

EXHIBIT 3 RESERVOIR DATA SOUTH KNOWLES FIELD LEA COUNTY, NEW MEXICO

Number of Wells Cored and Analyzed	4
Total Feet of Permeable Formation Analyzed	107
Permeability, 0 to 440 millidarcys, average	19.9
Porosity, 0.7 to 11.4 percent of bulk volume, average	4.1
Average Residual Oil Saturation, percent of pore space	8.1
Average Water Saturation, percent of pore space	50.9
Productive Thickness, percent of gross section (1)	25
Original Measured Reservoir Pressure, psig @ 8450 feet subsea (2)	4902
Saturation Pressure, psig	1188
Solution Gas (Oil) Ratio, cubic feet per barrel residual oil	870
Reservoir Oil Viscosity, centipoises @ 100°F, 4900 psig	0.18
Formation Volume Factor, barrels reservoir per barrel residual	1.187
Estimated Connate Water Saturation, percent of pore space	21

- (1) Section having over 1 millidarcy permeability, from analysis of entire section in Wilhoit #1.
(2) 16 hour shut in - no change in test 8 hours.

Case No.

819

Large Exhibits

EXHIBIT 4 WELL DATA SOUTH KNOWLES FIELD LEA COUNTY, NEW MEXICO

Operator, Lease, Well Number	Completion Date	Total Depth (feet subsea)	Completion Depth (feet subsea)
John L. Hamon and Warren Petroleum Corp., Federal Davis #1	9-54	12,174	8449-8476
John L. Hamon and Warren Petroleum Corp., Federal Davis #2	1-55	12,290	8106-8518
John L. Hamon and Warren Petroleum Corp., D. Wilhoit #1	9-54	12,554	8419-8500
John L. Hamon and Warren Petroleum Corp., F. Holloway #1	9-54	12,813	8470-8507
John L. Hamon and Warren Petroleum Corp., J. G. Cox #1	11-54	12,417	8487-8512
John L. Hamon and Warren Petroleum Corp., R. K. Goss #1	12-54	12,418	8497-8517
Gulf Oil Corp., R. K. Goss #1	12-54	12,151	8447-8493

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EXHIBIT 6 NORTH-SOUTH CROSS SECTION

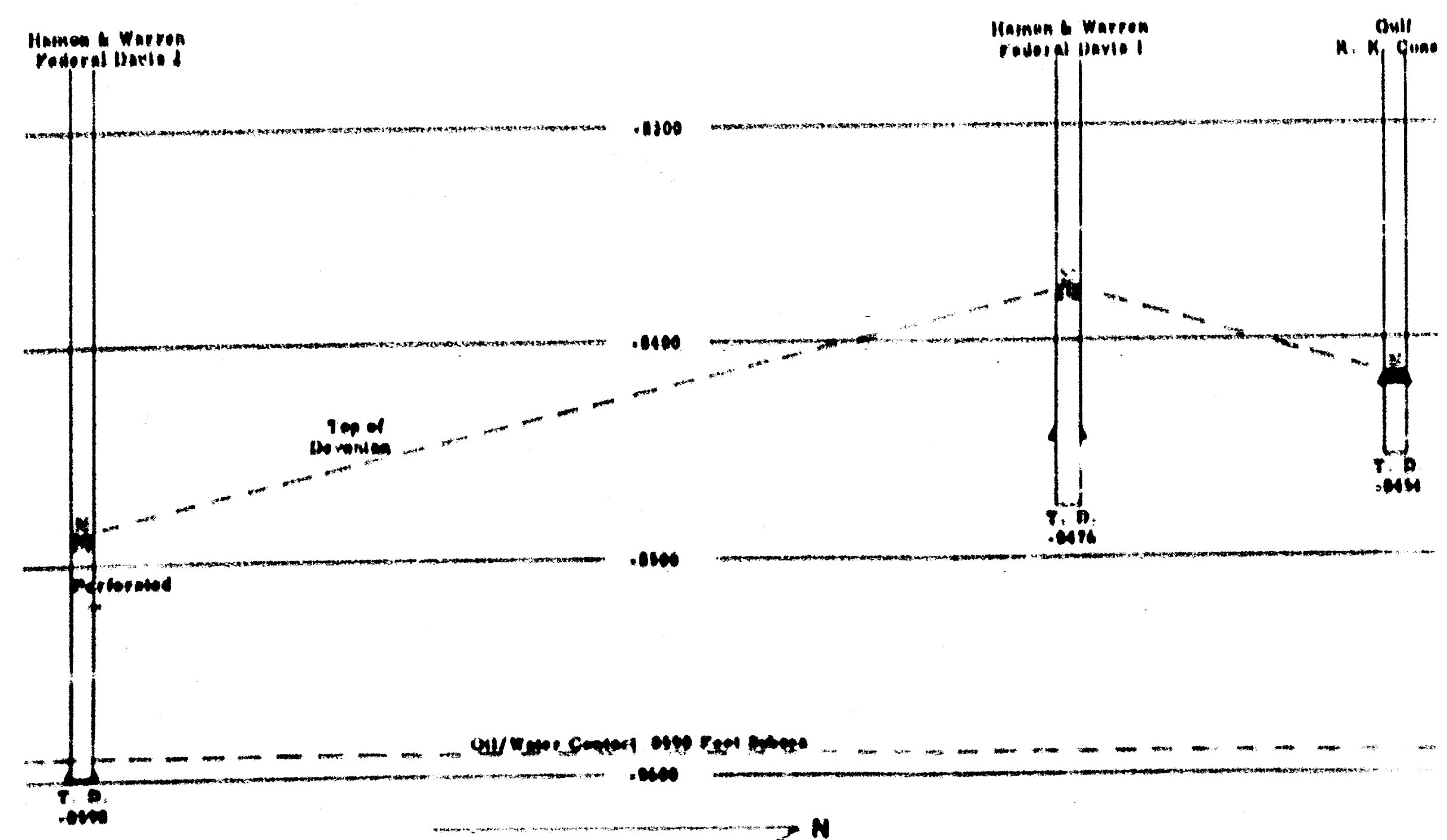


EXHIBIT 7 PRODUCTION HISTORY SOUTH KNOWLES FIELD LEA COUNTY, NEW MEXICO

DATE	Number of Wells	Oil Production, Barrels Daily	Summation
1954 May	1	90	2,790
June	1	285	11,291
July	1	850	15,447
August	1	870	81,889
September	3	600	46,400
October	3	850	71,901
November	4	904	96,083
December	5	177	189,106

