

PAN AMERICAN PETROLEUM CORPORATION
RESEARCH CENTER
WATER ANALYSIS

LOCATION SAMPLED: Division Fort Worth District Lubbock Area Hobbs
Operator (Plant) Pan American Well No. Lease So. Mattiz Unit Treater
State (Province) New Mexico County (Parish) Lea
Twp. Rng. Sec. Quarter (Lsd.) Other (Meridian)
Field name Fowler Lower Padlock (Oil Rim) Wildcat () Field Well ()
Sample collected from Treater Sample used for detailed analyses
Interval sampled to Sample collected by T. W. Wilson Date
Interval name
Recovery
Form 97 transmitted by V. E. Staley Date transmitted 8-3-67 File: VES-318-538
Technical Service request authorized by Office
Technical Service Number: 3094

ORGANIC CONSTITUENTS in mg/l

BOTTOM MIDDLE TOP MUD

Benzene				
Toluene				
Phenols				
HC Gases				

DESCRIPTION OF SAMPLE

Condition as received
Color
Odor
Suspended solids
Bottom sediment
Oil content

QUALITY OF SAMPLE

Chloride BOTTOM MIDDLE TOP
ion mg/l:
Comments on quality

CONVENTIONAL MAJOR ION ANALYSIS

		Major Ions mg/l ¹	% of Total Major Ions	Reaction Value meq/l ²	% of Total Reaction Value
CATIONS	Sodium Na ⁺	61,443	33.37	2,672.78	41.85
	Calcium Ca ⁺⁺	6,800	3.69	339.32	5.31
	Magnesium Mg ⁺⁺	2,210	1.20	181.66	2.84
	Potassium K ⁺				
ANIONS	Chloride Cl ⁻	112,000	60.82	3,158.40	49.45
	Bicarbonate HCO ₃ ⁻	0	0	0	0
	Sulfate SO ₄ ⁻	1,700	.92	35.36	.55
	Carbonate CO ₃ ⁻	0	0	0	0
TOTAL		184,153			

Total solids by evaporation 189,160 mg/l
NaCl resistivity equivalent (Dunlap) 185,173 mg/l
Resistivity .051 ohm-meters at 77 °F
pH 4.2 Specific gravity 1.128 at °F
Ryznar stability index (2pHs-pH) at °F

OTHER IONS AND DISSOLVED SOLIDS

CATIONS	mg/l	ANIONS	mg/l	OTHERS	mg/l
Lithium Li ⁺		Bromide Br ⁻		Iron Fe	
		Iodide I ⁻		Boron B	
				Silica SiO ₂	

¹ Data previously reported on Form 66 7-62 under the heading P.P.M. was actually in milligrams per liter. By definition, ppm = mg/l /sp. gr.
² meq/l means milligram equivalents per liter.

REMARKS AND CONCLUSIONS:

cc: Date received 8-22-67 Field sample no.
Lab. no. T-18718
Analyst Date 8-5-67

(Water charts on back)