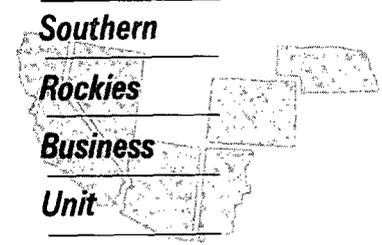


DHC 4.8.96

rcv'd 3.18.96



1221

March 12, 1996

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
2040 S. Pacheco Street
P. O. Box 6429
Santa Fe, NM 87505

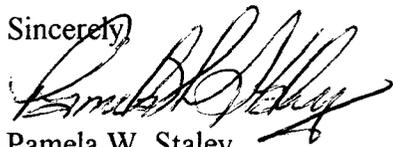
**Application for Exception to Rule 303-C
Downhole Commingling
Heaton LS #9 Well
990' FNL & 1495' FEL, Unit B Section 32-T31N-R11W
Aztec Pictured Cliffs (Pool IDN 71280) and Blanco Mesaverde (Pool IDN 72319) Pools
San Juan County, New Mexico**

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Aztec Pictured Cliffs and Blanco Mesaverde Pools in the Heaton LS #9 well referenced above. The Heaton LS #9 is currently a dual completion in the Pictured Cliffs and Mesaverde formations. We plan to complete the well with both the Pictured Cliffs and Mesaverde formations being downhole commingled in the wellbore. This well will benefit from downhole commingling because of the reduced costs of operation offered by commingling and because the well logs off due to low gas rates and liquid loading. The two zones are expected to produce at a total commingled rate of about 64 MCFD with less than 1 BCPD. The ownership (WI, RI, ORI) of these pools is not common in this wellbore. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. Offset operators to this well will receive a copy of this application by certified mail. All interest owners will also receive a copy of this application as their notice.

The allocation method that we plan to use for this commingled well is as follows. Both formations have been producing at stabilized rates for some time. We recommend that the Mesaverde and Pictured Cliffs formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing at 59 MCFD with 0.01 BCPD while the Pictured Cliffs is currently producing 5 MCFD with no condensate. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 92% of gas production and 100% of condensate production. The Pictured Cliffs would be allocated at 8% of gas production and no condensate production. The actual commercial value of the commingled production will not be less than the sum of the values of the production from each of the common sources of supply.

Attached to aid in your review are plats showing the location of the well and offset wells in the same formation, a historical and recent production plot and a C-102 for each formation. This spacing unit is located on a federal lease (SF-078097) and we will send a copy of the application to the BLM as their notice. Should you have questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,



Pamela W. Staley

Enclosures

cc: Khanh Vu
Gail Jefferson

Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410

Duane Spencer
Bureau of Land Management
1235 La Plata Hwy.
Farmington, NM 87401

Application for Exception to Rule 303: SEGREGATION OF PRODUCTION FROM POOLS

Requirements

- (1) Name and address of the operator:

Amoco Production Company
P.O. Box 800
Denver, CO 80201

- (2) Lease name, well number, well location, name of the pools to be commingled:

Lease Name: Heaton LS

Well Number: 9
Well Location: 990' FNL & 1495' FEL
Unit B Section 32-T31N-R11W
San Juan County, New Mexico

Pools Commingled: Blanco Mesaverde Pool
Aztec Pictured Cliffs Pool

- (3) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

Attached

- (4) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas and water produced from each zone.

The Blanco Mesaverde produced an average stabilized rate of 59 MCFD and 0.01 BCPD. The Aztec Pictured Cliffs zone produced at an average rate of about 5 MCFD and no condensate.

- (5) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes.

Blanco Mesaverde Completion: Historical production curve attached.
Aztec Pictured Cliffs Completion: Historical production curve attached.

- (6) Estimated bottomhole pressure for each zone. A current (within 30 days) measured bottom hole pressure for each zone capable of flowing.

Bottomhole pressures were estimated from 72 hour shut-in pressures during a packer leakage test for the well. Estimated bottomhole pressure in the Pictured Cliffs formation is 465 PSI while the estimated bottomhole pressure in the Mesaverde is 746 PSI. See attached calculations.

- (7) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore.

The two formations do not produce any measurable amount of fluids and therefore are not expected to any effect that would prohibit commingling, or promote the creation of emulsions or scale .

- (8) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

Since the BTU content of the produced gasses are very similar, we would expect the commingled production to have a similar value as the sum of the individual streams.

- (9) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula:

