

ATTACHMENT C

WATER ANALYSIS REPORT
furnished by IRELIOLITE CHEMICALS

COMPANY: YATES PET
LEASE: AQUADUCT #1
SAMPLE POINT: WELL HEAD
SAMPLE DATE: 9-12-90
SAMPLE TEMP.: N/A

pH: 5.4
H2S: POS
SPECIFIC GRAVITY: 1.185

TITRATED AND CALCULATED IONS

	MILLIGRAMS PER LITER	MILLIEQUIVALENTS PER LITER
HCO3	48.80	0.80
Cl	162942.00	4589.92
SO4	200.00	4.17
Ca	32800.00	1640.00
Mg	2308.50	189.22
Na	63610.21	2765.66

IONIC STRENGTH = 5.51

TOTAL HARDNESS = 91500.0 mg/ltr.

TOTAL DISSOLVED SOLIDS = 261784.1 mg/ltr.

PROBABLE MINERAL COMPOSITION AND ION PAIRING

	MILLIEQUIVALENTS PER LITER	MILLIGRAMS PER LITER
Ca(HCO3)2	0.80	64.83
CaSO4	4.17	283.63
CaCl2	1635.03	90744.34
Mg(HCO3)2	0.00	0.00
MgSO4	0.00	0.00
MgCl2	189.22	9010.72
NaHCO3	0.00	0.00
Na2SO4	0.00	0.00
NaCl	2765.66	161680.60

CALCULATED SCALING TENDENCIES

SCALING INDEX

CaCO3 @ 80 DEG F. = 0.0

CaCO3 @ 120 DEG F. = 0.7

SATURATION POINT

CaSO4 @ 70 DEG F. = 334.8 MG/LTR.

CaSO4 @ 110 DEG F. = 355.7 MG/LTR.

(THIS SAMPLE CONTAINED 283.6 MG/LTR. CaSO4)