

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331



27 February 1981

Oil Conservation Commission
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

RE: Energy Reserves Group's Application for permission permitting the disposal of produced water from the Pictured Cliffs Formation into the Mesa Verde Formation, Gallegos Canyon Unit Well No. 328, dated February 11, 1981.

Attached are three corrected copies of Form C-108, Application To Dispose of Salt Water By Injection into a Porous Formation, to replace the initial ones submitted on February 11, 1981. The initial Form C-108 mistakenly indicated that the Federal Government was the surface owner at the subject location. The actual surface owner is the Navajo Tribe, as indicated on the attached corrected forms. Please destroy the initial copies of the Form and replace them with the attached. The cover letter and all Exhibits submitted with the initial Form C-108, however, still apply.

Sincerely yours,
ENERGY RESERVES GROUP, INC.

J.E. Jones
District Engineer
Rocky Mountain District

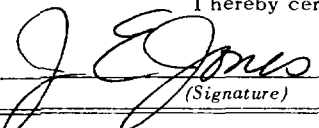
JEJ:erl

enclosure

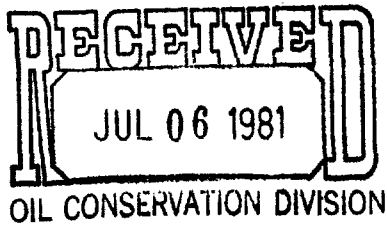
NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Energy Reserves Group, Inc.		ADDRESS P.O. Box 3280 - Casper, Wyoming 82602			
LEASE NAME Gallegos Canyon Unit	WELL NO. 328	FIELD West Kutz	COUNTY San Juan		
LOCATION UNIT LETTER N ; WELL IS LOCATED 1070' FEET FROM THE South LINE AND 1520' FEET FROM THE West LINE, SECTION 33 TOWNSHIP 29N RANGE 12W NMPM. San Juan County, New Mexico					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	9-5/8"	277'	275	Surface	Cmt circulated
INTERMEDIATE					
LONG STRING	7"	4,085'	1,000	Surface	Cmt circulated
TUBING			NAME, MODEL AND DEPTH OF TUBING PACKER		
Plastic Lined	2-3/8"	2,805'	Baker Lok-Set @ 2,805'		
NAME OF PROPOSED INJECTION FORMATION Mesa Verde		TOP OF FORMATION 2,834'		BOTTOM OF FORMATION 4,020'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? Perforations		PROPOSED INTERVAL(S) OF INJECTION 2,852'-3,797'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? Yes		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? (It also was drilled as a Fruitland producer)		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Fruitland	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH This well will be dually completed as a Fruitland producer and Mesa Verde injector					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA Approximately 270'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA Pictured Cliffs @ 1,560'		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA Gallup @ approximately 5,100'	
ANTICIPATED DAILY INJECTION VOLUME (BBLS.) 1235	MINIMUM 800	MAXIMUM 1300	OPEN OR CLOSED TYPE SYSTEM Open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 900 psi
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - Yes			WATER TO BE DISPOSED OF Yes		
			NATURAL WATER IN DISPOSAL ZONE Yes		
			ARE WATER ANALYSES ATTACHED? Yes		
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) The Navajo Tribe - Bureau of Indian Affairs, Navajo Area Office, Window Rock, Arizona 85615					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Amoco Production Company, Security Life Building - Denver, Colorado 80202 Attn: Real Property Management					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.


District Engineer - RMD
(Title)**27 February 1981**
(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.



Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

 Energy Reserves Group

July 2, 1981

SWP 236

Oil Conservation Commission
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Request to increase injection pressure on
Gallegos Canyon Unit #328 from 5700 psi to
1000 psi.

Gentlemen:

On May 27, 1981, Energy Reserves Group, Inc., requested an increase
of injection pressure for Gallegos Canyon Unit #328.

Attached is The Treating Report for the Acid Treatment for the above
mentioned well in support of this request.

Sincerely,
ENERGY RESERVES GROUP, INC.



R.E. Schanaman
Production Engineer
Rocky Mountain District

RES:erl

enclosures

Date 1/24/81 Field Rec. No. 01578 CDN _____
Operator Energy Reserves New Well _____
Well Name Gallegos Canyon #328 Old Well X
Field _____ Sec. 33 TWP. 29N RGE. 12W
County San Juan State N.M. District Farmington

FORMATION DATA

Form 1 Mesa Verde Perf Dia in Perfs 2858-3797 419 holes

Form 2 Perf Dia in Perfs

Form 3 Perf Dia in Perfs

Form 4 Perf Dia in Perfs

New Zones 1 Oil Gas 1 Injection Disposal Other (specify)

Treatment History: Vol Gal Fluid Remarks

PIPE DATA

[illegible]

	BHT f	BHT P2	Por %	Perm md
Form 1				
Form 2				
Form 3				
Form 4				
Source				

TREATMENT DATA (At Blender)

