

DATE IN <i>10/30/09</i>	SUSPENSE	ENGINEER <i>Jones</i>	LOGGED IN <i>10/30/09</i>	TYPE <i>DHC</i>	APP NO. <i>0930356941</i>
-------------------------	----------	-----------------------	---------------------------	-----------------	---------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



*Apache*

*New Mexico State #48*

**ADMINISTRATIVE APPLICATION CHECKLIST**

*30-025-37608*

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.

<u>Amber Cooke</u> Print or Type Name	<u><i>Amber Cooke</i></u> Signature	<u>Engineering Tech</u> Title	<u>10/28/2009</u> Date
		<u>amber.cooke@apachecorp.com</u> e-mail Address	



October 28, 2009

Richard Ezeanyim  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Application for Downhole Commingle  
New Mexico S State #48  
Unit F, Sec 2, T-22S, R-37E  
Penrose Skelly; Grayburg and Eunice; San Andres, South Pools  
Lea County, New Mexico

Dear Mr. Ezeanyim,

Enclosed please find an administrative application form (C-107A) and attachments for downhole commingling the Grayburg and San Andres in the New Mexico S State #48. Apache intends to produce both zones together with an expected rate of 33 BOPD, 164 BWPD, and 190 MCFPD. The ownership (WI, NRI and ORRI) of these pools are identical in this wellbore. Downhole commingling in this manner will offer an economic method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. This is a State well. The State of New Mexico Commissioner of Public Lands has been sent a copy of this application.

This well was originally completed to the San Andres in 3/2006. Apache intends to recomplate to the Grayburg and commingle with the existing San Andres production. Actual tests were used in determining the attached allocation for the San Andres and offset well data was used for the Grayburg allocation. See attached curves and supporting data.

If you need additional information or have any questions, please give me a call at (918) 491-4968.

Sincerely,

A handwritten signature in black ink that reads "Amber Cooke".

Amber Cooke  
Engineering Technician

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

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

District III  
1000 Rio Brazos Road, Aztec, NM 87410

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

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

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

**APPLICATION FOR DOWNHOLE COMMINGLING**

DHC-4228

Apache Corporation Operator Address 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136

New Mexico S State 48 F 2 22S 37E Lea  
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 873 Property Code 34816 API No. 30-025-37608 Lease Type: Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Penrose Skelly; Grayburg		Eunice; San Andres, South
Pool Code	50350		24170
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3689'-3789' (Est Perf)		3860'-4252' (Perf)
Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
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)	N/A		N/A
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35.9 API		33.6 API
Producing, Shut-In or New Zone	New Zone		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: Est Rates: 25 BOPD 135 BWPD 100 MCFPD	Date: Rates:	Date: 10/19/2009 Rates: 8 BOPD 29 BWPD 90 MCFPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 76 % Gas 53 %	Oil % Gas %	Oil 24 % Gas 47 %

**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 Amber Cooke TITLE Engineering Tech DATE 10/28/2009

TYPE OR PRINT NAME Amber Cooke TELEPHONE NO. (918) 491-4968

E-MAIL ADDRESS amber.cooke@apachecorp.com



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-37608		<sup>1</sup> Pool Code 24170		<sup>1</sup> Pool Name Eunice; San Andres, South	
<sup>1</sup> Property Code 34816		<sup>1</sup> Property Name New Mexico S State			<sup>1</sup> Well Number 48
<sup>1</sup> OGRID No. 873		<sup>1</sup> Operator Name Apache Corporation			<sup>1</sup> Elevation 3368' GL

<sup>10</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
F	2	22S	37E		1880	North	1650	West	Lea

