

TRETOLITE DIVISION

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WATER ANALYSIS REPORT

Company : POGO PRODUCING
Address : MIDLAND, TX
Lease : RT 23
Well : #1
Sample Pt. : WELLHEADDate : 3/17/94
Date Sampled : 3/16/94
Analysis No. : 627

ANALYSIS		mg/L		* meq/L
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1. pH	5.8			
2. H ₂ S	NEG			
3. Specific Gravity	1.175			
4. Total Dissolved Solids		259409.6		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO ₂		NR		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO ₃)				
10. Methyl Orange Alkalinity (CaCO ₃)				
11. Bicarbonate	HCO ₃	122.0	HCO ₃	2.0
12. Chloride	Cl	160815.0	Cl	4536.4
13. Sulfate	SO ₄	250.0	SO ₄	5.2
14. Calcium	Ca	17720.0	Ca	884.2
15. Magnesium	Mg	4067.9	Mg	334.7
16. Sodium (calculated)	Na	76434.7	Na	3324.7
17. Iron	Fe	NR		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO ₃)		61000.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt	X meq/L	= mg/L

884	*Ca <----- *HCO ₃	Ca(HCO ₃) ₂	81.0	2.0	162
-----	/----->	CaSO ₄	68.1	5.2	354
335	*Mg -----> *SO ₄	CaCl ₂	55.5	877.0	48666
-----	<-----/	Mg(HCO ₃) ₂	73.2		
3325	*Na -----> *Cl	MgSO ₄	60.2		
-----		MgCl ₂	47.6	334.7	15932
		NaHCO ₃	84.0		
Saturation Values Dist. Water 20 C		Na ₂ SO ₄	71.0		
CaCO ₃	13 mg/L	NaCl	58.4	3324.7	194295
CaSO ₄ * 2H ₂ O	2090 mg/L				
BaSO ₄	2.4 mg/L				

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,
A. MILLER