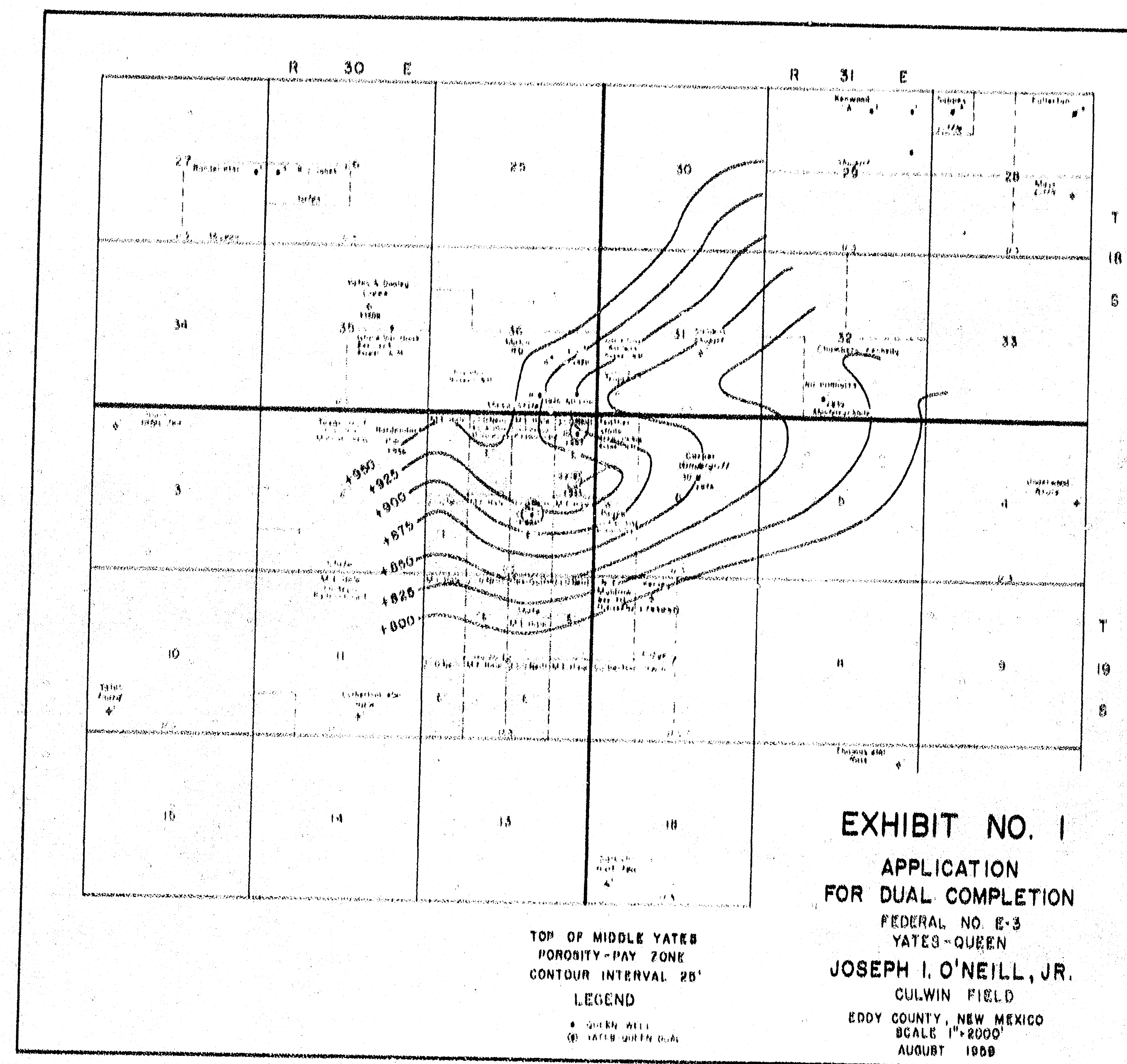
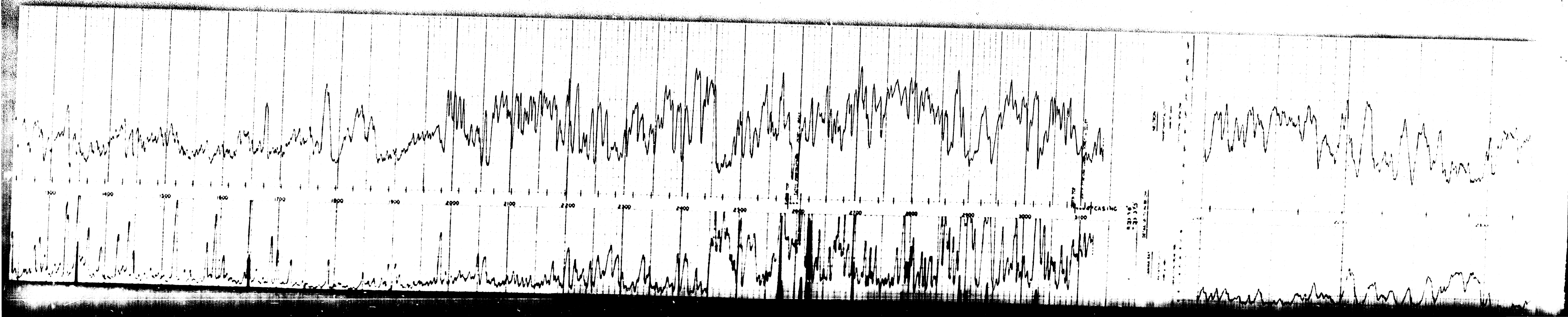