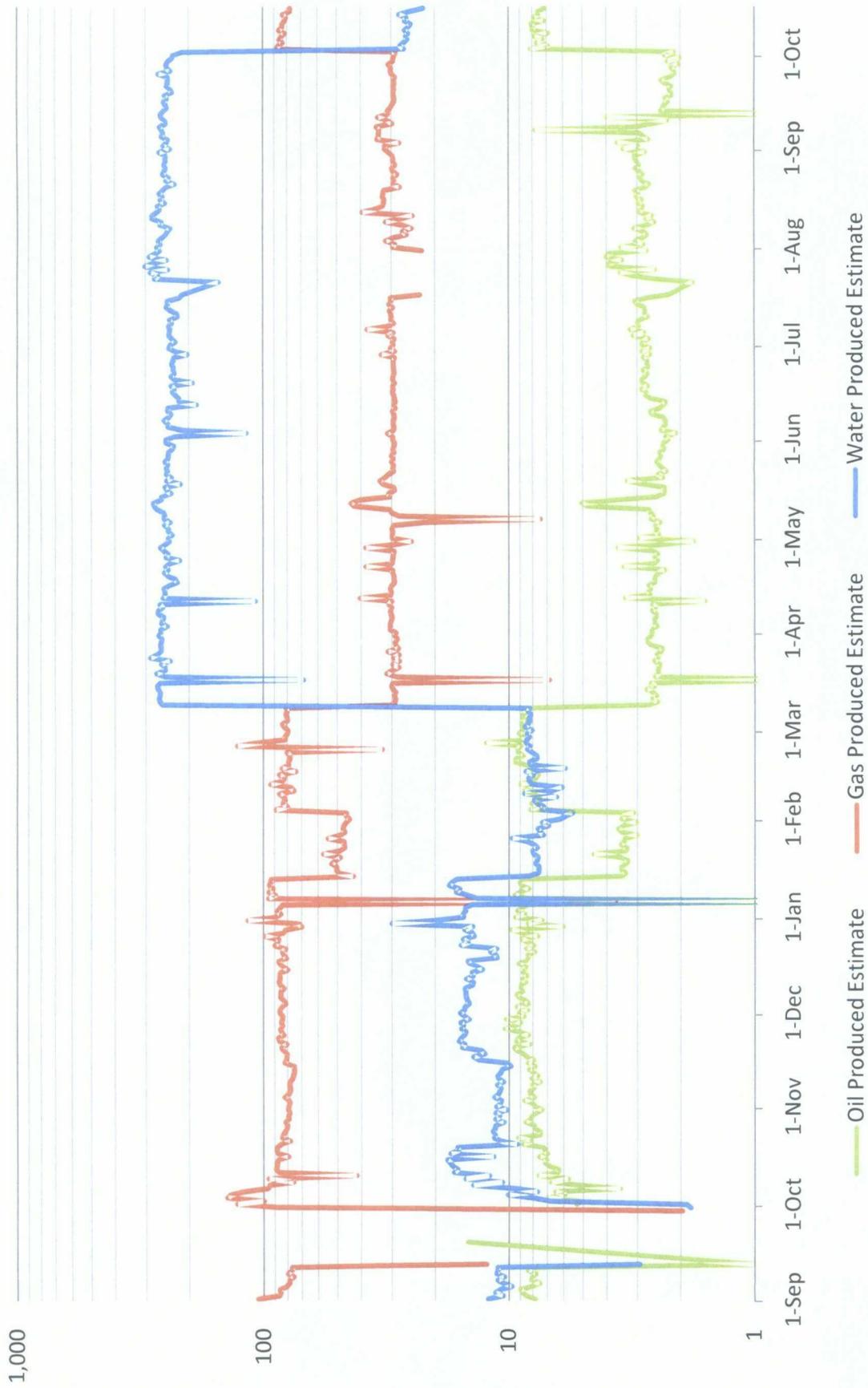
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
<table border="1"> <tr> <td><sup>12</sup> Dedicated Acres 80</td> <td><sup>13</sup> Joint or Infill</td> <td><sup>14</sup> Consolidation Code</td> <td><sup>15</sup> Order No.</td> </tr> </table>										<sup>12</sup> Dedicated Acres 80	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
<sup>12</sup> Dedicated Acres 80	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.										

