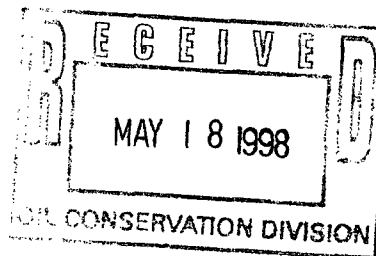




ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

NSL 6/8/98



May 12, 1998

Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Gentlemen:

Under the provisions of NMOCD Rule 104.F(d), ARCO Permian requests administrative approval for unorthodox location for its Washington "33" State #19, a new well in Artesia (Q-G-SA) Pool. The location for this well, is 2360' FSL and 2165' FWL of Section 33, T17S, R28E, Eddy County, New Mexico. This well is an unorthodox location.

As required, we are submitting a plat showing the subject 40-acre spacing unit with the unorthodox location and other supporting attachments. Since this unorthodox location is completely surrounded by other ARCO tracts in the same lease, there will be no impact on any other party.

Should you have any questions, please do not hesitate to call me at 915-688-5570 or Dave Percy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

cc: NMOCD, Artesia, New Mexico

Enclosures

**Geologic and Engineering Discussion for Washington "33" State #19
Unit K of Section 33, T17S, R28E, Eddy County, New Mexico**

ARCO Permian requests administrative approval for an unorthodox location for Washington 33 State #19, new well in the Artesia (Q-G-SA) Pool. This location is required for geologic reasons, and will be simultaneously dedicated along with #31 to Unit Letter K of Section 33.

As shown on the engineer's sketch plat, ARCO attempted to obtain an orthodox location for this well at 2310'FS & WL, but was prevented access by a major Empire Abo tank battery and numerous flowlines. We have shifted the location for #19 to the NW (to 2360'FSL, 2165'FWL) to allow adequate and safe setback for the small Unit rig we will use.

ARCO will require 2 strategically-spaced wellspots in each 40-acre tract to recover reserves in the an Andres dolomite, and later in the Yates-Seven Rivers and Queen-Grayburg "sands". An orthodox location for #31 has already been stated in the SW corner of Unit K to produce the San Andres, but we need this unorthodox location in the NE corner of Unit K to fully exploit the Queen-Grayburg-San Andres main pay. No orthodox location for #19 is available in this area due to topographical obstructions. Any shift south would place #19 too close to other wells to effectively drain the in-place oil. Direction drilling of these wells is untenable, since this would add approximately \$100,000 to the cost, and would not be economically justified with 50-85 MBO per-well reserves.

Since this unorthodox location is completely surrounded by ARCO tracts in the same lease, there will be no impact on any other party.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Revised October 18, 1994
Instructions on back
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Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address		² OGRID Number
ARCO PERMIAN P.O.BOX 1610 MIDLAND, TX 79702		000990
		³ API Number
		30-0
⁴ Property Code	⁵ Property Name	
	WASHINGTON "33" STATE	
	⁶ Well No.	
	19	

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
K	33	17S	28E		2360	SOUTH	2165	WEST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
⁹ Proposed Pool 1					¹⁰ Proposed Pool 2				
ARTESIA (Q-G-SA)									

¹¹ Work Type Code	¹² Well Type Code	¹³ Cable/Rotary	¹⁴ Lease Type Code	¹⁵ Ground Level Elevation
N	O	R	S	3669' GR
¹⁶ Multiple	¹⁷ Proposed Depth	¹⁸ Formation	¹⁹ Contractor	²⁰ Spud Date
NO	3200	SAN ANDRES		6/98

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4	8-5/8	24#	500'	450	CIRC. TO SURF.
7-7/8	5-1/2	15.5#	3200	1200	CIRC. TO SURF.

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

DRILL SURFACE HOLE W/FRESH WATER TO 500'. SET & CEMENT 8-5/8" CASING.
DRILL 7-7/8" HOLE TO 2000; W/SATURATED BRINE. DRILL 3200' TD W/ SACT GEL
USING PRE-HYDRATED FW GEL SWEEPS, FL +/- 15CC. LOG WELL, RUN & CEMENT
5-1/2" CASING. COMPLETE AND TEST SAN ANDRES FORMATION.

SUBJECT WELL PLANNED AS A 3200' STRAIGHT HOLE.
3000 PSI BOPE WILL BE USED FORM 500' TO TD.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Elizabeth A. Casbeer

Printed name: ELIZABETH A. CASBEER

Title: REG./COMP. ANALYST

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name <i>ARTESIA (Q-G-SA)</i>
Property Code <i>22954</i>	Property Name WASHINGTON 33 STATE	Well Number 19
OGRID No. <i>000990</i>	Operator Name ARCO PERMIAN	Elevation 3669

Surface Location

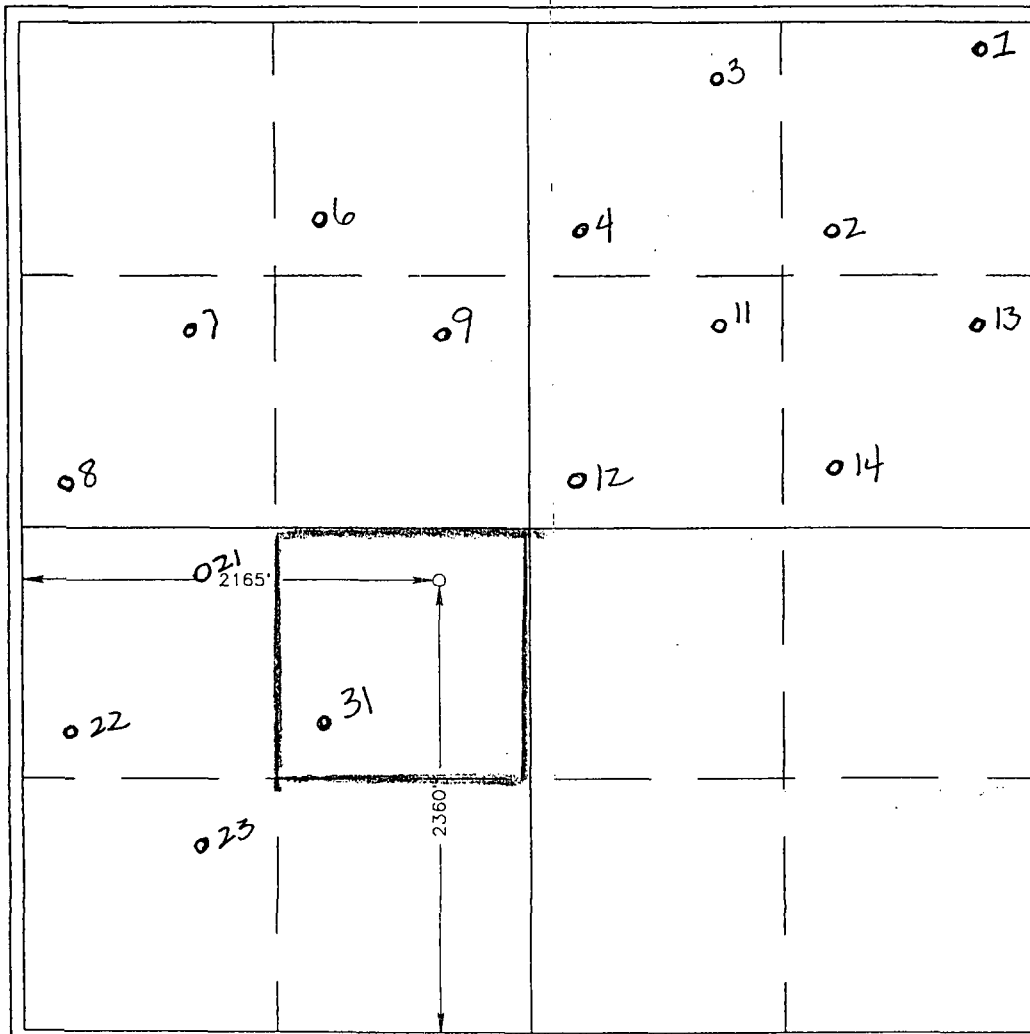
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	33	17 S	28 E		2360	SOUTH	2165	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
---------------	---------	----------	-------	---------	---------------	------------------	---------------	----------------	--------

Dedicated Acres <i>40</i>	Joint or Infill	Consolidation Code	Order No.
------------------------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Elizabeth A. Casbeer

Printed Name

REG/COMP. ANALYST

Title

5/13/98

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MARCH 3, 1998

Date Surveyed

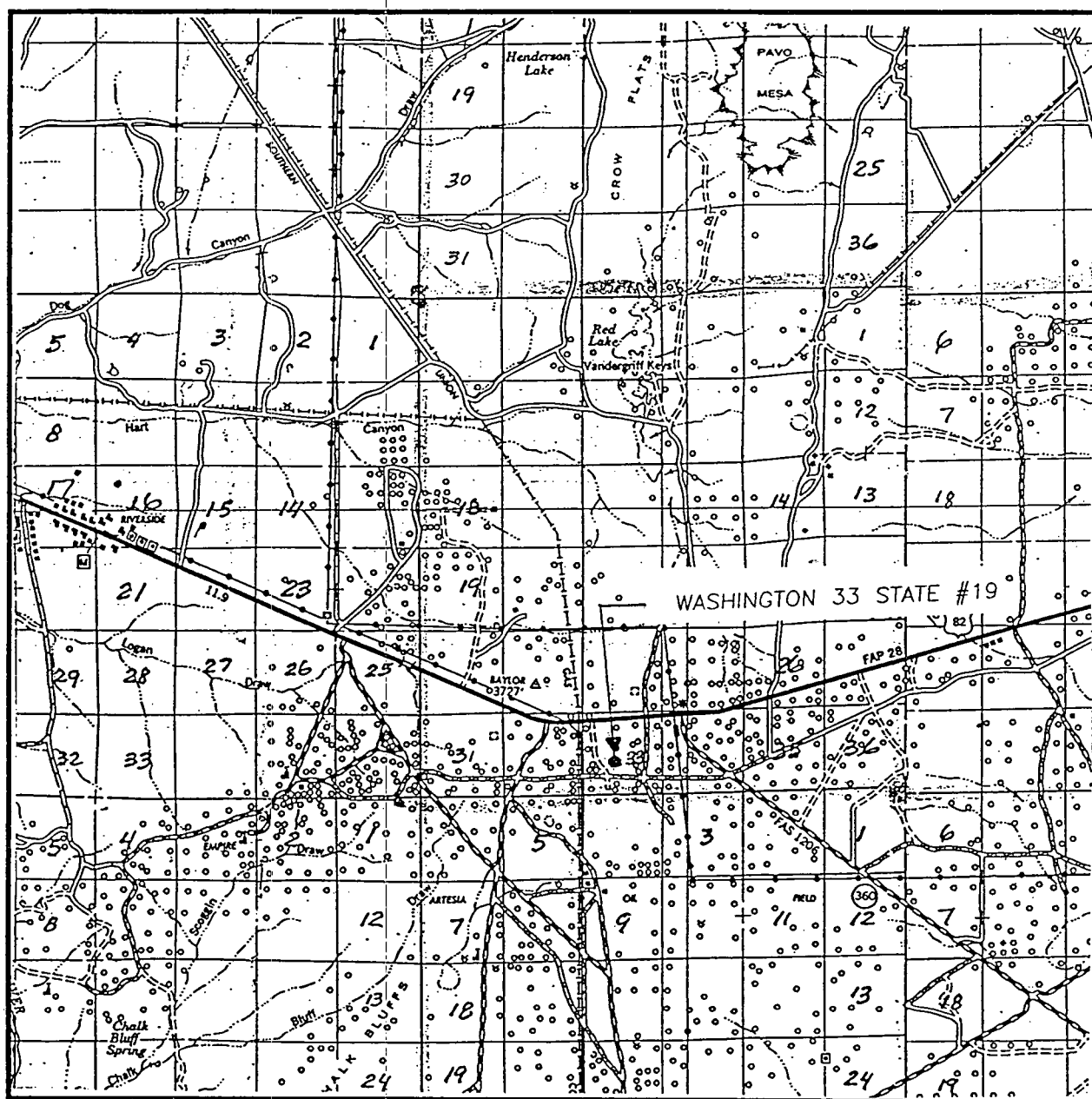
DMCC

Signature of Professional Surveyor

Ronald E. Edson
RONALD E. EDSON
5-4-98
38-11-0378

Certificate No. RONALD E. EDSON 3239
GARY EDSON 12641
MAGNUS EDSON 12185

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 33 TWP. 17-S RGE. 28-E
 SURVEY N.M.P.M.
 COUNTY EDDY
 DESCRIPTION 2360' FSL & 2165' FWL
 ELEVATION 3669
 OPERATOR ARCO PERMIAN
 LEASE WASHINGTON 33 STATE

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

NORTH



CONTOUR INTERVAL:
RED LAKE - 10'

RED LAKE, N.M.

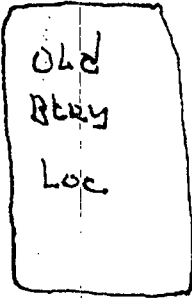
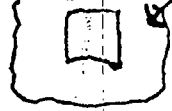
**JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117**

Subject Washington 33 " 19 Loc MAP

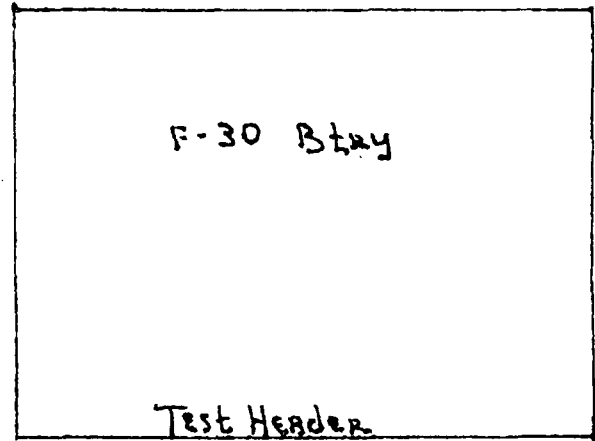
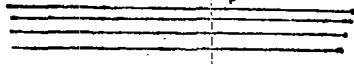
Page No. of
 Date 4/30/98
 DW

↑
 East

FLAIR Vent Line



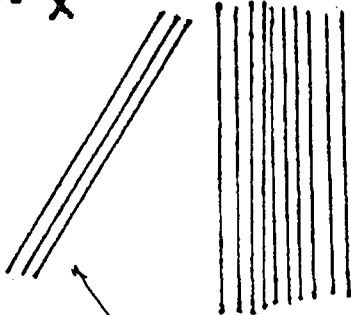
Flowlines



Original
 2310 FSL
 2310 FWL X

Phillips Buried Gas Line

Alt "A"
 2360 FSL
 2160 FWL



Flow lines

↑
 North



South

↓
 West

Moved Alt "A" 50' North; 145' West

5/4/98	5/26/98	MS	KN	NSL
--------	---------	----	----	-----

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☒ NSL ☐ NSP ☐ DD ☐ SD

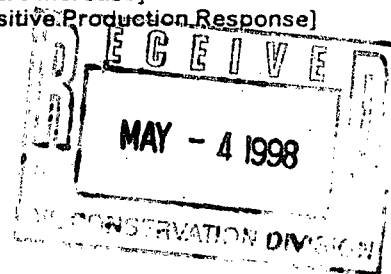
Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☒ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

ELIZABETH A. CASBEER
Print or Type Name

Signature

Title

REG/COMPLIANCE

Date

4/29/98



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

April 29, 1998

Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Gentlemen:

Under the provisions of NMOCD Rule 104.f(3), ARCO Permian requests administrative approval for an unorthodox location for its Washington "33" State #23, a new well in the Artesia (Queen-Grayburg-San Andres) Field, due to topography and geological conditions. The location for this proposed well is 975'FSL and 1060'FWL of Section 33, T17S, R28E, Eddy County, New Mexico.