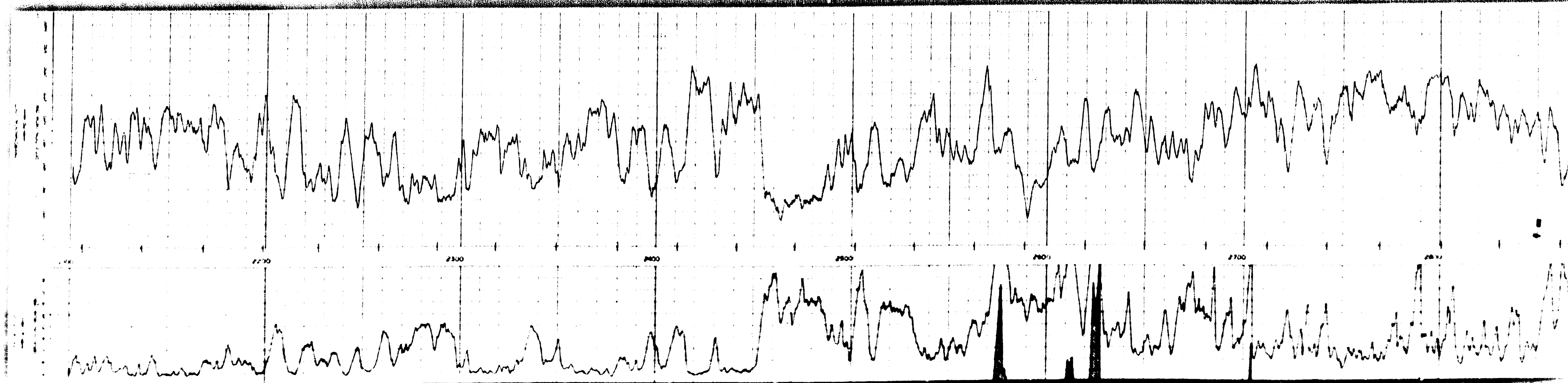
