DATE IN 5/16/03	SUSPENSE 6/5/03	ENGINEER DRC	LOGGED IN KW	TYPE DHC	APP NO. pKRV0313653223

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

RECEIVED MAY 16 2003

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.

Peggy Cole	Peggy Cole	Regulatory Supv.	5-13-03
Print or Type Name	Signature	Title	Date

pcole@br-inc.com
e-mail Address

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

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

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107A
Revised May 15, 2000

APPLICATION TYPE
___Single Well
___Establish Pre-Approved Pools
EXISTING WELLBORE
_Y_ Yes ___No

BURLINGTON RESOURCES OIL & GAS COMPANY **PO BOX 4289, FARMINGTON, NM 87499**

Operator | Address

Huerfanito Unit | **#82** | **L-25-27N-9W** | **San Juan**

Lease | Well No. | Unit Letter-Section-Township-Range | County

OGRID No. 14538 Property Code 7138 API No. 30-045-12189 Lease Type: X Federal ___State ___Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Prod. OTERO CHACRA	BLANCO MESAVERDE	BASIN DAKOTA
Pool Code	82329	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	WILL BE SUPPLIED UPON COMPLETION	4470'-4839'	6536'-6736'
Method of Production (Flowing or Artificial Lift)	NEW ZONE	ARTIFICIAL LIFT PUMPING UNIT	ARTIFICIAL LIFT PUMPING UNIT
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)	Original 1027 psi from BROOKHAVEN COM #7A offset (see attachment)	Original – 1288 psi Current – 496 psi	Original – 2713 psi Current – 567 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	BTU 1309	BTU 1283	BTU 1283
Producing, Shut-In or New Zone	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: N/A Rates: see attachment	Date: 12/31/02 Rates: 255 Mcfd	Date: 12/31/02 Rates: 64 Mcfd
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	WILL BE SUPPLIED UPON COMPLETION	WILL BE SUPPLIED UPON COMPLETION	WILL BE SUPPLIED UPON COMPLETION

ADDITIONAL DATA

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

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

Will commingling decrease the value of production? Yes ___ No X

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 X 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 T. Tom Loveland TITLE Reservoir Engineer DATE 5/7/03

TYPE OR PRINT NAME L. Tom Loveland TELEPHONE NO. (505) 326-9700

Huerfanito Unit #82
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 1/14/98

Chacra

CH-Current

GAS GRAVITY	0
COND. OR MISC. (C/M)	C
%N2	0
%CO2	0
%H2S	0
DIAMETER (IN)	0
DEPTH (FT)	0
SURFACE TEMPERATURE (DEG F)	0
BOTTOMHOLE TEMPERATURE (DEG F)	0
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	0
BOTTOMHOLE PRESSURE (PSIA)	0.0

CH-Original

GAS GRAVITY	0.757
COND. OR MISC. (C/M)	C
%N2	0.0066
%CO2	0.0043
%H2S	0
DIAMETER (IN)	5.5
DEPTH (FT)	3164
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	95.8
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	925
BOTTOMHOLE PRESSURE (PSIA)	1027.4

Mesaverde

MV-Current

GAS GRAVITY	0.748
COND. OR MISC. (C/M)	C
%N2	0.01
%CO2	0.0088
%H2S	0
DIAMETER (IN)	5.5
DEPTH (FT)	4655
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	118.9
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	435
BOTTOMHOLE PRESSURE (PSIA)	495.7

MV-Original

GAS GRAVITY	0.759
COND. OR MISC. (C/M)	C
%N2	0.41
%CO2	1.17
%H2S	0
DIAMETER (IN)	5.5
DEPTH (FT)	4655
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	118.9
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1102
BOTTOMHOLE PRESSURE (PSIA)	1285.7

Huerfanito Unit #82
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 1/14/98

Dakota

DK-Current

GAS GRAVITY	0.748
COND. OR MISC. (C/M)	C
%N2	0.0059
%CO2	0.0088
%H2S	0
DIAMETER (IN)	2.378
DEPTH (FT)	6636
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	143.9
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	472
BOTTOMHOLE PRESSURE (PSIA)	566.7

Current

GAS GRAVITY	0
COND. OR MISC. (C/M)	C
%N2	0.00
%CO2	0
%H2S	0
DIAMETER (IN)	0
DEPTH (FT)	0
SURFACE TEMPERATURE (DEG F)	0
BOTTOMHOLE TEMPERATURE (DEG F)	0
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	0
BOTTOMHOLE PRESSURE (PSIA)	0.0

DK-Original

GAS GRAVITY	0.759
COND. OR MISC. (C/M)	C
%N2	0.41
%CO2	1.17
%H2S	0
DIAMETER (IN)	2.375
DEPTH (FT)	6636
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	143.9
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	2152
BOTTOMHOLE PRESSURE (PSIA)	2712.8

