

TRETOLITE

Chemicals and Services

PETROLITE

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WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : KIWI AKX STATE
Well : #8
Sample Pt. : WELLHEADDate : 03/09/93
Date Sampled : 03/08/93
Analysis No. : 343

ANALYSIS		mg/L	* meq/L	
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1. pH	5.8			
2. H2S	2 PPM			
3. Specific Gravity	1.155			
4. Total Dissolved Solids		273230.7		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO2		460 PPM		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO3)		150.0		
10. Methyl Orange Alkalinity (CaCO3)		183.0	HCO3	3.0
11. Bicarbonate	HCO3	173072.2	Cl	4882.1
12. Chloride	Cl	450.0	SO4	9.4
13. Sulfate	SO4	32625.1	Ca	1628.0
14. Calcium	Ca	9286.4	Mg	764.0
15. Magnesium	Mg	57532.9	Na	2502.5
16. Sodium (calculated)	Na	81.0		
17. Iron	Fe	NR		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO3)		119707.6		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X meq/L	= mg/L
+-----+		-----		
1628	*Ca <----- *HCO3	Ca(HCO3)2	81.0	243
	/----->	CaSO4	68.1	638
764	*Mg -----> *SO4	CaCl2	55.5	1615.6
	<-----/	Mg(HCO3)2	73.2	
2503	*Na -----> *Cl	MgSO4	60.2	
		MgCl2	47.6	764.0
+-----+		NaHCO3	84.0	
Saturation Values Dist. Water 20 C		Na2SO4	71.0	
CaCO3	13 mg/L	NaCl	58.4	2502.5
CaSO4 * 2H2O	2090 mg/L			146247
BaSO4	2.4 mg/L			

REMARKS:

----- L. MALLET / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON