STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

August 20, 1984

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Mr. Scott Hall
Campbell, Byrd & Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Re: CASE NO. 8246
ORDER NO. R-7638

Applicant:

Trans Pecos Resources, Inc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD _____
Artesia OCD X
Aztec OCD _____

Other _____

CAMPBELL, BYRD & BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
HARL D. BYRD
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
J. SCOTT HALL
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POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87501
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

July 31, 1984

Mr. Richard L. Stamets
New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Case No. 8246: Application of Trans Pecos Resources, Inc. for Enhanced Oil Recovery Gas Injection Project, Guadalupe County, New Mexico.

Dear Mr. Stamets:

Enclosed for your consideration are two (2) proposed forms for Orders to be entered in the above-referenced proceeding.

You may recall that at the hearing held on this Application Trans Pecos requested that it be allowed to include additional offset recovery wells in the project area by administrative application (ordinary drilling permit requirements notwithstanding). Correspondingly, the additional proposed order submitted contains a provision allowing additional offset recovery wells to be so covered by the scope of the order while dispensing with the requirement for additional application and hearing.

Please let me know if I can provide additional information with respect to the subject application.

Very truly yours,

J. Scott Hall

JSH/cv
enclosures

EDA Instruments Inc.
4115 Silver Avenue SE
Albuquerque NM 87108

EDA

FROM:
EDA INSTRUMENTS INC.
4115 Silver S.E.
Alb., N.M. 87108

Customer Number, if any:

TO: Richard L. Stamets —
Oil Conservation Div.
P.O. Box 2088
Santa Fe N.M. 87501

★ U.S.G.P.O. 1983-400-104 Label 11-B, Apr. 1983

EXPRESS MAIL

ORIGIN:
Initials of Receiving Clerk: EO
P.O. ZIP Code: 87108
Date In: 7/26/84 Time In: 1515
Return Receipt Service
☐ To Whom & Date Del.
☐ To Whom, Date & Address of Del.
Weight: 1 Lbs.
Postage & Fees: $ 9.35

B52758517

DESTINATION:
Date Del.: 7/27 Time Del.: 0750
Initials of Del. Emp.:
Signature of Addressee or Agent:

DELIVERY WAS ATTEMPTED
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Notice Left By:

EXPRESS MAIL SERVICE

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ALBUQUERQUE NEW MEXICO JUL 26 '84

U.S. POSTAGE

Trans Pecos Resources, Inc.
P.O. Box 328
Santa Rosa, N.M. 88435

CLIENT NO.	LOG NO.	CLIENT P.O. NO.	CONTACT PERSON	TELEPHONE	DATE REPORTED
	17297				7-26-84
[illegible]	COLLECTED	[illegible]	DATE [illegible]	TIME RECEIVED	RECEIVED BY:
7-16-84		Jack	7-20-84	11:50 am	Oliver
PRESERVATION WHEN RECEIVED				TYPE OF CONTAINERS	RECEIVED VIA:
NONE				Glass	Per. Del.
ADDITIONAL PRESERVATION OR PREPARATION				PREPARED BY:	DATE PREPARED:

SAMPLE ID
Well, NE¼ Sec. 11, T9N, R23E Depth 52 ft., Flow Rate- 15 gallons a minute

	mg/l	meq/l		mg/l	meq/l
Aluminum			Alkalinity ($CaCO_3$)	313.8	
Arsenic			Bicarbonate	376.6	6.172
Barium			Boron		
Cadmium			Carbonate	<0.01	
Calcium	70.0	3.493	Chloride	74.8	2.110
Chromium			Cyanide		
Cobalt			Fluoride		
Copper			Hardness ($CaCO_3$)	332.5	
Gold			Nitrate (N)		
Iron	<0.02		pH (no units)	7.71	
Lead			Phenols		
Lithium			Phosphate		
Magnesium	38.3	3.151	Silica		
Manganese	<0.01		Sulfate	354.	7.374
Mercury			Solids (Total Dissolved)	914.	
Molybdenum			Solids (Total Suspended)		
Nickel			Surfactants		
Potassium	1.19	0.030	Color (P.C.U.)		
Silver			Conductance (µohms/cm)		
Sodium			Odor (T.O.)		
Strontium	210.	9.135	Turbidity		
Vanadium					
Zinc			Cation-Anion Balance		