Pad Fluid	Pad Vol	gal KCL	%	Aux Mtrls
Frac Fluid 1	Fluid 1 Vol	gal KCL	%	Aux Mtrls
Frac Fluid 2	Fluid 2 Vol	gal KCL	%	Aux Mtrls
Frac Fluid 3	Fluid 3 Vol	gal KCL	%	Aux Mtrls
Frac Fluid 4	Fluid 4 Vol	gal KCL	%	Aux Mtrls
Flush	Flush Vol	gal KCL	%	Flush Aux Mtrls <u>SAA-1 55 gal</u>
Acid <u>HAS-1</u>	Acid Vol <u>1600</u>	gal Strength <u>7 1/2</u>	%	Acid Aux Mtrls <u>3 gal CIA-1</u>
Acid Flush <u>Form. water</u>	Acid Flush Vol <u>657</u>	gal KCL	%	Acid Aux <u>Tubing</u>
Ball Sealer Dia <u>7/8</u> in. Type <u>RCN</u>	Stg 1 <u>650</u>	Stg 2	Stg 3	Stg 4
Other	Stg 5	Stg 6	Stg 7	
Recommended Procedure <u>Spot 1600 gal HAS-1, ball off w/ 650</u>		Hole loaded with <u>Dry</u>		
<u>RCN's 1.1 S.G.</u>				

Days	Temp	Moist	Wt (lbs)
1			
2			
3			
4			

Max Prop _____ lb/gal Tot _____ lbs

Source Energy Reserves
Treating Press (PSI) Max 2700 Ave 2500 Operator's Max 3000 ISDP 1200 Final 600 in 10 Min
Ave. Inj. Rate 10 BPM Total load to recover 254 BBL

5 min 700 PSI

TREATMENT PROCEDURE

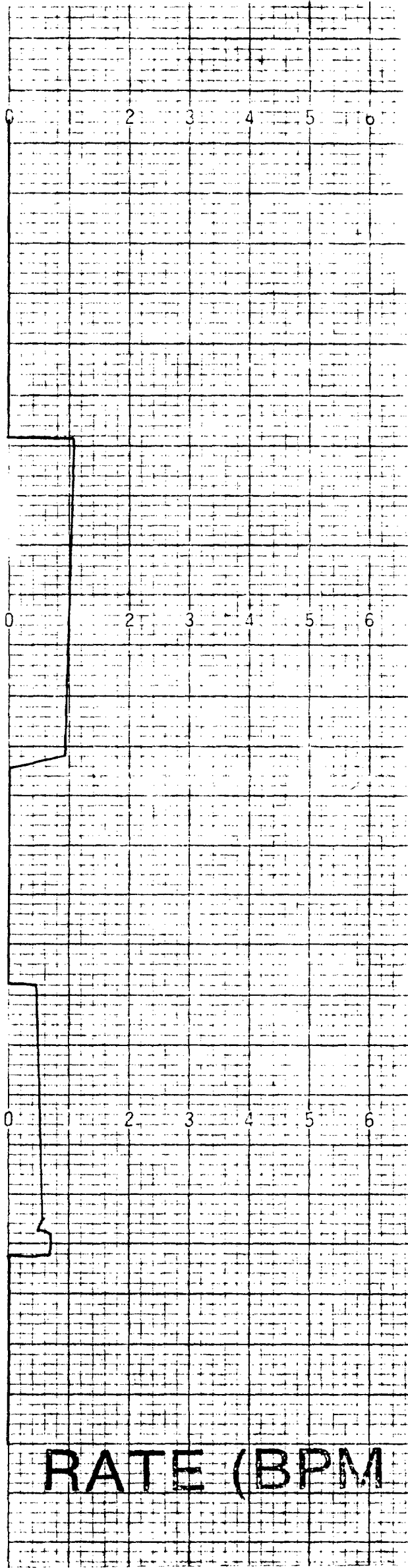
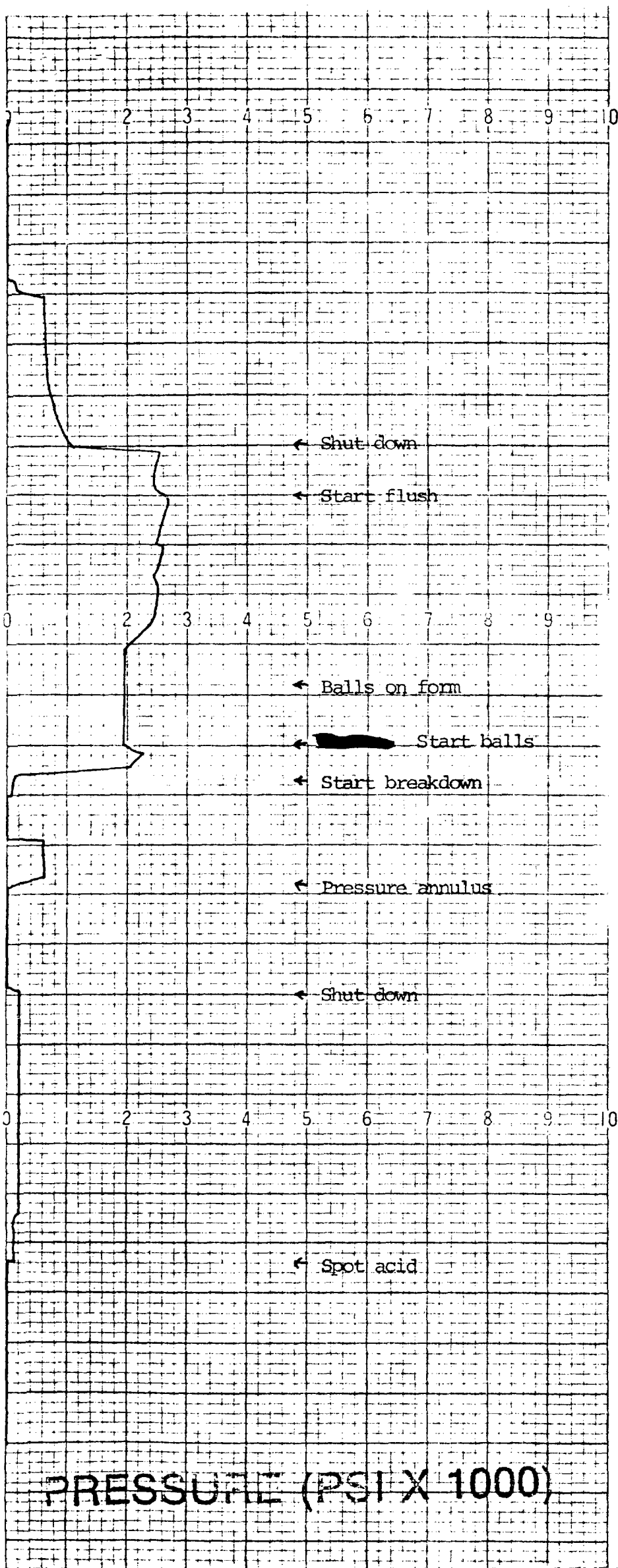
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SMITH ENERGY Rep Rick Prysock Customer Rep T.C. Durham
Distribution: 1-SES Denver, 1-SIS Golden, 1-SES Farmington, 1-Energy Reserves, Casper
1-Energy Reserves, Farmington

