

dugan production corp.



August 19, 1997

October 23, 1997
NMOCD Case No. 11863
Dugan Production Corp.
Exhibit No. 2

Mr. Bill LeMay, Director
New Mexico Oil Conservation Div.
2040 South Pacheco Street
Santa Fe, NM 87505

Mr. Ray Powell, Commissioner
New Mexico State Land Office
P. O. Box 1148
Santa Fe, NM 87504-1148

Mr. Duane Spencer, Fluid Minerals, Branch Manager
Bureau of Land Management
1235 La Plata Highway
Farmington, NM 87401

Re: Surface Commingling & Off-Lease Measurement
Proposed Federal I Central Gathering System
Dugan Production Corp.'s
Camp David Com #1, Federal I wells No. 4, 5R & 6, O'Henry #1, & Winifred #2
San Juan County, New Mexico

Dear Mr. LeMay, Mr. Powell and Mr. Spencer:

We are writing to request your administrative approvals for the proposed surface commingling of production (natural gas and water) from the subject 6 wells; all are operated by Dugan Production.

Attachments No. 1 and No. 2 present these 6 wells along with their respective spacing units, completion and lease information. These 6 wells are all low volume natural gas wells, 3 of which have established production histories and are all currently shut in waiting on the installation of a water disposal system, and 3 of which have never been connected for gas sales. Four of the wells are completed in the Harper Hill Fruitland Sand Pictured Cliffs gas pool (160 acre spacing) and 2 in the Basin Fruitland Coal gas pool (320 acre spacing). It is anticipated that production will range from 15 to 30 MCFD per well and the only liquid production anticipated is water which is typical to both pools in this area.

We are proposing to install a central gathering system which will transport all production (gas and water) from each well to a central battery located at the Federal I #4. The gas and water will be separated and the gas compressed and sold to El Paso Field Services through a CPD sales meter currently serving as the Federal I #4 sales meter. The water will then be transferred by pipeline from a central storage tank also located at the Federal I #4 to Dugan Production's water disposal

well, the Stella Needs A Com #1 located in the NWNW of Section 36, T-30N, R-14W. Each well will be tested at regular intervals using Dugan's portable test unit and the tests used to establish factors for allocating CPD gas sales and water production from the battery at the Federal I #4 to the individual wells. For the 1st year of operation, we propose testing every 3 months and then at a frequency to be established by production performance at the central facility. Thus an unexplained change in either total gas or water at the central battery would dictate a re-test of all wells and new allocation factors. After the 1st 12 months, we plan to test each well annually unless a shorter frequency is indicated by production.

Dugan's portable test unit is a trailer mounted 3 phase separator capable of measuring bbl of oil, bbl of water and MCF of gas. Gas production is recorded on a conventional chart using a Barton Dry Flow Orifice Meter. The test unit will be connected to the flow line at each well site, the total production stream separated and individual streams measured, and then all fluids returned to the flowline and transferred to the central battery. We have been using this unit for approximately 2 years and have found it to produce accurate measurements especially in the lower volume wells such as those on our proposed Federal I central gathering system.

The Federal I wells #4 and #6 plus the Winifred #2 are connected and have produced gas into El Paso Field Services system, however water production typical to the Harper Hill Fruitland Sand PC gas pool has resulted in each well being shut in until the water disposal issues could be resolved and economic operations restored. Attachment No. 3 presents the production histories for all 3 wells. We have converted our Stella Needs A Com #1 to a water disposal well (NMOCD Administrative Order SWD-595 dated 6-7-95) and plan to install a pipeline system to transfer water from our central facilities to the disposal well. The central gathering system proposed is important to the handling of water production and overall economic operations of these low volume gas wells. We have recently tested each of these currently idle well and anticipate production rates of 15 to 30 MCFD.

In addition to returning these 3 wells to production , we plan to connect 2 Basin Fruitland Coal wells completed in 1991, (our Camp David Com #1 and O'Henry #1) and a recently completed Harper Hill Fruitland Sand-PC well (our Federal I #5R). All 3 of these new wells are small wells and do not warrant individual wellhead connections. Thus our proposed central gathering system is the only feasible option for placing these wells on production.

Dugan Production has negotiated an arrangement with El Paso Field Services that will allow us to convert the Federal I #4 sales meter to a CPD gas sales meter for these 6 wells. The CPD meter will be operated and maintained by EPFS. Gas sales volumes and revenues will be allocated from the CPD meter to each well based upon allocation factors and procedures set out on Attachment No. 4. The gas system integrity will be periodically monitored using DPC's gas detector and the entire gathering system will be pressure tested prior to being placed in service.

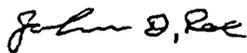
The gas from each completion is compatible and very similar in composition. Attachments No. 5 and 6 present representative analysis from each pool and individual gas samples will be taken in accordance with the BLM's On Shore Order No. 5 to insure the accurate allocation of BTU's.

The interest ownership is presented on Attachment No. 7 and all interest owners have received notice of this proposal by certified mail. Attachment No. 8 presents the letters providing notice to our royalty and overriding royalty interest owners and upon receiving the certified mail receipts, we will provide copies to the NMOCD. Dugan Production Corp. is the operator of all 6 wells and holds a 100% working interest.

In summary, Dugan Production proposes to install a central gathering system to collect natural gas and water from 6 low volume gas wells and use a central facility to separate the gas and water. The natural gas will be delivered to El Paso Field Services at their CPD sales meter and will be allocated to each well using allocation factors determined from periodic individual well tests. The water production will be transferred by pipeline and will be disposed of at Dugan's water disposal well. We do not anticipate any liquid hydrocarbon production. We view the proposed operation as our only viable option to place these 6 wells on production.

Should you have questions or need additional information, please let me know.

