	12.74 W	53.14@	346.13	0.85
2947.00	18.99	0.91	2935.57	31.00	62.29	61.65 N	12.58 W	62.92@	348.47	0.26
2979.00	19.17	1.44	2965.82	32.00	72.71	72.11 N	12.36 W	73.16@	350.27	0.78
3010.00	19.52	0.56	2995.07	31.00	82.95	82.38 N	12.19 W	83.27@	351.59	1.47
3038.00	20.31	1.79	3021.39	28.00	92.46	91.91 N	11.99 W	92.69@	352.57	3.19
3070.00	20.58	1.53	3051.38	32.00	103.59	103.09 N	11.67 W	103.74@	353.54	0.89
3101.00	21.46	1.97	3080.31	31.00	114.67	114.20 N	11.32 W	114.76@	354.34	2.88
3132.00	22.25	3.46	3109.08	31.00	126.14	125.73 N	10.78 W	126.19@	355.10	3.11
3164.00	23.13	5.04	3138.61	32.00	138.37	138.03 N	9.86 W	138.39@	355.92	3.34
3195.00	24.45	3.37	3166.97	31.00	150.77	150.50 N	8.95 W	150.77@	356.60	4.78
3227.00	25.76	2.41	3195.95	32.00	164.27	164.06 N	8.26 W	164.27@	357.12	4.29
3258.00	26.38	1.88	3223.80	31.00	177.83	177.68 N	7.75 W	177.85@	357.50	2.14
3290.00	26.91	4.69	3252.40	32.00	192.08	192.00 N	6.93 W	192.13@	357.93	4.27
3321.00	27.79	4.69	3279.93	31.00	206.18	206.19 N	5.76 W	206.28@	358.40	2.84
3352.00	28.75	3.29	3307.23	31.00	220.74	220.84 N	4.75 W	220.89@	358.77	3.76
3384.00	29.37	4.34	3335.21	32.00	236.16	236.35 N	3.71 W	236.38@	359.10	2.51
3415.00	29.90	3.72	3362.15	31.00	251.36	251.64 N	2.63 W	251.65@	359.40	1.98
3447.00	30.51	2.85	3389.81	32.00	267.35	267.71 N	1.71 W	267.72@	359.63	2.35
3478.00	31.04	1.00	3416.44	31.00	283.14	283.56 N	1.18 W	283.56@	359.76	3.50
3509.00	31.48	359.51	3442.94	31.00	299.20	299.65 N	1.11 W	299.65@	359.79	2.87
3541.00	31.74	359.59	3470.19	32.00	315.95	316.42 N	1.24 W	316.42@	359.77	0.82
3572.00	31.13	359.51	3496.64	31.00	332.09	332.59 N	1.37 W	332.59@	359.76	1.97
3604.00	30.60	357.40	3524.11	32.00	348.50	348.99 N	1.81 W	349.00@	359.70	3.77
3635.00	30.07	357.48	3550.87	31.00	364.15	364.64 N	2.51 W	364.64@	359.61	1.71
3667.00	30.25	354.50	3578.54	32.00	380.22	380.67 N	3.63 W	380.69@	359.45	4.71
3698.00	30.95	355.11	3605.22	31.00	396.00	396.38 N	5.06 W	396.42@	359.27	2.47
3730.00	31.66	353.71	3632.56	32.00	412.61	412.93 N	6.68 W	412.99@	359.07	3.18

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
MESCAL #2
Eddy COUNTY, New Mexico
RIG:Lariat # 31

