

STANOLIND OIL AND GAS COMPANY

205.31

RESEARCH DEPARTMENT
WATER ANALYSIS

Lease Navajo Tribal Well No. 1 Lab. No. T-11,537
 Field Wildcat County San Juan State New Mexico
 Quarter or Survey Blk. Section 12 T. 29N R. 17W
 Exact Location 790' From N & 1090' From W Lines Sample Series No. HG-70
 Producing Stratum Entrada P.B.T.D. Entrada Total Depth 2190
 Stratum Yielding Sample Entrada From Entrada To Entrada
 Condition of Well Drill Pipe Method Used From Drill Pipe Breakout
 Sample Collected From Drill Pipe Date Collected 4-30-54 Date Received 5-12-54
 Collected by A. W. Rothe Transmittal Letter by L. O. Speer, Jr. Date 4-30-54 File CCF-2033-251.3

Radicle	Per Cent by Analysis	(a) P. P. M.	(b)	(a) X (b)	Per Cent Reacting Value	Calculated Compound	P. P. M.
Na	33.37	3,010	.0435	130.73	47.26	Na ₂ SO ₄	6,503
Ca	.81	73	.0499	3.64	1.34	NaCl	2,221
Mg	.14	13	.0822	1.07	.40	Na ₂ CO ₃	69
Fe						NaHCO ₃	
						CaSO ₄	
						CaCl ₂	
SO ₄	48.75	4,397	.0208	91.46	33.76	CaCO ₃	182
Cl	14.93	1,347	.0282	37.97	14.03	Ca(HCO ₃) ₂	
CO ₂	2.00	180	.0333	5.99	2.21	MgSO ₄	
HCO ₃		0	.0164			MgCl ₂	
H ₂ S						MgCO ₃	45
						Mg(HCO ₃) ₂	
Total solids as a summation of radicles						9.020	P.P.M.
Total solids by evaporation and ignition of residue at low red heat						10.050	P.P.M.
Sample as received: Resistivity: ohms/M.M. <u>.810</u> at <u>77°F.</u> pH Value <u>11.50</u> Specific Gravity 60°/60°F. <u>1.0095</u>							

PROPERTIES OF REACTION IN PER CENT

PRIMARY SALINITY: SO₄ + Cl with equal value Na (K) 94.52 %
 SECONDARY SALINITY: If SO₄ + Cl is greater than Na (K) 1.06 %
 Then SO₄ + Cl = with equal value of Ca + Mg 1.06 %
 PRIMARY ALKALINITY: Excess Na (K) over SO₄ + Cl = with equal value of CO₂ + S 4.42 %
 SECONDARY ALKALINITY: Excess Ca + Mg over SO₄ + Cl = with equal value of CO₂ + S 4.42 %
 CHLORIDE SALINITY: Cl ÷ (SO₄ + Cl) = X 100% 22.36 %
 SULPHATE SALINITY: SO₄ ÷ (SO₄ + Cl) = X 100% 77.64 %

NOTE: Multiply Parts per Million by .0583 to obtain Grains per Gallon.

REMARKS:

This analysis indicates contamination, probably from drilling fluid and is not considered representative of formation water.

cc: C. F. Bedford
C. L. Kelley
L. O. Speer, Jr.

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Roswell Dist. Office			
JUN 18 1954			
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BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	<u>5</u>
CASE NO.	<u>2798</u>

ILLEGIBLE

Analyst OOD Dattner Date 5-11-54