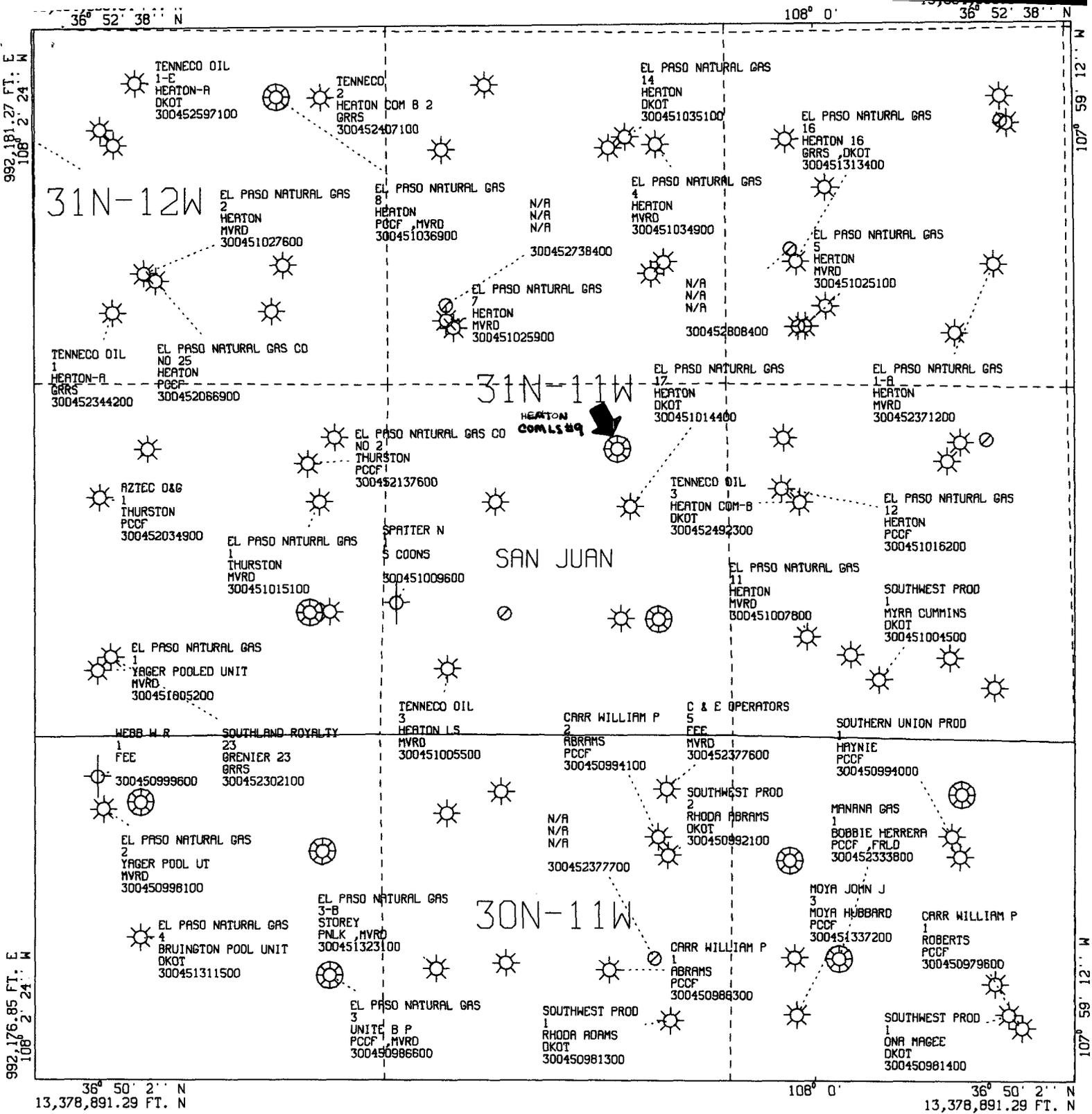
The allocation method that we plan to use for this commingled well is as follows. Both formations have been producing at stabilized rates for some time. We recommend that the Mesaverde and Pictured Cliffs formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing at 59 MCFD with 0.01 BCPD while the Pictured Cliffs is currently producing 5 MCFD with no condensate. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 92% of gas production and 100% of condensate production. The Pictured Cliffs would be allocated at 8% of gas production and no condensate production. The actual commercial value of the commingled production will not be less than the sum of the values of the production from each of the common sources of supply.

- (10) A statement that all offset operators and, in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.

BLM will receive a copy of this application by certified mail. The offsetting operators listed on the attached sheet will receive a copy of this application by certified mail.

- (11) Referencing NMOCD Order No. 10470 Rule 303 (D) (11): In a case where there is diversity of ownership between the zones to be commingled (including working royalty, or overriding royalty interest), the applicant shall submit a statement that all such interest owners have been notified in writing of the proposed commingling.

All interest owners in the two formations will receive a copy of this application by certified mail.



