Case No.
5644

Large Exhibits

W.N.H.C.P. MICROGRAPHICS
BEST AVAILABLE COPY

Schlumberger

SIDEWALL NEUTRON POROSITY LOG

COMPANY AGHA, INCORPORATED

WELL BLINEBERY DRINKARD 2ND A WELL 22

FIELD DRINKARD

COUNTY LEA STATE NEW MEXICO

Other Services: NONE

Location: 817' FNL & 965' FEL

API Serial No.

Sec. 22 Twp. 22-S Rge. 37-E

Permanent Datum: G.L. Elev. 3352

Log Measured From: K.B. 10 Ft. Above Perm. Datum

Drilling Measured From: K.B. Elev.: K.B. 3362, D.F. 3361, G.L. 3352

Date: 12-5-76

Run No.: ONE

Type Log: SIDEWALL NEUTRON POROSITY

Depth-Driller: 6300

Depth-Logger: 6298

Bottom Logged Interval: 6298

Top Log Interval: 2700

Casing-Driller: 8 5/8 @ 332

Casing-Logger: 332

Bit Size: 7 7/8

Type Fluid in Hole: SALT MUD

Dens.: 10

Visc.: 28

pH: 10

Fluid Loss: 8

Source of Sample: CIRCULATED

R_m @ Meas. Temp.: .955 @ 65°F

R_mf @ Meas. Temp.: .955 @ 65°F

R_mc @ Meas. Temp.: .955 @ 65°F

Source: R_mf: M R_mc: M

R_m @ BHT: @ °F

Time Since Circulation: 10 HRS

Max. Rec. Temp. Recorded: 132°F

Equipment No.: 10085

Location: HOBBS

Recorded By: LANTZ

Witnessed By: CARTER

OIL CONSERVATION COMMISSION

Case No. Order No.

Applicant

Exhibit No.

Witness

SCALE CHANGES

Type Log | Depth | Scale Up Hole Down Hole

SIDEWALL NEUTRON POROSITY

EQUIPMENT DATA

Run No.	ONE
Service Order No.	630
Truck Unit	PULL
Recorder No.	E4-1195
Field No.	B-1070
Skid No.	A-232
Console No.	EC-982
Pump No.	KC-1156
Cable No.	1178
Cablehead	138
Mud Pump No.	B-656
Mud Pump No.	

RECORDED DATA

Recorded On	Interval Detected	Depth	
Material	Bit Size	From	
Density	Type Fluid	To	
Viscosity	pH	Scale	
Fluid Loss	Source of Sample		
Resistivity	Rm @ Meas. Temp.		
	Rmf @ Meas. Temp.		
	Rmc @ Meas. Temp.		
	Rm @ BHT		
Time Since Circ.	Max. Rec. Temp.		

REMARKS

LS-L10 .110 95 10 -10 10

CALIBRATION DATA

Gamma Ray API	Before	180
	After	180
Neutron API	Before	220
	After	220

CALIBRATION DATA

Gamma Ray API	Before	180
	After	180
Neutron API	Before	220
	After	220

GR: Electric Cfs 80 | Bore Hole Cfs 80 | Type Fluid | Density | Viscosity | Fluid Loss | Source of Sample | Rm @ Meas. Temp. | Rmf @ Meas. Temp. | Rmc @ Meas. Temp. | Rm @ BHT | Time Since Circ. | Max. Rec. Temp. | Equipment No. | Location | Recorded By | Witnessed By

