FORM 66 2-66
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# PAN AMERICAN PETROLEUM CORPORATION
## RESEARCH CENTER
## WATER ANALYSIS

**LOCATION SAMPLED:** Division Fort Worth District Lubbock Area Hobbs
Operator (Plant) Pan American Well No. 24 Lease Myers "B"
State (Province) New Mexico County (Parish) Lea
Twp. ____ Rng. ____ Sec. ____ Quarter (Lsd.) ____ Other (Meridian) ____
Wildcat ( ) Field Well ( x )
Field name Fowler Blinebry Sample used for detailed analyses ____
Sample collected from ____ Sample collected by T. W. Wilson Date ____
Interval sampled ____ to ____ Interval name ____
Recovery ____
Form 97 transmitted by V. E. Staley Date transmitted 8-3-67, File: VES-316-538
Technical Service request authorized by ____ Office ____
Technical Service Number: 3094

### ORGANIC CONSTITUENTS in mg/1

| | 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 ion mg/1: | BOTTOM | MIDDLE | TOP |
|---|---|---|---|
| | | | |

Comments on quality ____

### CONVENTIONAL MAJOR ION ANALYSIS

| | | | Major Ions mg/1[1] | % of Total Major Ions | Reaction Value meq/1[2] | % of Total Reaction Value |
|---|---|---|---|---|---|---|
| CATIONS | Sodium | $Na^+$ | 30,813 | 34.11 | 1,340.38 | 43.63 |
| | Calcium | $Ca^{++}$ | 2,760 | 3.06 | 137.72 | 4.48 |
| | Magnesium | $Mg^{++}$ | 708 | .78 | 58.20 | 1.89 |
| | Potassium | $K^+$ | | | | |
| ANIONS | Chloride | $Cl^-$ | 50,700 | 56.13 | 1,429.74 | 46.53 |
| | Bicarbonate | $HCO_3^-$ | 1,044 | 1.16 | 17.12 | .56 |
| | Sulfate | $SO_4^{--}$ | 4,300 | 4.76 | 89.44 | 2.91 |
| | Carbonate | $CO_3^{--}$ | 0 | 0 | 0 | 0 |
| | TOTAL | | 90,325 | | | |

Total solids by evaporation 90,440 mg/1
NaCl resistivity equivalent (Dunlap) 87,983 mg/1
Resistivity .088 ohm-meters at 77 °F
pH 7.1 Specific gravity 1.064 at ____ °F
Ryznar stability index (2pHs–pH) ____ at ____ °F

### OTHER IONS AND DISSOLVED SOLIDS

| CATIONS | mg/1 | ANIONS | mg/1 | OTHERS | mg/1 |
|---|---|---|---|---|---|
| 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/1 /sp. gr.
[2] meq/1 means milligram equivalents per liter.

**REMARKS AND CONCLUSIONS:** ____

cc: ____ Date received 8-22-67 Field sample no. ____
Analyst [signature] Lab. no. T-18716
Date 9-6-67

*(Water charts on back)*

DWR:sw