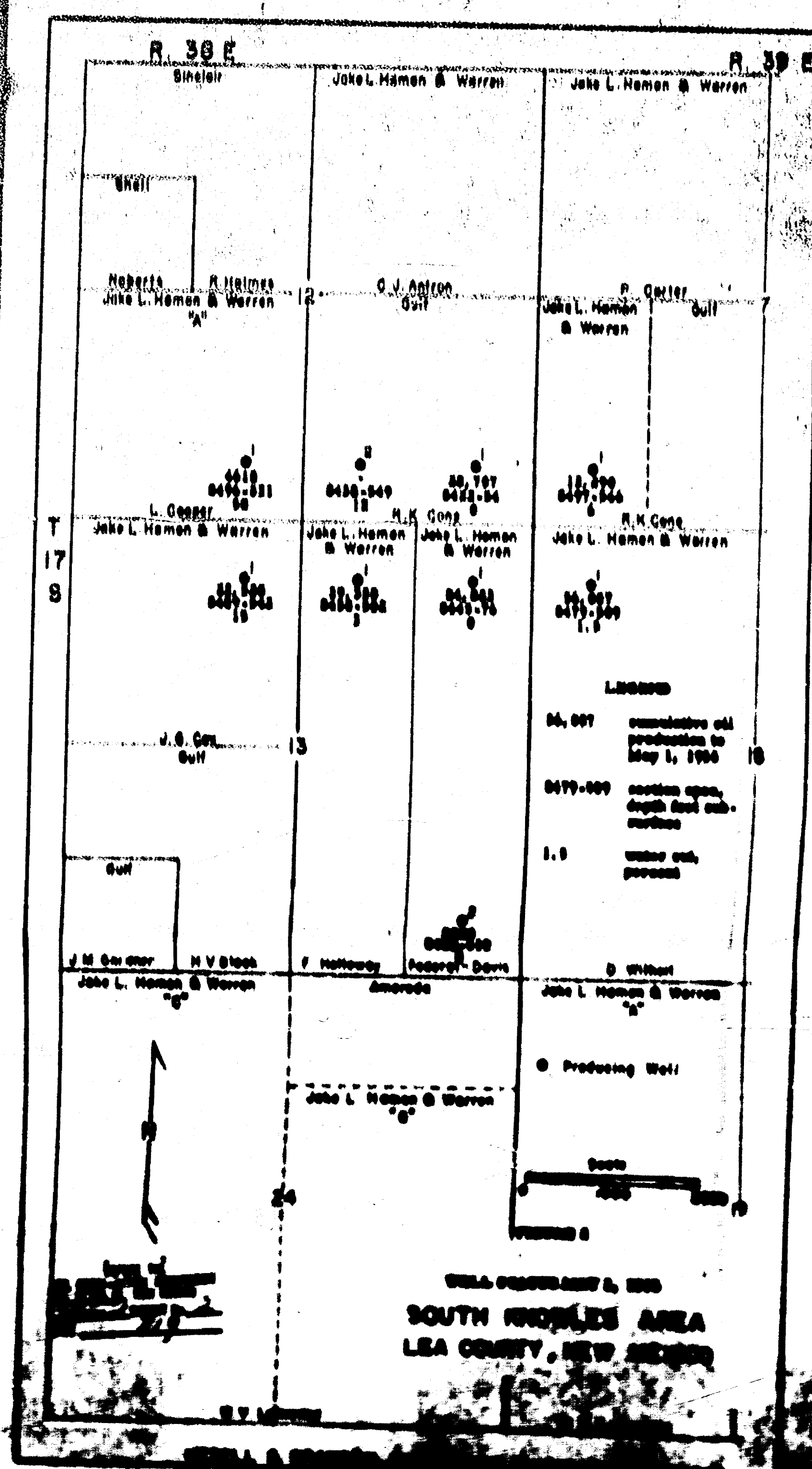
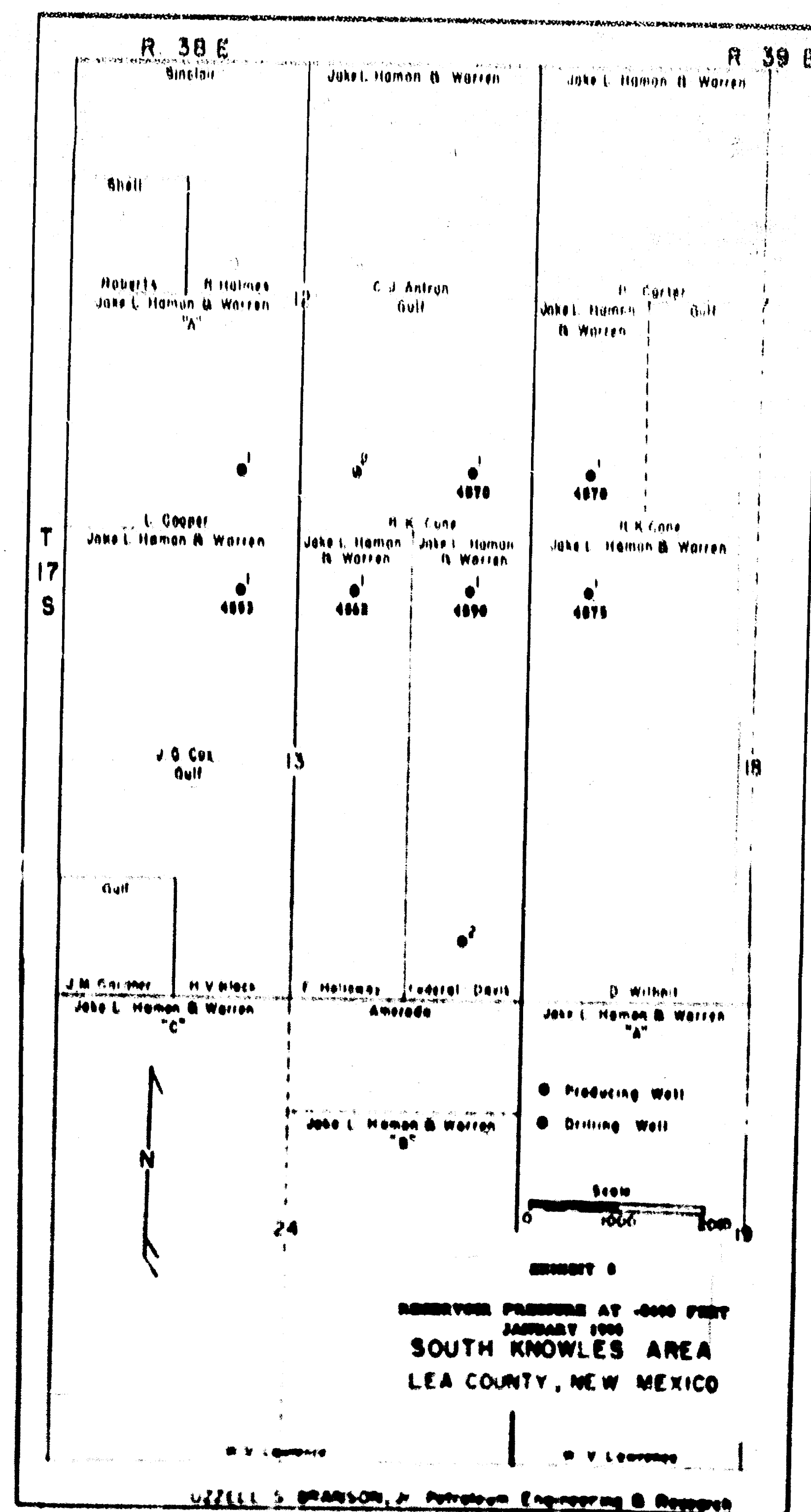
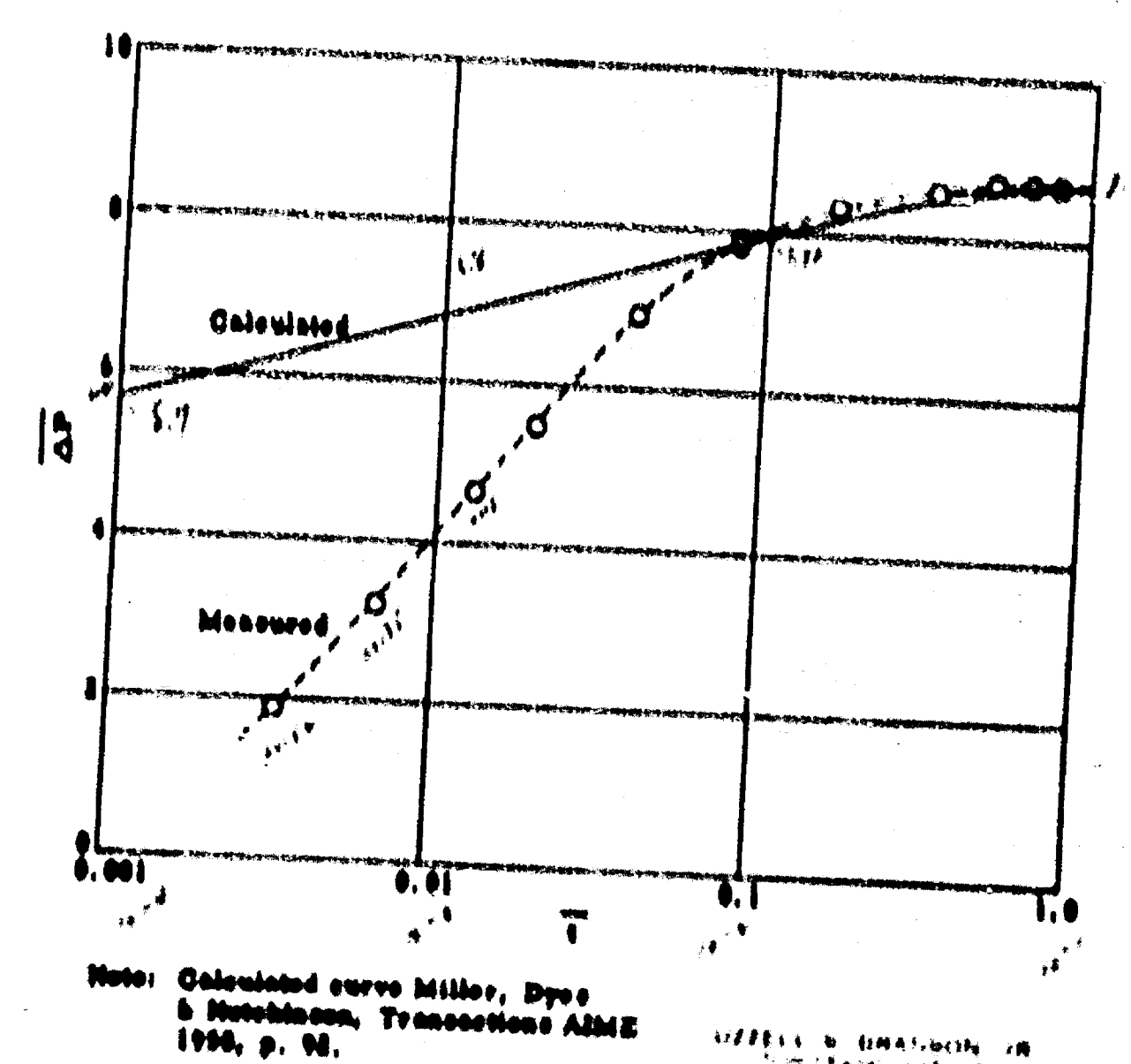


EXHIBIT 9 PRESSURE BUILD UP FEDERAL DAVIS #1 SOUTH KNOWLES FIELD LEA COUNTY, NEW MEXICO



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SCHLUMBERGER WELL SURVEYING CORPORATION

COMPANY JAKE L. HANON Location of Well
WELL R.T. LAWRENCE A #1 660' F 540' L
FIELD S. KNOWLES 500.13-175-398
LOCATION SEC. 19-175-398
COUNTY LEA
STATE NEW MEXICO
Elevation D.P. 3687
FILMED No.