Trans Pecos

July 19, 1984

Mr. Richard L. Stamets
Chief of Technical Services
State of New Mexico
Oil Conservation Division
P.O. Box 2088
Land Office Building
Santa Fe, New Mexico 87501

Re: Case #8246, Docket #25-84
Trans Pecos Resources, Latigo Ranch A#1

Dear Mr. Stamets:

With a view to satisfying your request for a summary of the computer data on the fracture gradient in the referenced well, Trans Pecos commissioned Dowdle, Fairchild and Ancell, who furnished the computer data, to prepare the enclosed summary.

In view of the experimental nature of this project we wish to proceed with all due caution, using the most conservative values we can generate from the limited data available. Consequently,as stated in the covering letter from Ken Ancell, we will adopt a new model using data from the Latigo Ranch B#2 rather than data from N_2 and CO_2 treatment on the Latigo Ranch A#1, which generated the values presented in my testimony at the hearing. If these projections are correct the maximum rates injected will be limited to 500MCFD. We propose to commence with far lower rates, monitoring injection pressures, and limit final rates to remain below the fracture pressure.

If miscibility is achieved, and apparent permeability is increased, higher injection rates would be possible while maintaining injection pressure below the fracture gradient. Such data, as generated, will be forwarded to your office routinely.

I trust the enclosed data will satisfy your requirements, however if you need any further information please notify me.

Yours Sincerely,

Jack Gawron
Production Engineer

JG/ca

Attachments

Dowdle Fairchild & Ancell, Inc.

Petroleum Consultants

14811 St. Mary's Lane, Suite 140
Houston, Texas 77079

Telephone
(713) 497-8990

July 18, 1984

Mr. Robert McKinney
Trans Pecos Resources
800 Gessner
Suite 790
Houston, Texas 77024

Dear Bob:

Attached are two charts that deal with gas injection into the "E" Zone of the Latigo Ranch A-1. The first chart is the same plot we furnished you earlier which shows the surface pressure as a function of time for various injection rates and permeabilities. The second chart is similar except it shows the bottom hole pressure instead of surface pressure. Also shown is a fracture pressure line.

The fracture gradient was calculated from the adjacent Latigo Ranch B-2. This yields a fracture gradient of 0.78 psi/ft. This yields a pressure of 4760 psi at the "E" Zone level. The fracture pressures derived from treatments on the Latigo Ranch A-1 were complicated by the presence of Nitrogen and Carbon Dioxide which made the pressure response "mushy" and not very reliable for determining fracture gradients.

If you are restricted to pressures less than fracture pressure, 500 Mcfd is the maximum rate that you can inject if the permeability is in the 0.1 md range.

If we can help in any other way, please do not hesitate to call.

Sincerely,

DOWDLE FAIRCHILD & ANCELL, INC.

Kenneth L. Ancell

KLA/tb

Attachments

5500
5000
4500
4000
3500
3000
2500
Tubing Head Pressure, psia
0
10
20
30
40
50
60
Time, days
700 Mcfd 0.1 md
500 Mcfd 0.1 md
200 Mcfd 0.05 md
200 Mcfd 0.1 md
Trans Pecos Resources
Latige Ranch A-1
Injection Project

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF TRANS PECOS RESOURCES, INC. FOR AUTHORITY TO INJECT PRODUCED GAS FOR AN ENHANCED OIL RECOVERY PILOT PROJECT, GUADALUPE COUNTY, NEW MEXICO.

Case 8246

ENTRY OF APPEARANCE

Comes now, CAMPBELL, BYRD & BLACK, P.A., and hereby enters its appearance in the above-referenced cause for Trans Pecos Resources, Inc.

Respectfully submitted,

CAMPBELL, BYRD & BLACK, P.A.

By William F. Carr

William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
(505) 988-4421

ATTORNEYS FOR TRANS PECOS RESOURCES, INC.