The following exhibits are submitted to support our request for administrative approval:

1. A C-102 plat showing the subject 40-acre spacing unit with the unorthodox location.
2. A topographic map from John West Engineering.
3. A sketch plat showing topographical obstructions around the location.
4. A Structure map.
5. A gross isopach map of the San Andres porosity interval.
6. A type log for the Washington lease.
7. A geologic and engineering discussion of the necessity for an unorthodox location.
8. A plat showing adjoining and diagonal spacing units.

All adjoining and diagonal spacing units are ARCO-operated.

Should you have any questions, please call Dave Percy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

cc: NMOCD, Artesia, New Mexico

Enclosures

**Geological and Engineering Attachment
Washington "33" State #23**

ARCO Permian requests administrative approval for unorthodox location due to geological and topographical conditions for the cited well. This encroachment is toward ARCO, and will not affect other offset operators.

As shown on the engineer's sketch plat, ARCO attempted to obtain an orthodox location for this well at 990'FS & FWL of Section 33, but was prevented access by two buried pipelines, electric highlines, and a major lease road. We have shifted the location east-southeast the minimal distance (to 975 FSL and 1060 FWL) to allow adequate and safe setback for the small United rig we will use.

ARCO will require 2 strategically spaced wellspots in each 40-acre tract to be simultaneously dedicated to the Artesia (Q-G-SA) Pool. An orthodox San Andres location (24) will be spotted in the SW corner of this same Unit L, but we need this unorthodox location in the NE corner to fully exploit the Queen-Grayburg-San Andres main pays. Any alternative location south or west of the highlines and pipeline would be too close to #24 to effectively drain the in-place oil, and would leave undrained a significant portion of our reserves. Directional drilling of these low producing-rate wells cannot be economically justified, since this would add approximately \$100,000 to the cost for only 50 MBO reserves.

At a future date, we anticipate a waterflood could be initiated to effectively sweep both dolomite and sand reservoirs. Optimum results can only be achieved with good spacing of the primary wells. Core results show the Queen-Grayburg-San Andres "sand" pays should yield 130 MBO per 40 acres, but the modest 35 MBO recovered from "sand" wells on and surrounding our lease indicates that 10-20 acre drainage for these pays is reasonable.

We have therefore determined that two wells per 40 acres, with 700 feet between wells wherever possible, would effectively drain this reservoir and protect correlative rights. Where inexpensive recompletions are available, 550 ft between wells will avoid wasteful drilling. "Ten-acre" locations in the same half of any 40-acre unit should be avoided until waterflood startup. With current technology, the drainage radius for these San Andres wells is probably 10 acres, so we do not expect to be affecting any offset owner's correlative rights with these unorthodox locations.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101

Revised October 18, 1994

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☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		² OGRID Number 000990
		³ API Number 30-0
⁴ Property Code	⁵ Property Name WASHINGTON "33" STATE	⁶ Well No. 23

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
M	33	17S	28E		975	SOUTH	1060	WEST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County

⁹ Proposed Pool 1

ARTESIA (Q-G-SA)

¹⁰ Proposed Pool 2

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3671'
¹⁶ Multiple NO	¹⁷ Proposed Depth 3200	¹⁸ Formation SAN ANDRES	¹⁹ Contractor	²⁰ Spud Date 4/98

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4	8-5/8	24#	500'	450	CIRC. TO SURF.
7-7/8	5-1/2	15.5#	3200	1200	CIRC. TO SURF.

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

DRILL SURFACE HOLE W/FRESH WATER TO 500'. SET & CEMENT 8-5/8" CASING.
DRILL 7-7/8" HOLE TO 2000; W/SATURATED BRINE. DRILL 3200' TD W/ SACT GEL
USING PRE-HYDRATED FW GEL SWEEPS, FL +/- 15CC. LOG WELL, RUN & CEMENT
5-1/2" CASING. COMPLETE AND TEST SAN ANDRES FORMATION.

SUBJECT WELL PLANNED AS A 3200' STRAIGHT HOLE.
3000 PSI BOPE WILL BE USED FORM 500' TO TD.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Elizabeth A. Casbeer</i> Printed name: ELIZABETH A. CASBEER Title: REG./COMP. ANALYST	OIL CONSERVATION DIVISION Approved by: Title: Approval Date: Expiration Date:
---	---

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
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DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. Box 2088, Santa Fe, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name ARTESIA (Q-Q-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 23
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3671'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	33	17 S	28 E		975	SOUTH	1060	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 4.0	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

05	03	01
06	04	02
07	09	013
021		014
022		

1060'

975'

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Elizabeth A. Casbeer
Signature
ELIZABETH A. CASBEER
Printed Name
REG. COMPLIANCE
Title
4/29/98
Date

SURVEYOR CERTIFICATION

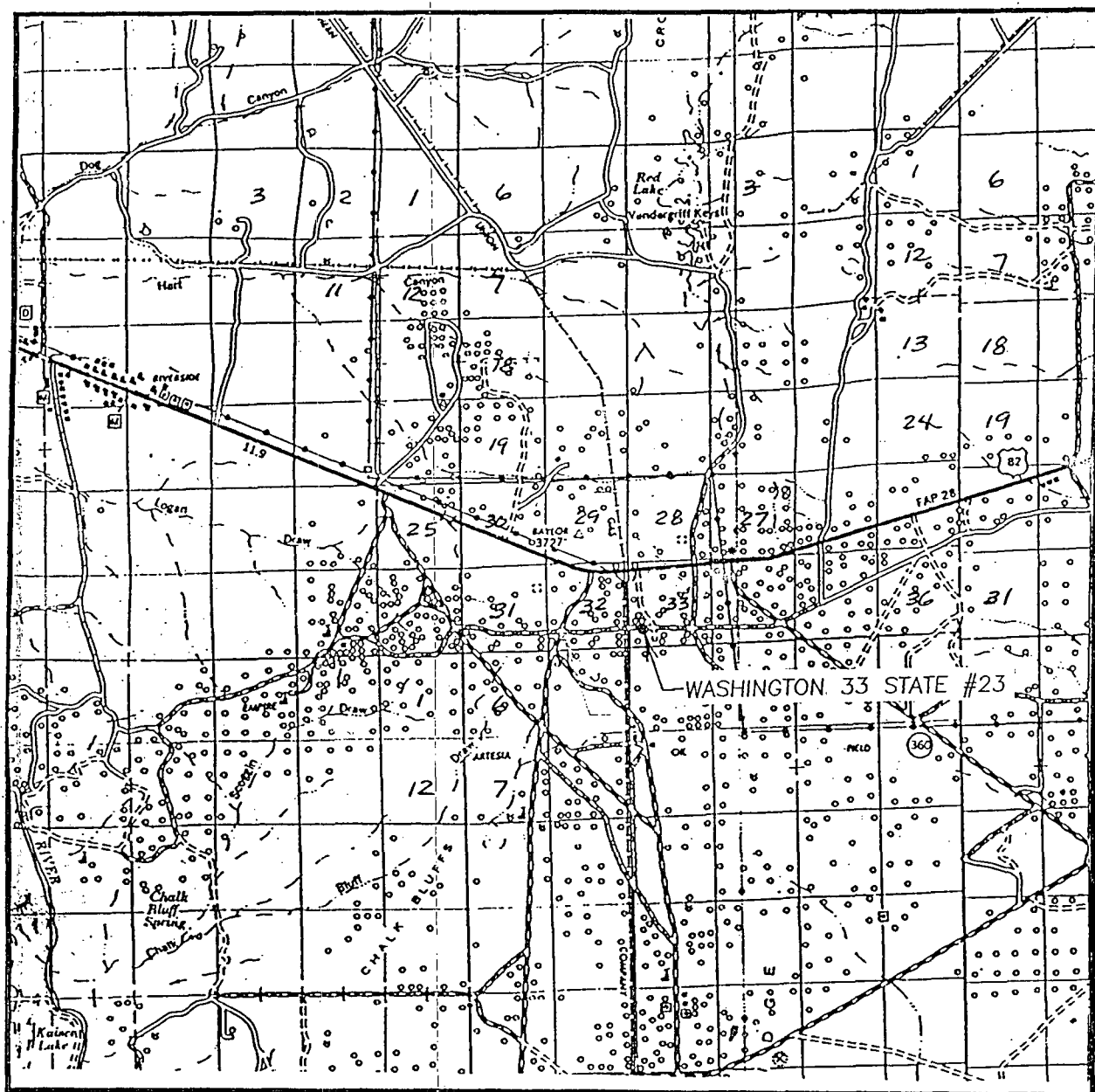
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

MARCH 3, 1998

Date Surveyed
Signature & Seal of Professional Surveyor
Ronald J. Eidson
NEW MEXICO
3-05-98
98-11-0374

Certificate No. **RONALD J. EIDSON** 3239
CARD EIDSON 12641

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 33 TWP. 17-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 975' FSL & 1060' FWL

ELEVATION 3671'

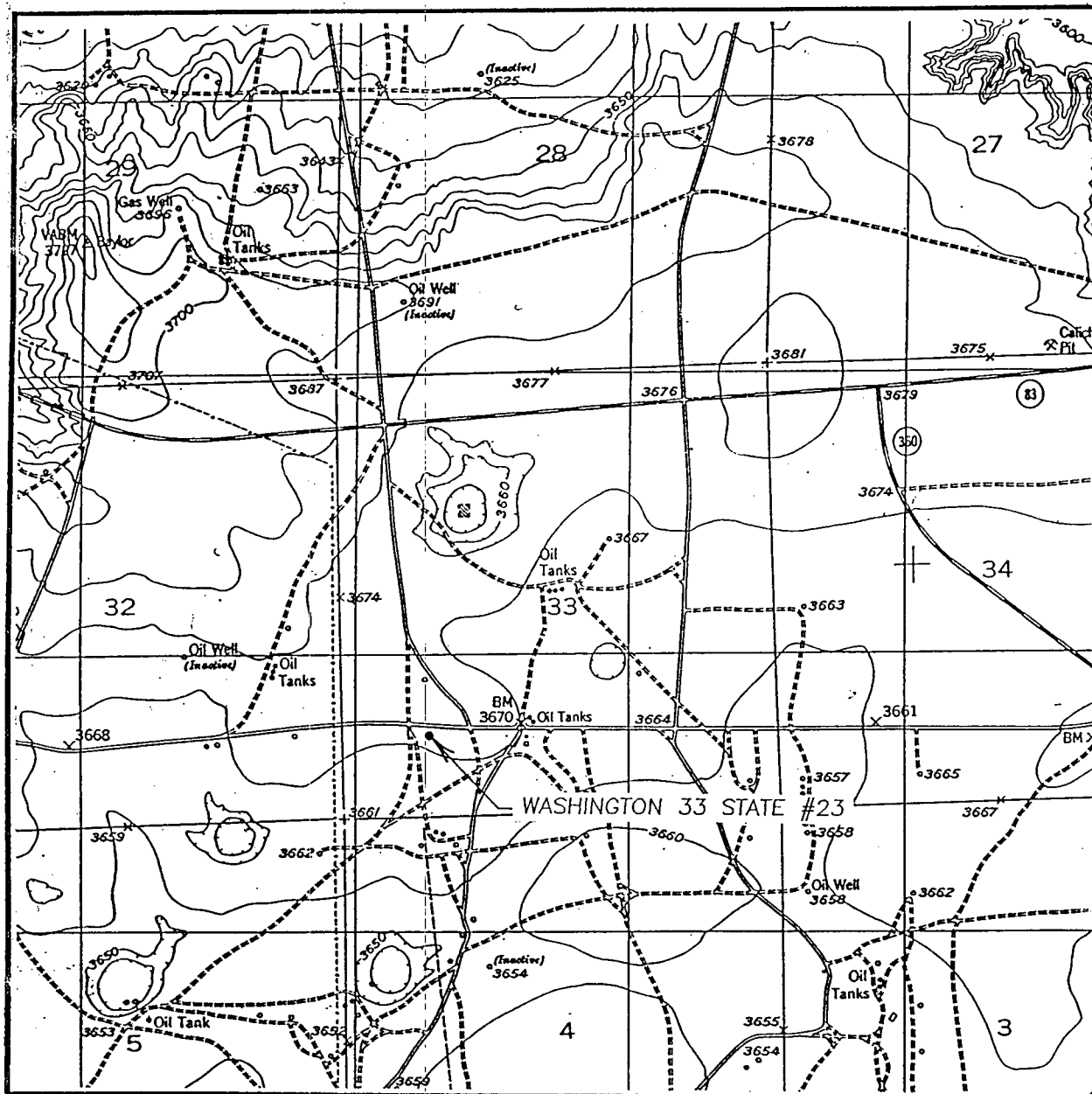
OPERATOR ARCO PERMIAN

LEASE WASHINGTON 33 STATE

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO

(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL - 10'

SEC. 33 TWP. 17-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 975' FSL & 1060' FWL

ELEVATION 3671'

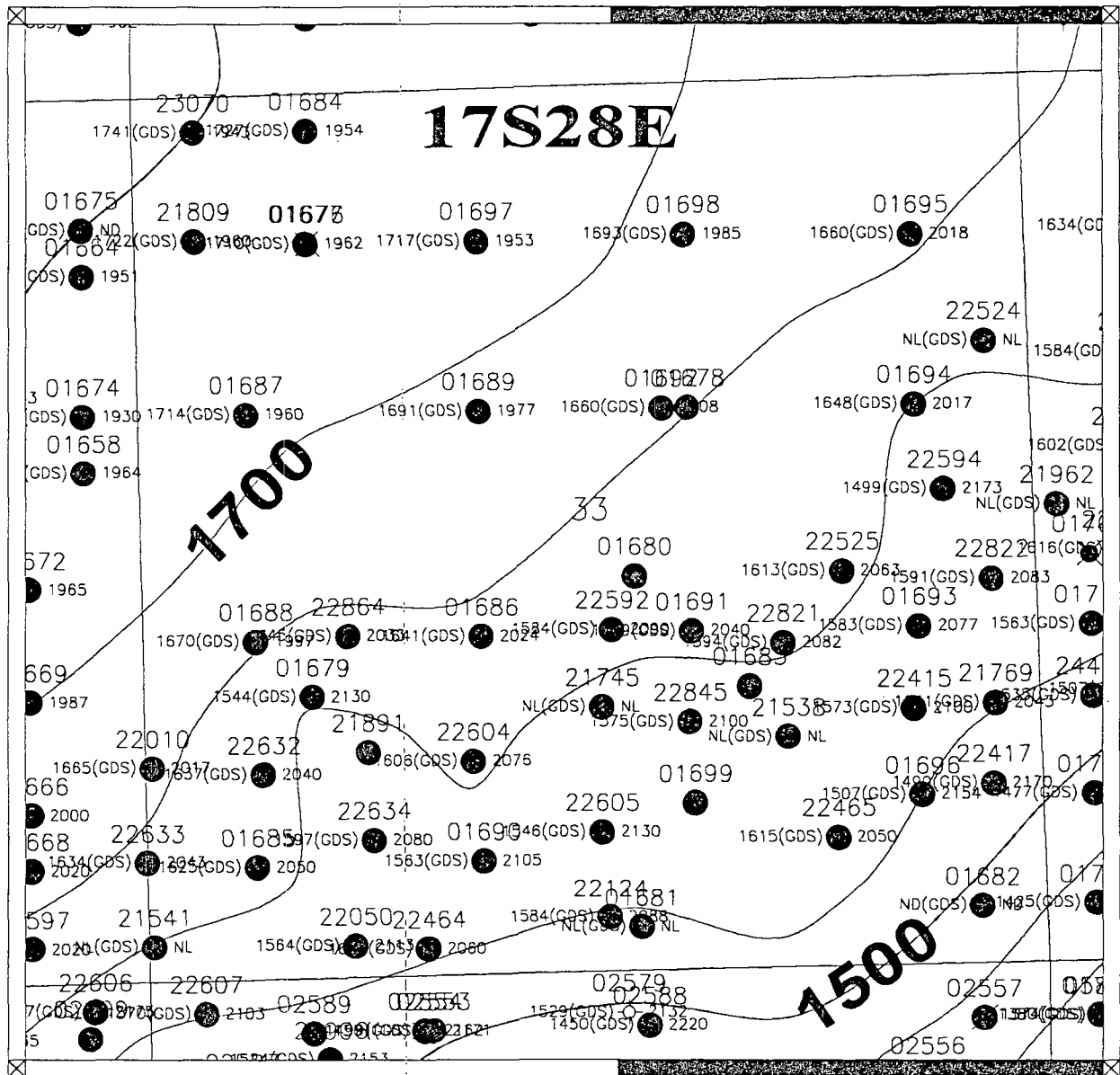
OPERATOR ARCO PERMIAN

LEASE WASHINGTON 33 STATE

U.S.G.S. TOPOGRAPHIC MAP

RED LAKE, NM

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117



T17S-R28E

E

F

G

H

ARCO Permian
GROSS PAY, SAN ANDRES DOLO.
Washington 33 Lease
Sec. 33 T17S-R28E
Eddy Co. NM
Abo And San Andres Well Locations
DBP 3/98



San Andres recomplete Candidates



San Andres Locations



Primary Yeso Locations



Recomplete alternate in Yeso



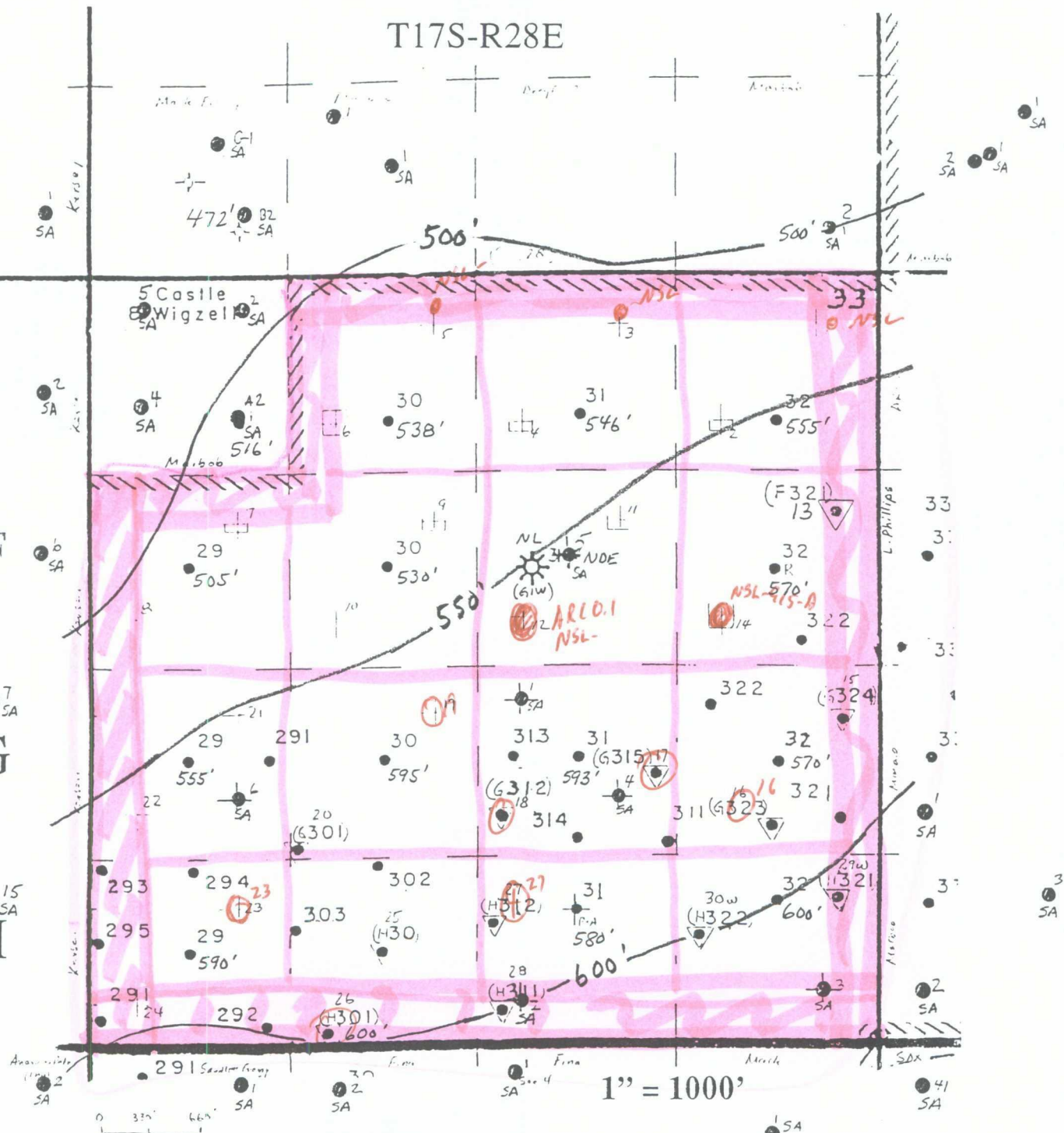
Possible / contingent Yeso TD



Relevant San Andres wells
Showing well #

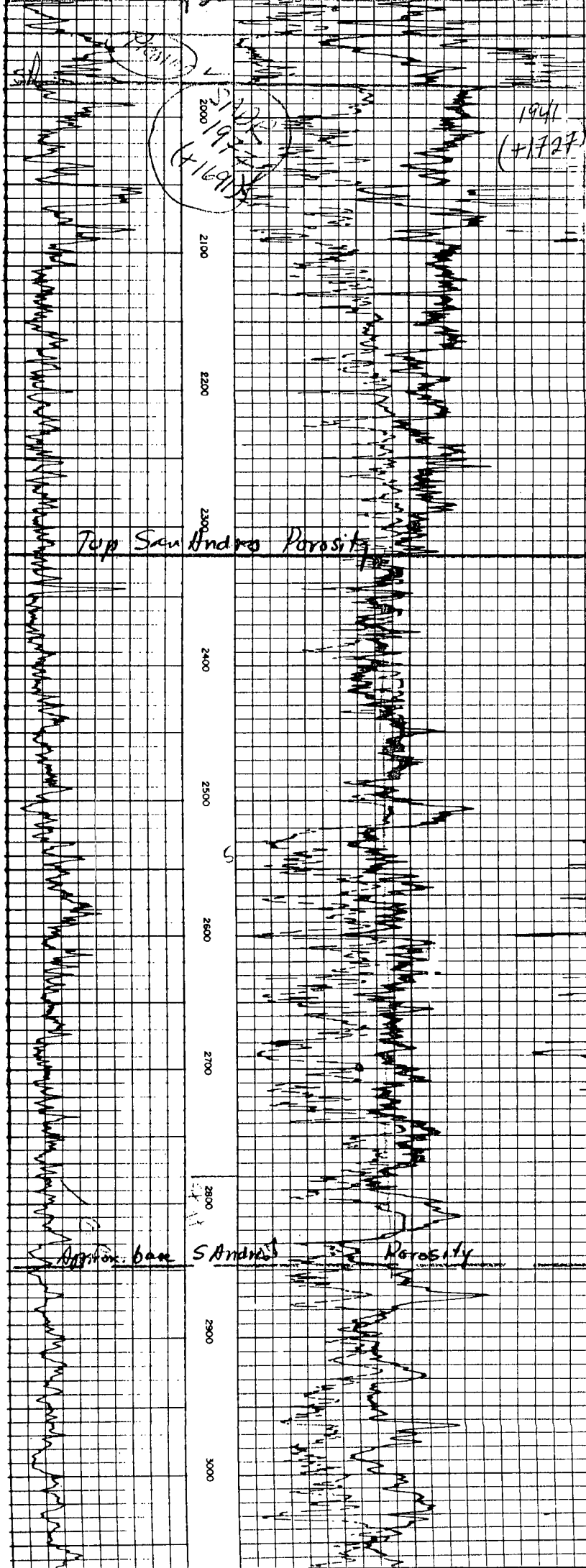
SA

1" = 1000'



3001501689

PAN GEO ATLAS CORP.	
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div> <div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div> <div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">A</div> <div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">C</div> </div> <div> <p>Gamma Ray Neutron Laterolog Survey</p> </div> </div>	
FILE NO.	COMPANY <u>SINCLAIR OIL & GAS COMPANY</u>
	WELL <u>M. YATES B. ARC # 5</u>
	FIELD <u>EMPIRE ABO</u>
	COUNTY <u>EDDY</u> STATE <u>NEW MEXICO</u>
	LOCATION: <u>1980' FN & W LINE</u> Other Services <u>NONE</u>
	SEC <u>33</u> TWP <u>17S</u> RGE <u>28-E</u>



6/1/98	6/22/98	MS	KV	NSL
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

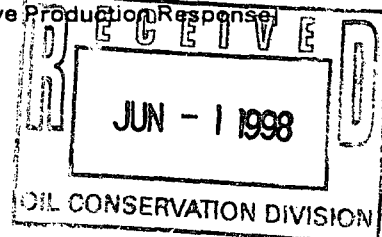
- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]



[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☒ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners
 [B] ☒ Offset Operators, Leaseholders or Surface Owner
 [C] ☐ Application is One Which Requires Published Legal Notice
 [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
 [F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

ELIZABETH A. CASBEER
 Print or Type Name

Elizabeth A. Casbeer
 Signature

REG / COMP.
 Title

5/20/98
 Date



• **ARCO Permian**
600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

May 20, 1998

Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Gentlemen:

Under the provisions of NMOCD Rule 104.F(d), ARCO Permian requests administrative approval for unorthodox location for its Washington "33" State #16, a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #G-323 is 1500'FSL and 700'FEL of Section 33, T17S, R28E, Eddy County, New Mexico. This well was drilled at an approved unorthodox location for the original horizon.

As required, we are submitting a plat showing the subject 40-acre spacing unit with the unorthodox location, a map identifying the adjoining and diagonal encroached-upon leases and wells, and a list of affected parties.

Should you have any questions, please do not hesitate to call me at 915-688-5570 or Dave Pearcy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

cc: NMOCD, Artesia, New Mexico

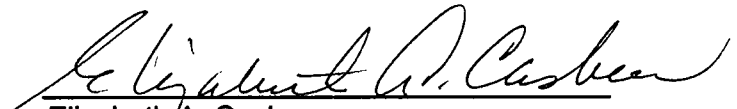
Enclosures

STATE OF TEXAS

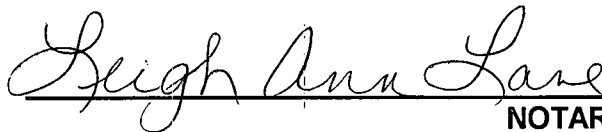
COUNTY OF MIDLAND

BEFORE ME, the undersigned authority on this day personally appeared Elizabeth A. Casbeer, a Regulatory Compliance Analyst with ARCO Permian, who being by me duly sworn, deposes and states that the persons listed on the foregoing attached list has been sent a copy on March 10, 1998, Oil Conservation Division Form C-101 (and supporting documentation) entitled, "Application For Permit to Drill or Deepen" for the Washington "33" State #16.

ARCO Permian


Elizabeth A. Casbeer

SUBSCRIBED AND SWORN TO before me on May 20, 1998, to certify which witness my hand and seal of office.



NOTARY PUBLIC, STATE OF TEXAS



LEIGH ANN LANE

Notary Public, State of Texas

My Commission Expires: 12-12-2000

**OFFSET OPERATORS
WASHINGTON "33" STATE #16**

**Lauretta M. Phillips Estate
C/o Leahy & Sheldon Trust
P. O. Box 539
Los Olivos, CA 93441**

**Marbob Energy Corp.
P. O. Box 227
Artesia, New Mexico 88211**

ARCO Permian

600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

May 20, 1998

CERTIFIED RETURN RECEIPT MAIL

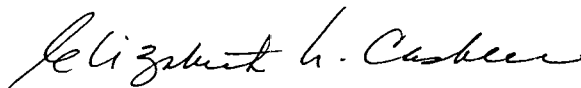
Marbob Energy Corporation
P. O. Box 227
Artesia, New Mexico 88211

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State #16 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #G-323 is 1500'FSL and 700'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,



Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

Enclosures

ARCO Permian

• 600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer

Regulatory/Compliance Analyst

May 20, 1998

CERTIFIED RETURN RECEIPT MAIL

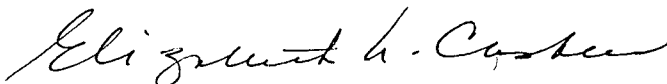
Lauretta M. Phillips Estate
c/o Leahy & Sheldon Trust
P. O. Box 539
Los Olivos, CA 93441

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCd for an unorthodox location for Washington "33" State #16 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #G-323 is 1500'FSL and 700'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,



Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

Enclosures

**Geologic and Engineering Discussion for Washington 33 State #16
Unit I of Section 33, T17S, R28E, Eddy County, New Mexico**

ARCO Permian requests administrative approval for unorthodox location for Washington 33 State #15 and #16 in the Artesia (Q-G-SA) Field, both as recompletions of wells drilled to a deeper horizon. Both wellbores are required for geologic reasons, and will be simultaneously dedicated to Unit Letter I of Section 33.

ARCO will require 2 strategically spaced wellspots in each 40-acre tract to recover reserves in the Artesia pool. Wherever possible, our well pattern dictates a wellbore in the NE quadrant and SW quadrant of each 40 acres. Recompletion of these Empire (Abo) wellbores, which are 882 ft. apart, will prevent wasteful drilling expense and provide satisfactory results.

At a future date, we anticipate a waterflood could be initiated to effectively sweep both dolomite and sand reservoirs. Optimum results can only be achieved with good spacing of the primary wells. Core results show the Queen-Grayburg-San Andres "sand" pays should yield 130 MBO per 40 acres, but the modest 35 MBO recovered from "sand" wells on and surrounding our lease indicates that 10-20 acre drainage for these pays is reasonable.

We have therefore determined that two wells per 40 acres will effectively drain this reservoir and protect correlative rights. Where inexpensive recompletions are available, 550 ft. between wells will avoid wasteful drilling. With current technology, the drainage radius for these San Andres wells is probably 10 acres, so we do not expect to be affecting any offset owner's correlative rights with these unorthodox locations.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		² OGRID Number 000990
		³ API Number 30-015-22415
⁴ Property Code 22954	⁵ Property Name WASHINGTON "33" STATE	⁶ Well No. 16

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
I	33	17S	28E		1500	SOUTH	700	EAST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County

⁹ Proposed Pool 1 ARTESIA (Q-G-SA)	¹⁰ Proposed Pool 2
--	-------------------------------

¹¹ Work Type Code R	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3664'
¹⁶ Multiple NO	¹⁷ Proposed Depth 3200	¹⁸ Formation SAN ANDRES	¹⁹ Contractor	²⁰ Spud Date 7/98

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11	8-5/8	24#	600'	300	SURF.
7-7/8	5-1/2	15.5	6197'	1225	SURF.

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

ORIGINALLY DRILLED AND COMPLETED AS THE EMPIRE ABO UNIT G-323 IN 1978. TD @ 6219'.
PRODUCED ABO IN OPEN HOLE 6197'-6219' UNTIL 1991. TESTED ABO PERF 5866'-5880' 2-4-98.
SET CIBP W/2 SXS CEMENT ON TOP 2-11-98. IT IS PORPOSED TO TEST THE QUEEN-
GRAYBURG-SAN ANDRES. RUN CNL-GAMMA RAY CCL AND PERF THE Q-G-SA AS INDICATED BY LOG.
TEST AND FRAC AS NEEDED.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Elizabeth A. Casbeer*

Printed name: ELIZABETH A. CASBEER

Title: REG./COMP. ANALYST

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-22415	Pool Code	Pool Name ARTESIA (Q-G-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 16
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3664'

Surface Location

UL or lot No. I	Section 33	Township 17 S	Range 28 E	Lot Idn	Feet from the 1500	North/South line SOUTH	Feet from the 700	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				05				03				01			
				06				04				02			
07				09				11				13			
08								12				14			
021				019				17							
022				031				18				16 700'			
023												1500'			
				25											
				26											

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

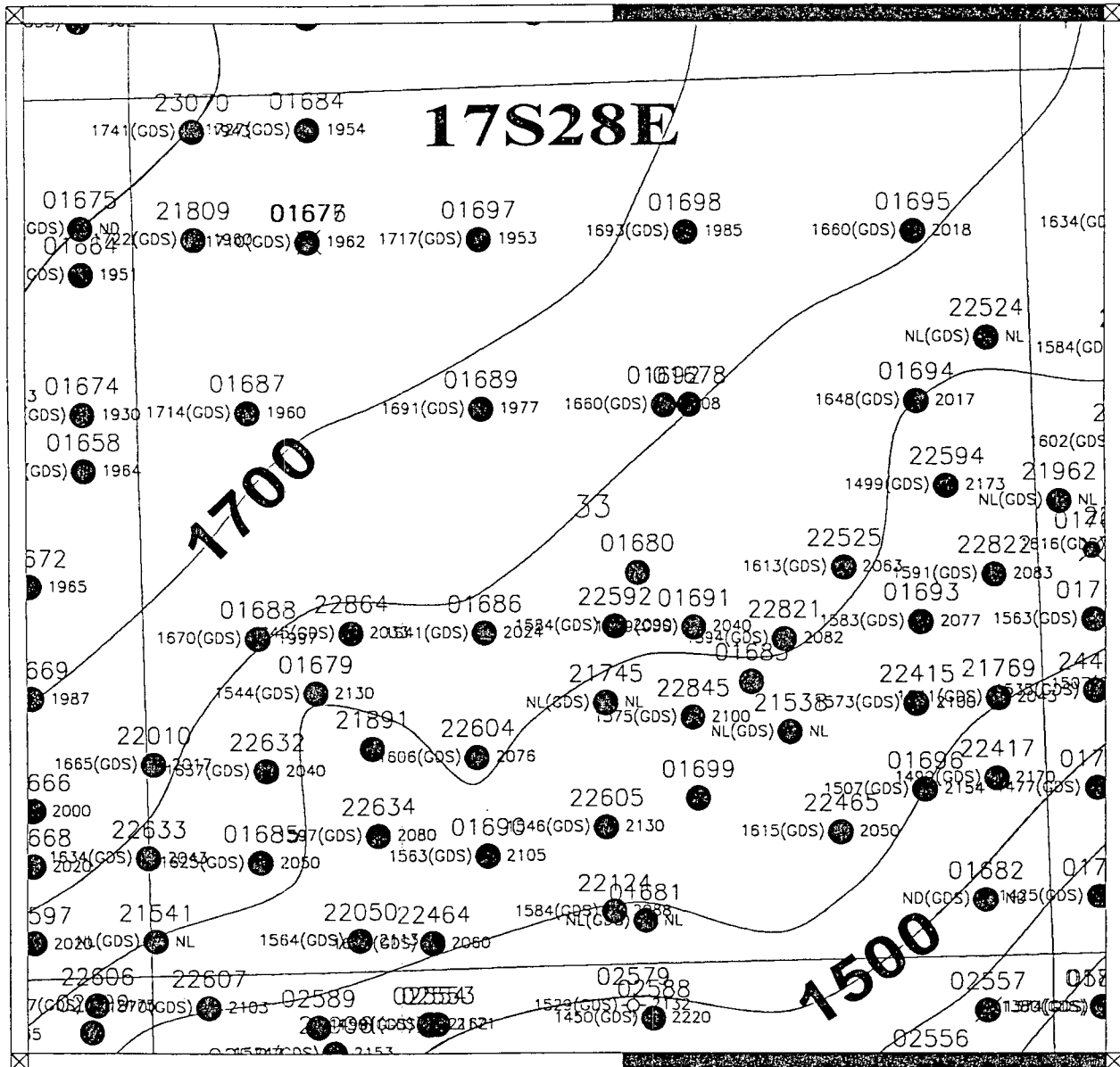
Elizabeth A. Casbeer
Signature
ELIZABETH A. CASBEER
Printed Name
REG/COMP.
Title
5/20/98
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

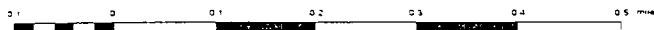
MARCH 3, 1998

Date Surveyed
Signature
Professional Surveyor
RONALD J. McDONALD
NEW MEXICO
3239
12641
12185
5-4-98
Certification No. RONALD J. McDONALD 3239
GARY McDONALD 12641
JASON McDONALD 12185



ARCO PERMIAN		
EDDY CO NM EMPIRE ABO SNDR STRUCTURE C.I.: 50'		
DREARY	EDDY CO OIL	4/2/88
OLIVINEZ	Scale 1:12000	EMPIRE A

Scale 1:12000.





OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO



STATE GEOLOGIST
EMERY C. ARNOLD

January 16, 1978

Atlantic Richfield Company
P. O. Box 1610
Midland, Texas 79701

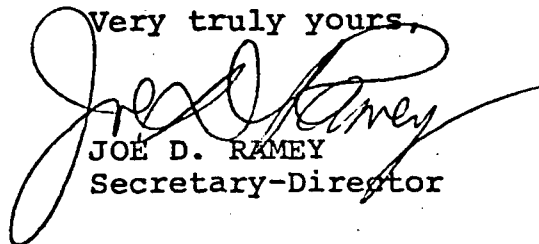
Administrative Order NSL-915

Gentlemen:

The Secretary-Director hereby approves the non-standard location for 25 Atlantic Richfield Company Empire Abo Unit Wells, Empire Abo Pool, Eddy County, New Mexico, as shown on Exhibit 1 of their application dated 12-29-1977 and attached hereto.

These producing wells are approved under the provisions of Rule 14 of Order No. R-4549 as amended, in order to permit the operator to complete a more efficient production pattern within said unit in said pool.

Very truly yours,



JOE D. RAMEY
Secretary-Director

JDR/RLS/jr

cc: Oil & Gas Engineering Committee - Hobbs
Oil Conservation Commission - Artesia

EXHIBIT 1

ATLANTIC RICHFIELD COMPANY
EMPIRE ABO UNIT
PROPOSED NON-STANDARD LOCATIONS
Eddy County, New Mexico

PHASE IV

WELL NAME & NUMBER	LOCATION	G. L. ELEVATION
Empire Abo Unit		
E-373	150' FNL & 15' FWL Section 35 T-17S R-28E	3670.4'
E-361	620' FNL & 1200' FEL Section 34 T-17S R-28E	3671.6'
E-351	610' FNL & 2601' FEL Section 34 T-17S R-28E	3673.9'
E-341	660' FNL & 1560' FWL Section 34 T-17S R-28E	3675.7'
F-321	1610' FNL & 250' FEL Section 33 T-17S R-28E	3674.3'
G-322	2350' FSL & 1100' FEL Section 33 T-17S R-28E	3665.6'
I-272	1300' FNL & 2345' FEL Section 5 T-18S R-28E	3651.9'
K-231	1700' FSL & 2350' FEL Section 6 T-18S R-28E	3649.3'
M-152	560' FNL & 2588' FEL Section 11 T-18S R-27E	3589.8'
M-131	1100' FNL & 1200' FWL Section 11 T-18S R-27E	3568.3'
G-343	1500' FSL & 1820' FWL Section 34 T-17S R-28E	3659.5'
G-332	1575' FSL & 660' FWL Section 34 T-17S R-28E	3658.4'
G-323	1500' FSL & 700' FEL Section 33 T-17S R-28E	3663.9'
H-331	1000' FSL & 1200' FWL Section 34 T-17S R-28E	3658.4'
H-321	1050' FSL & 250' FEL Section 33 T-17S R-28E	3662.4'
H-322	750' FSL & 1150' FEL Section 33 T-17S R-28E	3662.4'
H-301	150' FSL & 1650' FWL Section 33 T-17S R-28E	3659.8'
I-282	1150' FNL & 1270' FEL Section 5 T-18S R-28E	3655.1'
J-233	2550' FNL & 2050' FEL Section 6 T-18S R-28E	3668.9'
K-232	2300' FSL & 1570' FEL Section 6 T-18S R-28E	3653.1'
K-184	2120' FSL & 2465' FWL Section 1 T-18S R-27E	3623.8'
J-223	2630' FNL & 1930' FWL Section 6 T-18S R-28E	3644.3'
K-192	2020' FSL & 1390' FEL Section 1 T-18S R-27E	3636.7'
M-151	400' FNL & 1450' FEL Section 11 T-18S R-27E	3604.1'
I-273	1300' FNL & 1595' FEL Section 5 T-18S R-28E	3651.3'

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

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 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
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 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
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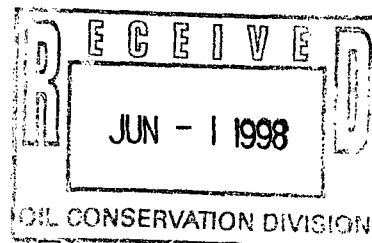
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☒ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☒ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
 [B] ☐ Offset Operators, Leaseholders or Surface Owner
 [C] ☐ Application is One Which Requires Published Legal Notice
 [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
 [F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

ELIZABETH A. CASBEER
Print or Type Name

Signature

Title

REG / Comp.

5/20/98
Date



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

May 20, 1998

Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Gentlemen:

Under the provisions of NMOCD Rule 104.F(d), ARCO Permian requests administrative approval for unorthodox location for its Washington "33" State #17, a recompletion of previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location of this well, formerly known as the EAU #G-315 is 1900'FSL and 1450'FEL of Section 33, T17S, R28E, Eddy County, New Mexico. This well is an unorthodox location.

As required, we are submitting a plat showing the subject 40-acre spacing unit with the unorthodox location and other supporting attachments. Since this unorthodox location is completely surrounded by other ARCO tracts in the same lease, there will be no impact on any other party.

Should you have any questions, please do not hesitate to call me at 915-688-5570 or Dave Percy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

cc: NMOCD, Artesia, New Mexico

Enclosures

**Geologic and Engineering Discussion for Washington "33" State #17
Unit J of Section 33, T17S, R28E, Eddy County, New Mexico**

ARCO Permian requests administrative approval for unorthodox location for Washington 33 State #17 in the Artesia (Q-G-SA) Field, as a recompletion of a well drilled to a deeper horizon. This wellbore is required for geologic reasons, and will be simultaneously dedicated along with #18 to Unit Letter J of Section 33.

ARCO will require 2 strategically spaced wellspots in each 40-acre tract to recover reserves in the Artesia pool. Our well pattern dictates a wellbore in the NE quadrant and SW quadrant of each 40 acres, and recompletion of these Empire (Abo) wellbores, which are 1117 ft. apart, will prevent wasteful drilling expense.

At a future date, we anticipate a waterflood could be initiated to effectively sweep both dolomite and sand reservoirs. Optimum results can only be achieved with good spacing of the primary wells. Core results show the Queen-Grayburg-San Andres "sand" pays should yield 130 MBO per 40 acres, but the modest 35 MBO recovered from "sand" well on and surrounding our lease indicates that 10-20 acre drainage for these pays is reasonable.

We have therefore determined that two wells per 40 acres, with 700 ft. minimum between wells, will effectively drain this reservoir and protect correlative rights. Where inexpensive recompletions are available, 500 ft between wells will avoid wasteful drilling. "Ten-acre" locations in the same half of any 40-acre unit should be avoided until waterflood startup. With current technology, the drainage radius for these San Andres wells is probably 10 acres, so we do not expect to be affecting any offset owner's correlative rights with these unorthodox locations.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		² OGRID Number 000990
		³ API Number 30-015-22821
⁴ Property Code 22954	⁵ Property Name WASHINGTON "33" STATE	⁶ Well No. 17

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
J	33	17S	28E		1900	SOUTH	1450	EAST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County

⁹ Proposed Pool 1

ARTESIA (Q-G-SA)

¹⁰ Proposed Pool 2

¹¹ Work Type Code R	¹² Well Type Code Q	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3663'
¹⁶ Multiple NO	¹⁷ Proposed Depth 3200	¹⁸ Formation SAN ANDRES	¹⁹ Contractor	²⁰ Spud Date 7/98

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11	8-5/8	24#	751'	400	SURF.
7-7/8	5-1/2	15.5	6370	1900	SURF.

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

ORIGINALLY DRILLED AND COMPLETED AS THE EMPIRE ABO UNIT G-315 IN 1979.
TD @ 6370'. TESTED ABO 5794'-6280'. WELL IS CURRENTLY PUMPING FROM PERFS
5794'-5928'. PROPOSED TO ABANDON THE ABO AND TEST THE QUEEN-GRAYBURG-SAN ANDRES.
SET CIBP @ 5750' W/35' CEMENT ON TOP. RUN CNL GAMMA FAY-CCL AND PERF THE
Q-G-SA AS INDICATED BY LOG. TEST AND FRAC AS NEEDED.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Elizabeth A. Casbeer

Printed name: ELIZABETH A. CASBEER

Title: REG./COMP. ANALYST

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-22821	Pool Code	Pool Name ARTESIA (A-C-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 17
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3663

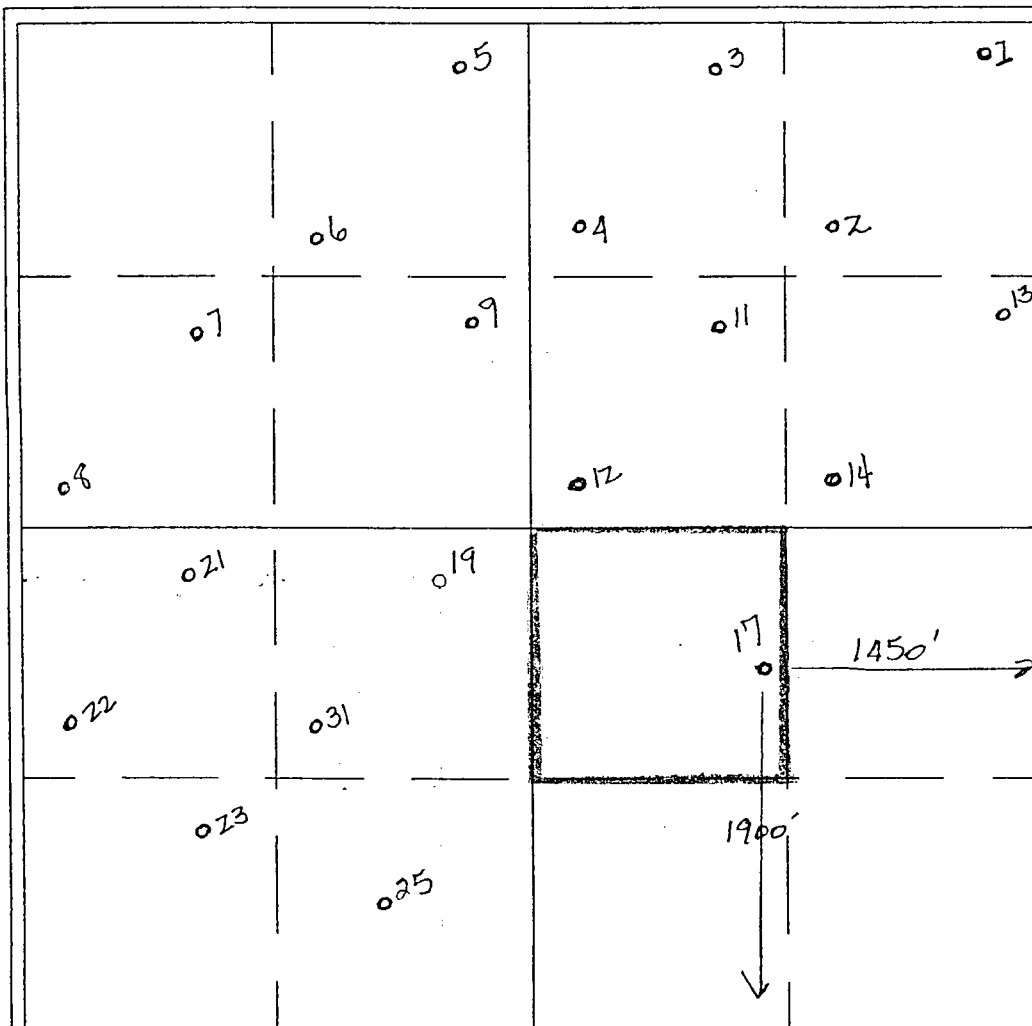
Surface Location

UL or lot No. J	Section 33	Township 17 S	Range 28 E	Lot Idn	Feet from the 1900	North/South line SOUTH	Feet from the 1450	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify the the information
contained herein is true and complete to the
best of my knowledge and belief.