DATE 1-1-55
TIME 10:00 AM
BY J. L. HANON
CHECKED BY J. L. HANON

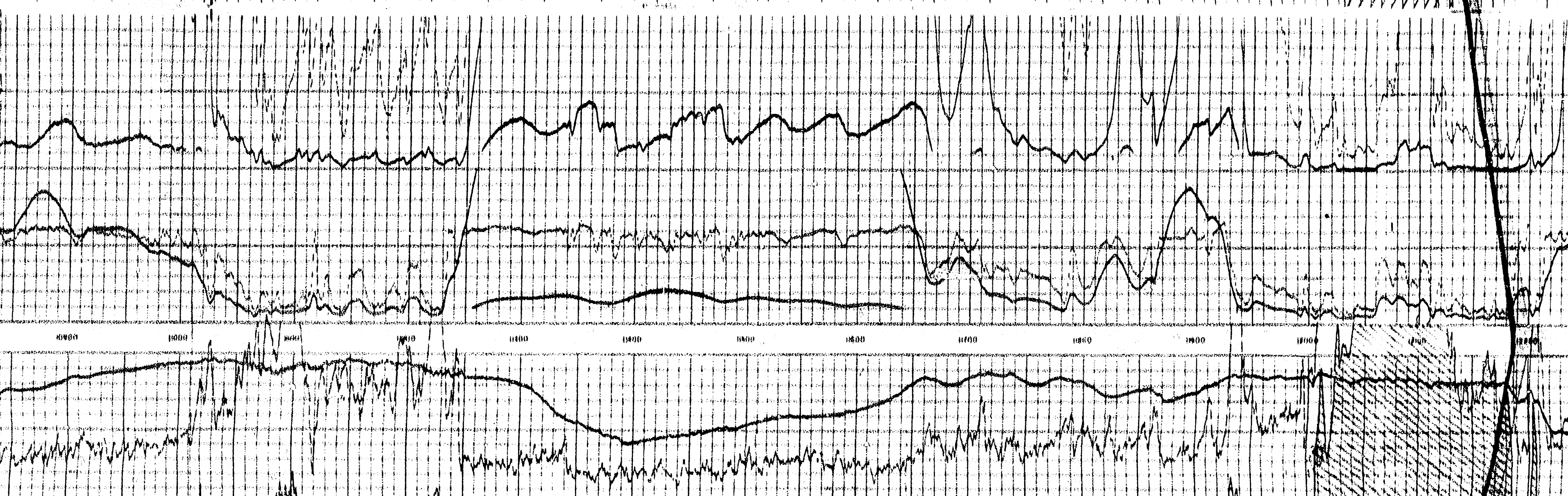


RESISTIVITY ohms m	1000	500	200	100	50	20	10	5	2	1	0.5	0.2	0.1	0.05	0.02	0.01
RESISTIVITY ohms m	1000	500	200	100	50	20	10	5	2	1	0.5	0.2	0.1	0.05	0.02	0.01
SPONTANEOUS POTENTIAL mv	100	50	20	10	5	2	1	0.5	0.2	0.1	0.05	0.02	0.01	0.005	0.002	0.001

SCHLUMBERGER WELL SURVEYING CORPORATION

COMPANY JAKE L. HANON Location of Well
WELL FEDERAL OILS #2 660' F 540' L
FIELD S. KNOWLES DEYUNIAN 500.13-175-398
LOCATION SEC. 13-175-398
COUNTY LEA
STATE NEW MEXICO
Elevation D.P. 3687
FILMED No.

DATE 1-1-55
TIME 10:00 AM
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SCHLUMBERGER WELL SURVEYING CORPORATION

COMPANY JAKE L. HANON Location of Well
WELL FANNIE HOLLWAY #2 660' F 540' L
FIELD S. KNOWLES DEY. 500.13-175-398
LOCATION SEC. 13-175-398
COUNTY LEA
STATE NEW MEXICO
Elevation D.P. 3687
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DATE 1-1-55
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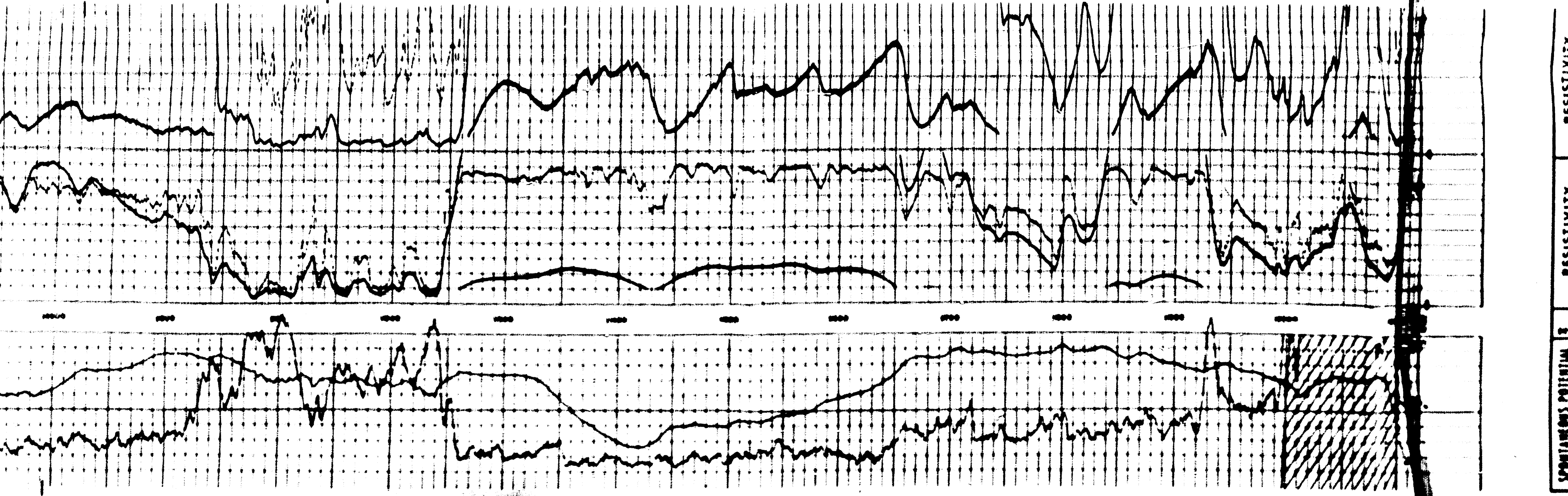


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SPONTANEOUS POTENTIAL mv	100	50	20	10	5	2	1	0.5	0.2	0.1	0.05	0.02	0.01	0.005	0.002	0.001