CALIPER: DIAM. IN INCHES 6 16

GAMMA RAY API UNITS: 0 100 200

POROSITY INDEX (%): 30 10 0 30

Caliper | Gamma Ray | Neutron

TOP SALT (+2136) 1705

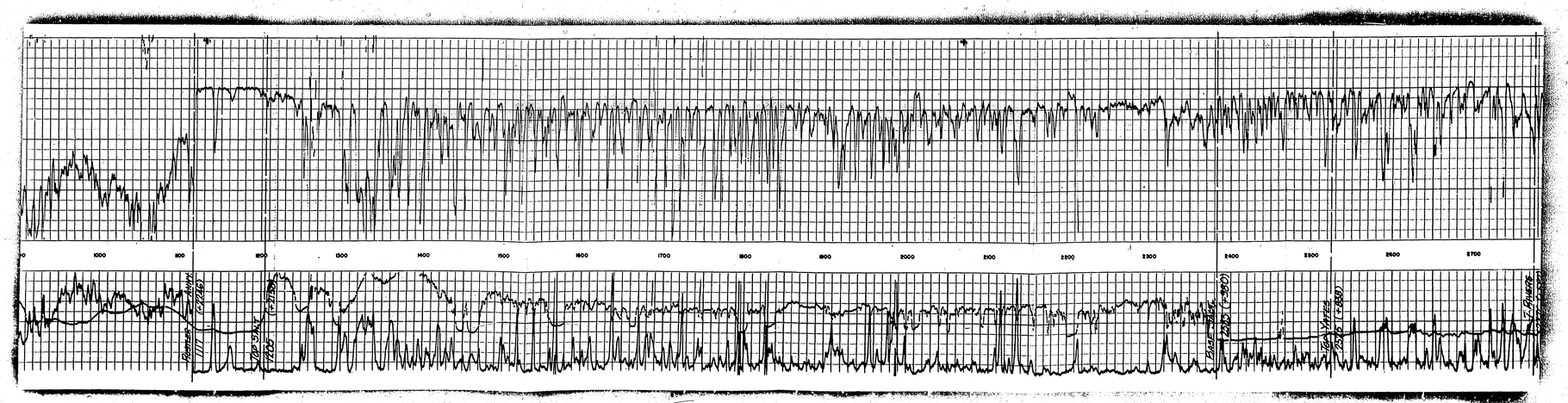
Formation — Anhy (+2146) 1617

2 MAY 76 PRINTED IN U.S.A.

Schlumberger

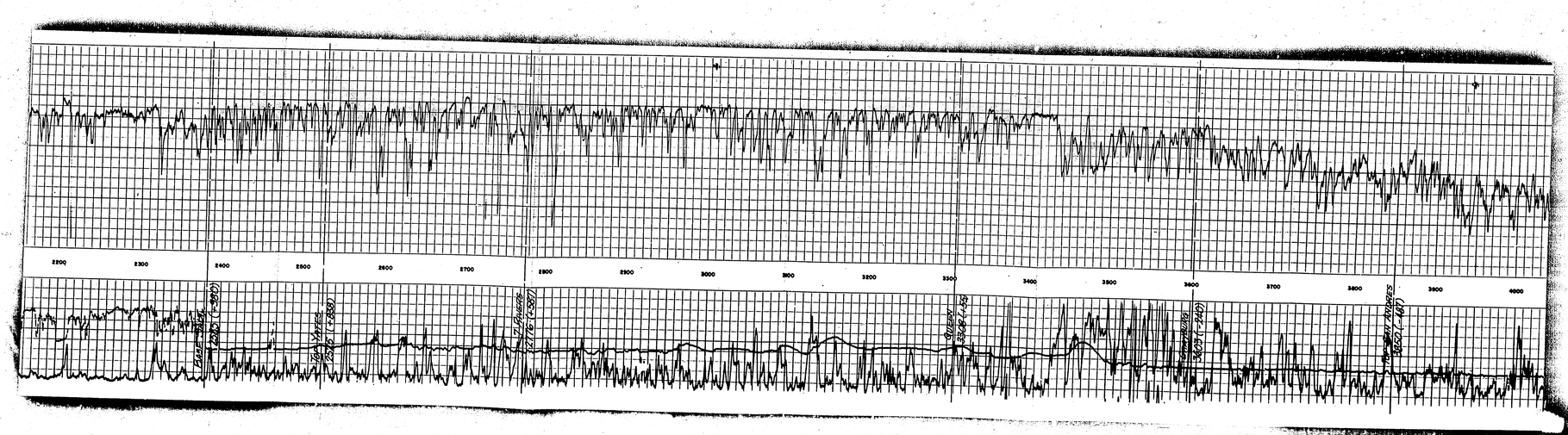
V.A.N.C.P. MICROGRAPHICS

LOG PRESENTATION



V.P.R.C.F. MICROGRAPHICS

BEST AVAILABLE COPY



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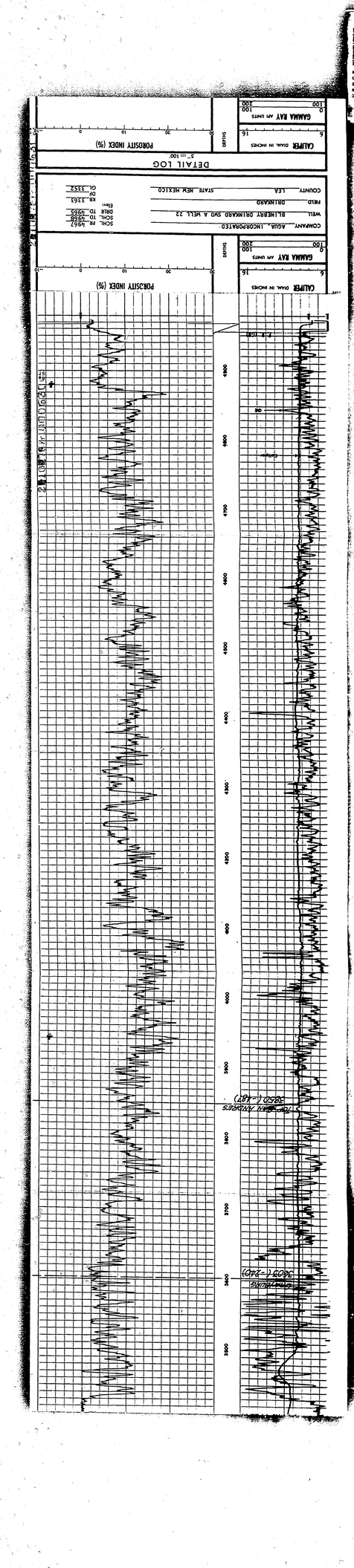
DETAIL LOG
5" = 100'
POROSITY INDEX (%)
CALIPER DIAM. IN INCHES
GAMMA RAY API UNITS
COMPANY AGUA INCORPORATED
WELL BLINEBRY DRINKARD SWD A WELL 22
FIELD DRINKARD
COUNTY LEA STATE NEW MEXICO
SCHL. RR 4967
SCHL. TD 6960
DATE TD 4965
Elevation KB 3163
DF
GL 3152
4900
4800
4700
4600
4500
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4300
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4000
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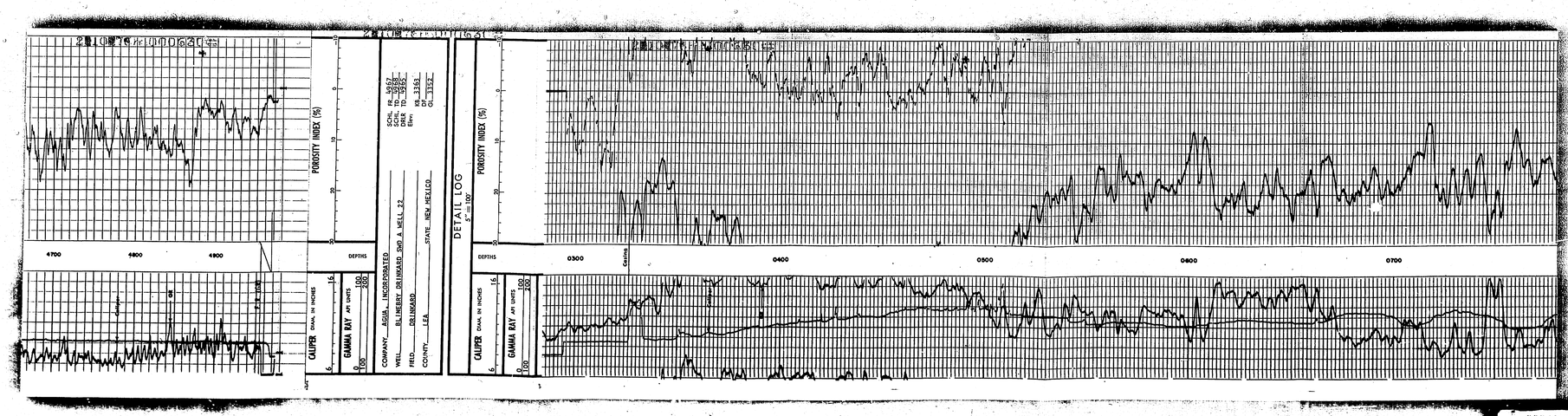
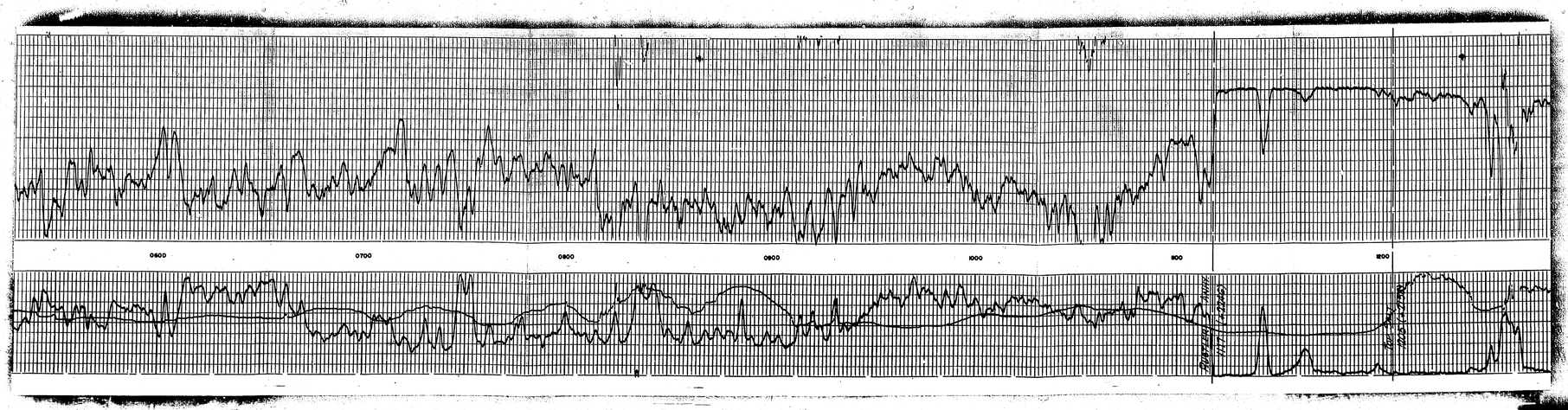
3700
3600
3500
3400



V.S.N.G.F. MICROGRAPHICS
BEST AVAILABLE COPY



V.R.N.C.P. MICROGRAPHICS
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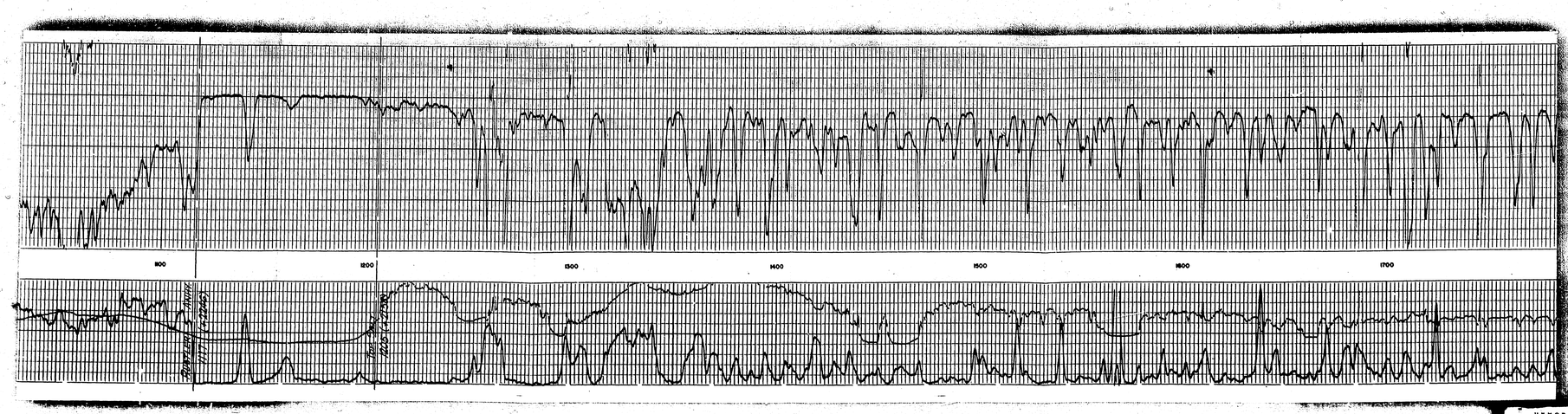

V.R.N.C.F. MICROGRAPHICS
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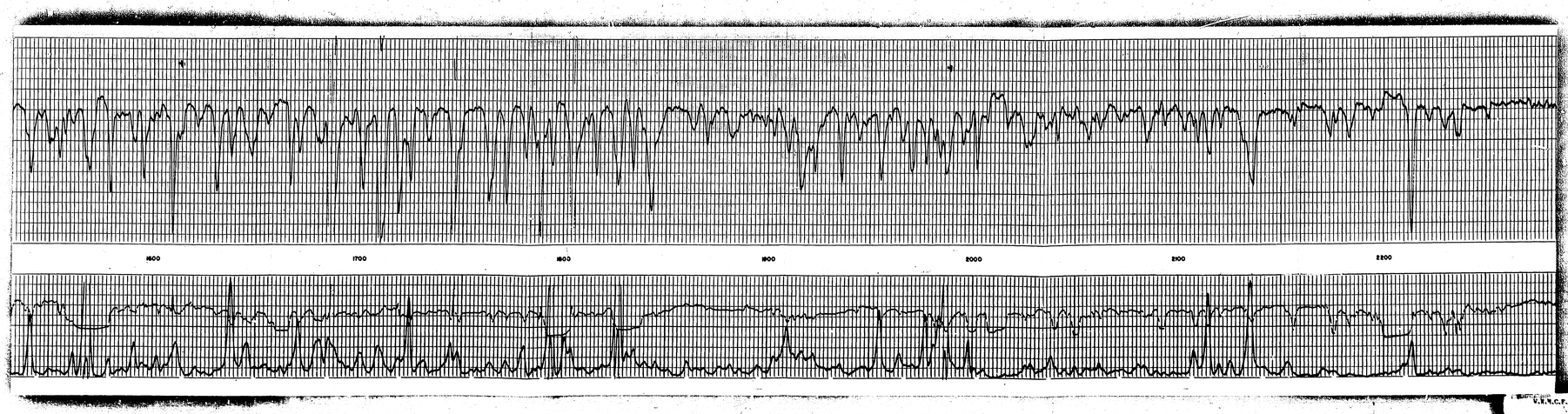

U.S.N.C.F. MICROGRAPHICS
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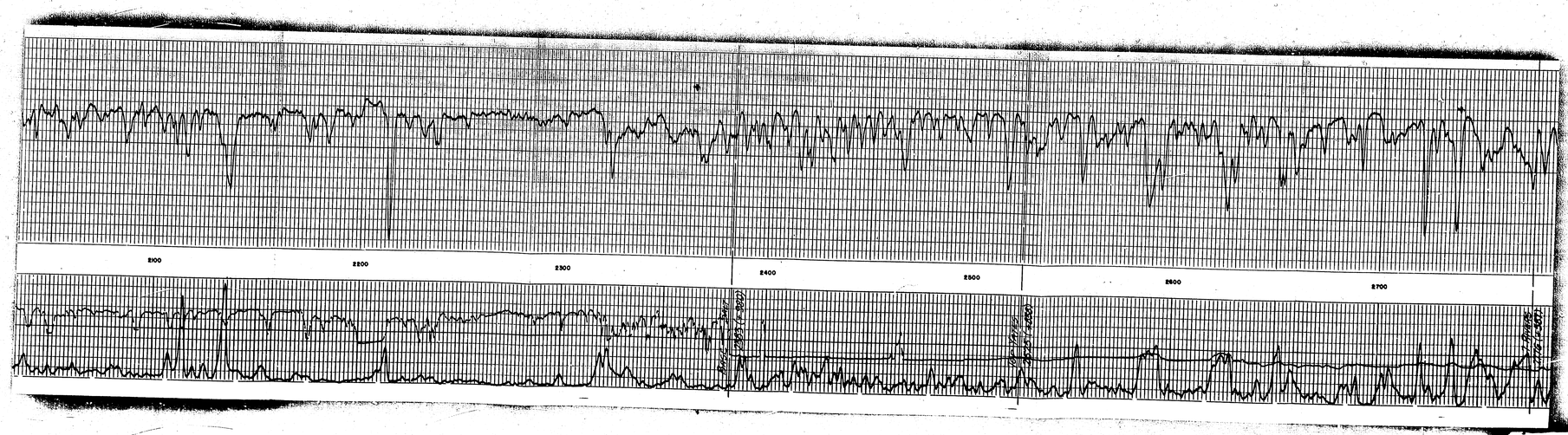

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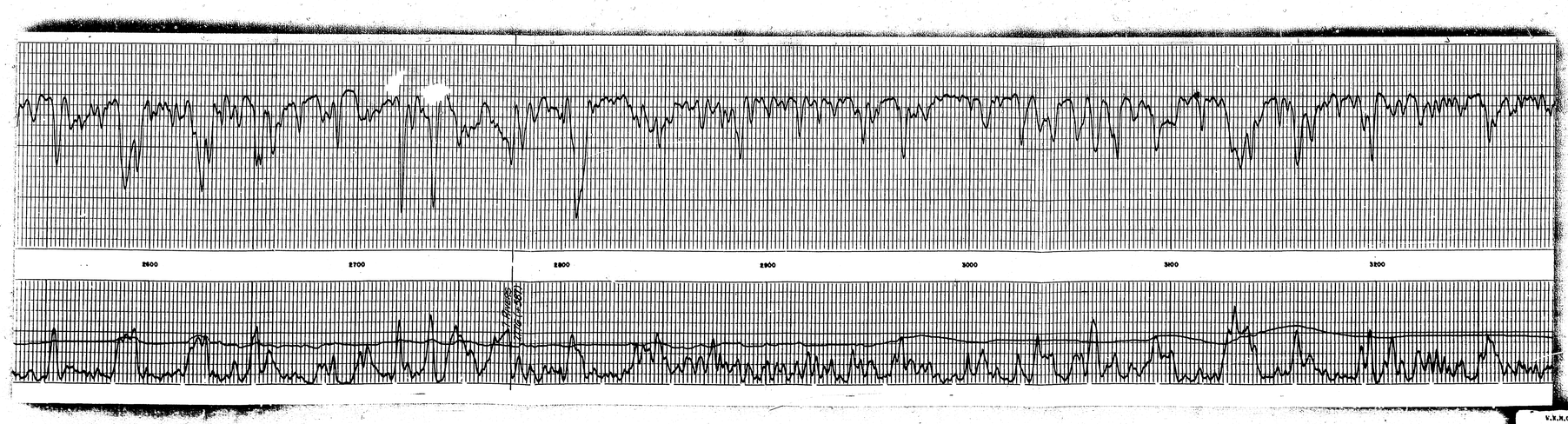

