



**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

Doyle Hartman Oil Company
COMPANY

B.M. Justis Well No.10
WELL NAME

Lea County New Mexico
LOCATION

<u>JOB NUMBER</u>	<u>TYPE OF SURVEY</u>	<u>DATE</u>
WT1181-G0112	Gyroscopic Multishot	11-23-81
WT1181-D0111	Magnetic Single Shot	11-30-81
WT1181-S0120	Magnetic Multi Shot	11-30-81

SURVEY BY
Gary DeSpain
Ken V. Tidwell
Troy Grey

OFFICE
West Texas
West Texas
West Texas

DOYLE HARTMAN OIL PRODUCTION
B.M. JUSTIS WELL NO. 10
LEA COUNTY, NEW MEXICO BD1-365
NOVEMBER 23, 1981

EASTMAN WHIPSTOCK, INC.
GYROSCOPIC MULTI SHOT WT1181-60112
SURVEYOR: GARY DESPAIN (0°-600')
MAGNETIC MULTI SHOT WT1181-60120
SURVEYOR: TROY ONEY (600°-3258')

VERTICAL SECTION CALCULATED IN PLANE OF PROPOSAL
DIRECTION: S 55 DEG. 0 MIN. W

RECEIVED SURVEY

RADIUS OF CURVATURE METHOD

DOYLE HARTMAN OIL PRODUCTION

B. M. JUSTIS WELL NO. 10

576-178 - OTXEH-444 - KLNHBO VET

COMPUTATION

ON 2000

Figure 1

DATE

09:04:38 02-DEC-91

MEASURED DEPTH FEET	DRIFT		COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O R D I N A T E S FEET	C L O S U R E DISTANCE FEET	D I R E C T I O N D M	DOUGLASS SEVERITY DG/100F
	ANGLE D M	D I R E C T I O N D M							
0.	0	0	0.	0.00	0.00	0.00	0.00	0	0.00
100.	0	0	100.	100.00	0.00	0.00	0.00	0	0.00
200.	0 15	S 2 E	100.	200.00	0.01	0.01 E	0.22	S 2 E	0.25
300.	0 30	S 12 W	100.	300.00	0.12	0.05 W	0.07	S 3 15 W	0.26
400.	0 45	S 45 W	100.	399.99	0.72	1.01 S	1.90	S 17 14 W	0.
500.	1 15	S 55 W	100.	499.99	2.15	2.92 S	3.49	S 32 54 W	0.53
600.	1 45	S 64 W	100.	599.94	4.51	4.26 S	5.95	S 44 15 W	0.55
663.	1 15	S 40 W	63.	662.92	5.89	5.27 S	7.57	S 45 55 W	1.26
755.	3 0	S 71 W	92.	754.85	8.81	7.18 S	10.91	S 48 52 W	2.21
848.	4 0	N 64 W	93.	847.68	14.44	7.61 S	15.87	S 60 30 W	1.94
940.	5 45	N 79 W	92.	939.34	22.04	6.66 S	22.55	S 72 49 W	1.96
1032.	7 45	N 81 W	92.	1030.70	32.49	4.78 S	32.54	S 81 03 W	2.19
1125.	9 30	N 85 W	93.	1122.64	46.13	3.08 S	46.03 W	S 86 10 W	1.99
1217.	10 30	N 86 W	92.	1213.25	61.88	1.83 S	61.86 W	S 89 19 W	1.10
1309.	11 30	N 87 W	92.	1303.55	79.24	0.76 S	79.42 W	S 89 37 W	1.11
1402.	12 30	N 87 W	93.	1394.52	102.39	0.00	102.39	S 89 54 W	0.82
1494.	14 0	N 88 W	92.	1484.07	119.93	1.13 S	119.84	S 89 54 W	0.82
1587.	14 45	S 88 W	93.	1574.16	142.34	1.38 S	142.33 W	S 89 13 W	1.65
1679.	15 0	N 88 W	92.	1663.07	165.65	2.80 S	165.59 W	S 89 13 W	0.7
1771.	15 45	N 88 W	92.	1751.78	189.86	3.46 S	190.31 W	S 89 13 W	0.82
1864.	15 45	N 88 W	93.	1841.29	214.92	4.51 N	216.14 W	N 88 49 W	0.00
1956.	16 0	N 87 W	92.	1929.78	239.87	5.65 S	241.29 W	N 88 40 W	0.40
2048.	16 15	N 87 W	92.	2018.16	265.17	6.97 S	266.89 W	N 88 30 W	0.27
2141.	16 30	N 86 W	93.	2107.39	291.10	8.57 N	293.96 W	N 88 19 W	0.41
2233.	17 15	N 86 W	92.	2195.43	317.48	10.43 N	319.61 W	N 88 8 W	0.82
2326.	17 45	N 85 W	93.	2284.12	345.06	12.45 N	347.42 W	N 87 55 W	0.63
2418.	17 45	N 87 W	92.	2371.74	372.76	14.59 N	375.46 W	N 87 47 W	0.66
2510.	17 30	S 86 W	92.	2459.42	400.51	14.34 N	403.00 W	N 87 53 W	2.32
2603.	17 30	S 86 W	93.	2548.12	428.48	12.39 N	431.20 W	N 88 21 W	0.00
2695.	17 0	S 88 W	92.	2635.98	455.74	10.96 N	458.44 W	N 88 38 W	0.84

