



Saturation Index Calculations
Champion Technologies, Inc.
 (Based on the Tomison-Oddo Model)

Site Information

Company	Sonal Raten LLC
Field	VPR A
Point	22
Date	9/24/1999

Water Analysis (mg/L)

Calcium	76
Magnesium	36
Barium	0
Strontium	0
Sodium*	634
Bicarbonate Alkalinity	1,439
Sulfate	23
Chloride	354

* - Calculated Value

Appended Data

CO2	1 mg/L
H2S	0 mg/L
Iron	12 mg/L

TDS - 2,574

Physical Properties

Ionic Strength*	0.04
pH†	7.70
Temperature	90°F
Pressure	50 psia

* - Calculated Value † - Known/Specified Value

Calcite Calculation Information

<i>Calculation Method</i>	<i>Value</i>
pH	7.70
<i>Bicarbonate Alkalinity Correction(s)</i>	<i>Value</i>
None Used	--

SI & PTB Results

<i>Scale Type</i>	<i>SI</i>	<i>PTB</i>
Calcite (Calcium Carbonate)	1.04	59.4
Gypsum (Calcium Sulfate)	-3.03	N/A
Hemihydrate (Calcium Sulfate)	-2.79	N/A
Anhydrite (Calcium Sulfate)	-3.28	N/A
Barite (Barium Sulfate)	N/A	N/A
Celestite (Strontium Sulfate)	N/A	N/A