

UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : AMOCO PRODUCTION COMPANY

DATE : 11/06/85

FIELD, LEASE & WELL : OGALLALA

SAMPLING POINT: WATER WELL 1 MILE NE OF ST DQ #3

DATE SAMPLED : 10/24/85

SPECIFIC GRAVITY = 1

TOTAL DISSOLVED SOLIDS = 2812

RESISTIVITY AT 71F IS 4.23 OHMS

PH = 6.95

MG/L

MG/L

CATIONS

CALCIUM	(CA)+2	4.2	35.8
MAGNESIUM	(MG)+2	6.2	76.3
SODIUM	(NA), CALC.	30.7	711.

ANIONS

BICARBONATE	(HCO3)-1	4.4	268.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	28.1	1350
CHLORIDES	(CL)-1	?	320

DISSOLVED GASES

CARBON DIOXIDE	(CO2)	NOT RUN
HYDROGEN SULFIDE	(H2S)	NOT RUN
OXYGEN	(O2)	NOT RUN

IRON(TOTAL)	(FE)	.2
BARIUM	(BA)+2	.1
MANGANESE	(MN)	NOT RUN

IONIC STRENGTH (MDAL) = .061

SCALING INDEX

TEMP

CARBONATE INDEX
CALCIUM CARBONATE SCALING30C
86F
-0.08
UNLIKELYCALCIUM SULFATE INDEX
CALCIUM SULFATE SCALING-7.8
UNLIKELY

BEFORE EXAMINER STOGNER

OIL CONSERVATION DIVISION

Amoco EXHIBIT NO. 9C

CASE NO. 8767

UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : AMOCO
DATE : 2-26-85
FIELD, LEASES WELL : MARY GATES WOLF CAMP (CHAVEZ COUNTY)
SAMPLING POINT: STATE DO WELL #1; WELLHEAD
DATE SAMPLED : 2-23-85

SPECIFIC GRAVITY = 1.106
TOTAL DISSOLVED SOLIDS = 158701
RESISTIVITY AT F IS 0 OHMS
PH = 5.99

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	640	12825.
MAGNESIUM	(MG)+2	30	366
SODIUM	(NA).CALC.	2055.	47260.
ANIONS			
BICARBONATE	(HCO3)-1	1	61.0
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	24.7	1187.
CHLORIDES	(CL)-1	2700	97000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		21.2
BARIUM	(BA)+2	0	5
MANCANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = 3.263

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	- .42
CALCIUM CARBONATE SCALING	UNLIKELY
CALCIUM SULFATE INDEX	5.32
CALCIUM SULFATE SCALING	LIKELY