Original

GAS GRAVITY	0
COND. OR MISC. (C/M)	C
%N2	0.00
%CO2	0
%H2S	0
DIAMETER (IN)	0
DEPTH (FT)	0
SURFACE TEMPERATURE (DEG F)	0
BOTTOMHOLE TEMPERATURE (DEG F)	0
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	0
BOTTOMHOLE PRESSURE (PSIA)	0.0

Huerfanito Unit #82 - SICP/Z Data

Zone: Mesaverde

Date	SICP (psig)	Chromatograph Used	Z-Factor	SICP/Z (psig)	Cum Qg (MMCF)	Slope	Y Intercept
10/9/1965	1102	10/1/2002	0.8612	1280	0	N/A	1280
7/9/1971	570	10/1/2002	0.9238	617	740.073	-0.895308	1280
6/14/1973	470	10/1/2002	0.9367	502	914.106	-0.850939	1280
5/18/1976	392	10/1/2002	0.9469	414	1120.972	-0.772211	1280
10/5/1978	374	10/1/2002	0.9493	394	1271.489	-0.696534	1280
5/21/1982	430	10/1/2002	0.9419	457	1465.132	-0.561783	1280
5/29/1986	412	10/1/2002	0.9443	436	1617.378	-0.521404	1280
7/15/1991	522	10/1/2002	0.9299	561	1714.893	-0.418836	1280
???	102	N/A	1	102	4067.13	-0.289543	1280
						↓	↓
12/31/2002	???	N/A	???	458	2838.31	-0.289543	1280

