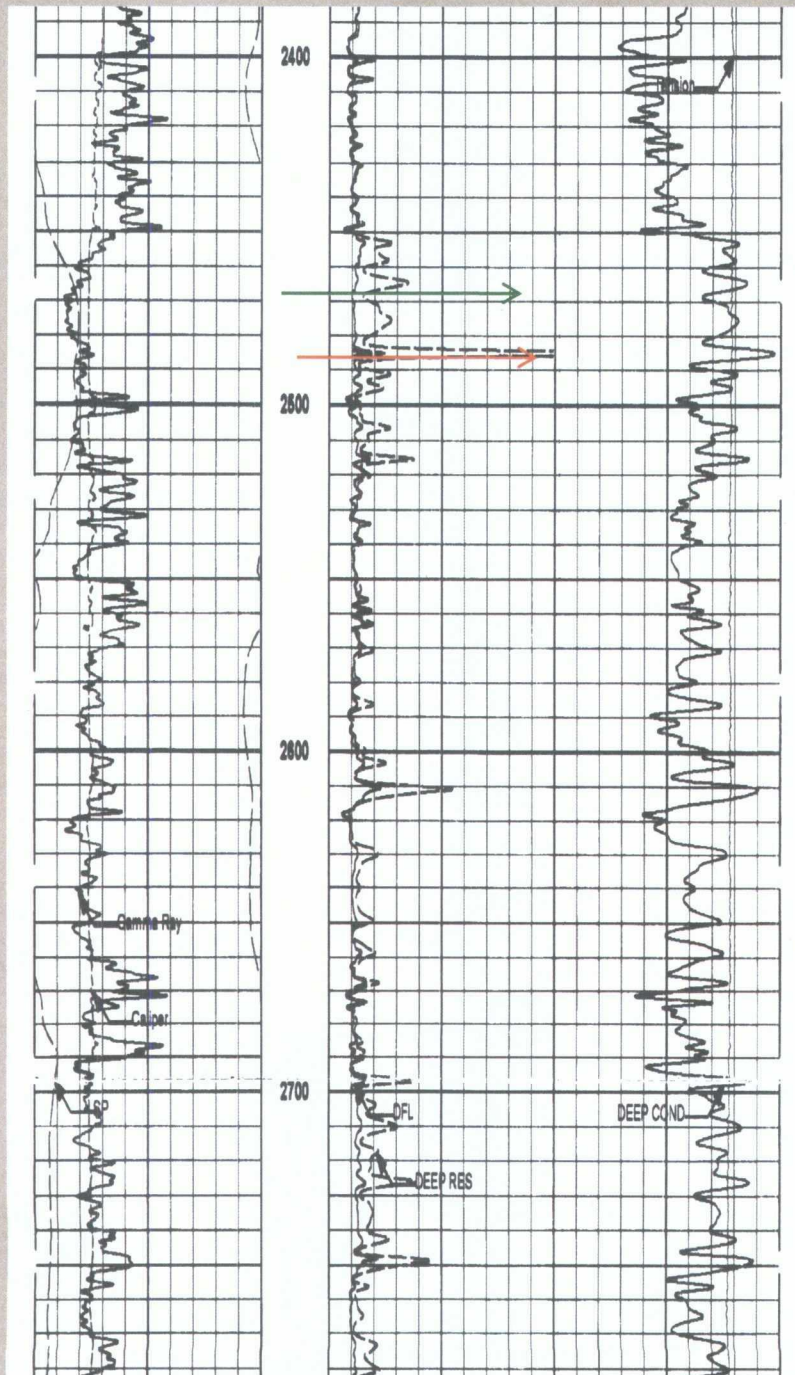


Halliburton High Resolution Induction Log.