Elizabeth A. Casbeer
Signature

ELIZABETH A. CASBEER
Printed Name

RES. / COMP.
Title

5/20/98
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown
on this plat was plotted from field notes of
actual surveys made by me or under my
supervision, and that the same is true and
correct to the best of my belief.

MARCH 3, 1998

Date Surveyed **DMCC**

Signature **Seal of**
Professional Surveyor

RONALD J. McDONALD
3239
12641
12185

Certificate No. **RONALD J. McDONALD** 3239
12641
12185



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

December 12, 1978

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Atlantic Richfield Company
P. O. Box 1610
Midland, Texas 79702

Attention: J. L. Tweed

Administrative Order NSL-999

Gentlemen:

Reference is made to your application for 46 non-standard locations for your ARCO-Empire Abo Unit Wells as per the attached list, Eddy County, New Mexico.

By authority granted me under the provisions of Rule 14 of Order No. R-4549-B, the 46 listed non-standard locations are hereby approved.

Very truly yours,

JOE D. RAMEY,
Director

JDR/RLS/dr

cc: Oil Conservation Division - Artesia
Oil & Gas Engineering Committee - Hobbs
U. S. Geological Survey - Artesia
Oil & Gas Division - State Land Office - Santa Fe

EMPIRE ABO UNIT WELLS

WELL NAME	LOCATION	SEC.	TWP-S	RANGE-E
E-362	1200' FNL and 1200' FEL	34	17	28
E-363	650' FNL and 120' FEL	34	17	28
E-374	220' FNL and 700' FWL	35	17	28
E-383	1190' FNL and 1910' FWL	35	17	28
E-384	600' FNL and 1400' FWL	35	17	28
E-393	1100' FNL and 2250' FEL	35	17	28
E-394	1000' FNL and 1600' FEL	35	17	28
E-395	75' FNL and 1820' FEL	35	17	28
F-334	1700' FNL and 620' FWL	34	17	28
F-335	2250' FNL and 570' FWL	34	17	28
F-342	1450' FNL and 1900' FWL	34	17	28
F-343	2300' FNL and 1675' FWL	34	17	28
F-354	1850' FNL and 2550' FEL	34	17	28
F-363	2250' FNL and 1250' FEL	34	17	28
F-373	1820' FNL and 150' FWL	35	17	28
F-374	2525' FNL and 520' FWL	35	17	28
F-375	1780' FNL and 1175' FWL	35	17	28
F-376	1335' FNL and 700' FWL	35	17	28
F-382	2400' FNL and 1600' FWL	35	17	28
F-383	1600' FNL and 2350' FWL	35	17	28
F-391	1545' FNL and 1625' FEL	35	17	28
G-291	2000' FSL and 1200' FWL	33	17	28
G-314	1450' FSL and 2000' FEL	33	17	28
G-315	1900' FSL and 1450' FEL	33	17	28
G-324	2250' FSL and 235' FEL	33	17	28
G-334	2400' FSL and 500' FWL	34	17	28
G-352	2200' FSL and 1450' FEL	34	17	28
G-353	1420' FSL and 2050' FEL	34	17	28
G-361	2400' FSL and 300' FEL	34	17	28
H-341	1200' FSL and 2500' FWL	34	17	28
I-292	485' FNL and 1070' FWL	4	18	28
J-235	1750' FNL and 1600' FEL	6	18	28
K-142	1700' FSL and 1400' FWL	2	18	27
K-143	1820' FSL and 2550' FWL	2	18	27
K-161	1310' FSL and 590' FEL	2	18	27
L-122	100' FSL and 430' FEL	3	18	27
L-123	660' FSL and 250' FEL	3	18	27
L-134	10' FSL and 640' FWL	2	18	27
L-155	1040' FSL and 2025' FEL	2	18	27
L-156	600' FSL and 1330' FEL	2	18	27
L-171	670' FSL and 300' FWL	1	18	27
L-191	1120' FSL and 1440' FEL	1	18	27
M-123	1050' FNL and 100' FEL	10	18	27
M-133	450' FNL and 1175' FWL	11	18	27
M-141	225' FNL and 2280' FWL	11	18	27
M-153	200' FNL and 1925' FEL	11	18	27

6/1/98	6/22/98	MS	NV	NSL
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

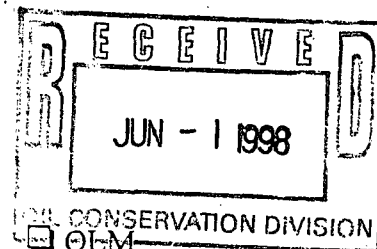
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☒ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☒ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

ELIZABETH A. CASPER
 Print or Type Name

Elizabeth Casper
 Signature

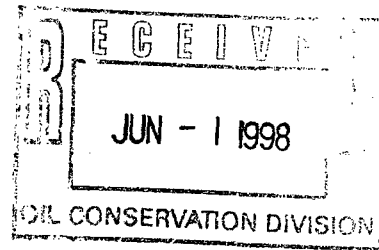
Res/Comp.
 Title

5/20/98
 Date



ARCO Permian
600 North Marlenfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst



May 20, 1998

Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Gentlemen:

Under the provisions of NMOCD Rule 104.F(d), ARCO Permian requests administrative approval for unorthodox location for its Washington "33" State #18, a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location of this well, formerly known as the EAU #G-312 is 1550'FSL and 2511'FEL of Section 33, T17S, R28E, Eddy County, New Mexico. This well is an unorthodox location.

As required, we are submitting a plat showing the subject 40-acre spacing unit with the unorthodox location and other supporting attachments. Since this unorthodox location is completely surrounded by other ARCO tracts in the same lease, there will be no impact on any other party.

Should you have any questions, please do not hesitate to call me at 915-688-5570 or Dave Pearcy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

cc: NMOCD, Artesia, New Mexico

Enclosures

**Geologic and Engineering Discussion for Washington "33" State #18
Unit J of Section 33, T17S, R28E, Eddy County, New Mexico**

ARCO Permian requests administrative approval for unorthodox location for Washington 33 State #18 in the Artesia (Q-G-SA) Field, as a recompletion of a well drilled to a deeper horizon. This wellbore is required for geologic reasons, and will be simultaneously dedicated along with #17 to Unit Letter J of Section 33.

ARCO will require 2 strategically spaced wellspots in each 40-acre tract to recover reserves in the Artesia pool. Our well pattern dictates a wellbore in the NE quadrant and SW quadrant of each 40 acres, and recompletion of these Empire (Abo) wellbores, which are 1117 ft. apart, will prevent wasteful drilling expense.

At a future date, we anticipate a waterflood could be initiated to effectively sweep both dolomite and sand reservoirs. Optimum results can only be achieved with good spacing of the primary wells. Core results show the Queen-Grayburg-San Andres "sand" pays should yield 130 MBO per 40 acres, but the modest 35 MBO recovered from "sand" well on and surrounding our lease indicates that 10-20 acre drainage for these pays is reasonable.

We have therefore determined that two wells per 40 acres, with 700 ft. minimum between wells, will effectively drain this reservoir and protect correlative rights. Where inexpensive recompletions are available, 500 ft between wells will avoid wasteful drilling. "Ten-acre" locations in the same half of any 40-acre unit should be avoided until waterflood startup. With current technology, the drainage radius for these San Andres wells is probably 10 acres, so we do not expect to be affecting any offset owner's correlative rights with these unorthodox locations.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		² OGRID Number 000990
		³ API Number 30-0 15-21745
⁴ Property Code 22954	⁵ Property Name WASHINGTON "33" STATE	
	⁶ Well No. 18	

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
J	33	17S	28E		1550	SOUTH	2511	EAST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County

⁹ Proposed Pool 1

ARTESIA (O-G-SA)

¹⁰ Proposed Pool 2

¹¹ Work Type Code R	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3662'
¹⁶ Multiple NO	¹⁷ Proposed Depth 3200	¹⁸ Formation SAN ANDRES	¹⁹ Contractor	²⁰ Spud Date 7/98

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11	8-5/8	24#	550'	200	SURE
7-7/8	5-1/2	14 & 15.5	6404'	1625	SURE

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

ORIGINALLY DRILLED AND COMPLETED AS THE EMPIRE ABO UNIT G-312 IN 1976. TD @ 6404'. TESTED ABO FROM PERFS @ 6074'-6291'. WELL IS CURRENTLY PUMPING FROM A HORIZONTAL DRAIN HOLE FROM 6238'-6285'. PROPOSE TO ABANDON THE ABO AND TEST THE GRAYBURG, QUEEN AND SAN ANDRES. SET CIBP @ 6050' W/35' CEMENT ON TOP. RUN CNL GAMMA RAY CL AND PERF AS INDICATED BY LOG. TEST AND FRAC AS NEEDED.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name: ELIZABETH A. CASBEER

Title: REG./COMP. ANALYST

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-21745	Pool Code	Pool Name ARTESIA (Q-Q-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 18
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3662'

Surface Location

UL or lot No. J	Section 33	Township 17 S	Range 28 E	Lot Idn	Feet from the 1550	North/South line SOUTH	Feet from the 2511	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

										OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Elizabeth A. Casbeer</i> Signature ELIZABETH A. CASBEER Printed Name REG/COMP. Title 5/20/98 Date	
SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. MARCH 3, 1998 Date Surveyed <i>Ronald E. Edson</i> Signature RONALD E. EDSON Printed Name 5-4-98 Date 88-11-037 Certificate No. 3239 EDSON State No. 12641 NEW MEXICO PROFESSIONAL SURVEYOR EDSON 12185										DMCC	

6/12/98 - 7/2/98 - MS - NV - NSL

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☒ NSL ☐ NSP ☐ DD ☐ SD

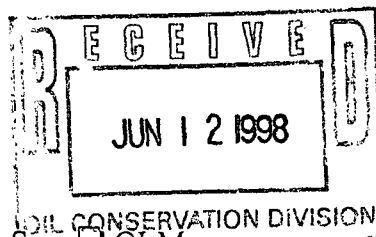
Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

ELIZABETH A. CASBEER
Print or Type Name

Signature

Title

REG/COMP. ANALYST

Date

6/3/98



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

June 3, 1998

Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Gentlemen:

Under the provisions of NMOCD Rule 104.F(d), ARCO Permian requests administrative approval for unorthodox location for its Washington "33" State #27, a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-312 is 815'FSL and 2525'FEL of Section 33, T17S, R28E, Eddy County, New Mexico. This well was drilled at an approved unorthodox location for the original horizon.

As required, we are submitting a plat showing the subject 40-acre spacing unit with the unorthodox location, a map identifying the adjoining and diagonal encroached-upon leases and wells, and a list of affected parties.

Should you have any questions, please do not hesitate to call me at 915-688-5570 or Dave Percy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

cc: NMOCD, Artesia, New Mexico

Enclosures

**OFFSET OPERATORS
WASHINGTON "33" STATE #27**

**Mack Chase, Trustee
P. O. Box 1767
Artesia, New Mexico 88211**

**Altura Energy Ltd.
P. O. Box 4294
Houston, Texas 77210**

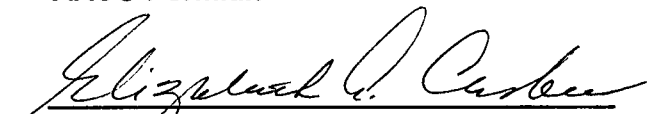
**Bulldog Energy Corp.
P. O. Box 668
Artesia, New Mexico 88210**

STATE OF TEXAS

COUNTY OF MIDLAND

BEFORE ME, the undersigned authority on this day personally appeared Elizabeth A. Casbeer, a Regulatory Compliance Analyst with ARCO Permian, who being by me duly sworn, deposes and states that the persons listed on the foregoing attached list has been sent a copy on June 3, 1998, Oil Conservation Division Form C-101 (and supporting documentation) entitled, "Application For Permit to Drill or Deepen" for the Washington "33" State #27.

ARCO Permian


Elizabeth A. Casbeer

SUBSCRIBED AND SWORN TO before me on June 3, 1998, to certify which witness my hand and seal of office.



LEIGH ANN LANE
Notary Public, State of Texas
My Commission Expires: 12-12-2000


NOTARY PUBLIC, STATE OF TEXAS

**Geologic and Engineering Discussion for Washington 33 State #27
Unit O of Section 33, T17S, R28E, Eddy County, New Mexico**

ARCO Permian requests administrative approval for unorthodox location for Washington 33 State #27 and #28 in the Artesia (Q-G-SA) Field, both as recompletions of wells drilled to a deeper horizon. Both wellbores are required for geologic reasons, and will be simultaneously dedicated to Unit Letter O of Section 33.

ARCO will require 2 strategically spaced wellspots in each 40-acre tract to recover reserves in the Artesia pool. Wherever possible, our well pattern dictates a wellbore in the NE quadrant and SW quadrant of each 40 acres. Recompletion of these Empire (Abo) wellbores, which are 503 ft. apart, will prevent wasteful drilling expense and provide satisfactory results, even though #27 is "off-pattern"..

At a future date, we anticipate a waterflood could be initiated to effectively sweep both dolomite and sand reservoirs. Optimum results can only be achieved with good spacing of the primary wells. Core results show the Queen-Grayburg-San Andres "sand" pays should yield 130 MBO per 40 acres, but the modest 35 MBO recovered from "sand" wells on and surrounding our lease indicates that 10-20 acre drainage for these pays is reasonable.

We have therefore determined that two wells per 40 acres will effectively drain this reservoir and protect correlative rights. Where inexpensive recompletions are available, 500 ft. between wells will avoid wasteful drilling. With current technology, the drainage radius for these San Andres wells is probably 10 acres, so we do not expect to be affecting any offset owner's correlative rights with these unorthodox locations.

