

NEW MEXICO OIL CONSERVATION COMMISSION

OPERATOR Ard Drilling Company ADDRESS P. O. Box 1030, Midland, Texas 79701
 FIELD North Mescalero LEASE State "10" WELL NO. 1
 LOCATION 660' FSL and 660' FEL of Section 10, T-10-S, R-32-E, Lea County, New Mexico

DEVIATION RECORD

<u>DEPTH</u>	<u>DEGREES</u>
430	1
925	1
1395	3/4
1705	3/4
2192	3/4
2648	3/4
3086	1-3/4
3463	2-1/4

See attached Sperry Sun Directional Survey for intervals 3463 to 7805 feet

See attached Directional Investment Guidance, Inc. survey for new interval from 7805 to 9037 feet.

Certification of personal knowledge of Deviation Record:

I hereby certify that I have personal knowledge of the data and facts placed on this form, and that such information is true and complete.

N. W. Harrison
 Signature

Ard Drilling Company
 Company

STATE OF TEXAS
 COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared N. W. Harrison, known to me to be the person whose name is subscribed hereto, who, after being duly sworn, on oath states that he is acting at the direction and on behalf of the operator of the well identified in this instrument and that such well was not intentionally deviated from the vertical.

N. W. Harrison
 Signature

Manager, Ard Drilling Company
 Title

Sworn and Subscribed to before me, this the 4th day of May, 1976

S. R. McKinney, Jr.
 Notary Public in and for Midland County,
 Texas.

MY COMMISSION EXPIRES:

June 1, 1977

sperry-sun



J. A. Fouché
President

April 12, 1976

ARD Drilling Company
P.O. Box 1030
Midland, TX 79701

Gentlemen:

The enclosed film and five folders show the results of our Multishot survey job no. MS-6407, on the State "10" lease well no. 1, in Lea County, NM on April 10, 1976. This survey was ran from 3,463 feet to a depth of 7,805 feet.

This folder contains the original of the computation sheet, and field data sheet.

It has been a pleasure to perform this survey for you.

Very truly yours,

SPERRY-SUN, INC.

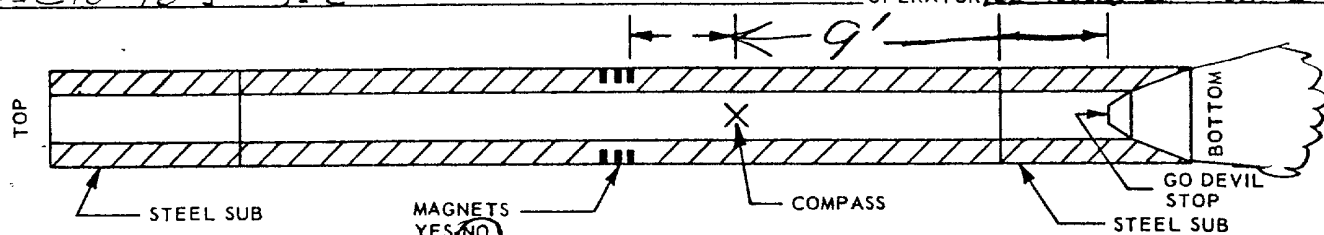


Glenn A. Belote
District Manager

GAB/jp
enclosures

**SPEKTR-JON WELL SURVEYING COMPANY
MAGNETIC MULTISHOT FIELD DATA AND TIME SHEET NO. 1**

COMPANY Arcl Drilling Co. JOB NO. 1115-6467
 STATE New Mexico DATE April 9, 1976
 LEASE State "10" COUNTY/PARISH Lea FIELD Mesa Verde
 WELL NO. 1 SURVEYED FROM 3463 TO 7205 FEET
 CLOCK NO. E-202 FRAME NO. 624 MAGAZINE NO. 778 COMPASS NO. 1264 CENTRALIZER R.F.
 COMPASS SPACING 9' FROM BOTTOM 3' LENGTH OF COLLAR 27' TYPE COLLAR SS
 FILM LENGTH CALC. 74.8 MEASURED 72 1/2" FIRST FLASH 000.00 LAST FLASH 266.00
 REMARKS: Sec 10 T2S 32E OPERATOR W. Edwards



