

RESEARCH DEPARTMENT
WATER ANALYSIS

Wm 532.11

Well No. 1 Lab. No. T-11,537
 County San Juan State New Mexico
 Blk. Section 12 T. 29N R. 17W
 Name Location 790' From A & 1090' From W lines Sample Series No. HM-70
 Producing Stratum Entrada PSTD Total Depth 2190
 Stratum Yielding Sample Entrada From To
 Conditions of Well
 Sample Collected From Drill Pipe Method Used From Drill Pipe Breakout
 Collected by A. W. Rothe Date Collected 4-30-54 Date Received 5-12-54
 Transmittal Letter by L. O. Spear, Jr. Date 4-30-54 File CCF-2033-261.3

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	.0418	130.75	47.45	Na ₂ SO ₄	6,503
Ca	.81	73	.0499	3.54	1.34	NaCl	2,221
Mg	.14	13	.0422	1.07	.42	Na ₂ CO ₃	69
Fe						NaHCO ₃	
						CaSO ₄	
						CaCl ₂	
SO ₄	49.75	4,397	.0108	91.40	33.76	CaCO ₃	142
Cl	14.73	1,347	.0282	37.77	14.02	Ca(HCO ₃) ₂	
CO ₃	4.00	350	.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						9,027	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/MM, 210 at 77°F						11.52	Specific Gravity 60°/60°F 1.0095

PROPERTIES OF REACTION IN PER CENT

PRIMARY SALINITY: $\text{SO}_4 + \text{Cl}$ with equal value Na (K)	94.52 %
SECONDARY SALINITY: If $\text{SO}_4 + \text{Cl}$ is greater than Na (K)	
Then $\text{SO}_4 + \text{Cl} =$ with equal value of Ca + Mg	1.06 %
PRIMARY ALKALINITY: Excess Na (K) over $\text{SO}_4 + \text{Cl}$ with equal value of $\text{CO}_3 + \text{S}$	
SECONDARY ALKALINITY: Excess Ca + Mg over $\text{SO}_4 + \text{Cl}$ with equal value of $\text{CO}_3 + \text{S}$	4.42 %
CHLORIDE SALINITY: $\text{Cl} = (\text{SO}_4 + \text{Cl}) \times 100\%$	35
SULPHATE SALINITY: $\text{SO}_4 = (\text{SO}_4 + \text{Cl}) \times 100\%$	65

NOTE: Multiply Parts per Million by .0543 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. Spear, Jr.

RECEIVED
Roswell Dist. Office
JUN 18 1954

DS	
DE	
DC	
FILE	

2/1/54
3/1/54
4/1/54

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 2762

Analyst C. L. Kelley Date 5-12-54