All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

AMOCO PRODUCTION COMPANY
 PLAT MAP
 Heaton Com LS 9
 Offset Wells

SCALE 1 IN. = 2,000 FT. MAY 1, 1995

POLYCONIC CENTRAL MERIDIAN - 108° 0' 48" W LON
 SPHEROID - 6

NEW MEXICO
OIL CONSERVATION COMMISSION

Form C-128

Well Location and/or Gas Proration Plat

Date 9-24-57

Operator El Paso Natural Gas Company Lease Heaton

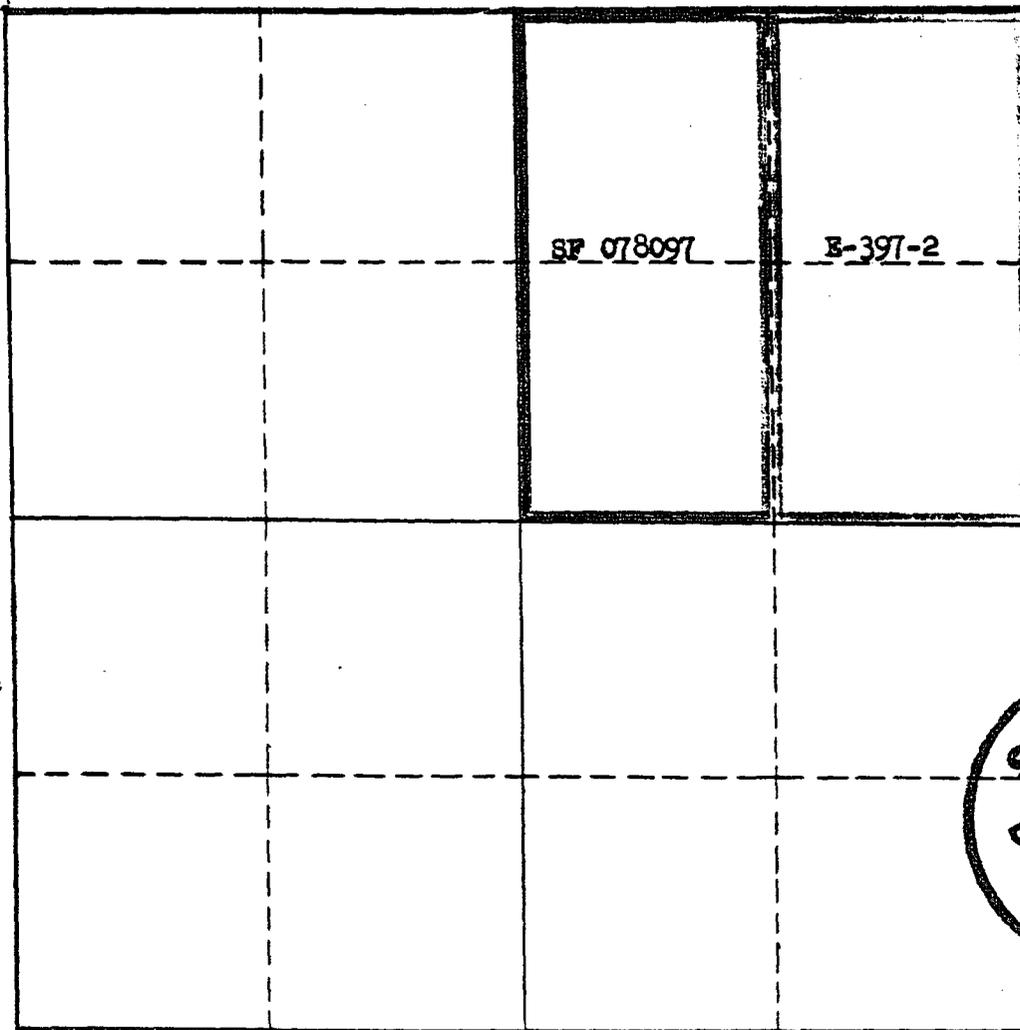
Well No. 9 Section 32 Township 31N Range 11W NMPM

Located 990 Feet From North Line, 1495 Feet From East Line,

San Juan County, New Mexico. G. L. Elevation 5887

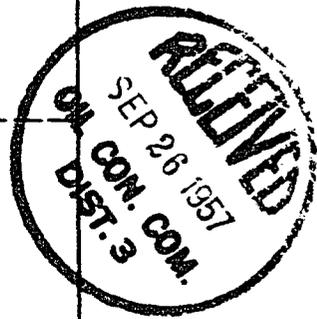
Name of Producing Formation Pictured Cliffs Pool Aztec P. C. Dedicated Acreage 160

(Note: All distances must be from outer boundaries of Section)



NOTE

This section of form is to be used for gas wells only.



SCALE: 1" = 1000'

1. Is this Well a Dual Comp. ? Yes X No .
2. If the answer to Question 1 is yes, are there any other dually completed wells within the dedicated acreage? Yes No X.

Name Original Signed D. C. Johnston
Position Petroleum Engineer
Representing El Paso Natural Gas Company
Address Box 997, Farmington, New Mexico