DOYLE HARTMAN OIL PRODUCTION
B.M. JUSTIS WELL NO. 10
LEO COUNTY, NEW MEXICO BDI-645

COMPUTATION PAGE NO. 2
TIME DATE
03:34:23 02-DEC-81

MEASURED DEPTH FEET	DRIFT		DIRECTION	DRIFT D	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET		VERTICAL SECTION FEET	RECTANGULAR COORDINATES		DISTANCE FEET	CLOSURE DIRECTION		DOULES SEVERITY DG/100F
	ANGLE D M								FEET			D	M	
2787.	14 30		S 88 W		92.	2724.52		480.68	10.09 N	483.39 W	483.50	N 88 48 W		2.72
2880.	11 45		S 87 W		93.	2815.08		501.77	9.17 N	504.49 W	504.57	N 88 58 W		2.97
2972.	9 0		S 87 W		92.	2905.57		518.33	8.30 N	521.03 W	521.10	N 89 5 W		2.99
3065.	8 0		S 87 W		92.	2997.54		532.07	7.58 N	534.76 W	534.82	N 89 11 W		1.08
3157.	7 45		S 83 W		92.	3088.69		544.67	6.49 N	547.32 W	547.35	N 89 19 W		0.
3249.	6 30		S 84 W		41.	3149.21		552.23	5.68 N	554.93 W	554.96	N 89 23 W		2.06
3299.	6 0		S 80 W		40.	3189.97		556.59	5.21 N	559.17 W	559.19	N 89 28 W		1.28

FINAL CLOSURE - DIRECTION: N 89 DEGS 23 MINS W
DISTANCE: 559.12 FEET

DOYLE HARTMAN OIL COMPANY
B.M. JUSTIS WELLS NO. 10
LEA COUNTY, NEW MEXICO B01-068

EASTMAN WHIPSTOCK-ING.
MAGNETIC SINGLE SHOT SURVEY
SURVEYOR: KENT TIDWELL (600'-3210')

