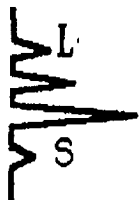


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DEC 19 1991

O. C. D.
ARTESIA OFFICE

Laboratory Services
1331 Tasker Drive
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(505) 397-3713

WATER ANALYSIS

COMPANY Pogo Producing Company

SAMPLED BY Rolland Perry

SAMPLE Federal 1 #1 DATE TAKEN 12/16/91

REMARKS

Barium as Ba	5.0
Carbonate alkalinity PPM	0
Bicarbonate alkalinity PPM	62
pH At Lab	5.25
Specific Gravity @ 60 F	1.185
Calcium as Ca	37,423
Magnesium as Mg	51,277
Total Hardness as CaCO3	88,700
Chlorides as CL	161,170
Sulfate as SO4	365
Iron as Fe	47.0
Potassium	43.75
Hydrogen Sulfide	0
Resistance Mmhoes	485,338
Total Solids	--
Carbonate as CO3 G/L	2.21
Total Dissolved Solids	236,750

Results reported as Parts Per Million Unless Stated.

Langelier Saturation Index -0.010

Analysis By Rolland Perry

Date: December 16, 1991