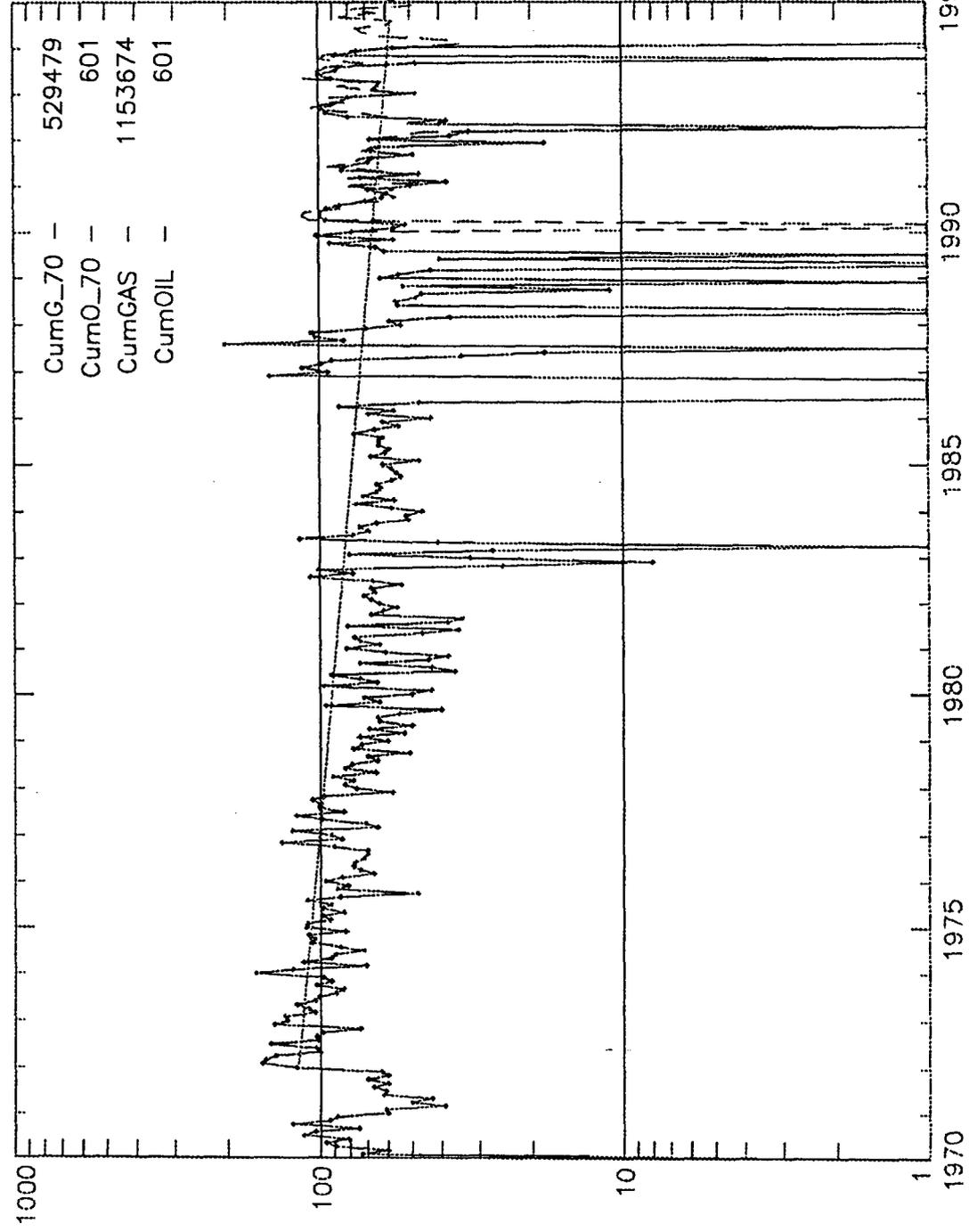
This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 4-25-56

