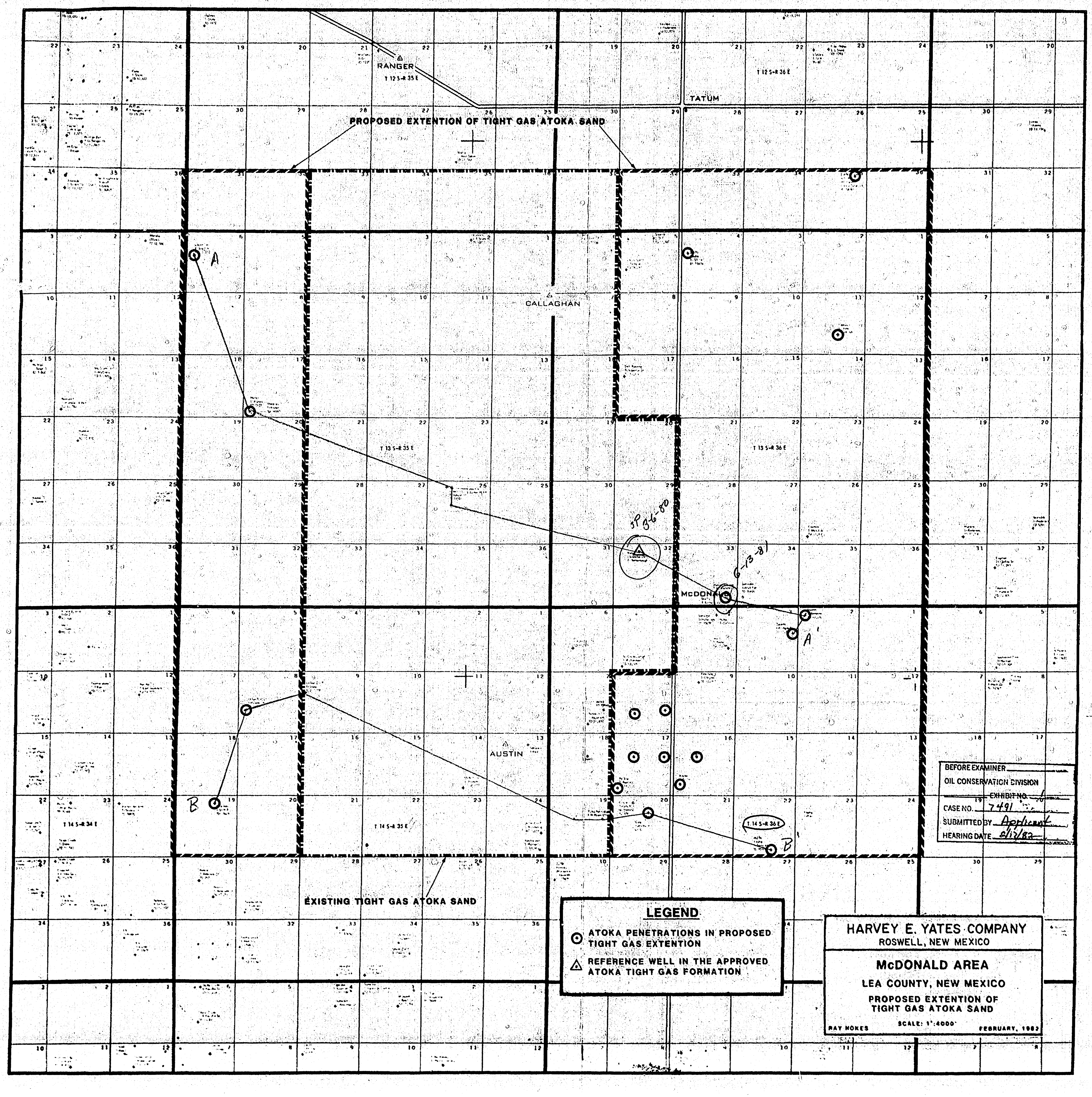
Case No
7491

Large Exhibits

W.N.R.C.F. MICROGRAPHICS

BEST AVAILABLE COPY


RANGER
T 12 S-R 35 E
TATUM
T 12 S-R 36 E
PROPOSED EXTENTION OF TIGHT GAS ATOKA SAND
CALLAGHAN
A
T 13 S-R 35 E
T 13 S-R 36 E
SP 3-6-80
6-13-81
McDONALD
A'
AUSTIN
B
T 14 S-R 34 E
T 14 S-R 35 E
T 14 S-R 36 E
B'
EXISTING TIGHT GAS ATOKA SAND

BEFORE EXAMINER
OIL CONSERVATION DIVISION
EXHIBIT NO. 1
CASE NO. 7491
SUBMITTED BY Applicant
HEARING DATE 8/12/83

LEGEND

- ⊙ ATOKA PENETRATIONS IN PROPOSED TIGHT GAS EXTENTION
- △ REFERENCE WELL IN THE APPROVED ATOKA TIGHT GAS FORMATION

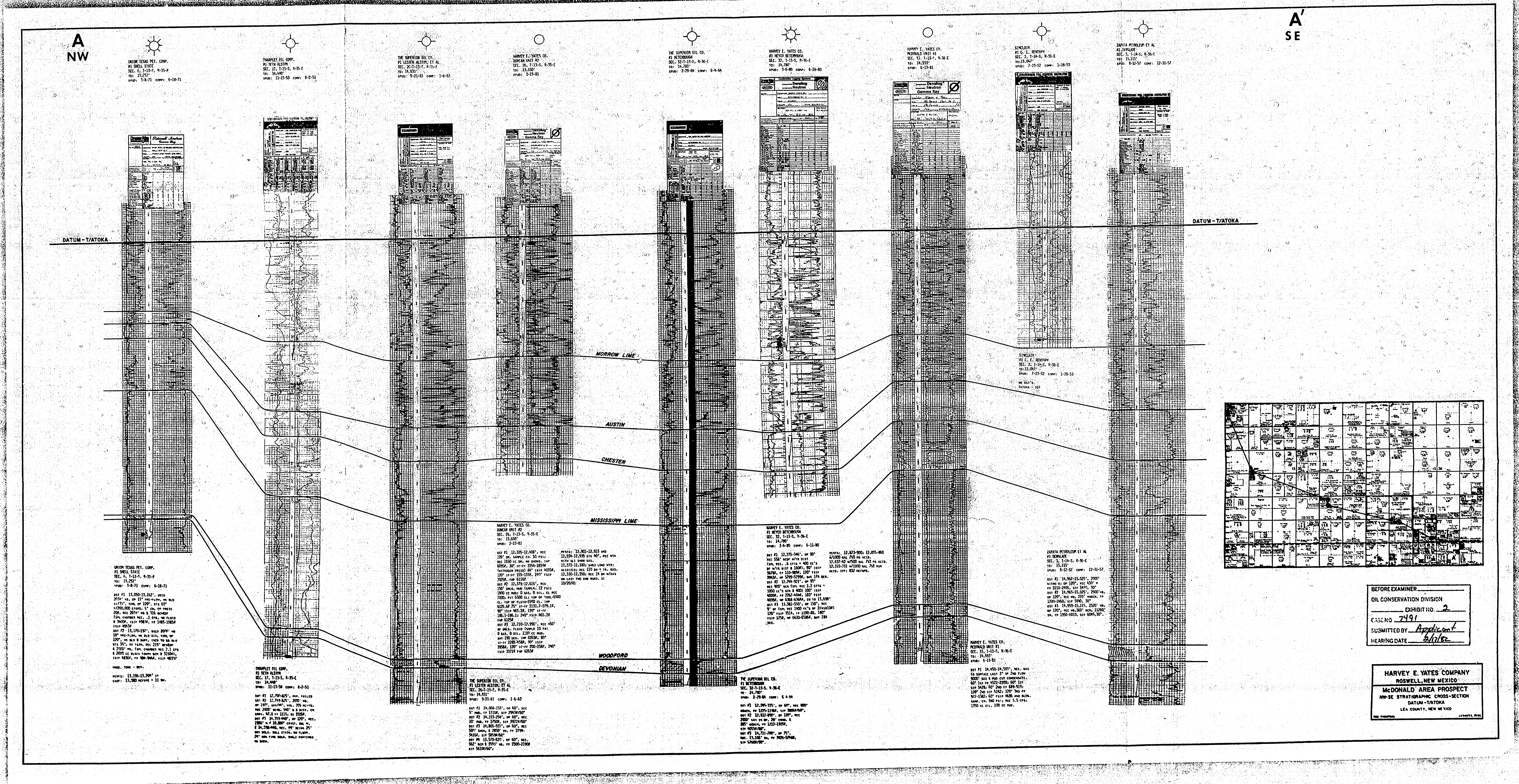
HARVEY E. YATES COMPANY
ROSWELL, NEW MEXICO

McDONALD AREA

LEA COUNTY, NEW MEXICO

PROPOSED EXTENTION OF
TIGHT GAS ATOKA SAND

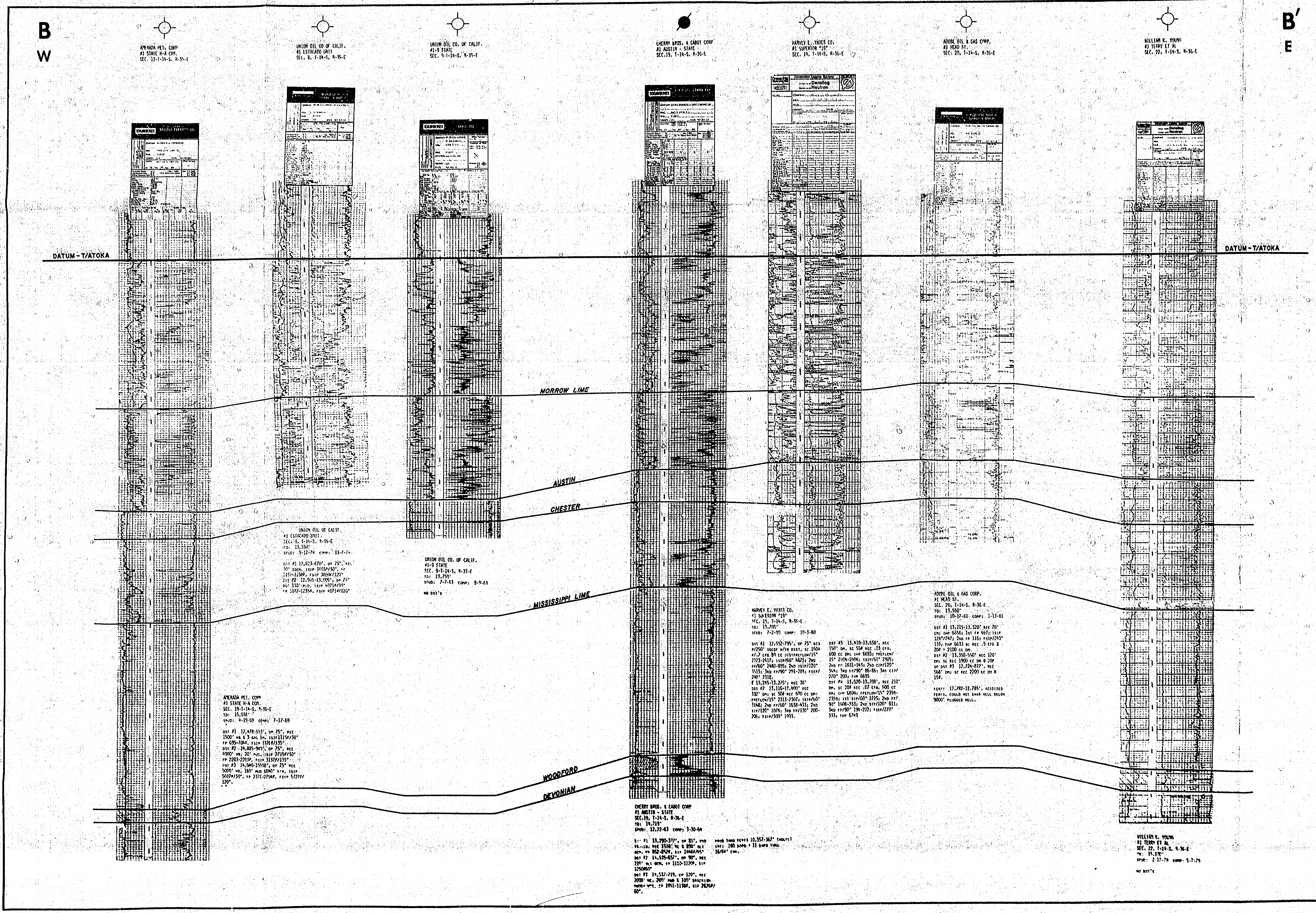
RAY NOKES
SCALE: 1":4000'
FEBRUARY, 1983

