

DATE IN 8/7/01	SUSPENSE 8/27/01	ENGINEER DC	LOGGED KW	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -

2948

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

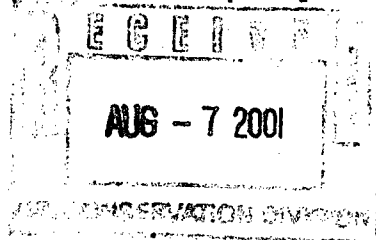
Check One Only for [B] and [C]

[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 - (All common interest)

[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 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.

Amy T. Spang  
Print or Type Name

Amy T. Spang  
Signature

Regulatory Compliance Analyst 8/2/01  
Title Date



# ARCO Permian

200 WestLake Park Blvd.  
Houston, Texas 77079  
Post Office Box 4587  
Houston, Texas 77210-4587

August 2, 2001

New Mexico Oil Conservation Division  
Attn: David Catanach  
2040 S. Pacheco Street  
Sante Fe, NM 87505

Bureau of Land Management – Roswell  
2909 W 2<sup>nd</sup>  
Roswell, NM 88201

**RE: ARCO Permian Downhole Commingling Application  
Jaguar Federal "26", Well No. 1  
Wildcat (Atoka & Strawn)  
Eddy County, NM**

Mr. Catanach:

ARCO Permian respectfully requests administrative approval for downhole commingling on the Jaguar Federal "26" Well Number 1. Attached are the supporting documents for this application.

If you have any questions, please contact me at (281) 366-7655. Please sent the approved permit to:

ARCO Permian  
ATTN: Amy T. Spang  
200 Westlake Park Blvd., Rm 266  
Houston, TX 77079

Yours very truly,

*Amy T. Spang*

Amy T. Spang  
Regulatory Compliance Analyst

## Attachments

xc: NMOCD District 2 – Artesia Office  
Mike Brock – EUN  
Jeff Robinson – WL4-245  
Central Files – WL1 – 0.320  
R/C Files

District I  
1625 N. French Drive, Hobbs, NM 88240

District II  
1301 W. Grand Avenue, Artesia, NM 88210

District III  
1000 Rio Grande Road, Alamogordo, NM 87010

District IV  
1220 E. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Form C-107A  
Revised May 15, 2000

APPLICATION TYPE  
☐ Single Well  
☐ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☐ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Arco Permian, P.O. Box 1610, Midland, TX. 79701  
Operator Address  
Jaguar Federal "26" #1 A, S26 T20S R21E Eddy  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 000990 Property Code 25336 API No. 30-015-31566 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Wildcat (Strawn)		Wildcat (Atoka)
Pool Code			
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	7358' - 7363' 7445' - 7451'		7673' - 7668'
Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
Bottomhole Pressure (Note: Pressure data will not be required if the bottomhole pressure in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	sg. = 0.650		sg. = 0.650
Producing, Shut-In or New Zone	Producing		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas % %	Oil Gas % %	Oil Gas % %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones?  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes ☒ No ☐  
Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other?

Yes ☒ No ☐

Will commingling decrease the value of production?

Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application?

Yes ☒ No ☐

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE Amy T. Spang TITLE Regulatory Analyst DATE 8/2/01  
TYPE OR PRINT NAME Amy T. Spang TELEPHONE NO. (281) 366-7655

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

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, NM 87504-2088

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

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-31566	Pool Code	Pool Name Wildcat (Atoka + Strawn)
Property Code NM 25336	Property Name JAGUAR FEDERAL	Well Number 1
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 4403

Surface Location

UL or lot No. A	Section 26	Township 20 S	Range 21 E	Lot Idn	Feet from the 735	North/South line NORTH	Feet from the 660	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
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Dedicated Acres 320	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

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature <u>Amy T. Spang</u> Printed Name <u>Amy T Spang</u> Title <u>Regulatory Compliance Analyst</u> Date <u>8/2/01</u>	
	<b>SURVEYOR CERTIFICATION</b>  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.  OCTOBER 19, 2000 Date Surveyed Signature & Seal of Professional Surveyor <u>Ronald J. Eidson</u> 10/23/00 W.O. Num 00-11-1311 Certificate No. RONALD J. EIDSON, 3239 GARY G. EIDSON, 12641	

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 South First, Artesia, NM 88210  
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