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		² OGRID Number 000990
		³ API Number 30-015-22605
⁴ Property Code 22954	⁵ Property Name WASHINGTON "33" STATE	
		⁶ Well No. 27

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
0	33	17S	28E		815	SOUTH	2525	EAST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
⁹ Proposed Pool 1 ARTESIA (Q-G-SA)					¹⁰ Proposed Pool 2				

¹¹ Work Type Code R	¹² Well Type Code 0	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3668'
¹⁶ Multiple NO	¹⁷ Proposed Depth 3200	¹⁸ Formation SAN ANDRES	¹⁹ Contractor	²⁰ Spud Date 8/98

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11	8-5/8	24#	778	550	SURE
7-7/8	5-1/2	15.5	6405	1555	550' CBL

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

ORIGINALLY DRILLED AND COMPLETED AS THE EMPIRE ABO UNIT H-312 IN 1978. TD @ 6405'.
TESTED ABO @ 6058'-6281'. TA'D W/CIBP @ 6042' 6/20/91. PROPOSED TO DUMP
35' CEMENT ON CIBP @ 6042', RUN CNL-GAMMA RAY-CCL AND PERF Q-G-SA AS INDICATED
ON LOG. TEST AND FRAC AS NEEDED.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Elizabeth A. Casbeer</i>		OIL CONSERVATION DIVISION	
Printed name: ELIZABETH A. CASBEER		Approved by:	
Title: REG./COMP. ANALYST		Title:	
		Approval Date:	Expiration Date:

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-22605	Pool Code	Pool Name ARTESIA (Q-G-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 27
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3665'

Surface Location

UL or lot No. 0	Section 33	Township 17 S	Range 28 E	Lot Idn	Feet from the 815	North/South line SOUTH	Feet from the 2525	East/West line EAST	County EDDY
--------------------	---------------	------------------	---------------	---------	----------------------	---------------------------	-----------------------	------------------------	----------------

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
---------------	---------	----------	-------	---------	---------------	------------------	---------------	----------------	--------

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
-----------------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

05	03	01
06	04	02
07	09	013
08	10	012
014		
021	019	
022	031	17
023	018	016
024	025	027
026	815'	2525'

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Elizabeth A. Casbeer
Signature
ELIZABETH A. CASBEER
Printed Name
REG/COMP. ANALYST
Title
6/3/98
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MARCH 3, 1998

Date Surveyed
Signature
Professional Surveyor
RONALD EIDSON
5-4-98
58-11-038

Certificate No. RONALD EIDSON 3239
GARY EIDSON 12641
RONALD EIDSON 12185



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

June 3, 1998

CERTIFIED RETURN RECEIPT MAIL

Altura Energy
P. O. Box 4294
Houston, Texas 77210

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State #27 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-312 is 815'FSL and 2525'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

Enclosures



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

June 3, 1998

CERTIFIED RETURN RECEIPT MAIL

Bulldog Energy Corp.
P. O. Box 668
Artesia, New Mexico 88210

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State #27 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-312 is 815'FSL and 2525'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

Enclosures



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

June 3, 1998

CERTIFIED RETURN RECEIPT MAIL

Mack Chase, Trustee
P. O. Box 1767
Artesia, New Mexico 88211

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCDD for an unorthodox location for Washington "33" State #27 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-312 is 815'FSL and 2525'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

Enclosures

Section 33 (below)

T17S R28E

27

29
KERSEY
CO.

Mack Chase

CONDOR
FINA

Arco, et al

MARBOR
Penroe
(4-1500 ft)

MARBOR TO 3500'
AURA

KERSEY

E

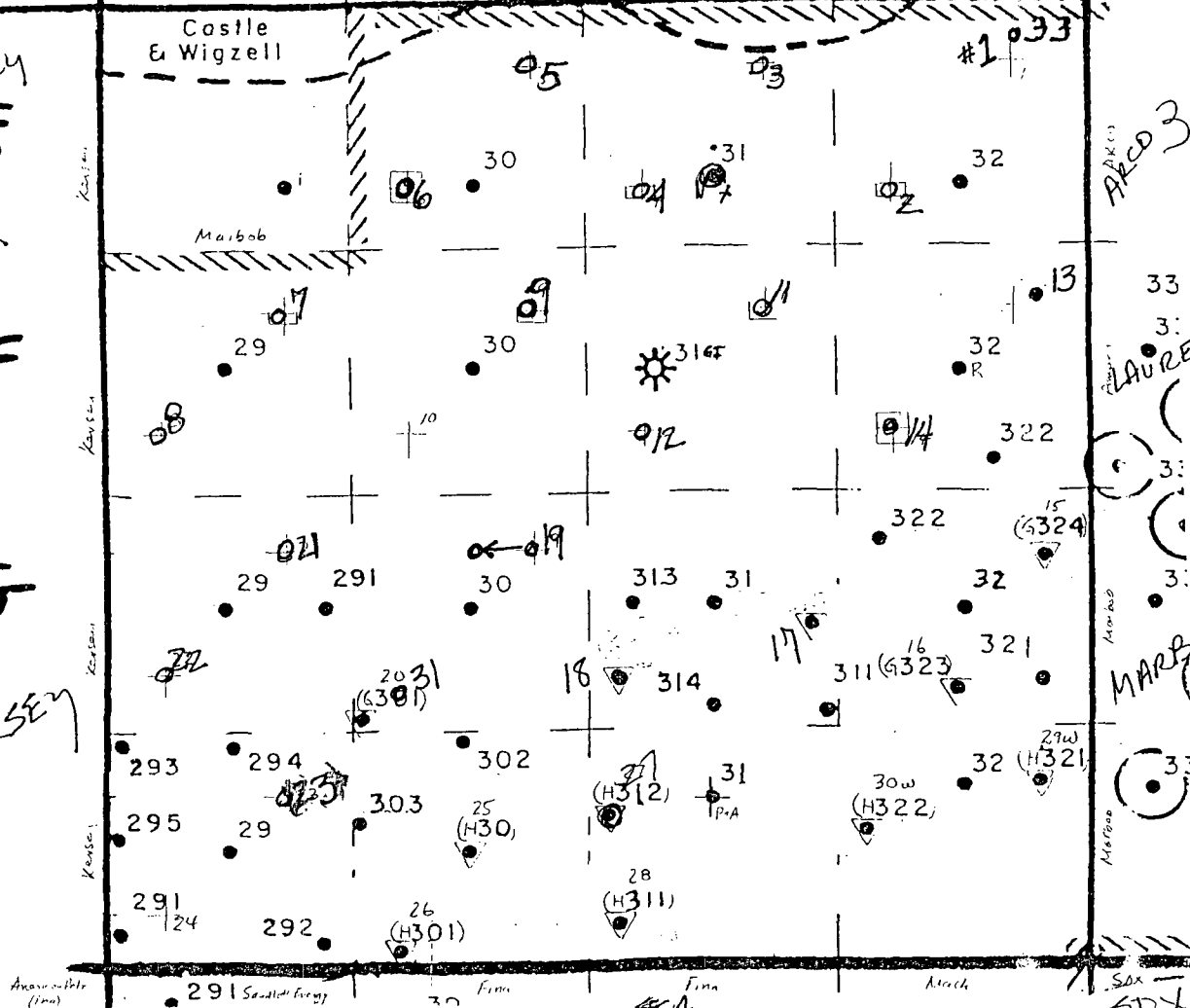
32

F

G

KERSEY

H



0 330 660

1" = 1000'
660

- ▽ San Andres recomplate candidates
- + San Andres Localities
- Primary Yaso Locations
- R Recomplate alternative in Yaso
- ⊕ Possible / continued Yaso 7B

2BP 2/19/98



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

April 26, 1978

JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Atlantic Richfield Company
P. O. Box 1610
Midland, Texas 79701

Attention: J. L. Tweed

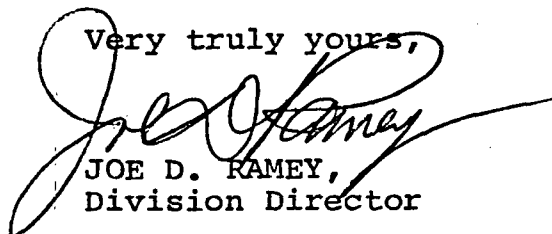
Administrative Order NSL-937

Gentlemen:

The Division Director hereby approves the non-standard location for 25 Atlantic Richfield Company Empire Abo Unit Wells, Empire Abo Pool, Eddy County, New Mexico, as shown on Exhibit 1 of their application dated April 4, 1978 and attached hereto.

These producing wells are approved under the provisions of Rule 14 of Order No. R-4549-B, in order to permit the operator to complete a more efficient production pattern within said unit in said pool.

Very truly yours,



JOE D. RAMEY,
Division Director

JDR/RLS/dr

cc: Oil & Gas Engineering Committee - Hobbs
Oil Conservation Division - Artesia
Central Leasing - State Land Office - Santa Fe

EXHIBIT 1

ATLANTIC RICHFIELD COMPANY
EMPIRE ABO UNIT
PHASE V

UNIT WELL	LOCATION	ELEV. - G.L.
F-362	1850' FNL & 350' FEL Sec. 34, T-17S, R-28E	3674.6'
F-352	1330' FNL & 1980' FEL Sec. 34, T-17S, R-28E	3670.3'
F-353	2400' FNL & 2350' FEL Sec. 34, T-17S, R-28E	3661.4'
F-322	2480' FNL & 500' FEL Sec. 33, T-17S, R-28E	3665.2'
G-333	2100' FSL & 1100' FWL Sec. 34, T-17S, R-28E	3660.2'
G-313	2000' FSL & 2450' FEL Sec. 33, T-17S, R-28E	3662.5'
H-312	815' FSL & 2525' FEL Sec. 33, T-17S, R-28E	3664.9'
H-302	1250' FSL & 1925' FWL Sec. 33, T-17S, R-28E	3670.9'
H-303	800' FSL & 1340' FWL Sec. 33, T-17S, R-28E	3665.6'
H-294	1200' FSL & 700' FWL Sec. 33, T-17S, R-28E	3666.2'
H-295	700' FSL & 10' FWL Sec. 33, T-17S, R-28E	3666.4'
H-281	200' FSL & 660' FEL Sec. 32, T-17S, R-28E	3663.4'
I-291	200' FNL & 350' FWL Sec. 4, T-18S, R-28E	3662.7'
I-283	175' FNL & 300' FEL Sec. 5, T-18S, R-28E	3661.0'
J-234	1900' FNL & 2441' FEL Sec. 6, T-18S, R-28E	3677.6'
J-212	1900' FNL & 100' FWL Sec. 6, T-18S, R-28E	3649.7'
J-213	1950' FNL & 1300' FWL Sec. 6, T-18S, R-28E	3647.8'
J-214	2450' FNL & 400' FWL Sec. 6, T-18S, R-28E	3650.1'
J-203	2400' FNL & 700' FEL Sec. 1, T-18S, R-27E	3650.9'
K-193	2150' FSL & 2450' FEL Sec. 1, T-18S, R-27E	3635.4'
K-194	1500' FSL & 2130' FEL Sec. 1, T-18S, R-27E	3618.3'
L-154	750' FSL & 2550' FEL Sec. 2, T-18S, R-27E	3553.4'
L-142	100' FSL & 1950' FWL Sec. 2, T-18S, R-27E	3555.6'
L-143	1200' FSL & 1900' FWL Sec. 2, T-18S, R-27E	3528.0'
M-132	625' FNL & 175' FWL Sec. 11, T-18S, R-27E	3540.6'

6/22/98 - 7/13/98 - MS - KW - NSL

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

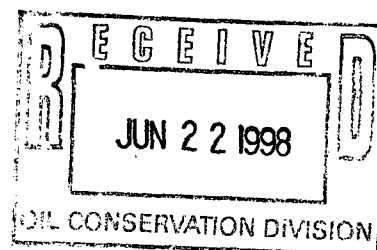
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☒ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☒ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Laurie Cherry
Print or Type Name

Laurie Cherry
Signature

Reg/Comp. Asst.
Title

6/16/98
Date



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Gentlemen:

Under the provisions of NMOCD Rule 104.F(d), ARCO Permian requests administrative approval for unorthodox location for its Washington "33" State #30, a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-322 is 750'FSL and 1150'FEL of Section 33, T17S, R28E, Eddy County, New Mexico. This well was drilled at an approved unorthodox location for the original horizon.

As required, we are submitting a plat showing the subject 40-acre spacing unit with the unorthodox location, a map identifying the adjoining and diagonal encroached-upon leases and wells, and a list of affected parties.

Should you have any questions, please do not hesitate to call Dave Percy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Laurie Cherry
Regulatory/Compliance Assistant

:lc

cc: NMOCD, Artesia, New Mexico

Enclosures

Section 33 (below)

T17S R28E

27

29
KERSEY
CO.

Mack Chase
MACK CHASE

CONOCO
FINA

Arco, et al.

MARBOR
Penrose
U-654 (11-12)

MARBOR
ALURA
to 3500'

(Sec. 28)

KERSEY
E

32

F

G

KERSEY

H

Castle
& Wigzell

Marbob

LAURETTA
(PHILLIPS)

MARBOR

Anderson
(line)

291 Small Farm

30 Fina

304 Fina

304 Mack

304 Sax

0 330 660'

1" = 1000'
660

- ▽ San Andres incomplete coordinates
- + San Andres Locations
- Primary Yeso Locations
- R Recomplete alternative in Yeso
- Possible /contingent Yeso TD

DBP 2/19/78

**Geologic and Engineering Discussion for Washington 33 State #30
Unit P of Section 33, T17S, R28E, Eddy County, New Mexico**

ARCO Permian requests administrative approval for unorthodox location for Washington 33 State #29 and #30 in the Artesia (Q-G-SA) Field, both as recompletions of wells drilled to a deeper horizon. Both wellbores are required for geologic reasons, and will be simultaneously dedicated to Unit Letter P of Section 33.

ARCO will require 2 strategically spaced wellspots in each 40-acre tract to recover reserves in the Artesia pool. Wherever possible, our well pattern dictates a wellbore in the NE quadrant and SW quadrant of each 40 acres. Recompletion of these Empire (Abo) wellbores, which are 949 ft. apart, will prevent wasteful drilling, even though #30 is "off-patterns".

At a future date, we anticipate a waterflood could be initiated to effectively sweep both dolomite and sand reservoirs. Optimum results can only be achieved with good spacing of the primary wells. Core results show the Queen-Grayburg-San Andres "sand" pays should yield 130 MBO per 40 acres, but the modest 35 MBO recovered from "sand" wells on and surrounding our lease indicates that 10-20 acre drainage for these pays is reasonable.

We have therefore determined that two wells per 40 acres will effectively drain this reservoir and protect correlative rights. Where inexpensive recompletions are available, 700 ft. between wells will avoid wasteful drilling. "Ten-acre" locations in the same half of any 40-acre unit should be avoided until waterflood startup. With current technology, the drainage radius for these San Andres wells is probably 10 acres, so we do not expect to be affecting any offset owner's correlative rights with these unorthodox locations.

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address		² OGRID Number
ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		000990
		³ API Number
		30-0 15-22465
⁴ Property Code	⁵ Property Name	
22954	WASHINGTON "33" STATE	
		⁶ Well No.
		30

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
P	33	17S	28E		750	SOUTH	1150	EAST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County

⁹ Proposed Pool 1

¹⁰ Proposed Pool 2

ARTESIA (Q-G-SA)

¹¹ Work Type Code	¹² Well Type Code	¹³ Cable/Rotary	¹⁴ Lease Type Code	¹⁵ Ground Level Elevation
R	0	R	S	3562
¹⁶ Multiple	¹⁷ Proposed Depth	¹⁸ Formation	¹⁹ Contractor	²⁰ Spud Date
NO	3200	SAN ANDRES	HONDO	3-28-78

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11	8-5/8	24#	600	300	SURF.
7-7/8	5-1/2	15.5	6262	1275	SURF.

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

ORIGINALLY DRILLED AND COMPLETED AS THE EMPIRE ABO UNIT H-322 IN 1978.
TD @ 6290' OH. TESTED ABO @ 6262-6290' OH & 6150-6230' PERFS. TA'D W/
CIBP @ 6147' ON 6-19-91. PROPOSE TO DUM 35' CEMENT ON CIBP @ 6147'. RUN
CNL-GAMMA RAY-CCL AND PEFT THE Q-G-SA AS INDICATED ON LOG. TEST AND
FRAC AS NEEDED.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Laurie Cherry

Printed name: LAURIE CHERRY

Title: REG./COMP. ASST.