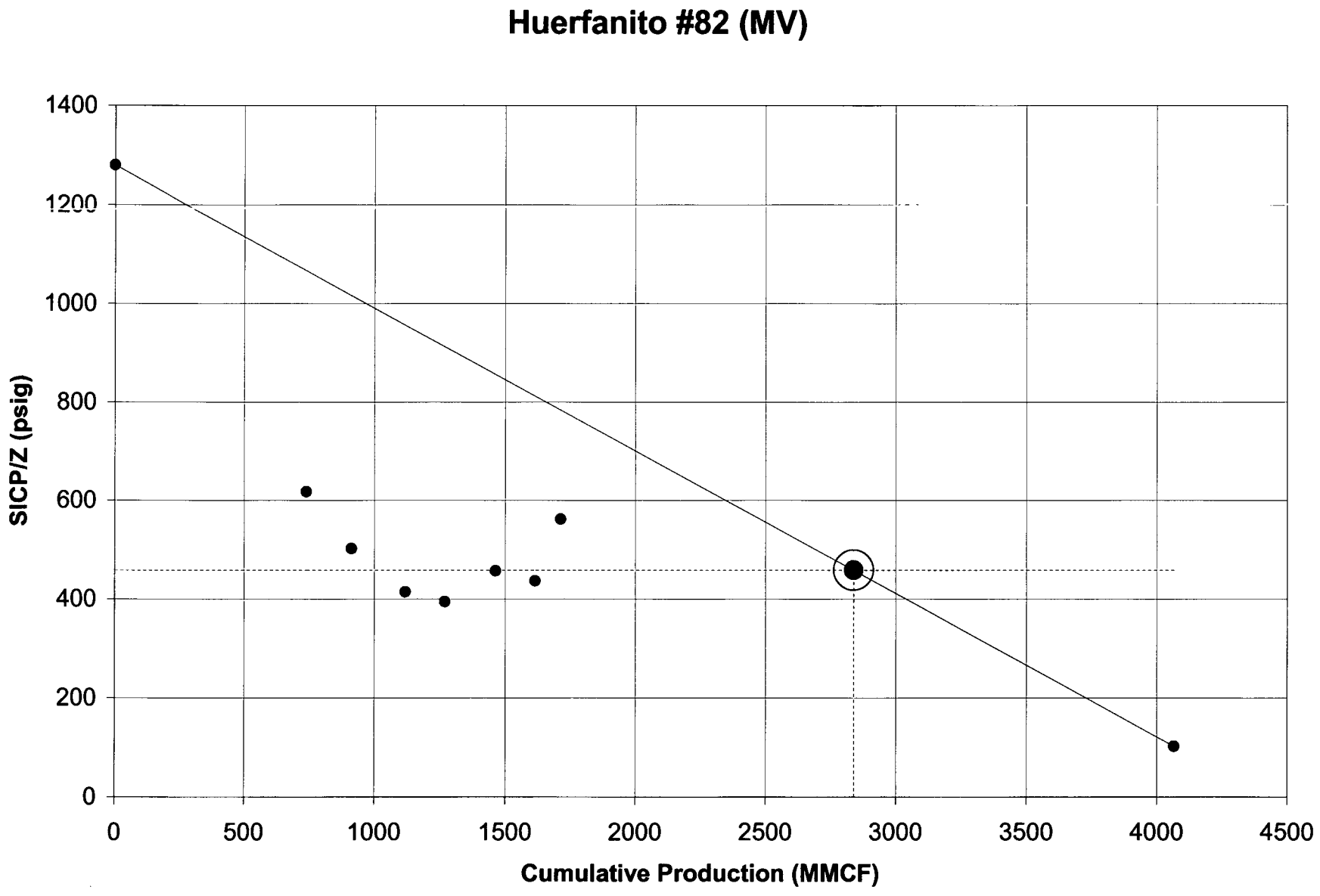
Z-Factor = 0.95
SICP (psig) = 435

Zone: Dakota

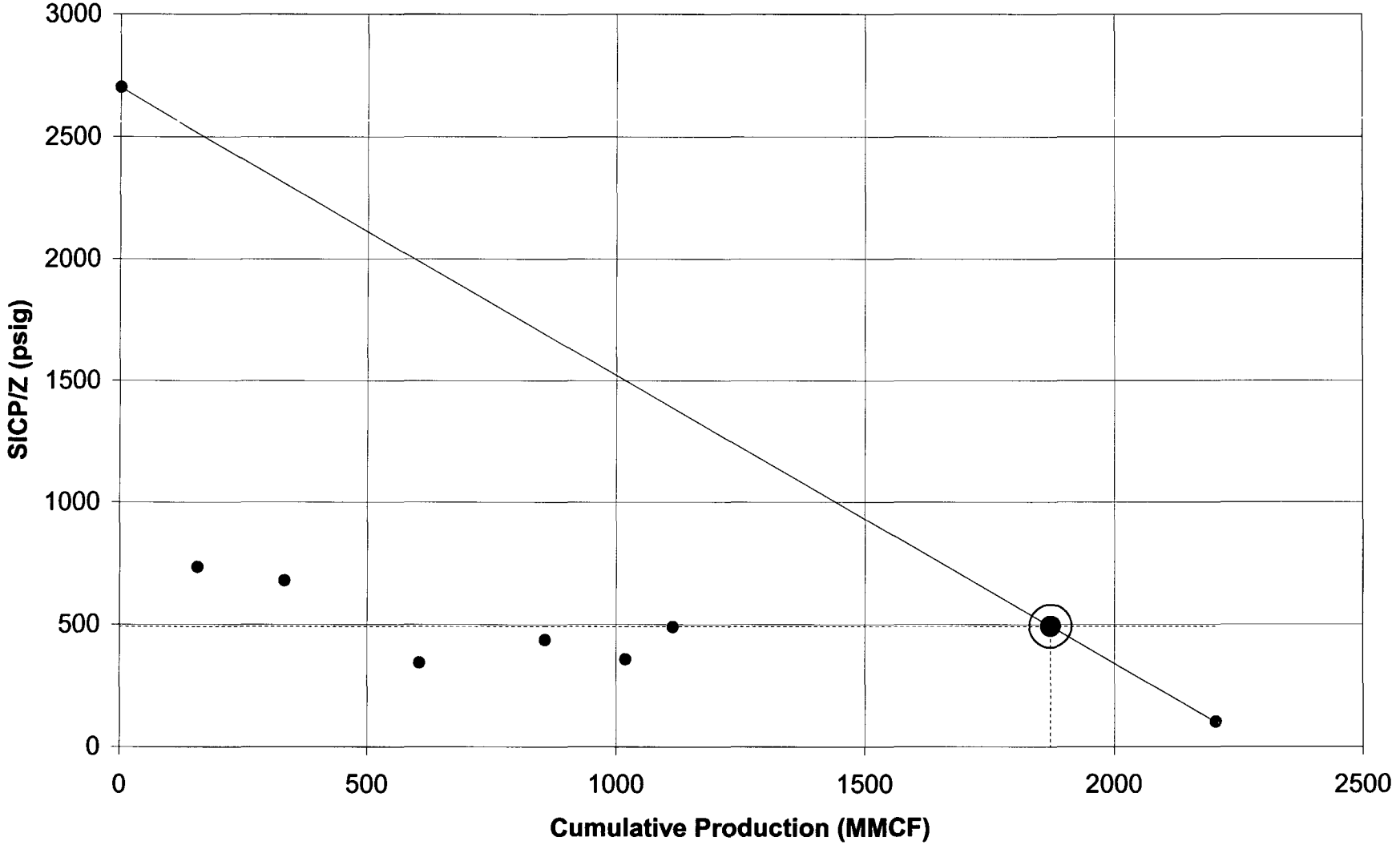
Date	SICP (psig)	Chromatograph Used	Z-Factor	SICP/Z (psig)	Cum Qg (MMCF)	Slope	Y Intercept
10/9/1965	2152	10/1/2002	0.797	2700	0	N/A	2700
7/9/1971	669	10/1/2002	0.9112	734	158.539	-12.40029	2700
6/14/1973	622	10/1/2002	0.9172	678	332.572	-6.07981	2700
6/14/1977	328	10/1/2002	0.9555	343	604.799	-3.896914	2700
7/13/1981	412	10/2/2002	0.9443	436	857.027	-2.641484	2700
8/29/1985	341	10/3/2002	0.9537	358	1018.92	-2.299072	2700
4/23/1990	459	10/4/2002	0.9381	489	1114.3	-1.98406	2700
???	102	N/A	1	102	2203.04	-1.179336	2700
						↓	↓
12/31/2002	???	N/A	???	492	1872.204	-1.179336	2700

