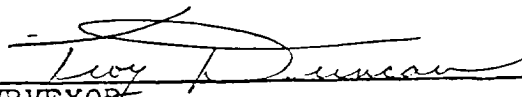


SCIENTIFIC DRILLING CONTROLS

SURVEY CERTIFICATION

COMPANY Amoco Production WELL NAME & NO. S.H.U. #176
DATE of CERTIFICATION 2-7-85 LOCATION Lea County, New Mexico
TYPE of SURVEY Mag. Directional FROM 0 TO 4337
JOB NUMBER 132M1284127 TICKET NUMBER 100558

THE ABOVE SURVEY WAS PERFORMED BY ME ON February 7 1985
THE RESULTS OBTAINED FROM ACTUAL FIELD DATA CONFORM TO ESTABLISHED
STANDARDS AND ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.



SURVEYOR
Troy Duncan

FILM TRANSFER RECEIPT

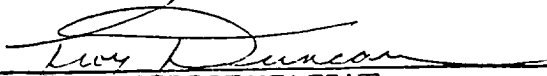
I HEREBY ACKNOWLEDGE RECEIPT OF ORIGINAL FILM OBTAINED ON THE ABOVE
SURVEY.

DATE RECEIVED 19____

COMPANY REPRESENTATIVE

SURVEY CONFIRMATION

I HAVE EXAMINED THE ABOVE SURVEY AND FOUND THE DATA AND RESULTS
ACCEPTABLE ACCORDING TO CURRENT SCIENTIFIC DRILLING CONTROLS STANDARDS.



S.D.C. REPRESENTATIVE
Troy Duncan

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D.C.D.
HOBBS OFFICE

I/We, Jimmy Breaux

respectively conduct or supervise the taking of a Multi-shot/Single Shot Directional survey by method indicated:

This survey was conducted at the request of Amoco Production Company
South Hobbs Unit 176
for their Well No. 176

I/We certify that this is a true and correct report of such survey and that it affords a true and correct representation of our findings as to the nature and conditions of the well at the time the survey was/surveys were made.

Jimmy Breaux
Jimmy Breaux

Before me the undersigned authority/authorities, on this day personally appeared James Brown

Subscribed and sworn to before me this the 17th day of December 1984

Lucian Easter

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O.C.D.
HOBBS OFFICE

MAGNETIC DIRECTIONAL SURVEY
FOR

132-N-1284-127

LEA COUNTY, N.M.