VERTICAL SECTION CALCULATED IN PLANE OF PROPOSAL
DIRECTION: S 85 DEG. 0 MIN. W

RADIUS OF CURVATURE

RADIUS OF CURVATURE METHOD

JOYLE HARTMAN OIL COMPANY

3.M. JUSTIS WELL NO.10

DEA COUNTY, NEW MEXICO BDI-368

COMPUTATION

TIME DATE

07:48:43 00--00

PAGE NO. 1

MEASURED DEPTH FEET	DRIFT ANGLE D M		DRIFT DIRECTION D	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET		VERTICAL SECTION FEET	R E C T A N G U L A R C O O R D I N A T E S FEET		DOGLEG SEVERITY DG/100FT
600.	1	45	S 64 W	0.	599.94		4.51	4.26 S	4.15 W	0.00
689.	1	15	S 32 W	89.	688.91		6.34	5.80 S	5.86 W	1.07
729.	2	0	S 42 W	40.	728.89		7.10	6.70 S	6.54 W	2.00
759.	2	45	S 64 W	30.	758.87		8.15	7.45 S	7.53 W	3.39
789.	3	30	S 76 W	30.	788.82		9.72	8.01 S	9.06 W	3.30
816.	3	30	S 86 W	27.	815.77		11.37	8.26 S	10.69 W	2.26
847.	3	15	N 90 W	31.	846.72		13.19	8.33 S	12.51 W	1.11
878.	3	45	S 85 W	31.	877.66		15.03	8.41 S	14.40 W	1.89
988.	7	0	N 85 W	110.	987.16		25.33	8.41 S	24.69 W	3.06
1082.	9	0	N 85 W	94.	1080.24		38.21	7.27 S	37.72 W	2.13
1178.	10	0	N 88 W	96.	1174.92		53.83	6.30 S	53.53 W	1.16
1270.	11	0	N 88 W	92.	1265.38		70.52	5.72 S	70.29 W	1.09
1365.	12	15	N 88 W	95.	1358.43		89.52	5.05 S	89.42 W	1.32
1489.	14	0	N 90 W	124.	1479.19		117.52	4.56 S	117.57 W	1.46
1591.	14	30	N 89 W	102.	1578.05		142.51	4.34 S	142.68 W	0.55
1716.	15	30	N 90 W	125.	1696.79		174.72	4.06 S	175.03 W	0.83
1837.	15	45	N 89 W	121.	1815.32		207.16	3.77 S	207.62 W	0.30
1963.	16	15	N 88 W	126.	1936.44		241.66	2.86 S	242.34 W	0.45
2088.	16	0	N 88 W	125.	2056.52		276.12	1.65 S	277.03 W	0.20
2245.	16	45	N 86 W	157.	2207.15		319.95	0.67 N	321.23 W	0.60
2402.	18	0	N 84 W	157.	2356.98		366.12	4.75 N	367.93 W	0.88
2558.	17	0	S 84 W	156.	2505.76		412.76	4.75 N	414.76 W	2.40
2684.	17	15	S 85 W	126.	2626.17		449.86	1.20 N	451.69 W	0.31
2867.	13	45	S 85 W	183.	2802.49		498.76	3.07 S	500.40 W	1.91
3023.	8	30	S 85 W	156.	2955.51		528.85	5.69 S	530.37 W	3.37
3117.	9	30	S 84 W	94.	3048.47		542.74	7.02 S	544.20 W	0.16
3210.	7	30	S 83 W	93.	3140.57		555.68	8.48 S	557.06 W	1.09
3258.	6	0	S 85 W	48.	3188.23		561.32	9.07 S	562.67 W	3.16

FINAL CLOSURE - DIRECTION: S 89 DEGS 5 MINS W
DISTANCE: 562.74 FEET



P. O. Box 5577 / Midland, Texas 79701 / (915) 563-0511
TWX 910-881-5066 / Cable: EASTCO

SURVEY CERTIFICATION SHEET

STATE OF TEXAS
COUNTY OF MIDLAND

I, Troy Oney, in the employ of Eastman Whipstock, Inc., did on the days of 11-30, 1981 thru 11-81, 1981 conduct or supervise the taking of a Magnetic Multi Shot survey by the method of magnetic orientation from a depth of 600' feet to 3258' feet, with recordings of inclination and direction being obtained at approximate intervals of 92' feet.

