

Case No.

1760

Application, Transcript,  
Small Exhibits, Etc.



IN REPLY REFER TO

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

P. O. Box 6721  
Roswell, New Mexico

August 20, 1939

The Atlantic Refining Company  
P. O. Box 520  
Casper, Wyoming

Attention: Mr. T. O. Davis

Gentlemen:

By letter dated August 14, you requested our approval of the use of an automatic custody transfer unit and a test station in connection with the operation of your Navajo "B" lease No. 14-28-600-3531 Horeschoe Gallup Field, San Juan County, New Mexico. Plats attached to the letter show the lease boundaries and wells involved and also show schematic drawings of the automatic custody transfer unit and the well testing equipment.

The installation and use of the automatic custody transfer unit and test station, as described in your letter, are hereby approved.

Very truly yours,

JOHN A. ANDERSON  
Regional Oil and Gas Supervisor

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
<i>Att</i>	EXHIBIT NO. <i>G</i>
CASE NO.	<i>1760</i>

EXHIBIT C

CASE NO. 1760

**EL PASO NATURAL GAS PRODUCTS COMPANY**  
EL PASO, TEXAS

ADDRESS REPLY TO  
POST OFFICE BOX 1585  
FARMINGTON, NEW MEXICO  
August 26, 1959

The Atlantic Refining Company  
P. O. Box 528  
Casper, Wyoming  
Attn: Mr. T. O. Davis, Regional Petroleum Engineer

Dear Mr. Davis:

In accordance with my telephone call of August 21, permission is hereby given for installation of an LACT unit on your Navajo B lease in the Horseshoe Gallup field.

This letter will serve as your written authority for installation of the LACT unit.

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
*att* EXHIBIT NO. *H*  
CASE NO. *1760*

Yours truly,

Lindon A. Fleming  
Pipeline Superintendent  
San Juan Division

LAF:ja

EXHIBIT H

CASE NO. 1760

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 1760  
Order No. R-1498

APPLICATION OF THE ATLANTIC  
REFINING COMPANY FOR AN AUTO-  
MATIC CUSTODY TRANSFER SYSTEM  
AND FOR PERMISSION TO PRODUCE  
MORE THAN 16 WELLS INTO A  
COMMON TANK BATTERY, IN THE  
HORSESHOE-GALLUP OIL POOL,  
SAN JUAN COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m.  
on September 30, 1959, at Santa Fe, New Mexico, before  
Daniel S. Nutter, Examiner duly appointed by the Oil Con-  
servaion Commission of New Mexico, hereinafter referred  
to as the "Commission," in accordance with Rule 1214 of  
the Commission Rules and Regulations.

NOW, on this 19th day of October, 1959, the Com-  
mission, a quorum being present, having considered the  
application, the evidence adduced, and the recommendations  
of the Examiner, Daniel S. Nutter, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as  
required by law, the Commission has jurisdiction of this  
cause and the subject matter thereof.

(2) That the applicant, The Atlantic Refining Com-  
pany, is the operator of the Navajo "B" Lease in the Horse-  
shoe Gallup Oil Pool, San Juan County, New Mexico, compris-  
ing the following described acreage:

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM

Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 16:	All that portion thereof within the Navajo Indian Reservation
Section 21:	All that portion thereof within the Navajo Indian Reservation

-2-

Case No. 1760

Order No. R-1498

(3) That the applicant proposes to produce into a common tank battery all the Horseshoe-Gallup oil wells presently or hereafter completed on the above described Navajo "B" Lease.

(4) That the applicant proposes to install an automatic custody transfer system to handle the Horseshoe-Gallup Oil Pool production from all wells on said Navajo "B" Lease.

(5) That the applicant proposes to measure the oil passing through the automatic custody transfer system by means of dump-type or positive displacement meters,

(6) That the above-described system should be so equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.

(7) That the meters used in the automatic custody transfer system should be checked for accuracy once each month until further direction by the Secretary-Director.

(8) That the previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil and that the use of such equipment should be permitted.

(9) That approval of the subject application will neither cause waste nor impair correlative rights provided adequate testing and storage facilities are installed.

IT IS THEREFORE ORDERED:

(1) That the applicant, The Atlantic Refining Company, be and the same is hereby authorized to produce into a common tank battery all oil wells presently or hereafter completed in the Horseshoe-Gallup Oil Pool on the Navajo "B" Lease comprising the following described acreage in San Juan County, New Mexico:

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM

Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 16:	All that portion thereof within the Navajo Indian Reservation
Section 21:	All that portion thereof within the Navajo Indian Reservation

-3-

Case No. 1760  
Order No. R-1498

PROVIDED HOWEVER, That the applicant shall install adequate facilities to permit the testing of each well on said Navajo "B" Lease at least once each month.