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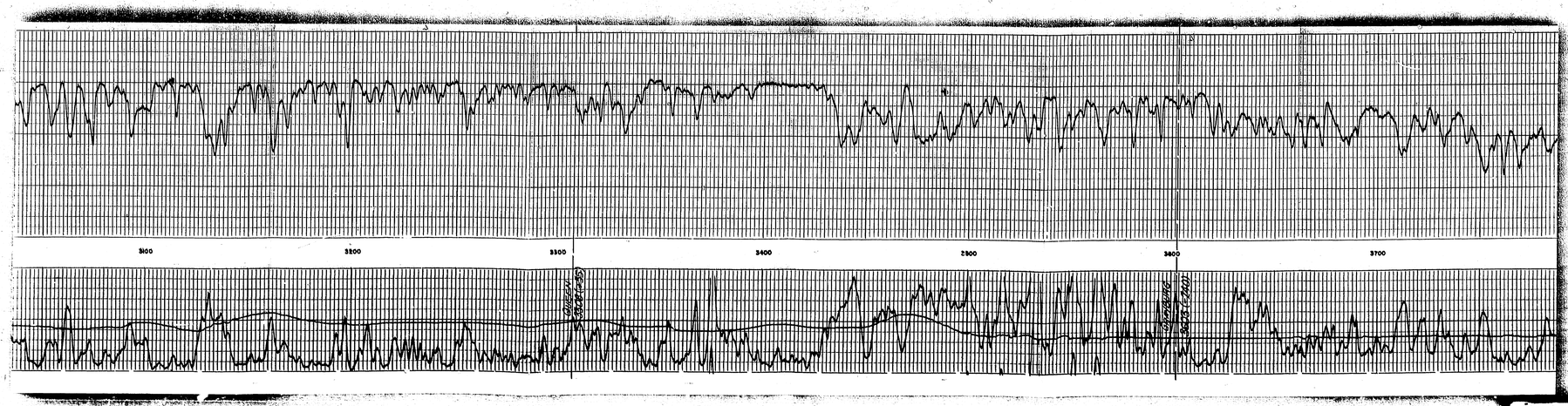

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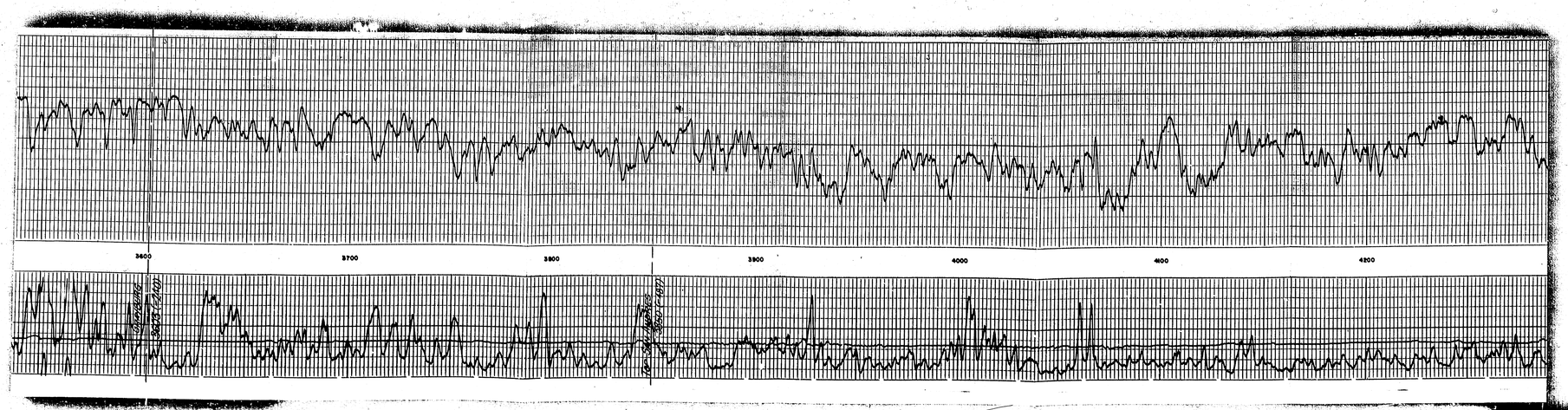

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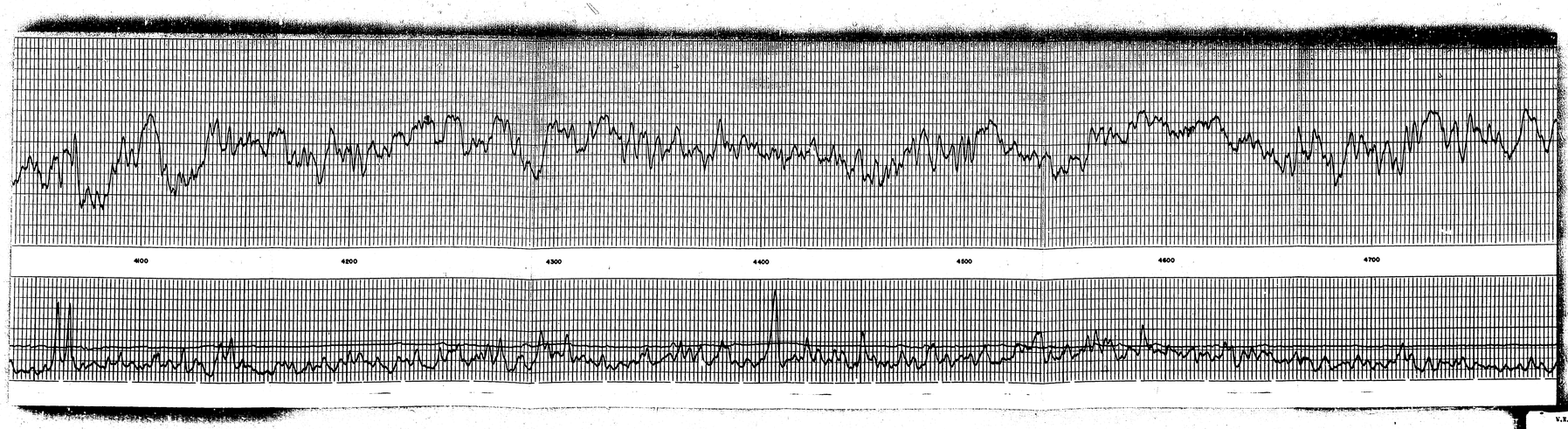

V.P.M.C.F. MICROGRAPHICS
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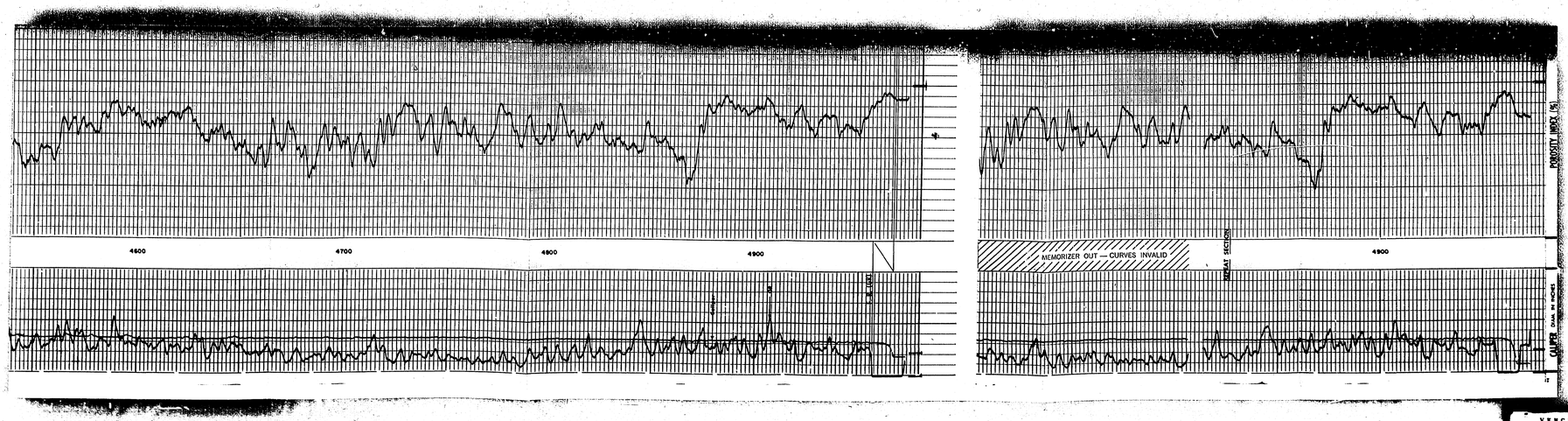