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-22465	Pool Code	Pool Name ARTESIA (Q-C-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 30
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3662

Surface Location

UL or lot No. P	Section 33	Township 17 S	Range 28 E	Lot Idn	Feet from the 750	North/South line SOUTH	Feet from the 1150	East/West line EAST	County EDDY
--------------------	---------------	------------------	---------------	---------	----------------------	---------------------------	-----------------------	------------------------	----------------

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

05	03	01
06	04	02
07	09	013
08	10	12
14	11	15
21	19	17
22	31	18
23	25	16
24	26	27
	28	29
		30

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Laurie Cherry
Signature
LAURIE CHERRY
Printed Name
REG/COMP. ASST.
Title
6/16/98
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MARCH 3, 1998

Date Surveyed
Signature & Seal of Professional Surveyor
RONALD D. EDISON
3239
5-4-98
88-11-0378

Certificate No. RONALD D. EDISON 3239
GARY EDISON 12641
PROFESSIONAL SURVEYOR-MCDONALD 12185



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

CERTIFIED RETURN RECEIPT MAIL

SDX Resources, Inc.
P. O. Box 5061
Midland, Texas 79704

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State 30 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-322 is 750'FSL and 1150'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

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Sincerely,

Laurie Cherry
Regulatory/Compliance Assistant

:lc

Enclosures



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

CERTIFIED RETURN RECEIPT MAIL

Marbob Energy Corp.
P. O. Box 227
Artesia, New Mexico 88211

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State 30 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-322 is 750'FSL and 1150'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,

Laurie Cherry
Regulatory/Compliance Assistant

:lc

Enclosures



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

CERTIFIED RETURN RECEIPT MAIL

Mack Chase, Trustee
P. O. Box 1767
Artesia, New Mexico 88211

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State 30 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-322 is 750'FSL and 1150'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,


Laurie Cherry
Regulatory/Compliance Assistant

:lc

Enclosures



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

CERTIFIED RETURN RECEIPT MAIL

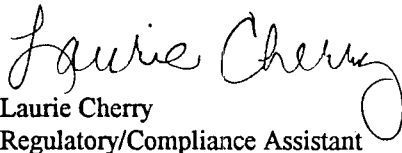
Bulldog Energy Corp.
P. O. Box 668
Artesia, New Mexico 88210

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State 30 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-322 is 750'FSL and 1150'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,


Laurie Cherry
Regulatory/Compliance Assistant

:lc

Enclosures

STATE OF TEXAS

COUNTY OF MIDLAND

BEFORE ME, the undersigned authority on this day personally appeared Laurie Cherry, a Regulatory Compliance Assistant with ARCO Permian, who being by me duly sworn, deposes and states that the persons listed on the foregoing attached list has been sent a copy on June 16, 1998, Oil Conservation Division Form C-101 (and supporting documentation) entitled, "Application For Permit to Drill or Deepen" for the Washington "33" State #30.

ARCO Permian

Laurie Cherry
Laurie Cherry

SUBSCRIBED AND SWORN TO before me on June 16, 1998, to certify which witness my hand and seal of office.

Leigh Ann Lane

NOTARY PUBLIC, STATE OF TEXAS



LEIGH ANN LANE
Notary Public, State of Texas
My Commission Expires: 12-12-2000

**OFFSET OPERATORS
WASHINGTON "33" STATE #30**

**SDX Resources, Inc.
P. O. Box 5061
Midland, Texas 79704**

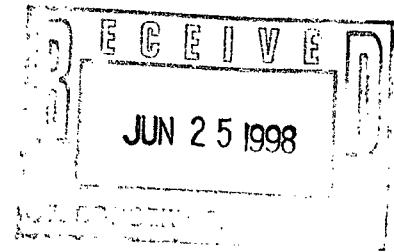
**Marbob Energy Corp.
P. O. Box 227
Artesia, New Mexico 88211**

**Mack Chase, Trustee
P. O. Box 1767
Artesia, New Mexico 88211**

**Bulldog Energy Corp.
P. O. Box 668
Artesia, New Mexico 88210**



ARCO Permian
600 N Marienfeld
Midland TX 79701
Post Office Box 1610
Midland TX 79702
Telephone 915 688 5200



June 23, 1998

New Mexico Energy Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Fax #: (505) 827-1389

Attention: Mr. Michael E. Stogner

Re: Washington 33 Project
Township 17 South, Range 28 East
Section 33: E/2, E/2W/2, W/2SW/4, SW/4 NW/4
Eddy County, New Mexico
30-015-006004-001
State of New Mexico Lease 647

Dear Sir:

Based upon the examination of the records of the Office of the Commissioner of Public Lands of the State of New Mexico (Abstract No. 7017) and the records of Eddy County, New Mexico (Abstract No. 97314), title to the captioned land is vested as follows:

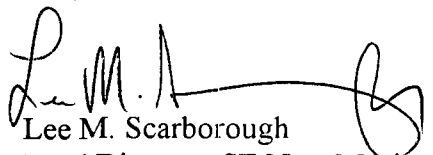
Surface Estate: Bogle Farms, Inc. and Marsh Medra of El Paso

Mineral Estate: State of New Mexico

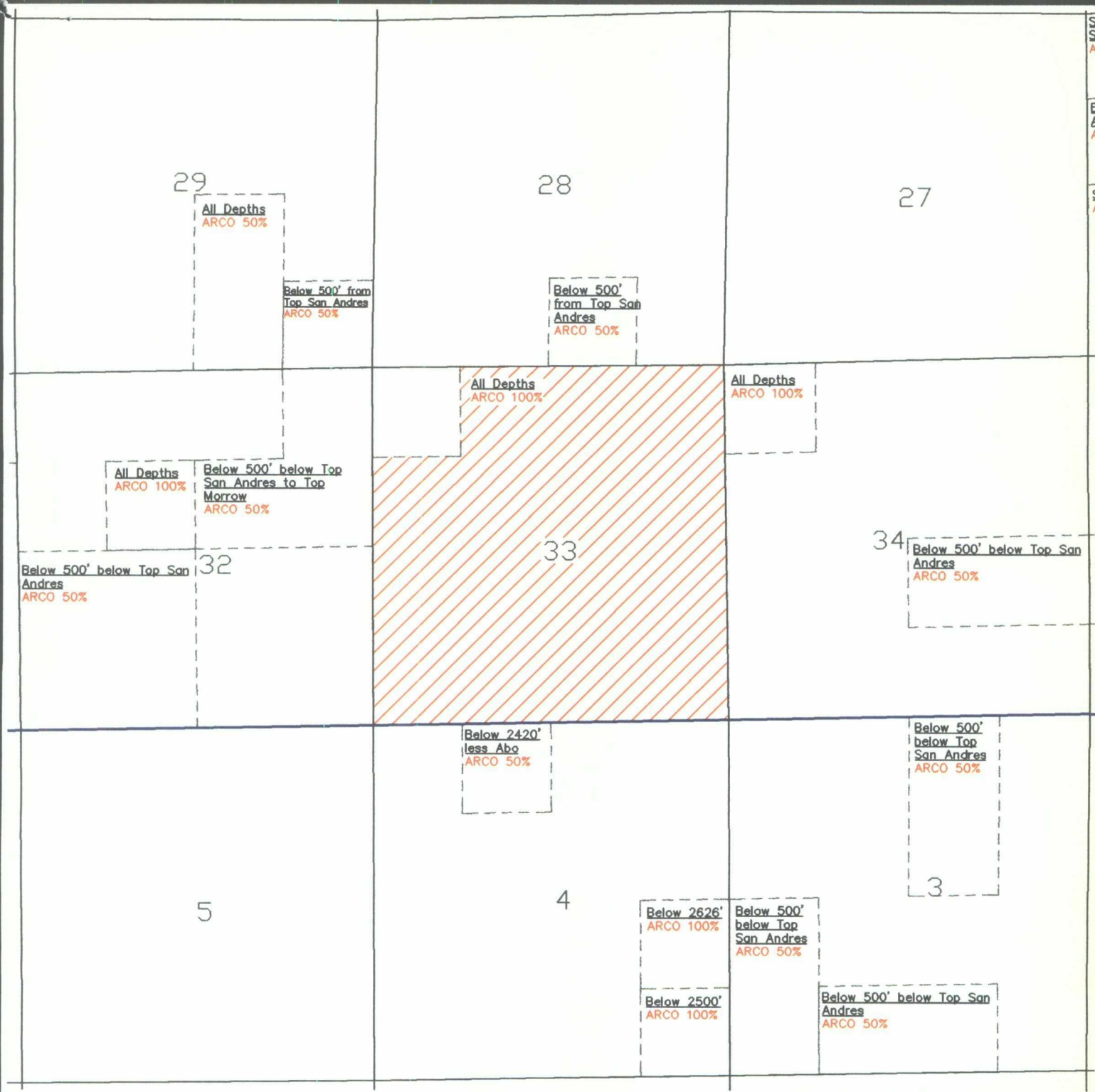
Record Title and Operating Rights: Atlantic Richfield Company

Should anything further be needed, please contact the undersigned at (915) 688-5270.

Very truly yours,


Lee M. Scarborough
Land Director, SE New Mexico

LMS/sb



ARCO Permian
a Unit of Atlantic Richfield Company

WASHINGTON 33 PROJECT
Eddy County, New Mexico

T-17-S R-28-E, Section 33

1" = 2000'

By: Dave Percy	Drawn By: KAM	Date: 6-23-98
Date: 6-23-98	Revised By:	Date:
Dept: SENM	Dwg No.: emp*_dave.dwg	/nm/plot

600 North Marienfeld
P. O. Box 1610
Midland, Texas 79702
Phone: (915) 688-5200

ARCO PERMIAN

Fax

To: Michael E. Stogner**From:** Lee Scarborough

New Mexico Energy Minerals &

Phone: (915) 688-5270

Natural Resources Department

Fax: (915) 688-5757

Fax: (505) 827-1389**Pages:** 3 Pages including cover**Phone:****Date:** 06/23/98

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle



ARCO Permian
600 N Marlenfeld
Midland TX 79701
Post Office Box 1610
Midland TX 79702
Telephone 915 688 5200

June 23, 1998

New Mexico Energy Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Fax #: (505) 827-1389

Attention: Mr. Michael E. Stogner

Re: Washington 33 Project
Township 17 South, Range 28 East
Section 33: E/2, E/2W/2, W/2SW/4, SW/4 NW/4
Eddy County, New Mexico
30-015-006004-001
State of New Mexico Lease 647

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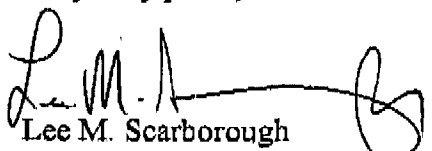
Surface Estate: Bogle Farms, Inc. and Marsh Medra of El Paso

Mineral Estate: State of New Mexico

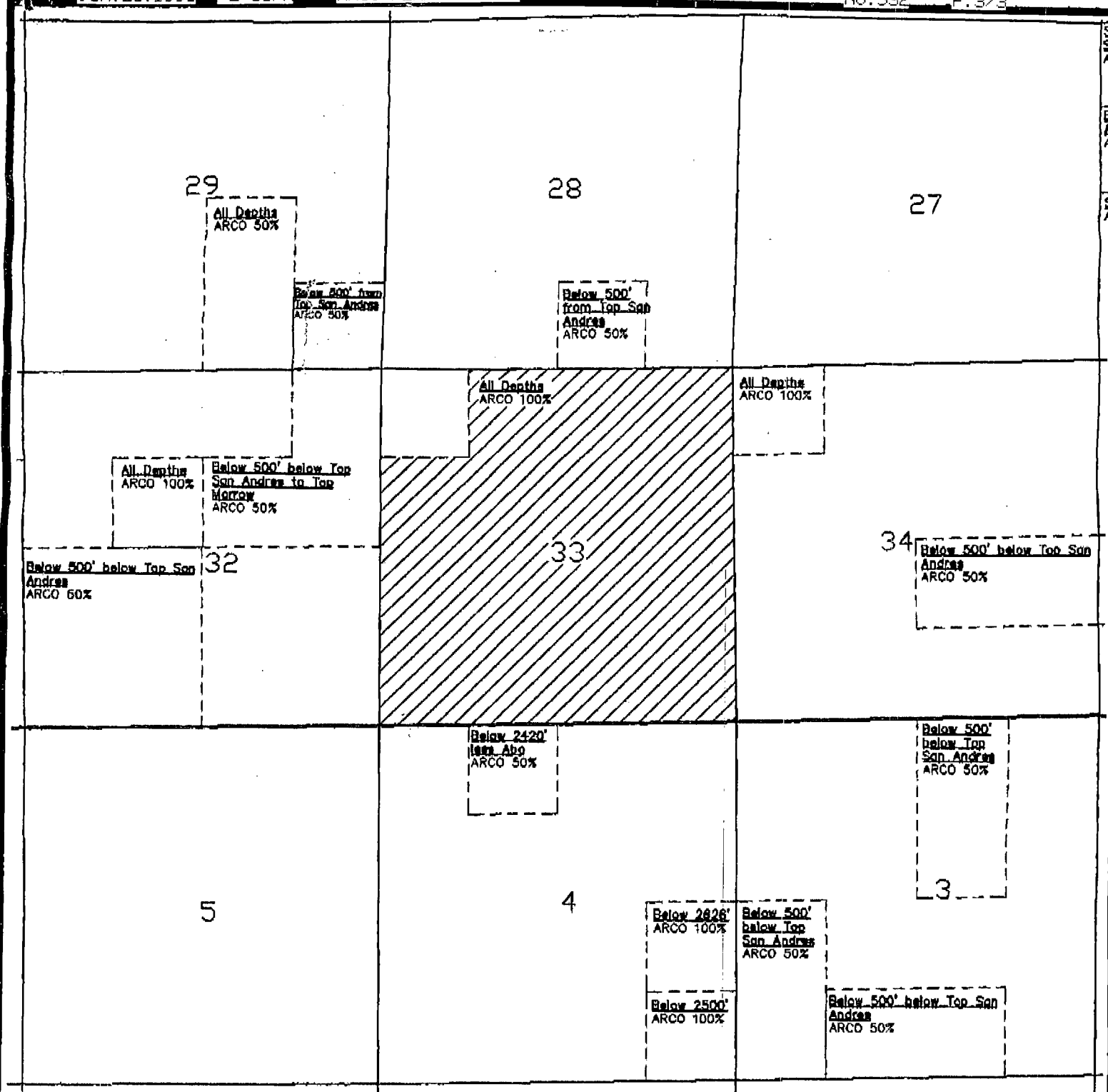
Record Title and Operating Rights: Atlantic Richfield Company

Should anything further be needed, please contact the undersigned at (915) 688-5270.

Very truly yours,


Lee M. Scarborough
Land Director, SE New Mexico

LMS/sb



ARCO Permian
a Unit of Atlantic Richfield Company



WASHINGTON 33 PROJECT
Eddy County, New Mexico

T-17-S R-28-E, Section 33

1" = 2000'

By: Dave Pezary	Drawn By: KAM	Date: 6-23-98
Date: 6-23-98	Revised By:	Date:
Dept: SENM	Dwg No: emp*_dave.dwg	/nm/plat



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

OIL CONSERVATION DIVISION

ENGINEERING BUREAU MEMORANDUM

TO: Tim Gum, Supervisor - OCD District II
Mae Morgan - OCD, Artesia
Dave Percy - ARCO Permian, Midland, Texas

FROM: Michael E. Stogner, Chief Hearing Examiner/Engineer

SUBJECT: Division Administrative Order NSL-4060

DATE: July 1, 1998

Please note that any future unorthodox oil well locations to the Artesia-Queen-Grayburg-San Andres Pool within ARCO's Washington "33" State lease comprising the NE/4, NE/4 NW/4, S/2 NW/4, and S/2 of Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico are to be administered in the same manner as wells within waterflood projects.

