

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

<sup>1</sup> Operator name and Address ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		<sup>2</sup> OGRID Number 000990
<sup>4</sup> Property Code 22954	<sup>5</sup> Property Name WASHINGTON "33" STATE	<sup>3</sup> API Number 30-015-22124
		<sup>6</sup> Well No. 28

<sup>7</sup> 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		313	SOUTH	2490	EAST	EDDY

<sup>8</sup> 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

<sup>9</sup> Proposed Pool 1 ARTESIA (Q-G-SA)	<sup>10</sup> Proposed Pool 2 3230
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<sup>11</sup> Work Type Code R	<sup>12</sup> Well Type Code 0	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3661
<sup>16</sup> Multiple NO	<sup>17</sup> Proposed Depth 3200	<sup>18</sup> Formation SAN ANDRES	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 8/98

<sup>21</sup> 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'	275	SURE
7-7/8	5-1/2	14	6362'	1400	SURE

<sup>22</sup> 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-311 IN 1977. TD @6362'.  
TESTED ABO 6044'-6234'. TA'D W/CIBP @ 5880' ON 7-19-89. PROPOSED TO DUMP  
35' CEMENT ON CIBP @5880', RUN CNL-CCL GAMMA RAY AND PERF SAN ANDRES AS INDICATED  
ON LOG. TEST AND FRAC AS NEEDED.

NSC-809-A

<sup>23</sup> 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: 7-7-98

Expiration Date: 7-7-98

DISTRICT II  
 P.O. Drawer DD, Artesia, NM 86211-0719

 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 30-015-22124	Pool Code	Pool Name ARTESIA (A-GB-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 28
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3661'

## 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	17 S	28 E		313	SOUTH	2490	EAST	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.
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 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

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**OPERATOR CERTIFICATION**

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

*Elizabeth A. Casbeek*  
Signature

ELIZABETH A. CASBEEK  
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 \_\_\_\_\_ DMCC

Signature \_\_\_\_\_  
Professional Surveyor

RONALD E. EDISON  
NEW MEXICO  
3239  
5-4-98  
88-11-038

Certificate No. RONALD E. EDISON 3239  
CARY EDISON 12641  
RONALD E. EDISON 12185

# 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.

ELIZABETH A. CASBEER  
 Print or Type Name

*Elizabeth A. Casbeer*  
 Signature

REG/COMP ANALYST  
 Title

6/3/98  
 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

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 #28 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-311 is 313'FSL and 2490'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 Mariefeld  
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 #28 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-311 is 313'FSL and 2490'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 NMOCD for an unorthodox location for Washington "33" State #28 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-311 is 313' FSL and 2490' 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

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 #28, 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-311 is 313'FSL and 2490'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

**OFFSET OPERATORS  
WASHINGTON "33" STATE #28**

**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**

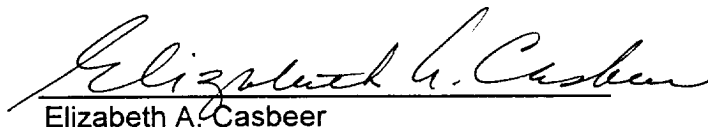


STATE OF TEXAS

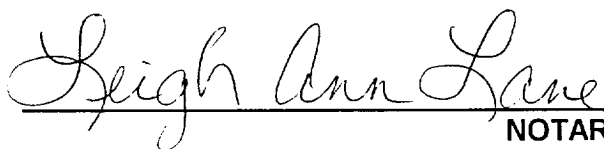
COUNTY OF MIDLAND

**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 #28.

**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.



**NOTARY PUBLIC, STATE OF TEXAS**



LEIGH ANN LANE

Notary Public, State of Texas

My Commission Expires: 12-12-2000

**Geologic and Engineering Discussion for Washington 33 State #28  
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.



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Mark Chase  
MACK CHASE

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<sup>Drayton?</sup>  
Arco, et al

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▽ San Andres recomplete candidatos

+ San Andres Locals

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JBP 2/19/98