

Date 24 July 70 Analysis by H. M. Shaffer
 Company ICT, Inc., P. O. Drawer 1341, Wewoka, Oklahoma
 Sample Roger C. Hanks 7-24-70

	mg/l	meq/l	eq wt
Cations :			
Sodium, Na	<u>409.4</u>	<u>17.8</u>	<u>22.9</u>
Calcium, Ca	<u>777.9</u>	<u>38.9</u>	<u>20.0</u>
Magnesium, Mg	<u>58.3</u>	<u>4.8</u>	<u>12.2</u>
Anions :			
Chloride, Cl	<u>177.7</u>	<u>5.3</u>	<u>35.5</u>
Sulfate, SO ₄	<u>2025.4</u>	<u>42.2</u>	<u>48.0</u>
Carbonate, CO ₃	<u>0.0</u>		<u>60.0</u>
Bicarbonate, HCO ₃	<u>854.2</u>	<u>14.0</u>	<u>61.0</u>

Total dissolved solids 4303.9
 Iron (total) 10.1
 Sulfide (H₂S) +
 pH 7.68
 Total hardness 836.2
 Specific gravity 1.0026 @60°F

Probable composition :

Calcium Bicarbonate	<u>1135</u>	<u>14.0</u>	<u>81.04</u>
Calcium Sulfate	<u>1697</u>	<u>24.9</u>	<u>68.07</u>
Sodium Sulfate	<u>888</u>	<u>12.5</u>	<u>60.19</u>
Magnesium Sulfate	<u>289</u>	<u>4.8</u>	<u>71.03</u>
Calcium Chloride			<u>55.50</u>
Magnesium Chloride			<u>47.62</u>
Sodium Chloride	<u>310</u>	<u>5.3</u>	<u>58.46</u>

38.9	4.8	17.8
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Ca Mg Na

14.0	42.2	5.3
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HCO₃ SO₄ Cl

Remarks :

The sulfate reducers started growing in 6-9 hours, with a positive sulfate API Test in 24 hours. The test remained positive for 9 days then became negative. Rhw PH went from 7.7 to 6.8. The sulfate reducers were for the most pseudomonas. The bacteria now present are large rods that apparently digested the iron sulfide and reduced the PH to 6.8.