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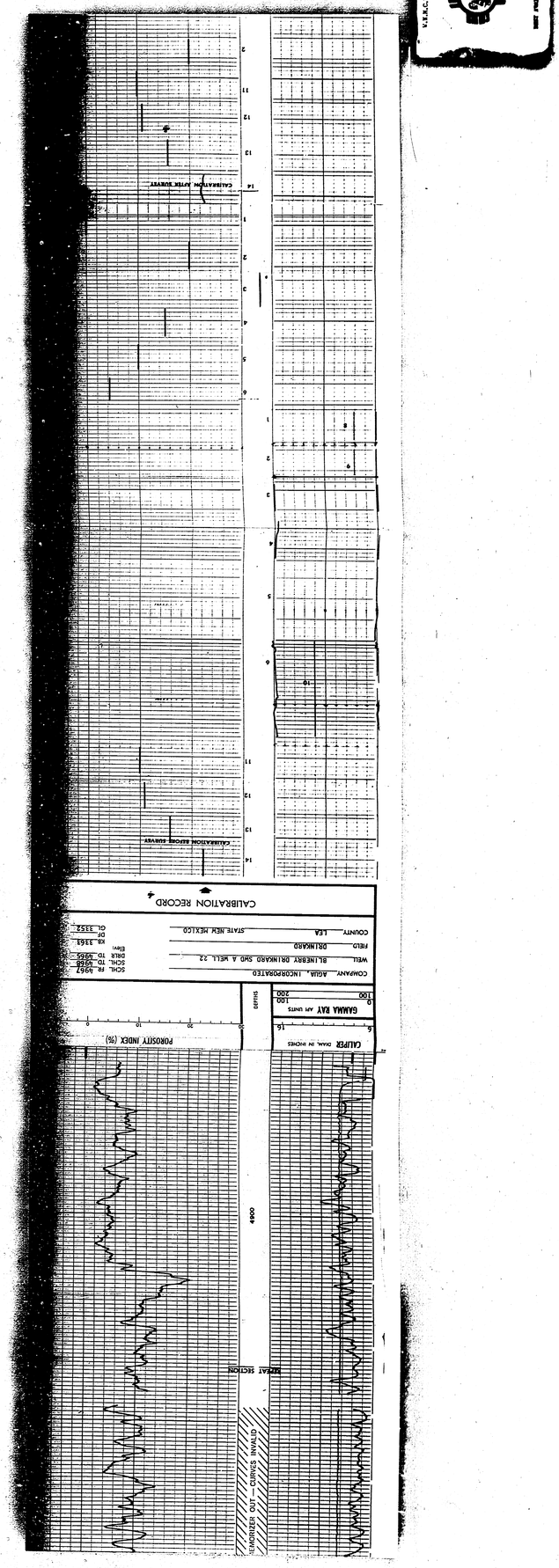
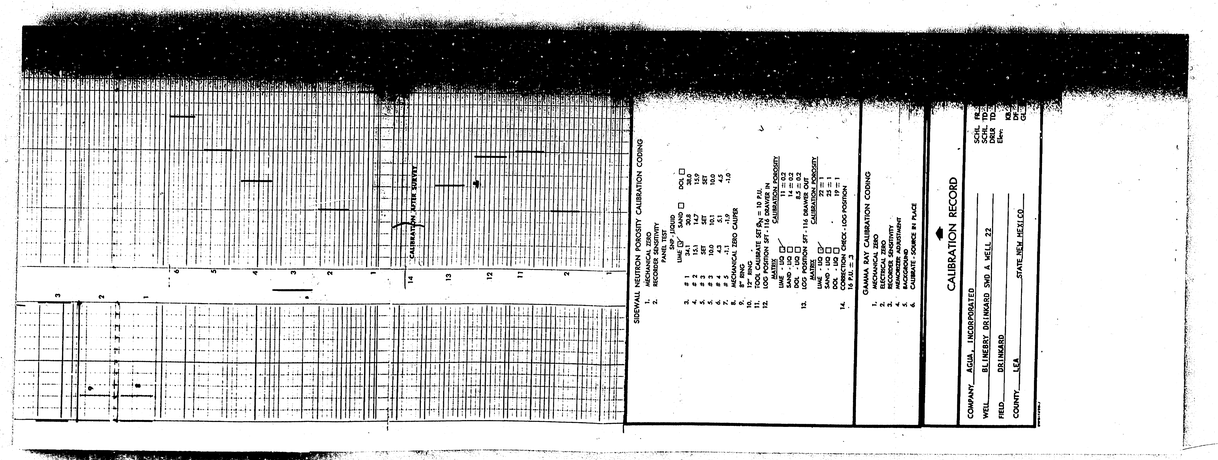

CALIBRATION RECORD
COMPANY ASUA, INCORPORATED
WELL BLINEBRY DRINKARD SWD A WELL 22
FIELD DRINKARD
COUNTY LEA STATE NEW MEXICO
SCHL. RE 4967
SCHL. TD 5966
DRLR. TD 5966
Elev.
KB 3361
DF
GL 3352
CALIBRATION AFTER SURVEY
CALIBRATION BEFORE SURVEY
GAMMA RAY API UNITS
0 100
100 200
CALIPER DIAM. IN INCHES
6 16
POROSITY INDEX (%)
30 20 10 0
DEPTHS
4900
BOTTOM SECTION
BOREHOLE OUT — CURVES INVALID



U.S.W.R.C.P. MICROGRAPHICS
BEST AVAILABLE COPY

Schlumberger

SIDEWALL NEUTRON POROSITY LOG

COUNTY LEA
FIELD or LOCATION DRINKARD
WELL BLINEBRY DRINKARD SWD A WELL 22
COMPANY AGUA, INCORPORATED

COMPANY AGUA, INCORPORATED

WELL BLINEBRY DRINKARD SWD A WELL 22

FIELD DRINKARD

COUNTY LEA STATE NEW MEXICO

Location: 817' FNL & 965' FEL
API Serial No.
Other Services: NONE

Sec. 22 Twp. 22-S Rge. 37-E

Permanent Datum: G.L. ; Elev.: 3352
Log Measured From K.B. , 11 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 3363
D.F.
G.L. 3352

Date	2-5-76		
Run No.	ONE		
Depth—Driller	4965		
Depth—Logger	4968		
Btm. Log Interval	4967		
Top Log Interval	0		
Casing—Driller	9 5/8@ 322	@	@
Casing—Logger	326		
Bit Size	8 3/4		
Type Fluid in Hole	SALT MUD		
Dens. | Visc.	10.1 | 34		
pH | Fluid Loss	8 | 10 ml	ml	ml
Source of Sample	CIRCULATED		
R_m @ Meas. Temp.	.075 @ 66 °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	.05 @ 66 °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	.095 @ 66 °F	@ °F	@ °F
Source: R_{mf} | R_{mc}	M | C		
R_m @ BHT	.055 @ 92 °F	@ °F	@ °F
Time Circulation Stopped	0700		
Time Logger on Bottom	1130		
Max. Rec. Temp.	92 °F	°F	°F
Equip. | Location	7646 | HOBBS		
Recorded By	PRICE		
Witnessed By	JANICA		

BEFORE THE OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. ___ Exhibit No. ___
Submitted by AGUA
Hearing Date ___

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

Run No.	ONE
Service Order No.	630
Fluid Level	FULL

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

EQUIPMENT DATA

Panel No.	EJ-1195
Cart No.	B-1070
Skid No.	A-224
Sonde No.	EC-489
G.R. Cart No.	KG-1136
TTR No.	-
Calibrator	138
Mem Panel No.	B-656

LOGGING DATA

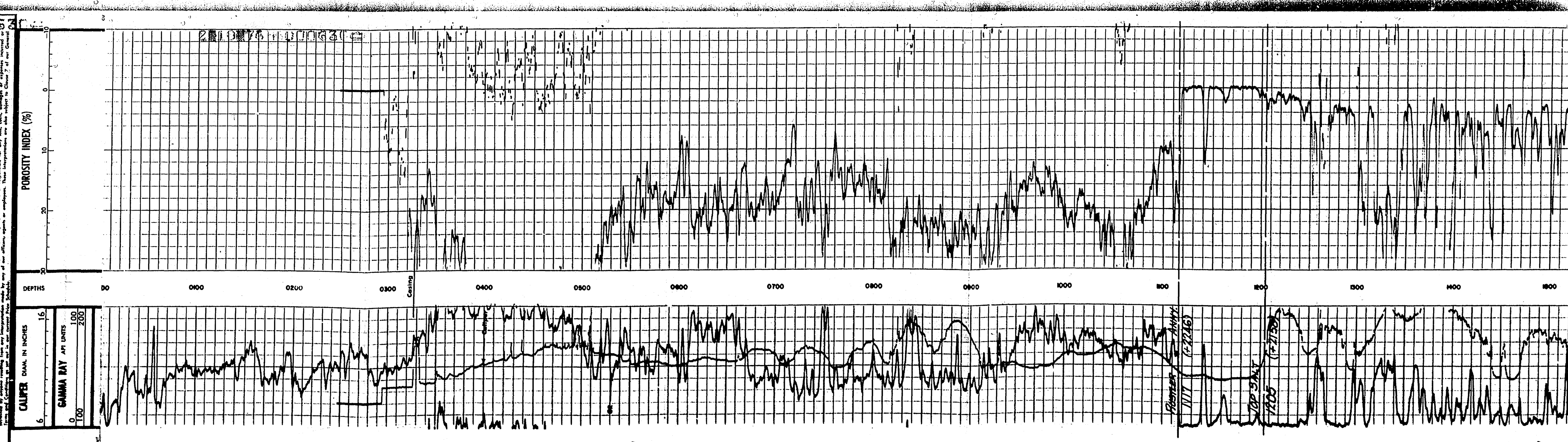
Matrix	Neutron Selectors: Mud Corr. PPM x10³	Temp. °F	Scale	From	Depth To
LS-L10	.110	95	30 -10	TD	0

REMARKS

CALIBRATION DATA

Speed - F.P.M.		30
GR	BKG. CPS	85
GR	Source CPS	560
GR	Tc Sec.	2
Neutron ACPS	Before: Drawer In	380
Neutron ACPS	Log: Drawer Out	224
Neutron ACPS	After: Drawer In	380
Neutron ACPS	Log: Drawer Out	220

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 7 of our General Terms and Conditions as set out in our current Price Schedule.



V.N.M.C.P. MICROGRAPHICS

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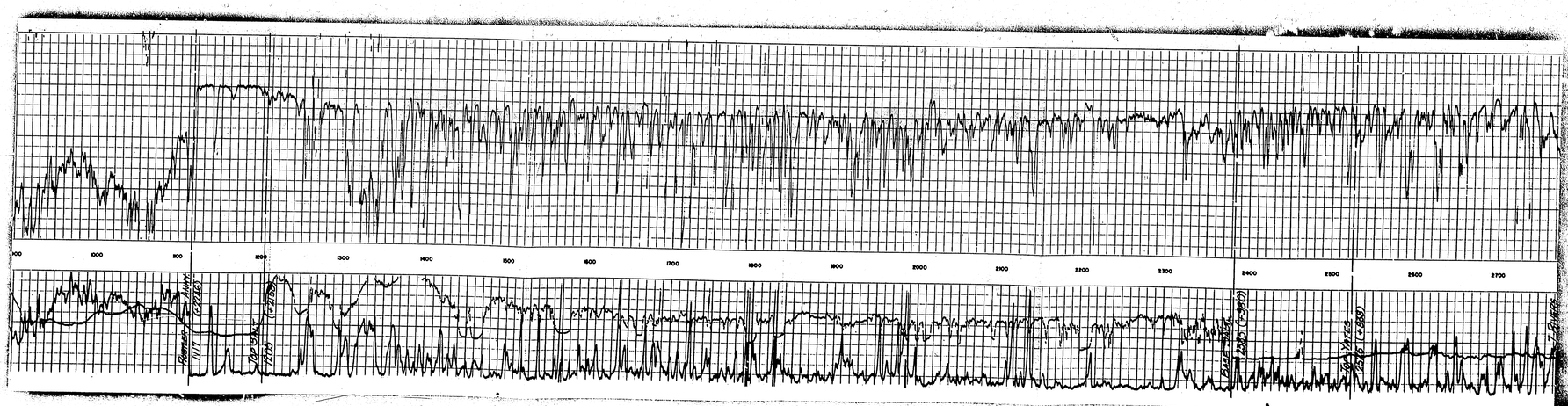