(2) That the applicant be and the same is hereby authorized to install automatic custody transfer equipment to handle the Horseshoe-Gallup Oil Pool production from all wells presently completed or hereafter drilled on the above-described Navajo "B" Lease.

PROVIDED HOWEVER, That the automatic custody transfer system shall be so equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.

IT IS FURTHER ORDERED:


That all meters used in the above-described automatic custody transfer system shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

That meters shall be checked for accuracy at least once each month until further direction by the Secretary-Director.


Meters shall be calibrated against a master meter or against a test tank of measured volume and the results of such calibrations filed with the Commission on the Commission form entitled "Meter Test Report."

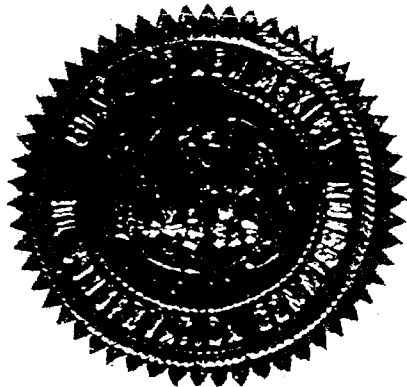
DONE at Santa Fe, New Mexico on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
JOHN BURROUGHS, Chairman

  
MURRAY E. MORGAN, Member

  
A. L. PORTER, Jr., Member & Secretary



lcr/

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

MINI OFFICE OCC

1000 AUG 10 PM 1:55

APPLICATION OF THE ATLANTIC REFINING COMPANY  
FOR AUTHORITY TO PRODUCE MORE THAN SIXTEEN  
WELLS INTO A COMMON TANK BATTERY, AND TO  
INSTALL AUTOMATIC CUSTODY TRANSFER EQUIPMENT  
IN CONNECTION WITH SUCH PRODUCTION, WITHIN  
THE EXTERIOR BOUNDARIES OF THE HORSESHOE-  
GALLUP FIELD IN SAN JUAN COUNTY, NEW MEXICO.

Case No. 1760

COMES NOW the Applicant, The Atlantic Refining Company, whose  
address is Dallas, Texas, and states:

1. That the Applicant is the Operator of an Oil and Gas  
Lease issued by the Chairman, Navajo Tribal Council, embracing the  
following described land situated in San Juan County, New Mexico,  
to-wit:

Township 31 North, Range 16 West, N.M.P.M.

Section 17: All  
Section 18: All  
Section 19: All  
Section 20: All  
Section 16: All within the Navajo  
Indian Reservation  
Section 21: All within the Navajo  
Indian Reservation

2. As an exception to Rule 309(a) of the Commission Rules,  
Applicant requests authority to transport oil produced from the Gallup  
formation by all wells drilled and to be drilled on the above lease  
and lands, prior to such oil having been received and measured in  
tanks receiving sixteen or less proration units. Applicant believes  
and states that adequate tankage and other equipment can be installed  
so that production from all wells drilled and to be drilled on the  
above lease and lands can be accurately determined at reasonable  
intervals without separately measuring such oil and receiving the  
same into common tankage for production from sixteen or less proration  
units. Appropriate lines will be laid from each well into a central

gathering system, and a plat thereof will be submitted at the hearing upon this application.

3. Applicant further requests the approval of the installation of an automatic custody transfer system and equipment to be installed on the above lease and lands for the purpose of receiving, treating, measuring and marketing oil produced from the Gallup formation under the above lease and lands. Applicant states that similar automatic custody transfer systems and equipments have heretofore been approved by the Commission, and a diagramatic sketch of the proposed installation will be presented at the hearing upon this application. Applicant believes and states that the granting of permission to install such automatic custody transfer system and equipment will neither cause waste nor impair correlative rights, and that such system and equipment contains adequate testing and measuring equipment, and will in all things be in the interest of conservation. Applicant offers to comply with all reasonable rules of the Commission relating to the testing, storage and metering of the facilities requested to be approved in this application, and to file all required reports in connection therewith.

Applicant therefore respectfully requests that this application be set before an examiner hearing at Santa Fe, New Mexico, and that upon such hearing that Applicant be granted authority to:

1. To transport all oil produced and to be produced from the Gallup formation under the above lease and lands into a central gathering system as an exception to Rule 309(a) of the Commission Rules; and,

2. To install an automatic custody transfer system and equipment for the receipt, treatment, measurement and marketing of all oil produced from the Gallup formation under the above lease and lands.



DATED this 18th day of August, 1959.