TROY DUNCAN

CALCULATED USING PROPOSAL OF N 81-35 E

~

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

* ~~~~~ *

* COMPANY REPRESENTATIVE ***** *

~

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U.S.
HOUSE OF REPRESENTATIVES

AMF / SCIENTIFIC DRILLING
MIDLAND, TEXAS

JOB NUMBER: 132-M-1204-127

DATE: 12/28/84

INRUN SURVEY

BY

THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D M	COORDINATES LATITUDE DEPARTURE	D-LEG PER 100
193.00	192.99	1.10	1.68	1- 0 S 49-	0 E	1.11 S 1.27 E	.52
203.00	282.98	2.04	1.37	0-45 S 55-	0 E	1.95 S 2.35 E	.30
373.00	372.97	2.82	1.18	0-45 S 45-	0 E	2.71 S 3.26 E	.15
463.00	462.96	3.39	1.18	0-45 S 29-	0 E	3.65 S 3.96 E	.23
553.00	552.96	3.75	.79	0-15 S 43-	0 E	4.28 S 4.42 E	.57
643.00	642.95	4.09	.98	1- 0 S 15-	0 E	5.13 S 4.89 E	.88
736.00	735.94	3.93	1.42	0-45 S 11-	0 W	6.54 S 4.94 E	.50
829.00	828.93	3.29	1.62	1-15 S 19-	0 W	8.10 S 4.52 E	.56
922.00	921.91	2.36	2.03	1-15 S 19-	0 W	10.02 S 3.86 E	.00
1015.00	1014.88	1.29	2.23	1-30 S 21-	0 W	12.12 S 3.10 E	.27
1108.00	1107.82	-.72	3.25	2-30 S 39-	0 W	14.92 S 1.48 E	1.26
1201.00	1200.72	-4.40	4.26	2-45 S 66-	0 W	17.49 S 1.86 W	1.34
1294.00	1293.62	-8.78	4.46	2-45 S 76-	0 W	18.94 S 6.08 W	.52
1387.00	1386.54	-12.43	3.65	1-45 S 83-	0 W	19.60 S 9.66 W	1.11
1480.00	1479.50	-15.27	2.84	1-45 S 86-	0 W	19.87 S 12.49 W	.10

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U.S. DEPT.
HOMES OFFICE

AMF / SCIENTIFIC DRILLING
MIDLAND, TEXAS

JOB NUMBER: 132-M-1284-127

DATE: 12/28/84

INRUN SURVEY

BY

THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D N	COORDINATES LATITUDE DEPARTURE	D-LEG PLR 100
1560.00	1559.48	-17.01	1.75	0-45	S 74- 0 W	20.18 S 14.21 W	1.29
1617.00	1616.48	-17.74	.75	0-45	N 74- 0 W	20.18 S 14.94 W	.73
1710.00	1709.47	-18.78	1.22	0-45	N 61- 0 W	19.71 S 16.07 W	.18
1803.00	1802.46	-19.84	1.42	1- 0	N 53- 0 W	18.94 S 17.26 W	.30
1896.00	1895.44	-20.95	1.62	1- 0	N 50- 0 W	17.93 S 18.53 W	.06
1989.00	1988.43	-21.97	1.62	1- 0	N 45- 0 W	16.83 S 19.72 W	.09
2082.00	2081.41	-22.79	1.62	1- 0	N 32- 0 W	15.57 S 20.73 W	.24
2175.00	2174.39	-23.26	2.03	1-30	N 12- 0 W	13.69 S 21.49 W	.71
2268.00	2267.35	-23.84	2.64	1-45	N 17- 0 W	11.14 S 22.15 W	.31
2361.00	2360.30	-23.65	3.04	2- 0	N 4- 0 W	8.16 S 22.70 W	.53
2454.00	2453.21	-20.80	4.26	3-15	N 82- 0 E	5.15 S 20.26 W	3.97
2547.00	2545.66	-11.09	9.72	8-45	N 86- 0 E	4.13 S 10.60 W	5.93
2640.00	2637.45	3.81	14.95	9-45	N 86- 0 E	3.09 S 4.31 E	1.08
2733.00	2729.04	19.91	16.15	10-15	N 86- 0 E	1.96 S 20.42 E	.54
2826.00	2820.55	36.42	16.55	10-15	N 85- 0 E	.67 S 36.92 E	.19

