



A Schlumberger Company

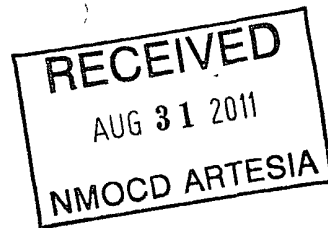
DIRECTIONAL SURVEY REPORT

30-015-38385

YATES PETROLEUM

DOMINO "AOJ" FEDERAL COM #10H

EDDY COUNTY, NEW MEXICO



PREPARED BY: FRANCISCO SINISTERRA

Pathfinder

6213 WDR 112
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) JAMES BURLESON
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 06-07-11 TO 06-21-11
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
DOMINO "AOJ" FEDERAL COM #10H
EDDY COUNTY, NM
RIG: SILVER OAK 10

9. SURVEY CERTIFIED FROM: 8315 TO 13105 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 4589.06 FEET ON A BEARING OF 91.02 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 13170 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: 06/07/2011
Date Completed: 06/21/2011

YATES PETROLEUM CORPORATION
DOMINO "AOJ" FEDERAL COM #10H
EDDY COUNTY, NM
Rig:SILVER OAK 10
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:J.BURLESON
J.HORRALL

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.40.24.1956 N LON:103.53.56.4885 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 674975.3290 Y: 608982.9580
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.54° EAST TO GRID
Vertical Section Plane: 90.90
Survey Vert. Reference: 18.00' Kelly Bushing To Ground
Altitude:3496.00' Ground To MSL

Measured Depth	13170.00	(feet)
Inclination	91.36	(deg)
Azimuth	94.90	(deg)
True Vertical Depth	8779.52	(feet)
Vertical Section	4589.05	(feet)
Survey X cord	679563.66	(feet)
Survey Y cord	608901.15	(feet)
Survey Lat	32.67311030 N	(deg)
Survey Lon	103.88411452 W	(deg)
Rectangular Corr. N/S	81.81 S	(feet)
Rectangular Corr. E/W	4588.33 E	(feet)
Closure Distance	4589.06	(feet)
Direction of Closure	91.02	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION

DOMINO "AOJ" FEDERAL COM #10H

EDDY COUNTY, NM

Rig: SILVER OAK 10

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: J.BURLESON

J.HORRALL

Survey Horiz. Reference: WELLHEAD

Ref Coordinates: LAT: 32.40.24.1956 N LON: 103.53.56.4885 W

GRID Reference: NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 674975.3290 Y: 608982.9580