Form C-104  
Revised March 25, 1999

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Submit to Appropriate District Office  
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address <b>ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX, 79702</b>		<sup>2</sup> OGRID Number <b>000990</b>
		<sup>3</sup> Reason for Filing Code <b>NW</b>
<sup>4</sup> API Number <b>30-015-31566</b>	<sup>5</sup> Pool Name <b>WILDCAT (ATOKA &amp; STRAWN)</b>	<sup>6</sup> Pool Code
<sup>7</sup> Property Code <b>NM 25336</b>	<sup>8</sup> Property Name <b>JAGUAR FEDERAL "26"</b>	<sup>9</sup> Well Number <b>1</b>

II. <sup>10</sup> Surface Location

UL or lot no. <b>A</b>	Section <b>26</b>	Township <b>20S</b>	Range <b>21E</b>	Lot. Idn	Feet from the <b>735</b>	North/South Line <b>NORTH</b>	Feet from the <b>660</b>	East/West line <b>EAST</b>	County <b>EDDY</b>
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<sup>11</sup> Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
<sup>12</sup> Lse Code <b>F</b>	<sup>13</sup> Producing Method Code <b>F</b>	<sup>14</sup> Gas Connection Date <b>7/17/01</b>	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
<b>007057</b>	<b>EL PASO FIELD SERVICES</b>	<b>2812284</b>	<b>G</b>	<b>SAME</b>
<b>015694</b>	<b>NAVAJO</b>		<b>O</b>	<b>SAME</b>

IV. Produced Water

<sup>23</sup> POD	<sup>24</sup> POD ULSTR Location and Description
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V. Well Completion Data

<sup>25</sup> Spud Date <b>2/11/01</b>	<sup>26</sup> Ready Date <b>7/17/01</b>	<sup>27</sup> TD <b>8395</b>	<sup>28</sup> PBTD <b>7910</b>	<sup>29</sup> Perforations <b>7358-8045</b>	<sup>30</sup> DHC, MC <b>DHC</b>
<sup>31</sup> Hole Size <b>12-1/4</b>	<sup>32</sup> Casing & Tubing Size <b>8-5/8</b>	<sup>33</sup> Depth Set <b>1400</b>	<sup>34</sup> Sacks Cement <b>SURF</b>		
<b>7-7/8</b>	<b>5-1/2</b>	<b>8395</b>	<b>590' RKB</b>		
	<b>2-3/8 (TUBING)</b>	<b>7660</b>			

VI. Well Test Data

<sup>35</sup> Date New Oil <b>7/17/01</b>	<sup>36</sup> Gas Delivery Date <b>7/17/01</b>	<sup>37</sup> Test Date <b>7/24/01</b>	<sup>38</sup> Test Length <b>24 HRS.</b>	<sup>39</sup> Tbg. Pressure <b>300</b>	<sup>40</sup> Csg. Pressure <b>460</b>
<sup>41</sup> Choke Size <b>32/64</b>	<sup>42</sup> Oil <b>0</b>	<sup>43</sup> Water <b>5</b>	<sup>44</sup> Gas <b>83</b>	<sup>45</sup> AOF	<sup>46</sup> Test Method <b>F</b>

<sup>47</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Amy T. Spang</i>	<b>OIL CONSERVATION DIVISION</b> Approved by:
Printed name: <b>AMY T. SPANG</b>	Title:
Title: <b>REGULATORY COMPLIANCE ANALYST</b>	Approval Date:
Date: <b>8/2/01</b>	Phone: <b>281-366-7655</b>

<sup>48</sup> If this is a change of operator fill in the OGRID number and name of the previous operator			
Previous Operator Signature	Printed Name	Title	Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*

(See other in-  
structions on  
reverse side)