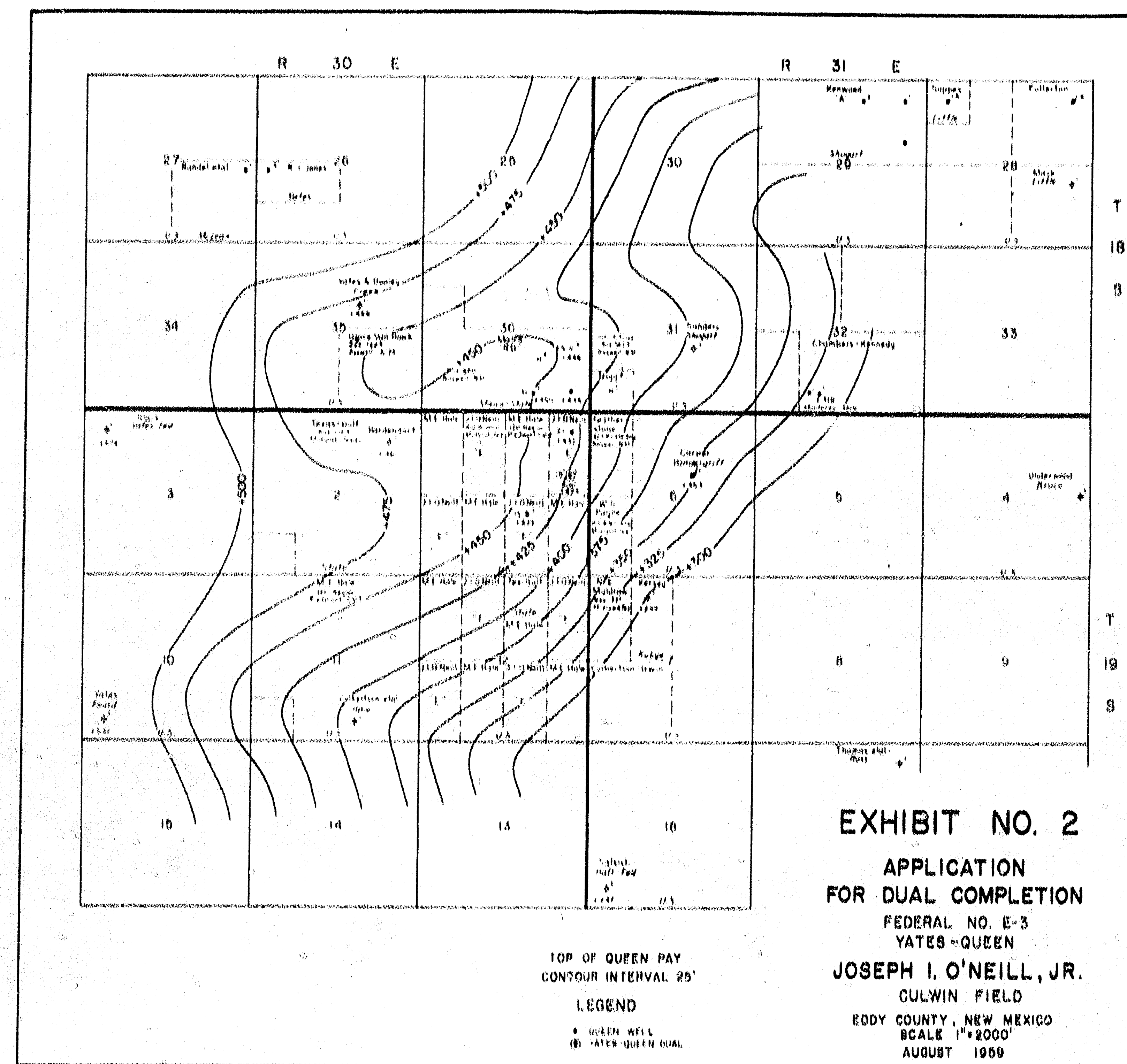
451