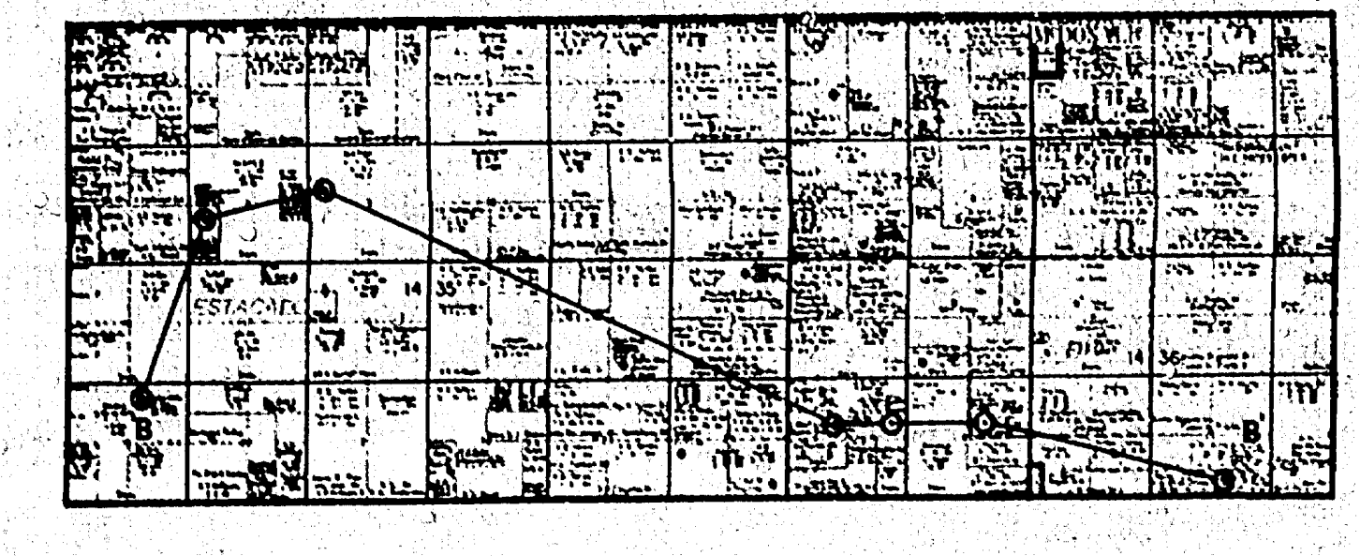

A
NW
UNION TEXAS PET. CORP.
#1 SHELL STATE
SEC. 6, T-13-S, R-35-E
TD: 13,252'
SPUD: 3-8-71 COMP: 6-18-71
SHARPLES OIL CORP.
#1 SETH ALSTON
SEC. 17, T-13-S, R-35-E
TD: 14,440'
SPUD: 11-13-50 COMP: 8-2-51
THE SUPERIOR OIL CO.
#1 LESTER ALSTON, ET AL
SEC. 20-T-13-S, R-35-E
TD: 14,931'
SPUD: 9-21-61 COMP: 1-6-62
HARVEY E. YATES CO.
DUNCAN UNIT #2
SEC. 26, T-13-S, R-35-E
TD: 13,650'
SPUD: 2-23-81
THE SUPERIOR OIL CO.
#1 BETENBOUGH
SEC. 32-T-13-S, R-36-E
TD: 14,780'
SPUD: 2-29-64 COMP: 6-4-64
HARVEY E. YATES CO.
#1 HEYCO BETENBOUGH
SEC. 32, T-13-S, R-36-E
TD: 14,780'
SPUD: 3-6-80 COMP: 6-18-80
HARVEY E. YATES CO.
MCDONALD UNIT #1
SEC. 33, T-13-S, R-36-E
TD: 14,593'
SPUD: 6-13-81
SINCLAIR
#1 C. E. RENSHAW
SEC. 2, T-14-S, R-36-E
TD: 13,047'
SPUD: 7-23-52 COMP: 1-28-53
ZAPATA PETROLEUM ET AL
#1 DARGLANE
SEC. 3, T-14-S, R-36-E
TD: 15,115'
SPUD: 8-12-57 COMP: 12-31-57
A'
SE
DATUM - T/ATOKA
MORROW LIME
AUSTIN
CHESTER
MISSISSIPPI LIME
WOODFORD
DEVONIAN
Densilog
Neutron
Gamma Ray

BEFORE EXAMINER ____
OIL CONSERVATION DIVISION
____ EXHIBIT NO. 2
CASE NO. 7491
SUBMITTED BY Applicant
HEARING DATE 2/17/82

HARVEY E. YATES COMPANY
ROSWELL, NEW MEXICO

McDONALD AREA PROSPECT
NW-SE STRATIGRAPHIC CROSS-SECTION
DATUM - T/ATOKA
LEA COUNTY, NEW MEXICO


B
W
B′
E
AMERADA PET. CORP
#1 STATE H-A COM.
SEC. 19-T-14-S, R-35-E
UNION OIL CO OF CALIF.
#1 ESTACADO UNIT
SEC. 8, T-14-S, R-35-E
UNION OIL CO. OF CALIF.
#1-9 STATE
SEC. 9-T-14-S, R-35-E
CHERRY BROS. & CABOT CORP
#1 AUSTIN - STATE
SEC.19, T-14-S, R-36-E
HARVEY E. YATES CO.
#1 SUPERIOR "19"
SEC. 19, T-14-S, R-36-E
ADOBE OIL & GAS CORP.
#1 HEAD ST.
SEC. 20, T-14-S, R-36-E
WILLIAM K. YOUNG
#1 TERRY ET AL
SEC. 22, T-14-S, R-36-E
DATUM - T/ATOKA
MORROW LIME
AUSTIN
CHESTER
MISSISSIPPI LIME
WOODFORD
DEVONIAN



BEFORE EXAMINER
OIL CONSERVATION DIVISION
EXHIBIT NO. 3
CASE NO. 7491
SUBMITTED BY Applicant
HEARING DATE 3/17/82

HARVEY E. YATES COMPANY
ROSWELL, NEW MEXICO

McDONALD AREA PROSPECT
W-E STRATIGRAPHIC CROSS-SECTION
DATUM - T/ATOKA
LEA COUNTY, NEW MEXICO

ROD THOMPSON
JANUARY, 1982

N.M.O.C.D. MICROGRAPHICS
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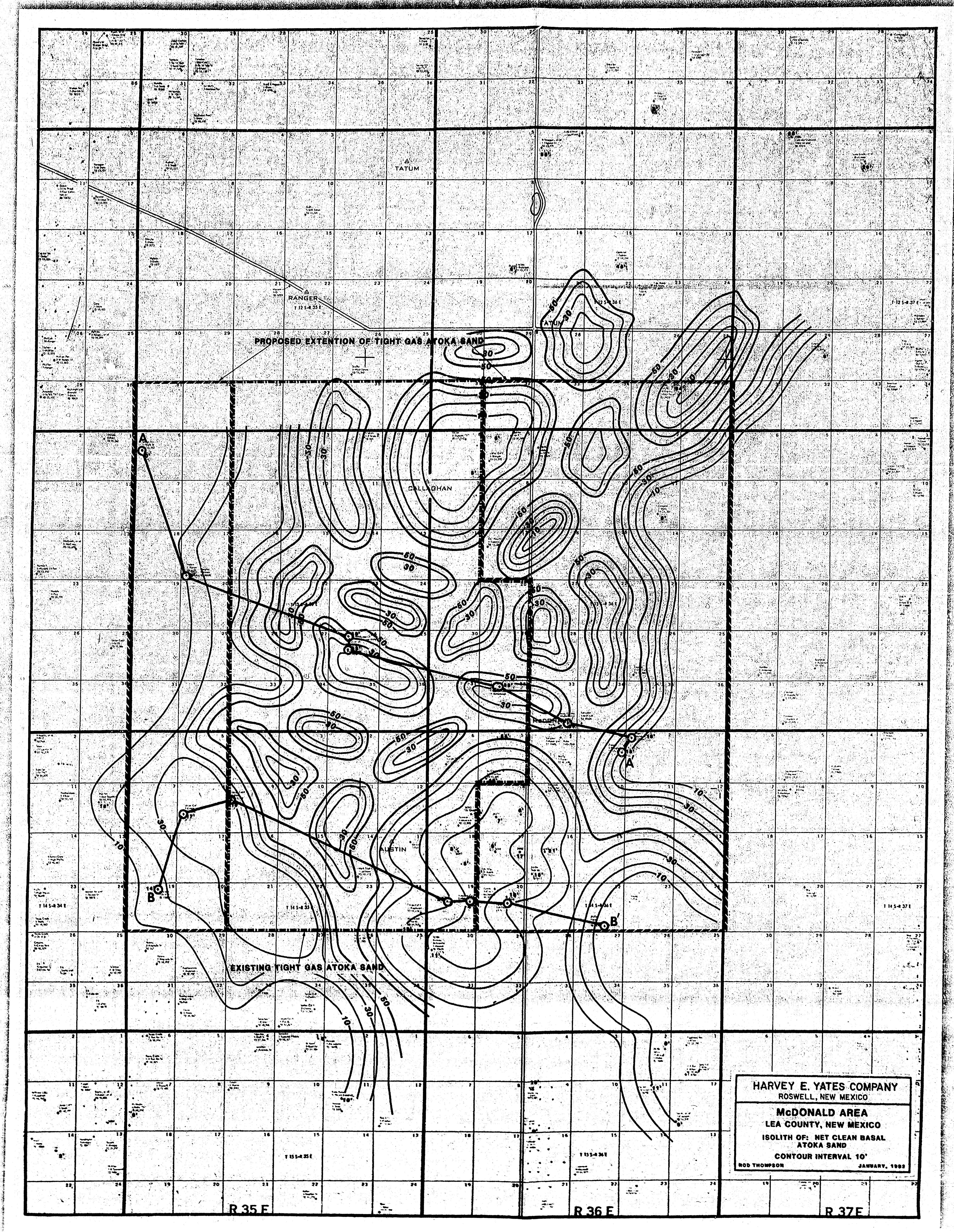

TATUM
RANGER
PROPOSED EXTENTION OF TIGHT GAS ATOKA SAND
CALLAGHAN
AUSTIN
EXISTING TIGHT GAS ATOKA SAND
A
A'
B
B'
10
30
50
R 35 E
R 36 E
R 37 E