THE ATLANTIC REFINING COMPANY

By 

S. B. Christy, IV, for Hervey,  
Dow & Hinkle, as a member of  
the firm,  
Box 547, Roswell, New Mexico  
Attorneys for the Applicant

**THE ATLANTIC REFINING COMPANY**

**PETROLEUM PRODUCTS**

MAIN OFFICE  
DALLAS, TEXAS

1959 SEP 15 AM 8:43  
September 15, 1959

DOMESTIC PRODUCING DEPARTMENT

ADDRESS REPLY TO:  
P. O. BOX 520  
CASPER, WYOMING

Mr. Dan Nutter  
New Mexico Oil Conservation Commission  
107 Mabry Hall, Capitol Building  
Santa Fe, New Mexico

Dear Mr. Nutter:

I noticed from Nancy Royal's "Statehouse Reporting Service" that some 23 cases are scheduled to be heard at the Examiner Hearing on September 30, 1959. As you know, Atlantic will put on Case No. 1760 to seek authority to produce more than 16 wells into a common tank battery and for permission to install LACT on our Navajo "B" battery in Horseshoe-Callup Field.

I would appreciate it very much if our Case No. 1760 could be scheduled near the start of the hearing. We are having our Fall Budget and Exploration Conference on Thursday, October 1, 1959, and I would like very much to be back in Casper to attend the meeting. Your consideration of this request will be greatly appreciated.

Yours very truly,

THE ATLANTIC REFINING CO.

*T. O. Davis*

T. O. Davis  
Regional Petroleum Engineer

TOD:lp

DOCKET: EXAMINER HEARING SEPTEMBER 30, 1959

Oil Conservation Commission - 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

The following cases will be heard before Daniel S. Nutter, Examiner, or A. L. Porter, Jr., Secretary-Director.

CONTINUED CASE

CASE 1739: Application of Shell Oil Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Henshaw Deep Unit Agreement comprising 4824 acres, more or less, of Federal and State lands in Township 16 South, Ranges 30 and 31 East, Eddy County, New Mexico.

NEW CASES

CASE 1760: Application of The Atlantic Refining Company for an automatic custody transfer system and for permission to produce more than 16 wells into a common tank battery. Applicant, in the above-styled cause, seeks an order authorizing it to install an automatic custody transfer system to handle the production from all Horseshoe-Gallup oil wells on its Navajo "B" Lease comprising certain acreage in Township 31 North, Range 16 West, San Juan County, New Mexico.

CASE 1761: Application of Stanton Oil Company, Ltd., for a pilot water flood project. Applicant, in the above-styled cause, seeks an order authorizing it to institute a pilot water flood project in the Turkey Track Pool in Eddy County, New Mexico, by the injection of water into the Queen formation through four wells located in Section 34, Township 18 South, Range 29 East.

CASE 1762: Application of Newmont Oil Company for an unorthodox water injection well location. Applicant, in the above-styled cause, seeks an order authorizing it to reopen and utilize for water injection a well located on an unorthodox location at a point 1620 feet from the North line and 1020 feet from the West line of Section 32, Township 16 South, Range 31 East, Square Lake Pool, Eddy County, New Mexico.

CASE 1763: Application of Southwestern Hydrocarbon Company for an order abolishing the Sawyer-San Andres and South Sawyer-San Andres Oil Pools in Lea County, New Mexico, and creating the Sawyer-San Andres Gas Pool; or in the alternative for an order extending the horizontal limits of the South Sawyer-San Andres Oil Pool to include the NE/4 of Section 6, the N/2 of Section 5 and the NW/4 of Section 4, Township 10 South, Range 38 East, Lea County, New Mexico, and removing all gas-oil ratio limitations for wells in said pool; or in the alternative for an order combining the Sawyer-San Andres and the South Sawyer-San Andres Oil Pools, as well as the intervening acreage, and removing all gas-oil ratio limitations for such pool.

CASE 1764: Application of Standard Oil Company of Texas for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox gas well location in the Atoka-Pennsylvanina Gas Pool, at a point 1850 feet from the South line and 1650 feet from the East line of Section 14, Township 18 South, Range 26 East, Eddy County, New Mexico.