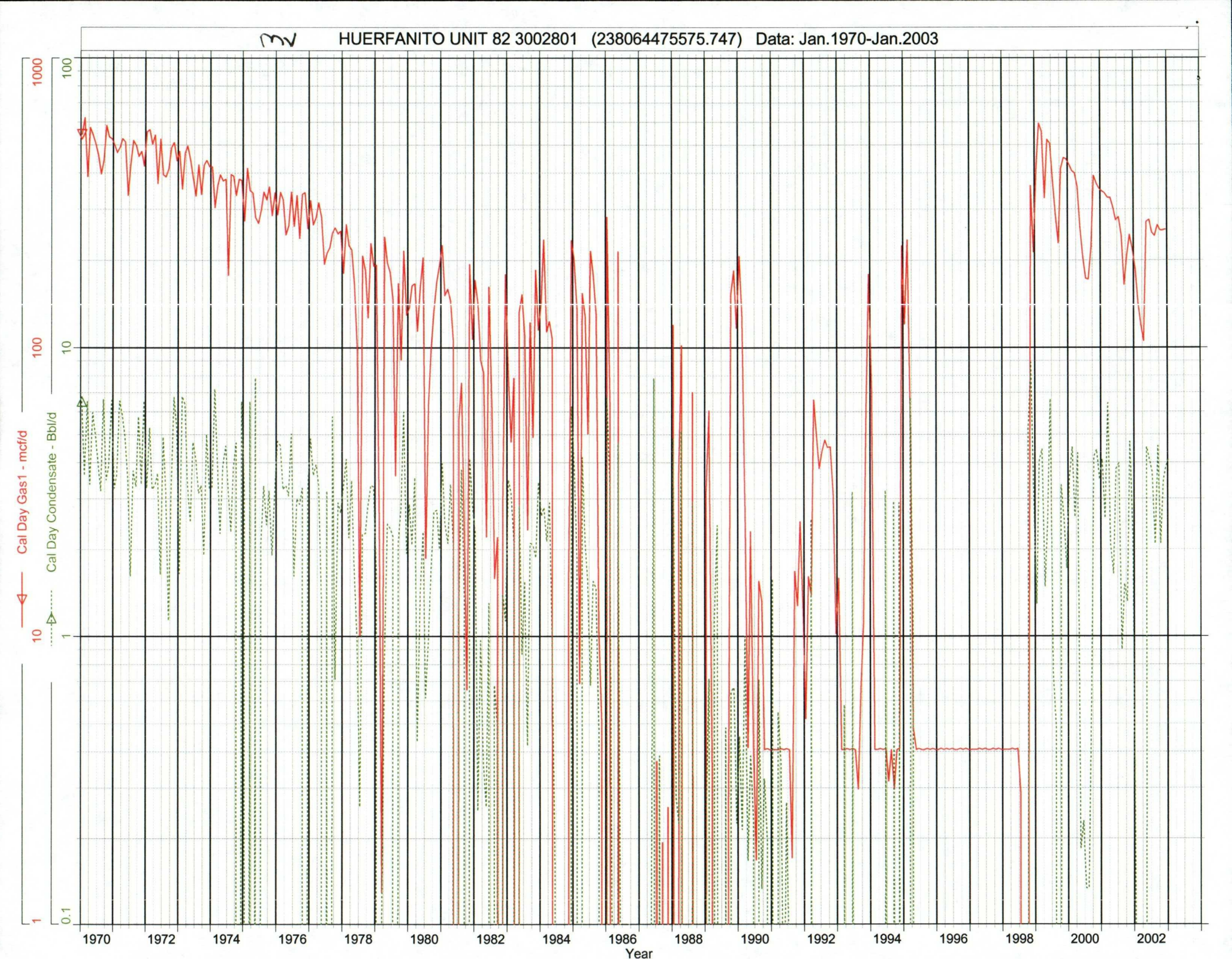
Z-Factor = 0.96
SICP (psig) = 472

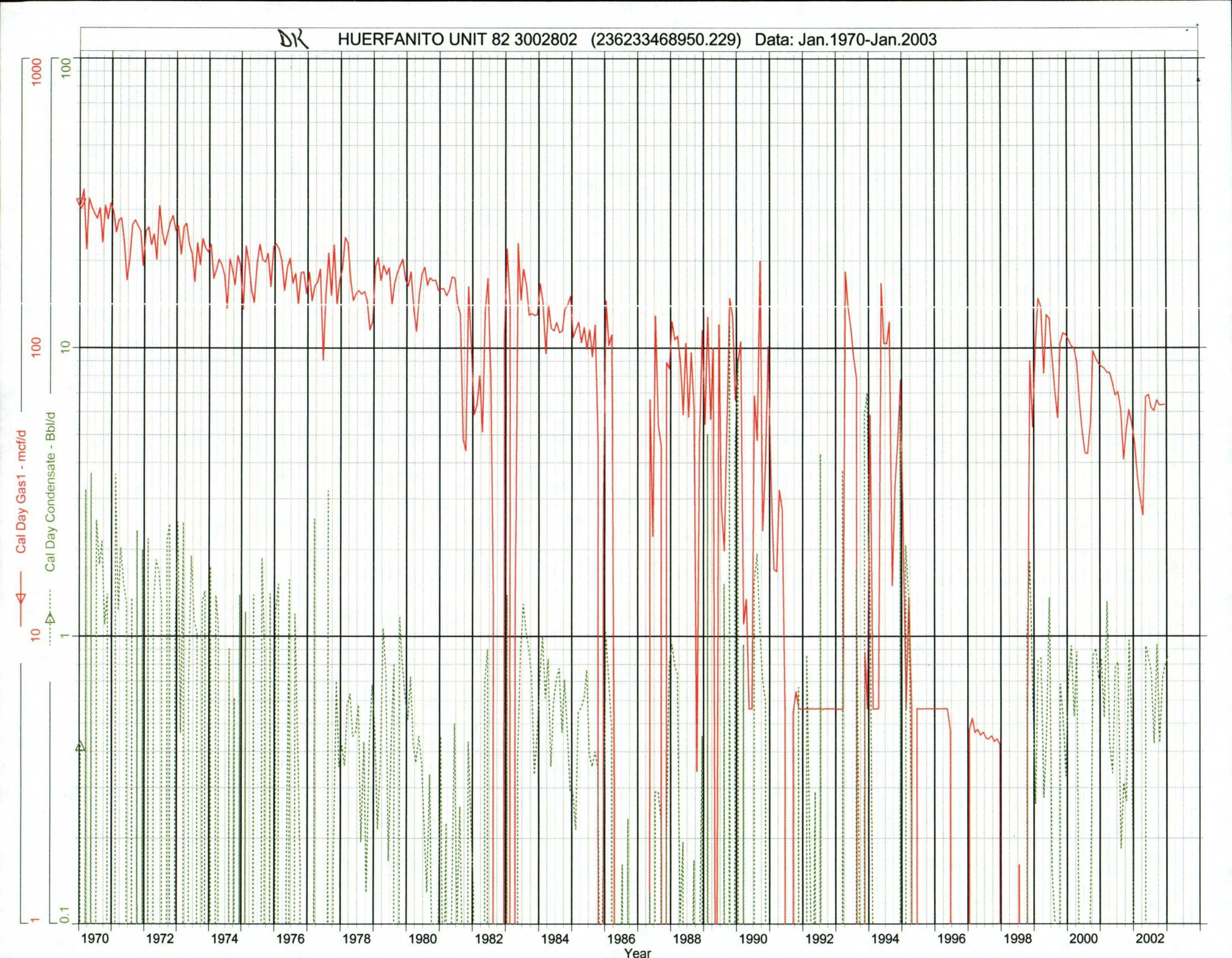
NOTE: THESE ARE ESTIMATES OF THE CURRENT RESERVOIR PRESSURE IN EACH ZONE. IT IS REALIZED THAT THE NEAR-WELLBORE PRESSURES FOR EACH ZONE SHOULD BE SIMILAR, DUE TO THEIR COMMINGLED STATUS.


Huerfanito #82 (MV)
SICP/Z (psig)
1400
1200
1000
800
600
400
200
0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
Cumulative Production (MMCF)

Huerfanito #82 (DK)




HUERFANITO UNIT 82 3002801 (238064475575.747) Data: Jan.1970-Jan.2003
Cal Day Gas1 - mcf/d
Cal Day Condensate - Bbl/d
1000
100
10
1
100
10
1
0.1
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


HUERFANITO UNIT 82 3002802 (236233468950.229) Data: Jan.1970-Jan.2003
Cal Day Gas1 - mcf/d
Cal Day Condensate - Bbl/d
1000
100
10
1
100
10
1
0.1
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