OCD Exhibit 1A
Case Nos. 14265/14266
Re: Rosetta Resources

WORKSHEET FOR ESTIMATING WATER QUALITY FROM
ELECTRICAL WELL LOGS

From Log Header:

For Sample @ 2469' High Res Ind 26 Jan

Well No. & Location Tsah Tedi SWP#11 30-045-34082

Rmf 1.01 at 72.6 °F

Max. Recorded Temp. 110°F °F

Bottom Logged Interval 4508 feet

Temp. Gradient in degrees F/foot = (max. Rec. Temp - 60°F ÷ Bottom Logged Interval) = .011

XX

Sand between 2460 and 2480 Feet Depth

$T_f = (\text{Temp. Gradient} \times \text{Depth of } F_m) + 60^\circ\text{F} = \underline{87.16}^\circ\text{F}$

Rmf at T_f (From chart Gen-9 Schlumberger) = .63

Rsf1 (or equivalent) = 10 ohm-meters (From Log)

Rild (or equivalent) = 15 ohm-meters (From Log)

$F = \frac{R_{sf1}}{R_{mf}} = \frac{10}{.63} = \underline{15.87}$

$R_{wa} = \frac{R_{ild}}{F} = \frac{15}{15.87} = \underline{.945}$ ohm - m at T_f

Convert R_{wa} @ T_f to R_{wa} @ 77°F (25°C) $R_{77} = R_{Tf} \left(\frac{T_f + 6.77}{83.77} \right)^{.945}$; in OF (Arps)

R_{wa} @ 77°F (25°C) = 1.0596

Use chart or equation to relate R_{wa} to TDS ~5200 mg/L

(If TDS is less than 5000, continue to lower sand)