2000 1750



452



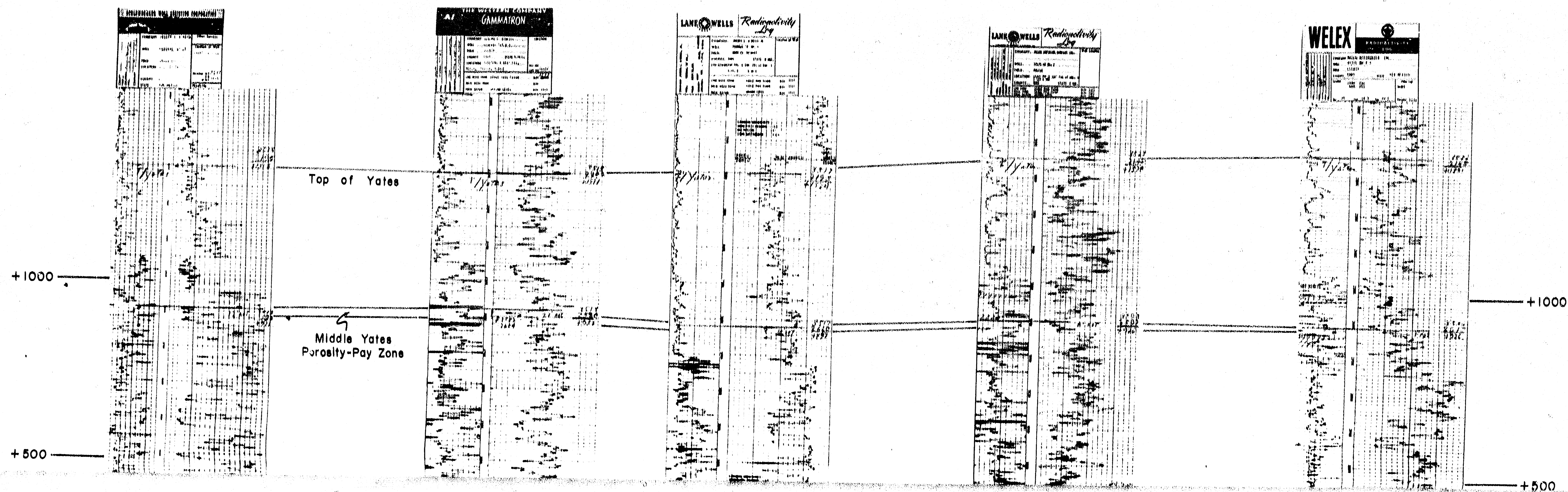
Joseph I. O'Neill, Jr.
Federal "E" No. 2

Joseph I. O'Neill, Jr.
Federal "E" No. 3

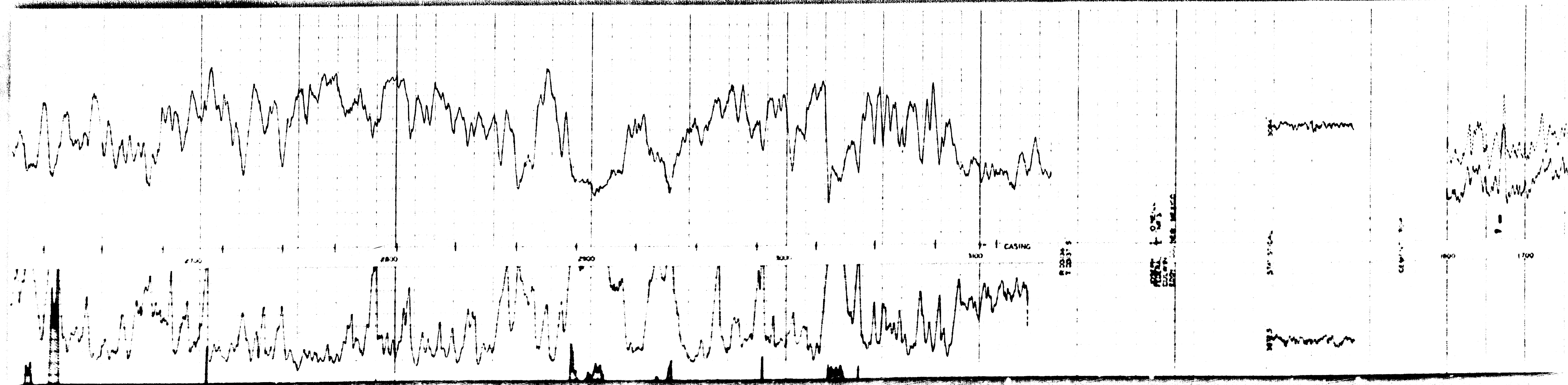
Joseph I. O'Neill, Jr.
Federal "E" No. 1