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
3761.00	32.27	356.52	3658.86	31.00	429.01	429.28 N	8.08 W	429.36@	358.92	5.19
3792.00	32.62	355.46	3685.02	31.00	445.64	445.87 N	9.24 W	445.96@	358.81	2.15
3823.00	32.89	354.14	3711.10	31.00	462.40	462.57 N	10.76 W	462.70@	358.67	2.46
3855.00	32.89	355.73	3737.97	32.00	479.77	479.88 N	12.30 W	480.04@	358.53	2.70
3887.00	32.98	353.88	3764.83	32.00	497.16	497.20 N	13.87 W	497.40@	358.40	3.16
3918.00	32.27	353.35	3790.93	31.00	513.85	513.81 N	15.73 W	514.05@	358.25	2.47
3949.00	31.22	355.29	3817.30	31.00	530.14	530.04 N	17.35 W	530.32@	358.13	4.72
3981.00	30.42	356.52	3844.78	32.00	546.54	546.39 N	18.52 W	546.71@	358.06	3.18
4012.00	30.34	356.61	3871.52	31.00	562.21	562.04 N	19.46 W	562.38@	358.02	0.30
4044.00	30.25	354.76	3899.15	32.00	578.35	578.14 N	20.67 W	578.51@	357.95	2.93
4075.00	29.55	356.87	3926.03	31.00	593.80	593.55 N	21.81 W	593.95@	357.90	4.08
4107.00	29.28	357.84	3953.90	32.00	609.52	609.25 N	22.53 W	609.66@	357.88	1.71
4139.00	28.49	357.05	3981.92	32.00	624.97	624.69 N	23.22 W	625.12@	357.87	2.74
4170.00	27.70	355.46	4009.27	31.00	639.57	639.25 N	24.17 W	639.71@	357.83	3.51
4201.00	26.73	358.10	4036.84	31.00	653.74	653.41 N	24.97 W	653.88@	357.81	5.00
4232.00	26.29	356.34	4064.58	31.00	667.58	667.23 N	25.64 W	667.72@	357.80	2.90
4264.00	25.94	357.31	4093.31	32.00	681.66	681.29 N	26.42 W	681.80@	357.78	1.72
4295.00	25.15	359.59	4121.28	31.00	695.02	694.65 N	26.79 W	695.17@	357.79	4.08
4326.00	24.62	357.48	4149.40	31.00	708.06	707.69 N	27.12 W	708.21@	357.81	3.33
4358.00	24.36	357.22	4178.52	32.00	721.32	720.94 N	27.73 W	721.47@	357.80	0.89
4389.00	23.65	357.84	4206.84	31.00	733.93	733.54 N	28.27 W	734.08@	357.79	2.41
4421.00	22.86	358.10	4236.24	32.00	746.56	746.17 N	28.72 W	746.72@	357.80	2.49
4452.00	22.16	358.01	4264.88	31.00	758.43	758.03 N	29.13 W	758.59@	357.80	2.27
4484.00	21.46	358.01	4294.59	32.00	770.31	769.91 N	29.54 W	770.47@	357.80	2.20
4515.00	21.19	357.75	4323.47	31.00	781.58	781.17 N	29.96 W	781.75@	357.80	0.91
4544.00	20.49	359.59	4350.57	29.00	791.89	791.49 N	30.20 W	792.06@	357.82	3.32
4575.00	20.22	358.36	4379.63	31.00	802.67	802.27 N	30.39 W	802.84@	357.83	1.62

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
MESCAL #2
Eddy COUNTY, New Mexico
RIG:Lariat # 31