North Aligned To: GRID NORTH

Total Magnetic Correction: 7.54° EAST TO GRID

Vertical Section Plane: 90.90

Survey Vert. Reference: 18.00' Kelly Bushing To Ground

Altitude: 3496.00' Ground To MSL

Survey Calculations by RX5 V6.03E 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 MULTI SHOT GYRO SURVEYS:										
0.00	0.00	0.00	-0.00	0.00	-0.00	0.00 N	0.00 W	0.00@	355.17	0.00
200.00	0.25	345.55	200.00	200.00	-0.12	0.43 N	0.11 W	0.44@	345.65	0.13
400.00	0.25	303.49	399.99	200.00	-0.60	1.09 N	0.58 W	1.24@	331.91	0.09
600.00	0.25	102.42	599.99	200.00	-0.54	1.24 N	0.52 W	1.34@	337.21	0.25
800.00	0.25	45.36	799.99	200.00	0.19	1.45 N	0.22 E	1.47@	8.50	0.12
1000.00	0.25	44.30	999.99	200.00	0.80	2.07 N	0.83 E	2.23@	21.91	0.00
1200.00	0.75	63.24	1199.98	200.00	2.26	2.97 N	2.31 E	3.76@	37.82	0.26
1400.00	1.25	39.11	1399.95	200.00	4.77	5.25 N	4.85 E	7.15@	42.72	0.32
1600.00	2.25	47.97	1599.86	200.00	8.99	9.57 N	9.14 E	13.24@	43.68	0.52
1800.00	3.25	59.83	1799.63	200.00	16.72	15.05 N	16.96 E	22.68@	48.41	0.57
2000.00	2.25	67.80	1999.39	200.00	25.19	19.38 N	25.50 E	32.03@	52.76	0.53
2200.00	1.75	99.39	2199.28	200.00	31.82	20.37 N	32.15 E	38.06@	57.64	0.60
2400.00	1.00	169.33	2399.23	200.00	35.19	18.16 N	35.48 E	39.86@	62.90	0.85
2600.00	1.25	192.26	2599.19	200.00	35.11	14.31 N	35.34 E	38.13@	67.96	0.25
2800.00	0.75	213.20	2799.16	200.00	33.98	11.08 N	34.16 E	35.91@	72.03	0.31
3000.00	1.00	212.14	2999.14	200.00	32.38	8.51 N	32.52 E	33.61@	75.34	0.13
3200.00	0.75	214.08	3199.11	200.00	30.76	5.95 N	30.85 E	31.42@	79.09	0.13
3400.00	0.50	233.96	3399.10	200.00	29.34	4.35 N	29.42 E	29.73@	81.59	0.16
3600.00	0.25	305.90	3599.10	200.00	28.29	4.09 N	28.36 E	28.65@	81.79	0.24
3800.00	0.25	282.94	3799.10	200.00	27.50	4.45 N	27.58 E	27.93@	80.84	0.05
4000.00	0.00	0.00	3999.10	200.00	27.08	4.54 N	27.15 E	27.53@	80.50	0.13
4200.00	0.25	9.01	4199.10	200.00	27.14	4.97 N	27.22 E	27.67@	79.64	0.13
4400.00	0.50	15.05	4399.09	200.00	27.41	6.25 N	27.52 E	28.22@	77.21	0.13
4600.00	0.75	5.09	4599.08	200.00	27.72	8.39 N	27.86 E	29.10@	73.23	0.14
4800.00	0.50	28.13	4799.07	200.00	28.22	10.47 N	28.39 E	30.25@	69.76	0.17

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
DOMINO "AOJ" FEDERAL COM #10H
EDDY COUNTY, NM
RIG:SILVER OAK 10

Page 02/05

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)
5000.00	1.00	24.17	4999.05	200.00	29.31	12.83 N	29.51 E	32.18@	66.50	0.25
5200.00	1.00	27.24	5199.02	200.00	30.77	15.97 N	31.03 E	34.90@	62.76	0.03
5400.00	1.25	22.28	5398.98	200.00	32.34	19.54 N	32.65 E	38.05@	59.10	0.13
5600.00	1.00	35.56	5598.94	200.00	34.13	22.98 N	34.49 E	41.45@	56.32	0.18
5800.00	1.00	23.60	5798.91	200.00	35.79	26.00 N	36.21 E	44.58@	54.32	0.10
6000.00	1.00	30.63	5998.88	200.00	37.33	29.10 N	37.79 E	47.70@	52.40	0.06
6200.00	1.00	29.67	6198.85	200.00	39.04	32.12 N	39.55 E	50.95@	50.92	0.01
6400.00	1.50	33.71	6398.80	200.00	41.30	35.81 N	41.86 E	55.09@	49.45	0.25
6600.00	1.75	27.74	6598.72	200.00	44.09	40.69 N	44.74 E	60.48@	47.71	0.15
6800.00	1.75	30.78	6798.63	200.00	46.99	46.02 N	47.72 E	66.30@	46.04	0.05
7000.00	2.00	37.82	6998.52	200.00	50.61	51.40 N	51.43 E	72.71@	45.01	0.17
7200.00	2.25	28.85	7198.39	200.00	54.55	57.60 N	55.46 E	79.96@	43.92	0.21
7400.00	1.50	349.96	7398.28	200.00	55.89	63.61 N	56.90 E	85.35@	41.81	0.72
7600.00	1.00	318.14	7598.24	200.00	54.21	67.49 N	55.28 E	87.24@	39.32	0.42
7800.00	1.00	291.23	7798.21	200.00	51.39	69.42 N	52.49 E	87.03@	37.09	0.23
8000.00	1.50	302.33	7998.16	200.00	47.52	71.46 N	48.65 E	86.44@	34.25	0.28
8200.00	1.25	301.41	8198.10	200.00	43.41	73.99 N	44.57 E	86.38@	31.06	0.13
** TIE IN TO MULTI SHOT GYRO @ 8280.00' MD.										
8280.00	1.50	308.59	8278.08	80.00	41.83	75.10 N	43.01 E	86.54@	29.80	0.38
THE FOLLOWING ARE PATHFINDER MWD SURVEYS:										
8315.00	1.58	331.24	8313.07	35.00	41.22	75.81 N	42.42 E	86.87@	29.23	1.74
8346.00	1.67	4.29	8344.06	31.00	41.04	76.63 N	42.25 E	87.51@	28.87	3.00
8377.00	3.69	55.44	8375.02	31.00	41.88	77.65 N	43.10 E	88.81@	29.03	9.50
8408.00	8.00	70.03	8405.86	31.00	44.71	78.95 N	45.95 E	91.35@	30.20	14.60
8439.00	12.75	75.30	8436.34	31.00	50.02	80.56 N	51.29 E	95.50@	32.49	15.61
8471.00	17.41	79.35	8467.23	32.00	58.12	82.34 N	59.42 E	101.54@	35.81	14.92
8501.00	20.93	82.16	8495.57	30.00	67.81	83.90 N	69.14 E	108.72@	39.49	12.13
8532.00	23.83	84.18	8524.23	31.00	79.51	85.29 N	80.86 E	117.53@	43.47	9.68
8563.00	26.29	86.99	8552.31	31.00	92.58	86.29 N	93.95 E	127.56@	47.43	8.81