Registered Professional Engineer and/or Land Surveyor

Engr: zdws22

HEATON COM LS 9 Operator- AMOCO PRODUCTION CO
300451017000MV B323111-009 MV APC_WI - 0.25000000



Curr_Fit

New_fit

DCLN
CurrQ
RemRes
EUR
Fit_date

DCLN
CurrQ
RemRes
EUR
Fit_date

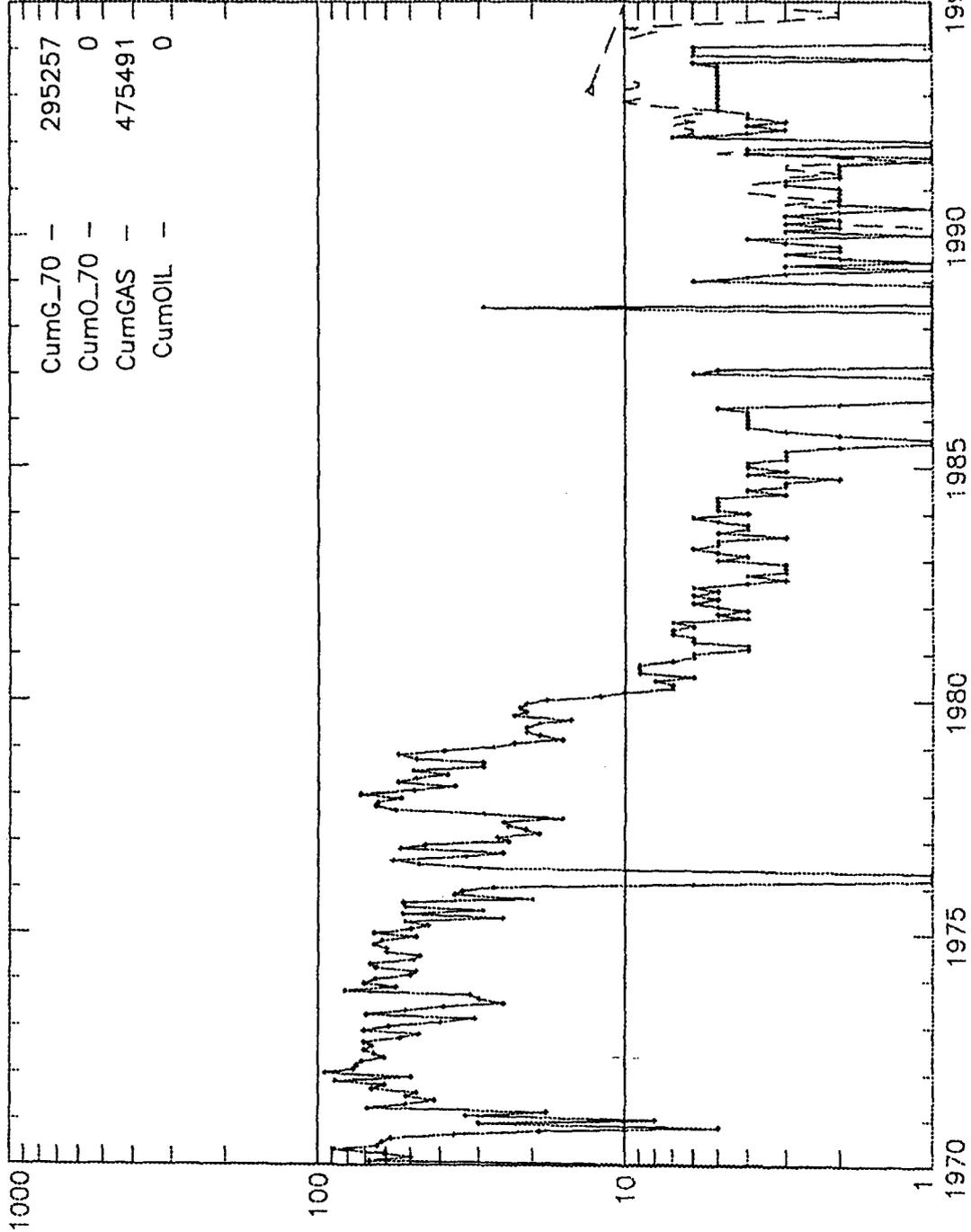
Engr: zdws22

HEATON COM LS 9

Operator- AMOCO PRODUCTION CO

300451017000PC B323111-009 PC

APC_WI - 0.25000000



CumG_70 - 295257
CumO_70 - 0
CumGAS - 475491
CumOIL - 0

Curr_Fit

DCLN
CurrQ
RemRes
EUR
Fit_date

New_fit

DCLN
CurrQ
RemRes
EUR
Fit_date

ESTIMATED BOTTOMHOLE PRESSURES BY FORMATION
Heaton LS #9

PC Perforations at 2400-2442' midperf at 2421'
MV Perforations at 4651-4766' midperf at 4708'

7/94 shut in pressures --- MV =370 PSIG
PC =272 PSIG

GRADIENT = 0.08 PSI/FT

MV BHP =370 PSIG + 4708' X 0.08 PSIG
=746 PSIG

PC BHP = 272 PSIG +2421' X 0.08 PSIG
=465 PSIG

Khank 88
10/26

B-32-31-11

STATE OF NEW MEXICO
ENERGY and MINERALS DEPARTMENT

Location of Well: B323111 Page 1

OIL CONSERVATION DIVISION
NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator: AMOCO PRODUCTION COMPANY Lease/Well #: HEATON COM LS 009
Meter #: 71692 RTU: 0-000-00 County: SAN JUAN

	NAME RESERVOIR OR POOL	TYPE PROD	METHOD PROD	MEDIUM PROD
UPR COMP	HEATON COM LS 009 PC 71692	GAS	FLOW	TBG
LWR COMP	HEATON COM LS 009 MV 71584	GAS	FLOW	TBG

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour/Date Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized
UPR COMP	07/20/95	7.2	278	yes
LWR COMP	07/20/95	7.2	370	yes

FLOW TEST DATE NO. 1

Commenced at (hour, date) *				Zone Producing (Upr/Lwr)	
TIME (hour, date)	LAPSED TIME SINCE*	UPPER PRESSURE	LOWER PRESSURE	Prod Temp.	REMARKS
07/20/95	Day 1	179	399		Both Zones SI
07/21/95	Day 2	215	410		Both Zones SI
07/22/95	Day 3	242	415		Both Zones SI
07/23/95	Day 4	272	370		Flowed back to zone
07/24/95	Day 5	304	347		
07/25/95	Day 6	330	325		

Production rate during test
 Oil: _____ BOPD based on _____ BBLs in _____ Hrs _____ Grav _____ GOR _____
 Gas: _____ MFCPD: Tested thru (Orifice or Meter): METER
 MID-TEST SHUT-IN PRESSURE DATA

	Hour, Date SI	Length of Time SI	SI Press. PSIG	Stabilized (yes/no)
UPR COMP				
LWR COMP				

RECEIVED
AUG 10 1995

(Continue on reverse side)