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
4607.00	19.43	359.42	4409.74	32.00	813.51	813.12 N	30.60 W	813.70@	357.84	2.71
4638.00	18.29	358.63	4439.07	31.00	823.53	823.14 N	30.77 W	823.71@	357.86	3.78
4670.00	17.24	357.40	4469.55	32.00	833.28	832.90 N	31.11 W	833.48@	357.86	3.50
4701.00	16.44	358.45	4499.22	31.00	842.26	841.87 N	31.43 W	842.46@	357.86	2.74
4733.00	15.83	358.10	4529.95	32.00	851.15	850.76 N	31.70 W	851.35@	357.87	1.95
4764.00	13.98	357.75	4559.91	31.00	859.12	858.73 N	31.99 W	859.32@	357.87	5.96
4796.00	12.40	358.45	4591.07	32.00	866.42	866.02 N	32.23 W	866.62@	357.87	4.97
4827.00	11.78	358.45	4621.38	31.00	872.91	872.52 N	32.41 W	873.12@	357.87	1.99
4859.00	10.46	356.69	4652.78	32.00	879.08	878.68 N	32.66 W	879.29@	357.87	4.26
4890.00	9.41	351.95	4683.31	31.00	884.42	884.00 N	33.18 W	884.62@	357.85	4.31
4922.00	8.71	350.01	4714.91	32.00	889.44	888.98 N	33.97 W	889.63@	357.81	2.40
4953.00	7.74	351.95	4745.59	31.00	893.85	893.35 N	34.67 W	894.03@	357.78	3.24
4984.00	7.39	354.23	4776.32	31.00	897.92	897.40 N	35.16 W	898.09@	357.76	1.49
5016.00	6.07	357.57	4808.10	32.00	901.66	901.14 N	35.44 W	901.84@	357.75	4.30
5047.00	5.36	354.67	4838.95	31.00	904.75	904.22 N	35.64 W	904.92@	357.74	2.45
5079.00	4.57	342.54	4870.83	32.00	907.48	906.93 N	36.16 W	907.65@	357.72	4.10
5111.00	4.40	334.72	4902.73	32.00	909.86	909.25 N	37.07 W	910.01@	357.67	1.99
5142.00	4.31	327.69	4933.64	31.00	911.98	911.31 N	38.20 W	912.11@	357.60	1.74
5173.00	4.13	311.52	4964.56	31.00	913.79	913.03 N	39.66 W	913.90@	357.51	3.87
5205.00	3.96	297.28	4996.48	32.00	915.16	914.31 N	41.50 W	915.25@	357.40	3.18
5236.00	3.87	288.23	5027.41	31.00	916.09	915.12 N	43.45 W	916.15@	357.28	2.01
5267.00	3.69	281.02	5058.34	31.00	916.73	915.64 N	45.42 W	916.77@	357.16	1.63
5299.00	3.69	270.47	5090.27	32.00	917.05	915.85 N	47.46 W	917.08@	357.03	2.12
5330.00	3.78	259.31	5121.21	31.00	916.99	915.66 N	49.47 W	917.00@	356.91	2.36
5362.00	3.69	241.56	5153.14	32.00	916.42	914.98 N	51.41 W	916.42@	356.78	3.61
5393.00	3.34	225.47	5184.08	31.00	915.40	913.87 N	52.93 W	915.40@	356.69	3.37
5425.00	3.08	218.35	5216.03	32.00	914.15	912.54 N	54.13 W	914.15@	356.61	1.49

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
MESCAL #2
Eddy COUNTY, New Mexico
RIG:Lariat # 31

