

North American Producing Division  
New Mexico-Arizona District  
Post Office Box 2197  
Farmington, New Mexico 87401  
Telephone 505 325 7527



January 30, 1974

*Case 1471*

Mr. N. O. Frederick (4)  
Area Oil and Gas Supervisor  
United States Geological Survey  
P. O. Drawer 1857  
Roswell, New Mexico 88201

Oil Conservation Commission (4)  
of The State of New Mexico  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Commissioner of Public Lands (3) All Working Interest Owners  
The State of New Mexico (See Attached List)  
State Land Office Building  
Santa Fe, New Mexico 87501

*Handwritten signature and initials*

Re: Plan of Development  
Horseshoe - Gallup Unit  
San Juan County, New Mexico

Gentlemen:

As required, the attached Plan of Development and Operation  
for the subject property is submitted for your information.

Very truly yours,

*C. E. Cardwell Jr.*

C. E. Cardwell, Jr.

RWH/nc

Att.

Horseshoe - Gallup Unit  
San Juan County, New Mexico  
Plan of Development and Operation  
For the Year 1974

ATLANTIC RICHFIELD COMPANY  
Unit Operator

Review of the Last Plan of Development Period

During 1973 there were no additions or contractions of either the Unit Area or the Participating Area. No wells were converted or additional wells drilled during this period.

The oil production declined from 1495 BOPD in January, 1973 to 1106 BOPD in December, 1973. This was a normal waterflood decline due to reduction in oil percentage of the produced fluid.

The water injection rate remained fairly constant through out the year at an average of 24,297 BWPD.

There were only minor changes made in well status since the report of last year.

Plan of Development for 1974

No significant operational changes are planned for 1974. There are presently no plans to convert or drill any additional wells in 1974.

It is understood that this plan may be modified at any time when changing conditions warrant it.

# Statistical Summary

## Horseshoe - Gallup Unit

<u>Well Status</u>	<u>1-1-73</u>	<u>1-1-74</u>
Producing	116	115
Injection	67	67
Water Supply	2	2
Shut-in		
Producing	33	34
Injection	54	54
Water Supply	3	3
TOTAL	275	275

<u>Oil Production (S.T.B.)</u>	<u>1973</u>	<u>Cumulative 1-1-74</u>
Daily Average	1,277	--
Total for Year	466,215	26,757,852
Since Unitization	--	16,135,053

<u>Gas Production (M.C.F.)</u>		
Daily Average	20	--
Total for Year	7,368	6,222,704
Since Unitization	--	1,648,007

<u>Water Production(S.T.B.)</u>		
Daily Average	16,832	--
Total for Year	6,143,853	50,057,142
Since Unitization	--	50,020,652

<u>Water Injection (S.T.B.)</u>		
Daily Average	24,297	--
Total for Year	8,868,363	129,023,231
Since Unitization	--	114,944,502

WORKING INTEREST OWNER

Horseshoe - Gallup Unit

Mr. David Altman  
125 South Clark Street  
Chicago, Illinois 60603

Amax Petroleum  
900 Town & Country Lane, Suite 400  
Houston, Texas 77024

J. Douglas Collister  
4203 Avenida LaResolana NE  
Albuquerque, New Mexico 87110

Continental Oil Company  
Pacific Western Life Building  
152 North Durbin  
Casper, Wyoming 82601

Richard W. Dammann  
380 Madison Avenue  
New York, New York 10017

El Paso Natural Gas Products Company  
Box 3986  
Odessa, Texas 79760

EPROC Associates  
Box 776  
Durango, Colorado 81301

Helbing & Podpechan  
Box 549  
Claremore, Oklahoma 74017

J. Felix Hickman  
Box 12307  
El Paso, Texas 79912

Mobil Oil Corporation  
P. O. Box 633  
Midland, Texas 79701

Reynolds Mining Corporation  
Oil & Gas Division  
P. O. Box 9177  
Corpus Christi, Texas 78403

Robert D. Snow  
2000 National Bank of Tulsa Bldg.  
Tulsa, Oklahoma 74103

Sohio Petroleum Company  
970 First National Office Bldg.  
Oklahoma City, Oklahoma 73102

Mrs. Eleanor F. Spiegel  
Box 1042  
Albuquerque, New Mexico 87103

Tenneco Oil Company  
Box 2511  
Houston, Texas 77001

Texaco, Incorporated  
Box 210C  
Denver, Colorado 80201

# State of New Mexico



## Commissioner of Public Lands

July 27, 1972

ALEX J. ARMIJO  
COMMISSIONER

P. O. BOX 1148  
SANTA FE, NEW MEXICO

Atlantic Richfield Company  
1560 Lincoln Street, Suite 501  
Denver, Colorado 80203

Re: Plan of Development  
Horseshoe-Gallup Unit  
San Juan County, New Mexico

ATTENTION: Mr. C. E. Cardwell, Jr.

