

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION COMMISSION

Under the provisions of Rule 112-A, El Paso Natural Gas Company made application to the New Mexico Oil Conservation Commission on August 10, 1973, for permission to dually complete its San Juan 28-7 Unit Well No. 177 located in Unit I of Section 30, Township 27 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to produce gas from the South Blanco-Pictured Cliffs Pool and the Chacra Formation.

Now, on this 13th day of August, 1973, the Secretary-Director finds:

- (1) That application has been duly filed under the provisions of Rule 112-A of the Commission's Rules and Regulations.
- (2) That satisfactory information has been provided that all operators of offset acreage have been duly notified.
- (3) That the proposed dual completion will not cause waste nor impair correlative rights.
- (4) That the mechanics of the proposed dual completion are feasible and consonant with good conservation practices.

IT IS THEREFORE ORDERED:

That the applicant herein, El Paso Natural Gas Company, be and the same is hereby authorized to dually complete its San Juan 28-7 Unit Well No. 177 located in Unit I of Section 30, Township 27 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to produce gas from the South Blanco-Pictured Cliffs Pool and the Chacra Formation through parallel strings of 2 7/8-inch casing cemented in a common well-bore.

PROVIDED HOWEVER, That applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A.

PROVIDED FURTHER, That applicant shall take packer-leakage test upon completion and annually thereafter.

IT IS FURTHER ORDERED: That jurisdiction of this cause is hereby retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

A. L. PORTER, Jr.
Secretary-Director

S E A L



SECRET

1. The first part of the document is a list of names and titles of the members of the committee. The names are listed in alphabetical order. The titles are listed in the order in which they appear in the document.

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OIL CONSERVATION COMMISSION
3 DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE 8-20-73

Re: Proposed NSP _____

Proposed NWI _____

Proposed NSL _____

Proposed NFO _____

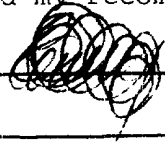
Proposed MC ✓

Gentlemen:

I have examined the application dated 8-7-73

for the EPNG Co San Juan 2F-74 Unit #177 I-30-37N 7W
Operator Lease and Well No. S-T-R

and my recommendations are as follows:

 Approve

Yours very truly,



1. *Chlorophyll a* (Chl *a*) and *Chlorophyll b* (Chl *b*) were extracted from 100 mg of fresh leaves using 10 mL of 80% acetone. The extracts were centrifuged at 1000g for 10 min and the supernatant was transferred to a clean vial. The solvent was evaporated under reduced pressure and the residue was re-suspended in 1 mL of 100% acetone. The absorbance of the extracts was measured at 663 nm and 646 nm using a spectrophotometer. The concentrations of Chl *a* and Chl *b* were calculated using the following equations:

$$\text{Chl } a \text{ (mg/g)} = \frac{12.7 \times \text{Abs}_{663} - 2.59 \times \text{Abs}_{646}}{1000}$$

$$\text{Chl } b \text{ (mg/g)} = \frac{22.9 \times \text{Abs}_{663} - 4.73 \times \text{Abs}_{646}}{1000}$$

2. *Carotenoids* were extracted from 100 mg of fresh leaves using 10 mL of 100% acetone. The extracts were centrifuged at 1000g for 10 min and the supernatant was transferred to a clean vial. The solvent was evaporated under reduced pressure and the residue was re-suspended in 1 mL of 100% acetone. The absorbance of the extracts was measured at 440 nm using a spectrophotometer. The concentration of carotenoids was calculated using the following equation:

$$\text{Carotenoids (mg/g)} = \frac{4.7 \times \text{Abs}_{440}}{1000}$$

3. *Protein content* was determined using the Lowry method. The protein extracts were prepared by grinding 100 mg of fresh leaves in 1 mL of RNeasy lysis buffer (Qiagen) and centrifuging at 1000g for 10 min. The supernatant was transferred to a clean vial and the protein concentration was determined using a protein assay kit (Bio-Rad). The absorbance of the protein extracts was measured at 595 nm using a spectrophotometer. The protein content was calculated using the following equation:

$$\text{Protein content (mg/g)} = \frac{0.005 \times \text{Abs}_{595}}{1000}$$

4. *Gene expression* was determined using real-time PCR. The total RNA was extracted from 100 mg of fresh leaves using RNeasy spin columns (Qiagen). The RNA was quantified using a spectrophotometer and the concentration was adjusted to 1 µg/µL. The RNA was reverse transcribed into cDNA using a reverse transcriptase (Bio-Rad). The cDNA was amplified using specific primers for each gene. The amplification was performed using a real-time PCR system (Bio-Rad). The relative expression of each gene was calculated using the $2^{-\Delta\Delta C_t}$ method.