BURLINGTON RESOURCES

Lewis Implementation Team

Memorandum

TO: **New Mexico Oil Conservation Division**

FROM: **Lewis Implementation Team, Burlington Resources**

DATE: **December 2, 2002**

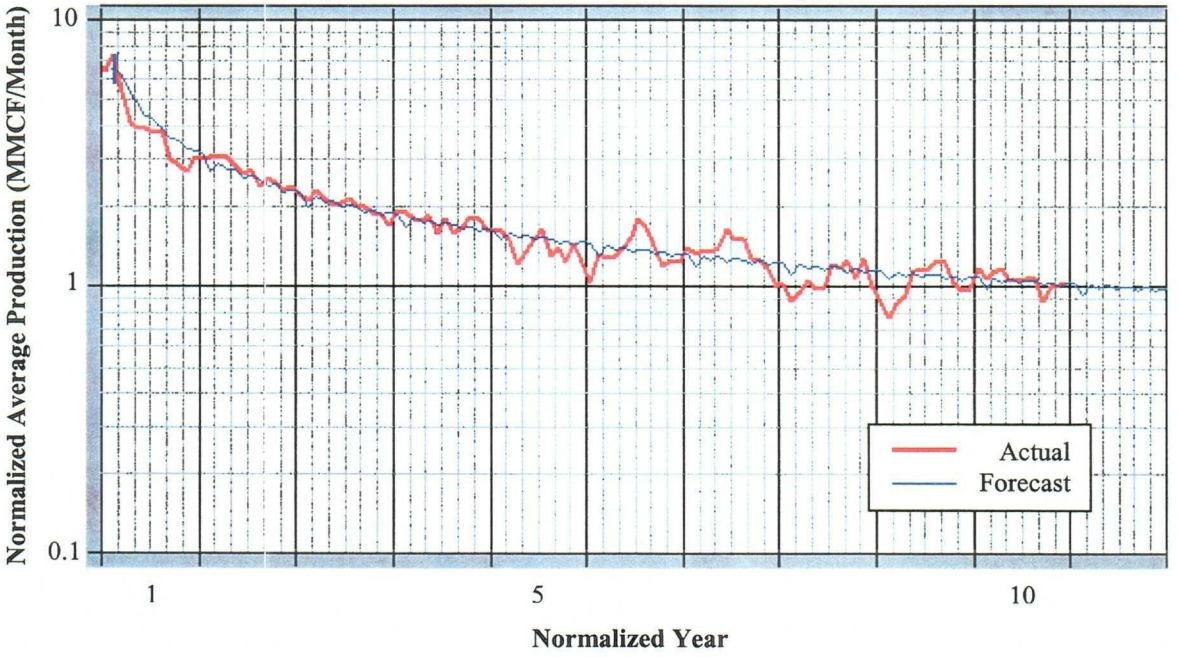
RE: **2003 Chacra Recompletion Program Expected Production**

Chacra-only production from 73 wells completed after 1970 was normalized and forecasted to result in the production model presented in Table 1. A graphical representation of this normalized production forecast is shown in the attached Figure 1. These wells are located in or near the Chacra Fairway in T-27-N, R-08-W; T-27-N, R-09-W; T-28-N, R-08-W; T-28-N, R-09-W; T-28-N, R-10-W; T-28-N, R-11-W; T-29-N, R-09-W; T-29-N, R-10-W; and T-29-N, R-11-W. Actual results from the individual payadds will certainly vary, but this production model represents the average results that should be achieved. Further delineation in the area will be made in 2003.

Table 1: 2003 Chacra production model.

Decline Type	Hyp to Exp
Initial Incremental Rate (MCF/D)	260
Initial Decline (%/yr, effective)	62
Final Decline (%/yr, effective)	1.6
Final Incremental Rate (MCF/D)	15
Hyperbolic Exponent, n	2.0
EUR (MMCF)	496

Figure 1. Graphical representation of the 2003 Chacra production model.



NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section. Rev. "A" to N. M. Dual 9-30-6

Operator	Lease	Well No.
EL PASO NATURAL GAS COMPANY	HUERFANITO UNIT I-149-IND-8473	82 (MD)

Unit Letter	Section	Township	Range	County
L	25	27-N	9-W	SAN JUAN

Actual Footage Location of Well:
1550 feet from the SOUTH line and 990 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6270	MESA VERDE & DAKOTA	BLANCO MESA VERDE & BASIN DAK.	320 & 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

