



COPY TO O.C.G.

IN REPLY REFER TO: ✓

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 965
Farmington, New Mexico

June 12, 1956

Pacific Northwest Pipeline Corp.
413 1/2 West Main
Farmington, New Mexico

Re: New Mexico 03402
14-03-001-446

Gentlemen:

Receipt is acknowledged of your "Notice of Intention to Drill" dated June 12, 1956 covering your well No. 16-15 San Juan 32-8 Unit in SW 1/4 SW 1/4 sec. 15, T. 31 N., R. 8 W., N. M. P. M., San Juan County, New Mexico, Blance Mesaverte pool.

Your proposed work is hereby approved subject to compliance with the provisions of the "Oil and Gas Operating Regulations" revised May 25, 1942, a copy of which will be sent to you on request, and subject to the following conditions:

1. Drilling operations so authorized are subject to the attached sheet for general conditions of approval.
2. Furnish copies of all logs.

Very truly yours,

(Orig. Sgd.) P. T. McGrath

P. T. McGrath
District Engineer

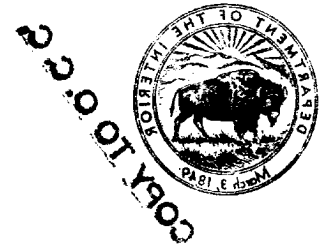
PTMcGrath:as



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Washington, D.C.



June 1, 1928

Mr. J. H. ...
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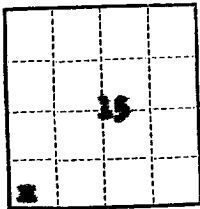
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3-15003
1-1. Johnston
1-File

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Las Alamos
Lease No. 1.1. 03102
Unit 32-2

714-00-001-446

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Well No. 16-15 is located 1190 ft. from [N] line and 820 ft. from [W] line of sec. 15

314 (Twp.) 314 (Range) 1.1. 03102 (Meridian)
Blanco Mesa Verde (Field) San Juan (County or Subdivision) New Mexico (State or Territory)

The elevation of the deduct floor above sea level is 8445.6 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Propose to drill to 250', set 10-1/4" casing cemented w/160 ex. w/41 gal. Then drill to 340', set 7-5/8" casing cemented w/175 ex. w/31 gal and 50 ex. neat. Drill to Total Depth of 540', set 5-1/2" casing cemented w/200 ex. reg. int. Forf and water from the Cliff House, Manofee, and Point Lookout, separately, each w/50,000 gals water. Clean out to Total Depth. Set tubing and complete well. w/2, 32 acres dedicated to this well.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Pacific Northwest Pipeline Corp.

Address 411 E. Main,
Farmington, New Mexico

By J. H. Quinn cm.

Title District Engineer

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

for $x \in \mathbb{R}$. It is shown that $f(x)$ is an odd function and that $f(x) \in C^1(\mathbb{R})$. Moreover, it is proved that $f(x)$ is a strictly increasing function and that $f(x) \in C^2(\mathbb{R})$.

2. In the second part of the paper, we study the properties of the function $g(x)$ defined by the equation

$$g(x) = \int_0^x \frac{1}{1+t^4} dt$$

for $x \in \mathbb{R}$. It is shown that $g(x)$ is an even function and that $g(x) \in C^1(\mathbb{R})$. Moreover, it is proved that $g(x)$ is a strictly increasing function and that $g(x) \in C^2(\mathbb{R})$.

3. In the third part of the paper, we study the properties of the function $h(x)$ defined by the equation

$$h(x) = \int_0^x \frac{1}{1+t^6} dt$$

for $x \in \mathbb{R}$. It is shown that $h(x)$ is an even function and that $h(x) \in C^1(\mathbb{R})$. Moreover, it is proved that $h(x)$ is a strictly increasing function and that $h(x) \in C^2(\mathbb{R})$.

4. In the fourth part of the paper, we study the properties of the function $k(x)$ defined by the equation

$$k(x) = \int_0^x \frac{1}{1+t^8} dt$$

for $x \in \mathbb{R}$. It is shown that $k(x)$ is an even function and that $k(x) \in C^1(\mathbb{R})$. Moreover, it is proved that $k(x)$ is a strictly increasing function and that $k(x) \in C^2(\mathbb{R})$.

5. In the fifth part of the paper, we study the properties of the function $l(x)$ defined by the equation

$$l(x) = \int_0^x \frac{1}{1+t^{10}} dt$$

for $x \in \mathbb{R}$. It is shown that $l(x)$ is an even function and that $l(x) \in C^1(\mathbb{R})$. Moreover, it is proved that $l(x)$ is a strictly increasing function and that $l(x) \in C^2(\mathbb{R})$.

6. In the sixth part of the paper, we study the properties of the function $m(x)$ defined by the equation

$$m(x) = \int_0^x \frac{1}{1+t^{12}} dt$$

for $x \in \mathbb{R}$. It is shown that $m(x)$ is an even function and that $m(x) \in C^1(\mathbb{R})$. Moreover, it is proved that $m(x)$ is a strictly increasing function and that $m(x) \in C^2(\mathbb{R})$.

