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OCB

HOBBS OFFICE

SCIENTIFIC DRILLING INT'L.
MIDLAND, TX.

JOB NUMBER: 132M1086035/132M1086038

DATE: 10/20/86

INRUN SURVEY

BY

THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D H	BEARING		COORDINATES		D-LEG PER 100
					D	M	LATITUDE	DEPARTURE	
95.00	95.00	-.20	.21	0-15 S	5-	0 W	.21 S	.02 W	.26
187.00	187.00	-.79	.60	0-30 S	12-	0 E	.80 S	.02 E	.29
280.00	280.00	-1.19	.41	0- 0	N /	A	1.20 S	.10 E	.54
372.00	372.00	-1.08	.40	0-30 N	60-	0 E	1.00 S	.45 E	.54
464.00	463.99	-1.17	.80	0-30 S	74-	0 E	.91 S	1.23 E	.42
556.00	555.99	-1.45	1.01	0-45 N	80-	0 E	.96 S	2.22 E	.40
648.00	647.98	-1.84	1.01	0-30 S	60-	0 E	1.13 S	3.19 E	.53
741.00	740.98	-2.05	.81	0-30 N	64-	0 E	1.16 S	3.97 E	.50
833.00	832.97	-2.11	1.01	0-45 S	85-	0 E	.97 S	4.95 E	.45
925.00	924.96	-2.47	1.41	1- 0 N	88-	0 E	1.01 S	6.35 E	.30
1017.00	1016.95	-2.27	1.41	0-45 N	48-	0 E	.50 S	7.63 E	.70
1109.00	1108.94	-1.93	1.01	0-30 N	66-	0 E	.05 N	8.47 E	.34
1202.00	1201.93	-1.86	.41	0- 0	N /	A	.21 N	8.84 E	.54
1294.00	1293.93	-1.66	1.00	1-15 N	65-	0 E	.64 N	9.75 E	1.36
1386.00	1385.91	-1.56	2.21	1-30 N	83-	0 E	1.25 N	11.86 E	.54

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HIGHLAND, TX.

JOB NUMBER: 132H086035/132H086038 DATE: 10/20/86

TIRROW SURVEY

BY

THE RADIUS OF CURVATURE

HEGS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D H	BEARING D M	COORDINATES LATITUDE DEPARTURE	D-LEG PER 100
1416.00	1415.90	-1.68	.72	1-15	N 82- 0 E	1.30 N 12.58 E	.96
1487.00	1486.09	-1.78	1.24	0-45	N 73- 0 E	1.49 N 13.80 E	.80
1579.00	1578.98	-2.05	1.41	1- 0	S 78- 0 E	1.55 N 15.19 E	.54
1671.00	1670.87	-2.42	1.61	1- 0	N 78- 0 E	1.55 N 16.78 E	.45
1736.00	1735.85	-1.98	1.28	1-15	N 34- 0 E	2.24 N 17.81 E	1.34
1855.00	1854.54	5.09	8.04	6-30	N 10- 0 W	9.92 N 19.44 E	4.76
1947.00	1945.80	16.61	11.61	8- 0	N 3- 0 W	21.44 N 18.13 E	1.89
2039.00	2036.79	30.02	13.60	9- 0	N 5- 0 W	35.01 N 17.18 E	1.13
2131.00	2127.49	45.23	15.38	10-15	N 5- 0 W	50.33 N 15.84 E	1.36
2223.00	2217.84	62.40	17.36	11-30	N 5- 0 W	67.62 N 14.33 E	1.36
2315.00	2307.74	81.58	19.52	13- 0	N 1- 0 W	87.11 N 13.31 E	1.87
2407.00	2397.15	102.61	21.67	14-15	N 2- 0 E	108.78 N 13.50 E	1.56
2499.00	2486.01	125.66	23.81	15-45	N 00-00 E	132.59 N 13.91 E	1.72
2591.00	2579.45	150.81	25.36	16-15	N 16- 0 W	157.62 N 10.39 E	4.81
2683.00	2662.66	176.48	26.13	16-45	N 31- 0 W	.00 E 181.51 N	4.65