- CASE 1765: Application of The Ohio Oil Company for a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water into the Lower San Andres formation through its State B-4286 "A" Well No. 2, located in Unit F, Section 2, Township 17 South, Range 36 East, Lea County, New Mexico. The proposed injection interval is from 5725 feet to 5968 feet.
- CASE 1766: Application of Northwest Production Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its "S" Well No. 16-2, located in the SW/4 SW/4 of Section 2, Township 24 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to produce oil from an undesignated Gallup oil pool and to produce oil from an undesignated Dakota oil pool through parallel strings of tubing.
- CASE 1767: Application of El Paso Natural Gas Products Company for permission to produce more than 16 wells in a common tank battery. Applicant, in the above-styled cause, seeks an order authorizing the production of a maximum of 35 wells in the Horseshoe-Gallup Oil Pool into a common tank battery. Said wells are located on applicant's Horseshoe Ute Lease comprising portions of Sections 27, 28, 33 and 34, Township 31 North, Range 16 West, San Juan County, New Mexico.
- CASE 1768: Application of T. F. Hodge for the rededication of acreage assigned to three oil wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order rededicating the acreage assigned to three oil wells on his Mary E. Wills Lease, Section 33, Township 26 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico. Applicant proposes to dedicate 40 acres to each of the three wells, said 40-acre units not to comprise a quarter-quarter section or legal subdivision.
- CASE 1769: Application of Pan American Petroleum Corporation for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Northeast Hogback Unit Agreement, comprising 10,572 acres, more or less, in Township 30 North, Range 16 West, San Juan County, New Mexico.
- CASE 1770: Application of Pan American Petroleum Corporation for approval of a lease automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the automatic custody transfer of oil produced from its Lois Wengerd Lease in Sections 23 and 24, Township 12 South, Range 37 East, Gladiola-Devonian Pool, Lea County, New Mexico.
- CASE 1771: Application of Pan American Petroleum Corporation for approval of a lease automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the automatic custody transfer of oil produced from its USA Malco Refinery "F" Lease, Section 1, Township 18 South, Range 27 East, Empire-Abo Pool, Eddy County, New Mexico.
- CASE 1772: Application of Pan American Petroleum Corporation for approval of an automatic custody transfer system for four state leases in the Empire-Abo Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order amending Order No. R-1292 to provide for automatic custody transfer of oil commingled thereunder.

- CASE 1773: Application of Pan American Petroleum Corporation for approval of two automatic custody transfer systems for seven federal leases in the Empire-Abo Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order amending Order No. R-1399 to provide for automatic custody transfer of oil produced into the two commingled tank batteries authorized therein.
- CASE 1774: Application of Continental Oil Company for a non-standard gas unit. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas unit in an undesignated Tubb gas pool consisting of the E/2 NW/4 and the W/2 NE/4 of Section 15, Township 20 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Britt B-15 No. 10 Well, located in the SW/4 NE/4 of said Section 15.
- CASE 1775: Application of Continental Oil Company for a non-standard gas unit. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas unit in an undesignated Tubb gas pool consisting of the E/2 SE/4 of Section 15 and the W/2 SW/4 of Section 14, all in Township 20 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's SEMU Well No. 70, located in the NW/4 SW/4 of said Section 15.
- CASE 1776: Application of Continental Oil Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for nine wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing the following-described wells in the Jalmat Gas Pool to compensate for their overproduced status without being completely shut-in in order to prevent possible waste:  
Ascarate D-24 Well No. 1, Unit J, Section 24, T-25-S, R-36-E, Danciger A-8 Well No. 2, Unit P, Section 8, T-23-S, R-36-E, Jack A-20 Well No. 4, Unit G, Section 20, T-24-S, R-37-E, Jack A-29 Well No. 3, Unit H, Section 29, T-24-S, R-37-E, Meyer A-29 Well No. 1, Unit O, Section 29, T-22-S, R-36-E, Meyer B-28 Well No. 1, Unit E, Section 28, T-22-S, R-36-E, State A-32 Well No. 4, Unit F, Section 32, T-22-S, R-36-E, Stevens A-34 Well No. 1, Unit E, Section 34, T-23-S, R-36-E, Wells B-1 Well No. 1, Unit A, Section 1, T-25-S, R-36-E, all in Lea County, New Mexico.
- CASE 1777: Application of El Paso Natural Gas Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for two wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing its E. J. Wells Lease Well No. 13, Unit L, Section 5, and its Wells B-4 Lease Well No. 1, Unit D, Section 4, both in Township 25 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, to compensate for their overproduced status without being completely shut-in in order to prevent possible waste.
- CASE 1778: Application of Olsen Oils, Inc., for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for four wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing the following-described wells in the Jalmat Gas Pool to compensate for their overproduced status without being completely shut-in in order to prevent possible waste:  
Cooper B Well No. 2, NE/4 NW/4 of Section 14, T-24-S, R-36-E, Myers B Well No. 1, SE/4 NW/4 of Section 13, T-24-S, R-36-E, S. R. Cooper Well No. 1, SE/4 NE/4 of Section 23, T-24-S, R-36-E, Winningham Well No. 3, NE/4 SE/4 of Section 30, T-25-S, R-37-E, all in Lea County, New Mexico.

CASE 1779:

Application of Jal Oil Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for four wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing the following-described wells in the Jalmat Gas Pool to compensate for their overproduced status without being completely shut-in in order to prevent possible waste:

Legal Well No. 2, NE/4 SE/4 of Section 21,  
Dyer Well No. 3, SE/4 NE/4 of Section 31,  
Jenkins Well No. 2, NE/4 SW/4 of Section 29,  
Ropollo Well No. 1, SW/4 NW/4 of Section 28,  
all in Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 1780:

Application of Husky Oil Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for one well in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing its Montecito Woolworth Well No. 2, Unit M, Section 33, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, to compensate for its overproduced status without being completely shut-in in order to prevent possible waste.