OCD Exhibit 1B

Case Nos. 14265/14266

Re: Rosetta Resources

OCD Exhibit 1C

Case Nos. 14265/14266

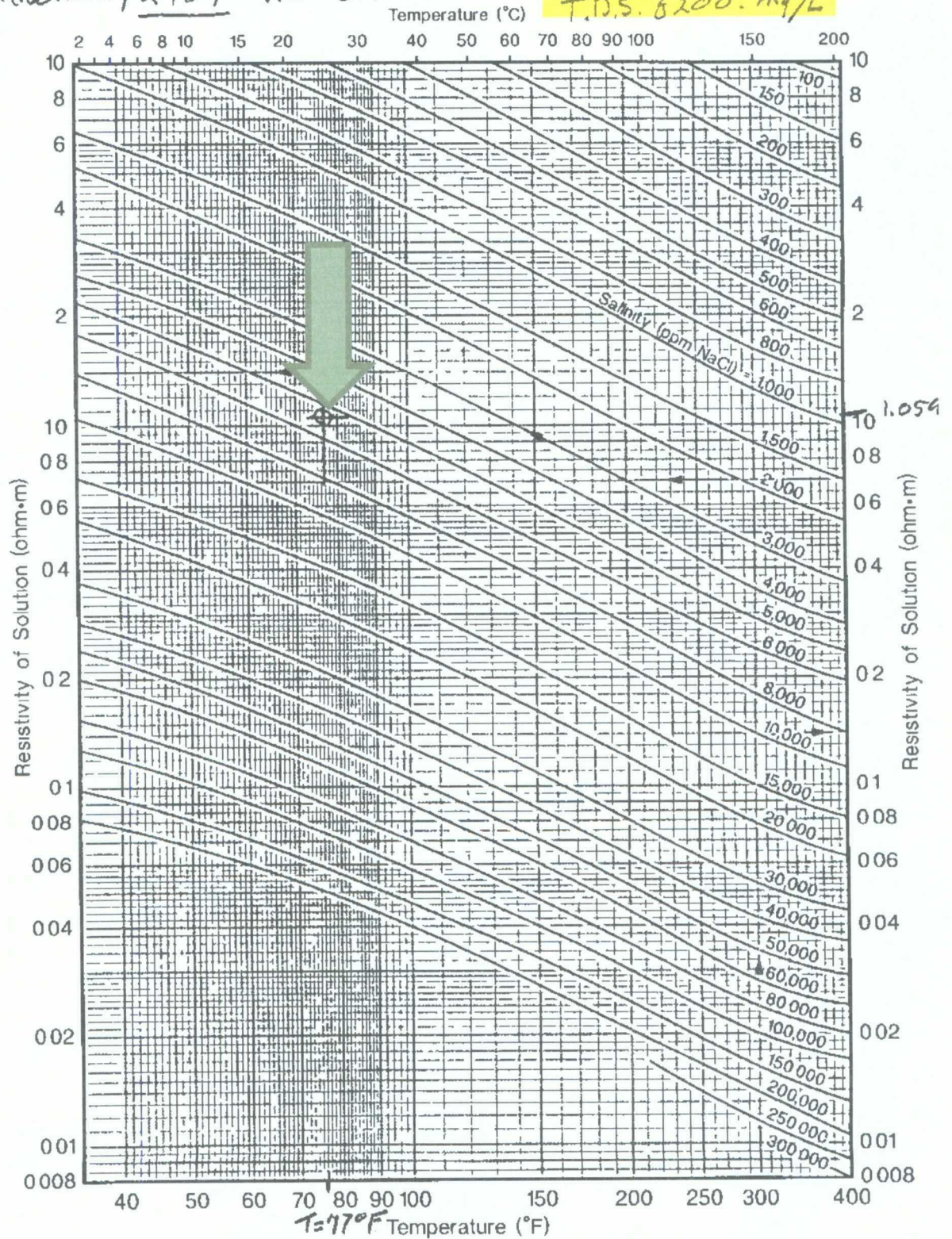


Re: Rosetta Resources

Resistivity-Salinity-Temperature

Conversions of NaCl Solutions

T_{sal} Tah SWD #11 Calculations from Halliburton High Resist
Induction Log 2469' Rwa 0.945 @ 87.16°F Rwa @ 77°F 1.0596
T.D.S. 6200 mg/L



OCD Exhibit 1D

Case Nos. 14265/14266

WORKSHEET FOR ESTIMATING WATER QUALITY FROM
ELECTRICAL WELL LOGS

Re: Rosetta Resources

From Log Header:

Well No. & Location Tsal Tah SWD#11 30045-34082 at 248

Rmf 1.01 at 72.6 °F

Max. Recorded Temp. 110 °F

Bottom Logged Interval 4508 feet

Temp. Gradient in degrees F/foot = (max. Rec. Temp - 60°F ÷ Bottom Logged Interval)
= .011

XX

Sand between 2481 and 2488 Feet Depth

$T_f = (\text{Temp. Gradient} \times \text{Depth of } F_m) + 60^\circ\text{F} = \underline{87.335}^\circ\text{F}$

Rmf at T_f (From chart Gen-9 Schlumberger) = .63

Rsfl (or equivalent) = 25 ohm-meters (From Log)

Rild (or equivalent) = 100 ohm-meters (From Log)

$F = \frac{Rsfl}{Rmf} = \frac{25}{.63} = \underline{39.68}$

$Rwa = \frac{Rild}{F} = \frac{100}{39.68} = \underline{2.52}$ ohm - m at T_f

Convert Rwa @ T_f to Rwa @ 77°F (25°C) $R_{77} = R_{Tf}^{\frac{2.52}{87.335}} \left(\frac{T_f + 6.77}{83.77} \right)$; in °F (Arps)

Rwa @ 77°F (25°C) = 2.83

Use chart or equation to relate Rwa to TDS

1.900 mg/L

(If TDS is less than 5000, continue to lower sand)