Call me at (505) 827-8185 if there are any questions.

cc: File: NSL-4060



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

June 19, 1998

ARCO Permian
P. O. Box 1610
Midland, Texas 79702-1610
Attention: Elizabeth A. Casbeer

Administrative Order NSL-4060

Dear Ms. Casbeer:

Reference is made to: (i) your applications dated April 29, May 12, May 20, June 3, and June 16, 1998 for several unorthodox oil well locations in the Artesia-Queen-Grayburg-San Andres Pool within ARCO Permian's ("ARCO") Washington "33" State Lease in Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico; (ii) the records of the Division in Santa Fe including the files on Division Administrative Orders NSL-915-A, NSL-915-B, NSL-4003, NSL-4007, NSL-4035, and NSL-4036; and (iii) a telephone conversation between David Pearcy with ARCO in Midland and Mr. Michael E. Stogner, Engineer with the New Mexico Oil Conservation Division ("Division") on Monday, June 18, 1998.

The Division Director Finds That:

- (1) ARCO is the owner and operator of the Washington "33" State Lease, which comprises the following described 600 acres, more or less, that comprise a portion of New Mexico State Land Office Lease No. X-00647:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
Section 33: NE/4, NE/4 NW/4, S/2 NW/4, and S/2;

- (2) The Artesia-Queen-Grayburg-San Andres Pool underlying this area is subject to the statewide rules for oil wells, as set forth in Division Rule 104.C(1), which provides for 40-acre oil spacing and proration units, or drilling units, and requires that wells be located no closer than 330 feet to the outer boundary of such a unit;
- (3) All mineral interests are common throughout this lease;
- (4) The application has been duly filed under the provisions of Division Rule 104.F;
- (5) Approval of the above referenced applications is in the best interest of conservation, will serve to prevent waste, protects correlative rights, exhibits sound engineering principles, and will allow ARCO to develop the Artesia-Queen-Grayburg-San Andres Pool with infill wells in order to recover additional reserves that might not otherwise be produced; and
- (6) A procedure that allows ARCO to include additional Artesia-Queen-Grayburg-San Andres oil wells as needed within its Washington "33" State at locations that are unorthodox under Division Rule 104.C(1)(a) without further administrative review by the Director should be

adopted, provided that any such unorthodox location within the Washington "33" State Lease is no closer than the required minimum orthodox distance (330 feet) to the outer boundary of the lease nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.

It Is Therefore Ordered That:

(1) By the authority granted me under the provisions of Division Rule 104.F(2), ARCO Permian ("ARCO") is hereby authorized to recomplete five existing wells and drill two additional wells at unorthodox oil well locations in the Artesia-Queen-Grayburg-San Andres Pool within its Washington "33" State Lease in Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico, as follows:

<i>Well Name and No.</i>	<i>API Number</i>	<i>Footage Location</i>	<i>Unit</i>	<i>Dedicated 40-Acre Tract</i>
Washington "33" State Well No. 16 (formerly the Empire Abo Unit "G" Well No. 323)	30-015-22415	1500' FSL - 700' FEL	I	NE/4 SE/4
Washington "33" State Well No. 17 (formerly the Empire Abo Unit "G" Well No. 315)	30-015-22821	1900' FSL & 1450' FEL	J	NW/4 SE/4
Washington "33" State Well No. 18 (formerly the Empire Abo Unit "G" Well No. 312)	30-015-21745	1550' FSL & 2511' FEL	J	NW/4 SE/4
Washington "33" State Well No. 19 (new drill)	NA	2360' FSL - 2165' FWL	K	NE/4 SW/4
Washington "33" State Well No. 23 (new drill)	NA	975' FSL - 1060' FWL	M	SW/4 SW/4
Washington "33" State Well No. 27 (formerly the Empire Abo Unit "H" Well No. 312)	30-015-22605	815 FSL & 2525' FEL	O	SW/4 SE/4
Washington "33" State Well No. 30 (formerly the Empire Abo Unit "H" Well No. 322)	30-015-22465	750' FSL & 1150' FEL	P	SE/4 SE/4

It Is Further Ordered That:

(2) Within the following described 600 acres, known as the Washington "33" State Lease, ARCO is hereby authorized to locate wells within the Artesia-Queen-Grayburg-San Andres Pool that are

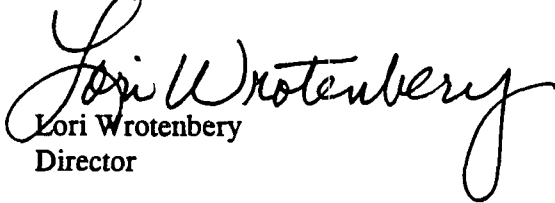
unorthodox based on the well location requirements of Division Rule 104.C(1)(a), provided that any such unorthodox location is no closer than the required minimum orthodox distance (330 feet) to the outer boundary of the Washington "33" Lease nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
Section 33: NE/4, NE/4 NW/4, S/2 NW/4, and S/2;

(3) Any unorthodox location authorized by Ordering Paragraph (2) shall require the submission of a Division Form C-102, in accordance with Division Rules 1101 and 1102, and the approval of the Supervisor of the Division's District Office in Artesia. The Form C-102 for any such well shall include the following additional information: (i) the boundary of the Washington "33" State Lease must be outlined; (ii) the designated 40 acres to be dedicated to the well must be highlighted or outlined; (iii) all other wells within the Artesia-Queen-Grayburg-San Andres Pool that are dedicated to this 40-acre tract must be identified and described; and, (iv) this administrative order (NSL-4060) must be referenced.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,


Lori Wrotenbery
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia
New Mexico State Land Office - Santa Fe
Dave Percy, ARCO - Midland, Texas
William F. Carr, Legal Counsel for ARCO - Santa Fe



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

March 26, 1998

ARCO Permian
P. O. Box 1610
Midland, Texas 79702-1610
Attention: Elizabeth A. Casbeer

Administrative Order NSL-915-A

Dear Ms. Casbeer:

Reference is made to your application dated March 5, 1998 for an unorthodox oil well location in both the Artesia Queen-Grayburg-San Andres Pool and Yeso formation for ARCO Permian's existing Washington "33" State Well No. 13 (API No. 30-015-22524), located 1610 feet from the North line and 250 feet from the East line (Unit H) of Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico. The SE/4 NE/4 of said Section 33 is to be dedicated to said well in order to form a standard 40-acre oil spacing and proration unit in oil producing formations.

Division records indicate that said well was drilled in 1978 as the Empire Abo Unit "F" Well No. 321 to a total depth of 6,210 feet and was completed within the Empire-Abo Pool at an unorthodox oil well location approved by Division Administrative Order NSL-915, dated January 16, 1978.

It is our understanding that the Abo interval will be properly plugged back and the Queen, Grayburg, San Andres, and Yeso intervals up-hole will be tested.

The application has been duly filed under the provisions of Rule 104.F of the General Rules and Regulations of the New Mexico Oil Conservation Division.

By the authority granted me under the provisions of Division General Rule 104.F(2), the above-described unorthodox oil well location for both the Artesia Queen-Grayburg-San Andres Pool and Yeso formation is hereby approved.

That portion of said original Administrative Order NSL-915 approving the unorthodox Empire-Abo oil well location for the Empire Abo Unit "F" Well No. 321 shall be placed in abeyance until further notice.

Sincerely,


Lori Wrotenbery
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia
New Mexico State Land Office - Santa Fe
File: NSL-915

Record ID	APP_TYPE	ORDER_NUM	AMENDMENT	OPERATOR
2016	NSL	915A	Y	ARCO PERMIAN
2040	NSL	4007		ARCO PERMIAN
2101	NSL	4003		ARCO PERMIAN
2172	NSL	4035		ARCO PERMIAN
2173	NSL	4036		ARCO PERMIAN
2203	NSL			ARCO PERMIAN
2236	NSL			ARCO PERMIAN
2256	NSL			ARCO PERMIAN
2267	NSL			ARCO PERMIAN
2268	NSL			ARCO PERMIAN
2269	NSL			ARCO PERMIAN
2325	NSL			ARCO PERMIAN
2326	NSL			ARCO PERMIAN

WELL LEASE	SECTION	TOWNSHIP	N S	RANGE
WASHINGTON "33" STATE NO. 13	33	17	S	28
WASHINGTON "33" STATE NO. 1	33	17	S	28
WASHINGTON "33" STATE NO. 12	33	17	S	28
WASHINGTON "33" STATE NO. 3	33	17	S	28
WASHINGTON "33" STATE NO. 5	33	17	S	28
WASHINGTON "33" STATE NO. 23	33	17	S	28
WASHINGTON "33" STATE NO. 19	33	17	S	28
WASHINGTON "33" STATE NO. 26	33	17	S	28
WASHINGTON "33" STATE NO. 16	33	17	S	28
WASHINGTON "33" STATE NO. 17	33	17	S	28
WASHINGTON "33" STATE NO. 18	33	17	S	28
WASHINGTON "33" STATE NO. 27	33	17	S	28
WASHINGTON "33" STATE NO. 28	33	17	S	28

E_W	REC_DATE	REL_DATE	DATE_OUT	ORDER_DATE	SLO_APPROV
E	3/6/98	3/26/98	3/26/98	3/26/98	0
E	3/20/98	4/9/98	4/16/98	4/16/98	0
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E	4/27/98	5/18/98	5/18/98	5/18/98	0
E	5/4/98	5/26/98			0
E	5/18/98	6/8/98			0
E	5/28/98	6/17/98			0
E	6/1/98	6/22/98			0
E	6/1/98	6/22/98			0
E	6/1/98	6/22/98			0
E	6/12/98	7/2/98			0
E	6/12/98	7/2/98			0

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NOTE	DAYS ELAPSED



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

July 1, 1998

ARCO Permian
P. O. Box 1610
Midland, Texas 79702-1610
Attention: Elizabeth A. Casbeer

Administrative Order NSL-809-A

Dear Ms. Casbeer:

Reference is made to your application dated June 3, 1998 for an unorthodox oil well location in the Artesia-Queen-Grayburg-San Andres Pool for ARCO Permian's existing Washington "33" State Well No. 28 (API No. 30-015-22124), located 313 feet from the South line and 2490 feet from the East line (Unit O) of Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico. The SW/4 SE/4 of Section 33 is to be dedicated to the well in order to form a standard 40-acre oil spacing and proration unit in oil producing formations.

Division records indicate that the well was drilled in 1977 as the Empire Abo Unit "H" Well No. 311 to a total depth of 6,362 feet and was completed within the Empire-Abo Pool at an unorthodox oil well location approved by Division Administrative Order NSL-809, dated November 12, 1976.

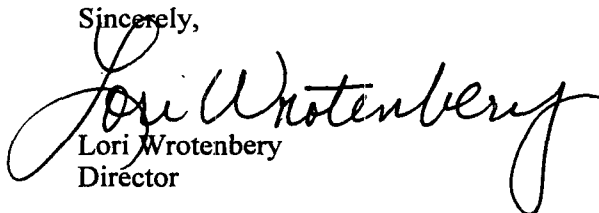
It is our understanding that the Abo interval will be properly plugged back at this time and the shallower Artesia-Queen-Grayburg-San Andres Pool up-hole will be tested.

The application has been duly filed under the provisions of Rule 104.F of the General Rules and Regulations of the New Mexico Oil Conservation Division and Division Administrative Order NSL-4060, dated June 19, 1998.

By the authority granted me under the provisions of Division General Rule 104.F(2), the above-described unorthodox oil well location is hereby approved.

That portion of original Division Administrative Order NSL-809 approving the unorthodox Empire-Abo oil well location for the Empire Abo Unit "H" Well No. 311 shall be placed in abeyance until further notice.

Sincerely,


Lori Wrotenberg
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia
New Mexico State Land Office - Santa Fe
Dave Percy, ARCO Permian - Midland, Texas
File: NSL-809 /
NSL-4060 /



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

July 13, 1998

ARCO Permian
P. O. Box 1610
Midland, Texas 79702-1610
Attention: Laurie Cherry

Administrative Order NSL-999-A

Dear Ms. Cherry:

Reference is made to your application dated June 16, 1998 for an unorthodox oil well location in the Artesia-Queen-Grayburg-San Andres Pool for ARCO Permian's existing Washington "33" State Well No. 15 (API No. 30-015-22822), located 2250 feet from the South line and 235 feet from the East line (Unit I) of Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico. The NE/4 SW/4 of Section 33 is to be dedicated to the well in order to form a standard 40-acre oil spacing and proration unit in oil producing formations.

Division records indicate that the well was drilled in 1979 as the Empire Abo Unit "G" Well No. 324 to a total depth of 6,370 feet and was completed within the Empire-Abo Pool at an unorthodox oil well location approved by Division Administrative Order NSL-999, as amended.

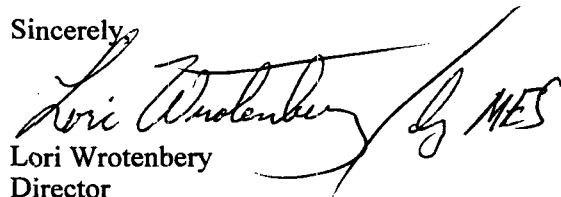
It is our understanding that the Abo interval will be properly plugged back at this time and the shallower Artesia-Queen-Grayburg-San Andres Pool up-hole will be tested.

The application has been duly filed under the provisions of Rule 104.F of the General Rules and Regulations of the New Mexico Oil Conservation Division and Division Administrative Order NSL-4060, dated June 19, 1998.

By the authority granted me under the provisions of Division General Rule 104.F(2), the above-described unorthodox oil well location is hereby approved.

That portion of Division Administrative Order NSL-999, as amended, approving the unorthodox Empire-Abo oil well location for the Empire Abo Unit "G" Well No. 324 shall be placed in abeyance until further notice.

Sincerely,



Lori Wrotenbery
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia
New Mexico State Land Office - Santa Fe
Dave Percy, ARCO Permian - Midland, Texas
File: NSL-999
NSL-4060 /



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

July 13, 1998

ARCO Permian
P. O. Box 1610
Midland, Texas 79702-1610
Attention: Laurie Cherry

Administrative Order NSL-915-C

Dear Ms. Cherry:

Reference is made to your application dated June 16, 1998 for an unorthodox oil well location in the Artesia-Queen-Grayburg-San Andres Pool for ARCO Permian's existing Washington "33" State Well No. 29 (API No. 30-015-22417), located 1050 feet from the South line and 250 feet from the East line (Unit P) of Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico. The SE/4 SE/4 of Section 33 is to be dedicated to the well in order to form a standard 40-acre oil spacing and proration unit in oil producing formations.

Division records indicate that the well was drilled in 1978 as the Empire Abo Unit "H" Well No. 321 to a total depth of 6,378 feet and was completed within the Empire-Abo Pool at an unorthodox oil well location approved by Division Administrative Order NSL-915, dated January 16, 1978.

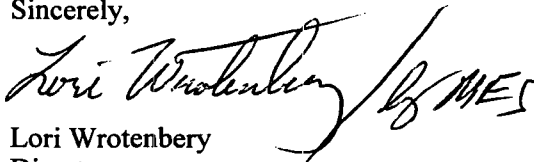
It is our understanding that the Abo interval will be properly plugged back at this time and the shallower Artesia-Queen-Grayburg-San Andres Pool up-hole will be tested.

The application has been duly filed under the provisions of Rule 104.F of the General Rules and Regulations of the New Mexico Oil Conservation Division and Division Administrative Order NSL-4060, dated June 19, 1998.

By the authority granted me under the provisions of Division General Rule 104.F(2), the above-described unorthodox oil well location is hereby approved.

That portion of original Division Administrative Order NSL-915 approving the unorthodox Empire-Abo oil well location for the Empire Abo Unit "H" Well No. 321 shall be placed in abeyance until further notice.

Sincerely,


Lori Wrotenbery
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia
New Mexico State Land Office - Santa Fe
Dave Percy, ARCO Permian - Midland, Texas
File: NSL-915
NSL-4060 /