CASE 1781:

Application of Texaco, Inc. for permission to continue producing an over-produced Jalmat gas well at a lesser rate. Applicant, in the above-styled cause, seeks an order authorizing it to produce its C. C. Fristoe (b) NCT-4 Well No. 2, Unit M, Section 31, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, at a maximum rate of 2500 MCF per month for lease use until over production has been compensated for.

J. M. HERVEY 1874-1953

HIRAM M. DOW  
CLARENCE E. HINKLE  
W. E. BONDURANT, JR.  
GEORGE H. HUNKER, JR.  
HOWARD C. BRATTON  
S. B. CHRISTY IV  
LEWIS C. COX, JR.

PAUL W. EATON, JR.  
ROBERT C. BLEDSOE

LAW OFFICES  
HERVEY, DOW & HINKLE

HINKLE BUILDING

ROSWELL, NEW MEXICO

August 18, 1959

TELEPHONE MAIN 2-6510  
POST OFFICE BOX 547

Mr. A. L. Porter, Jr.  
Secretary-Director  
New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Dear Mr. Porter:

We are enclosing herewith three copies of the Application of The Atlantic Refining Company for an exception to Rule 309(a) and for the installation of an automatic custody transfer system and equipment, both in connection with Atlantic's Navajo "B" Lease located in the Horseshoe-Gallup Field in San Juan County, New Mexico.

It is respectfully requested that this Application be set for an examiner hearing at the first available date.

Respectfully,

HERVEY, DOW & HINKLE

By



SBC:jy

Encls.

cc: Mr. T. O. Davis, The Atlantic Refining Company, Casper, Wyo.  
cc: Mr. A. B. Tanco, The Atlantic Refining Company, Dallas, Texas

*Handwritten:*  
Hinkler  
9-15-59

THE ATLANTIC REFINING COMPANY

MAIN OFFICE 503 PETROLEUM PRODUCTS

DALLAS, TEXAS

RECEIVED OCT 1 11 51

DOMESTIC PRODUCING DEPARTMENT

*Case File*  
*1760*

ADDRESS REPLY TO:  
P. O. BOX 520  
CASPER, WYOMING

October 1, 1959

Mr. Dan Nutter  
New Mexico Oil Conservation Commission  
107 Mabry Hall, Capitol Building  
Santa Fe, New Mexico

Dear Mr. Nutter:

Enclosed are permanent copies of our exhibits  
"G" and "H" which you requested at the hearing of our  
Case 1760 on September 30, 1959.

Yours truly,

THE ATLANTIC REFINING CO.

*T O Davis*

T. O. Davis  
Regional Petroleum Engineer

TOD:lp

cc: Mr. Howard C. Bratton  
Hervey, Dow and Hinkle  
Hinkle Building  
Roswell, New Mexico



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
Geological Survey

P.O. Box 6721  
Roswell, New Mexico

August 20, 1959

The Atlantic Refining Company  
P. O. Box 520  
Casper, Wyoming

Attention: Mr. T. O. Davis

Gentlemen:

By letter dated August 14, you requested our approval of the use of an automatic custody transfer unit and a test station in connection with the operation of your Navajo "B" lease No. 14-20-600-3531 Horseshoe Gallup Field, San Juan County, New Mexico. Plats attached to the letter show the lease boundaries and wells involved and also show schematic drawings of the automatic custody transfer unit and the well testing equipment.

The installation and use of the automatic custody transfer unit and test station, as described in your letter, are hereby approved.

Very truly yours,

Signed by John A. Anderson

JOHN A. ANDERSON  
Regional Oil and Gas  
Supervisor

EXHIBIT G

CASE NO. 1760

lp

EL PASO NATURAL GAS PRODUCTS COMPANY  
El Paso, Texas

Address Reply to  
P. O. Box 1565  
Farmington, New Mexico

August 26, 1959

The Atlantic Refining Company  
P. O. Box 520  
Casper, Wyoming

Attn: Mr. T. O. Davis, Regional Petroleum Engineer

Dear Mr. Davis:

In accordance with my telephone call of August 21, permission is hereby given for installation of an LACT unit on your Navajo B lease in the Horseshoe Gallup field.

This letter will serve as your written authority for installation of the LACT unit.