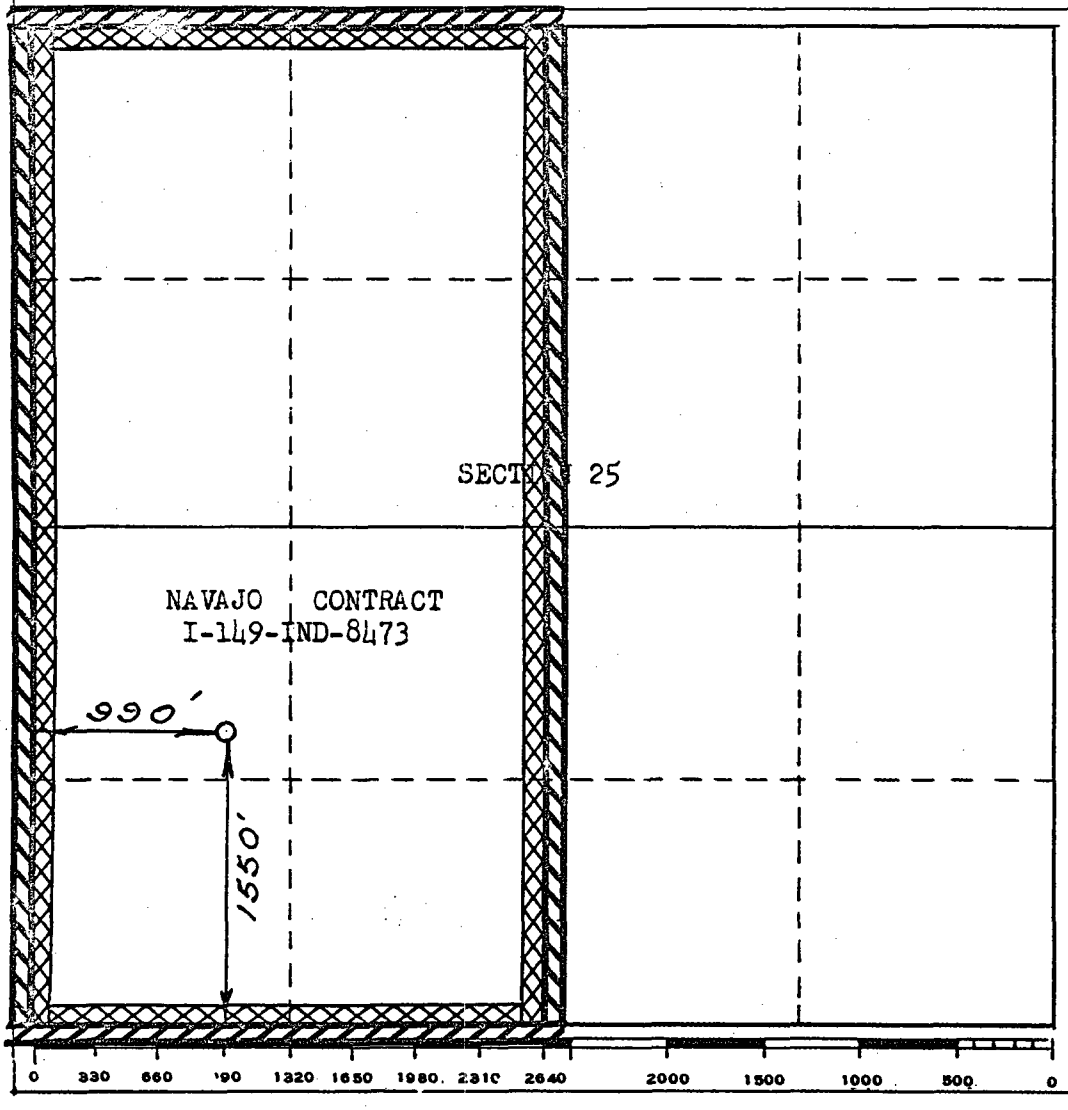
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

[XX] Yes [ ] No If answer is "yes," type of consolidation **Unitization**

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)_____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

ORIGINAL SIGNED E. S. OBERLY

Name: **Petroleum Engineer**

Position: **El Paso Natural Gas Co.**

Company: **October 4, 1965**

Date

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 knowledge and belief.