U.S.N.C.F. MICROGRAPHICS
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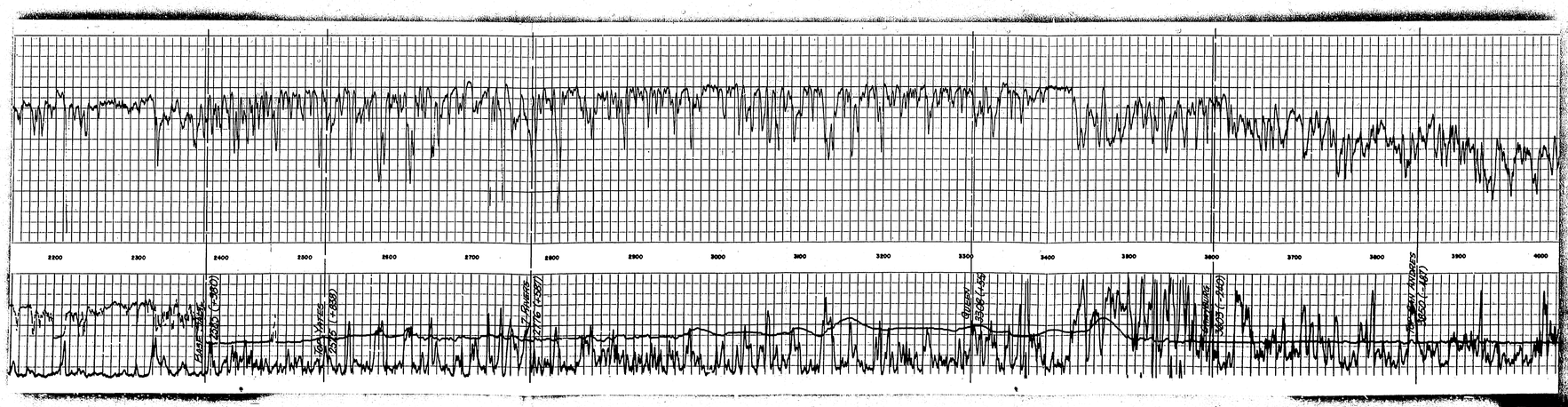

V.R.N.C.F. MICROGRAPHICS

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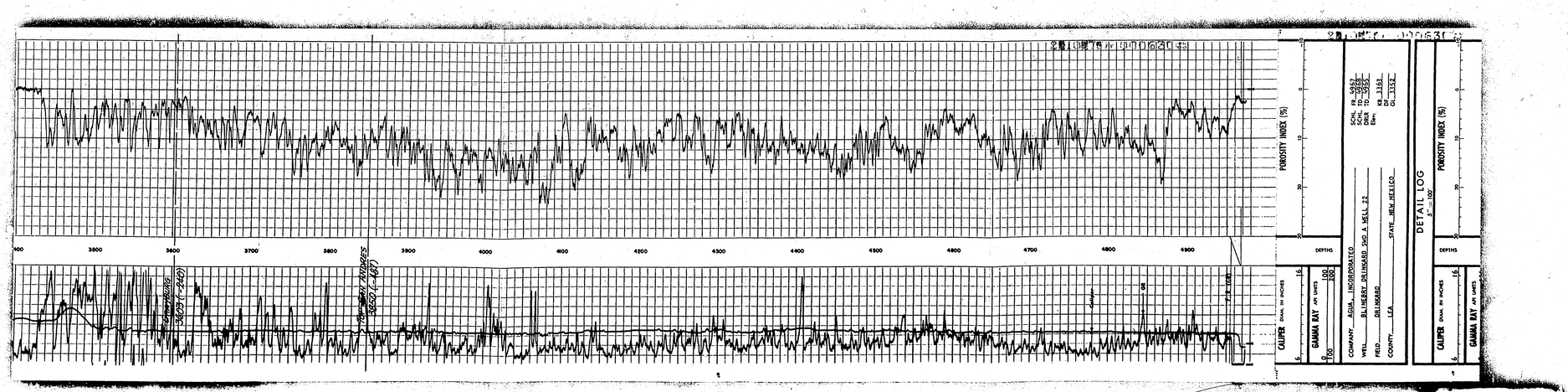
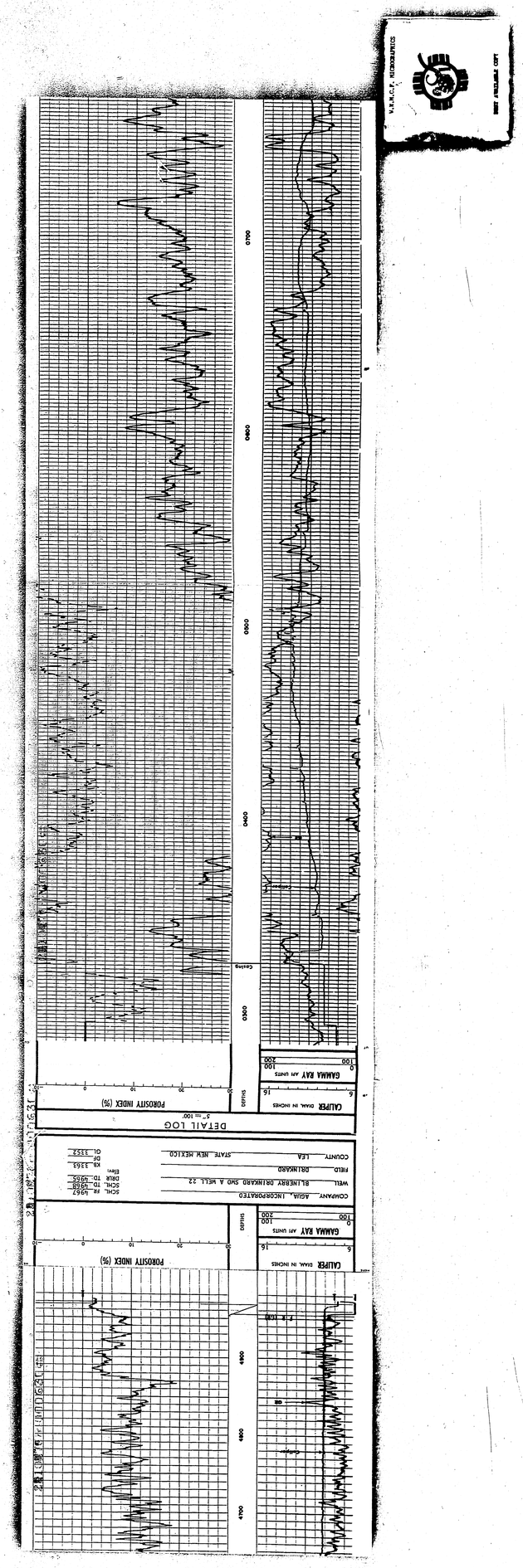
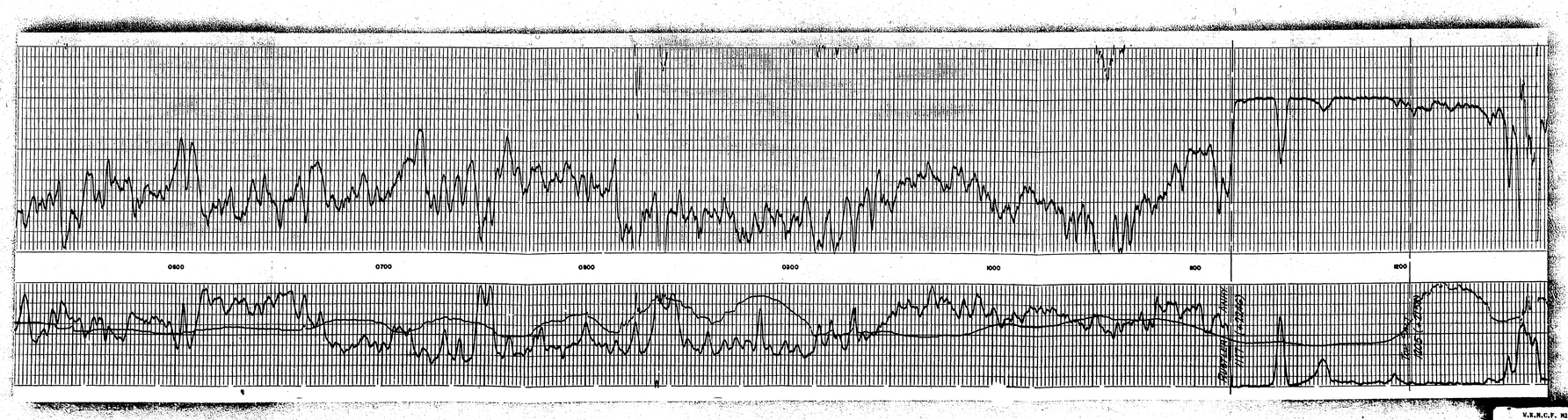


V.R.N.C.F. MICROGRAPHICS


V.R.A.C.P. MICROGRAPHICS
DETAIL LOG
5"=100'
COMPANY AGUA INCORPORATED
WELL BLINEBRY DRINKARD SWD A WELL 22
FIELD DRINKARD
COUNTY LEA STATE NEW MEXICO
SCHL. #8 3947
SCHL. TD 5960
DRLR TD 5955
Elev. KB 3363
DF
GL 3352
CALIPER DIAM. IN INCHES
GAMMA RAY API UNITS
POROSITY INDEX (%)
DEPTHS
Casing
4900
5000
5100



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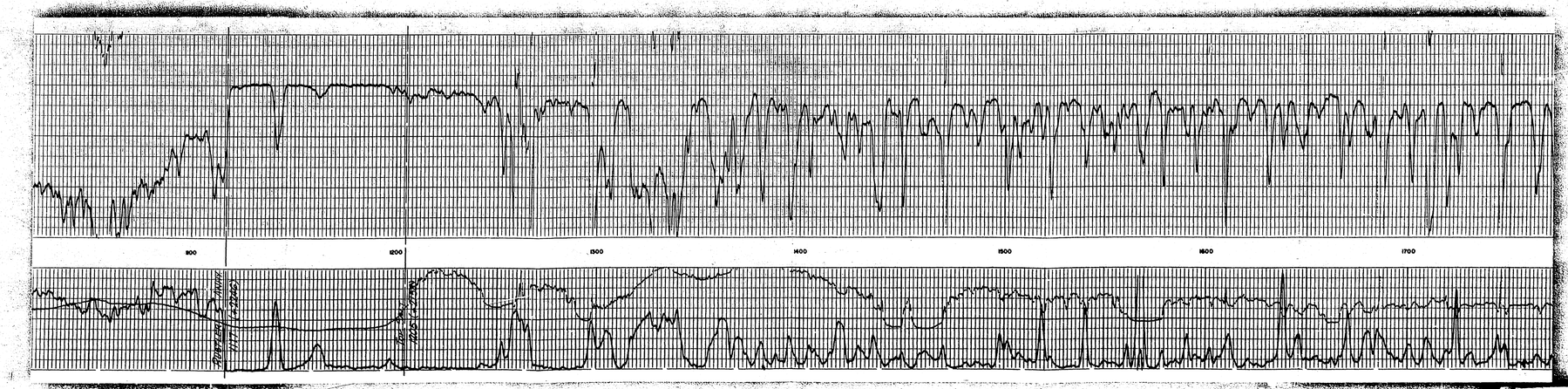