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NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

Operator El Paso Natural Gas Co.		County Rio Arriba	Date August 7, 1973
Address PO Box 990, Farmington, NM 87401		Lease San Juan 28-7 Unit	Well No. 177
Location of Well I	Unit I	Section 30	Township 27N
		Range 7W	

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO _____
2. If answer is yes, identify one such instance: Order No. _____ ; Operator Lease, and Well No.: _____

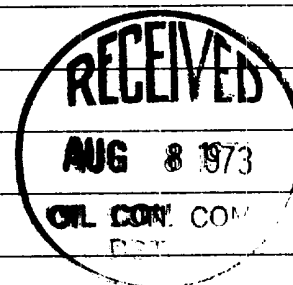
Re: NMOCC Memo #18-58

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	So. Blanco Pictured Cliffs		Undes. Chacra
b. Top and Bottom of Pay Section (Perforations)			
c. Type of production (Oil or Gas)			
d. Method of Production (Flowing or Artificial Lift)			

4. The following are attached. (Please check YES or NO)

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
<input type="checkbox"/>	<input checked="" type="checkbox"/>	d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.
NONE



6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES _____ NO _____. If answer is yes, give date of such notification _____.

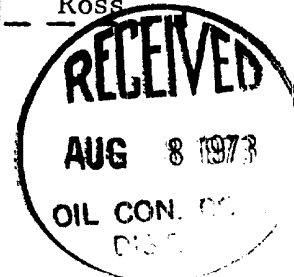
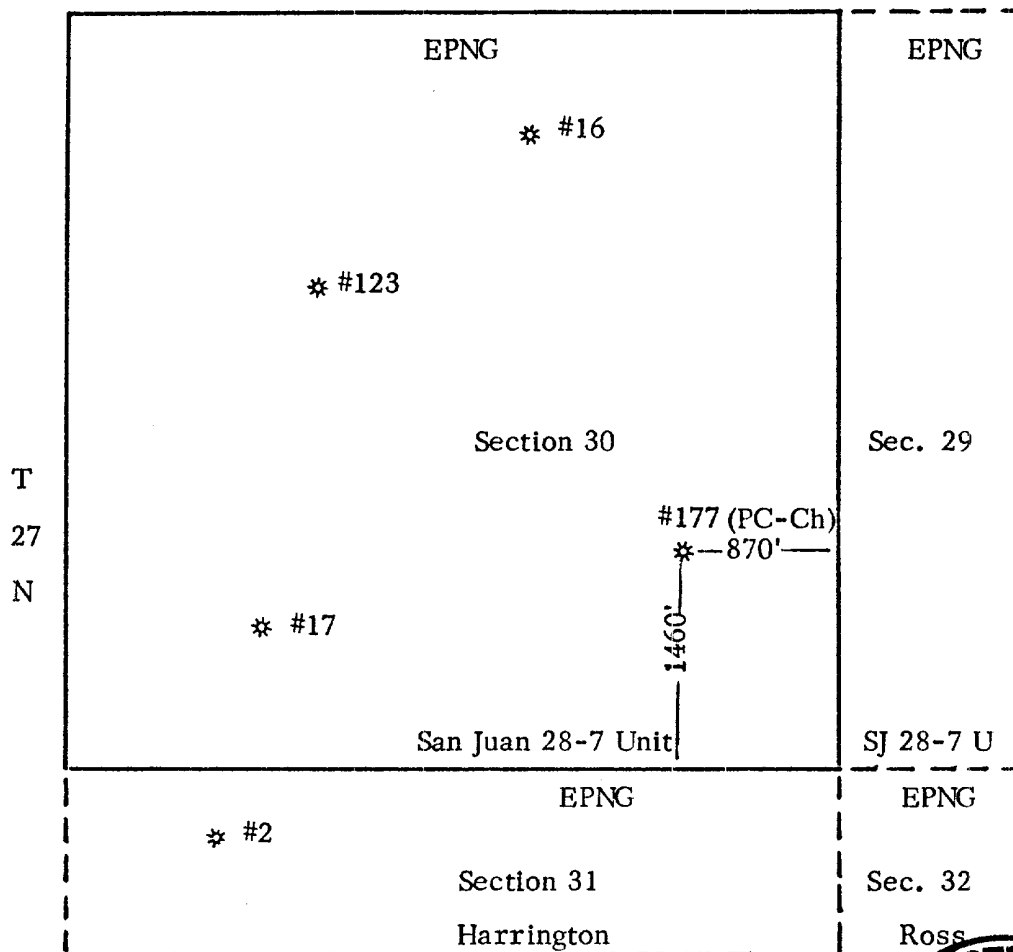
CERTIFICATE: I, the undersigned, state that I am the Drilling Clerk of the El Paso Natural Gas Co. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Don G. Duico
Signature

*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

Plat Showing Location of Intended Dual Completion (Tubingless)
 El Paso Natural Gas Company San Juan 28-7 Unit #177 (PC-Ch) Well
 and Offset Acreage



EL PASO NATURAL GAS COMPANY

DATE	DATE	BY
DRAWN BY	CHECKED BY	

Schematic Diagram of Intended Dual Completion(Tubingless)
 El Paso Natural Gas Company San Juan 28-7 Unit #177 (PC-Ch)
 SE/4 Section 30, T-27-N, R-7-W

Dual String
 Xmas Tree

Zero reference point 10' above top flange
 of casing hanger.

