

TRETOLITE DIVISION

(505) 392-8711
Fax (505) 392-8759WATER ANALYSIS REPORT

Company : Conoco Inc. Date : 3-6-97
 Address : Eunice NM Date Sampled : 3-6-97
 Lease : Lockhart A-18 Analysis No. : 119
 Well : 8
 Sample Pt. : Seperator B.L.M. Request

ANALYSIS		mg/L		* meq/L
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1. pH	5.5			
2. H ₂ S	< 1 ppm			
3. Specific Gravity	1.005			
4. Total Dissolved Solids		26339.0		
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)		100.0		
11. Bicarbonate	HCO ₃	122.0	HCO ₃	2.0
12. Chloride	Cl	15654.5	Cl	441.6
13. Sulfate	SO ₄	300.0	SO ₄	6.2
14. Calcium	Ca	1042.1	Ca	52.0
15. Magnesium	Mg	262.5	Mg	21.6
16. Sodium (calculated)	Na	8649.8	Na	376.2
17. Iron	Fe	308.0		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO ₃)		3683.3		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt	X meq/L	= mg/L
-----		-----	-----	-----	-----
52 *Ca <----- *HCO ₃	2	Ca (HCO ₃) ₂	81.0	2.0	162
----- /----->	-----	CaSO ₄	68.1	6.2	425
22 *Mg -----> *SO ₄	6	CaCl ₂	55.5	43.8	2428
----- <----- /	-----	Mg (HCO ₃) ₂	73.2		
376 *Na -----> *Cl	442	MgSO ₄	60.2		
-----	-----	MgCl ₂	47.6	21.6	1028
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	376.2	21988
BaSO ₄ 2.4 mg/L					

REMARKS: Vernon Mackey / Harlan Robertson
 ----- Greg Archer / file

Petro-lite Oilfield Chemicals Group

Respectfully submitted,
Greg Archer