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
DOMINO "AOJ" FEDERAL COM #10H
EDDY COUNTY, NM
RIG:SILVER OAK 10

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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)
8594.00	29.11	91.04	8579.76	31.00	106.97	86.51 N	108.35 E	138.65@	51.39	10.93
8625.00	32.01	93.94	8606.45	31.00	122.72	85.81 N	124.09 E	150.87@	55.33	10.49
8656.00	35.35	95.34	8632.24	31.00	139.87	84.41 N	141.22 E	164.52@	59.13	11.06
8687.00	39.57	96.40	8656.84	31.00	158.65	82.47 N	159.97 E	179.98@	62.73	13.77
8718.00	44.85	96.31	8679.80	31.00	179.38	80.17 N	180.66 E	197.65@	66.07	17.03
8750.00	49.51	95.69	8701.54	32.00	202.75	77.72 N	204.00 E	218.30@	69.14	14.63
8781.00	53.29	95.25	8720.88	31.00	226.90	75.42 N	228.11 E	240.25@	71.71	12.24
8812.00	56.54	94.99	8738.69	31.00	252.19	73.15 N	253.37 E	263.72@	73.90	10.51
8843.00	60.06	94.99	8754.98	31.00	278.50	70.86 N	279.64 E	288.48@	75.78	11.35
8874.00	63.31	94.64	8769.68	31.00	305.72	68.57 N	306.83 E	314.40@	77.40	10.53
8905.00	66.13	94.02	8782.92	31.00	333.70	66.46 N	334.78 E	341.31@	78.77	9.27
8936.00	69.73	93.23	8794.57	31.00	362.39	64.64 N	363.45 E	369.15@	79.91	11.85
8967.00	73.07	92.18	8804.45	31.00	391.75	63.26 N	392.79 E	397.85@	80.85	11.24
8999.00	75.97	91.04	8812.99	32.00	422.58	62.40 N	423.62 E	428.19@	81.62	9.69
9030.00	78.61	90.51	8819.81	31.00	452.82	61.99 N	453.85 E	458.06@	82.22	8.68
9061.00	82.75	90.07	8824.83	31.00	483.40	61.83 N	484.43 E	488.36@	82.73	13.43
9092.00	86.70	90.25	8827.68	31.00	514.26	61.75 N	515.30 E	518.98@	83.17	12.76
9123.00	89.96	90.33	8828.59	31.00	545.24	61.59 N	546.28 E	549.74@	83.57	10.52
9155.00	91.45	90.25	8828.19	32.00	577.24	61.43 N	578.27 E	581.53@	83.94	4.66
9249.00	92.68	90.50	8824.80	94.00	671.17	60.81 N	672.21 E	674.95@	84.83	1.34
9342.00	91.28	91.01	8821.59	93.00	764.11	59.59 N	765.14 E	767.46@	85.55	1.60
9434.00	88.99	91.20	8821.37	92.00	856.11	57.81 N	857.12 E	859.07@	86.14	2.50
9527.00	88.37	90.62	8823.52	93.00	949.08	56.34 N	950.08 E	951.75@	86.61	0.91
9621.00	87.23	89.82	8827.12	94.00	1043.00	55.98 N	1044.01 E	1045.51@	86.93	1.48
9714.00	88.29	90.12	8830.76	93.00	1135.92	56.03 N	1136.94 E	1138.32@	87.18	1.18
9808.00	89.96	91.12	8832.20	94.00	1229.90	55.01 N	1230.92 E	1232.14@	87.44	2.07
9901.00	89.87	92.16	8832.33	93.00	1322.89	52.35 N	1323.88 E	1324.91@	87.74	1.12
9995.00	89.16	92.16	8833.13	94.00	1416.87	48.80 N	1417.81 E	1418.65@	88.03	0.76