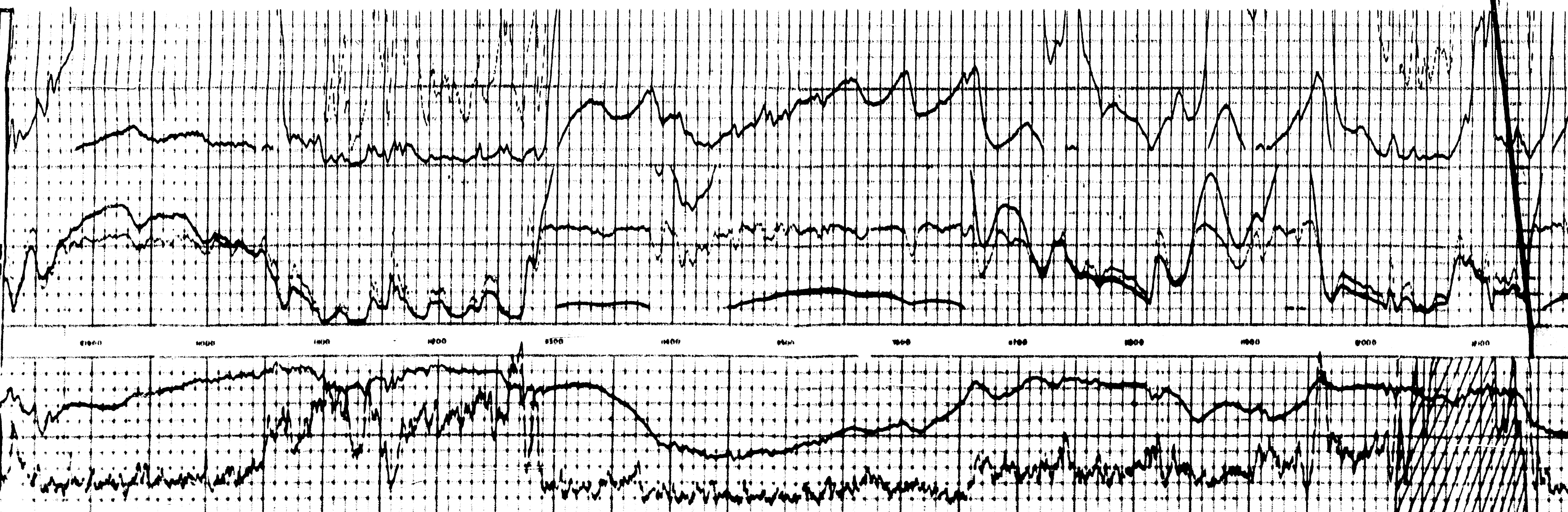
SCHLUMBERGER WELL SURVEYING CORPORATION

COMPANY J.C. WILLIAMSON Location of Well
WELL AMARSA HARDEN #1 660' F 540' L
FIELD S. KNOWLES 500.24-175-398
LOCATION SEC. 24-175-398
COUNTY LEA
STATE NEW MEXICO
Elevation D.P. 3687
FILMED No.

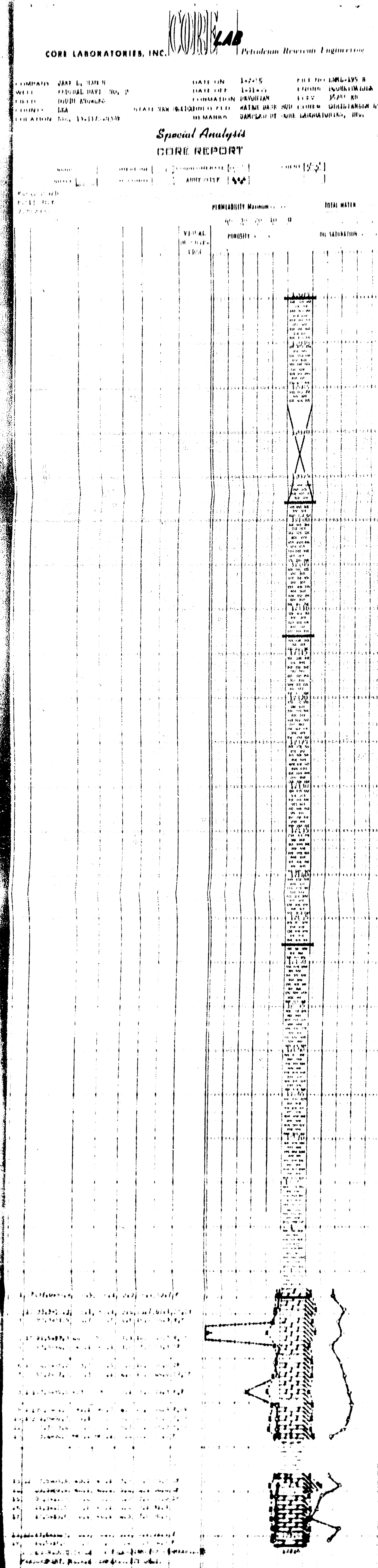
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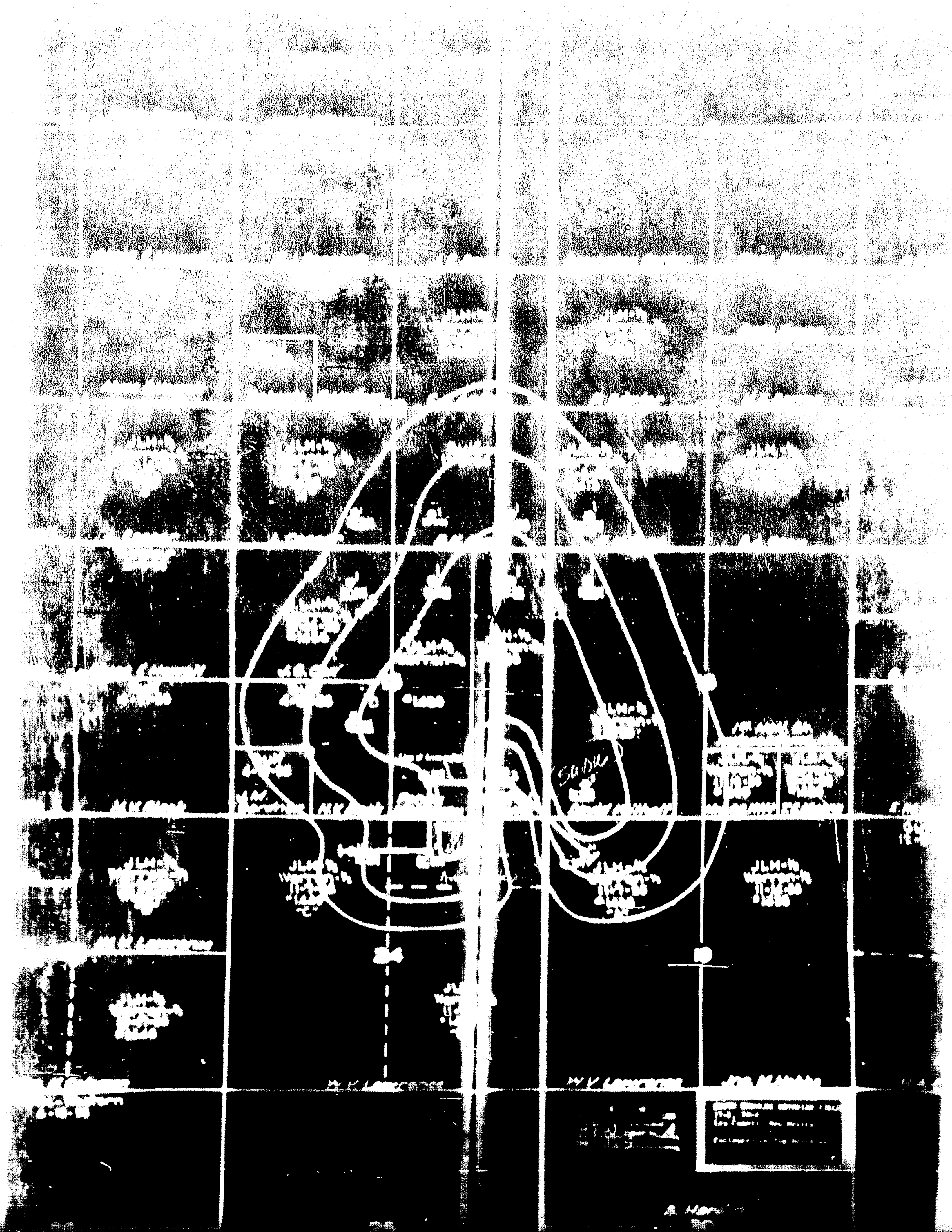


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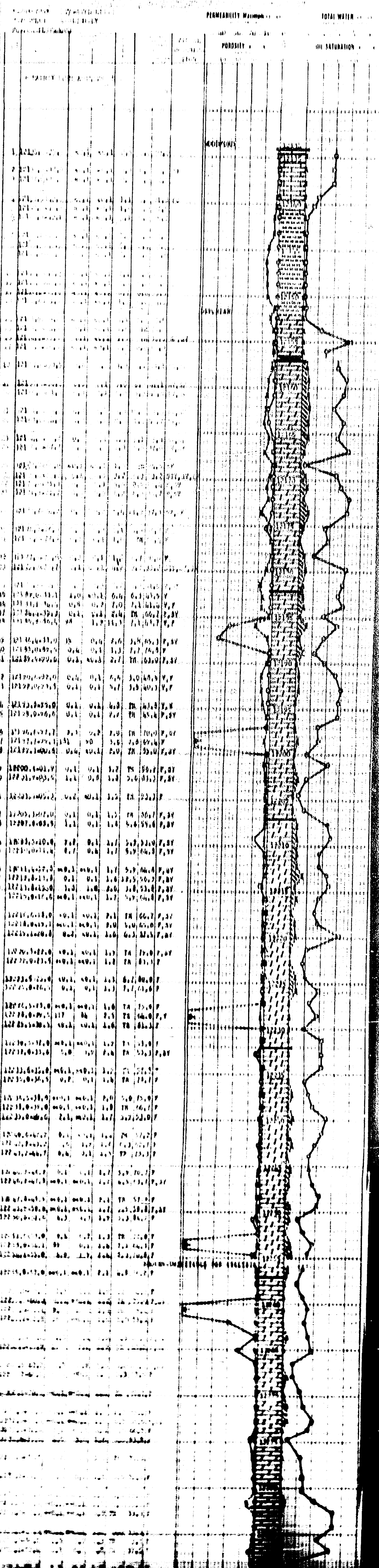
SPERMATOPHYTES POTENTIAL	DEPTH	RESISTIVITY	RESISTIVITY
millivolts	ft	ohm. m ² /in	ohm. m ² /in
	0	10' LATERAL	10' LATERAL
	10	2000	2000
	20	2000	2000
	100	2000	2000
	0	10' LATERAL	10' LATERAL
	10	2000	2000