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
5456.00	3.17	204.38	5246.99	31.00	912.77	911.11 N	55.00 W	912.77@	356.55	2.46
5488.00	2.99	192.60	5278.94	32.00	911.18	909.49 N	55.54 W	911.18@	356.51	2.05
5519.00	2.46	181.18	5309.91	31.00	909.74	908.04 N	55.73 W	909.74@	356.49	2.44
5551.00	1.93	187.15	5341.88	32.00	908.53	906.81 N	55.82 W	908.53@	356.48	1.80
5582.00	2.55	189.79	5372.86	31.00	907.34	905.61 N	56.00 W	907.34@	356.46	2.01
5613.00	3.25	197.00	5403.82	31.00	905.84	904.09 N	56.37 W	905.85@	356.43	2.55
5645.00	3.87	206.49	5435.76	32.00	904.06	902.26 N	57.12 W	904.06@	356.38	2.66
5676.00	4.04	209.39	5466.69	31.00	902.23	900.37 N	58.12 W	902.24@	356.31	0.86
5708.00	3.52	204.99	5498.62	32.00	900.42	898.50 N	59.09 W	900.44@	356.24	1.88
5739.00	3.52	203.24	5529.56	31.00	898.73	896.76 N	59.87 W	898.76@	356.18	0.35
5770.00	3.08	202.45	5560.51	31.00	897.13	895.12 N	60.56 W	897.16@	356.13	1.43
5807.00	2.73	198.40	5597.46	37.00	895.42	893.36 N	61.22 W	895.46@	356.08	1.10
5838.00	2.11	198.58	5628.43	31.00	894.20	892.12 N	61.63 W	894.25@	356.05	1.99
5870.00	1.85	199.19	5660.41	32.00	893.18	891.08 N	61.99 W	893.23@	356.02	0.83
5901.00	1.57	204.91	5691.40	31.00	892.35	890.22 N	62.33 W	892.40@	355.99	1.05
5932.00	1.57	207.89	5722.39	31.00	891.61	889.46 N	62.71 W	891.67@	355.97	0.26
5964.00	1.57	209.65	5754.37	32.00	890.87	888.69 N	63.13 W	890.93@	355.94	0.15
Straight line projection to bit.										
6007.00	1.57	209.65	5797.36	43.00	889.88	887.67 N	63.72 W	889.95@	355.89	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.



ENERGY SERVICES

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	Yates Petroleum		
LEASE / WELL No.:	Mescal	# 2	
WELL LOCATION:	Eddy County		
COUNTY / STATE / COUNTRY:	Eddy	New Mexico	USA
RIG:	Lariat # 31		
API WELL No:			
JOB No:	101006447 WT-WT		
P.O. / AFE No.			
DIRECTIONAL COMPANY:	Pathfinder Energy		

WELL SITE INFORMATION

MAGNETIC DECLINATION:			
On Wall Plat:	8 83	LYD Calculated:	8 822231
		Agreed Upon:	8.822231
X =	372715.000000	Feet	Y = 535452.500000
			Feet
SITE LATITUDE:	32.471394 N	SITE LONGITUDE:	104.746061 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	New Mexico East
PROPOSED DRIFT DIRECTION:	356.63		
KELLY BUSHING ELEVATION:	19.5		
ALTITUDE:	4515	Feet	WATER DEPTH:
			0
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	2056		
DRIFT ANGLE:	0.94		
DRIFT DIRECTION:	227.12		
TRUE VERTICAL DEPTH:	2055.4		
VERTICAL SECTION:	-41.06		
RECTANGULAR COORDINATE (N / S):	-41.93		
RECTANGULAR COORDINATE (E / W):	-13.55		
CLOSURE DISTANCE / DIRECTION:	44.07	197.91	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	Gyrodata		
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO		

WELL PLAN

KICKOFF DEPTH:	2110	TOTAL DEPTH:	8698
KICKOFF ANGLE:	0	MAX ANGLE:	28.17

PES Engineers:

**Signature of both field engineers required if applicable

Directional Driller:

DATE: 5/29/07

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Thu May 24 08:18:03 2007

Coordinates

Latitude:	32.471394 N (32 deg. 28 min. 17.0187 sec.)
Longitude:	104.746061 W (-104 deg. 44 min. 45.8199 sec.)
Elevation:	4515.00 feet.
Calculation Date:	May/24/2007

Magnetic Calculations

Model:	IGRF2005
Dip Angle:	60.3098 degrees
Total Magnetic Field:	0.49045 gauss
Magnetic Declination:	8.600644 degrees
Horizontal Intensity:	0.242924 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.600644 Degr

Transverse Mercator Grid Calculations NAD27

Grid System:	Transverse Mercator: new mexico east
Ellipsoid:	Clarke 1866
X:	372715.0000 feet
Y:	535452.5000 feet
True to Grid: (convergence)	0.221587 degrees
Magnetic to Grid:	8.822231 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 8.822231 Degr.