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
DOMINO "AOJ" FEDERAL COM #10H
EDDY COUNTY, NM
RIG:SILVER OAK 10

Page 04/05

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)
10088.00	89.25	92.80	8834.42	93.00	1509.82	44.78 N	1510.71 E	1511.37@	88.30	0.70
10181.00	90.48	93.03	8834.64	93.00	1602.76	40.05 N	1603.59 E	1604.09@	88.57	1.34
10275.00	91.10	92.87	8833.34	94.00	1696.69	35.21 N	1697.45 E	1697.82@	88.81	0.68
10368.00	91.36	93.06	8831.35	93.00	1789.61	30.40 N	1790.31 E	1790.57@	89.03	0.35
10461.00	91.01	93.54	8829.42	93.00	1882.51	25.05 N	1883.13 E	1883.30@	89.24	0.64
10555.00	92.07	93.02	8826.90	94.00	1976.39	19.68 N	1976.94 E	1977.04@	89.43	1.26
10648.00	91.45	92.25	8824.04	93.00	2069.30	15.40 N	2069.80 E	2069.86@	89.57	1.06
10742.00	91.01	92.73	8822.02	94.00	2163.24	11.32 N	2163.69 E	2163.72@	89.70	0.69
10835.00	90.31	92.86	8820.95	93.00	2256.19	6.78 N	2256.57 E	2256.58@	89.83	0.76
10928.00	91.28	92.55	8819.66	93.00	2349.13	2.40 N	2349.46 E	2349.46@	89.94	1.09
11022.00	90.57	92.59	8818.14	94.00	2443.08	1.82 S	2443.35 E	2443.35@	90.04	0.76
11115.00	89.78	92.47	8817.86	93.00	2536.04	5.92 S	2536.26 E	2536.27@	90.13	0.86
11208.00	90.57	91.42	8817.58	93.00	2629.02	9.08 S	2629.20 E	2629.22@	90.20	1.41
11302.00	91.19	90.93	8816.13	94.00	2723.01	11.01 S	2723.17 E	2723.19@	90.23	0.84
11396.00	90.84	91.17	8814.47	94.00	2816.99	12.73 S	2817.14 E	2817.17@	90.26	0.45
11490.00	91.36	90.36	8812.66	94.00	2910.97	13.98 S	2911.11 E	2911.15@	90.28	1.02
11583.00	91.01	90.05	8810.74	93.00	3003.95	14.32 S	3004.09 E	3004.13@	90.27	0.50
11676.00	90.92	89.50	8809.17	93.00	3096.92	13.95 S	3097.08 E	3097.11@	90.26	0.60
11770.00	90.75	90.09	8807.80	94.00	3190.89	13.62 S	3191.07 E	3191.10@	90.24	0.65
11864.00	91.19	89.96	8806.21	94.00	3284.86	13.66 S	3285.05 E	3285.08@	90.24	0.49
11951.00	92.24	89.70	8803.61	87.00	3371.81	13.40 S	3372.01 E	3372.04@	90.23	1.24
12044.00	92.68	90.08	8799.62	93.00	3464.71	13.22 S	3464.93 E	3464.95@	90.22	0.63
12138.00	92.51	91.41	8795.36	94.00	3558.61	14.44 S	3558.82 E	3558.85@	90.23	1.43
12231.00	91.36	92.23	8792.22	93.00	3651.54	17.39 S	3651.72 E	3651.76@	90.27	1.52
12324.00	90.04	93.36	8791.08	93.00	3744.48	21.93 S	3744.60 E	3744.66@	90.34	1.87
12418.00	90.40	93.22	8790.72	94.00	3838.40	27.32 S	3838.44 E	3838.54@	90.41	0.41
12511.00	91.36	93.65	8789.29	93.00	3931.29	32.89 S	3931.26 E	3931.40@	90.48	1.13
12603.00	91.01	93.43	8787.39	92.00	4023.18	38.57 S	4023.07 E	4023.25@	90.55	0.45