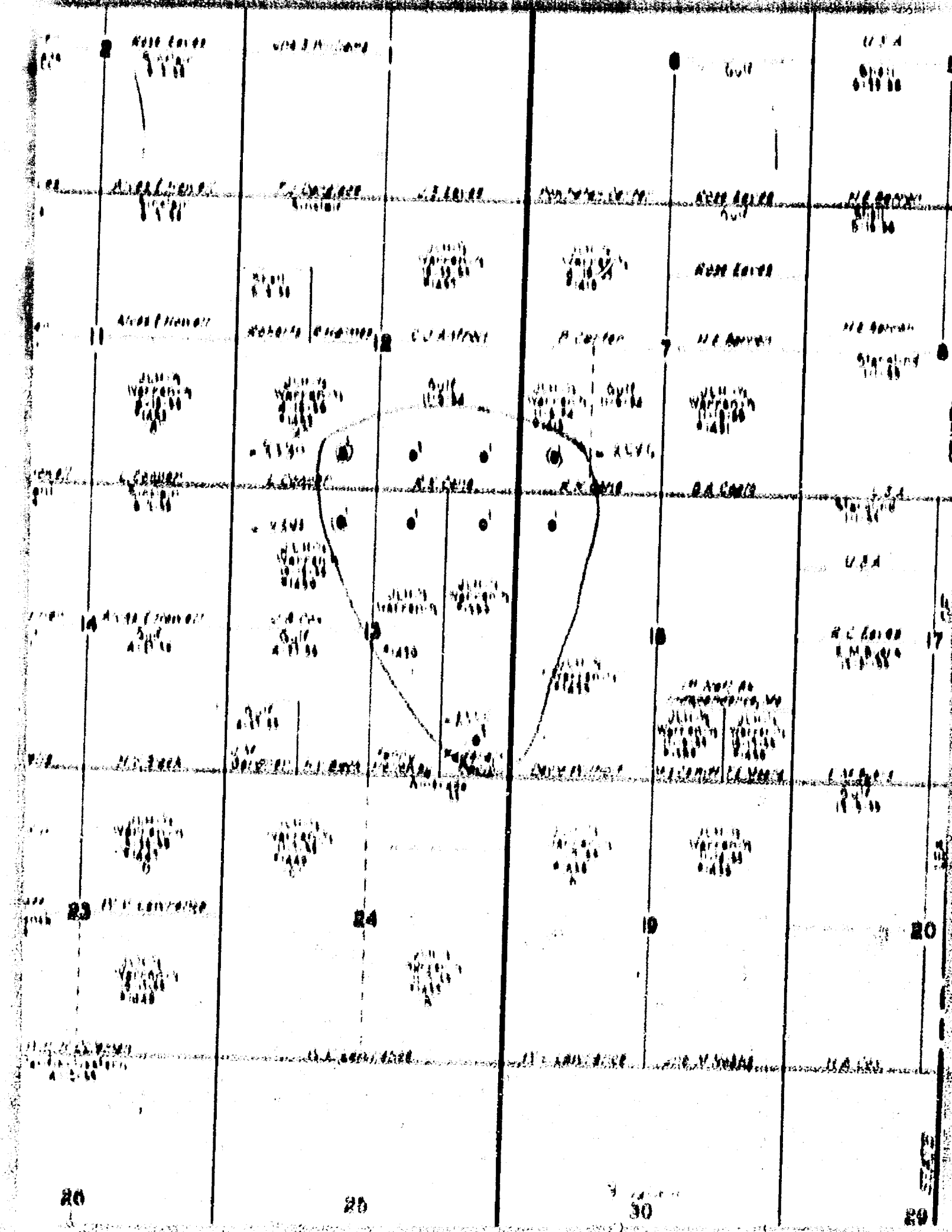
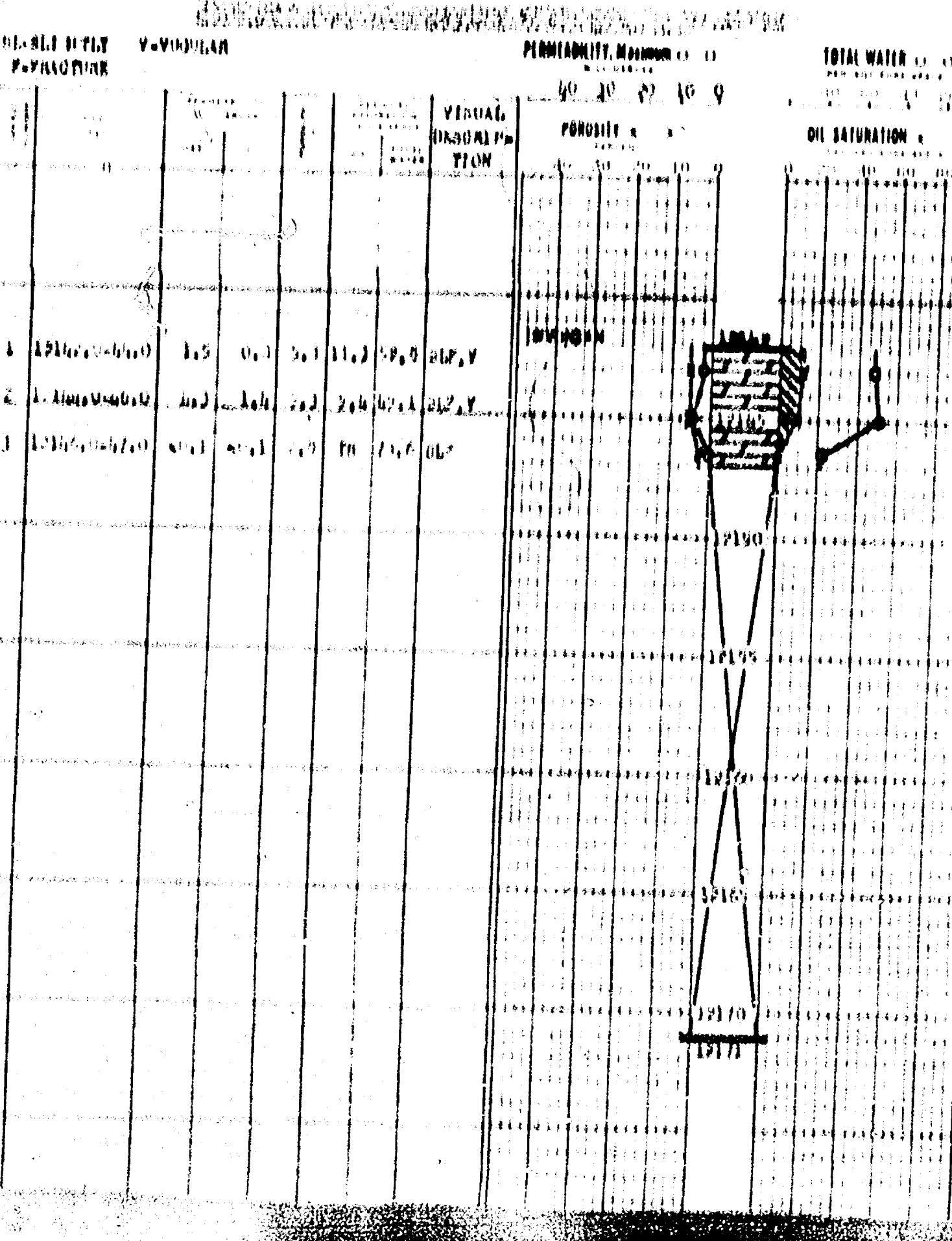
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WELL: 1-1-55
FIELD: 1-1-55
COUNTY: 1-1-55
LOCATION: 1-1-55