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TRECH SURVEY

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THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC O M	BEARING		COORDINATES LATITUDE DEPARTURE	D-LEG PER 100
					D	M		
2775.00	2750.70	201.57	26.71	17- 0	N	36- 0	203.77 N 14.73 W	1.60
2867.00	2839.74	226.50	26.71	16-45	N	33- 0	225.78 N 29.86 W	.98
2959.00	2926.87	251.46	26.32	16-30	N	31- 0	248.10 N 43.80 W	.68
3051.00	3015.22	275.95	25.74	16- 0	N	32- 0	270.05 N 57.25 W	.62
3143.00	3103.65	300.20	25.36	16- 0	N	29- 0	291.90 N 70.12 W	.90
3232.00	3189.31	323.54	24.16	15-30	N	28- 0	313.13 N 81.65 W	.64
3326.00	3280.05	347.18	24.53	14-45	N	30- 0	334.58 N 93.54 W	.97
3419.00	3370.14	369.32	23.09	14- 0	N	30- 0	354.58 N 105.09 W	.81
3513.00	3461.25	391.85	23.14	14-30	N	23- 0	375.27 N 115.40 W	1.91
3605.00	3550.17	415.35	23.62	15-15	N	3- 0	398.17 N 120.69 W	5.61
3697.00	3638.98	438.83	24.01	15- 0	N	00-00	422.16 N 121.32 W	.89
3787.00	3725.91	461.52	23.29	15- 0	N	1- 0	445.45 N 121.52 W	.29
3881.00	3816.66	485.42	24.53	15-15	N	00-00	469.98 N 121.74 W	.38
3975.00	3907.29	509.75	24.92	15-30	N	2- 0	494.90 N 122.17 W	.62
4067.00	3995.04	534.12	24.97	16- 0	N	00-00	519.87 N 122.61 W	.80

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MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D M	COORDINATES LATITUDE DEPARTURE	D-LEG PER 100
4161.00	4086.08	559.70	26.30	16-30	N 00-00 E	546.17 N 122.61 W	.53
4255.00	4176.60	584.36	25.32	14-45	N 1-00 W	571.49 N 122.83 W	1.88
4385.00	4302.53	615.87	32.27	14-00	N 1-00 W	603.76 N 123.39 W	.58

THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF

4385.00 FEET EQUALS 616.23 FEET AT N 11-33 W.

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SCIENTIFIC DRILLING CONTROLS

SURVEY CERTIFICATION

COMPANY Amoco Production Co. WELL NAME & NO. South Hobbs Unit #212
DATE of CERTIFICATION 11/21/86 LOCATION Lea County, N.M.
TYPE of SURVEY Magnetic Multi Shot FROM 00.00' TO 3143'
JOB NUMBER 132M1086 TICKET NUMBER _____

THE ABOVE SURVEY WAS PERFORMED BY ME ON 10/20/86 & 10/24/86 19____
THE RESULTS OBTAINED FROM ACTUAL FIELD DATA CONFORM TO ESTABLISHED
STANDARDS AND ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

Darryl M. Reed
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.

B. A. Reed
S.D.C. REPRESENTATIVE

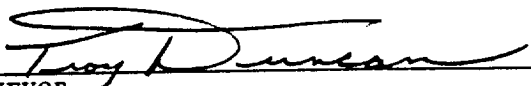
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SMITH DRILLING SYSTEMS

SURVEY CERTIFICATION

COMPANY Amoco Production Company WELL NAME & NO. South Hobbs Unit #212
DATE of CERTIFICATION October 29, 1986 LOCATION Lea County, New Mexico
TYPE of SURVEY Magnetic Multishot FROM 3143' TO 4385'
JOB NUMBER 08610034 TICKET NUMBER 5126

THE ABOVE SURVEY WAS PERFORMED BY ME ON October 28, 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

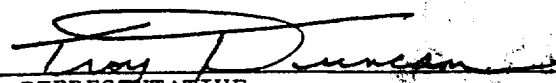
I HEREBY ACKNOWLEDGE RECEIPT OF ORIGINAL FILM OBTAINED ON THE ABOVE SURVEY.

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

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