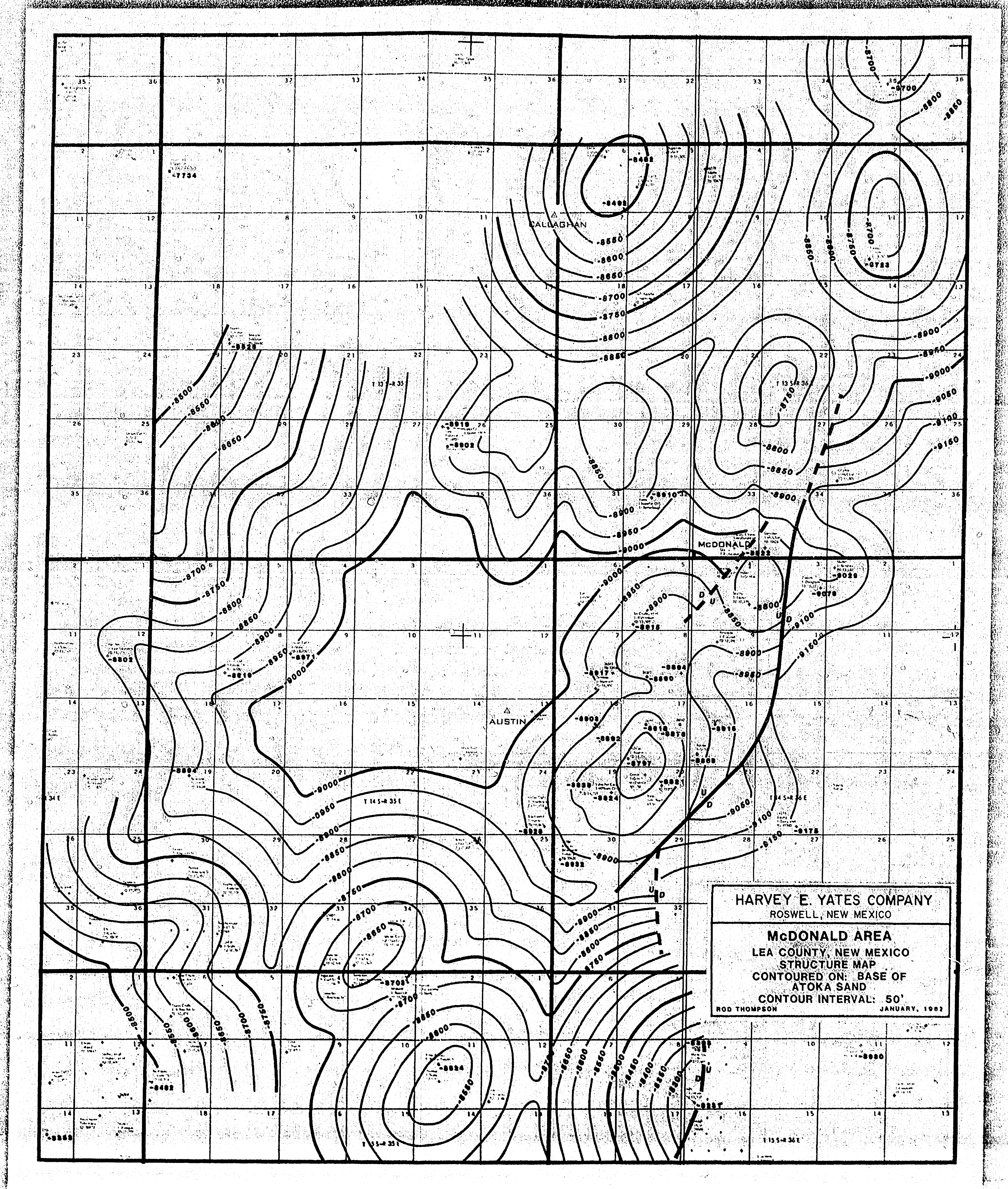
HARVEY E. YATES COMPANY
ROSWELL, NEW MEXICO

McDONALD AREA
LEA COUNTY, NEW MEXICO

ISOLITH OF: NET CLEAN BASAL ATOKA SAND

CONTOUR INTERVAL 10'

ROD THOMPSON JANUARY, 1982


CALLAGHAN
McDONALD
AUSTIN
T 13S-R 36E
T 14S-R 35E
T 14S-R 36E
T 15S-R 35E
T 15S-R 36E
U
D
-8600
-8650
-8700
-8750
-8800
-8850
-8900
-8950
-9000
-9050
-9100
-9150

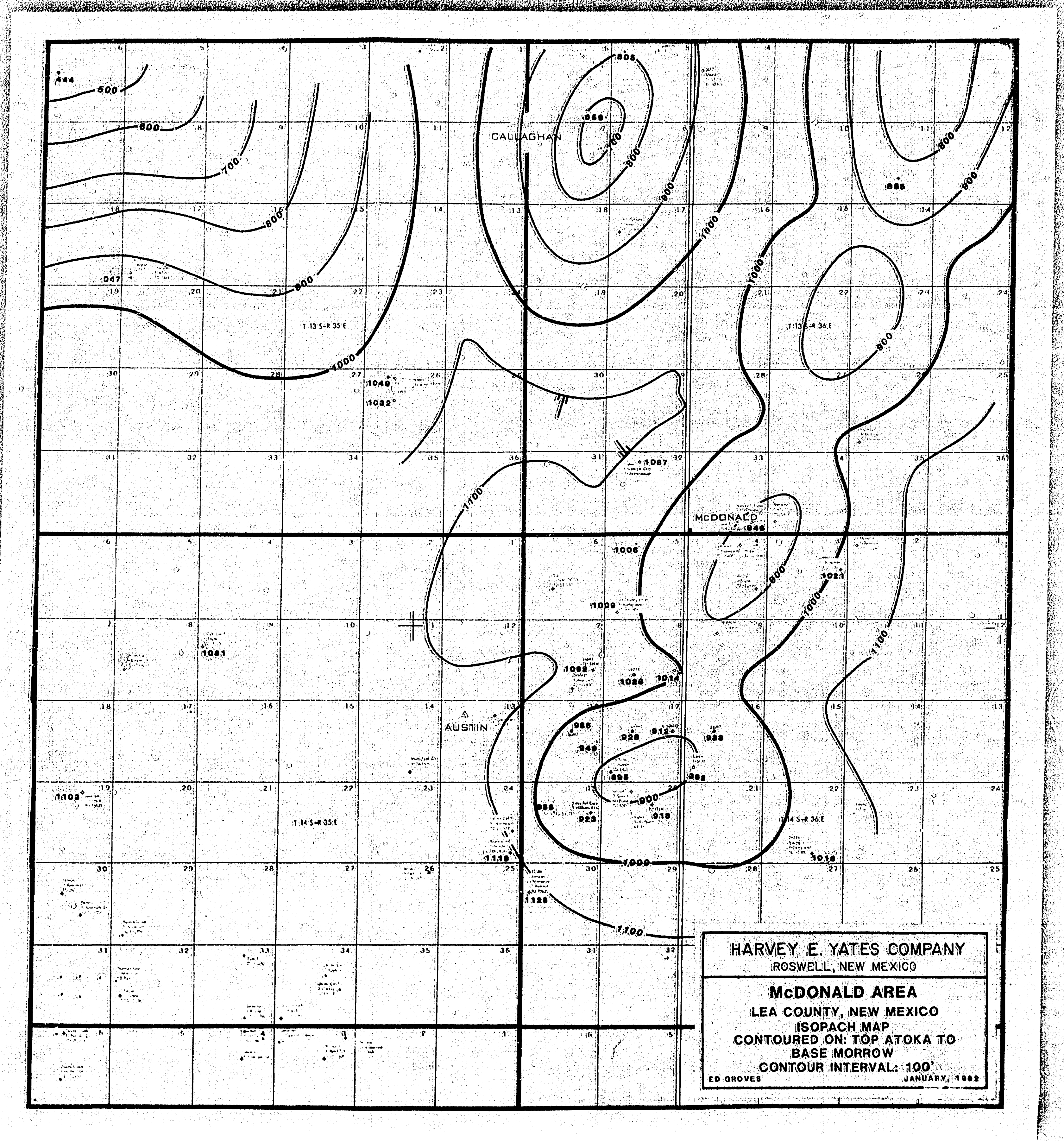
HARVEY E. YATES COMPANY
ROSWELL, NEW MEXICO

McDONALD AREA
LEA COUNTY, NEW MEXICO
STRUCTURE MAP
CONTOURED ON: BASE OF
ATOKA SAND
CONTOUR INTERVAL: 50'

ROD THOMPSON JANUARY, 1982

[illegible] MICROGRAPHICS

BEST AVAILABLE COPY

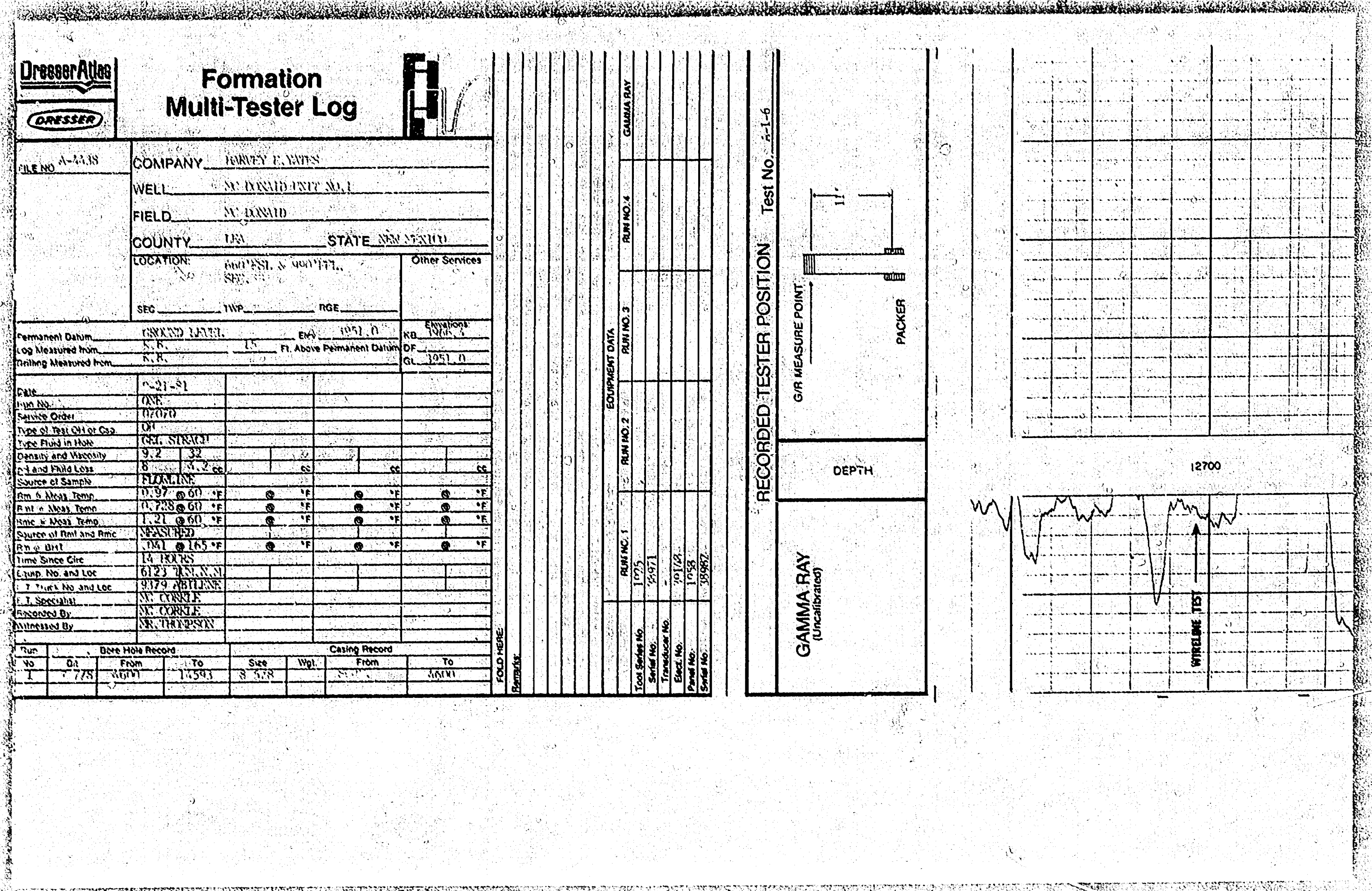

CALLAGHAN
McDONALD
AUSTIN
T 13 S-R 35 E
T 13 S-R 36 E
T 14 S-R 35 E
T 14 S-R 36 E
500
600
700
800
900
1000
1100

HARVEY E. YATES COMPANY
ROSWELL, NEW MEXICO

McDONALD AREA
LEA COUNTY, NEW MEXICO
ISOPACH MAP
CONTOURED ON: TOP ATOKA TO
BASE MORROW
CONTOUR INTERVAL: 100'

ED GROVES JANUARY, 1982

[illegible] MICROGRAPHICS
BEST AVAILABLE COPY



DresserAtlas
DRESSER

Formation Multi-Tester Log

FILE NO	A-4438
COMPANY	HARVEY E. YATES
WELL	MC DONALD UNIT NO. 1
FIELD	MC DONALD
COUNTY	LEA
STATE	NEW MEXICO
LOCATION:	660' FSL & 460' FEL, SEC. [illegible]
SEC	
TWP	
RGE	
Other Services	

Permanent Datum	GROUND LEVEL	Elev	3951.0
Log Measured from	K.B.	15	Ft. Above Permanent Datum
Drilling Measured from	K.B.		

