

TRETOLITE®

Chemicals and Services

PETROLITE

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WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : PATHFINDER "AFT"
Well : SWD #7, #13 F-21-10-27
Sample Pt. : TANK

Date : 10/28/92
Date Sampled : 10/25/92
Analysis No. : 207

ANALYSIS		mg/L		* meq/L
1. pH	7.1			
2. H2S	20 PPM			
3. Specific Gravity	1.030			
4. Total Dissolved Solids		50086.6		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO2		NR		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)				
11. Bicarbonate	HCO3	890.0	HCO3	14.6
12. Chloride	Cl	28755.0	Cl	811.1
13. Sulfate	SO4	1375.0	SO4	28.6
14. Calcium	Ca	2720.0	Ca	135.7
15. Magnesium	Mg	196.1	Mg	16.1
16. Sodium (calculated)	Na	16150.5	Na	702.5
17. Iron	Fe	0.0		
18. Barium	Ba	0.0		
19. Strontium	Sr	0.0		
20. Total Hardness (CaCO3)		7600.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
136 *Ca <----- *HCO3	Ca (HCO3) 2	81.0	14.6	1182
----- /----->	CaSO4	68.1	28.6	1949
16 *Mg -----> *SO4	CaCl2	55.5	92.5	5133
----- <----- /	Mg (HCO3) 2	73.2		
703 *Na -----> *Cl	MgSO4	60.2		
+-----+	MgCl2	47.6	16.1	768
Saturation Values Dist. Water 20 C	NaHCO3	84.0		
CaCO3 13 mg/L	Na2SO4	71.0		
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	702.5	41054
BaSO4 2.4 mg/L				

REMARKS:

----- L. MALLET / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
STEVE TIGERT