This survey was conducted at the request of Doyle Hartman Oil Production for their B. M. Justis Well No. 10, Lea County, State of New Mexico, in the _____ field.

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

Troy Oney
Directional Supervisor / Surveyor

The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman Whipstock, Inc.

Tim Stephens

Before me, the undersigned authority, on this day personally appeared Troy Oney, 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 this instrument is a true statement of facts therein recited.

Subscribed and sworn to before me on this 1ST day of Dec., 1981.

Ray C. Stenke
Notary Public in and for the County of
Midland, Texas
My commission expires 7/9/81

RECEIVED

DEC 7 1981

OIL CONSERVATION DIV



P. O. Box 5577/Midland, Texas 79704/(915) 563-0511

SURVEY CERTIFICATION SHEET

STATE OF TEXAS
COUNTY OF MIDLAND

I, Kent V. Tidwell in the employ of Eastman Whipstock, Inc. did on the days of November 22, 1981 thru November 30, 1981 conduct or supervise the taking of a Magnetic Single Shot survey by the method of magnetic orientation from a depth of 600 feet to 3210 feet, with recordings of inclination and direction being obtained at approximate intervals of 100 feet.

This survey was conducted at the request of Doyle Hartman Oil Company for their B.M. Justis Well No. 10, Tea County, State of N. MEXICO, in the _____ field.

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

DIRECTIONAL SUPERVISOR/SURVEYOR

The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman whipstock, Inc.

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

Subscribed and sworn to before me on this 15th day of DEC., 1981.

Notary Public in and for the County
Midland, Texas

My commission expires 7/9/85



P. O. Box 5577/Midland, Texas 79704/(915) 563-0511

SURVEY CERTIFICATION SHEET

STATE OF TEXAS
COUNTY OF MIDLAND

I, Gary DeSpain in the employ of Eastman Whipstock, Inc. did on the days of November 23, 1981 thru November 23, 1981 conduct or supervise the taking of a Gyroscopic Multishot survey by the method of magnetic orientation from a depth of 0 feet to 600 feet, with recordings of inclination and direction being obtained at approximate intervals of 100 feet.

This survey was conducted at the request of Doyle Hartman Oil Company for their B.M. Justis Well No. 10, Lea County, State of New Mexico, in the _____ field.

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

[Signature]
DIRECTIONAL SUPERVISOR/SURVEYOR

The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman whipstock, Inc.

Tim Stephens

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

Subscribed and sworn to before me on this 15th day of DEC., 1981.

Ray G. Stank
Notary Public in and for the County
Midland, Texas
My commission expires 7/9/85

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

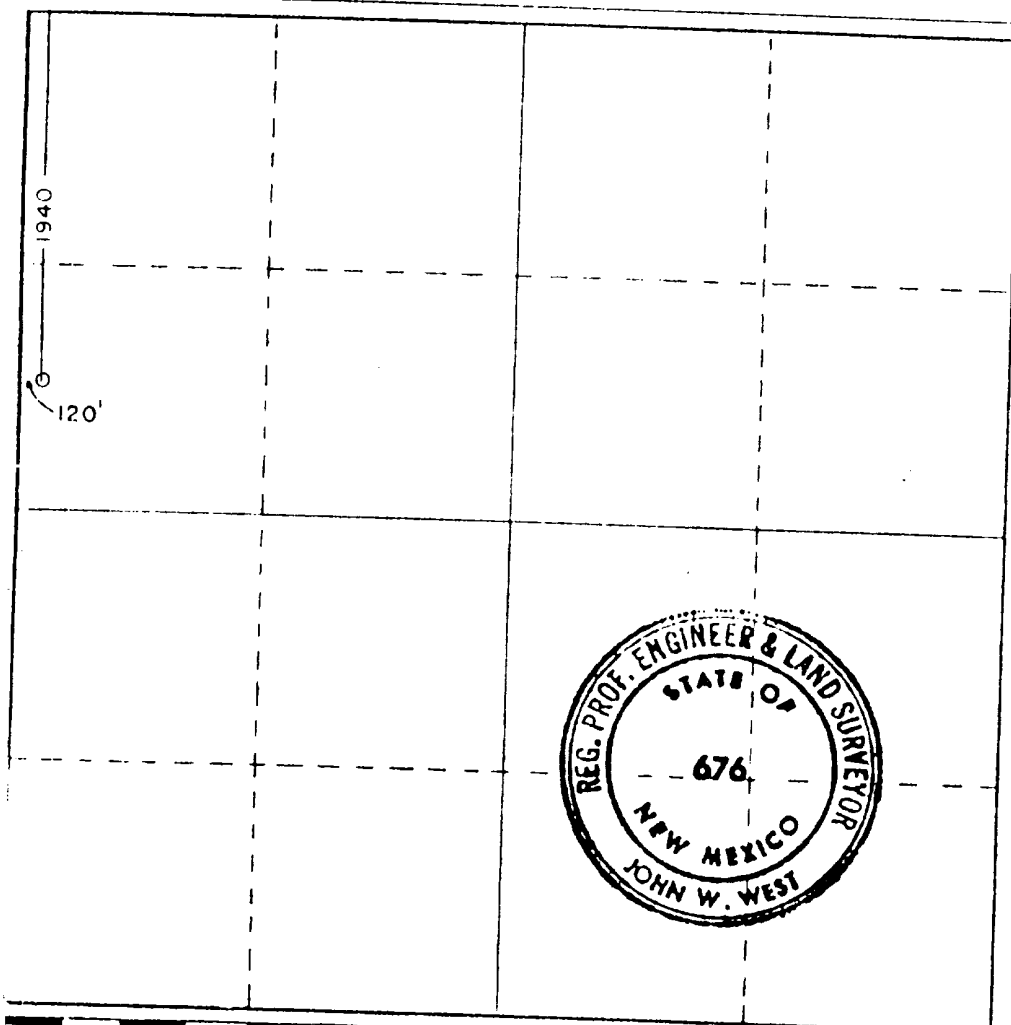
Form C-102
 Supersedes C-128
 Effective 1-1-85

All distances must be from the outer boundaries of the Section

Owner Doyle Hartman			Lease B.M. Justis		Well No. 10
Tract Letter E	Section 20	Township 25 South	Range 37 East	County Lea	
Actual Location of Well: 1940 feet from the North line and 120 feet from the West line Ground Level Elev. 3067.5' Producing Formation Yates-Seven Rivers Pool Jalmit (Gas) Dedicated Acreage: 80 Acres					

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
See Attached C-102
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 _____

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.



CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name <i>Larry G. Romero</i>	Position Engineer
Company DOYLE HARTMAN	Date Nov 2, 1981
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.	
OCT 23 1981	
Date Surveyed Oct. 20, 1981	Registered Professional Engineer and Land Surveyor <i>John W. West</i>
Certificate No. JOHN W. WEST 676 PATRICK A. ROMERO 6885 Ronald J. Eidson 7290	

330 880 190 1320 1680 1880 2310 2640 2000 1800 1000 800

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102*
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