san juan repro Form 292-3

ENERGY RESERVES
GALLEGOS CANYON #
1-24-81

$$\begin{array}{r} 24 \\ 8 \overline{) 192} \\ \underline{16} \\ 32 \\ \underline{32} \\ 0 \end{array}$$





STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

June 10, 1981

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Energy Reserves Group, Inc.
P. O. Box 3280
Casper, Wyoming 82602

Attention: J. E. Jones

Dear Mr. Jones:

By your letter of May 27, 1981, Energy Reserves Group requested an increase in injection pressure on its Gallegos Canyon Unit Well No. 328 salt water disposal well.

The request was based upon the instantaneous shut-after-frac-pressure obtained during treatment on January 24, 1981. Appropriate data on this treatment is not reflected in our well files for verification nor was submitted with the application. Such information is required prior to authorization of increased injection pressures. Field data sheets or office summaries are acceptable.

Upon receipt of the required data the application will be processed.

Sincerely,

R. L. STAMETS
Technical Support Chief

RLS/og

cc: Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 875
(505) 827-2434

July 20, 1981

Energy Reserves Group, Inc.
P. O. Box 3280
Casper, Wyoming 82602

Attention: J. E. Jones or R. E. Shanamon

Re: Gallegos Canyon Unit #328
Unit N, Section 33, Township 29
North, Range 12 West, NMPM,
San Juan County, New Mexico

Gentlemen:

Based upon information and test data submitted by your letter of July 2, 1981, the maximum authorized wellhead injection pressure for the subject well is hereby increased to 1000 psi.

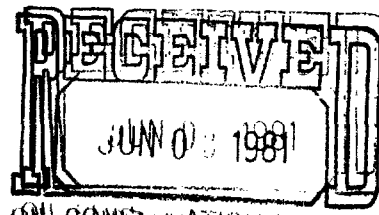
Please note that it remains the responsibility of the well operator to promptly report any disposal well failures or indications that injected fluid is "out-of-zone" to the supervisor of the Division's Hobbs District Office.

Yours truly,

JOE D. RAMEY
Division Director

JDR/OS/og
cc: Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331



OIL CONSERVATION DIVISION
SANTA FE

 Energy Reserves Group

May 27, 1981

Oil Conservation Commission
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

N 33-29 N-12 W
S Juan
an

Subject: Request to increase injection pressure on Gallegos
Canyon Unit #328 from 570 psi to 1000 psi.

Gentlemen:

Administrative order #SWD-236 authorizes the injection of Salt Water into Gallegos Canyon Unit #328, with a limit of 570 psi surface pressure. This limit will not allow sufficient rate for our purposes. It is requested that the 570 psi limit be increased to 1000 psi surface pressure in light of the fact that the ISDP for the acid treatment for the disposal zone was 1200 psi. This treatment was ran on January 24, 1981.

Since the instantaneous shut down pressure is a reflection of formation fracture pressure, I feel that 1000 psi is still well below the formation fracture pressure.

Very truly yours,
ENERGY RESERVES GROUP, INC.



J.E. Jones
District Engineer
Rocky Mountain District

JEJ:RES:erl

