



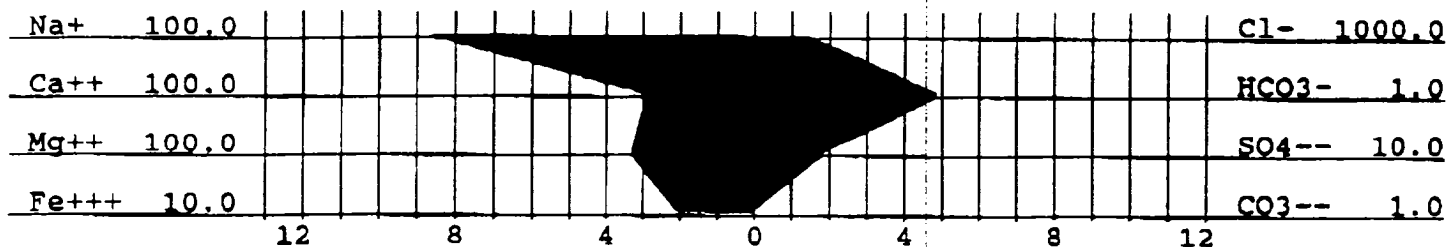
**BAKER PERFORMANCE
CHEMICALS**
A Division of Baker Performance Chemical, Inc.

**WATER ANALYSIS
for
SAMSON RESOURCES CO**

Date of Analysis:	JUNE 14, 1993	Analysis #:	2309
Company:	SAMSON RESOURCES CO	Company Address:	
State:		Field:	N/D
Lease:	NEW MEXIO C #1	Well #:	# 1
Oil (bbl/day):	N/D	Water (bbl/day):	N/D
Type of Water:	PRODUCED	Temp., C:	20
Sample Source:	WATER TANKS	Date of Sampling:	JUNE 12, 1993
Representative:	DON BLACKSTOCK	Analysis By:	SUZANNE WILLIAMS

WATER ANALYSIS PATTERN

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



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness :	640.00	
Calcium, (Ca++) :	300.00	6014.43
Magnesium, (Mg++) :	340.00	4131.48
Iron, (Fe+++) :	21.50	400.00
Barium, (Ba++) :	N/D	N/D
Sodium, Na+(calc.):	883.34	20316.93
Manganese, (Mn++) :	0.00	0.00

ANIONS		
Chloride, Cl- :	1521.12	53997.87
Sulfate, SO4-- :	18.73	900.00
Carbonate, CO3-- :	0.00	0.00
Bicarbonate, HCO3-- :	5.00	305.06
Hydroxyl, OH- :	0.00	0.00
Sulfide, S-- :	0.00	0.00
TOTAL SOLIDS (quant.):		86065.77

DISSOLVED GASES

Hydrogen sulfide:	0.00	mg/l
Carbon dioxide :	811.80	mg/l
Oxygen :	N/D	mg/l

PHYSICAL PROPERTIES

pH :	5.35
Spec Grav. :	1.050
TDS (calc.) :	86070.77

SCALE STABILITIES

Temp., C	CaCO3	CaSO4	BaSO4
20.0	-1.22	2579	0
30.0	-1.03	2717	0
40.0	-0.80	2922	0
Max entity, (calc.)	1308		0

RESIDUAL HYDROCARBONS: N/D

N/D = not determined

@20'C...CALCIUM SULFATE SCALING IS UNLIKELY.
@20'C...SEVERELY CORROSIVE.



TONY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

ORDER SWD-292

50 YEARS



1935 - 1985

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SANTA FE, NEW MEXICO 87501
(505) 827-6800

THE APPLICATION OF CHAPARRAL SERVICE, INC.

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Chaparral Service, Inc. made application to the New Mexico Oil Conservation Division on October 22, 1985, for permission to complete for salt water disposal its Lea No. 1 well located in Unit B of Section 17, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

The Division Director finds:

- (1) That application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) That satisfactory information has been provided that all offset operators and surface owners have been duly notified; and
- (3) That the applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met.
- (4) That no objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED:

That the applicant herein, Chaparral Service, Inc. is hereby authorized to complete its Lea No. 1 well, located in Unit B of Section 17, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the injection of salt water for disposal purposes into the San Andres formation at approximately 4,000 feet to approximately 5,000 feet through 2 7/8 inch plastic lined tubing set in a packer located at approximately 4025 feet.

IT IS FURTHER ORDERED:

That the operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

That the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

That the injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 800 psi.

That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the San Andres formation. That such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

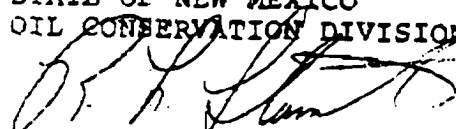
That the operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER, That jurisdiction of this cause is hereby retained by the Division for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after notice and hearing, the Division may terminate the authority hereby granted in the interest of conservation. That applicant shall submit monthly reports of the disposal operations in accordance with Rule 706 and 1120 of the Division Rules and Regulations.

Approved at Santa Fe, New Mexico, on this 13th day of November, 1985.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


R. L. STAMETS,
Director

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