DISTRICT I

1825 N. French Dr., Hobbs, NM 88240

DISTRICT II

1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Revised Oct

12, 2005

Submit to Appropriate District

State License No. 4

Fee License No. 3

Month - Year
MAR 28 2007
OCD - ARTESIA, NM☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name <i>Wildcat; Miss GAS</i>
Property Code	Property Name MESCAL "SE" FEDERAL	Well Number 2
OGRID No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 4515

Surface Location

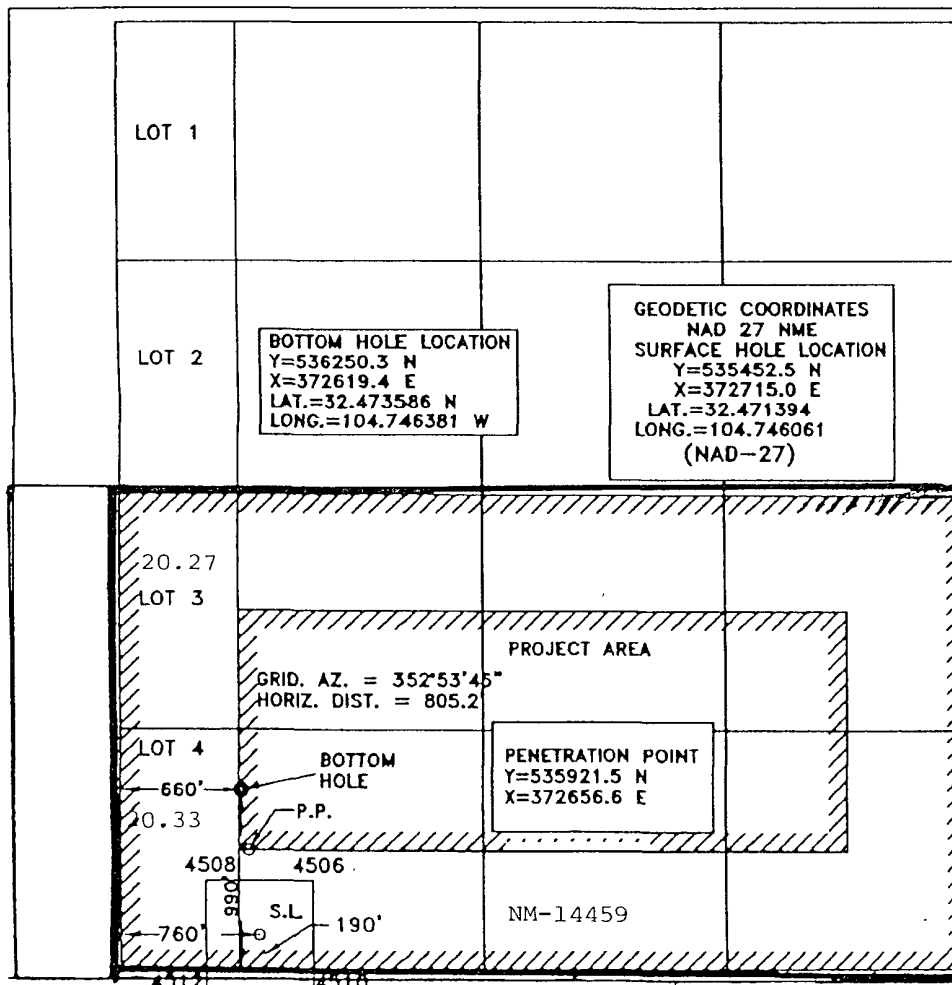
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	18	21S	22E		190	SOUTH	760	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	18	21S	22E		990	SOUTH	660	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
280.60 S/2			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Debbie L. Caffall 03/27/2007
Signature Date

Debbie L. Caffall
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

12/12/2006

Date Surveyed
Signature & Seal of Professional Surveyor

Herschell L. Jones
HERSCHELL L. JONES
NEW MEXICO
3640
Certified Professional Surveyor
GENERAL SURVEYING