OCD Exhibit 1E



Case Nos. 14265/14266

Re: Rosetta Resources

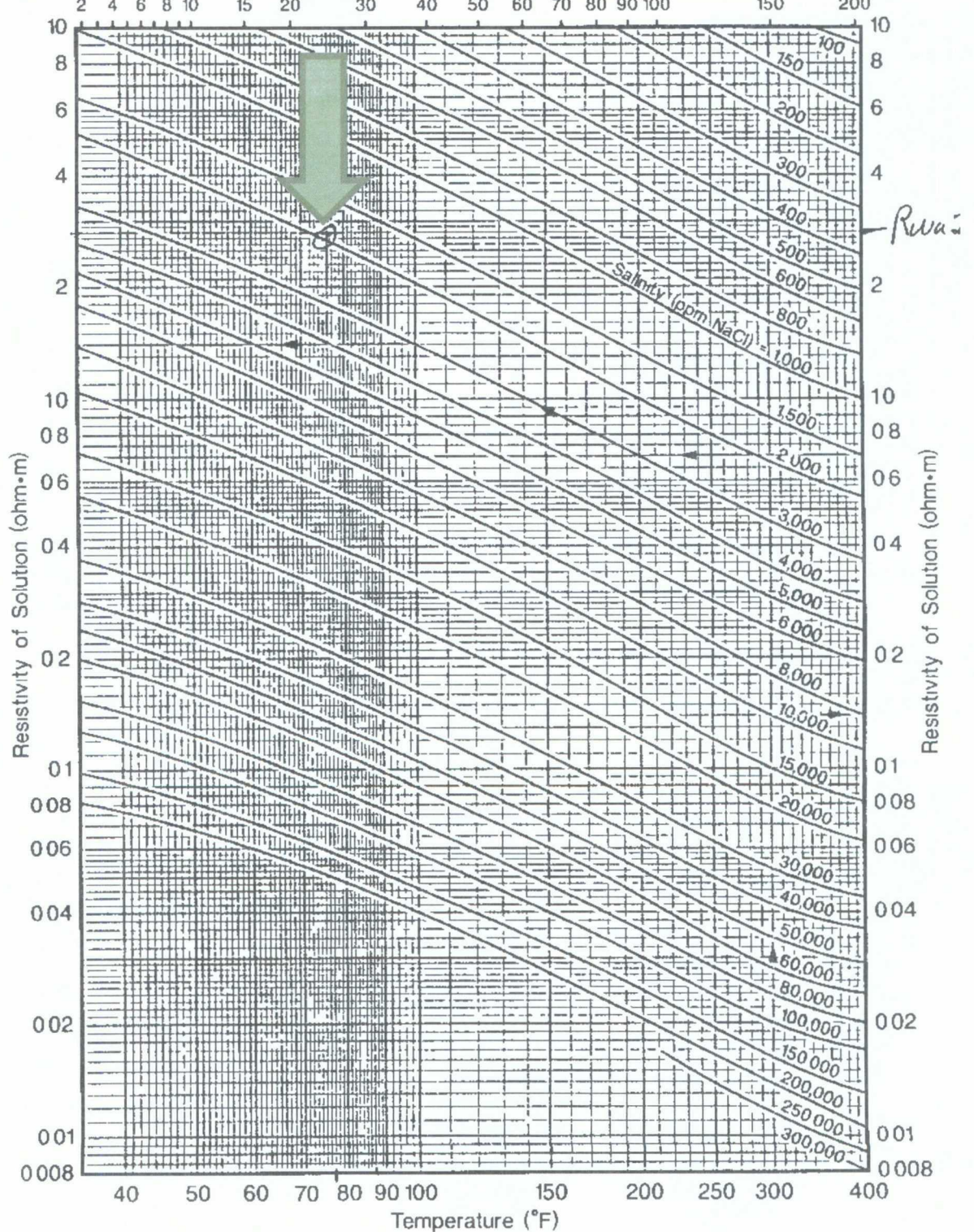
Resistivity-Salinity-Temperature Conversions of NaCl Solutions

Tsah Tah SWD #11 Calculations from Halliburton High Reso

Induction log @ 2485

Temperature (°C)

TDS ~ 1900 mg/L



OCD Exhibit 1F



Case Nos. 14265/14266

Re: Rosetta Resources

**Resistivity-Salinity-Temperature
Conversions of NaCl Solutions**

Key Services 3/15/2007
Tsahtali #11 @ 2469' TDS ~ 10,000 mg/L