OIL CON. DIV.
AMOCO

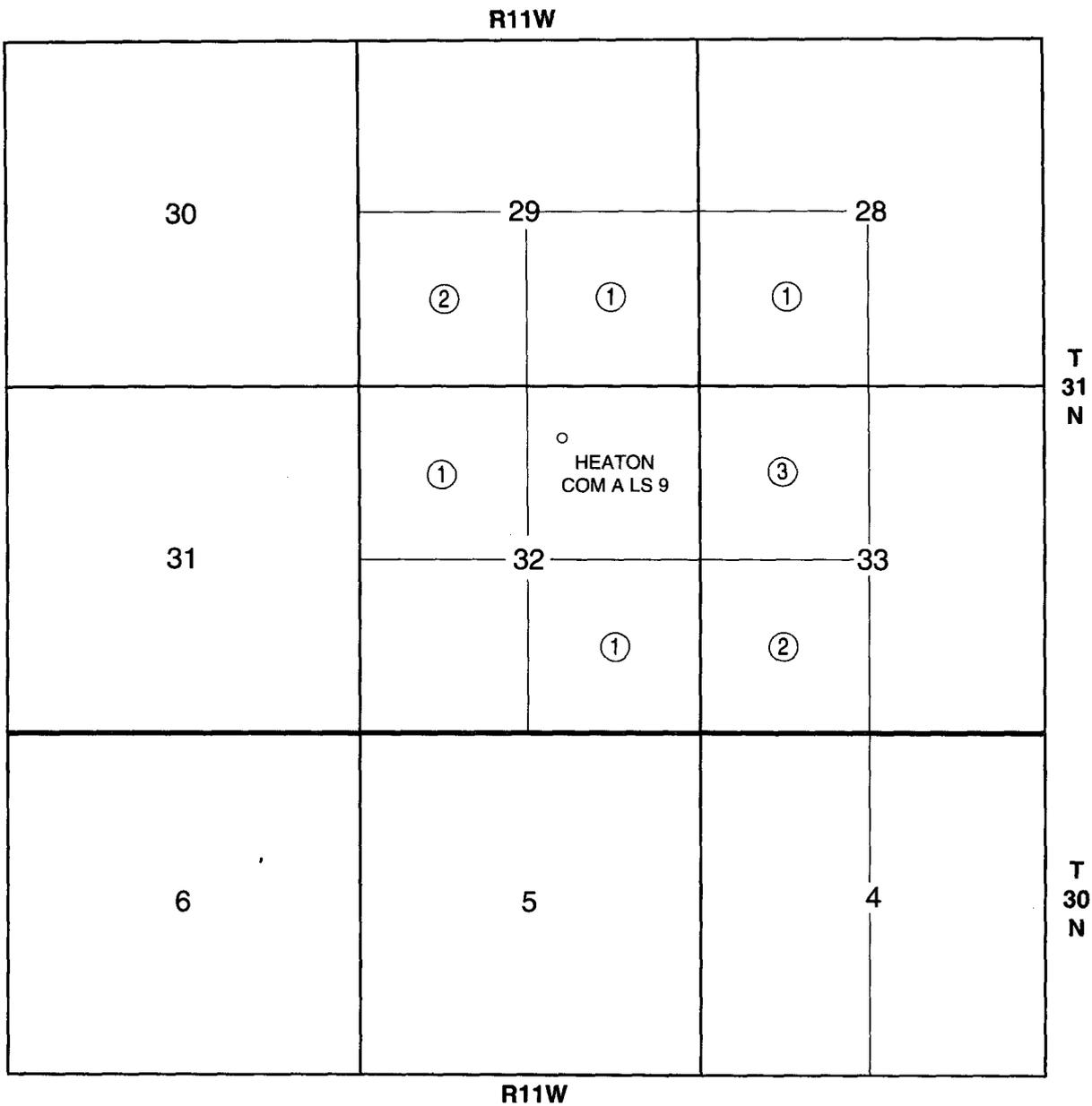
Amoco Production Company

Offset Operator Plat

Heaton Com A LS 9

T31N-R11W Sec. 32

Aztec Pictured Cliffs Formation



- ① Amoco Production Company
- ② Meridian Oil Production Inc.
- ③ Conoco Inc.

