

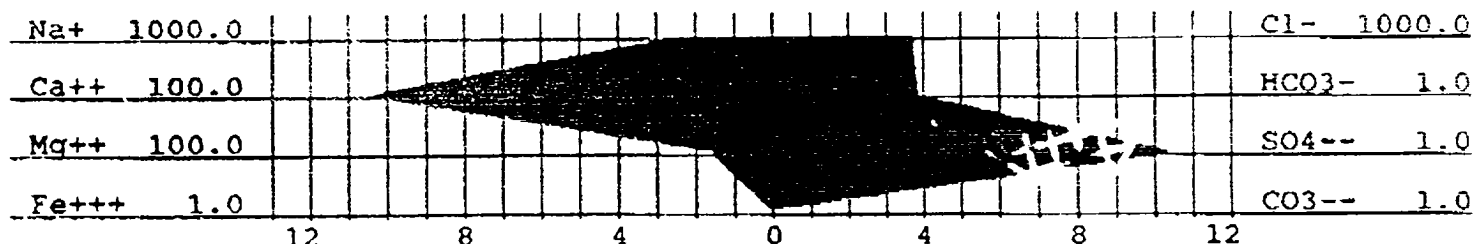


WATER ANALYSIS for SIETE

Date of Analysis:	OCTOBER 31, 1990	Analysis #:	5024
Company:	SIETE	Company Address:	N/D
State:	N.M.	Field:	N/D
Lease:	TOGG FED. #5	Well #:	FED. # 5
Oil (bbl/day):	N/D	Water (bbl/day):	N/D
Type of Water:	PRODUCED	Temp., C:	20
Sample Source:	WELLHEAD	Date of Sampling:	OCTOBER 31, 1990
Representative:	STEVE STROUD	Analysis By:	STEVE STROUD

WATER ANALYSIS PATTERN

(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness :	1220.00	
Calcium, (Ca++) :	1060.00	21251.00
Magnesium, (Mg++) :	160.00	1944.22
Iron, (Fe+++)	0.05	1.00
Barium, (Ba++) :	N/D	N/D
Sodium, Na+(calc):	2653.71	61035.31
Manganese, (Mn++) :	0.00	0.00

ANIONS

Chloride, Cl-	: 3859.15	136995.03
Sulfate, SO4--	: 10.61	510.00
Carbonate, CO3--	: 0.00	0.00
Bicarbonate, HCO3--	: 4.00	244.05
Hydroxyl, OH-	: 0.00	0.00
Sulfide, S--	: 0.00	0.00
TOTAL SOLIDS (quant.):		282980.60

DISSOLVED GASES

Hydrogen sulfide:	50.00	mg/l
Carbon dioxide :	277.20	mg/l
Oxygen :	0.40	mg/l

PHYSICAL PROPERTIES

pH	:	6.40
Spec Grav.	:	1.145
TDS (calc.)	:	221984.61

SCALE STABILITIES

Temp., C	CaCO3	CaSO4	BaSO4
20.0	1.29	802	1
40.0	N/D	1070	2
60.0	N/D	838	2
Max entity, (calc.)	774		0
RESIDUAL HYDROCARBONS:		N/D	

N/D = not determined

Remarks: @ 20'C...Severe Carbonate Scaling.

@ 20'C...Calcium sulfate scaling is likely.