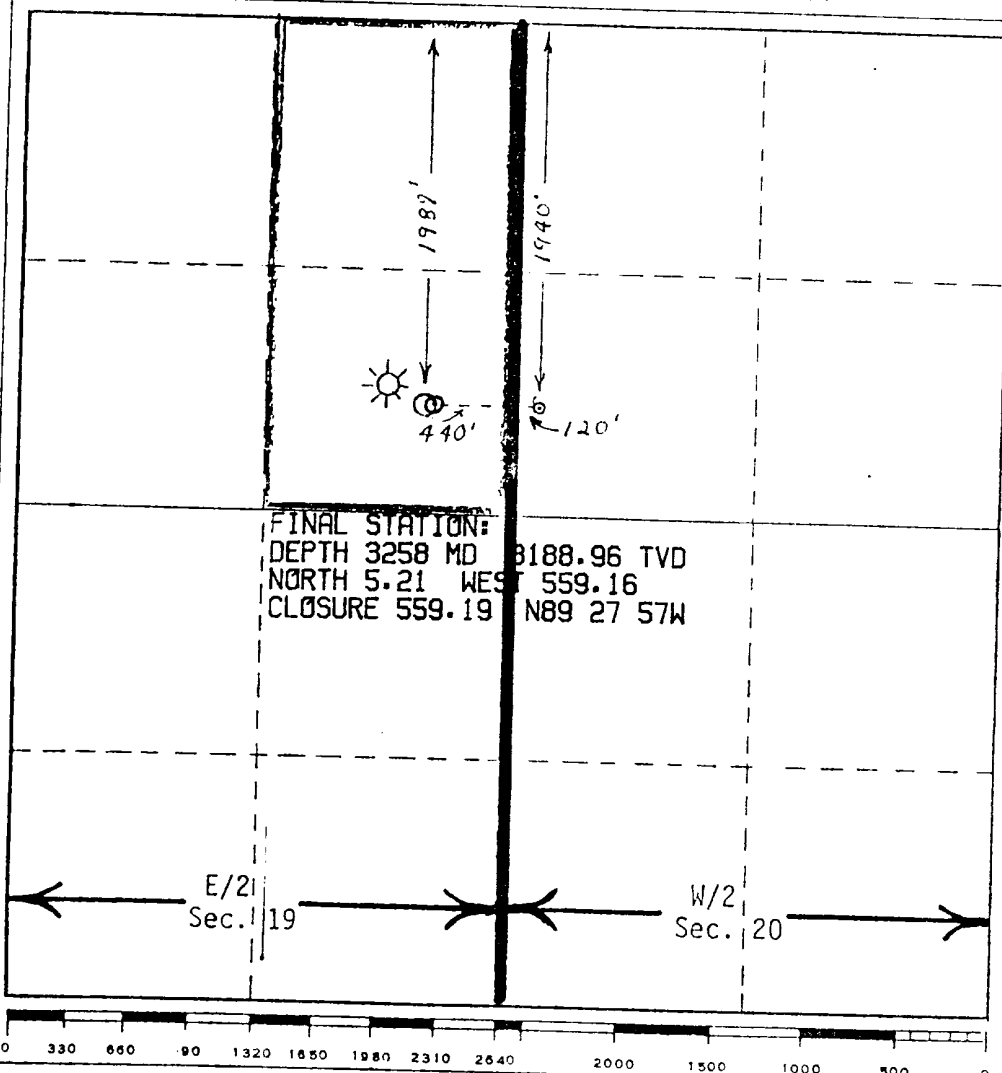
Operator Doyle Hartman			Lease B.M. Justis		Well No. 10
Unit Letter E	Section 19 & 20	Township 25 South	Range 37 East	County Lea	
Actual Footage Location of Well:					
* 1989	feet from the	North	line and	440	feet from the East line of Sec. 19
Ground Level Elev.	Producing Formation Yates-Seven Rivers		Pool Jalmat (Gas)		Dedicated Acreage: 80 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
See attached C-102
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 _____

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. * Bottom hole location at 3200 feet TVD.