FORM APPROVED

OMB NO. 1004-0137

Expires: February 28, 1995

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> Other _____		5. LEASE DESIGNATION AND SERIAL NO. NM-25336	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR ARCO Permian		7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. P.O. Box 1610, Midland, TX 79702 281-366-7655		8. FARM OR LEASE NAME, WELL NO. JAGUAR FEDERAL "26" 1	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 735' ENL & 660' FEL At top prod. interval reported below  At total depth		9. API WELL NO. 30-015-31566	
14. PERMIT NO.		DATE ISSUED	
15. DATE SPUDDED 2/11/01		16. DATE T.D. REACHED 5/12/01	
17. DATE COMPL. (Ready to prod.) 7/16/01		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 4403' GR	
19. ELEV. CASINGHEAD		20. TOTAL DEPTH, MD & TVD 8395'	
21. PLUG BACK T.D., MD & TVD 7910'		22. IF MULTIPLE COMPL., HOW MANY* 2	
23. INTERVALS DRILLED BY →		ROTARY TOOLS X	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* 7358'-7673' (Atoka + Strawn)		25. WAS DIRECTIONAL SURVEY MADE N	
26. TYPE ELECTRIC AND OTHER LOGS RUN MICRO CEL/ GR		27. WAS WELL CORED N	

## 28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8	32	1400	12-1/4	SURF	NA
5-1/2	17	8395	7-7/8	590' RKB	NA

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8	7660	

31. PERFORATION RECORD (Interval, size and number)				32. ACID SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
7358-7363 (6 HOLES) & 7451'-7445' (7 HOLES)				DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
7668-7673 (12 HOLES)				7668'-7673'	ACID W/ 600 GALS 7.5% HCL
8010-8014 (8 HOLES) & 8043-8045 (5 HOLES)				7358'-7445'	ACID W/ 1500 GALS 7.5% HCL
				7358'-7673'	ERAC W/ 52000 # 20/40 SNO
				8010'-8045'	CIBP SET @ 7910'

33.* PRODUCTION							
DATE FIRST PRODUCTION 7/17/01		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) FLOWING				WELL STATUS (Producing or shut-in) PRODUCING	
DATE OF TEST 7/26/01	HOURS TESTED 24	CHOKE SIZE 32/64	PROD'N. FOR TEST PERIOD →	OIL - BBL. 0	GAS - MCF. 83	WATER - BBL. 5	GAS - OIL RATIO
FLOW. TUBING PRESS. 300	CASING PRESSURE 460	CALCULATED 24-HOUR RATE →	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) SOLD						TEST WITNESSED BY	
35. LIST OF ATTACHMENTS							

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Amy T. Spang

TITLE REGULATORY COMPLIANCE ANALYST

DATE 8/2/01

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires November 30 2000

5. Lease Serial No.

NM 25336

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
JAGUAR FEDERAL

#1

9. API Well No.

30-015-31566

10. Field and Pool, or Exploratory Area

WILDCAT  
(ATOKA & STRAWN)

11. County or Parish, State

EDDY NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

ARCO Permian

3a. Address

P.O. BOX 1610, MIDLAND, TX 79702

3b. Phone No. (include area code)

281-366-7655

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

735' ENL & 660' FEL  
SEC 26, T20S, R21E

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent - DHC Application  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off                     |
| <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity                     |
| <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other <u>COMPLETION</u> |
| <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |   |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

6/21/01 Perf'd Morrow @ 8010'-8014' & 8043'-8045' (13 holes). Set RBP @ 8100'.

6/22/01 Acidized Morrow perfs w/ 800 gals 7.5% HCl. No gas produced.

6/23/01 Released RBP & reset @ 7800'.

6/24/01 Perf'd Atoka @ 7668'-7673' (12 holes). Acidized Atoka perfs w 600 gal 7.5% HCl.

6/27/01 Set RBP @ 7550'. Perf'd Strawn @ 7358-7363' (6 holes) & 7451'-7445' (7 holes).

Acidize Strawn perfs w/ 1500 gal 7.5% HCl.

7/3/01 Frac'd Atoka/Strawn perfs from 7358-7673' (15 holes) down 3-1/2" frac tubing w/ PKR set @ 7207'.

7/12/01 Drilled on CIBP to 7910'.

7/17/01 TOPS. Initial test (7/26/01): 0 oil, 5 water, 83 gas.

14. I hereby certify that the foregoing is true and correct  
Name (Printed Typed)

AMY T. SPANG

Title

REGULATORY COMPLIANCE ANALYST

Date 8/2/01

*Amy T. Spang*

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)



**LOCATION**Jaguar Federal 26 #1**LEASE & WELL**Sec 26 T20S R21E Eddy County, New Mexico  
(Give Unit, Section, Township and Range)**OPERATOR**BP P. O. Box 1610 Midland, Texas 79701**DRILLING CONTRACTOR**NABORS DRILLING USA, INC.

The Undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above-described well and that he has conducted deviation tests and obtained the following results:

<u>DEGREES @ DEPTH</u>	<u>DEGREES @ DEPTH</u>	<u>DEGREES @ DEPTH</u>	<u>DEGREES @ DEPTH</u>
3/4 1979	2 1/4 8400		
3/4 2494			
1 2911			
1/2 3929			
1/2 4410			
1/2 4956			
1 1/4 5471			
1 3/4 5955			
4 1/2 6395			
3 3/4 6555			
3 1/2 6683			
3 1/2 6909			
2 1/2 7166			
2 1/2 7584			
3 8034			

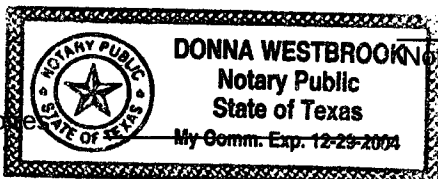
Drilling Contractor

Nabors Drilling USA, Inc.

By

Brent Sanders  
Brent Sanders, Manager-Contracts & MarketingSubscribed and sworn to before me this 26<sup>th</sup> day of May, 2001

My Commision Expires



Notary Public

MIDLAND

County

TEXAS

bp



# Fax

To: David Catanach From: Amy Spang / Arco Permian  
Fax: (505) 476-3402 Fax: \_\_\_\_\_  
Phone: \_\_\_\_\_ Phone: (281) 366-7655  
Pages: 3 Date: 8/20/01  
Re: Form C-107-A (Incomplete) CC: \_\_\_\_\_

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

• Comments:

Mr. Catanach,

Attached is the requested Administrative  
Application checklist for Arco Permian's - Jaguar Federal  
26' - well #1. You should also receive the allocation method  
data by Fed Ex this morning (8/20/01). Please call me at  
(281) 366-7655 if you don't receive it. Thanks,

Amy



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

August 14, 2001

ARCO Permian  
P.O. Box 4587  
Houston, Texas 77210-4587

Attention: Ms. Amy T. Spang

Re: Form C-107-A  
Jaguar Federal "26" No. 1

Dear Ms. Spang:

This letter acknowledges the receipt of your administrative application dated August 2, 2001, to downhole commingle the the Strawn and Atoka formations in the Jaguar "26" Federal Well No. 1 located in Section 26, Township 20 South, Range 21 East, NMPM, Eddy County, New Mexico. The Division received your application on August 7, 2001.

Our preliminary review indicates that the information provided in the application is not sufficient to process the administrative order. The following information is necessary:

- a) **Administrative Application Checklist**
- b) **A description of the method by which production shall be allocated to each of the commingled zones and supporting data.**

Since the submitted information is insufficient to review, the application was **Ruled Incomplete** on August 14, 2001. Please submit the above stated information by August 21, 2001.

The Division cannot proceed with your application until the required information is submitted. Upon receipt, the division will continue to process your application. The additional information can be faxed, or mailed to the Division. If the necessary information is not submitted, your application will be returned to you.

If you have any questions, please contact me in Santa Fe, at (505) 476-3466.

Sincerely,

A handwritten signature in black ink, appearing to read "David Catanach".

David Catanach  
Petroleum Engineer

ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



## ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

## Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [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 - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ 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

- [D] Other: Specify \_\_\_\_\_

[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] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Amy T. Spang  
 Print or Type Name

Amy T. Spang  
 Signature

Regulatory Compliance Analyst  
 Title

8/20/01  
 Date

amy.t.spang @ bp.com  
 e-mail Address



## ARCO Permian

200 WestLake Park Blvd.  
Houston, Texas 77079  
Post Office Box 4587  
Houston, Texas 77210-4587

August 16, 2001

New Mexico Oil Conservation Division  
Attn: David Catanach  
2040 S. Poncho Street  
Santa Fe, New Mexico 87505

**RE: ARCO Permian Downhole Commingling Application – Additional Information**  
**Jaguar Federal "26" Well No. 1**  
**Wildcat (Atoka & Strawn)**  
**Eddy County, NM**

Mr. Catanach:

ARCO Permian submitted a downhole commingle application to your office on August 2, 2001. I have amended the C-107A form to include the well allocation percentage for each zone and added supporting documentation.