Yours truly,

Signed by Lindon A. Fleming

Lindon A. Fleming  
Pipeline Superintendent  
San Juan Division

IAF:jmj

EXHIBIT H

CASE NO. 1760

lp

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1760

TRANSCRIPT OF HEARING

SEPTEMBER 30, 1959

2

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
SEPTEMBER 30, 1959

-----  
IN THE MATTER OF:

CASE 1760 Application of The Atlantic Refining Company  
for an automatic custody transfer system and  
for permission to produce more than 16 wells  
into a common tank battery. Applicant, in the  
above-styled cause, seeks an order authorizing  
it to install an automatic custody transfer  
system to handle the production from all Horse-  
shoe-Gallup oil wells on its Navajo "B" Lease  
comprising certain acreage in Township 31 North  
Range 16 West, San Juan County, New Mexico.  
-----

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T   O F   P R O C E E D I N G S

MR. NUTTER: We will take next Case 1760.

MR. PAYNE: Case 1760. Application of The Atlantic  
Refining Company for an automatic custody transfer system and for  
permission to produce more than 16 wells into a common tank bat-  
tery.

MR. BRATTON: Howard Bratton, Hervey, Dow & Hinkle,  
Roswell, New Mexico, appearing on behalf of the applicant. We  
have one witness, Mr. T. O. Davis, and ask that he be sworn.

(Witness sworn)

T. O. DAVIS,

DEARNLEY - MEIER & ASSOCIATES  
GENERAL LAW REPORTERS  
ALBUQUERQUE, NEW MEXICO  
Phone CHapel 3-6691

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BRATTON:

Q Will you state your name, by whom you are employed, and in what capacity?

A T. O. Davis, The Atlantic Refining Company, Regional Petroleum Engineer.

Q Does your jurisdiction cover San Juan County, New Mexico and the area embraced in Case 1760?

A Yes, it does.

Q Are you familiar with the application in Case 1760?

A Yes.

Q And have you previously qualified as an expert witness before this Commission?

A Yes, I have.

MR. BRATTON: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, sir.

Q Mr. Davis, do you have a map showing the location of the lease where you propose to install central storage facilities?

A Yes. I refer to Exhibit A, which is a map showing the location of Atlantic's Navajo "B" Lease in the Horseshoe-Gallup Field. This Lease is shown in red, and it consists of Sections 17, 18, 19 and 20, and those portions of 16 and 21 which

lie within the Navajo Indian Reservation. This Lease is located in Township 31 North, Range 16 West, San Juan County, New Mexico.

Q How many working interests and royalty owners are there in the Lease?

A There is one working interest, The Atlantic Refining Company. There is one royalty owner, the Navajo Indian Tribe.

Q The Lease contains 2680 acres, approximately?

A That's correct.

Q How many wells are completed on the Lease and in what formation?

A Sixteen wells are completed on the Lease. They are in the Gallup formation.

Q Do you propose to produce all of these wells into one central storage facility?

A Yes.

Q And how many wells do you anticipate will be drilled on the Lease, Mr. Davis?

A We think probably no more than eighteen will be drilled on this Lease. That's just a guess. It could be a few more, or we could stop with the present sixteen, but I think eighteen will be about the maximum.

(Thereupon, Atlantic's Exhibit No. A was marked for identification.)

Q Referring to Exhibit A, does it show the facility you plan to install in connection with the central tank battery?

A It shows the location of the test station and the central storage facility, and it is shown in Section 19 as a circle in the southern part -- south part of the Section.

Q And you'll bring flow lines into this test station?

A Yes. It is our plan to bring flow lines from all the wells into this test station, and the test station will serve two purposes. It will allow us to make periodic tests on the well, and it will allow us to separate gas from all the produced fluids, and then the fluids will go to the central storage facility.

Q Will one test station be sufficient for the number of wells you anticipate, Mr. Davis?

A Yes, we think one test station will be adequate with eighteen wells. We can easily test each well once a month and still have twelve days for retest.

(Thereupon, Atlantic's Exhibit B was marked for identification.)

Q Referring to Exhibit B, Mr. Davis, is that a diagram of the test station?

A Yes.

Q Will you explain what it shows?

A Exhibit B is a schematic diagram of the proposed test station in operation. The flow lines from the wells enter a well manifold, and there is a test leg and a production leg leaving this manifold. The well being tested is routed through the test leg into a test separator or test treater. Gas is sep-

arated and is measured, liquids are measured with liquid meters, and the oil goes on to the central battery. All of the wells except the one being tested are routed through the production leg, and they pass through a production separator or treater. Gas is removed, and the oil goes on to the central storage facility.

Q What kind of a meter do you propose to use, Mr. Davis?

A We propose to use a dump type meter for testing.

Q Will you explain how that meter works?

(Thereupon, Atlantic's Exhibit C was marked for identification.)

A I refer now to Exhibit C, which is a diagram of a dump type meter. This is a meter that is installed on the fluid outlet of a separator or treater, and it replaces the dump valve of that vessel. In operation, fluids leaving the separator or the treater, it passes into the dump meter, and this meter merely counts the dumps, and each dump is calibrated to a unit volume of liquid.