Elevations:
KB 3966.[illegible]
DF
GL 3951.0

Date	[illegible]-21-81			
Run No.	ONE			
Service Order	07070			
Type of Test Oil or Gas	OIL			
Type Fluid in Hole	GEL STARCH			
Density and Viscosity	9.2 | 32	|	|	|
pH and Fluid Loss	8 | 5.2 cc	| cc	| cc	| cc
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	0.97 @ 60 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	0.728 @ 60 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	1.21 @ 60 °F	@ °F	@ °F	@ °F
Source of Rmf and Rmc	MEASURED			
Rm @ BHT	.361 @ 165 °F	@ °F	@ °F	@ °F
Time Since Circ.	14 HOURS			
Equip. No. and Loc.	6123 [illegible]			
F.T. Truck No. and Loc.	9379 ABILENE			
F.T. Specialist	MC CORKLE			
Recorded By	MC CORKLE			
Witnessed By	MR. THOMPSON			

Run No.	Bore Hole Record Bit	Bore Hole Record From	Bore Hole Record To	Casing Record Size	Casing Record Wgt.	Casing Record From	Casing Record To
1	7 7/8	4600	14593	8 5/8		SURF.	4600

FOLD HERE:

Remarks:

EQUIPMENT DATA

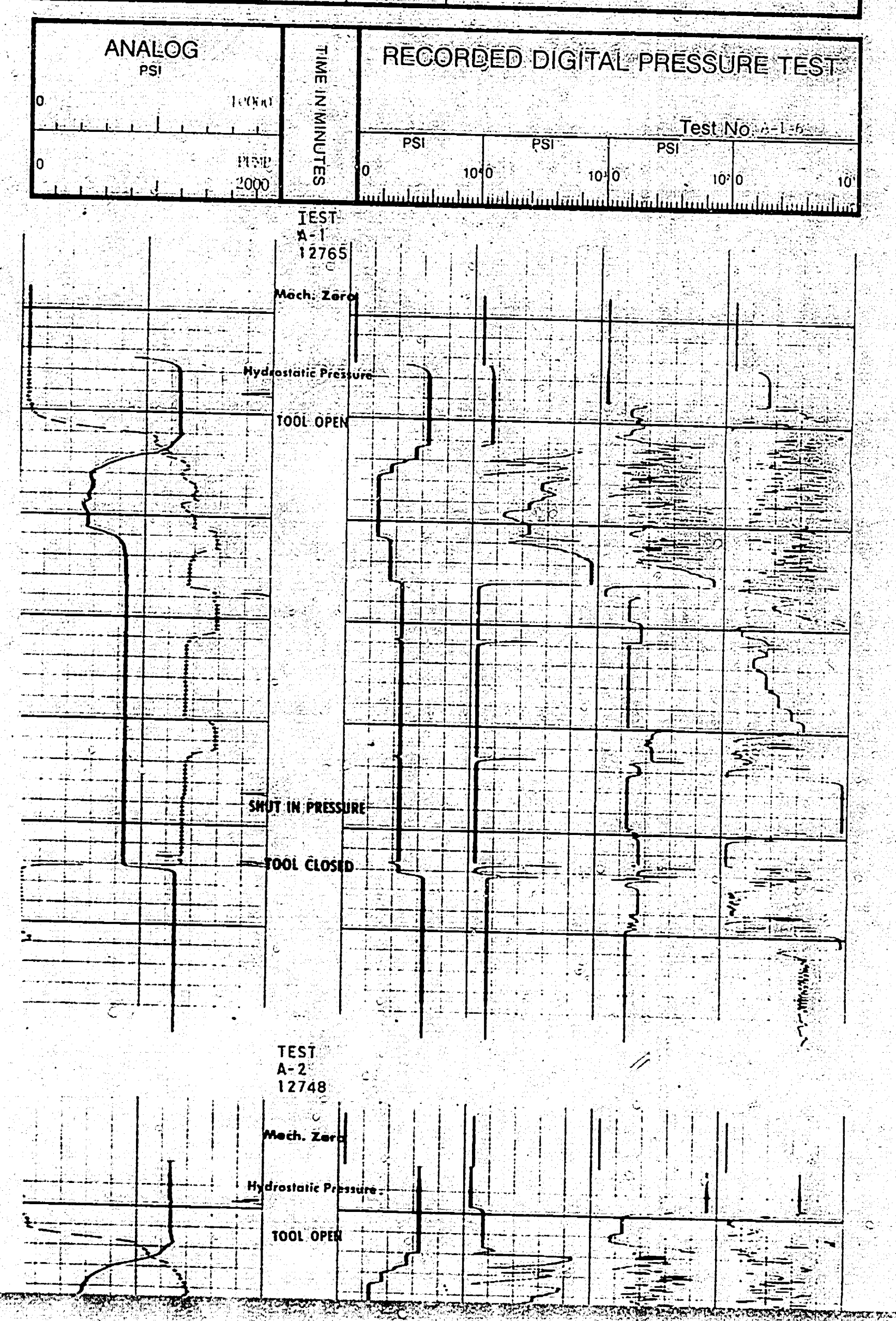
	RUN NO. 1	RUN NO. 2	RUN NO. 3	RUN NO. 4	GAMMA RAY
Tool Series No.	1075				
Serial No.	4971				
Transducer No.	-				
Elect. No.	10719				
Panel No.	1058				
Serial No.	38982				

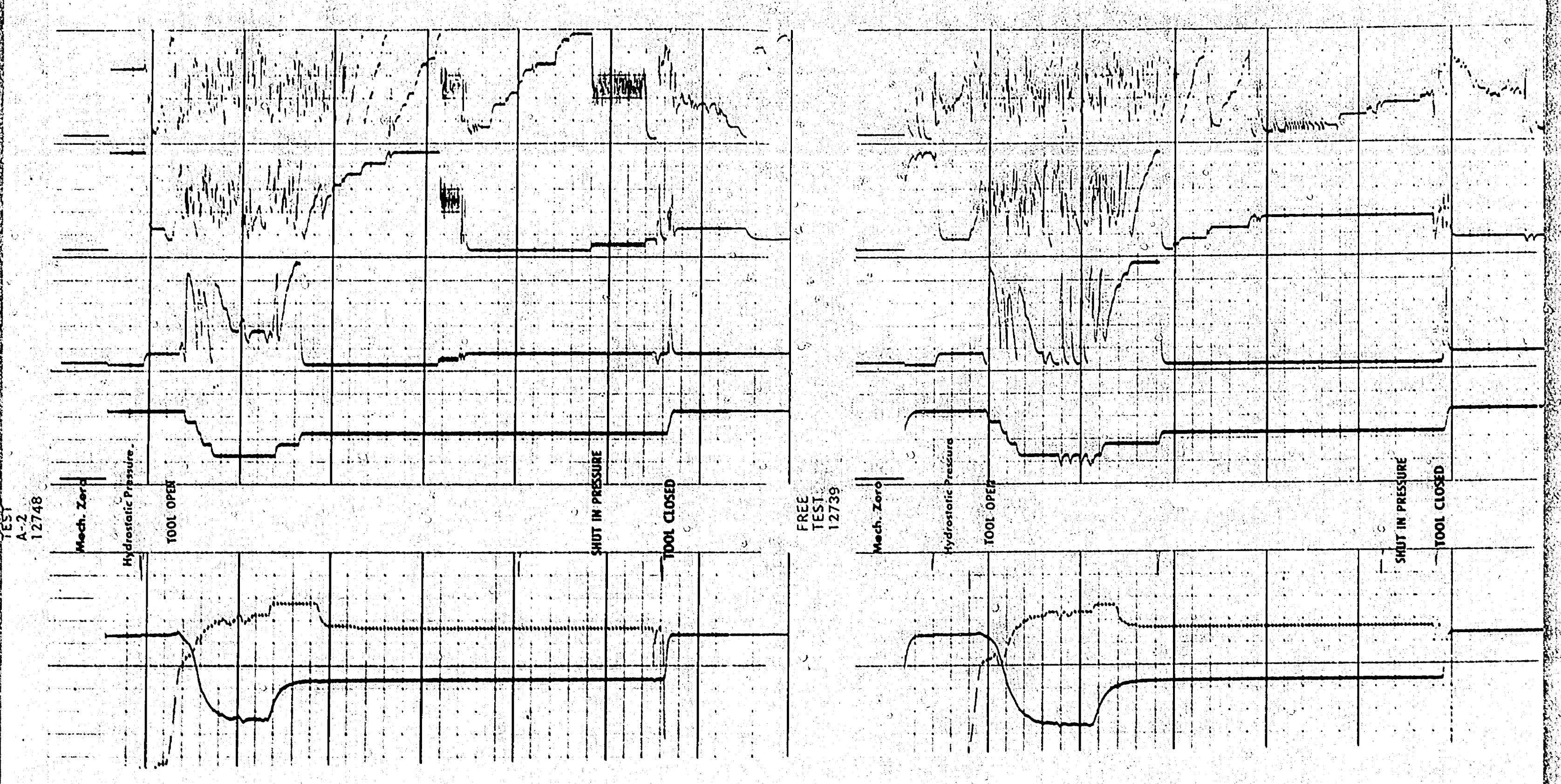
RECORDED TESTER POSITION Test No. A-1-6

[illegible] MICROGRAPHICS
BEST AVAILABLE COPY

FORMATION MULTI-TESTER PRESSURE TEST SUMMARY

Test No.	DEPTH	HYDROSTATIC	FORMATION SHUT-IN PSI	PRETEST	REMARKS
A-1	12765	6114	4029	2510	AFTER 2 MINS.
A-2	12748	6099	4109	2220	AFTER 2 MINS.
A-3	11185	5351	206	[illegible]	AFTER 3.5 MINS.
A-4	10992	5258	4089	2960	AFTER 2 MIN.
A-5	10655	5099	3957	3936	AFTER 30 SEC.
A-6	10545	5065	[illegible]	2545	AFTER 1 MIN.
FREE TEST	12739	6095	4032	1973	AFTER 2 MINS. (TEST DONE TO CHECK TOOL.)





V.B.R.C.F. MICROGRAPHICS
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DresserAtlas

Prolog

Field Analysis

Wellsite Complex Reservoir Analysis

COMPANY [illegible]
WELL [illegible]
FIELD [illegible]
COUNTY
STATE
LOCATION
SEC
TWP
RGE
ELEVATION: KB
DF
GL
DATE

FOLD HERE

In making interpretations of log our employees will give Customer the benefit of their best judgement, but since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or the correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the Customer resulting from any interpretation made by any of our employees.

