



SCIENTIFIC DRILLING UNIT,  
MIDLAND, TEXAS

JOB NUMBER: 132M1186044

DATE: 10/30/85

## 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
99.00	99.00	.01	.22	0-15	S 62- 0 W	.10 S .19 W	.25
171.00	171.00	.16	.60	0-30	N 79- 0 W	.10 S .77 W	.37
282.00	281.99	.48	.99	0-45	S 66- 0 W	.30 S 1.75 W	.49
374.00	373.99	.69	1.01	0-30	S 67- 0 W	.53 S 2.72 W	.36
465.00	464.98	.97	.79	0-30	S 65- 0 W	.60 S 3.51 W	.04
557.00	556.98	1.38	.80	0-30	N 71- 0 W	.52 S 4.30 W	.24
646.00	647.97	1.77	.99	0-45	S 67- 0 W	.55 S 5.27 W	.56
740.00	739.97	2.02	1.20	0-45	S 86- 0 W	.83 S 6.44 W	.27
831.00	830.96	1.54	.99	0-30	S 26- 0 E	1.56 S 6.86 W	1.15
923.00	922.96	1.00	.60	0-15	S 71- 0 E	1.95 S 6.42 W	.40
1014.00	1013.96	.86	.20	0- 0	N / A	2.02 S 6.23 W	.27
1106.00	1105.96	.86	.00	0- 0	N / A	2.02 S 6.23 W	.00
1177.00	1176.96	.66	.20	0-15	S 35- 0 E	2.18 S 6.12 W	.27
1289.00	1288.96	.29	.40	0-15	S 12- 0 W	2.56 S 6.04 W	.22
1380.00	1379.96	.13	.20	0- 0	N / A	2.76 S 6.08 W	.27

RECEIVED

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OCD  
HOBBS OFFICE

SCIENTIFIC DRILLING INT'L.  
MIDLAND, TEXAS

JOB NUMBER: 132M1186044

DATE: 10/30/86

## INRUN SURVEY

BY

## THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D N	BEARING D N	COORDINATES LATITUDE DEPARTURE	D-LEG PER 100
1441.00	1440.96	-.03	.27	0-30	S 80- 0 E	2.80 S 5.82 W	.82
1512.00	1511.95	-.49	.62	0-30	S 52- 0 E	3.05 S 5.26 W	.34
1612.00	1611.95	-1.13	.65	0-15	S 15- 0 E	3.59 S 4.91 W	.34
1703.00	1703.95	-1.64	.60	0-30	S 24- 0 W	4.17 S 4.95 W	.37
1795.00	1794.95	-1.81	.79	0-30	S 79- 0 W	4.65 S 5.55 W	.51
1807.00	1806.94	-1.62	.80	0-30	S 78- 0 W	4.81 S 6.34 W	.01
1976.00	1977.94	-1.30	.59	0-15	N 64- 0 W	4.74 S 6.92 W	.37
2070.00	2069.94	-.84	.60	0-30	N 55- 0 E	4.24 S 6.96 W	.72
2161.00	2160.92	-.70	1.79	1-45	N 65- 0 E	3.38 S 5.41 W	1.39
2253.00	2252.84	-.43	3.81	3- 0	N 56- 0 E	1.47 S 2.10 W	1.41
2344.00	2343.67	.11	5.56	4- 0	N 62- 0 E	1.39 N 2.66 E	1.19
2436.00	2435.43	.46	6.62	4-15	N 61- 0 E	4.54 N 8.48 E	.28
2527.00	2526.19	.98	6.55	4- 0	N 59- 0 E	7.82 N 14.15 E	.32
2619.00	2618.00	1.30	6.02	3-30	N 64- 0 E	10.69 N 19.43 E	.65
2710.00	2708.65	1.21	5.16	3- 0	N 67- 0 E	12.83 N 24.13 E	.58