CERTIFICATION

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

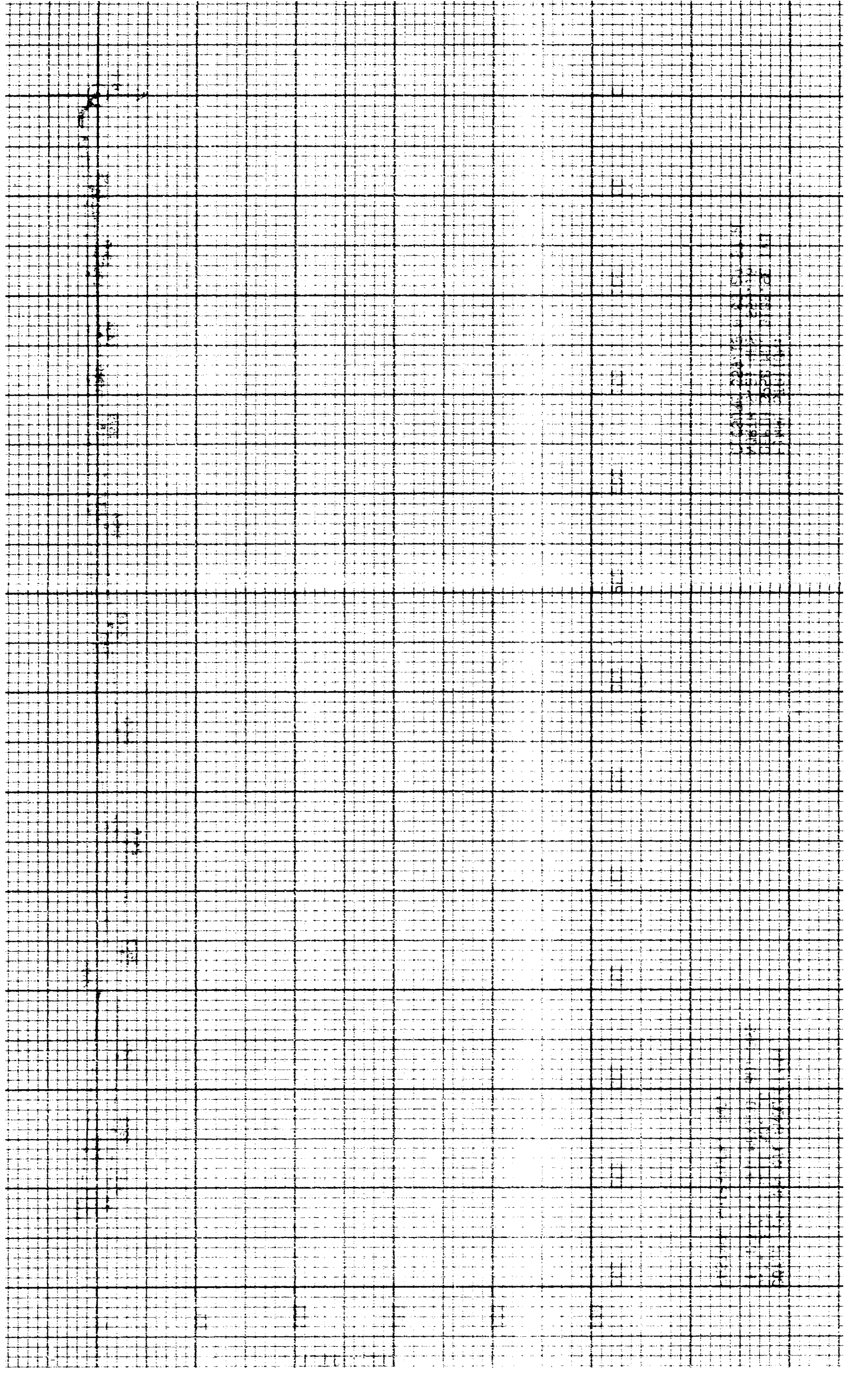
Name
Larry A. Nemo
 Position
ENGINEER
 Company
DOYLE HARTMAN
 Date
Nov 2, 1981

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 _____

Registered Professional Engineer and/or Land Surveyor

Certificate No. _____



DOYLE HARTMAN OIL PRODUCTION
B.M. JUSTIS WELL NO. 10
LEA COUNTY, NEW MEXICO BDI-365
EASTMAN WHIPSTOCK, INC.

FINAL STATION:
DEPTH 3258 MD. 3188.96 TVD
NORTH 5.21 WEST 559.16
CLOSURE 559.19 N 89 27 57 W

