



PETROLITE OIL FIELD CHEMICALS GROUP

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WATER ANALYSIS REPORT

COMPANY YATES PETROLEUM CORP. ADDRESS _____ DATE: 6-6-86
SOURCE EAST BAGLEY UNIT # 1 DATE SAMPLED 6-5-86 ANALYSIS NO. _____
Analysis Mg/L *Meq/L

1. pH	<u>6.2</u>		
2. H ₂ S (Qualitative)	<u>0</u>		
3. Specific Gravity	<u>1.080</u>		
4. Dissolved Solids	<u>102,580</u>		
5. Suspended Solids	<u>----</u>		
6. Phenolphthalein Alkalinity (CaCO ₃)	<u>----</u>		
7. Methyl Orange Alkalinity (CaCO ₃)	<u>100</u>		
8. Bicarbonate (HCO ₃)	<u>122</u>	<u>÷ 61</u>	<u>2</u> HCO ₃
9. Chlorides (Cl)	<u>62,514</u>	<u>÷ 35.5</u>	<u>1,761</u> Cl
10. Sulfates (SO ₄)	<u>875</u>	<u>÷ 48</u>	<u>18</u> SO ₄
11. Calcium (Ca)	<u>6,400</u>	<u>÷ 20</u>	<u>320</u> Ca
12. Magnesium (Mg)	<u>972</u>	<u>÷ 12.2</u>	<u>80</u> Mg
13. Total Hardness (CaCO ₃)	<u>20,000</u>		
14. Total Iron (Fe)	<u>15 ppm</u>		
15. Barium (Qualitative)			
16. Strontium			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

320 80 1381	Ca	←	HCO ₃	2 18 1761	Compound	Equiv. Wt.	X	Meq/L	=	Mg/L
		→			Ca (HCO ₃) ₂	81.04		2		162
	Mg	→	SO ₄		Ca SO ₄	68.07		18		1,225
	Na	→	Cl		Ca Cl ₂	55.50		300		16,650
					Mg (HCO ₃) ₂	73.17		-		-
					Mg SO ₄	60.19		-		-
					Mg Cl ₂	47.62		80		3,810
					Na HCO ₃	84.00		-		-
					Na ₂ SO ₄	71.03		-		-
					Na Cl	58.46		1,381		80,733

Saturation Values	Distilled Water 20°C
Ca CO ₃	13 Mg/L
Ca SO ₄ • 2H ₂ O	2,090 Mg/L
Mg CO ₃	103 Mg/L

REMARKS _____

Jayson Jones

Respectfully submitted
PETROLITE CORP.