IN RUN SURFACE TIME	MEASURED DEPTH	OUT RUN SURFACE TIME	IN RUN SURFACE TIME	MEASURED DEPTH	OUT RUN SURFACE TIME	IN RUN SURFACE TIME	MEASURED DEPTH	OUT RUN SURFACE TIME
10-30	MARK		100-00	5704				
11-30	Crack		100-45					
			103-25	5610	105-00			
			104-10		106-05			
			107-55					
			108-40	5516				
			110-00					
22-15	7305		110-45	5422				
25-30			112-10					
26-45	7770		112-55	5328				
31-15			114-15					
34-15	7676		115-00	5234				
43-30			116-10					
46-10	7582		116-55	5140				
47-35			118-00					
48-20	1488		118-45	5046				
49-55			120-10					
50-40	7394		120-55	4952				
52-20			122-10					
53-05	7300		122-55	4858				
54-55			124-10					
55-40	7206		124-55	4764				
56-10			126-05					
56-55	7112		126-50	4670				
58-10		60-55	128-05					
59-55	7019	63-10	128-50	4576				
64-00			130-25					
65-45	6925		132-00	4482				
66-55		67-50	132-20					
67-55	6831	67-35	133-00	4389				
69-00			134-15					
70-30	6737		135-00	4295				
72-20			136-10					
73-15	6643		136-55	4201				
74-45			138-00					
75-30	6549		138-45	4107				
77-20			140-00					
78-05	6455		140-45	4013				
79-30			141-55					
81-15	6361		142-40	3919				
82-20			143-50					
83-05	6267		144-35	3825				
84-35			145-50					
85-10	6173		146-35	3731				
86-45			147-40					
87-30	6079		148-25	3637				
88-50			149-45					
89-35	5985		150-10	3543				
90-50			151-30					
91-35	5891		151-00	3449				
92-55		94-35						
93-25	5797	94-25		3355				

Handwritten signature/initials

ARD DRILLING CO.
STATE '10' NO. 1
MESCALERO FIELD
LA. COUNTY NEW MEXICO
MAGNETIC MULTISHOT

DATE OF SURVEY APRIL 10, 1976
VERTICAL SECTION DIRECTION CLOSURE

PAGE 1
MS-6407

SPEAR-SUN

RECORD OF SURVEY

MEASURED	TRUE	CUG	COURSE	COURSE	DOG-LEG	TOTAL	COORDINATES	VERTICAL
DEPTH	DEPTH	STA	INCLINATION	DEG MIN	DEG/100	RECTANGULAR	EAST/WEST	SECTION
						NORTH/SOUTH		
3463	3463.00		ASSUMED	VERTICAL TO 3463 FEET		.00 N	.00 E	.00
3543	3542.94		2.15		2.91	1.13 N	2.93 E	3.03
3637	3636.67		2.15		.21	2.14 N	6.46 E	6.65
3731	3730.61		2.0		.27	3.10 N	9.62 E	9.67
3823	3824.73		1.45		.30	3.75 N	12.41 E	12.71
3919	3918.71		2.0		.41	4.98 N	15.46 E	15.86
4013	4012.56		1.45		.34	5.32 N	17.99 E	18.51
4107	4106.61		2.0		.47	7.23 N	21.13 E	21.77
4201	4200.55		2.0		.19	7.27 N	24.34 E	24.99
4295	4294.49		2.0		.04	8.55 N	27.56 E	28.26
4389	4388.47		1.15		.50	9.45 N	29.41 E	30.10
4483	4481.46		1.0		.30	9.99 N	30.95 E	31.75
4575	4575.44		1.0		.31	10.04 N	32.33 E	33.39
4670	4669.42		1.15		.30	10.35 N	34.01 E	35.44
4764	4763.39		1.30		.27	10.75 N	37.04 E	37.39
4859	4857.34		1.45		.39	10.75 N	39.92 E	40.75
4953	4951.27		2.15		.56	11.07 N	43.59 E	44.44
5045	5045.23		1.45		.34	11.23 N	46.43 E	47.31
5140	5139.16		1.45		.23	11.02 N	45.32 E	46.14
5234	5233.11		2.15		.53	10.75 N	51.00 E	51.75
5328	5327.02		2.30		.71	9.43 N	50.88 E	51.52
5422	5420.93		2.30		.29	8.51 N	50.33 E	51.41
5516	5514.84		2.50		.65	6.56 N	44.58 E	45.46
5610	5608.67		3.50		1.04	10.91 N	70.22 E	70.93
5704	5702.51		3.15		.66	12.20 N	75.21 E	75.66
5797	5795.36		3.15		.61	14.35 N	80.21 E	81.20
5891	5889.29		2.15		1.08	15.61 N	83.67 E	84.77
5985	5983.22		1.15		.88	13.79 N	87.13 E	88.37
6079	6077.16		2.0		.47	17.71 N	90.32 E	91.56
6173	6171.02		2.15		.27	18.73 N	92.87 E	93.21

