

TREAT-RITE WATER LABORATORIES

INCORPORATED

BOX 548 - MONAHANS, TEXAS

RESULT OF WATER ANALYSES

TO: Mr. J. H. Dumlavey LABORATORY NO. ML15825
P. O. Box 38, Hobbs, New Mexico SAMPLE RECEIVED 11-11-58
 RESULTS REPORTED 11-15-58

COMPANY Skelly Oil Co. LEASE Dollarhide Queen Waterflood
 FIELD OR POOL Dollarhide Queen
 SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from source water well.
 NO. 2 Produced Queens water - taken from heater-treater.
 NO. 3
 NO. 4

REMARKS

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
SPECIFIC GRAVITY AT 60°F.	1.0014	1.1396		
PH WHEN SAMPLED				
PH WHEN RECEIVED	9.05	9.2		
TOTAL ALKALINITY AS CaCO ₃	104	112		
SUPERSATURATION AS CaCO ₃	0	37		
UNDERSATURATION AS CaCO ₃				
TOTAL HARDNESS AS CaCO ₃	32	50,118		
CALCIUM AS CaCO ₃	20	27,510		
MAGNESIUM AS CaCO ₃	12	22,508		
SODIUM AND/OR POTASSIUM	630	12,916		
SULFATE AS SO ₄	980	1,119		
CHLORIDE AS CL AS CL	256	100,957		
SILICA AS SiO ₂	0.9	1.1		
IRON AS FE	45.1	204		
MANGANESE AS MN	0	0.12		
BARIUM AS BA	none	none		
TURBIDITY ELECTRIC	1.3	104		
COLOR AS PT	0.75	3.2		
DISSOLVED SOLIDS AT 103°C	1,779	211,890		
TOTAL SOLIDS AT 103°C	1,790	211,994		
TEMPERATURE °F.				
CARBON DIOXIDE CALCULATED	none	146		
DISSOLVED OXYGEN WINKLER				
HYDROGEN SULPHIDE	none	none		
RESIDUAL CHLORINE				
RESISTIVITY OHMS/CC	450	12.1		
Chlorides, as NaCl	2,023	100,322		
Phenolphthalein Alkalinity	30			

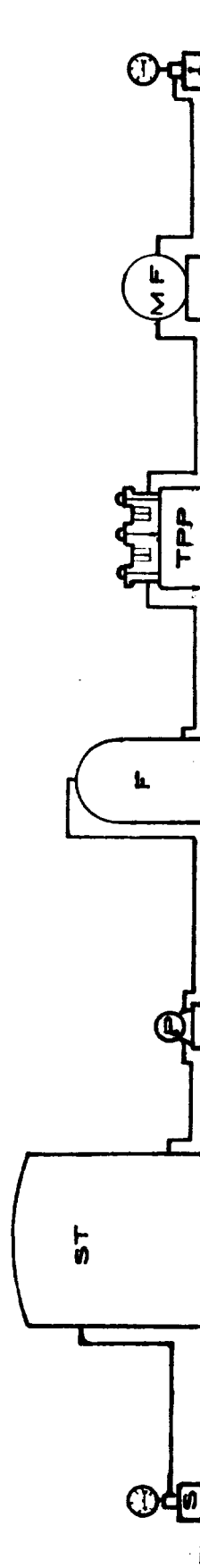
NOTE: All Results Reported as Parts Per Million. Divide by 17.1 to Convert to Grains Per Gallon

Additional Determinations and Remarks	Actual Turbidity	Theoretical Compatible Turbidity, ppm
<u>Mixture of waters</u>	<u>200</u>	<u> </u>
<u>Source water & produced Queens</u>	<u>55.0</u>	<u>52.7</u>

Letter of recommendation attached.

ILLEGIBLE

SKELLY OIL COMPANY DOLLARHIDE QUEEN SCHEMATIC DIAGRAM OF WATER INJECTION



- S..... WATER SUPPLY WELL
- ST..... WATER STORAGE
- P..... TRANSFER PUMP
- F..... FILTER (IF APPLICABLE)
- TPP..... TRIPLEX POWER PUMP
- MF..... METERING FACILITIES
- I..... WATER INJECTION WELL

FIGURE 12