CL1-12A (REV. 1964)

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CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

OPERATOR Kansas Nebraska Natural Gas — DATE May 19, 1977 — LAB NO. 23552-2
WELL NO. Bruder Water — LOCATION SESW 23-15-59w
FIELD — FORMATION
COUNTY — INTERVAL
STATE Colorado — SAMPLE FROM Gin Bottle

Lineabour UPRR #1

REMARKS & CONCLUSIONS:
Iron (Fe), mg/l - - - - - - - - - 7.40
Total hardness as $CaCO_3$, mg/l - - - - - 1463
Extremely hard water. Mineral solids exceed recommended maxima and this water is not suitable for domestic use.

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	211	9.20	Sulfate	1550	32.24
Potassium	40	1.02	Chloride	44	1.24
Lithium			Carbonate	-	
Calcium	392	19.56	Bicarbonate	366	6.00
Magnesium	118	9.70	Hydroxide		
Iron	-		Hydrogen sulfide	-	
Total Cations		39.48	Total Anions		39.48

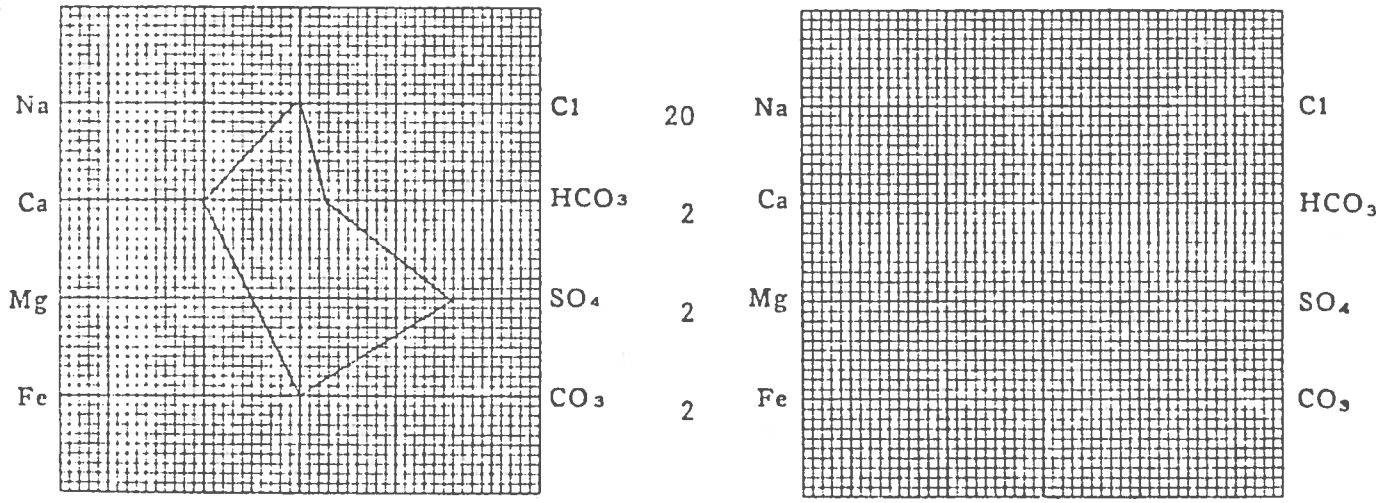
Total dissolved solids, mg/l - - - - - 2535
NaCl equivalent, mg/l - - - - - - - 1777
Observed pH - - - - - - - - - - - 7.1

Specific resistance @ 68°F.:
Observed - - - - 3.80 ohm-meters
Calculated - - - - 3.40 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l = Milligrams per liter Meq/l = Milligram equivalents per liter
Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components