Please contact me if any additional information is required at (281) 366-7655. The approved permit can be sent to:

ARCO Permian  
Attn: Amy T. Spang  
200 Westlake Park Blvd., Rm 266  
Houston, Texas 77079

Yours very truly,

Amy T. Spang  
Regulatory Compliance Analyst

Xc: NMOCD District 2 – Artesia Office  
Mike Brock – EUN  
Jeff Robinson – 245  
Central Files  
R/C Files

District I  
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15, 2000

District II  
811 South First Street, Artesia, NM 88210

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, New Mexico 87505

APPLICATION TYPE

District III  
1000 Rio Brazos Road, Aztec, NM 87410

☒ Single Well  
☐ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☐ Yes ☒ No

District IV  
2040 South Pacheco, Santa Fe, NM 87505

APPLICATION FOR DOWNHOLE COMMINGLING

Operator ARCO Permian, P.O. Box 1610, Midland, TX. 79701  
Lease Jaguar Federal "26" #1 Well No. A, S26, T20S, R21E Address Eddy  
OGRID No. 000990 Property Code 25336 API No. 30-015-31566 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<u>Wildcat (Strawn)</u>		<u>Wildcat (Atoka)</u>
Pool Code			
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	<u>7358' - 7363'</u> <u>7445' - 7451'</u>		<u>7673' - 7668'</u>
Method of Production (Flowing or Artificial Lift)	<u>Flowing</u>		<u>Flowing</u>
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	<u>s.g. = 0.650</u>		<u>s.g. = 0.650</u>
Producing, Shut-In or New Zone	<u>Producing</u>		<u>Producing</u>
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas % <u>77</u> %	Oil Gas % %	Oil Gas % <u>23</u> %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐

Will commingling decrease the value of production? Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes ☒ No ☐

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE Amy T. Spang TITLE Regulatory Comp. Analyst DATE 8/16/01  
TYPE OR PRINT NAME Amy T. Spang TELEPHONE NO. (281) 366-7655

### **Well Allocation Percentage for Each Zone**

To downhole commingle the Strawn and Atoka in the Jaguar Federal "26", well no. 1, the production in each zone was calculated based on the porosity and net pay.

The Atoka has 5' of net pay with an average porosity of 8% and the Strawn has 11' with 12% porosity. Based on a weighted average the (porosity X net feet) in each zone the production split is 23% for the Atoka and 77% for the Strawn.

This was calculated by:

$$(5 \times .08) / (5 \times .08 + 11 \times .12) = 23\% \text{ Atoka}$$

$$100 - 23 = 77\% \text{ Strawn}$$

**JAGUAR FEDERAL "26" # 1**

Little Box (Morrow)

