



MEASUREMENT WHILE DRILLING SERVICES

MWD SERVICES, INC.

FIELD SURVEY CALCULATIONS

DATE PRINTED: 08/11/01
COMPANY: YATES PETROLEUM CORP.
LOCATION: LEA COUNTY, NM
FILE NAME: 01116.SRV
CALCULATION MODEL: MINIMUM CURVATURE METHOD
GRID CONVERGENCE: N/A MAGN. DEC.: 8.80 E
COMMENTS: SURVEY #0 = TIE IN SURVEY FROM GYRO
SURVEY #18 = PROJECTED SURVEY TO BIT DEPTH
SURVEYS CORRECTED TO TRUE NORTH

MWD.REP.: L. ROBINSON
WELL_NAME: KOALA AXZ STATE #1
RIG: PATTERSON/UTI 504
VERT. SEC. DIR.: N 90.00 W
DEPTH DATUM: RKB
MAGN. TO_MAP_CORR.: 8.80 E

===== MWD SURVEY PROGRAM Ver: 3.10 PC (4-Jun-87) =====

Date: 8/11/2001 Time: 15:40: 9 PAGE: 1
Filename: "01116.SRV" Description: "Koala AXZ State #1 "
Target Coordinates: 0.0 N 100.0 W Target TVD: 0.000
Using Minimum Curvature Method.

S #	MEASURED DEPTH (feet)	DRIFT ANGLE (deg)	DRIFT DIRECTION (deg)	COURSE LENGTH (feet)	TRUE VERTICAL DEPTH (feet)	VERTICAL SECTION (feet)	RECTANGULAR COORDINATES (feet)	DOGLEG SEVERITY DG/100FT
0	13211.0	5.39	244.070	0.0	13204.0	283.9	82.7 S 271.6 W	0.00
1	13242.0	5.80	252.000	31.0	13234.9	274.4	83.8 S 274.4 W	2.82
2	13273.0	5.50	254.700	31.0	13265.7	277.4	84.7 S 277.4 W	1.29
3	13305.0	4.70	255.300	32.0	13297.6	280.1	85.4 S 280.1 W	2.51
4	13337.0	3.80	250.600	32.0	13329.5	282.4	86.1 S 282.4 W	3.01
5	13369.0	2.50	240.600	32.0	13361.4	284.0	86.8 S 284.0 W	4.40
6	13400.0	2.40	212.900	31.0	13392.4	284.9	87.7 S 284.9 W	3.80
7	13432.0	2.30	193.000	32.0	13424.4	285.4	88.8 S 285.4 W	2.56
8	13464.0	2.50	180.000	32.0	13456.4	285.6	90.2 S 285.6 W	1.81
9	13496.0	2.60	156.400	32.0	13488.3	285.3	91.5 S 285.3 W	3.27
10	13528.0	3.00	146.600	32.0	13520.3	284.5	92.9 S 284.5 W	1.95
11	13591.0	3.00	163.200	63.0	13583.2	283.2	95.8 S 283.2 W	1.37
12	13631.0	3.20	158.200	40.0	13623.1	282.4	97.9 S 282.4 W	0.84
13	13655.0	3.30	156.400	24.0	13647.1	281.9	99.1 S 281.9 W	0.60
14	13717.0	2.80	159.400	62.0	13709.0	280.7	102.2 S 280.7 W	0.85
15	13780.0	2.20	146.000	63.0	13772.0	279.4	104.6 S 279.4 W	1.32
16	13843.0	1.70	148.600	63.0	13834.9	278.3	106.4 S 278.3 W	0.81
17	13907.0	1.80	142.100	64.0	13898.9	277.2	108.0 S 277.2 W	0.35
18	13948.0	1.86	137.940	41.0	13939.9	276.3	109.0 S 276.3 W	0.36

--- Final Closure Direction: 248.466
--- Final Closure Distance: 297.066 feet