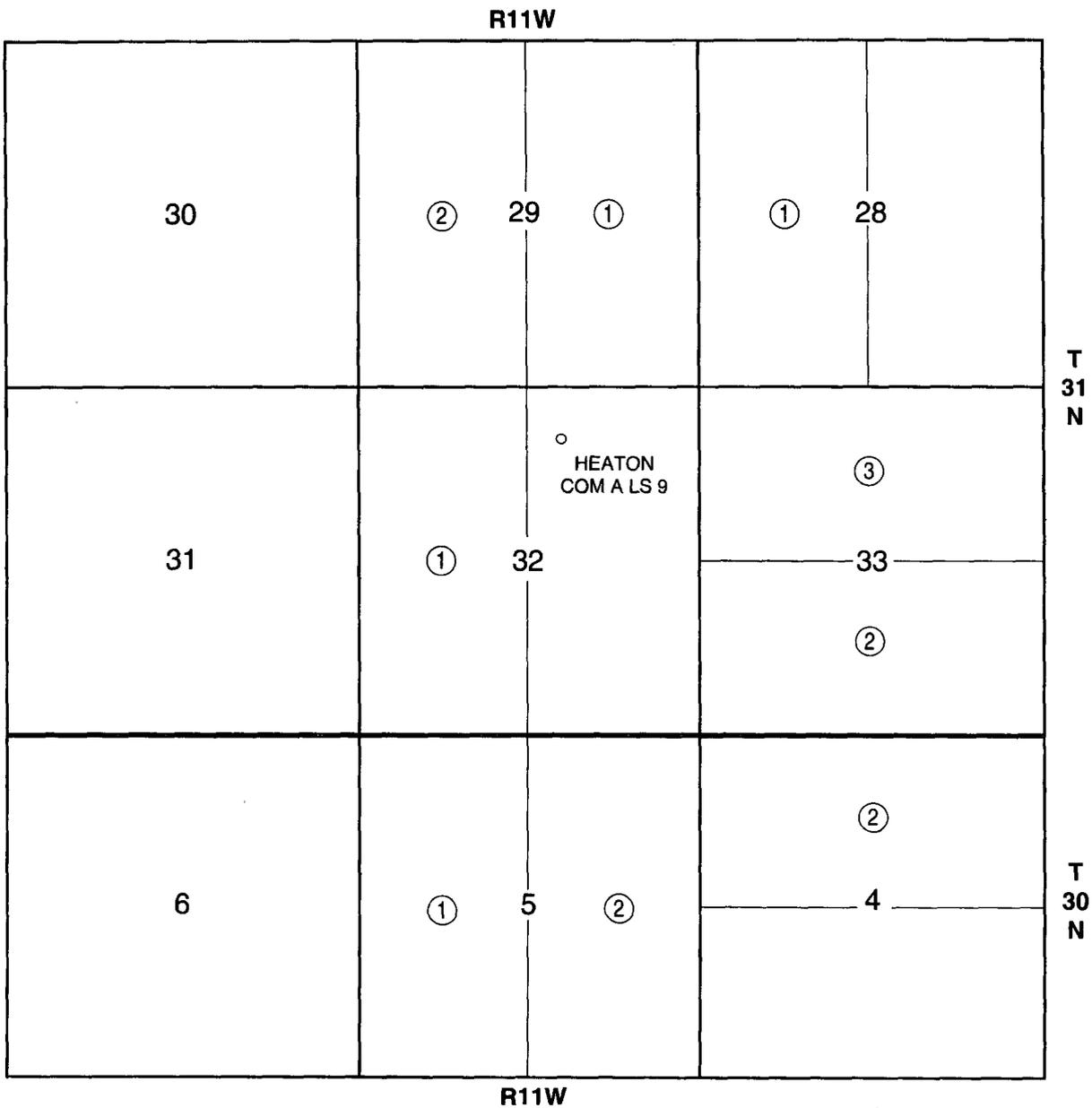
Amoco Production Company

Offset Operator Plat

Heaton Com A LS 9

T31N-R11W Sec. 32

Blanco Mesaverde Formation



- ① Amoco Production Company
- ② Meridian Oil Production Inc.
- ③ Conoco Inc.

LIST OF ADDRESSES FOR OFFSET OPERATORS
Heaton LS #9

1 Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87499

2 Conoco, Inc.
10 Desta Drive West
Midland, Texas 79705

69896800 00001
617000 00
AMOCO PRODUCTION COMPANY
P O BOX 591
TULSA

ZJAM63

OK 74102-0591

69896800 00001
923334 00
JULIA M CRUTCHER ESTATE
WILLIAM CAREY CRUTCHER, EXECUTOR
C/O COMMUNITY BANK
P O BOX 737
KATY

ZJAM63

TX 77492-0737

69896800 00001
921797 00
MICHAL BARRIER ASTOR
4024 10 FARM HILL BLVD
REDWOOD CITY

ZJAM63

CA 94061

69896800 00001
114597 00
JANE R TURNER
1124 W POPLAR APT 101
ROGERS

ZJAM63

AR 72756-4256

69896800 00001
925512 00
BARTON R BARRIER
14754 EASTVIEW DRIVE
LOS GATOS

ZJAM63

CA 95030-1708

69896800 00001
129569 00
MITZI EASLEY
3900 DOMINION COVE
AUSTIN

ZJAM63

TX 78759-7300

69896800 00001
129567 00
BETSY BRYANT
2201 BROOKHOLLOW
ABILENE

ZJAM63

TX 79605-5507

69896800 00001
926370 00
EL PASO PRODUCTION COMPANY
P O BOX 840656
DALLAS

ZJAM63

TX 75284-0656

69896800 00001
924261 00
HARRIET BUCHENAU
P O BOX 867585
PLANO

ZJAM63

TX 75086-7585

69896800 00001
925519 00
SUSAN GRACE LEEPER GERRARD
8207 MANNIX
LOS ANGELES

ZJAM63

CA 90046-1937

69896800 00001
926545 00
WILLIAM J CAREY
C/O COMERICA BANK TEXAS
P O BOX 650282
DALLAS

ZJAM63

TX 75265-0282

69896800 00001
120851 00
GROVER BROTHERS PARTNERSHIP
P O BOX 3666
MIDLAND

ZJAM63

TX 79702-3666

69896800 00001
603416 25
CONOCO INC
P O BOX 951063
DALLAS

ZJAM63

TX 75395-1063

69896800 00001
634423 00
ARDEN R GROVER
P O BOX 3666
MIDLAND

ZJAM63

TX 79702-3666

69896800 00001
134698 00
CROSS TIMBERS OIL COMPANY
P O BOX 840287
DALLAS

ZJAM63

TX 75284-0287

69896800 00001
923261 00
PAUL B AND SUSAN D HORTON
C/O MCCALL PARKHURST AND HORTON
900 MAXUS ENERGY TOWER
717 NORTH HARWOOD SUITE 900
DALLAS