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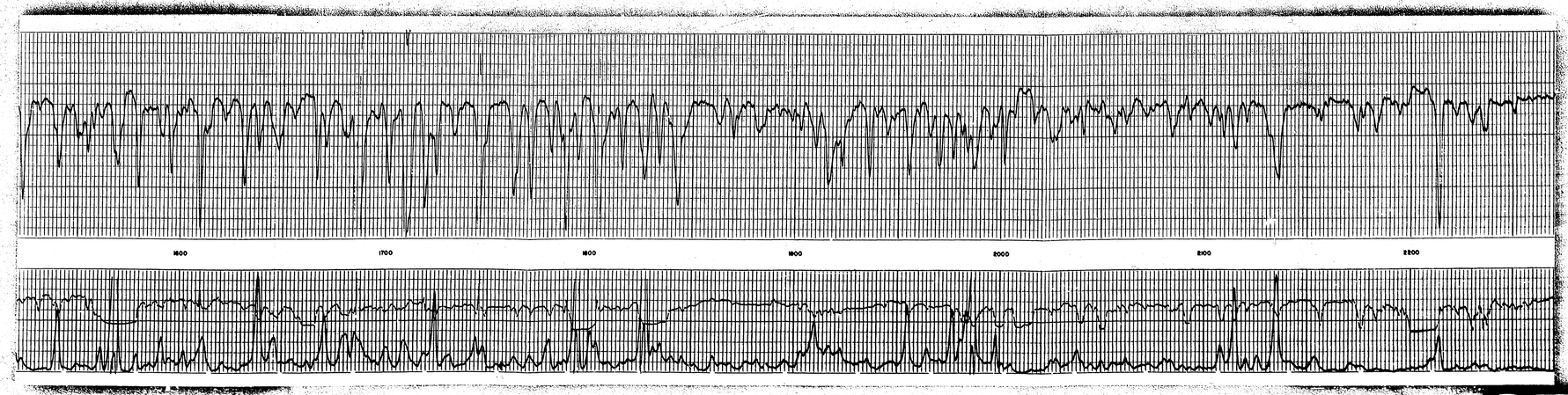

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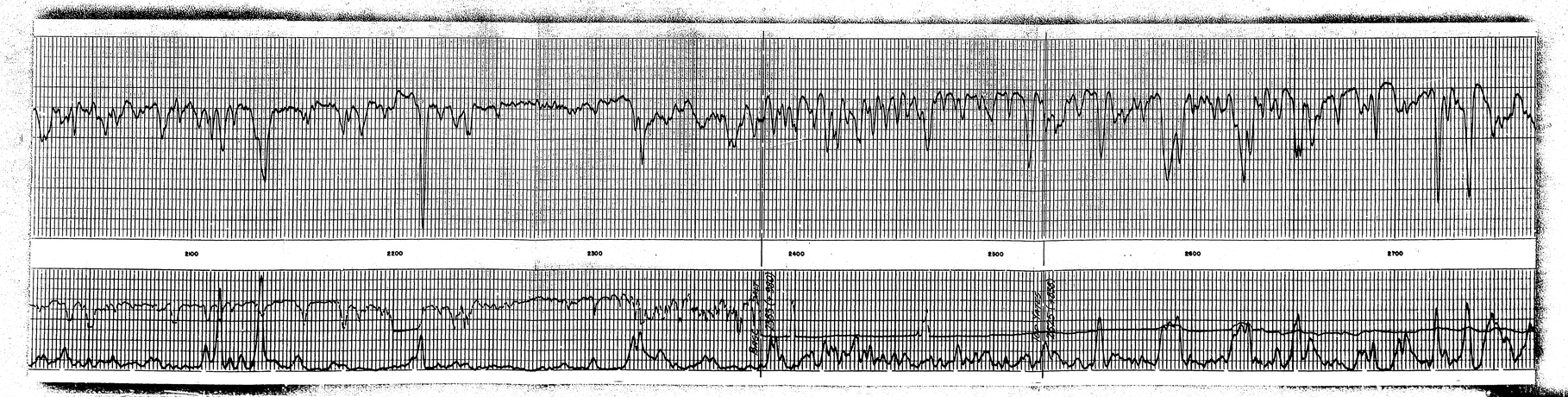

U.W.R.C.F. MICROGRAPHICS
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V.A.M.C.F. MICROGRAPHICS
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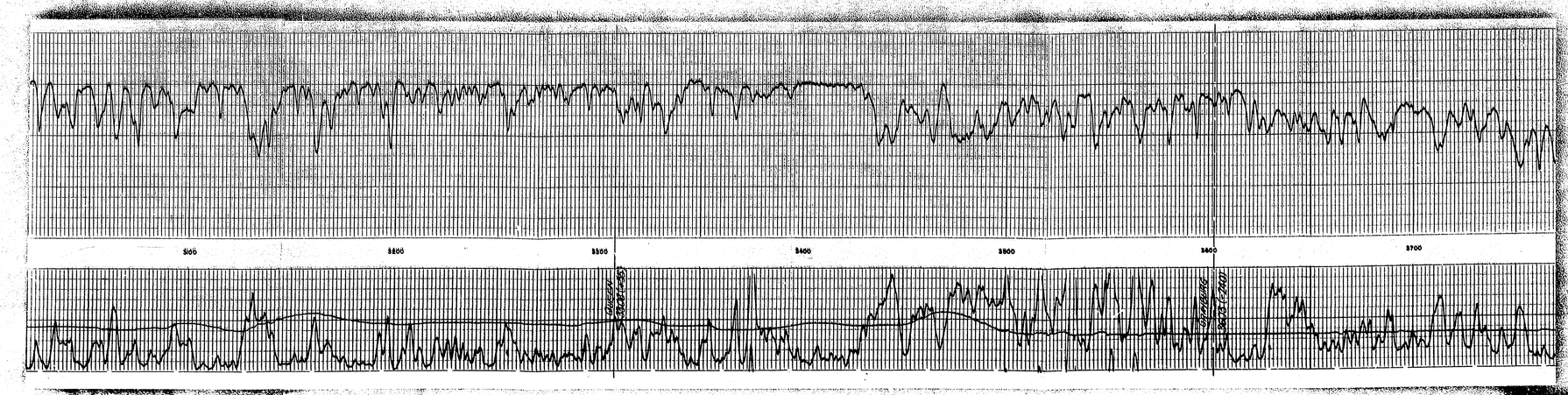

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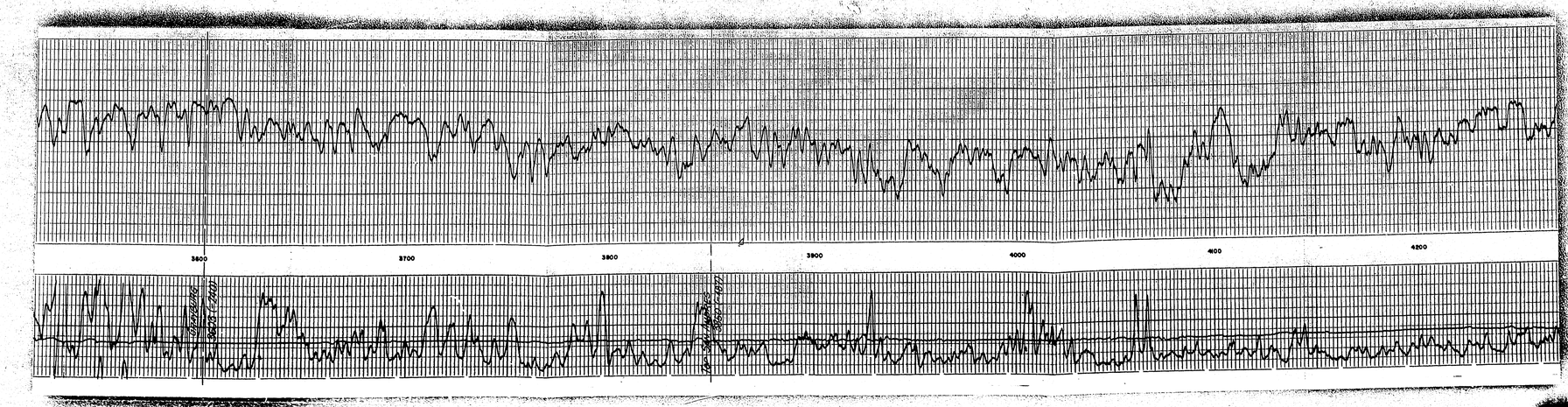
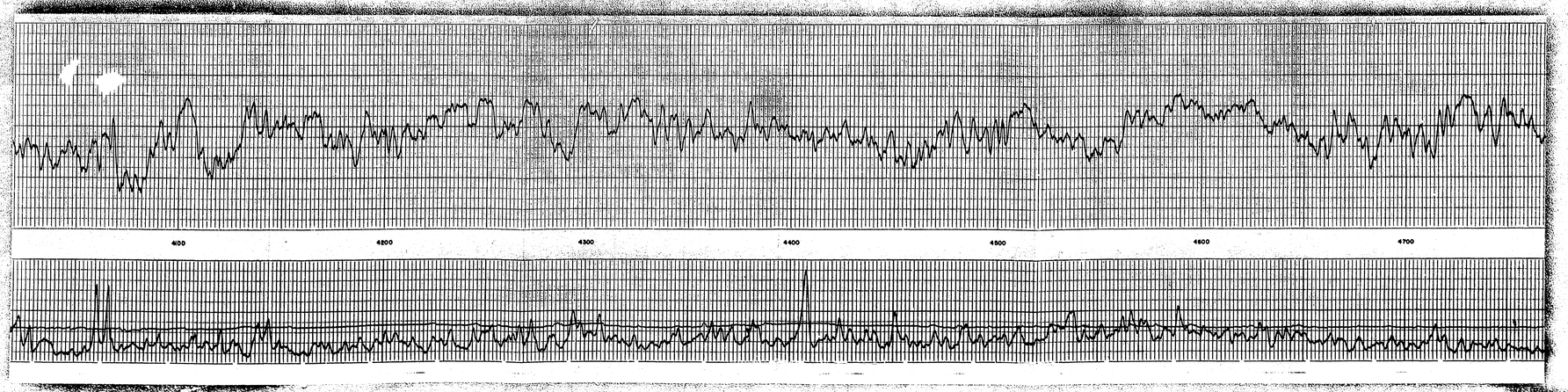