SPEERY-SUN

RECORD OF SURVEY									
MEASURED	TRUE	SUB	COURSE	COURSE	DEG	DEG/100	RECTANGULAR	TOTAL	COORDINATES
DEPTH	DEPTH	SEA	INCLINATION	CORRECTION	DEG	SEV	NORTH/SOUTH	EAST/WEST	SECTION
6267	6265.02	6265.02	2 15	36	36	.83	18.47 N	97.55 E	98.85
6361	6358.92	6358.92	2 0	78	78	.41	17.79 N	100.76 E	101.95
6455	6452.32	6452.92	1 45	31	31	.23	17.34 N	103.53 E	104.77
6545	6546.89	6546.89	1 15	65	65	.54	17.10 N	105.64 E	106.76
6643	6640.33	6640.85	1 45	41	41	.56	17.61 N	103.47 E	103.55
6737	6734.79	6734.79	2 0	56	56	.52	17.36 N	111.74 E	112.68
6831	6828.79	6828.79	2 0	82	82	.19	17.43 N	115.02 E	116.15
6925	6922.63	6922.63	1 45	69	69	.80	17.35 N	119.33 E	120.64
7019	7016.54	7016.54	2 30	37	37	.23	17.14 N	123.53 E	124.57
7113	7109.41	7109.41	2 0	50	50	.53	17.14 N	126.45 E	127.54
7206	7203.34	7203.34	2 15	69	69	.80	17.21 N	132.13 E	133.22
7300	7297.25	7297.25	2 30	88	88	.30	17.05 N	136.28 E	137.28
7394	7391.14	7391.14	2 45	34	34	.47	17.53 N	140.77 E	141.79
7483	7485.03	7485.03	2 45	36	36	.10	17.85 N	145.27 E	146.30
7572	7572.86	7572.86	3 15	60	60	.54	16.92 N	150.51 E	151.44
7673	7672.77	7672.77	2 45	33	33	.55	16.37 N	154.99 E	155.84
7770	7766.64	7766.64	3 0	80	80	.31	16.52 N	159.84 E	160.59
7803	7801.60	7801.60	2 45	32	32	.77	15.25 N	161.50 E	162.25

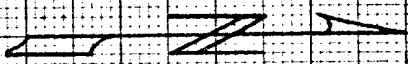
THE CALCULATIONS ARE BASED ON THE TANGENTIAL OR TERMINAL ANGLE METHOD.

HORIZONTAL DISPLACEMENT = 162.22 FEET AT NORTH 84 DEG. 36 MIN. EAST (TRUE)

ARD DRILLING COMPANY
 STATE NO. WELL NO. 1
 MESCALERO FIELD
 LEA COUNTY, NEW MEXICO
 MAGNETIC MULTISHOT SURVEY
 JOB NO. MS-6407
 3,463 FEET TO 7,805 FEET