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C.D.
FBI OFFICE

AMF / SCIENTIFIC DRILLING
MIDLAND, TEXAS

JOB NUMBER: 132-M-1284-127

DATE: 12/28/84

INRUN SURVEY

BY

THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC DM	BEARING D M	COORDINATES LATITUDE DEPARTURE	D-LEG PER 100
2919.00	2912.03	53.14	16.75	10-30	N 85- 0 E	1.79 N 53.60 E	.27
3012.00	3003.47	70.06	16.95	10-30	N 85- 0 E	2.27 N 70.49 E	.00
3105.00	3094.04	87.38	17.35	11- 0	N 85- 0 E	3.78 N 87.77 E	.54
3193.00	3186.17	104.88	17.55	10-45	N 86- 0 E	5.16 N 105.26 E	.34
3291.00	3277.46	122.59	17.75	11-15	N 84- 0 E	6.71 N 122.94 E	.68
3355.00	3340.27	134.89	12.30	10-55	N 83- 0 E	8.10 N 135.16 E	.60
3448.00	3431.60	152.44	17.55	10-50	N 81- 0 E	10.54 N 152.54 E	.42
3541.00	3522.96	169.05	17.42	10-45	N 81- 0 E	13.27 N 169.74 E	.09
3636.00	3616.26	187.71	17.86	10-55	N 81- 0 E	16.06 N 187.38 E	.18
3726.00	3704.58	205.01	17.30	11-15	N 82- 0 E	18.62 N 204.49 E	.43
3820.00	3796.72	223.62	18.61	11-35	N 82- 0 E	21.21 N 222.91 E	.35
3910.00	3884.78	242.20	18.58	12-15	N 80- 0 E	24.11 N 241.27 E	.87
4001.00	3973.60	262.02	19.82	12-55	N 82- 0 E	27.21 N 260.85 E	.88
4095.00	4065.13	283.43	21.41	13-25	N 81- 0 E	30.38 N 282.02 E	.59
4189.00	4156.42	305.84	22.41	14-10	N 81- 0 E	33.88 N 304.16 E	.80

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FEDERAL BUREAU OF INVESTIGATION

AMF / SCIENTIFIC DRILLING
MIDLAND, TEXAS

JOB NUMBER: 132-M-1284-127 DATE: 12/28/84

INRUN SURVEY

BY

THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D M	COORDINATES LATITUDE DEPARTURE	D-LEG PER 100
4280.00	4244.43	328.94	23.10	15-15	N 82- 0 E	37.30 N 327.01 E	1.22
4337.00	4299.42	343.94	14.99	15-15	N 82- 0 E	39.39 N 341.85 E	.00

THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF

4337.00 FEET EQUALS 344.11 FEET AT N 83-26 E.

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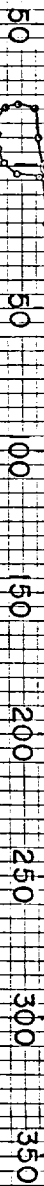
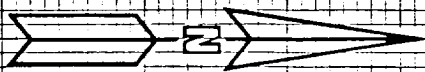
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OFFICE
HONORARY OFFICE

AMOCO PRODUCTION CO.
SOUTH HOBBS UNIT 1176

PLAN VIEW

SCALE 1" = 50'



AMSI
Scientific
Drilling International

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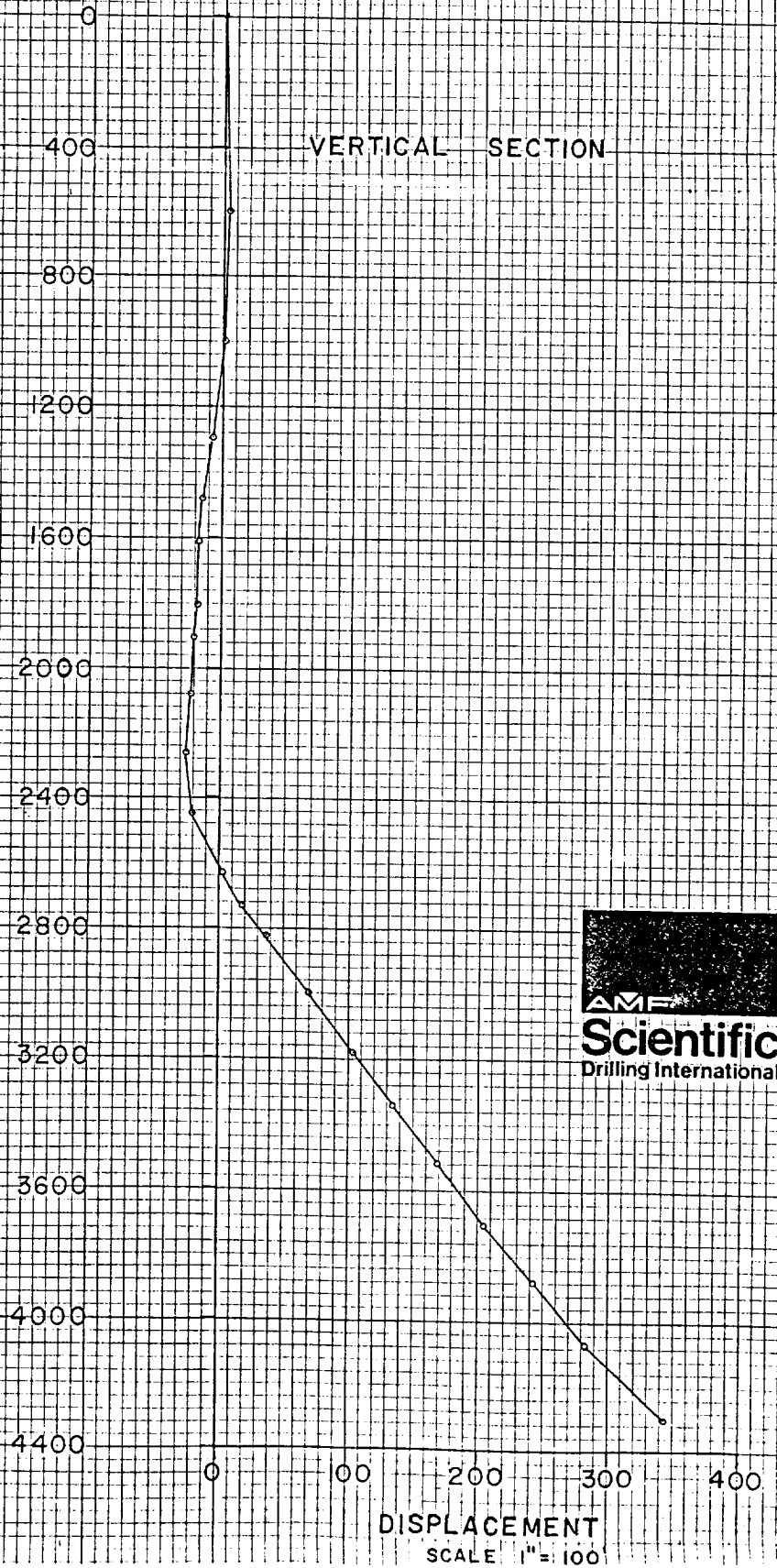
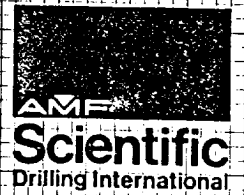
FEB -8 1985

U.S. DEPT. OF JUSTICE
HOMELAND OFFICE

AMOCO PRODUCTION CO.
SOUTH HOBBS UNIT 176

T.V.D.
SCALE 1"=400'

VERTICAL SECTION



DISPLACEMENT
SCALE 1"=100'

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O.C.D.
HOBBS OFFICE