Malco Ref. Inc.
State "RD" No. 2

Malco Ref. Inc.
State "RD" No. 3



453



+1000

+500

Top of Yates

Middle Yates
Porosity-Pay Zone

Queen Pay Zone

+1000

+500

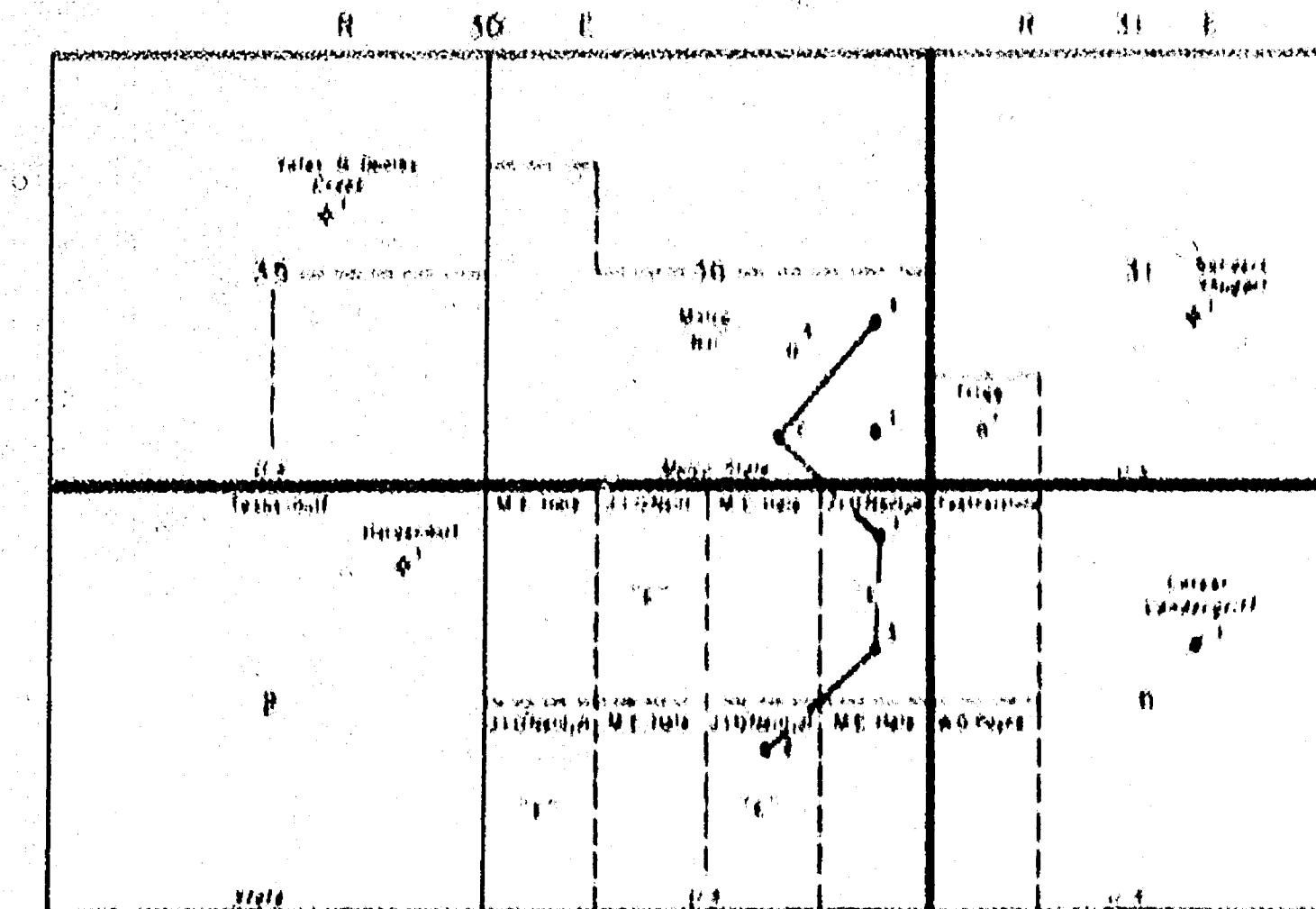


EXHIBIT NO. 3

APPLICATION
FOR DUAL COMPLETION
JOSEPH I. O'NEILL, JR.
CULWIN FIELD
EDDY COUNTY, NEW MEXICO
SCALE VERTICAL 1"=100'
HORIZONTAL 1"=200'
AUGUST 1959
GEOLOGY BY N. R. ROUSSELOT

454