Gentlemen:

The Commissioner of Public Lands has this date approved your 1972 Plan of Development for the captioned unit, which proposes no operational changes nor drilling or conversion of wells during 1972. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are retaining two copies for our files and returning one approved copy to you.

Please remit a Three (\$3.00) Dollar filing fee.

Very truly yours,

RAY D. GRAHAM, Director  
Oil and Gas Department

AJA/RDG/s

encls. 1

cc:

USGS-Roswell, New Mexico (cpy of ltr only)  
OCC-Santa Fe, New Mexico (cpy of ltr only)

*mini*

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

September 22, 1972 *1972*

*5*

Atlantic Richfield Company  
1960 Lincoln Street, Suite 501  
Denver, Colorado 80203

Attention: Mr. C. E. Cardwell, Jr.

Re: 1972 Plan of Development  
Horseshoe-Gallup Unit  
San Juan County, New Mexico

Gentlemen:

*6*

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1972 Plan of Development dated July 5, 1972, for the Horseshoe-Gallup Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Two approved copies of the program are returned herewith.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/JEK/og

cc: Commissioner of Public Lands - Santa Fe  
United States Geological Survey - Roswell



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
Drawer 1857  
Roswell, New Mexico 88201

IN REPLY REFER TO:

July 25, 1972

Atlantic Richfield Company  
1860 Lincoln Street, Suite 501  
Denver, Colorado 80203

Attention: Mr. C. E. Cardwell, Jr.

Gentlemen:

On this date, your 1972 plan of development for the Horseshoe Gallup unit area, San Juan County, New Mexico, in which you propose no significant changes in the continuation of waterflood operations and the drilling of no additional wells, was approved. Such approval is subject to like approval by the appropriate officials of the State of New Mexico.

One approved copy of the plan is enclosed.

Sincerely yours,

(ORIG. [illegible])

N. O. FREDERICK  
Area Oil and Gas Supervisor

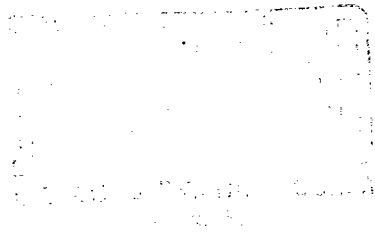
cc:

Washington (w/cy plan)  
Farmington (w/cy plan)  
Durango (w/cy plan)  
✓ NMOCC, Santa Fe (ltr only)  
Com. Pub. Lands, Santa Fe (ltr only)

JAGillham:ds

North American Producing Division  
Rocky Mountain-District  
1860 Lincoln St. - Suite 501  
Denver, Colorado 80203  
Telephone 303 266 2461

C. E. Cardwell, Jr.  
District Manager



July 5, 1972

Mr. John A. Anderson (4)  
Regional Oil and Gas Supervisor  
United States Geological Survey  
P.O. Drawer 1857  
Roswell, New Mexico 88201

Oil Conservation Commission (3)  
of The State of New Mexico  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Commissioner of Public Lands (3)  
The State of New Mexico  
State Land Office Building  
Santa Fe, New Mexico 87501

All Working Interest Owners  
(See Attached List)

Re: Plan of Development  
Horseshoe - Gallup Unit  
San Juan County, New Mexico

Gentlemen:

As required, the attached Plan of Development and Operation  
for the subject property is submitted for your information.

Very truly yours,

*C. E. Cardwell Jr.*  
C. E. Cardwell, Jr.

APB:var

Att.



Horseshoe - Gallup Unit  
San Juan County, New Mexico  
Plan of Development and Operation  
For the Year 1972

ATLANTIC RICHFIELD COMPANY  
Unit Operator

Review of the Last Plan of Development Period

In, 1971, there were no additions or contractions of either the Unit Area or the Participating Area. No wells were converted or additional wells drilled during this period.