SCIENTIFIC DRILLING INT'L.  
HULLAND, TEXAS

JOB NUMBER: 13201185044

DATE: 10/30/88

## TIDE SURVEY

BY

## THE RADIUS OF CURVATURE

HGS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	Bearing		COORDINATES		D-LEG PER 100
				D	M	LATITUDE	DEPARTURE	
2802.00	2800.75	.41	4.21	2-15 N	84- 0 E	13.88 N	28.19 E	1.17
2893.00	2891.70	-.68	2.98	1-30 N	88- 0 E	14.08 N	31.16 E	.84
2985.00	2983.68	-1.59	2.21	1-15 N	90- 0 E	14.12 N	33.37 E	.28
3076.00	3074.51	1.07	5.16	5-15 N	42- 0 W	17.86 N	35.03 E	6.77
3168.00	3165.98	10.55	9.82	7- 0 N	39- 0 W	25.32 N	28.66 E	1.93
3259.00	3256.20	22.07	11.88	8- 0 N	40- 0 W	34.49 N	21.11 E	1.11
3351.00	3347.25	34.85	13.20	8-30 N	40- 0 W	44.60 N	12.62 E	.54
3442.00	3437.16	48.30	14.04	9-15 N	44- 0 W	55.03 N	3.23 E	1.07
3532.00	3527.03	49.85	1.63	9-30 N	44- 0 W	56.20 N	2.10 E	2.50
3625.00	3620.75	64.40	15.35	9-30 N	44- 0 W	67.25 N	8.57 W	.00
3718.00	3713.41	79.33	15.75	10- 0 N	44- 0 W	78.58 N	19.51 W	.54
3811.00	3806.89	95.12	16.75	10-45 N	46- 0 W	90.42 N	31.35 W	.89
3904.00	3899.06	112.90	18.34	12- 0 N	32- 0 W	104.61 N	42.86 W	3.25
4017.00	3903.90	132.63	19.93	12-45 N	35- 0 W	121.25 N	53.86 W	1.06
4110.00	3994.47	153.43	21.12	13-30 N	36- 0 W	139.45 N	66.13 W	.83

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HOBBS OFFICE

SCIENTIFIC DRILLING TRAIL,  
FIELD NO. 1, TEXAS

LOG NUMBER: 132H1186044

DATE: 10/30/86

LOG SURVEY

BT

THE RADIUS OF CURVATURE

HOS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	TOC		BEARING		COORDINATES		D-LEG PER 100				
				D	N	D	N	LATITUDE	DEPARTURE					
4103.00	4082.60	175.86	22.89	15-	0	N	39-	0	W	156.73	N	79.90	W	1.70
4195.00	4174.22	200.12	24.85	16-	0	N	39-	0	W	176.31	N	75.20	W	1.60
4289.00	4263.56	225.28	25.83	16-	15	N	39-	0	W	196.52	N	111.28	W	.40
4329.00	4301.96	236.16	11.19	16-	15	N	39-	0	W	205.22	N	118.32	W	.00

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THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF

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4329.00 FEET EQUALS 236.89 FEET AT N 29-58 W.

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SCIENTIFIC DRILLING CONTROLS

SURVEY CERTIFICATION

COMPANY Amoco Production Co. WELL NAME & NO. Scuth Hobbs Unit #213  
DATE of CERTIFICATION 11/21/86 LOCATION Lea County, N.M.  
TYPE of SURVEY Magnetic Multi Shot FROM 00.00' TO 3442'  
JOB NUMEER 132M1186 TICKET NUMEER \_\_\_\_\_

THE ABOVE SURVEY WAS PERFORMED BY ME ON 10/30/86 & 11/03/86 19\_\_\_\_\_  
THE RESULTS OBTAINED FROM ACTUAL FIELD DATA CONFORM TO ESTABLISHED  
STANDARDS AND ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

David Meach  
SURVEYOR

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.