7. In the seventh part of the paper, we study the properties of the function $n(x)$ defined by the equation

$$n(x) = \int_0^x \frac{1}{1+t^{14}} dt$$

for $x \in \mathbb{R}$. It is shown that $n(x)$ is an even function and that $n(x) \in C^1(\mathbb{R})$. Moreover, it is proved that $n(x)$ is a strictly increasing function and that $n(x) \in C^2(\mathbb{R})$.

NEW MEXICO
OIL CONSERVATION COMMISSION

Form C-128

Well Location and/or Gas Proration Plat

Date June 12, 1956

Operator PACIFIC NORTHWEST PIPELINE CORPORATION Lease 32-0

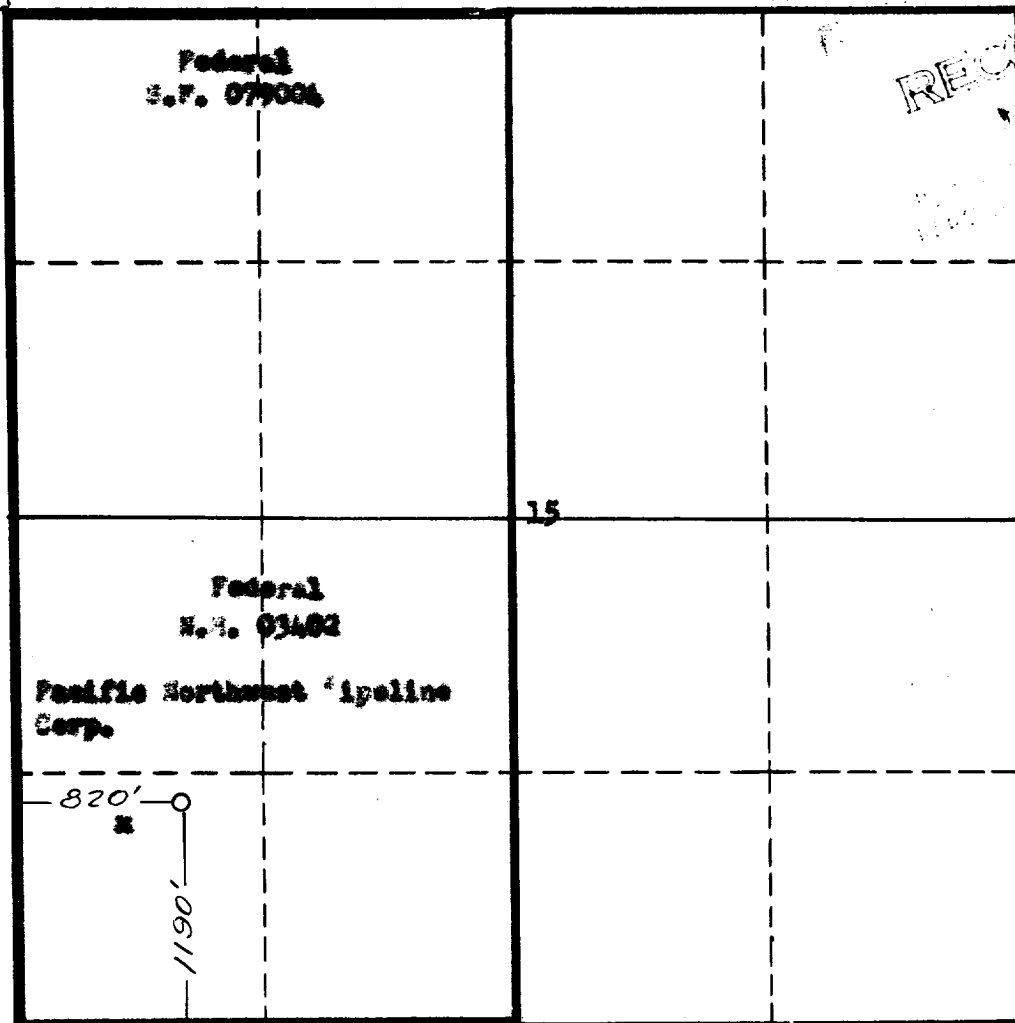
Well No. 16-15 Section 15 Township 31 NORTH Range 8 WEST NMPM

Located 1190 Feet From the SOUTH Line, 820 Feet From the WEST Line,

SAN JUAN County, New Mexico. G. L. Elevation 6445.6

Name of Producing Formation Mesa Verde Pool Alamosa Dedicated Acreage 320

(Note: All distances must be from outer boundaries of Section)



NOTE

This section of form is to be used for gas wells only.



1. Is this Well a Dual Comp. ? Yes No ~~Yes~~.
2. If the answer to Question 1 is yes, are there any other dually completed wells within the dedicated acreage? Yes No ~~Yes~~.

Name L. H. Dugan, Jr.
Position District Engineer
Representing Pacific Northwest Pipeline Corp.
Address 413 1/2 W. Main, Farmington, New Mexico

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed March 8, 1956
James P. Leese
Registered Professional Engineer and/or Land Surveyor James P. Leese
N. Mex. Reg. No. 1463