The oil production during 1971 declined from 1889 BOPD in January to 1854 BOPD in December. This was a normal waterflood decline due to reduction in oil percentage of the produced fluid.

The water injection rate remained fairly constant averaging about 32,000 BWPD. Water production rose from 16,500 BWPD average in 1970 to 17,000 BWPD average in 1971.

During 1971, no producing and two (2) additional injection wells were shut down due to uneconomical operation. As in the past, these wells have been preserved for possible future use and the essential equipment has been left intact. Attached is a statistical summary of the 1971 operations.

Plan of Development for 1972

No significant operational changes are planned for 1972. There are no plans to convert or drill any additional wells in 1972.

Approved

*September 22, 1972*  
*H. L. Porter, Jr.*  
Secretary-Director

NEW MEXICO OIL CONSERVATION COMMISSION

# Statistical Summary

## Horseshoe - Gallup Unit

### Well Status (1-1-72)

Producing	123
Injection	78
Water Supply	3
Shut-in	
Producing	26
Injection	43
Water Supply	2

TOTAL 275

### Oil Production (S.T.B.)

1971

Cumulative 1-1-72

Daily Average	1,857	---
Total for Year	677,972	25,656,452
Since Unitization	--	15,033,653

### Gas Production (M.C.F.)

Daily Average	30	---
Total for Year	10,813	6,205,000
Since Unitization	--	1,630,303

### Water Production (S.T.B.)

Daily Average	17,056	---
Total for Year	6,225,611	37,251,138
Since Unitization	--	37,214,648

### Water Injection (S.T.B.)

Daily Average	32,080	---
Total for Year	11,709,129	108,870,229
Since Unitization	--	94,791,500

WORKING INTEREST OWNER  
HORSESHOE - GALLUP UNIT

Altman, Kurlander, & Weiss  
209 South LaSalle Street  
Suite 711  
Chicago, Illinois 60604

Atlas Corporation  
707 National Bank of Tulsa Building  
Tulsa, Oklahoma 74103

J. Douglas Collister  
4203 Avenida LaResolana NE  
Albuquerque, New Mexico 87110

Continental Oil Company  
Pacific Western Life Building  
152 North Durbin  
Casper, Wyoming 82601

Richard W. Dammann  
380 Madison Avenue  
New York, New York 10017

El Paso Natural Gas Products Company  
Box 3986  
Odessa, Texas 79760

EPROC Associates  
Box 776  
Durango, Colorado 81301

Helbing & Podpechan  
Box 549  
Claremore, Oklahoma 74017

J. Felix Hickman  
Box 12307  
El Paso, Texas 79912

Mobil Oil Corporation  
P.O. Box 633  
Midland, Texas 79701

Reynolds Mining Corporation  
Box 109  
Corpus Christi, Texas 78403

Robert D. Snow  
2000 National Bank of Tulsa Bldg.  
Tulsa, Oklahoma 74103

Sohio Petroleum Company  
970 First National Office Bldg.  
Oklahoma City, Oklahoma 73102

Mrs. Eleanor F. Spiegel  
Box 1042  
Albuquerque, New Mexico 87103

Tenneco Oil Company  
Box 2511  
Houston, Texas 77001

Texaco, Incorporated  
Box 2100  
Denver, Colorado 80201

*Cox 1979*  
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. BASS~~

LAW OFFICES  
HERVEY, DOW & HINKLE  
HINKLE BUILDING  
ROSWELL, NEW MEXICO

TELEPHONE MAIN 2-6510  
POST OFFICE BOX 547

May 11, 1960

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

Dear Mr. Porter:

We enclose in triplicate application of The Atlantic Refining Company for an order authorizing the injection of water in the upper and lower Tocito zones of the lower Gallup formation underlying the Navajo and Navajo "B" leases in the Horseshoe-Gallup Oil Pool pursuant to Rule 701 of the Commission. You will also find enclosed in triplicate Exhibit "B" which are the well logs to be filed in connection with the application.

We would like to have this application set down at the next examiner hearing, if possible. Please send us a copy of the notice.

Yours sincerely,

HERVEY, DOW & HINKLE

By *[Signature]*

CEH/bp  
Encl. *Worked Mailed 5-11-60*

cc: The Atlantic Refining Company

*Worked Mailed 9-1-60 [Signature]*