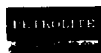


TRETOLITE

Chemicals and Services



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Reply to: P.O. Box FF
Artesia, New Mexico 88210
(505) 746-3588 Phone
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WATER ANALYSIS REPORT

Company : STRATA
Address : ARTESIA, NEW MEXICO
Lease : LECHUZA FEDERAL
Well : #5
Sample Pt. : WELLHEAD

Date : 02/10/93
Date Sampled : 02/02/93
Analysis No. : 247

ANALYSIS		mg/L		* meq/L
1. pH	5.5			
2. H ₂ S	10 PPM			
3. Specific Gravity	1.180			
4. Total Dissolved Solids		288745.3		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO ₂		480 PPM		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO ₃)				
10. Methyl Orange Alkalinity (CaCO ₃)		90.0		
11. Bicarbonate	HCO ₃	109.8	HCO ₃	1.8
12. Chloride	Cl	179132.0	Cl	5053.1
13. Sulfate	SO ₄	400.0	SO ₄	8.3
14. Calcium	Ca	33635.1	Ca	1678.4
15. Magnesium	Mg	2688.7	Mg	221.2
16. Sodium (calculated)	Na	72731.6	Na	3163.6
17. Iron	Fe	48.0		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO ₃)		95065.5		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt	X meq/L	= mg/L
1678	*Ca <----- *HCO ₃	Ca(HCO ₃) ₂	81.0	1.8	146
221	/----->	CaSO ₄	68.1	8.3	567
3164	*Mg -----> *SO ₄	CaCl ₂	55.5	1668.3	92572
	<-----/	Mg(HCO ₃) ₂	73.2		
	*Na -----> *Cl	MgSO ₄	60.2		
		MgCl ₂	47.6	221.2	10530
		NaHCO ₃	84.0		
		Na ₂ SO ₄	71.0		
		NaCl	58.4	3163.6	184882

Saturation Values Dist. Water 20 C

CaCO ₃	13 mg/L
CaSO ₄ * 2H ₂ O	2090 mg/L
BaSO ₄	2.4 mg/L

REMARKS:

D. CANADA / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON