



**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

CONOCO INC.

COMPANY

MCA WELL NO. 211

P-29-17-32

WELL NAME

LEA COUNTY, NEW MEXICO

LOCATION

JOB NUMBER

TYPE OF SURVEY

DATE

430-769

MAGNETIC MULTI SHOT SURVEY

2-11-88

SURVEY BY
CARL HELLMUTH

OFFICE
WEST TEXAS BASE

CONOCO INC.
MCA WELL NO. 211
LEA COUNTY, NEW MEXICO

DATE PRINTED : 18-FEB-88
OUR REF. NO. : S01257.400
DECLINATION : 10.00 JOB NUMBER :

PAGE NO. 2

MEASURED DEPTH	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH	TRUE VERTICAL DEPTH	R E C T A N G U L A R C O O R D I N A T E S	C L O S U R E DISTANCE	D I R E C T I O N D M	DOGLEG SEVERITY
3800.00	0 0	N 0	0.00	3800.00	0.00 N	0.00 E	S 90 0 E	0.00
3825.00	1 0	S 74	25.00	3825.00	0.06 S	0.21 E	S 74 0 E	4.00
3850.00	1 0	S 68	25.00	3849.99	0.20 S	0.62 E	S 72 0 E	0.42
3875.00	1 15	S 64	25.00	3874.99	0.40 S	1.07 E	S 69 26 E	1.05
3900.00	0 45	S 47	25.00	3899.99	0.65 S	1.43 E	S 65 36 E	2.30
3925.00	1 15	S 40	25.00	3924.98	0.96 S	1.73 E	S 60 51 E	2.06
3950.00	1 15	S 67	25.00	3949.98	1.29 S	2.16 E	S 59 17 E	2.33
3975.00	0 45	S 76	25.00	3974.97	1.42 S	2.58 E	S 61 4 E	2.09
4000.00	0 45	S 40	25.00	3999.97	1.59 S	2.85 E	S 60 46 E	1.85
4025.00	1 45	S 65	25.00	4024.96	1.92 S	3.28 E	S 59 36 E	4.46
4050.00	2 0	S 81	25.00	4049.95	2.16 S	4.06 E	S 61 57 E	2.31
4075.00	2 0	S 78	25.00	4074.94	2.32 S	4.92 E	S 64 44 E	0.42
4100.00	2 0	S 73	25.00	4099.92	2.54 S	5.76 E	S 66 13 E	0.70
4115.00	2 0	S 79	15.00	4114.91	2.67 S	6.27 E	S 66 57 E	1.40

CLOSURE - DISTANCE : 6.81
DIRECTION : S 66 57 E

REPORT UNITS : Feet
SURVEY CALCULATION METHOD : Radius of curvature

SURVEY RUN INFORMATION

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MAGNETIC MULTI SHOT SURVEY
SURVEYOR: CARL HELMUTH

430-769
(3800'-4115')

SURVEY CERTIFICATION SHEET

Company CONOCO Job# _____ Date 2-11-88
Lease MCA Well# 211 State NM
Surveyed from a depth of 3800 feet to a depth of 4115 feet.
Type of Survey MAGNETIC MULTISHOT
~~Directional Supervisor~~/Surveyor CARL HELLMUTH

The data for this survey and the calculations for this survey were obtained and performed by me according to the standards and procedures as set forth by Eastman Whipstock, Inc. and are true and correct to the best of my knowledge.

Carl Hellmuth
~~Directional Supervisor~~/Surveyor

The data and calculations for this survey have been checked by me and conform to the standards and procedures as set forth by Eastman Whipstock, Inc. This report represents a true and correct Directional Survey of this well based on the original data obtained at the well site.

Checked by:

Gary Parkman

Original Copy - District Office File
One copy to Houston Office

D-1121

112 - ON VOM - TIER

MCA HELT NO. 211

MCA HELT NO. 211

CONOCO INC.

STANLEY, BOI 257 AGO

SECTION PLANE.

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NOTE: COORDINATES RELATIVE

SCALE 1-1051.

