



WATER ANALYSIS REPORT

Company	: YATES PETROLUEM	Date	: 10/19/95
Address	: ARTESIA, NM	Date Sampled	: 10/18/95
Lease	: AMANDA	Analysis No.	: 012
Well	: BATTERY 11-236-32e		
Sample Pt.	: TANK		

ANALYSIS		mg/L		* meq/L	
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1.	pH	5.6			
2.	H2S	0 PPM			
3.	Specific Gravity	1.185			
4.	Total Dissolved Solids	277279.3			
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 36.0	HCO3	0.6	
12.	Chloride	Cl 172530.0	Cl	4866.9	
13.	Sulfate	SO4 50.0	SO4	1.0	
14.	Calcium	Ca 23800.0	Ca	1187.6	
15.	Magnesium	Mg 4217.7	Mg	347.0	
16.	Sodium (calculated)	Na 76645.6	Na	3333.9	
17.	Iron	Fe NR			
18.	Barium	Ba NR			
19.	Strontium	Sr NR			
20.	Total Hardness (CaCO3)	76800.0			

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter				Compound	Equiv wt	X meq/L	=	mg/L
+-----+				-----				
1188	*Ca <-----	*HCO3	1	Ca(HCO3)2	81.0	0.6		48
	/----->			CaSO4	68.1	1.0		71
347	*Mg ----->	*SO4	1	CaCl2	55.5	1186.0		65811
	<-----/			Mg(HCO3)2	73.2			
3334	*Na ----->	*Cl	4867	MgSO4	60.2			
+-----+				MgCl2	47.6	347.0		16519
Saturation Values Dist. Water 20 C				NaHCO3	84.0			
CaCO3 13 mg/L				Na2SO4	71.0			
CaSO4 * 2H2O 2090 mg/L				NaCl	58.4	3333.9		194831
BaSO4 2.4 mg/L								

REMARKS:
----- ANDY MILLER

Petrolite Oilfield Chemicals Group

Respectfully submitted,
SHAWNA MATTHEWS