ZJAM63

TX 75201-6587

69896800 00001 283401 00 RICHARD A JENNINGS TRUSTEE P O BOX 3759 MIDLAND	ZJAM63 TX 79702-3759	69896800 00001 682349 00 MORRIS MIZEL 5801 E 41ST ST SUITE 104 TULSA	ZJAM63 OK 74135-5601
69896800 00001 252130 01 W L JENNINGS BILLY G EDWARDS ATTY IN FACT P O BOX 117 ARILENE	ZJAM63 TX 79604-0117	69896800 00001 643101 00 SAM MIZEL P O BOX 703 BROKEN ARROW	ZJAM63 OK 74013-0703
69896800 00001 639077 00 W D KENNEDY 550 W TEXAS #1225 MIDLAND	ZJAM63 TX 79701-4266	69896800 00001 610592 03 STATE OF NEW MEXICO STATE LAND OFFICE SANTA FE	ZJAM63 NM 87501
69896800 00001 242970 00 JAMES R LEETON JR P O BOX 10561 MIDLAND	ZJAM63 TX 79702-7561	69896800 00001 925529 00 MICHELE ELIZABETH LEEPER NEWBY 7845 HILLROSE SUNLAND	ZJAM63 CA 91040-2505
69896800 00001 268550 29 MARATHON OIL COMPANY P O BOX 890882 DALLAS	ZJAM63 TX 75389-0882	69896800 00001 923541 00 RICHARD GORDON PETTIGREW 734 KINGSWOOD RICHARDSON	ZJAM63 TX 75080-3121
69896800 00001 922507 00 SEGIES ANN LEEPER MCELROY 10903 GABLE CIRCLE DALLAS	ZJAM63 TX 75229-3784	69896800 00001 127135 00 RAFFKIND REVOCABLE TRUST DANIEL AND MYRA RAFFKIND TRUSTEES DATED 6-1-89 3800 DANBURY AMARTILLO	ZJAM63 TX 79109-4030
69896800 00001 926364 00 SARAH S MIMS TRUST WILLIAM L MADSEN AND SARAH S MIMS COTRUSTEES P O BOX 111846 CARROLLTON	ZJAM63 TX 75011-1846	69896800 00001 924573 00 CHARLSIE R REARDON P O BOX 872934 WASTILLA	ZJAM63 AK 99687-2934
69896800 00001 710000 01 MINERALS MANAGEMENT SERVICE ROYALTY MANAGEMENT PROGRAM PO BOX 5810 TA DENVER	ZJAM63 CO 80217-5810	69896800 00001 129568 00 SUSAN RITTER P O BOX 162606 AUSTIN	ZJAM63 TX 78716-2606

69896800 00001 133354 00 HENRIETTA E SCHULTZ TRUSTEE LINCOLN PLAZA SUITE 2160 LB-1 500 NORTH AKARD DALLAS	ZJAM63 TX 75201-3360	69896800 00001 936780 00 JUDITH WITTEN U/W BARBARA WITTEN, ROBERT WITTEN AND FREDERICK NATHAN TRUSTEES C/O ROBERT C WITTEN 535 EAST 86TH STREET NEW YORK	ZJAM63 NY 10028-7533
69896800 00001 922129 00 JILL WORLEY SHERER P O BOX 25029 DALLAS	ZJAM63 TX 75225-1029	69896800 00001 922500 00 JUDITH LEE LEEPER WOLFE 14847 DAFFODIL CANYON COUNTRY	ZJAM63 CA 91351-1905
69896800 00001 925560 00 BROOKE BARRIER SMITH 3824 LAHAINA LANE MODESTO	ZJAM63 CA 95355-1212	69896800 00001 923379 00 JOHN DAVIS WORLEY 1106 CHESTERTON RICHARDSON	ZJAM63 TX 75080-2919
69940500 00001 613779 06 SOUTHLAND ROYALTY COMPANY P O BOX 840656 DALLAS	ZJAM63 TX 75284-0656	69896800 00001 461762 00 JUDY G ZWEIBACK 8914 FARNAM CT OMAHA	ZJAM63 NE 68114-4076
69896800 00001 114597 00 JANE R TURNER 1124 W POPLAR APT 101 ROGERS	ZJAM63 AR 72756-4256		
69940500 00001 128105 00 JULIA ELIZABETH WILLIAMS 1594 AVILA DRIVE TULANE	ZJAM63 CA 93274-2315		
69896800 00001 936778 00 ANDREW WITTEN U/W BARBARA WITTEN, ROBERT WITTEN AND FREDERICK NATHAN TRUSTEES C/O ROBERT C WITTEN 535 EAST 86TH STREET NEW YORK	ZJAM63 NY 10028-7533		
69896800 00001 936779 00 ELIZABETH WITTEN U/W BARBARA WITTEN, ROBERT WITTEN AND FREDERICK NATHAN TRUSTEES C/O ROBERT C WITTEN 535 EAST 86TH STREET NEW YORK	ZJAM63 NY 10028-7533		