

Miller Chemicals, Inc.

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Concho Resources
Lease : Diamond Tail
Well No. : # 24-1
Lab No. : F:\ANALYSES\Aug1299.001

Sample Loc. :
Date Analyzed: 12-August-1999
Date Sampled : 01-August-1999

ANALYSIS

1. pH 5.670
2. Specific Gravity 60/60 F. 1.133
3. CaCO₃ Saturation Index @ 80 F. +0.311
@ 140 F. +1.421

Dissolved Gases

- | | MG/L | EQ. WT. | *MEQ/L |
|---------------------|----------------|---------|--------|
| 4. Hydrogen Sulfide | Not Present | | |
| 5. Carbon Dioxide | Not Determined | | |
| 6. Dissolved Oxygen | Not Determined | | |

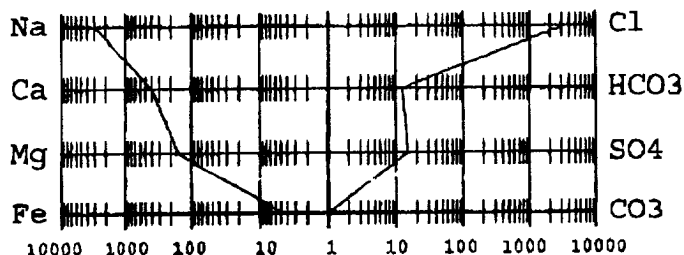
Cations

- | | | | |
|------------------------------|----------------|----------|----------|
| 7. Calcium (Ca++) | 7,515 | / 20.1 = | 373.88 |
| 8. Magnesium (Mg++) | 1,823 | / 12.2 = | 149.43 |
| 9. Sodium (Na+) (Calculated) | 66,339 | / 23.0 = | 2,884.30 |
| 10. Barium (Ba++) | Not Determined | | |

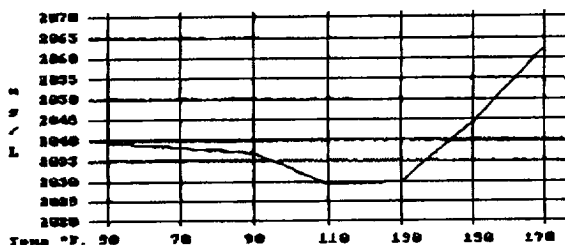
Anions

- | | | | |
|--|------------|----------|----------|
| 11. Hydroxyl (OH ⁻) | 0 | / 17.0 = | 0.00 |
| 12. Carbonate (CO ₃ ⁼) | 0 | / 30.0 = | 0.00 |
| 13. Bicarbonate (HCO ₃ ⁻) | 732 | / 61.1 = | 11.98 |
| 14. Sulfate (SO ₄ ⁼) | 700 | / 48.8 = | 14.34 |
| 15. Chloride (Cl ⁻) | 119,973 | / 35.5 = | 3,379.52 |
| 16. Total Dissolved Solids | 197,082 | | |
| 17. Total Iron (Fe) | 83 | / 18.2 = | 4.56 |
| 18. Total Hardness As CaCO ₃ | 26,273 | | |
| 19. Resistivity @ 75 F. (Calculated) | 0.001 /cm. | | |

LOGARITHMIC WATER PATTERN *meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X *meq/L = mg/L.

Ca(HCO ₃) ₂	81.04	11.98	971
CaSO ₄	68.07	14.34	976
CaCl ₂	55.50	347.56	19,289
Mg(HCO ₃) ₂	73.17	0.00	0
MgSO ₄	60.19	0.00	0
MgCl ₂	47.62	149.43	7,116
NaHCO ₃	84.00	0.00	0
NaSO ₄	71.03	0.00	0
NaCl	58.46	2,882.54	168,513

*Milli Equivalents per Liter

This water is somewhat corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

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