

TRETOLITE®

Chemicals and Services

PETROLITE

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WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : CC TANK UNIT FED.
Well : #1
Sample Pt. :

Date : 11/09/92
Date Sampled : 10/22/92
Analysis No. : 229

ANALYSIS		mg/L		* meq/L
1. pH	7.2			
2. H ₂ S	2 PPM			
3. Specific Gravity	1.015			
4. Total Dissolved Solids		19003.9		
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	183.0	HCO ₃	3.0
12. Chloride	Cl	11331.0	Cl	319.6
13. Sulfate	SO ₄	125.0	SO ₄	2.6
14. Calcium	Ca	320.0	Ca	16.0
15. Magnesium	Mg	73.1	Mg	6.0
16. Sodium (calculated)	Na	6971.8	Na	303.3
17. Iron	Fe	0.0		
18. Barium	Ba	0.0		
19. Strontium	Sr	0.0		
20. Total Hardness (CaCO ₃)		1100.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
16 *Ca <----- *HCO ₃	Ca(HCO ₃) ₂	81.0	3.0	243
/----->	CaSO ₄	68.1	2.6	177
6 *Mg -----> *SO ₄	CaCl ₂	55.5	10.4	575
<-----/	Mg(HCO ₃) ₂	73.2		
303 *Na -----> *Cl	MgSO ₄	60.2		
	MgCl ₂	47.6	6.0	286
Saturation Values Dist. Water 20 C	NaHCO ₃	84.0		
CaCO ₃ 13 mg/L	Na ₂ SO ₄	71.0		
CaSO ₄ * 2H ₂ O 2090 mg/L	NaCl	58.4	303.3	17722
BaSO ₄ 2.4 mg/L				

REMARKS:

L. MALLET / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
STEVE TIGERT