Special Analysis
CORE REPORT



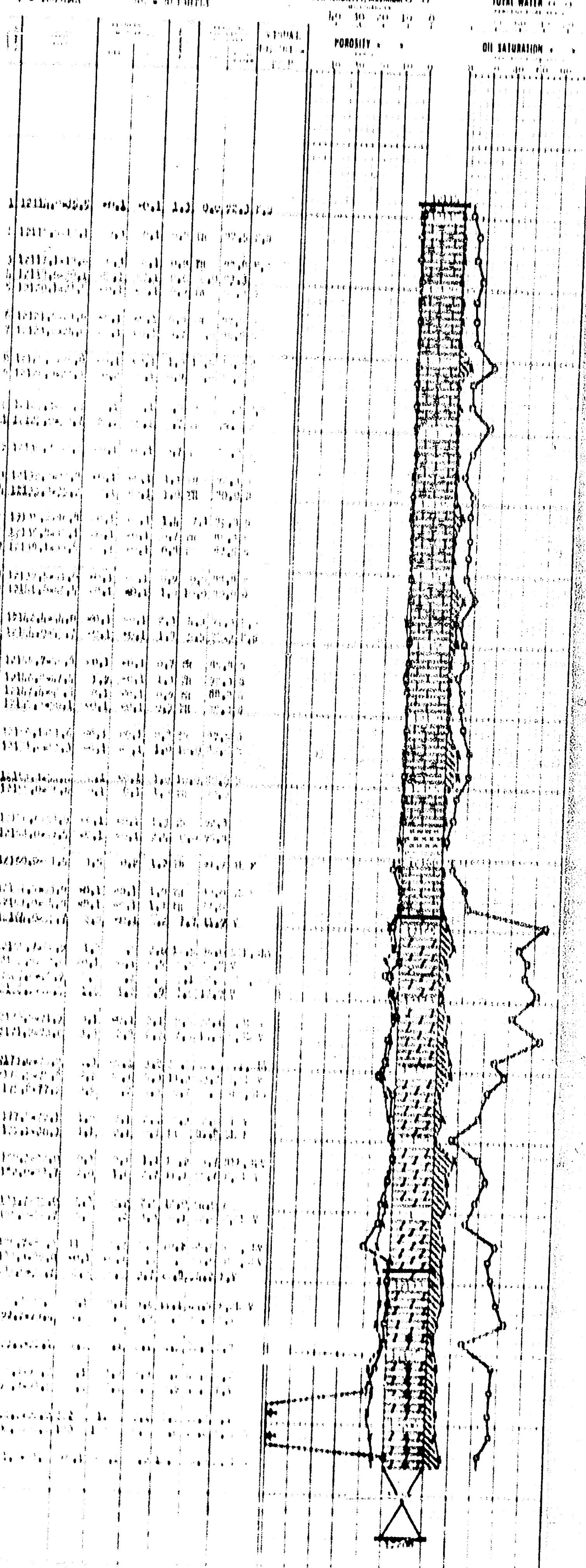
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COUNTY: 1-1-55
LOCATION: 1-1-55

Special Analysis
CORE REPORT



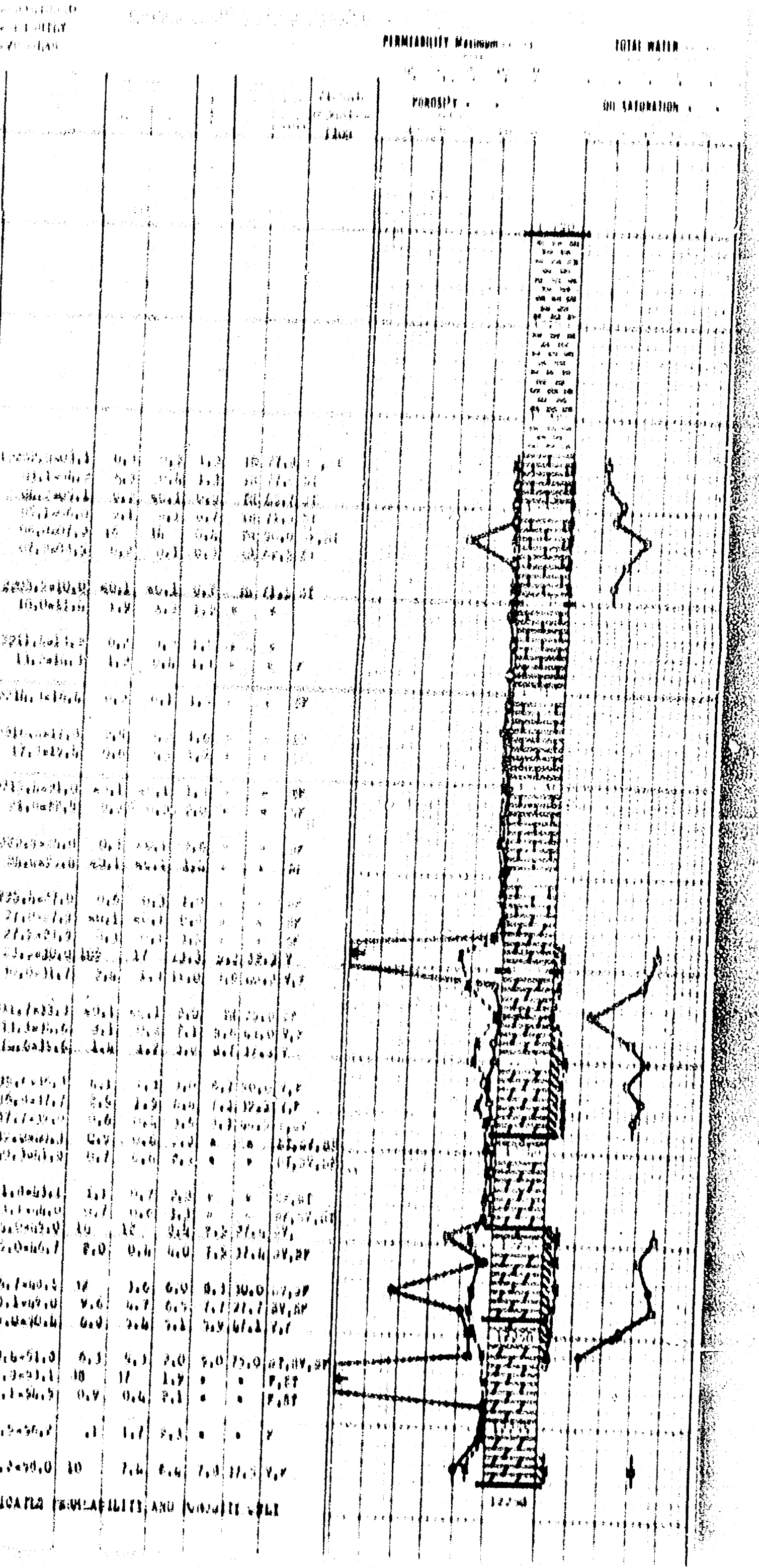
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COUNTY: 1-1-55
LOCATION: 1-1-55