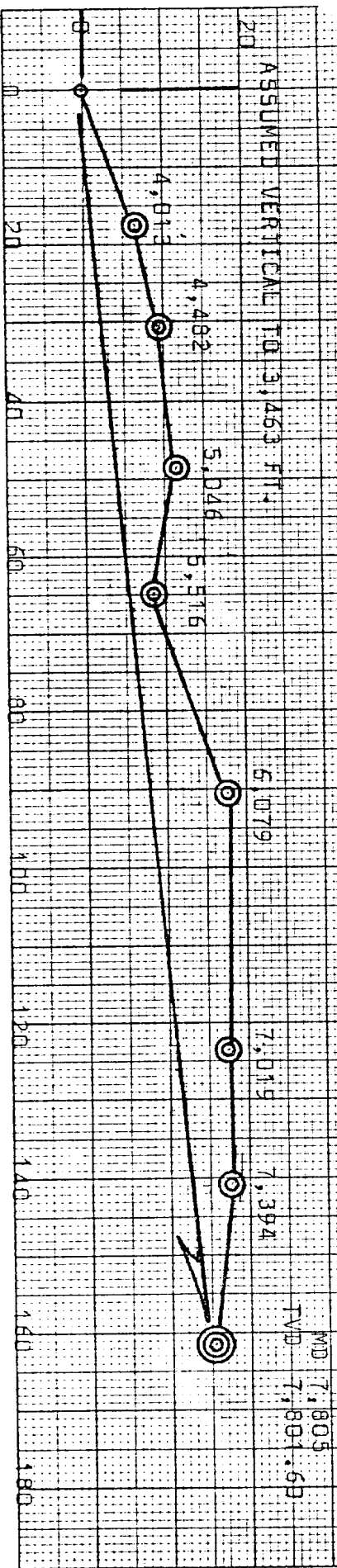
SPERRY-SUN
 HORIZONTAL PROJECTION

1" = 20'



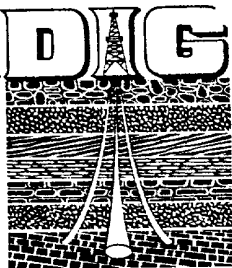
HORIZONTAL DISPLACEMENT = 162.22 FT. AT NORTH 84 DEG. 36 MIN. EAST (TRUE)

ASSUMED VERTICAL TO 3,463 FT.



MD 7,805
 TVD 7,801.60

DIRECTIONAL
INVESTMENT
GUIDANCE, INC.



P. O. Box 7238 • Midland, Texas 79701 • Phone (915) 563-1490

STATE OF Texas
COUNTY OF Midland

I, Lloyd V. Jones, in the employ of the Directional Drilling Department of Directional Investment Guidance, Inc., did on the days of March 9, 19 76 thru March 23, 19 76 conduct or supervise the taking of a Magnetic Single Shot Survey by the method of Magnetic Oriented Survey from a depth of 7805 M D feet to 9037 M D feet, with records of inclination being taken at approximately every 120 feet.

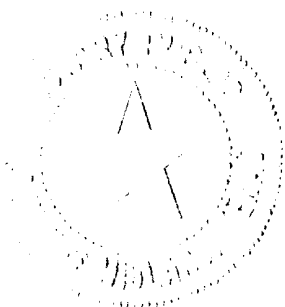
This survey was conducted at the request of ARD Drilling Company for their State 10 Well No. 1 Lea County, State of New Mexico, in the Field.

Lloyd V. Jones
Lloyd V. Jones

STATE OF Texas
COUNTY OF Midland

Before me the undersigned authority, on this day personally appeared Lloyd V. Jones, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that the same is a true and correct statement of facts therein recited.

Subscribed and sworn to before me this 27th day of April, 19 76.



Jessie Cappelge
Notary Public in and for the
Midland County, Texas

ARD Drilling Company

ARD Drilling Company
State 10 #1, Lea County, New Mexico

JOB NO. 7616

DATE April 26, 1976

CHECKED BY

	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES			
							NORTH	SOUTH	EAST	WEST
1	7805	2 3/4°	7801.59	106.43		S82E	15.28		161.59	
2	7970	4°	7966.28	116.33	10.07	N5W	22.52		168.59	
3	8032	4 3/4°	8028.11	119.82	4.59	N4W	27.09		168.19	
4	8060	4 3/4°	8056.01	121.66	2.32	N	29.41		168.11	
5	8156	5 3/4°	8151.61	128.98	8.78	N3E	38.18		168.42	
6	8284	8 3/4°	8278.59	142.59	16.15	N4E	54.31		169.27	
7	8409	11 3/4°	8401.60	161.75	22.24	N6E	76.47		171.21	
8	8533	12 1/4°	8522.89	183.96	25.78	N4E	102.15		173.46	
9	8659	13 1/4°	8645.78	207.41	27.81	N2E	129.92		174.92	
10	8784	15°	8766.93	232.45	30.77	N1W	160.69		174.92	
11	8903	16°	8881.60	256.98	31.80	N8W	192.41		172.70	
12	9037	18 1/2°	9009.57	284.82	39.74	N11W	231.55		165.80	
Closure 284.82' N35°36'E										
DIG, Inc. Calculations are based on the Averaging Method. Calculations @ 7805 taken from Sperry Sun Survey.										