DATE
ENGINEER
SERVICE TABLES

COMPUTATION PARAMETERS

DEPTH INTERVAL FROM	DEPTH INTERVAL TO	ρ_{SH}	$\emptyset N_{SH}$	Δt_{SH}	GR_{CL}	GR_{SH}	RW	a	m	$\emptyset_{MA}$	Δt_{MA}

REMARKS

LITHOLOGIC CHARACTERISTICS	DEPTH	WATER	POROSITY AND FLUIDS % BULK VOLUME	FORMATION % BULK VOLUME
0 GAMMA RAY 100		WATER SATURATION 100 % 0	HYDROCARBON: RESIDUAL, DISPLACED; WATER	SHALE, OTHER MINERALS, POROSITY
APPARENT GRAIN DENSITY 2.5 gm/cc 3.0		0 RWA .5	% 0	100 % 0
BOREHOLE VOLUME 10' 100'		HYDROCARBON FEET 1' 10'	caliper (−) bit Size −4 0 12	
POROSITY FEET 1' 10'		DATA EDIT		

[illegible]

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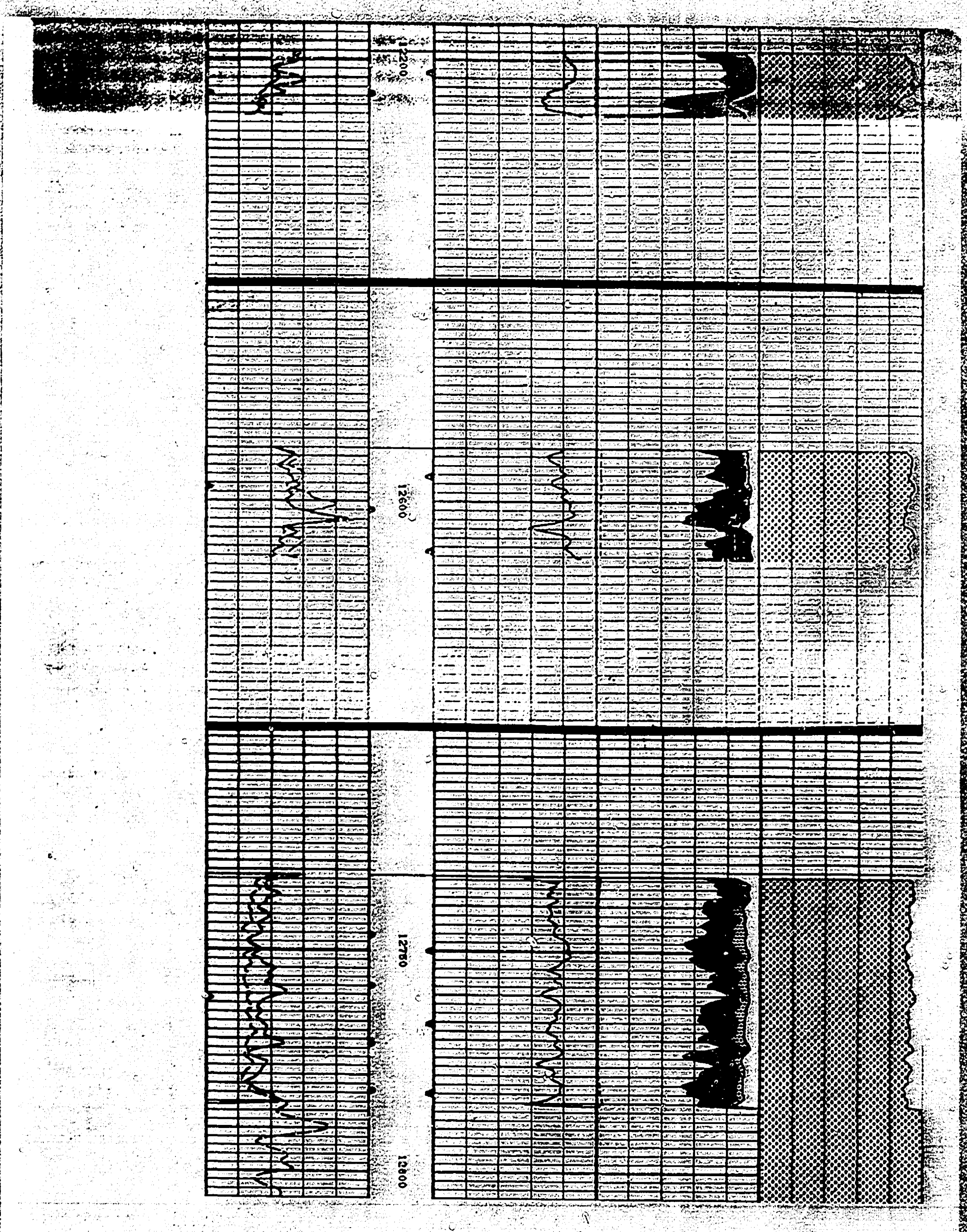

[illegible] E. YATES
[illegible]

MCDONALD UNIT NO.1
LEA, NEW MEXICO

DEPTH FEET	WATER SAT. %	TOTAL POR. %	CUMULATIVE INTEGRATIONS POR-FT	CUMULATIVE INTEGRATIONS HC-FT	RESITIVITY OHMS	NEUTRON POROSITY %	BULK DENSITY GM/CC
12198.0	20.72	9.7	0.05	0.04	174.2	11.9	2.627
12199.0	10.21	7.9	0.13	0.11	337.0	9.9	2.632
12200.0	16.33	5.9	[illegible]	0.16	762.9	8.2	2.675
12201.0	13.41	5.5	0.25	0.21	1305.2	6.1	2.642
12202.0	13.73	4.6	0.30	0.25	1911.6	4.6	2.675
12203.0	13.23	4.9	0.35	0.29	1636.4	5.2	2.637
12204.0	13.58	5.9	0.41	0.34	1108.6	6.1	2.62[illegible]
12205.0	10.64	4.1	0.45	0.38	1176.6	1.5	2.63[illegible]
12206.0	20.73	4.6	0.50	0.41	756.1	7.5	[illegible]
12207.0	29.05	8.1	0.56	0.46	119.1	9.6	2.51[illegible]
12208.0	31.8[illegible]	13.5	0.69	0.55	39.0	18.1	2.416
12209.0	22.69	14.9	0.84	0.65	29.3	17.8	2.417
12210.0	30.33	13.5	0.98	0.75	40.6	9.2	2.437
12211.0	25.10	11.2	1.09	0.83	88.0	7.1	2.475
12212.0	10.89	13.9	[illegible]	0.97	165.5	13.2	2.330

V.R.R.C.T. MICROGRAPHICS
BEST AVAILABLE COPY

[illegible] L. YATES [illegible] UNIT NO.1
[illegible]ALO LEA, NEW MEXICO

DEPTH FEET	WATER SAT. %	TOTAL POR. %	CUMULATIVE INTEGRATIONS POR-FT	HC-FT	RESITIVITY OHMS	NEUTRON POROSITY %	BULK DENSITY
12588.0	21.43	9.3	0.05	0.04	177.3	[illegible]	[illegible]
12589.0	25.69	6.7	0.12	0.09	273.1	[illegible]	[illegible]
12590.0	[illegible]	5.7	0.17	0.13	261.6	7.4	[illegible]
12591.0	[illegible]	[illegible]	0.22	0.17	311.8	[illegible]	[illegible]
12592.0	21.60	[illegible]	[illegible]	0.22	342.7	[illegible]	[illegible]
12593.0	20.69	[illegible]	0.36	0.28	393.6	[illegible]	[illegible]
12594.0	19.93	7.7	0.43	0.34	319.2	9.3	[illegible]
12595.0	[illegible]	5.3	[illegible]	0.38	351.0	[illegible]	[illegible]
12596.0	16.76	4.3	0.55	0.42	540.7	[illegible]	[illegible]
12597.0	[illegible]	5.3	0.60	0.46	635.5	7.4	[illegible]
12598.0	[illegible]	6.7	0.66	[illegible]	[illegible]	[illegible]	[illegible]
12599.0	19.63	[illegible]	0.71	0.57	337.2	[illegible]	[illegible]
12600.0	15.73	9.4	0.80	0.64	123.3	[illegible]	[illegible]
12601.0	[illegible]	[illegible]	0.87	0.72	311.6	[illegible]	[illegible]
12602.0	14.84	[illegible]	1.01	0.80	370.9	[illegible]	[illegible]
12603.0	13.18	11.1	1.12	[illegible]	284.1	17.1	[illegible]
12604.0	20.07	11.6	1.23	0.99	139.9	10.4	[illegible]
12605.0	[illegible]	7.1	1.32	1.05	[illegible]	[illegible]	[illegible]
12606.0	[illegible]	[illegible]	1.37	1.08	242.1	[illegible]	[illegible]
12607.0	[illegible]	4.6	[illegible]	1.11	[illegible]	[illegible]	[illegible]
12608.0	15.59	7.4	[illegible]	1.17	[illegible]	[illegible]	[illegible]
12609.0	[illegible]	[illegible]	1.56	1.24	903.6	[illegible]	[illegible]
12610.0	13.67	6.8	1.63	1.29	434.3	7.4	2.617
12611.0	14.63	6.9	1.70	1.35	677.1	[illegible]	[illegible]
12612.0	12.02	7.0	1.77	1.41	1001.2	6.5	[illegible]

DEPTH FEET	WATER SAT. %	TOTAL POR. %	CUMULATIVE INTERGATIONS POR-FT	HC-FT	RESITIVITY OHMS	NEUTRON POROSITY %	BULK DENSITY GM/CC
12733.0	45.42	8.5	0.04	0.02	47.1	11.5	2.639
12734.0	30.53	6.4	0.11	0.06	180.6	6.4	2.599
12735.0	24.68	6.4	0.17	0.12	279.8	4.6	2.575
12736.0	27.70	6.4	0.24	0.16	225.3	4.7	2.578
12737.0	30.27	5.4	0.29	0.20	261.9	5.9	2.627
12738.0	24.38	7.0	0.36	0.25	240.9	6.6	2.585
12739.0	27.21	8.5	0.44	0.31	130.4	6.9	2.542
12740.0	28.73	8.8	0.53	0.37	110.5	5.8	2.520
12741.0	27.53	8.0	0.61	0.43	143.5	5.5	2.539
12742.0	28.85	7.4	0.69	0.49	153.0	6.4	2.569
12743.0	27.12	8.3	0.77	0.54	137.0	6.5	2.543
12744.0	24.48	8.6	0.85	0.61	159.6	5.4	2.520
12745.0	26.19	7.8	0.93	0.67	168.9	5.2	2.542
12746.0	25.76	8.6	1.01	0.73	144.2	5.8	2.526
12747.0	20.12	10.8	1.12	0.81	146.9	6.1	2.461
12748.0	17.80	11.3	1.23	0.90	173.8	6.2	2.449
12749.0	17.46	10.0	1.33	0.99	230.7	6.4	2.491
12750.0	17.58	8.7	1.42	1.06	297.4	5.7	2.520
12751.0	16.06	10.7	1.52	1.16	239.1	6.2	2.469
12752.0	21.35	9.6	1.62	1.22	167.9	7.0	2.512
12753.0	23.77	8.8	1.71	1.29	160.2	6.9	2.533
12754.0	29.41	6.2	1.78	1.34	212.0	6.5	2.610
12755.0	22.18	7.5	1.85	1.40	253.9	6.4	2.560
12756.0	25.47	6.9	1.92	1.45	224.1	6.7	2.580
12757.0	21.95	7.8	2.00	1.51	238.2	6.2	2.554
12758.0	26.47	6.4	2.07	1.56	266.4	6.7	2.600
12759.0	32.96	4.8	2.12	1.60	279.1	6.2	2.662
12760.0	31.05	4.9	2.17	1.63	290.3	5.6	2.643
12761.0	23.45	7.3	2.23	1.68	242.0	5.5	2.562
12762.0	22.21	8.7	2.32	1.74	185.3	5.9	2.521
12763.0	23.60	8.8	2.41	1.81	163.1	5.5	2.515
12764.0	25.13	8.7	2.49	1.88	145.6	6.0	2.524
12765.0	24.59	9.4	2.59	1.95	129.8	5.9	2.501
12766.0	28.51	8.1	2.67	2.01	130.3	5.6	2.537
12767.0	30.00	7.6	2.75	2.06	133.6	6.0	2.558
12768.0	29.30	7.9	2.83	2.12	132.2	6.1	2.552
12769.0	23.82	9.3	2.91	2.19	143.5	7.3	2.525
12770.0	24.83	7.3	3.00	2.25	213.1	7.5	2.589
12771.0	24.88	5.8	3.06	2.29	333.9	6.9	2.630
12772.0	20.81	9.0	3.13	2.35	199.1	6.5	2.521
12773.0	21.84	11.6	3.25	2.44	108.4	6.4	2.442
12774.0	28.33	9.5	3.35	2.52	95.9	5.5	2.492
12775.0	36.46	6.8	3.42	2.57	112.7	5.4	2.573
12776.0	29.64	7.7	3.50	2.62	132.7	6.8	2.550
12777.0	25.68	9.0	3.59	2.69	129.0	6.4	2.519
12778.0	27.85	8.9	3.67	2.76	113.6	6.6	2.510
12779.0	23.14	10.9	3.78	2.82	109.4	5.9	2.456
12780.0	21.66	11.6	3.89	2.92	112.6	6.2	2.442
12781.0	22.10	11.0	4.00	3.00	118.4	7.1	2.469
12782.0	24.76	9.4	4.10	3.08	128.8	8.4	2.536
12783.0	30.57	9.1	4.19	3.14	90.0	8.5	2.547
12784.0	43.27	9.3	4.29	3.20	43.5	9.9	2.563