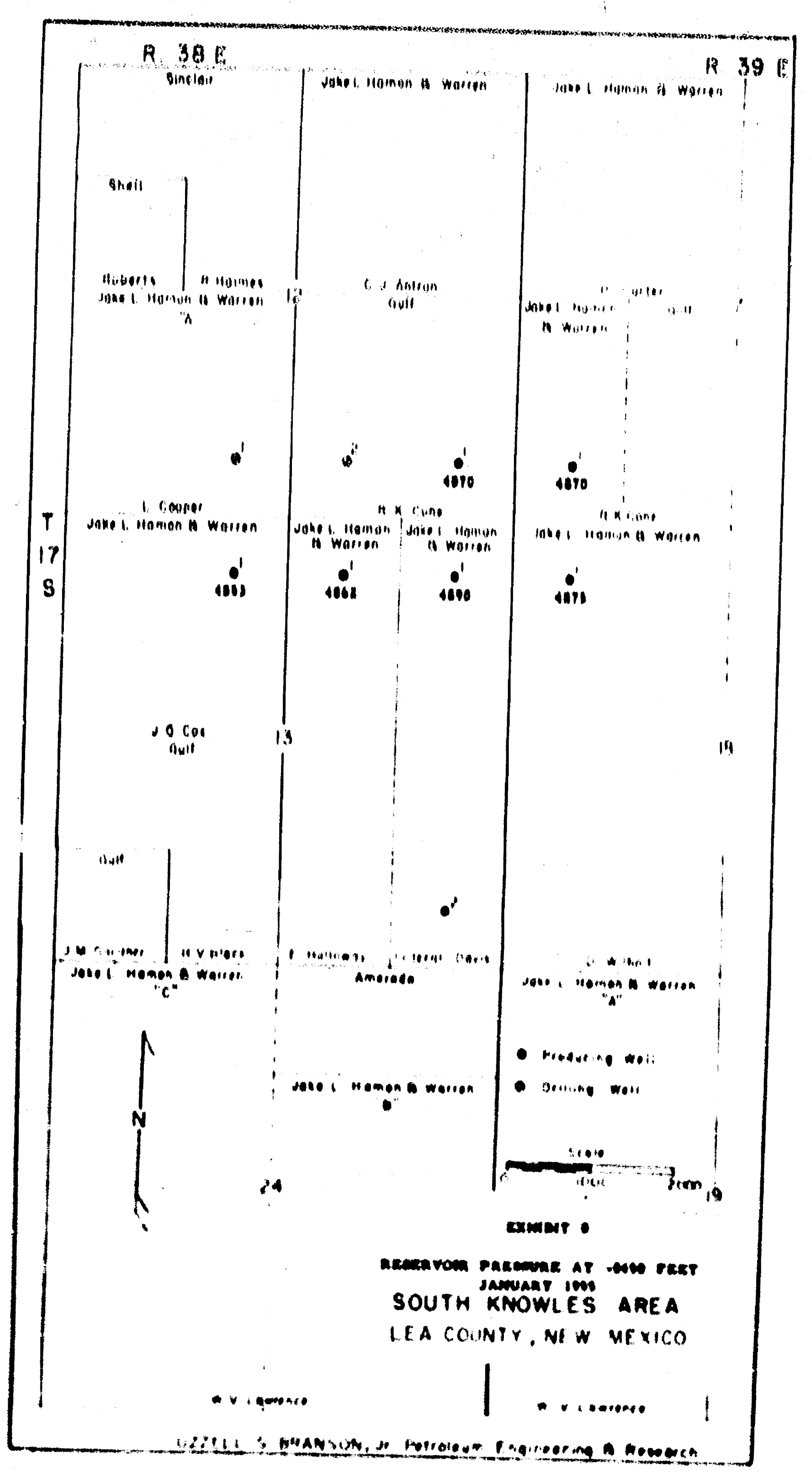
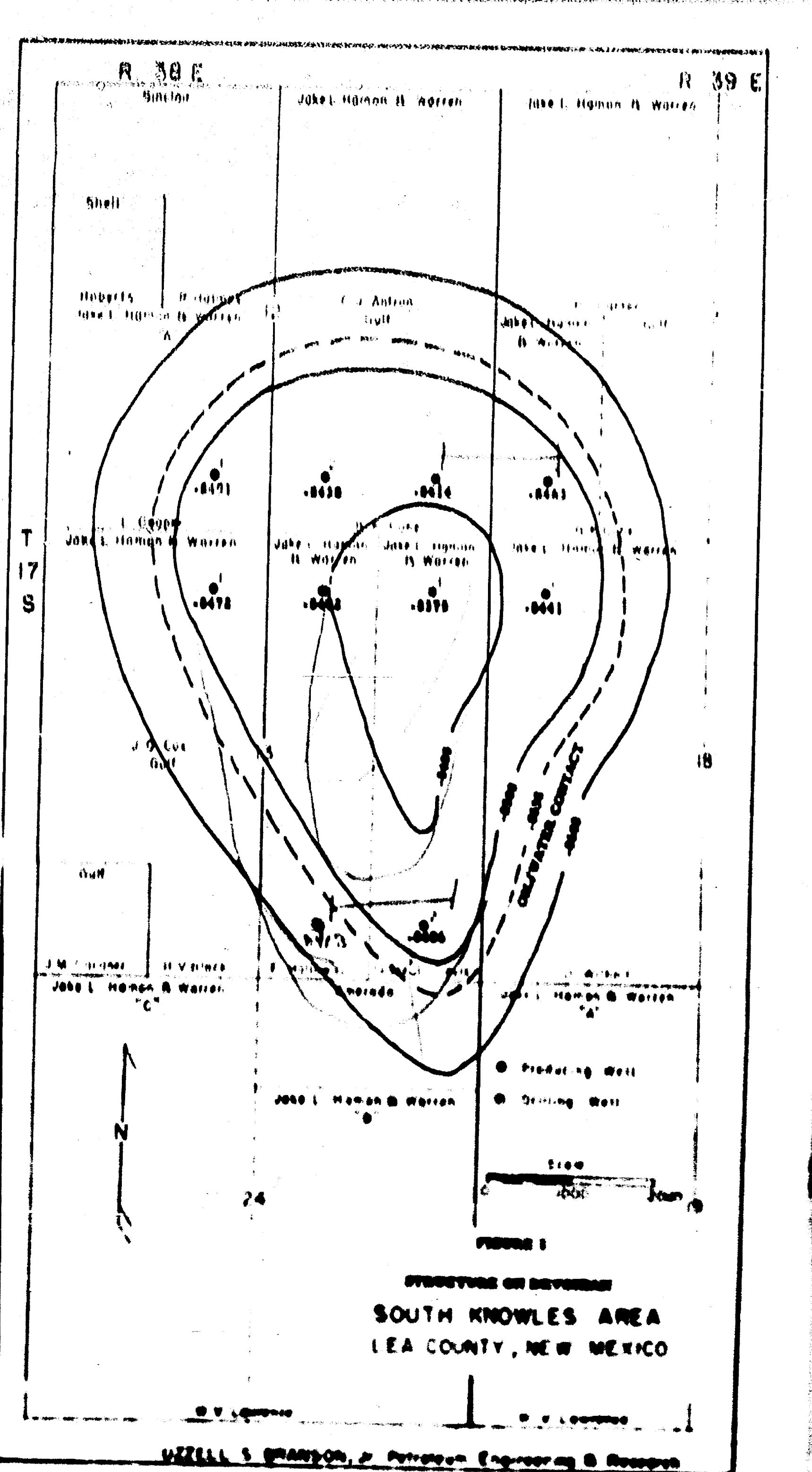
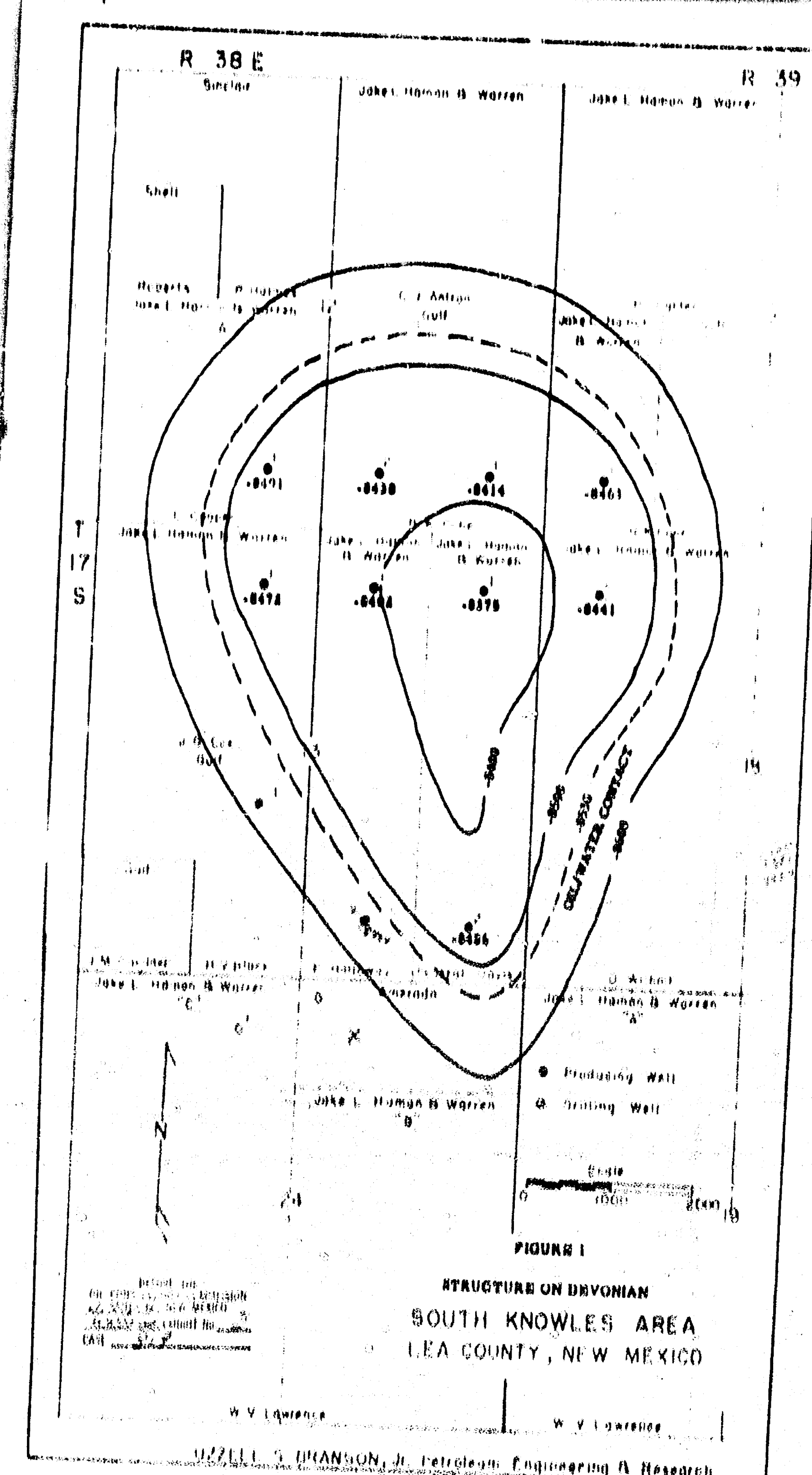
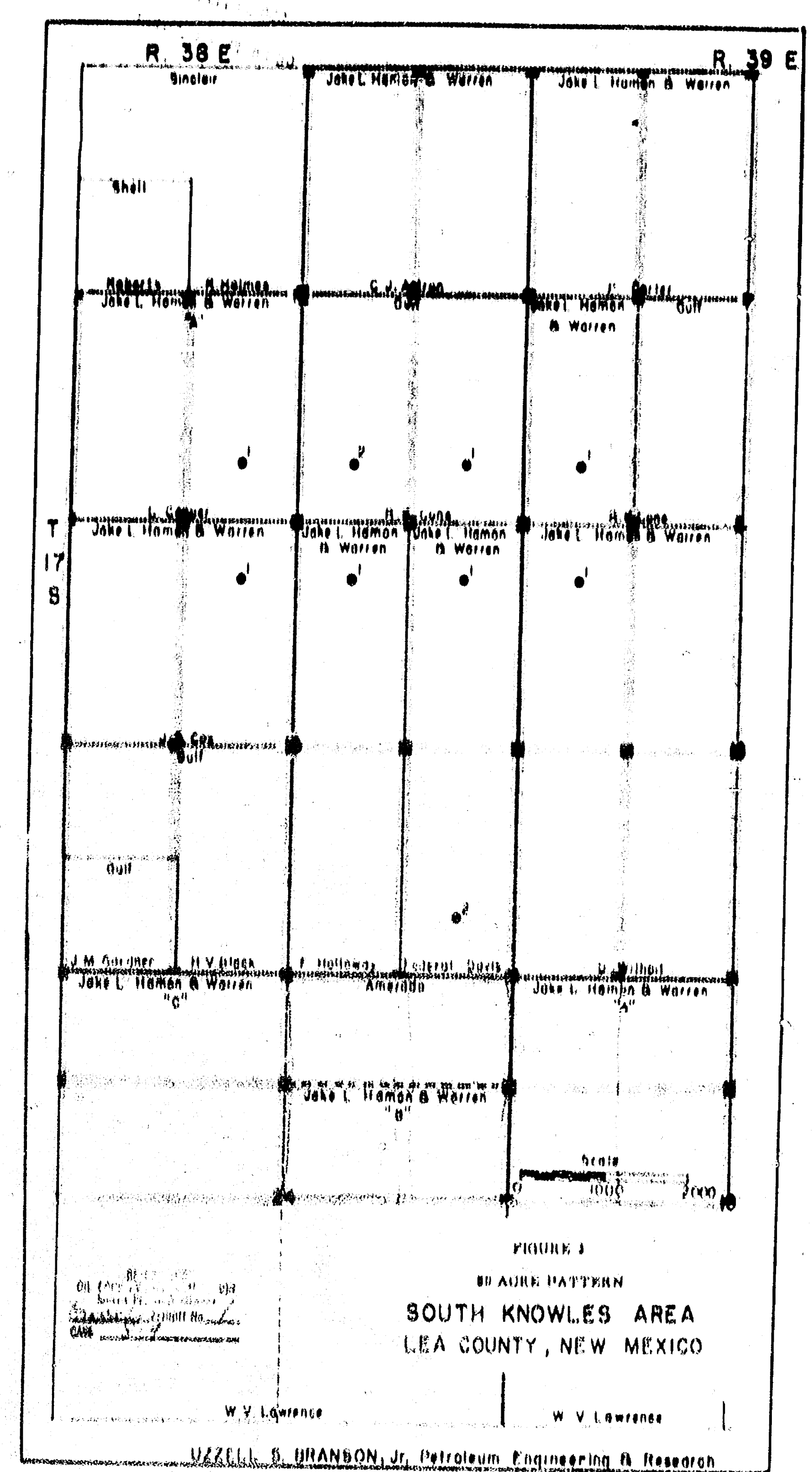
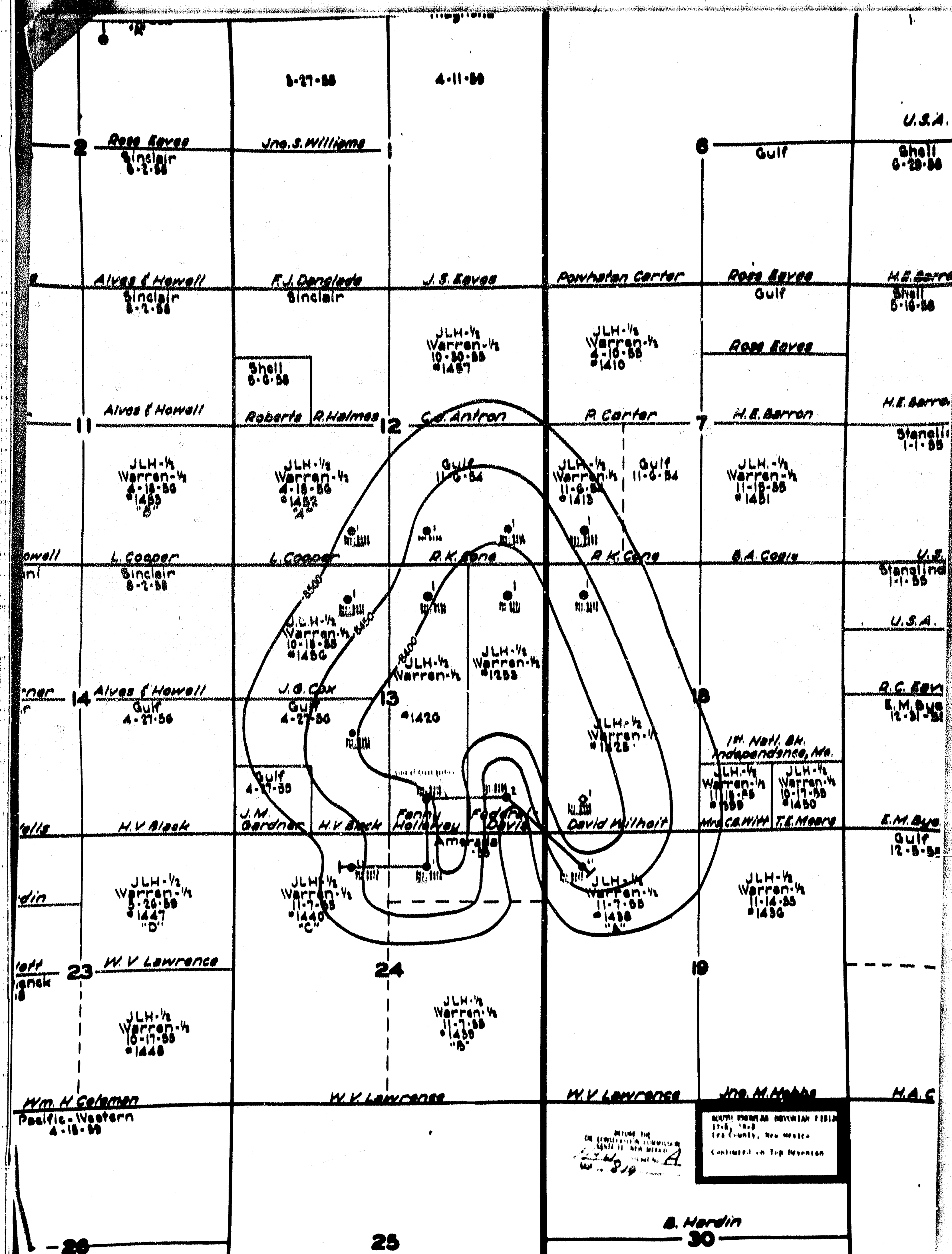
Special Analysis
CORE REPORT



DATE: 1-1-55
WELL: 1-1-55
FIELD: 1-1-55
COUNTY: 1-1-55
LOCATION: 1-1-55

Special Analysis
CORE REPORT





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