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Survey Report

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EDDY COUNTY, NM
RIG:SILVER OAK 10

Page 05/05

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)
12701.00	90.48	93.76	8786.12	98.00	4121.06	44.72 S	4120.86 E	4121.11@	90.62	0.64
12795.00	90.21	94.11	8785.55	94.00	4214.93	51.17 S	4214.64 E	4214.95@	90.70	0.47
12888.00	90.57	94.64	8784.92	93.00	4307.75	58.26 S	4307.37 E	4307.76@	90.77	0.69
12981.00	91.01	94.64	8783.64	93.00	4400.54	65.78 S	4400.05 E	4400.55@	90.86	0.47
13075.00	91.28	94.99	8781.76	94.00	4494.31	73.67 S	4493.70 E	4494.31@	90.94	0.47
13105.00	91.36	94.90	8781.07	30.00	4524.22	76.26 S	4523.58 E	4524.23@	90.97	0.40
STRAIGHT LINE PROJECTION TO BIT @ 13170.00' MD.										
13170.00	91.36	94.90	8779.52	65.00	4589.05	81.81 S	4588.33 E	4589.06@	91.02	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.



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM		
LEASE / WELL No.:	DOMINO "AOJ" FEDERAL	COM #10H	
WELL LOCATION:	EDDY COUNTY		
COUNTY / STATE / COUNTRY:	EDDY	NM	US
RIG:	SILVER OAK 10		
API WELL No:	30-015-38385		
JOB No:	700002619 WT-WT		
P.O. / AFE No.			
DIRECTIONAL COMPANY:	PES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.54	LWD Calculated:	7.542955
		Agreed Upon:	7.542955
X =	674975.329000	Feet	Y = 608982.958000
			Feet
SITE LATITUDE:	32.673388 N	SITE LONGITUDE:	103.899025 W
GRID SYSTEM:	TRUE ☐ UTM ☐ LAMBERT ☒	ZONE:	NEW M EXICO EAST
PROPOSED DRIFT DIRECTION:	90-9		
KELLY BUSHING ELEVATION:	25		
ALTITUDE:	3496	Feet	WATER DEPTH: 0
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	8280		
DRIFT ANGLE:	1.5		
DRIFT DIRECTION:	308.59		
TRUE VERTICAL DEPTH:	8278.08		
VERTICAL SECTION:	41.83		
RECTANGULAR COORDINATE (N / S) :	75.1		
RECTANGULAR COORDINATE (E / W) :	43.01		
CLOSURE DISTANCE / DIRECTION:	86.54	29.8	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	MS ENERGY SERVICES		
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO		

WELL PLAN

KICKOFF DEPTH:	8352	TOTAL DEPTH:	13246
KICKOFF ANGLE:	1.5	MAX ANGLE:	90

PES Engineers:

**Signature of both field engineers required if applicable

Directional Driller:

DATE:

6/7/11

MS ENERGY SERVICES
ODESSA, TEXAS

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

* YATES PETROLEUM *

JOB NUMBER: SVCO 110656

WELL NAME: DOMINO AOJ FED COM #10H

LOCATION: EDDY COUNTY, NEW MEXICO

SURVEY DATE: JUNE 07, 2011

SURVEY ENGINEER: S. SMITH

MAGNETIC DECLINATION: 07.54 GRID NORTH

GYRO REFERENCE BEARING: GRID NORTH

VERTICAL SECTION CALCULATED IN A
PROPOSAL DIRECTION OF: 090.90
SURF. ELEVATION: 18

***** DEPTH MEASURED IN FEET *****

***** THIS DIRECTIONAL SURVEY REPORT IS *****
***** CORRECT TO THE BEST OF MY KNOWLEDGE *****
***** AND IS SUPPORTED BY ACTUAL FIELD DATA! *****