Q How often are the meters calibrated?

A We would recommend monthly calibrations.

Q What degree of accuracy is necessary for these meters, Mr. Davis, in your opinion?

A In our opinion, we think that plus or minus 2 percent is adequate for test purposes. Our allowable per well in this field ranges from 50 to 55 barrels a day, and 2 percent error is only one barrel, which to us, is not a significant error, so we



think plus or minus 2 percent should be adequate.

Q You have this type of meter in the lease immediately adjacent, don't you?

A Yes, we do.

(Thereupon, Atlantic's Exhibit D was marked for identification.)

Q Will you refer to Exhibit D and show what it shows in connection with the accuracy of those meters?

A Exhibit D is a tabulation of meter errors from three of these dump type meters installed on our Navajo Lease, which is just south of the Lease in question, and they are tabulated over a five month period from February through June of 1959. It can be seen on this tabulation that the largest error that was found is seventeen-tenths of 1 percent; the smallest error was zero. So, actually, we found by experience that these dump meters are much more accurate than we need for testing.

Q And you recommend that these meters be calibrated monthly, the ones you are proposing?

A Yes.

Q And you have found that the test stations on your Lease immediately to the south have worked satisfactorily in all regards?

A They have been very satisfactory. We've had very little maintenance and operation has been good.

Q Will you explain briefly why you desire the central

storage facility?

A We would like to install these test stations with a central storage facility for several reasons. One, our operating expenses are lower because less pumper labor is required to test with a test station than by manual gauging of tanks. Also, our capital expenditures are lower with test stations, maintenance is less, and last, but probably the most important thing, we found that testing is actually easier for a pumper, and we believe we got more tests with a test station and better tests than we do with a conventional testing into a storage tank.

Q You've also requested, Mr. Davis, an LACT unit?

A Yes.

Q Where do you plan to install it?

A We propose to install this at the central storage facility in Section 19.

Q Does it have any effect on your central storage facilities or the test station?

A It will have no effect on the test stations. It affects only the way in which oil is run to the pipeline.

Q Sir, do you have a diagram of the proposed LACT unit?

(Thereupon, Atlantic's Exhibit E was marked for identification.)

A Exhibit E is a schematic diagram showing the general layout of the LACT unit in connection with the storage tanks. We presently have two one thousand barrel tanks on this Lease. We

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would propose to use one of these as a surge tank, and the other as a wet oil tank. You'll notice an equalizing line between those tanks. In the event there is a LACT unit malfunction, oil will equalize into the empty one through the wet oil tank. In operation, the clean oil from a test station enters the surge tank and passes through the pipeline through the LACT unit. The red line on this drawing indicates wet oil which the BS&W probe has detected. The wet oil goes back to the one thousand wet oil tank. Now, also on this diagram there is a by-pass line along the LACT unit for manual runs to the pipeline in the event of LACT unit malfunction.

(Thereupon, Atlantic's Exhibit F was marked for identification.)

Now, if you will refer to Exhibit F, F is a drawing showing the details of the LACT unit in the surge tank. We have two probes which we have labeled F-1 and F-2. When the fluid level reaches the top probe, F-1 delivers oil to the pipeline; when it reaches the lower probe, delivers stock. In the event there is a malfunction of this unit and the liquid passes up over probe F-1, it will equalize into the empty tank, and we have about 1.3 days of storage in this empty tank, which is adequate for the pumper to determine the malfunction, and no oil would be spilled or wasted.

Q How often would your pumper check this station?

A We have eight-hour pumping on this lease, so the

longest period of unattended time would be sixteen hours. I won't go into the details of the LACT unit proper in the interest of saving time. I will say it is a positive displacement meter type installation. It is very similar to the one approved for our Navajo Lease, and the meter is a temperature compensated which will catch samples for BS&W gravity determination. We have a calibration loop. We recommend monthly calibration. We have BS&W probe for detecting bad oil.

Q Do the wells on this Lease operate electrically, Mr. Davis?

A Yes, all the wells are pumping wells, they are operated electrically.

Q So if you had a power failure on the Lease or the unit, what would happen?

A If we had a power failure, the wells would shut down, also the LACT unit would shut down. And then if the power came back on, everything would start up where it left off.

Q Have you requested U.S.G.S.'s approval of this installation, Mr. Davis?

A Yes, we have. And I refer now to Exhibit G, which is a letter from John A. Anderson of the U.S.G.S. approving the LACT unit and the test station installation.

(Thereupon, Atlantic's Exhibit G was marked for identification.)

Q Have you requested approval of the unit from the

pipeline company?

A Yes, sir. And Exhibit H is a letter from Linden A. Fleming of El Paso Natural Gas Products Company, agreeing with the installation of LACT.

(Thereupon, Atlantic's Exhibit H was marked for identification.)

Q Why do you propose to install this LACT equipment? What will be accomplished, Mr. Davis?

A We have several reasons for proposing this. One, we think the accuracy of measurement will be as great, possibly greater, than manual gauging. Two, we have a savings in pumper labor by eliminating gauging of tanks and filling out daily pipeline runs. Three, we will have a gravity increase which is equivalent to a volume increase, and this, of course, benefits both the royalty owner, the operator, and it is also a conservation measure.

Q Were Exhibits A through F prepared by you or under your supervision?

A Yes, they were.

Q Is there anything further you would care to offer in this case, Mr. Davis?

A No.

MR. BRATTON: We offer in evidence Atlantic's Exhibits A through G and H inclusive.

MR. NUTTER: Without objection, Atlantic's Exhibits

A through H will be entered. However, Mr. Davis, I would appreciate it if you could furnish the Commission permanent copies of G and H. These have a tendency to fade with time.

(Whereupon, Atlantic's Exhibits A through H were received in evidence.)

MR. BRATTON: We have nothing further.

MR. NUTTER: Does anyone have any further questions of Mr. Davis?

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Davis, is there any substantial difference between these installations and the one that was approved for your Navajo Unit Lease?

A It was our Navajo Lease. There is no substantial difference. There are some minor differences. On this LACT unit we propose to use one meter. On the Navajo installation, we used two, and one was a spare. We feel that we can still use the spare meter on our Navajo Lease for this one, so we have eliminated one meter. Also in the surge tank, on the Navajo Lease we had a third probe at the top of the surge tank, which would automatically shut-in about half the wells. On this installation we don't think that is necessary, because the oil can equalize over into an empty tank which is adequate, an adequate safety provision.

MR. PAYNE: Thank you.

## QUESTIONS BY MR. NUTTER:

Q Mr. Davis, as I understand it, oil that is rejected by the BS&W probe goes into the wet oil storage, is that correct?

A Yes, sir.

Q On Exhibit E, the tank that is labeled "1000 wet oil tank," is that the tank that this rejected oil flows into?

A Yes, sir.

Q Well, now, supposing you had a considerable quantity of oil that had been rejected, and it was in storage in the one thousand barrel wet oil tank, and supposing that your surge tank was rather full, and supposing that the LACT system rejected all the oil, now what would happen, rejected production?

A If --

Q If this should happen during the sixteen hour interval that the pumper wasn't on the lease?

A If we started getting wet oil during the sixteen hours that the pumper wasn't on the lease, it would go to this wet oil tank. However, we have adequate storage there to hold that oil until the pumper makes his rounds and returns to the lease. And if he found that the storage facilities were approaching the full mark, he could manually shut-in the wells, the sixteen wells.

Q What is the capacity of one of these tanks above level F-2?

A Above level F-2 it's about four feet. It's about

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50 percent, it is about 500 barrels above -- above F-2.

Q On Exhibit F --

A F-2 is about four feet from the bottom of the tank.

Q The tank will never be emptied below F-2, will it?

A No, sir.

Q So you'll always have that much storage as not available?

A That's right. F-2, the capacity there is 250 barrels.

Q So you have 750 barrels available above that?

A Yes, sir.

Q Are these all top allowable wells on this lease, Mr. Davis?

A Most of them are. A few of them have fallen off the last month or so. The allowable on the lease is about 800 barrels.

Q Eight hundred barrels a day?

A Yes, sir.

Q Is the gas meter on the meter, on the testing loop of your test station a direct treating meter, or is that one you use charts with?

It is an orifice meter that we use charts for. We are considering converting that to a direct reading meter.

Q And the meter that is used on the LACT system is a positive displacement meter, --

A Yes, sir.

Q -- but a dump type on the test station?



A Right.

MR. NUTTER: Any further questions of Mr. Davis?

QUESTIONS BY MR. PAYNE:

Q Mr. Davis, what are the maximum number of wells that you propose to transfer the custody of oil through this LACT system?

A It would be all the wells that are completed on this Navajo Lease.

Q That could be sixty-four wells, right?

A Yes, sir. It is very unlikely, but it could be.

Q You don't have storage capacity to handle that type of production, do you?

A No, sir. If we have more productive acreage than we anticipate at present, we would add additional wet oil storage to this central battery.

Q In the same proportion as this storage is for eighteen wells?

A Probably.

MR. PAYNE: That's all. Thank you.

MR. NUTTER: No further questions of Mr. Davis, he may be excused.

(Witness excused)

MR. NUTTER: Does anyone have anything further they wish to offer in Case 1760? We will take that case under advisement.

STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss

I, J. A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 12<sup>th</sup> day of October, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

*Joseph A. Trujillo*  
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 1760  
heard by me on 9-30, 1959  
[Signature], Examiner  
New Mexico Oil Conservation Commission