735' FNL & 660' FEL, Sec. 26  
Unit A, T-20-S, R-21E  
Eddy County, New Mexico

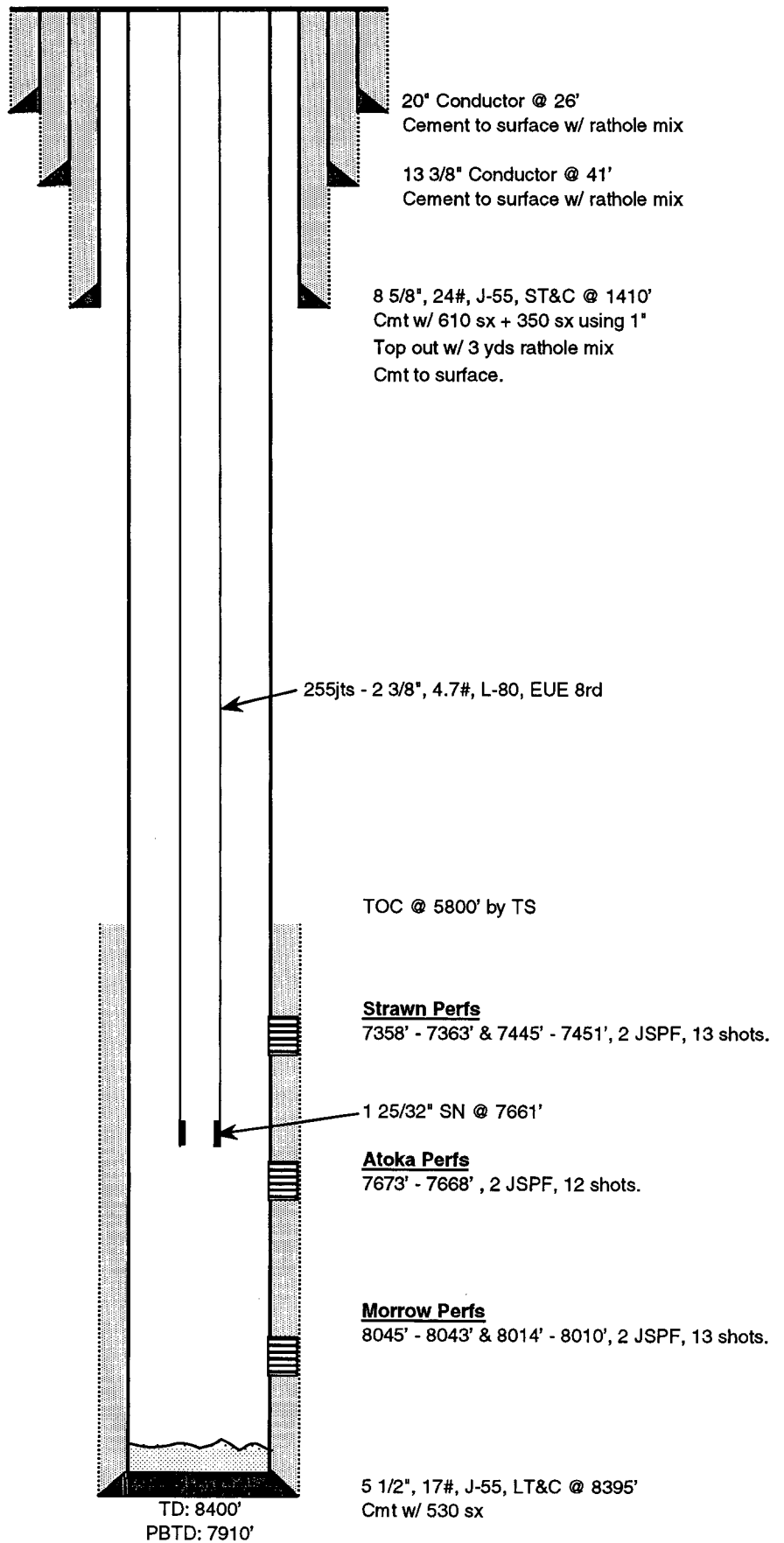
RKB 4421'  
GL 4403'

Spud: 2/12/01  
RR: 5/22/01

API # 30-015-31566

NAD 27:

LAT: 32° 32' 50.98" N  
LONG: 104° 54' 29.00" W





DISTRICT I  
P.O. Box 1000, Hobbs, NM 88241-1000

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0710

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

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-31566	Pool Code	Pool Name Wildcat (Atoka + Strawn)
Property Code NM 25336	Property Name JAGUAR FEDERAL	Well Number 1
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 4403

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	26	20 S	21 E		735	NORTH	660	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 320	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

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature: <u>Amy T. Spang</u> Printed Name: <u>Amy T. Spang</u> Title: <u>Regulatory Compliance Analyst</u> Date: <u>8/2/01</u>	
	<b>SURVEYOR CERTIFICATION</b>  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.  OCTOBER 19, 2000 Date Surveyed: _____ JLP Signature & Seal of Professional Surveyor: <u>Ronald L. Eidson</u> 10/23/00 W.O. Num: <u>00-13-1311</u> Certificate No. <u>RONALD L. EIDSON, 3239</u> <u>GARY G. EIDSON, 12641</u>	

***New Mexico Oil Conservation Division---Engineering Bureau***  
***Administrative Application Process Documentation***

**Date Application Received:**

8/7/01

**Date of Preliminary Review:**

**(Note: Must be within 10-days of received date)**

8/14/01

**Results:**                   Application Complete      X   Application Incomplete

**Date Incomplete Letter Sent:**

8/14/01

**Deadline to Submit Requested Information:**

8/21/01

**Phone Call Date:**

**(Note: Only applies if requested data is not submitted within the 7-day deadline)**

**Phone Log Completed?**

           Yes

           No

**Date Application Processed:**

**Date Application Returned:**

**(Note: Only as a last resort & only after repeated attempts by the Division to obtain the necessary information to process the application)**