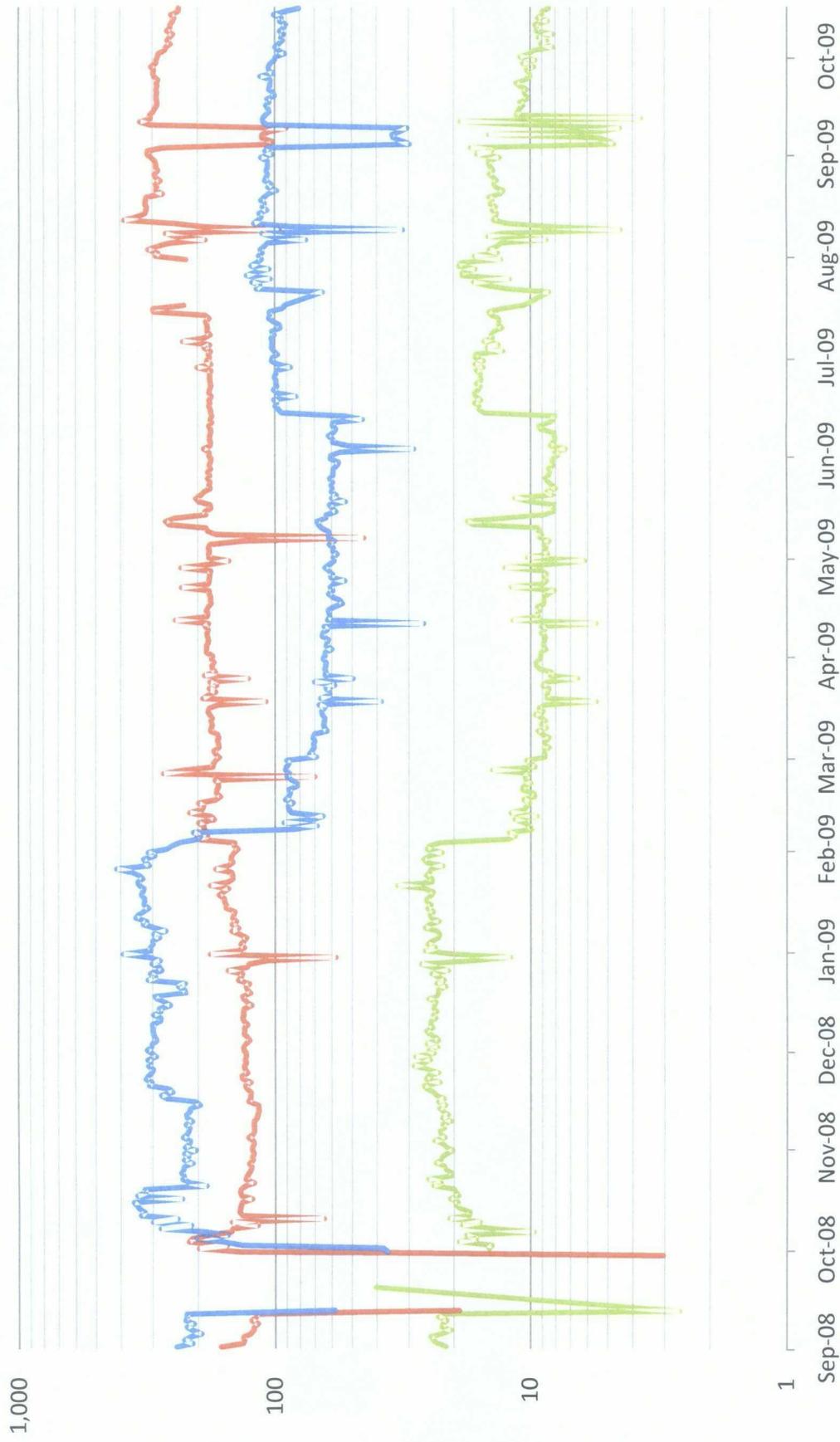
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16	1880'			<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or leased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Amber Cooke</i> 10/28/2009 Signature Date Amber Cooke Printed Name
	1650'	156	48	
			49	<sup>18</sup> 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.  Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

# NM STATE S #48 - San Andres



# NM State S #43 - San Andres & Grayburg



Oil Produced Estimate Gas Produced Estimate Water Produced Estimate

**NM State #48 Production Allocation Calculation**

Analogous Wells	Producing Formation	Grayburg Initial Production		
		BOPD	MCFPD	BWPD
NM State S #43	SA/GB	45	118	267
NM State S #44	SA/GB	16	55	118
NM State S #46	SA/GB	51	138	81
NM State S #51	SA/GB	22	104	72
	average	33.5	103.75	134.5
NM State S #48	Expected Grayburg (lower end average)	25	100	135
	Current San Andres	8	90	29

	<b>Oil</b>	<b>Gas</b>	<b>Water</b>
<b>Grayburg</b>	76%	53%	82%
<b>San Andres</b>	24%	47%	18%

From: Origin ID: TULA (918) 491-4968  
Amber Cooke

6120 S. Yale Ave  
Suite 1500  
Tulsa, OK 74136



J09300907312023

Ship Date: 28OCT09  
ActWgt: 1.0 LB  
CAD: 101193149/NET9090  
Account#: S \*\*\*\*\*

Delivery Address Bar Code



Ref # DUS-565  
Invoice #  
PO #  
Dept #

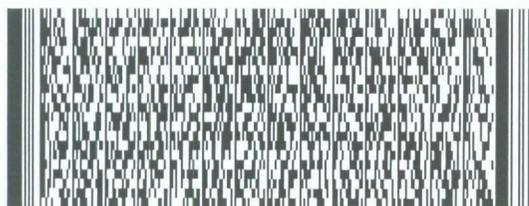
SHIP TO: (505) 827-5760 BILL SENDER  
**Pete Martinez**  
**SLO: Commissioner of Public Lands**  
**310 OLD SANTA FE TRL**

**SANTA FE, NM 87501**

**FRI - 30OCT A2**

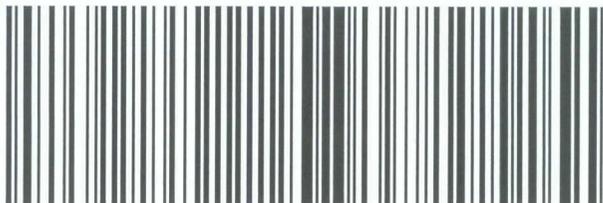
TRK# 7960 7239 0321  
0201

**\*\* 2DAY \*\***



**SC SAFA**

**87501**  
**NM-US**  
**ABQ**



**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.