

Martin Water Laboratories, Inc.

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RESULT OF WATER ANALYSES

TO: Mr. Dale Crockett
P. O. Box 730, Hobbs, New Mexico

LABORATORY NO. 975231
SAMPLE RECEIVED 9-25-75
RESULTS REPORTED 10-3-75

COMPANY Skelly Oil Company LEASE Lovington San Andres Unit
FIELD OR POOL Lovington
SECTION BLOCK SURVEY COUNTY Lea STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN: Produced water taken from free water knockout. 9-25-75

NO. 1 Treated water - taken from injection pump discharge. 9-25-75
NO. 2 Injection water taken from input #47. 9-25-75
NO. 3
NO. 4

MIXED WATER SYSTEM

REMARKS: CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0159	1.0031	1.0076	
pH When Sampled	7.1	6.7	6.8	
pH When Received	6.7	6.45	6.5	
Bicarbonate as HCO ₃	1,342	254	628	
Supersaturation as CaCO ₃	70	--	35	
Undersaturation as CaCO ₃	--	60	--	
Total Hardness as CaCO ₃	4,500	1,080	2,450	
Calcium as Ca	1,580	344	776	
Magnesium as Mg	134	53	124	
Sodium and/or Potassium	6,505	1,041	2,967	
Sulfate as SO ₄	2,615	510	1,323	
Chloride as Cl	10,511	1,846	4,971	
Iron as Fe	0.32	0.40	0.72	
Barium as Ba	0	0	0	
Turbidity, Electric	9.6	7.0	24	
Color as Pt	28	24	66	
Total Solids, Calculated	22,687	4,048	10,789	
Temperature °F.	72	70	71	
Carbon Dioxide, Calculated	176	83	165	
Dissolved Oxygen, Winkler	0.0	0.0	0.0	
Hydrogen Sulfide	1,300	80.0	525	
Resistivity, ohms/m at 77° F.	0.326	1.45	0.563	
Suspended Oil	31	4.0	15	
Filtrable Solids as mg/l	14.7	1.7	4.3	
Volume Filtered, ml	1,000	3,400	1,575	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The above results continue to reflect reasonably satisfactory chemical and physical properties. We do show a slightly high filtrable solids at the free water knockout, but this was a very fine paraffin material and no evidence of any bottom sediment or interface material. We are also showing no evidence of any potential calcium carbonate scale. In general, we would conclude that the over all condition of the waters is sufficiently satisfactory as to warrant no changes at this time.

Form No. 3

cc: Mr. F. J. Petro, Midland

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Waylan C. Martin, M. A.