COMMENTS: SILVER OAK 10
RKB 18'
TBUSSELL@YATESPETROLEUM.COM**
MIKEL@YATESPETROLEUM.COM **
Brown@Yatespetroleum.com
***** COMPANY REPRESENTATIVE *****

MS ENERGY SERVICES
ODESSA, TEXAS

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

* **YATES PETROLEUM** *

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          **
          *****
          **
          COMPANY REPRESENTATIVE
          **
          *****
          *****
```

MS ENERGY SERVICES
ODESSA, TEXAS

JOB NUMBER: SVCO 110656

WELL NAME: DOMINO AOJ FED COM #10H

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R PROP.	INCL	BEARING AZIMUTH	COORDINATES		D-LEG /100	D-LEG /CL	STATION DISP.	DISPLACEMENT DIRECTION
0.0	0.00	0.00	0.000	00.00	000.00	0.00 N	0.00 E	0.00		0.00 AT	000.00
200.0	200.00	-0.12	-0.421	00.25	345.55	0.42 N	0.11 W	0.13	0.25	0.44 AT	345.55
400.0	400.00	-0.60	-1.077	00.25	303.49	1.09 N	0.58 W	0.09	0.18	1.23 AT	331.82
600.0	600.00	-0.54	-1.224	00.25	102.42	1.23 N	0.52 W	0.25	0.49	1.34 AT	337.15
800.0	800.00	0.19	-1.449	00.25	045.36	1.45 N	0.22 E	0.12	0.24	1.46 AT	008.54
1000.0	999.99	0.80	-2.077	00.25	044.30	2.06 N	0.83 E	0.00	0.00	2.23 AT	021.96
1200.0	1199.99	2.26	-3.002	00.75	063.24	2.97 N	2.31 E	0.26	0.52	3.76 AT	037.86
1400.0	1399.96	4.77	-5.324	01.25	039.11	5.25 N	4.85 E	0.32	0.64	7.15 AT	042.75
1600.0	1599.86	8.99	-9.712	02.25	047.97	9.57 N	9.14 E	0.52	1.03	13.24 AT	043.70
1800.0	1799.63	16.72	-15.312	03.25	059.83	15.05 N	16.96 E	0.57	1.15	22.67 AT	048.42
2000.0	1999.40	25.19	-19.778	02.25	067.80	19.38 N	25.50 E	0.53	1.07	32.03 AT	052.76
2200.0	2199.28	31.82	-20.868	01.75	099.39	20.37 N	32.15 E	0.60	1.19	38.05 AT	057.64
2400.0	2399.23	35.19	-18.707	01.00	169.33	18.15 N	35.48 E	0.85	1.69	39.86 AT	062.91
2600.0	2599.19	35.11	-14.858	01.25	192.26	14.30 N	35.34 E	0.25	0.51	38.13 AT	067.96
2800.0	2799.16	33.98	-11.613	00.75	213.20	11.08 N	34.16 E	0.31	0.61	35.91 AT	072.03
3000.0	2999.14	32.38	-9.014	01.00	212.14	8.50 N	32.52 E	0.13	0.25	33.61 AT	075.34
3200.0	3199.12	30.76	-6.427	00.75	214.08	5.94 N	30.85 E	0.13	0.25	31.42 AT	079.10
3400.0	3399.11	29.34	-4.807	00.50	233.96	4.35 N	29.42 E	0.16	0.33	29.73 AT	081.60
3600.0	3599.10	28.29	-4.533	00.25	305.90	4.09 N	28.36 E	0.24	0.48	28.65 AT	081.80
3800.0	3799.10	27.50	-4.874	00.25	282.94	4.44 N	27.58 E	0.05	0.10	27.93 AT	080.85
4000.0	3999.10	27.08	-4.965	00.00	000.00	4.54 N	27.15 E	0.13	0.25	27.53 AT	080.51
4200.0	4199.10	27.14	-5.397	00.25	009.01	4.97 N	27.22 E	0.13	0.25	27.67 AT	079.65
4400.0	4399.09	27.41	-6.675	00.50	015.05	6.24 N	27.52 E	0.13	0.25	28.22 AT	077.22
4600.0	4599.08	27.72	-8.827	00.75	005.09	8.39 N	27.86 E	0.14	0.27	29.09 AT	073.24
4800.0	4799.07	28.22	-10.908	00.50	028.13	10.46 N	28.39 E	0.17	0.35	30.25 AT	069.77