V.V.H.C.F. MICROGRAPHICS
FIRST AVAILABLE COPY



V.P.I.S.C.F. MICROGRAPHICS
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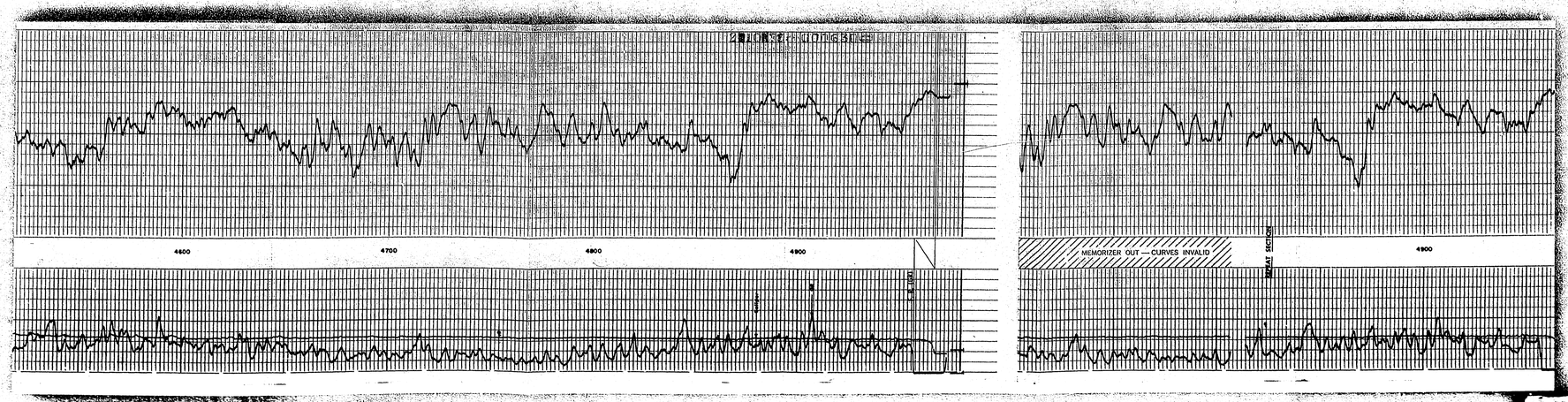
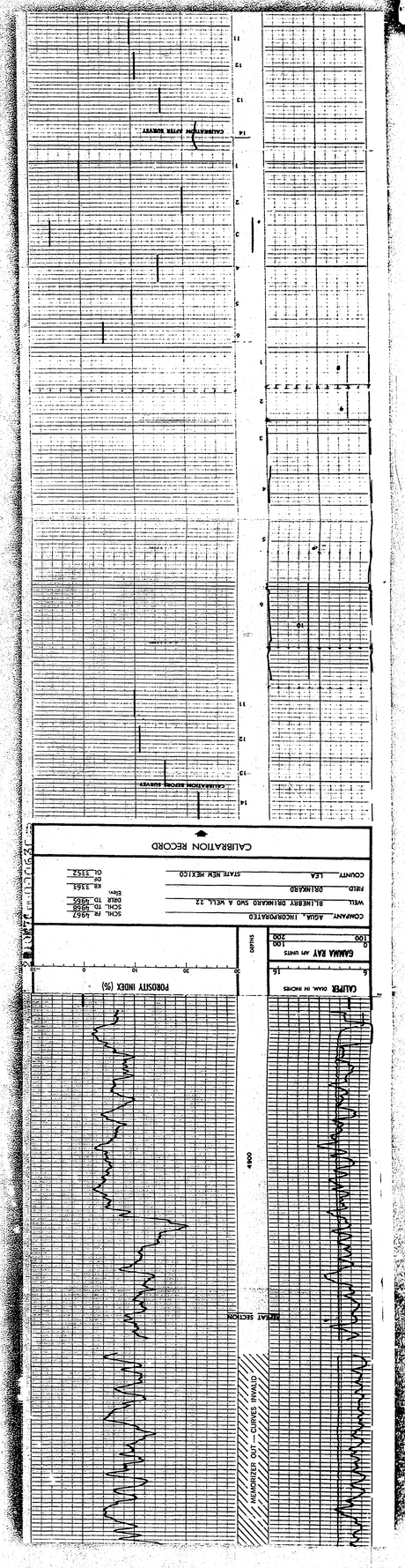
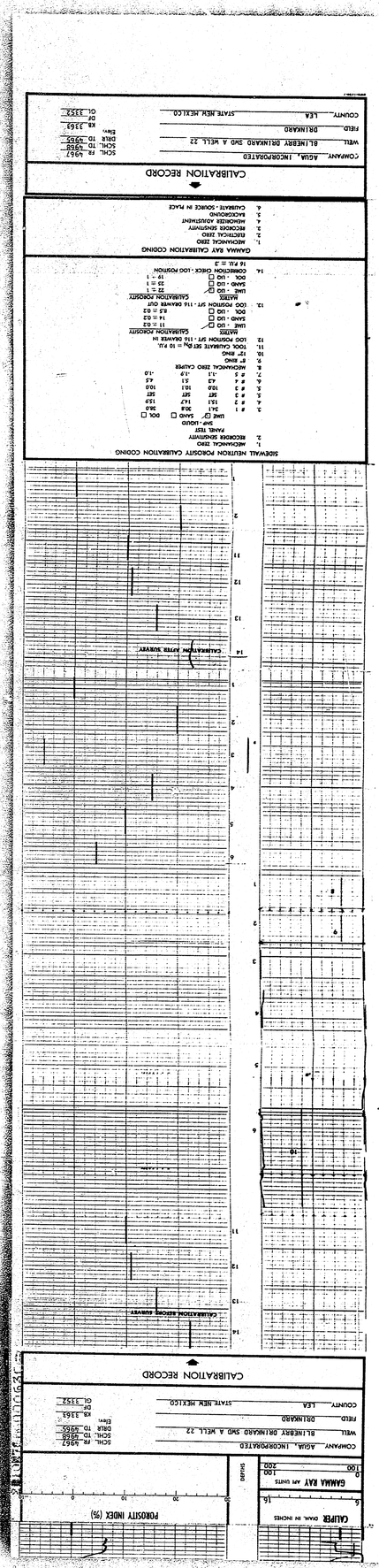
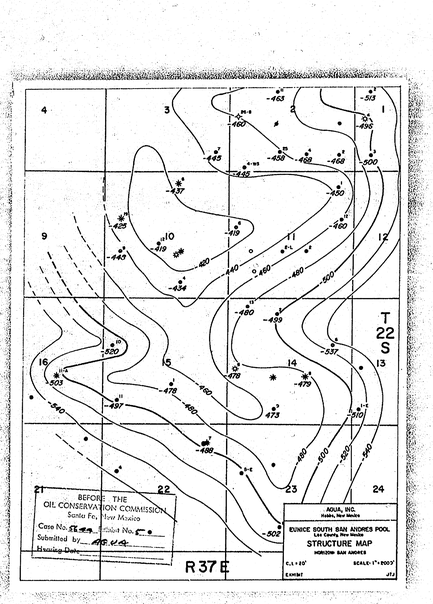


V.R.N.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

U.S.A.G.E. MICROGRAPHICS
BEST AVAILABLE COPY




CALIBRATION RECORD
COMPANY AGUA, INCORPORATED
WELL BLINEBRY DRINKARD SWD A WELL 22
FIELD DRINKARD
COUNTY LEA STATE NEW MEXICO
SCHL. FR. 4967
SCHL. TD. 5950
DRLR. TD. 5950
Elev. KB. 3363
DF
GL 3352
GAMMA RAY API UNITS
0
100
200
CALIPER DIAM. IN INCHES
6
16
SHALE
POROSITY INDEX (%)
30
20
10
0
CALIBRATION WATER SOURCE
CALIBRATION RECORD
COMPANY AGUA, INCORPORATED
WELL BLINEBRY DRINKARD SWD A WELL 22
FIELD DRINKARD
COUNTY LEA STATE NEW MEXICO
SCHL. FR. 4967
SCHL. TD. 5950
DRLR. TD. 5950
Elev. KB. 3363
DF
GL 3352
GAMMA RAY CALIBRATION CODING
1. MECHANICAL ZERO
2. RECORDED SENSITIVITY
3. BACKGROUND
4. CALIBRATE - SOURCE IN PLACE
SIDEWALL NEUTRON POROSITY CALIBRATION CODING
1. MECHANICAL ZERO
2. RECORDED SENSITIVITY
PANEL TEST
SHP - LOG/D
LIME SAND DOL
3. # 1 341 308 380
4. # 2 151 147 159
5. # 3 10.0 10.1 10.0
6. # 4 43 3.1 4.3
7. # 5 1.1 -1.9 -1.0
8. MECHANICAL ZERO CALIPER
9. RT RING
10. RT RING
11. TOOL CLEARLY SET ON = 10 P.U.
12. LOG POSITION SFT. 116 DRAWER IN
MATRIX CALIBRATION PORosITY
LIME - LOG
SAND - LOG 14 = 0.2
DOL - LOG 11 = 0.2
13. LOG POSITION SFT. 116 DRAWER OUT
MATRIX
LIME - LOG 22 = 1
SAND - LOG 22 = 1
DOL - LOG 19 = 1
14. CORRECTION CHECK - LOG POSITION
14 P.U. = 2
GAMMA RAY CALIBRATION CODING
1. MECHANICAL ZERO
2. ELECTRICAL ZERO
3. RECORDED SENSITIVITY
4. BACKGROUND
5. CALIBRATE - SOURCE IN PLACE
CALIBRATION RECORD
COMPANY AGUA, INCORPORATED
WELL BLINEBRY DRINKARD SWD A WELL 22
FIELD DRINKARD
COUNTY LEA STATE NEW MEXICO
SCHL. FR. 4967
SCHL. TD. 5950
DRLR. TD. 5950
Elev. KB. 3363
DF
GL 3352



U.N.M.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

R 36 E

R 37 E

R 38 E

T 21 S

T 22 S

T 23 S

EUNICE

- LEGEND

Gas Well
Tank Battery
Well
Dehydrator, Length & Size of Line
Junction
Pump Station
County Dirt Road
County Graded Road
County Paved Road
State Highway
Railroad

EXHIBIT "A"

LINE MAP

BLINEBRY-DRINKARD SWD SYSTEM

Lea County, New Mexico

AGUA, INC.

Hobbs, New Mexico

Scale 4" = 1 Mile

Date 5-14-71

Case No. 5144

Order No. 6

SCALE

W.N.M.C.P. MICROGRAPHICS
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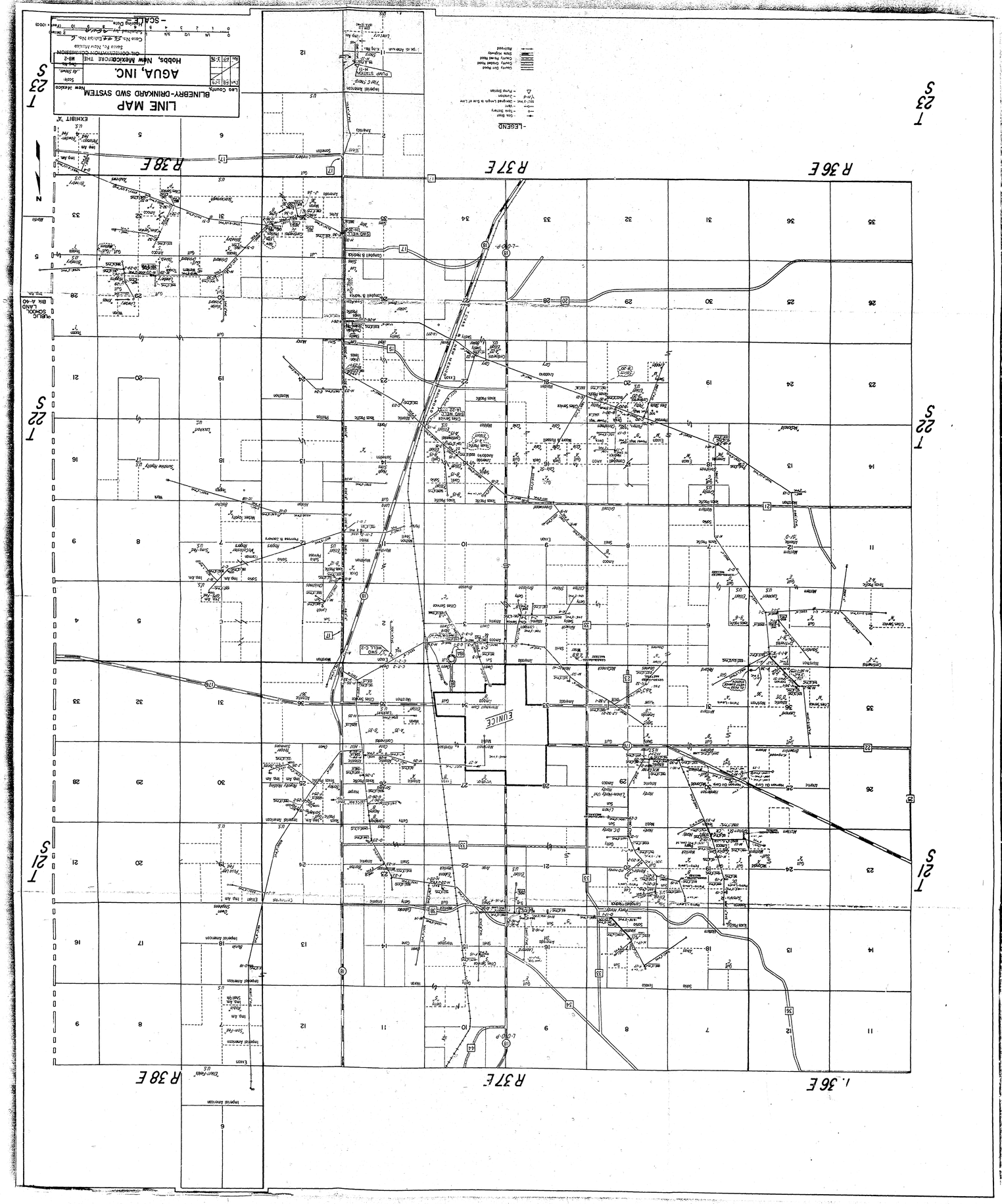
LINE MAP
BLINEBRY-DRINKARD SWD SYSTEM
Lea County, New Mexico
AGUA, INC.
Hobbs, New Mexico
SCALE
-LEGEND
R 38 E
R 37 E
R 36 E
T 23 S
T 22 S
T 21 S
EUNICE