N.M.O.C.D. MICROGRAPHICS

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DEPTH FEET	WATER SAT. %	TOTAL POR. %	CUMULATIVE INTERGATIONS POR-FT	HC-FT	RESITIVITY OHMS	NEUTRON POROSITY %	BULK DENSITY GM/CC
12733.0	45.42	8.5	0.04	0.02	47.1	11.5	2.639
12734.0	30.53	6.4	0.11	0.06	100.6	6.4	2.599
12735.0	24.60	6.4	0.17	0.12	279.8	4.6	2.575
12736.0	27.70	6.4	0.24	0.16	225.3	4.7	2.570
12737.0	20.27	5.4	0.29	0.20	261.9	5.9	2.627
12738.0	24.38	7.0	0.36	0.25	240.9	6.6	2.585
12739.0	27.21	8.5	0.44	0.31	138.4	6.9	2.542
12740.0	20.73	8.0	0.53	0.37	110.5	5.0	2.520
12741.0	27.63	8.0	0.61	0.43	143.5	5.5	2.539
12742.0	28.05	7.4	0.69	0.49	153.0	6.4	2.569
12743.0	27.12	8.3	0.77	0.54	137.0	6.5	2.543
12744.0	24.40	8.6	0.85	0.61	159.6	5.4	2.520
12745.0	26.19	7.8	0.93	0.67	160.9	5.2	2.542
12746.0	25.76	8.6	1.01	0.73	144.2	5.0	2.526
12747.0	20.12	10.8	1.12	0.81	146.9	6.1	2.461
12748.0	17.00	11.3	1.23	0.90	173.0	6.2	2.449
12749.0	17.46	10.0	1.33	0.99	230.7	6.4	2.491
12750.0	17.58	8.7	1.42	1.06	297.4	5.7	2.520
12751.0	16.06	10.7	1.52	1.15	239.1	6.2	2.469
12752.0	21.35	9.6	1.62	1.22	167.9	7.0	2.512
12753.0	23.77	8.0	1.71	1.29	160.2	6.9	2.533
12754.0	29.41	6.2	1.78	1.34	212.0	6.5	2.610
12755.0	22.10	7.5	1.85	1.40	253.9	6.4	2.560
12756.0	25.47	6.9	1.92	1.45	224.1	6.7	2.560
12757.0	21.95	7.0	2.00	1.51	230.2	6.2	2.554
12758.0	25.47	6.4	2.07	1.56	266.4	6.7	2.600
12759.0	32.96	4.8	2.12	1.60	279.1	6.2	2.662
12760.0	31.05	4.9	2.17	1.63	290.3	5.6	2.643
12761.0	23.45	7.3	2.23	1.68	242.0	5.5	2.562
12762.0	22.21	8.7	2.32	1.74	185.3	5.9	2.521
12763.0	23.00	8.8	2.41	1.81	163.1	5.5	2.515
12764.0	25.13	8.7	2.49	1.88	145.5	6.0	2.524
12765.0	24.59	9.4	2.59	1.95	129.8	5.9	2.501
12766.0	20.51	8.1	2.67	2.01	130.3	5.6	2.537
12767.0	30.00	7.6	2.75	2.06	133.0	6.0	2.550
12768.0	29.30	7.9	2.83	2.12	132.2	6.1	2.552
12769.0	23.02	9.3	2.91	2.19	143.5	7.3	2.525
12770.0	24.03	7.3	3.00	2.25	213.1	7.5	2.509
12771.0	24.00	5.0	3.06	2.29	333.9	6.9	2.630
12772.0	20.01	9.0	3.13	2.35	199.1	6.5	2.521
12773.0	21.04	11.6	3.25	2.44	100.4	6.4	2.442
12774.0	20.33	9.5	3.35	2.52	95.9	5.5	2.492
12775.0	36.16	6.8	3.42	2.57	112.7	5.4	2.573
12776.0	29.64	7.7	3.50	2.62	132.7	5.0	2.550
12777.0	25.60	9.0	3.59	2.68	129.0	6.4	2.519
12778.0	27.05	8.9	3.67	2.76	113.5	6.5	2.510
12779.0	23.14	10.9	3.78	2.82	109.4	5.9	2.456
12780.0	21.66	11.5	3.89	2.92	112.5	6.2	2.442
12781.0	22.10	11.0	4.00	3.00	110.4	7.1	2.469
12782.0	[illegible]	9.4	4.10	3.08	120.0	8.4	2.530
12783.0	20.57	9.1	4.19	3.14	90.0	8.5	2.547
12784.0	43.27	9.3	4.29	3.20	43.5	9.9	2.563

W.P.M.C.F. MICROGRAPHICS

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Dresser Atlas

DRESSER

Formation Multi-Tester Log

FILE NO. A-4438

COMPANY HARVEY E. YATES

WELL MC DONALD UNIT NO.1

FIELD MC DONALD

COUNTY LEA STATE NEW MEXICO

LOCATION: 660'FSL & 990'FEL,
SEC. [illegible]

SEC ____ TWP ____ RGE ____

Other Services

Permanent Datum GROUND LEVEL Elev. 3951.0

Log Measured from K.B. 15 Ft. Above Permanent Datum

Drilling Measured from K.B.

Elevations:
KB 3966.4
DF
GL 3951.0

Date	[illegible]-21-81			
Run No.	ONE			
Service Order	07070			
Type of Test OH or Csg.	OH			
Type Fluid in Hole	GEL STRACH			
Density and Viscosity	9.2 32			
pH and Fluid Loss	8 4.2 cc	cc	cc	cc
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	0.97 @ 60 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	0.728 @ 60 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	1.21 @ 60 °F	@ °F	@ °F	@ °F
Source of Rmf and Rmc	MEASURED			
Rm @ BHT	.041 @ 165 °F	@ °F	@ °F	@ °F
Time Since Circ.	14 HOURS			
Equip. No. and Loc.	6123 HUM.N.M			
F. T. Truck No. and Loc.	9379 ABILENE			
F. T. Specialist	MC CORKLE			
Recorded By	MC CORKLE			
Witnessed By	MR. THOMPSON			

Run No.	Bore Hole Record Bit	Bore Hole Record From	Bore Hole Record To	Casing Record Size	Casing Record Wgt.	Casing Record From	Casing Record To
1	7 7/8	4600	14593	8 5/8		SURF.	4600

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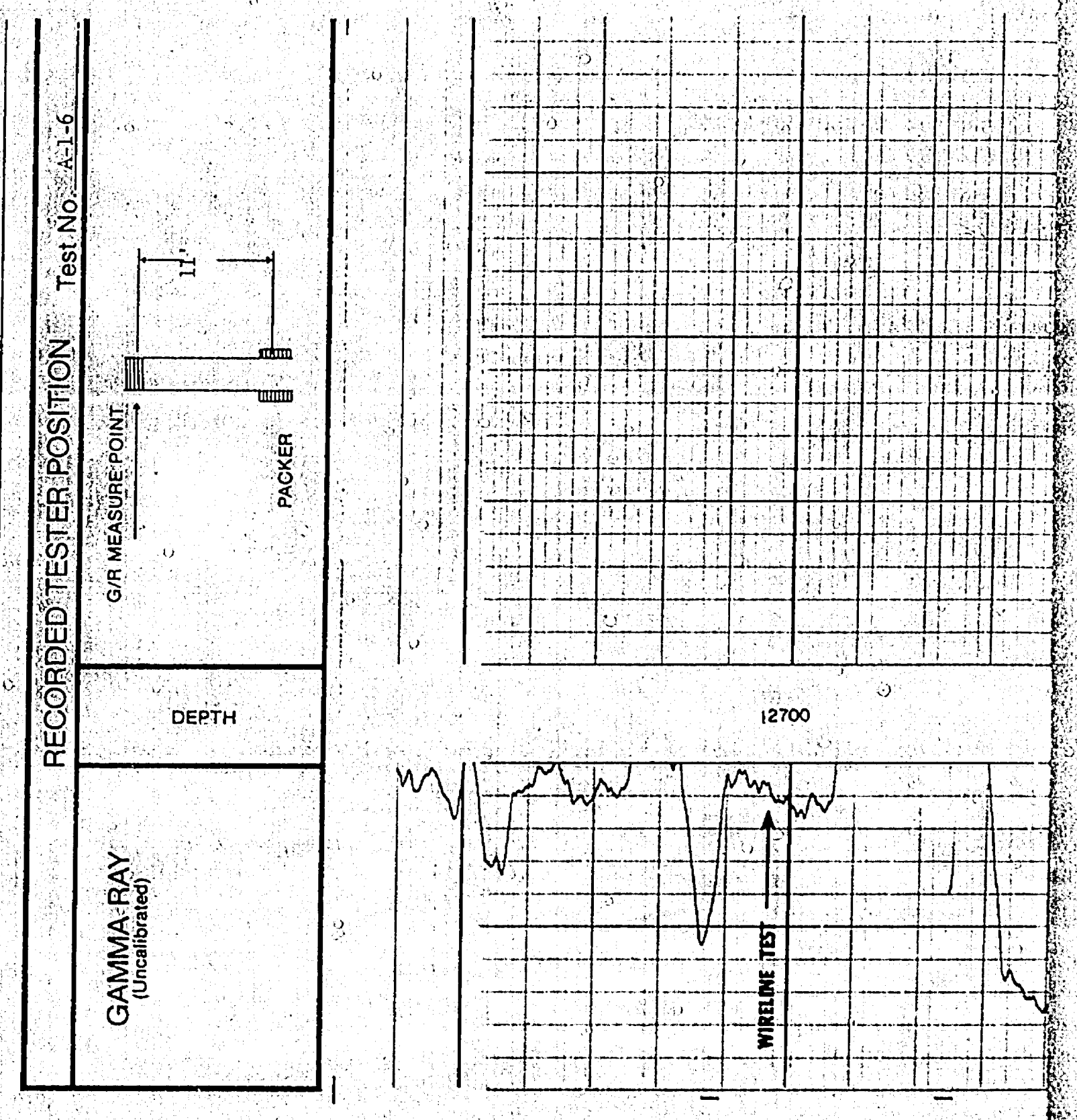
Remarks:

EQUIPMENT DATA

	RUN NO. 1	RUN NO. 2	RUN NO. 3	RUN NO. 4	GAMMA RAY
Tool Series No.	1925				
Serial No.	38971				
Transducer No.	-				
Elect. No.	39148				
Panel No.	1958				
Serial No.	38982				

RECORDED TESTER POSITION Test No. A-1-6



[illegible]

BEST AVAILABLE COPY

FORMATION MULTI-TESTER PRESSURE TEST SUMMARY

Test No.	DEPTH	HYDROSTATIC	FORMATION SHUT-IN PSI	PRETEST	REMARKS
A-1	12765	6114	4029	2511	AFTER 2 MINS.
A-2	12748	6099	4109	2220	AFTER 2 MINS.
A-3	11185	5351	206	164	AFTER 3.5 MINS.
A-4	10992	5258	4089	2840	AFTER 1 MIN.
A-5	10658	5099	3957	3936	AFTER 30 SEC.
A-6	10546	5045	3909	2545	AFTER 1 MIN.
FREE TEST	12739	6095	4032	1973	AFTER 2 MINS. (TEST DONE TO CHECK TOOL.)