5000.0	4999.05	29.31	-13.287	01.00	024.17	12.83 N	29.51 E	0.25	0.50	32.18 AT	066.51
5200.0	5199.02	30.77	-16.455	01.00	027.24	15.97 N	31.03 E	0.03	0.05	34.89 AT	062.76
5400.0	5398.98	32.34	-20.050	01.25	022.28	19.54 N	32.65 E	0.13	0.27	38.05 AT	059.10
5600.0	5598.95	34.13	-23.517	01.00	035.56	22.98 N	34.49 E	0.18	0.36	41.45 AT	056.33
5800.0	5798.92	35.79	-26.563	01.00	023.60	26.00 N	36.21 E	0.10	0.21	44.57 AT	054.32
6000.0	5998.89	37.33	-29.688	01.00	030.63	29.10 N	37.80 E	0.06	0.12	47.70 AT	052.41
6200.0	6198.86	39.04	-32.733	01.00	029.67	32.12 N	39.55 E	0.01	0.02	50.95 AT	050.92
6400.0	6398.81	41.30	-36.463	01.50	033.71	35.81 N	41.86 E	0.25	0.51	55.09 AT	049.46
6600.0	6598.73	44.09	-41.388	01.75	027.74	40.69 N	44.74 E	0.15	0.30	60.48 AT	047.71
6800.0	6798.63	46.99	-46.761	01.75	030.78	46.02 N	47.72 E	0.05	0.09	66.30 AT	046.04
7000.0	6998.53	50.61	-52.199	02.00	037.82	51.40 N	51.43 E	0.17	0.34	72.71 AT	045.02
7200.0	7198.39	54.55	-58.457	02.25	028.85	57.59 N	55.46 E	0.21	0.42	79.96 AT	043.92
7400.0	7398.29	55.89	-64.496	01.50	349.96	63.61 N	56.90 E	0.72	1.43	85.34 AT	041.81
7600.0	7598.24	54.21	-68.347	01.00	318.14	67.49 N	55.28 E	0.42	0.84	87.24 AT	039.32
7800.0	7798.21	51.39	-70.235	01.00	291.23	69.42 N	52.49 E	0.23	0.47	87.03 AT	037.09
8000.0	7998.16	47.52	-72.206	01.50	302.33	71.45 N	48.65 E	0.28	0.55	86.44 AT	034.25
8200.0	8198.11	43.41	-74.679	01.25	301.41	73.99 N	44.57 E	0.13	0.25	86.38 AT	031.07
8280.0	8278.08	41.83	-75.762	01.50	308.59	75.10 N	43.01 E	0.38	0.30	86.54 AT	029.80

*
* THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF *
* ***** *
* 8280.00 FEET EQUALS 86.54 FEET AT 029.80 *
* ***** *



A Schlumberger Company

PathFinder Energy Services, Inc. Magnetic & Grid Calculations

YATES PETROLEUM
DOMINO "AOJ" FEDERAL COM #10H
EDDY COUNTY, NEW MEXICO
Rig:SILVER OAK 10

Thu May 26 14:45:46 2011

Coordinates

Latitude: 32.673388 N (32 deg. 40 min. 24.1956 sec.)
Longitude: 103.899025 W (-103 deg. 53 min. 56.4885 sec.)
Elevation: 3496.00 feet.
Calculation Date: May/26/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.5478 degrees
Total Magnetic Field: 0.48856 gauss
Magnetic Declination: 7.777420 degrees
Horizontal Intensity: 0.240223 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.777420 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 674975.3290 feet
Y: 608982.9580 feet
True to Grid: (convergence) -0.234465 degrees
Magnetic to Grid: 7.542955 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.542955 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM
DOMINO "AOJ" FEDERAL COM #10H
N. HACKBERRY WILDCAT BONE SPRING
Rig:SILVER OAK 10

Wed Jun 08 12:13:00 2011

Coordinates

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