R 36 E

R 37 E

R 38 E

T 21 S

T 22 S

T 23 S

EUNICE

LEGEND

- Gas Base
- Gas Battery
- Well
- Junction
- Pump Station
- County Dirt Road
- County Gravel Road
- County Paved Road
- State Highway
- Railroad

LINE MAP

BLINEBRY-DRINKARD SWD SYSTEM

Lea County, New Mexico

AGUA, INC.

Hobbs, New Mexico

Case No. 5849 Exhibit No. 6

Scale: AGUA

Magnetic North

SCALE

EXHIBIT "A"

PUBLIC SCHOOL LAND Dtr. A-40 Unp. Am.

U.N.M.C.F. MICROGRAPHICS

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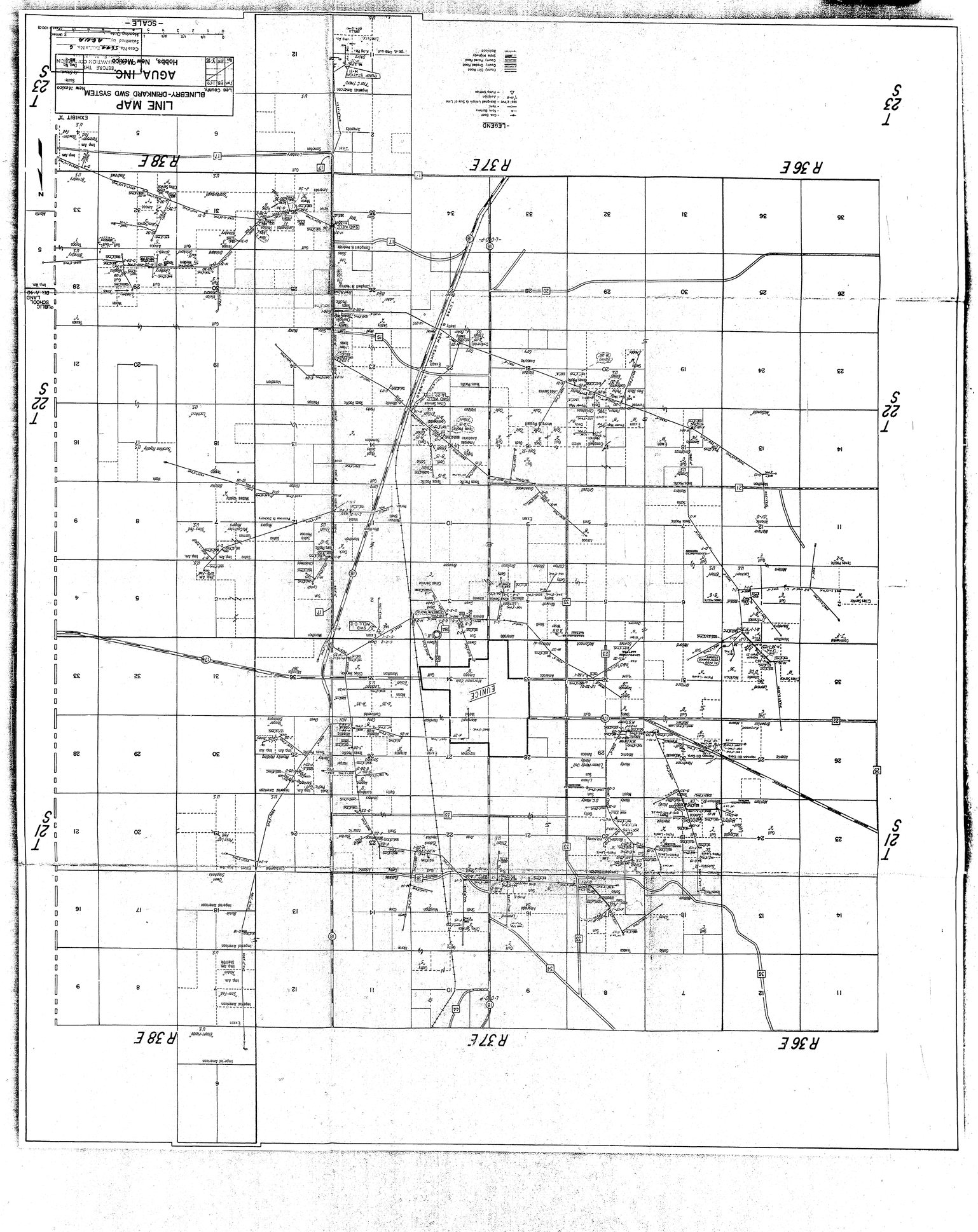
LINE MAP
BLINEBERY-DRINKARD SWD SYSTEM
AGUA INC
Hobbs, New Mexico
- SCALE -
- LEGEND -
R 36 E
R 37 E
R 38 E
T 23 S
T 22 S
T 21 S
EUNICE

R 36 E

R 37 E

R 38 E

T 21 S

T 22 S

T 23 S

EUNICE

LEGEND

- Gas Well
- Tank Battery
- Well
- Designed Length & Size of Line
- Junction
- Pump Station
- County Dirt Road
- County Graded Road
- County Paved Road
- State Highway
- Railroad

LINE MAP

BLINEBRY-DRINKARD SWD SYSTEM

Lea County, New Mexico

AGUA, INC.

Hobbs, New Mexico

EXHIBIT "X"

Case No. 5199 Exhibit No. 6

Submitted by AGUA, INC.

Hearing Date March 10, 1971

PUBLIC SCHOOL LAND Blk A-40

V.R.M.C.F. MICROGRAPHICS

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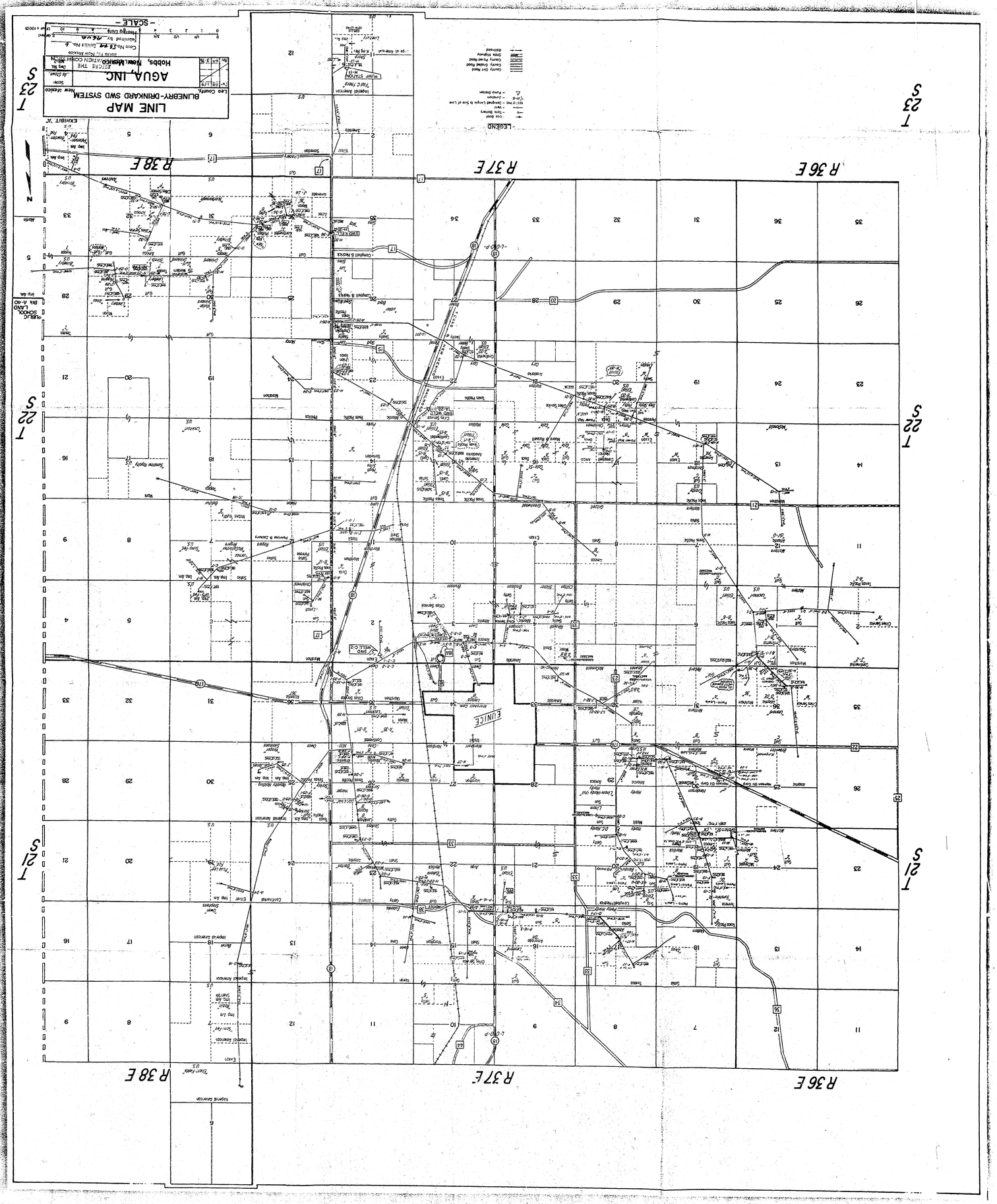
LINE MAP
BLUEBERRY-DRINKARD SWD SYSTEM
Lea County, New Mexico
AGUA, INC.
Hobbs, New Mexico
EXHIBIT "A"
- SCALE -
LEGEND
T 23 S
T 22 S
T 21 S
R 38 E
R 37 E
R 36 E
EUNICE
HOBBS
LOVING
Public School Land Blk A-40