David Meach  
S.D.C. REPRESENTATIVE



SMITH DRILLING SYSTEMS

SURVEY CERTIFICATION

COMPANY AMOCO PRODUCTION CO. WELL NAME & NO. SOUTH HOBBS UNIT # 213  
DATE of CERTIFICATION 11-08-86 LOCATION LEA COUNTY, NEW MEXICO  
TYPE of SURVEY MAGNETIC MULTISHOT FROM 3442' TO 4289'  
JOB NUMBER 08611024 TICKET NUMBER 5130

THE ABOVE SURVEY WAS PERFORMED BY ME ON NOVEMBER 07 19 86  
THE RESULTS OBTAINED FROM ACTUAL FIELD DATA CONFORM TO ESTABLISHED STANDARDS AND ARE  
TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

  
\_\_\_\_\_  
SURVEYOR

FILM TRANSFER RECEIPT

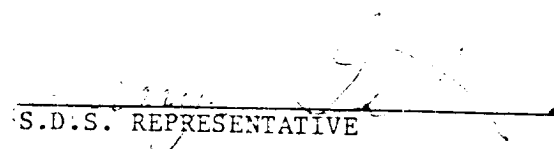
I HEREBY ACKNOWLEDGE RECEIPT OF ORIGINAL FILM OBTAINED ON THE ABOVE SURVEY.

\_\_\_\_\_  
DATE RECEIVED 19 \_\_\_\_\_

\_\_\_\_\_  
COMPANY REPRESENTATIVE

SURVEY CONFIRMATION

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

  
\_\_\_\_\_  
S.D.S. REPRESENTATIVE

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-120  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

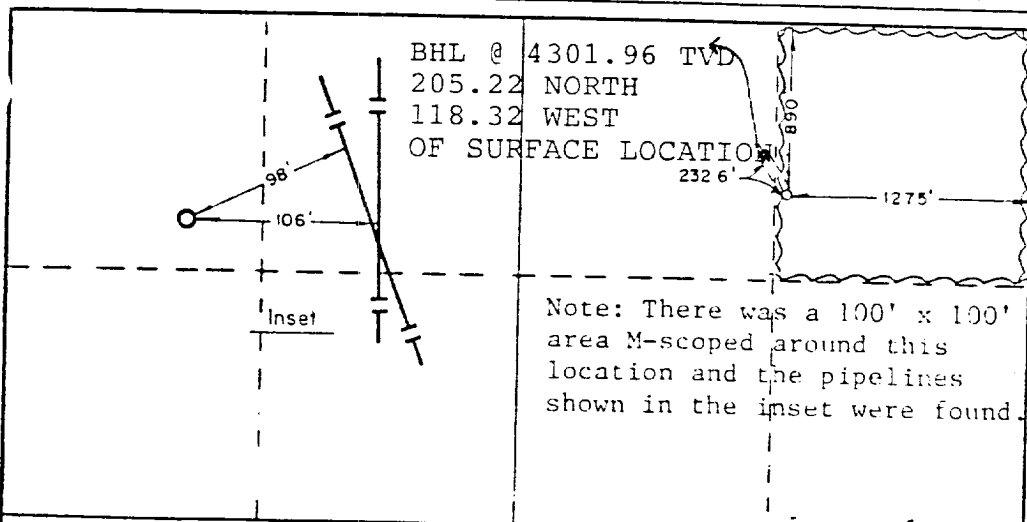
Operator Amoco Production Company			Lease South Hobbs (G-SA) Unit		Well No. 213
Unit Letter A	Section 5	Township 19 South	Range 38 East	County Lea	
Actual Footage Location of Well: 890 feet from the North line and 1275 feet from the East line					
Ground Level Elev. 3622.9'	Producing Formation Grayburg - San Andres		Pool Hobbs GSA	Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Unitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



NOTE: This well to be directionally drilled. Bottom hole location will be 680' F.N.L. and 1375' F.E.L.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name John W. West  
Position Administrative Analyst

Company Amoco Production Company

Date September 5, 1986

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 knowledge and belief.

Date Surveyed  
July 10, 1986

Registered Professional Engineer  
and of Land Surveyor

Certificate No. JOHN W. WEST, 676  
RONALD J. EIDSON, 3239

91746

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**DEC 17 1986**

**OCD  
HOBBS OFFICE**