Date Surveyed: MARCH 2, 1965

Registered Professional Engineer and/or Land Surveyor

Certificate No. 1760

INTEREST OWNERS

Huerfanito Unit 82 Well

ADAM BRUSS TRUST

ADAM COHN TRUST U/W/O

ADELE ALCORN READ

AJM LLC

ALAN PONDER TRUSTEE FOR WINIFRE PONDER

ALBERT R GREER

ANN HOME EMMERSON

ANNA LOU HOME TRUSTEE OF THE TOM S & ANNA LOU HOME

B LIPSHY & D SHOSS COSTRUSTEES SHOSS LEVINE TRUSTS

BARRON PROPERTIES LTD

BEN R HOWARD

BENSON-MONTIN-GREER

BETTY H JOHNSON

BEVERLY D WHITEHEAD

BP AMERICA PRODUCTION COMPANY

BRIAN DICKEY

BUREAU OF LAND MANAGEMENT

CAROLINE DAVY ALTHEIDE

CASSANDRA KEYSER

CHARLES W GAY

CHRISTOPHER ACHTSCHIN

CLINTON C BALLARD JR

CONOCOPHILLIPS COMPANY

CONSTANCE M COHN

DANIEL PONDER BRENNAND

DAVID WILLIAM BRENNAND

DEBBIE LEE SHOSS

DENNA ELY

DIANNA DICKEY

DONALD E WEBER

DOROTHY J BREWSTER

EDWARD GRAPEL & PEARL GRAPEL

EDWIN L PIENKOWSKI

ELIZABETH COHN TRUST U/W/O

ELIZABETH J TURNER CALLOWAY

ELIZABETH T CALLOWAY

ELLIOTT INDUSTRIES

ELLIOTT-HALL COMPANY

ELLIS RUDY LTD

EMILY BARTON

FASKEN FAMILY LTD PTSHP

FLORENCE DUBILIER AW

FOUR STAR OIL & GAS COMPANY

FRANK ANDREW FASKEN

FRANKLIN P LILLY

FREDERICK EUGENE TURNER

G R FASKEN

GARY R SPECKMAN &

GARY W HARVEY INDEP EXEC

GEORGE H DIDLAKE & WILLIE

GERALD FITZGERALD JR TRUSTEE GERALD FITZGERALD JR TRUST

GREGORY & NANCY VANCE LIV TRST

GUY A WEILL

GUY A WEILL CUSTODIAN

H MILES COHN TRUST U/W/O

HANSON MCBRIDE PETROLEUM CO

HEDBERG FAMILY LTD PARTNERSHIP

HERB MARCHMAN PERS REP

IRIS GITTELMAN

J & M RAYMOND LTD

J BURTON VETETO

J GLENN TURNER JR

JAMES E ANDERSON

JAMES R PAYNE & JEAN PAYNE

JAMES ROBERT MARTIN

JFP INTERESTS A GENERAL PTSHP

JIM L SHARP

JOAN R DUNCAN

JOEL SCHONFELD EX

JOHN DICKEY

JOHN LEE TURNER

JOHN R BRENNAND JR

JULIA EVETTS ELAM TRSTEE

JULIE ANN ANTWEIL TRUST

JULIE LEVINE MULLEN

KATHLEEN COLWILL

KATHRYN A DUFFIE

KATHRYN D ASHBY

KATHRYN LEVINE ROMAN

KATHY KIEL JOHNSON

KENNETH E CARTER

KENNETH ROBERT SCHMIDT

LA PLATA GATHERING SYSTEM INC

LAWRENCE L LAVALLE

LEE AYCOCK IND EXECUTRIX

LEO A ACHTSCHIN JR

LORRAYN GAY HACKER

LOWE PARTNERS LP

MARGARET JENSIS DECD

MARIANNE WEILL LESTER

MARIE HELENE WEILL

MARK W BRENNAND

MARY ANN HONEY

MARY E GLENN

MARY FRANCES TURNER JR TRUST

MAYDELL MILLER MAST

MCCONNELL LTD CO

MICHAEL FITZGERALD AND

MICHAEL J LILLY

MONTEZ JOHNSON TRUSTEE U/W/O LEAH B DOWNEY

MURRAY LANGFELDER

NANCI L FOX

NELLY WIHL

OLIVER B KIEL III

PATSY J LAMBRIGHT REVOCABLE TRUST

PATSY R CUMMINS

PATTI JO PECK WOOD

PAUL A BRENNAND

PAUL SLAYTON

PENWELL LYMAN LTD

PETER MCKEE BRENNAND

PURE RESOURCES LP

RICHARD LORE ADMINISTRATOR CTA

ROBERT E FRITZ

ROBERT E MCALISTER

ROBERT E OLDER & VIRGINIA C OLDER

ROBERT M WILLIAMS

ROSALINE WEISS IND EXEC

ROSE MARION BERG

ROSE MARION BERG & DENNA ELY

SCHULTZ HENRIETTA TR

SIDNEY E & MARTIN C LICHT-EXCS OF

SIDNEY E LICHT

SIDNEY H DUNKEN

SILVERADO OIL & GAS CORP

SINGER BROS

STATE OF NEW MEXICO

STEVEN PRICE FASKEN TRUSTEE STEVEN PRICE FASKEN REVOC TRUST

T H MCELVAIN OIL & GAS LTD

TERESA HOME

THE FASKEN FOUNDATION

THOMAS S SENTER

UNITED PIPE SUPPLY CO

VIOLA I STEWART TRUST

W BENTON HARRISON III

WALLACE S KARUTZ

WELLS FARGO BANK TRUSTEE SUSAN MURRAY FASKEN TRUST #1

WELLS FARGO OGM OPERATIONS-AU 10291

WHITE STAR ENERGY INC

WILLIAM DENNIS SCHMIDT

WILLIAM E FRITZ

WM M WESTERMAN PERSONAL REP

XTO ENERGY INC