ANALOG

PSI

0 10000

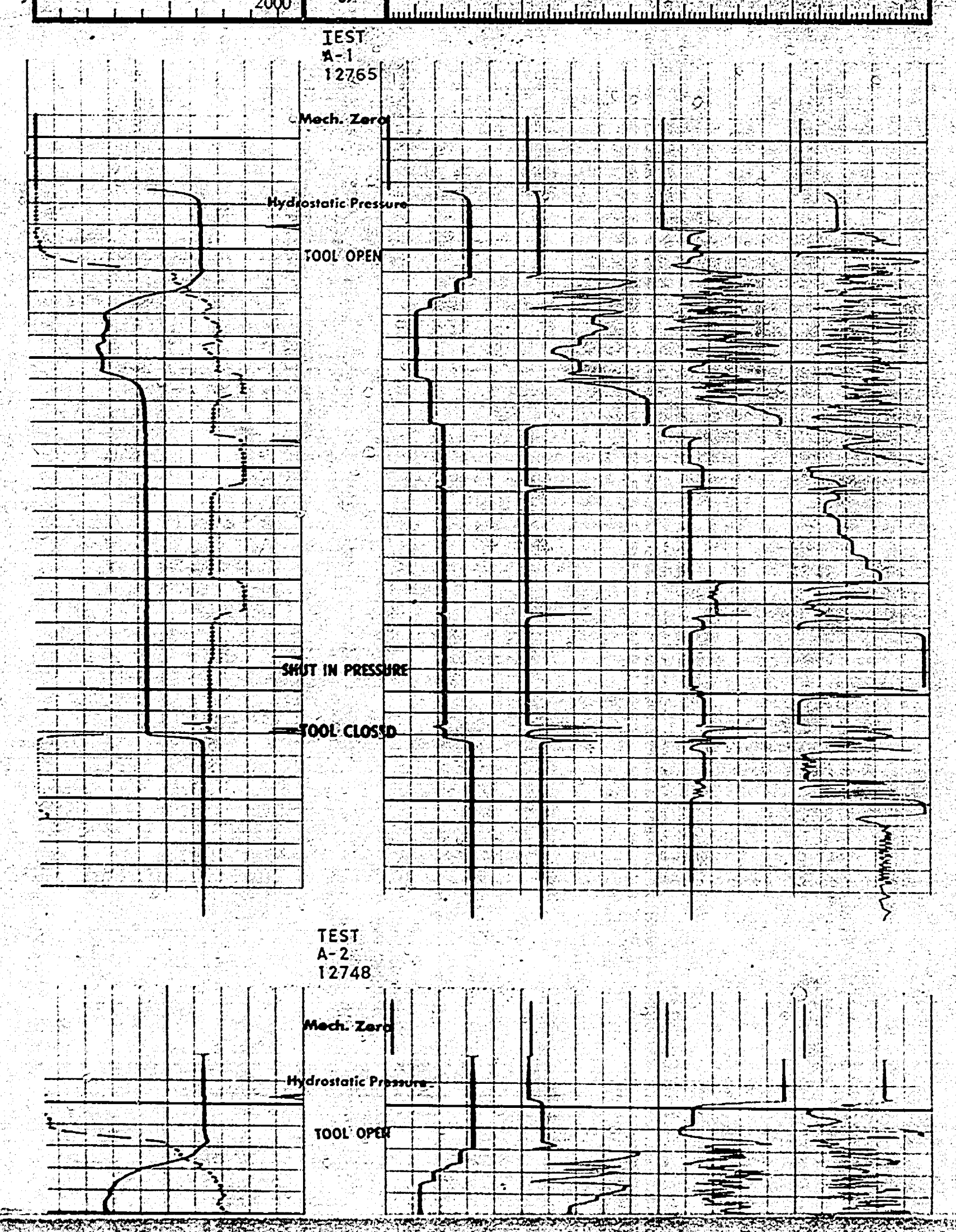
0 PUMP 2000

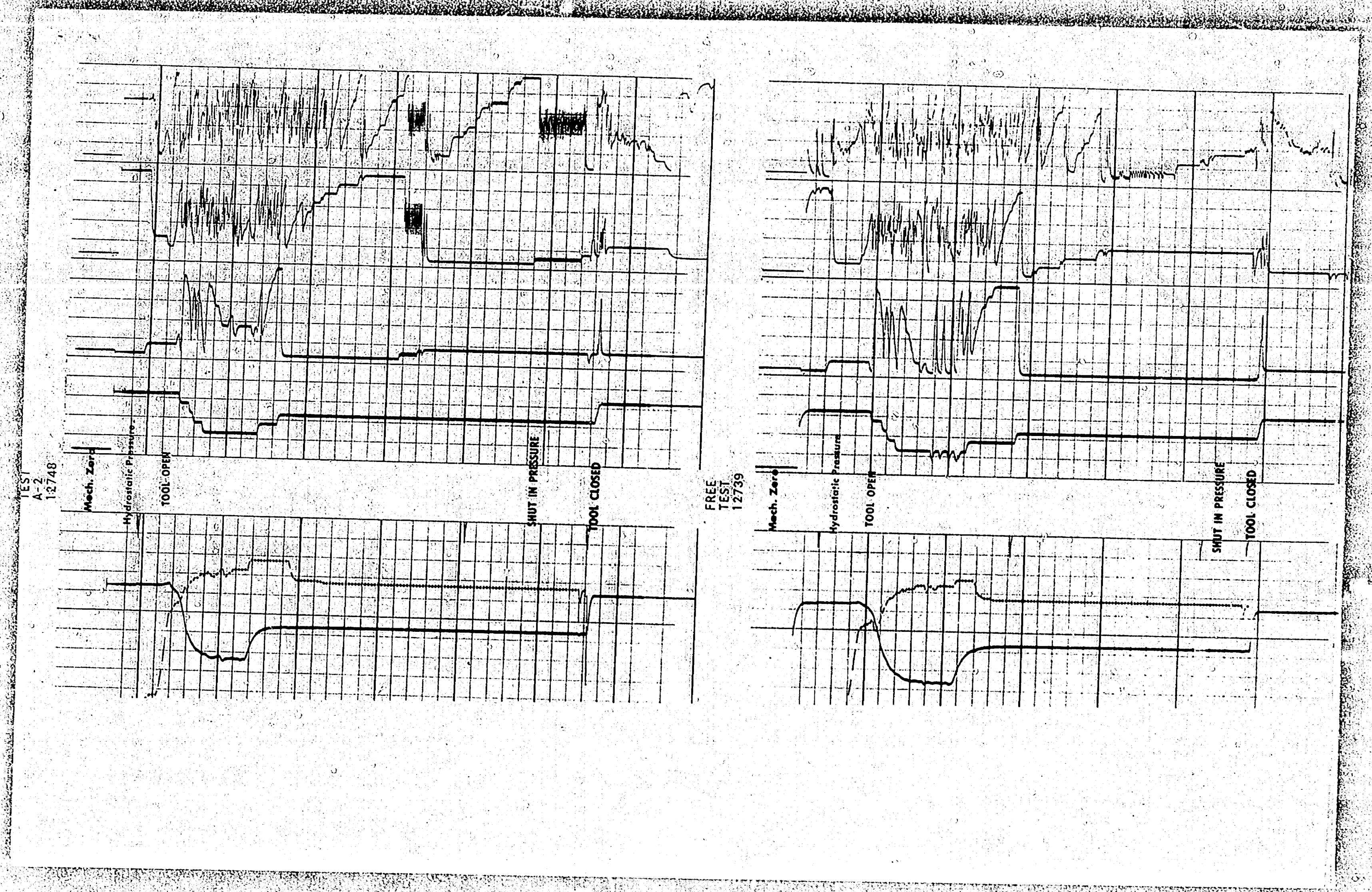
TIME IN MINUTES

RECORDED DIGITAL PRESSURE TEST

Test No. A-1-6

PSI 0 10⁴ | PSI 0 10³ | PSI 0 10² | 0 10¹




TEST
A-2
12748
Mech. Zero
Hydrostatic Pressure
TOOL OPEN
SHUT IN PRESSURE
TOOL CLOSED
FREE
TEST
12739
Mech. Zero
Hydrostatic Pressure
TOOL OPEN
SHUT IN PRESSURE
TOOL CLOSED

FORM 925312

DresserAtlas

Prolog

Field Analysis

Wellsite Complex Reservoir Analysis

COMPANY HARVEY E. YATES
WELL McDONALD UNIT NO. 1
FIELD McDONALD
COUNTY LEA STATE NEW MEXICO
LOCATION 660' FSL & 990' FEL
SEC 13 TWP 13-S RGE 36-E
ELEVATION: KB 3966.5 DF -- GL 3951
DATE 1/12/82

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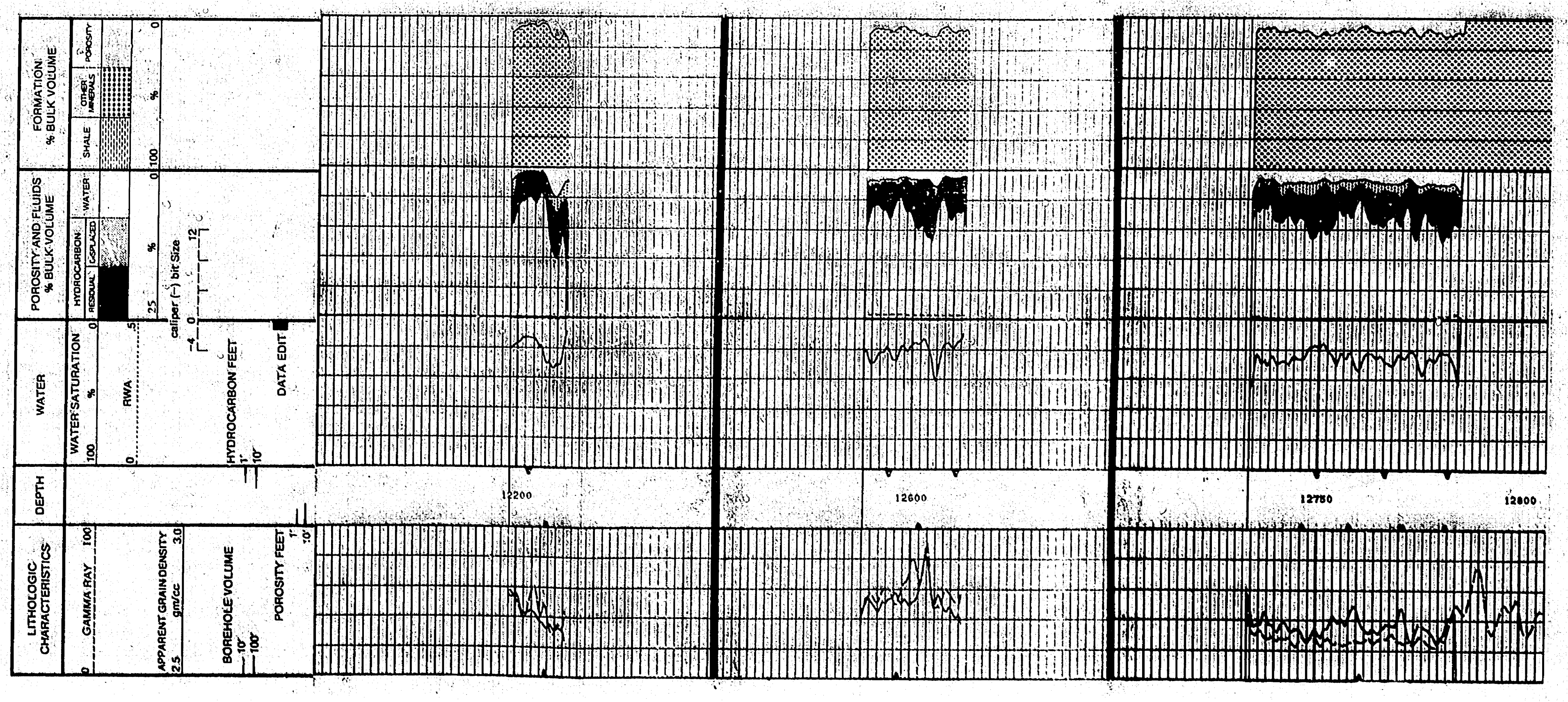
In making interpretations of log our employees will give Customer the benefit of their best judgement; but since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or the correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the Customer resulting from any interpretation made by any of our employees.

