



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

Site Information

Company	Sonat Raton LLC
Field	VPR A
Point	24
Date	9/24/1999

Water Analysis (mg/L)

Calcium	188
Magnesium	65
Barium	0
Strontium	0
Sodium*	1212
Bicarbonate Alkalinity	1,586
Sulfate	13
Chloride	1,454

* - Calculated Value

Appended Data

CO2	1 mg/L
H2S	0 mg/L

TDS - 4,516

Physical Properties

Ionic Strength*	0.07
pH*	7.60
Temperature	90°F
Pressure	50 psia

* - Calculated Value † - Known/Specified Value

Calcite Calculation Information

Calculation Method	Value
pH	7.60
Bicarbonate Alkalinity Correction(s)	Value
None Used	---

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)	1.25	151.2
Gypsum (Calcium Sulfate)	-2.99	N/A
Hemihydrate (Calcium Sulfate)	-2.78	N/A
Anhydrite (Calcium Sulfate)	-3.24	N/A
Barite (Barium Sulfate)	N/A	N/A
Celestite (Strontium Sulfate)	N/A	N/A