

ALPHA TWENTY-ONE PRODUCTION COMPANY

Alpha Twenty-One Production Company
1000 North Central Avenue

San Antonio, Texas 78205

February 2, 1982

Oil Conservation Division
P.O. Box 2086
Santa Fe, NM 87501

SUBJECT: Application for Salt Water Disposal System in the San Andres

RE: Buckskin Federal No. 3
1650' FSL & 1980' FWL,
Sec. 18, T-24-S, R-38-E,
Lea County, New Mexico

Gentlemen:

Attached you will find a map that identifies all wells and leases within two miles of our proposed injection well with a one-half mile radius circle drawn around the proposed site to identify the area of review. Also attached you will find a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone along with a schematic illustrating all plugging detail for each well.

1. We propose to inject an average of 150 bbls of fluid per day with a maximum rate of 250 bbls per day.
2. The system will be closed.
3. Average injection pressure will be 300 PSI and maximum will be 800 PSI.

Below are the fluid analysis of the injection fluid and the receiving formation; analysis are from Tretolite Labs and "Salinity Map of San Andres Formation" taken from McNeal R.P. 1964.

	<u>Buckskin Federal #1</u>	<u>Buckskin Federal #2</u>	<u>Receiving Formation</u>
HCO ₃	122 Mg/L	207 Mg/L	Chlorides between 100,000 to 50,000 ppm
Cl	111,100 Mg/L	135,542 Mg/L	
SO ₄	950 Mg/L	575 Mg/L	
Ca	10,400 Mg/L	14,000 Mg/L	
Mg	3,159 Mg/L	8,262 Mg/L	
Iron (Fe)	18 Mg/L	375 Mg/L	
Total Hardness/ (CaCO ₃)	39,000 Mg/L	69,000 Mg/L	

RECEIVED
FEB 28 1983
O.C.D.
HOBBS OFF

February 1, 1983

The San Andres section in this well is comprised mainly of dolomite and limestone with some shale and sand. The top of the San Andres is at 4295' and the base is at 5148', giving it a thickness of 953'. The only fresh water produced is from alluvial at the surface. There are no fresh water wells producing within a one mile radius of the proposed disposal well, nor have we found any evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water. Logs have already been filed with the Division.

Please note:

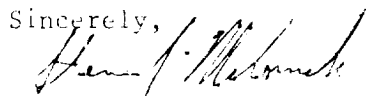
- 1.) The injection formation is the San Andres.
- 2.) The well was originally drilled as an oil well.
- 3.) The next higher oil zone is the Queen with a base at 3937' (158 feet away) and the nearest oil zone underlying is the Tubbs at 6280' (1041 feet away).
- 4.) The injection well is perforated and intervals are sealed off with bridge plugs as follows:

Peris. 6710' - 6740'	Bridge plug 6620'
Peris. 6238' - 6460'	Bridge plug 6200'
Perfs. 5724' - 5896'	Bridge plug 5690'
Perfs. 5412' - 5444'	Bridge plug 5318'

Below is a list of required attachments for this application. If you desire anything further, please contact the undersigned.

- 1.) Form 9-331
- 2.) Form C-108
- 3.) Proof of Publication, Hobbs Daily News Sun.
- 4.) Injection Well Data Sheet

Sincerely,



Steven J. McCormick
Technical Advisor

SJM/tic
Enclosures

cc: Via Certified Mail
Mr. Clyde Cooper, Surface Owner
201 W. Nebraska
Jal, NM 89252

Offset Operators:

Getty Oil Company
Two Midland National Center
Midland, TX 79701

RECEIVED
FEB 28 1983
C.C.D.
HOBBS OFFICE

buckskin Federal No. 1
Application for Salt Water Disposal
-Page 3-

February 2, 1983

Conoco, Inc.
Box 1959
Gibraltar Saving Center
Midland, TX 79702

Gulf Oil Exploration and Production Company
P.O. Box 670
Hobbs, NM 88240

Arco Oil and Gas Company
Box 1610
Atlantic Richfield Building
Midland, TX 79702

Tenaco, Inc.
Box 3109
7th Floor Midland Savings
Midland, TX 79701

HNG Oil Company
P.O. Box 2267
Midland, TX 79702

Oil Conservation Division
P.O. Box 1980
Hobbs, NM 88240

Alpha Twenty-One Production Company
2100 First National Bank Building
Midland, TX 79701
ATTN: Mr. Tom Phipps

United States Department of the Interior
Minerals Management Service
P.O. Drawer 1857
Roswell, NM 88201
ATTN: Armando A. Lopez

RECEIVED
FEB 28 1983
O.C.D.
HOBBS OFFICE