DATE 1-12-82
ENGINEER FITT
SERVICE TABLES

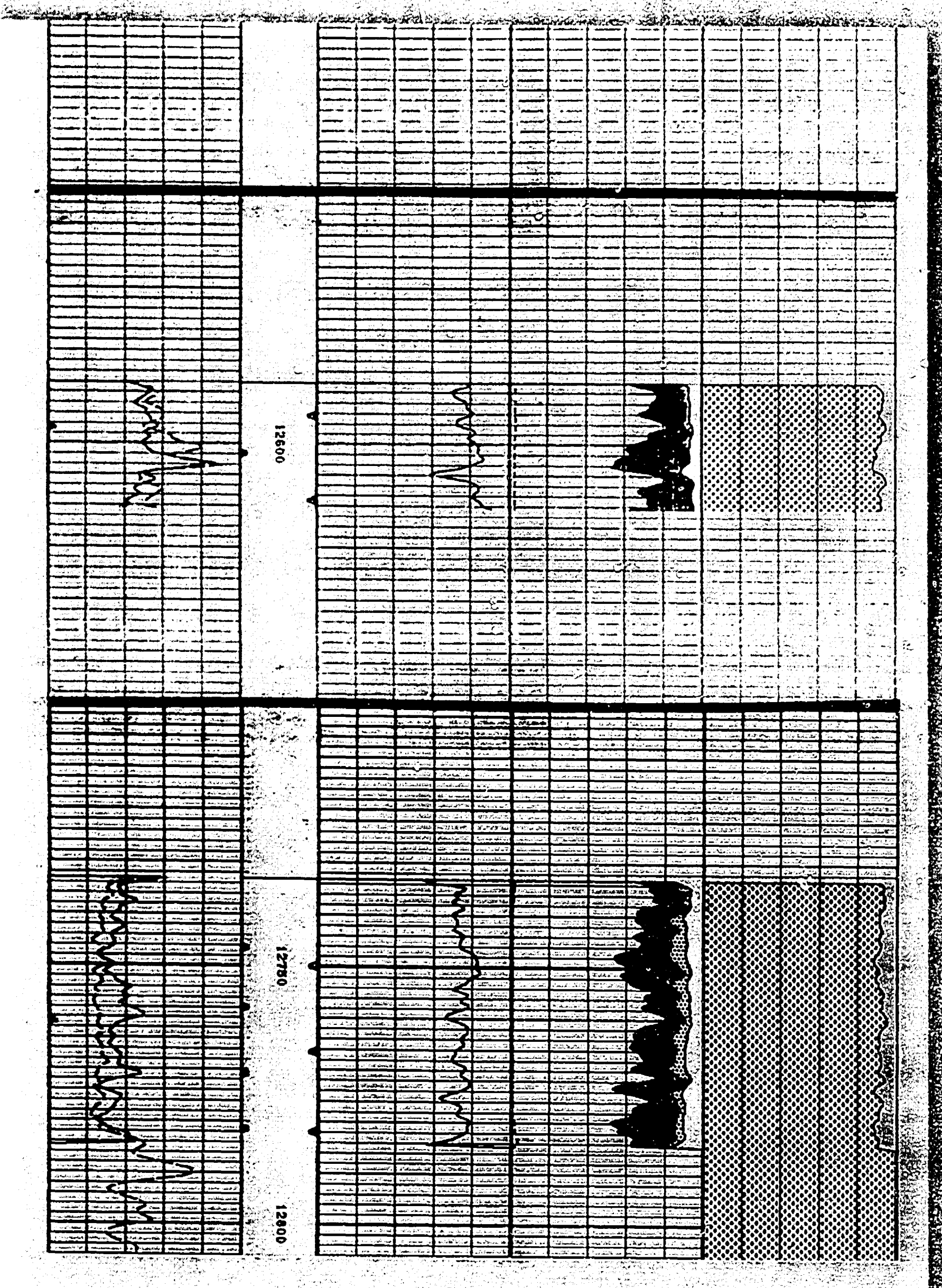
COMPUTATION PARAMETERS

DEPTH INTERVAL FROM	DEPTH INTERVAL TO	ρ_{SH}	ϕN_{SH}	Δt_{SH}	GR_{CL}	GR_{SH}	RW	a	m	ρ_{MA}	Δt_{MA}
[illegible]	[illegible]	2.63	25	--	25	100	.07	[illegible]	[illegible]	--	--
[illegible]	[illegible]	2.63	25	--	25	100	.07	[illegible]	[illegible]	--	--
[illegible]	[illegible]	2.63	25	--	25	100	.07	[illegible]	[illegible]	--	--

REMARKS:



U.S.N.R.C. MICROGRAPHICS
BEST AVAILABLE COPY



[illegible] E. YATES MCDONALD UNIT NO.1
[illegible] LEA, NEW MEXICO

DEPTH FEET	WATER SAT. %	TOTAL POR. %	CUMULATIVE INTERGATIONS POR-FT	HC-FT	RESITIVITY OHMS	NEUTRON POROSITY %	BULK DENSITY GM/CC
12198.0	20.70	9.7	0.05	0.04	174.2	11.9	2.607
12199.0	18.21	7.9	0.13	0.11	337.0	9.9	2.612
12200.0	16.33	5.9	0.20	0.16	762.9	8.2	2.676
12201.0	13.41	5.5	0.25	0.21	1305.2	[illegible]	2.646
12202.0	13.23	4.6	0.30	0.25	1911.6	4.6	2.635
12203.0	13.32	4.9	0.35	0.29	1636.4	5.7	2.637
12204.0	13.70	5.9	0.41	0.34	1128.6	6.1	[illegible]
12205.0	18.64	4.1	0.45	0.38	1176.6	3.5	[illegible]
12206.0	20.70	4.6	0.50	0.41	756.1	2.9	[illegible]
12207.0	29.05	8.1	0.56	0.46	119.1	5.0	2.530
12208.0	31.24	13.5	0.69	0.55	39.8	10.1	2.440
12209.0	32.69	14.9	0.84	0.65	29.3	10.8	2.417
12210.0	28.03	13.5	0.98	0.75	40.6	9.3	2.437
12211.0	25.16	11.2	1.09	0.83	60.6	7.1	2.476
12212.0	10.89	10.9	1.25	0.97	165.5	13.2	[illegible]

[illegible] E. YATES MCDONALD UNIT NO.1
[illegible] LEA, NEW MEXICO

DEPTH FEET	WATER SAT. %	TOTAL POR. %	CUMULATIVE INTERGATIONS POR-FT	HC-FT	RESITIVITY OHMS	NEUTRON POROSITY %	BULK DENSITY GM/CC
12588.0	21.40	9.3	0.05	0.04	177.2	[illegible]	[illegible]
12589.0	25.69	6.2	0.12	0.09	273.1	[illegible]	[illegible]
12590.0	18.62	5.7	0.17	0.13	261.5	7.4	[illegible]
12591.0	25.58	5.9	0.23	0.17	311.8	6.9	[illegible]
12592.0	21.08	6.6	0.30	0.22	342.7	7.0	[illegible]
12593.0	20.69	7.0	0.36	0.28	333.6	8.5	[illegible]
12594.0	19.73	7.7	0.44	0.34	319.4	9.2	[illegible]
12595.0	26.65	5.3	0.50	0.38	351.0	7.3	2.677
12596.0	26.26	4.3	0.55	0.42	548.7	7.8	2.717
12597.0	18.44	5.8	0.60	0.46	635.5	7.0	2.666
12598.0	19.49	6.7	0.66	0.51	408.9	[illegible]	2.642
12599.0	19.63	7.3	0.73	0.57	337.2	8.9	2.670
12600.0	15.73	9.4	0.82	0.64	323.3	12.5	[illegible]
12601.0	16.09	9.3	0.92	0.72	311.6	11.8	[illegible]
12602.0	14.54	9.4	1.01	0.80	370.9	12.4	[illegible]
12603.0	14.10	11.1	1.12	0.90	[illegible]	12.1	[illegible]
12604.0	20.07	11.6	1.23	0.99	119.9	10.4	2.606
12605.0	26.24	7.1	1.32	1.05	181.4	9.8	[illegible]
12606.0	25.00	4.9	1.37	1.08	242.1	6.4	[illegible]
12607.0	20.18	4.6	1.42	1.11	886.6	7.0	[illegible]
12608.0	15.55	7.4	1.48	1.17	[illegible]	8.2	[illegible]
12609.0	16.67	7.9	1.56	1.24	[illegible]	8.6	[illegible]
12610.0	18.67	6.0	1.63	1.29	434.3	7.4	2.617
12611.0	14.63	6.9	1.70	1.35	677.1	6.3	[illegible]
12612.0	12.02	7.0	1.77	1.41	1001.2	-6.6	2.591

DEPTH FEET	WATER SAT. %	TOTAL POR. %	CUMULATIVE INTERGATIONS POR-FT	HC-FT	RESITIVITY OHMS	NEUTRON POROSITY %	BULK DENSITY GM/CC
12733.0	45.42	8.5	0.04	0.02	47.1	11.5	2.639
12734.0	30.53	6.4	0.11	0.06	180.6	6.4	2.599
12735.0	24.68	6.4	0.17	0.12	279.8	4.6	2.575
12736.0	27.70	6.4	0.24	0.16	225.3	4.7	2.570
12737.0	30.27	5.4	0.29	0.20	261.9	5.9	2.627
12738.0	24.38	7.0	0.36	0.25	240.9	6.6	2.585
12739.0	27.21	8.5	0.44	0.31	130.4	6.9	2.542
12740.0	28.73	8.8	0.53	0.37	110.5	5.8	2.520
12741.0	27.63	8.0	0.61	0.43	143.5	5.5	2.539
12742.0	28.85	7.4	0.69	0.49	153.0	6.4	2.569
12743.0	27.12	8.3	0.77	0.54	137.0	6.5	2.543
12744.0	24.48	8.6	0.85	0.61	159.6	5.4	2.520
12745.0	26.19	7.8	0.93	0.67	168.9	5.2	2.542
12746.0	25.76	8.6	1.01	0.73	144.2	5.8	2.526
12747.0	20.12	10.8	1.12	0.81	146.9	6.1	2.461
12748.0	17.80	11.3	1.23	0.90	173.0	6.2	2.449
12749.0	17.46	10.0	1.33	0.99	230.7	6.4	2.491
12750.0	17.58	[illegible]	1.42	1.06	297.4	5.7	2.520
12751.0	16.06	10.7	1.52	1.15	239.1	6.2	2.469
12752.0	21.35	9.6	1.62	1.22	167.9	7.0	2.512
12753.0	23.77	8.8	1.71	1.29	160.2	6.9	2.533
12754.0	29.41	6.2	1.78	1.34	212.0	6.5	2.610
12755.0	22.18	7.5	1.85	1.40	253.9	6.4	2.560
12756.0	25.47	6.9	1.92	1.45	224.1	6.7	2.580
12757.0	21.95	7.8	2.00	1.51	238.2	6.2	2.554
12758.0	25.47	6.4	2.07	1.56	266.4	6.7	2.600
12759.0	32.96	4.8	2.12	1.60	279.1	6.2	2.662
12760.0	31.05	4.9	2.17	1.63	298.3	5.6	2.643
12761.0	23.45	7.3	2.23	1.68	242.0	5.5	2.562
12762.0	22.21	8.7	2.32	1.74	185.3	5.9	2.521
12763.0	23.60	8.8	2.41	1.81	163.1	5.5	2.515
12764.0	25.13	8.7	2.49	1.88	145.5	6.0	2.524
12765.0	24.59	9.4	2.59	1.95	129.8	5.9	2.501
12766.0	28.51	8.1	2.67	2.01	130.3	6.6	2.837
12767.0	30.00	7.6	2.75	2.06	133.6	6.0	2.558
12768.0	29.30	7.9	2.83	2.12	132.2	6.1	2.552
12769.0	23.82	9.3	2.91	2.19	143.6	7.3	2.525
12770.0	24.83	7.3	3.00	2.25	213.1	7.5	2.589
12771.0	24.88	5.8	3.06	2.29	333.9	6.9	2.630
12772.0	20.81	9.0	3.13	2.35	199.1	6.5	2.521
12773.0	21.84	11.6	3.25	2.44	508.4	6.4	2.442
12774.0	28.33	9.5	3.35	2.52	95.9	5.5	2.492
12775.0	36.46	6.8	3.42	2.57	112.7	5.4	2.573
12776.0	29.64	7.7	3.50	2.62	132.7	5.0	2.550
12777.0	25.68	9.0	3.59	2.68	129.8	6.4	2.519
12778.0	27.85	8.9	3.67	2.75	113.5	6.5	2.510
12779.0	23.14	10.9	3.78	2.82	109.4	5.9	2.456
12780.0	21.66	11.5	3.89	2.92	112.6	6.2	2.442
12781.0	22.10	11.0	4.00	3.00	118.4	7.1	2.469
12782.0	24.76	9.4	4.10	3.08	120.0	8.4	2.530
12783.0	30.57	9.1	4.19	3.14	90.0	8.5	2.547
12784.0	43.27	9.3	4.29	3.20	43.6	9.9	2.563