Sincerely,

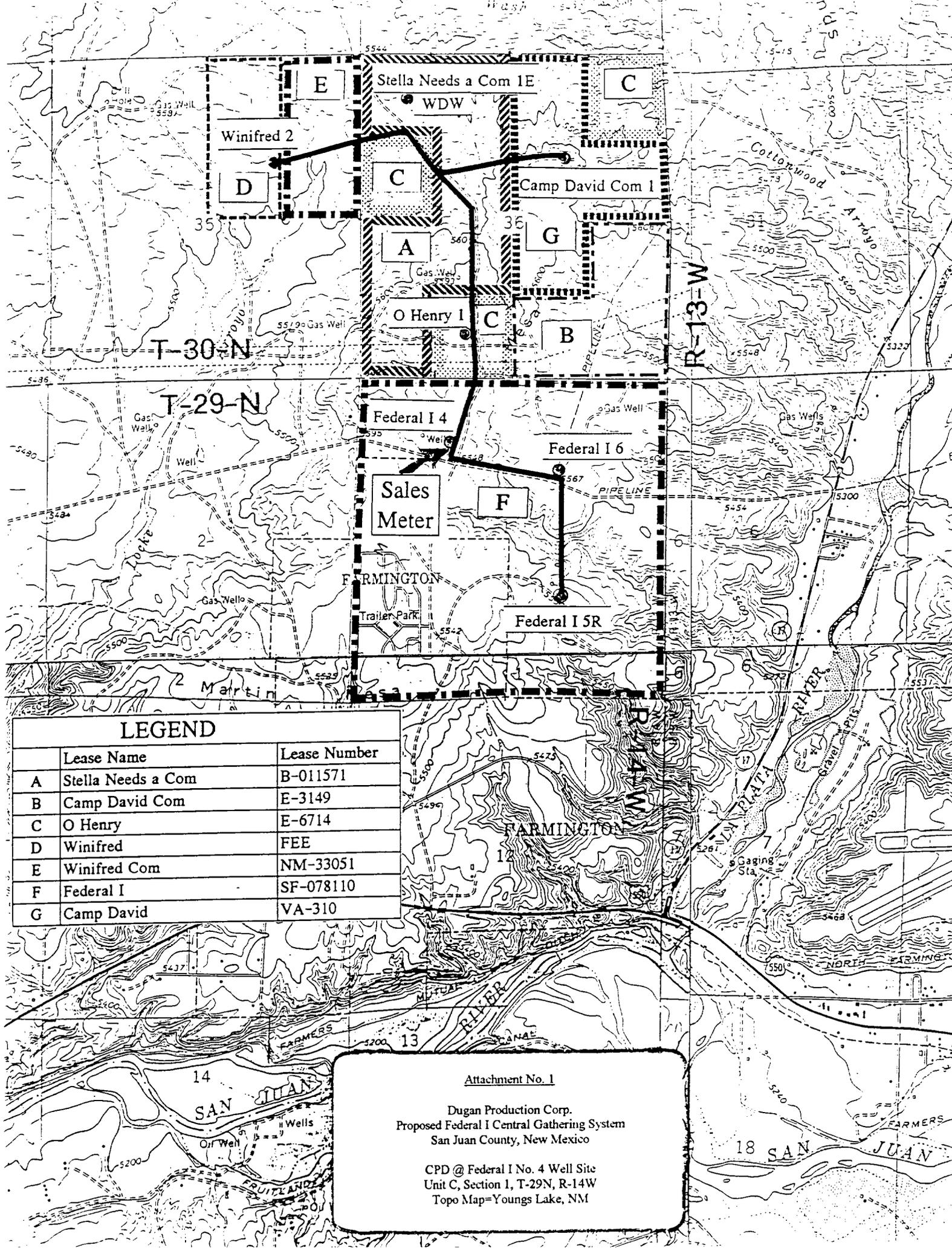


John D. Roe
Engineering Manager

JDR/tmf

cc: Frank Chavez-NMOCD, Aztec
Royalty Interest Owners

attachments



LEGEND

	Lease Name	Lease Number
A	Stella Needs a Com	B-011571
B	Camp David Com	E-3149
C	O Henry	E-6714
D	Winifred	FEE
E	Winifred Com	NM-33051
F	Federal I	SF-078110
G	Camp David	VA-310

Attachment No. 1

Dugan Production Corp.
Proposed Federal I Central Gathering System
San Juan County, New Mexico

CPD @ Federal I No. 4 Well Site
Unit C, Section 1, T-29N, R-14W
Topo Map=Youngs Lake, NM

ATTACHMENT NO. 2
 DUGAN PRODUCTION CORP.
 PROPOSED FEDERAL I Central Gathering System and C.P.D.
 SAN JUAN COUNTY, NEW MEXICO

Well Name	API Number	Well Location		Well Location		Communitization Agreement Number	Pool	Completion Date	Average Production 1st 6 months 1997		Spacing Unit
		Unit	Sec-Twn-Rng	Lease Number	Type Lease				BOPD	MCFD	
Camp David Com #1	30-045-28428	G	36-30N-14W	VA-310	State	State	Basin Fruitland Coal	1/10/91	0	0 ①	E/2-323.59
Federal I #4	30-045-20397	C	1-29N-14W	SF078110	Fed.	N/A	Harper Hill FR Sand-PC	10/3/69	0	0 ②	NW/4-160
Federal I #5R	30-045-29351	J	1-29N-14W	SF078110	Fed.	N/A	Harper Hill FR Sand-PC	12/16/96	0	0 ③	SE/4-160
Federal I #6	30-045-23207	G	1-29N-14W	SF078110	Fed.	N/A	Harper Hill FR Sand-PC	2/22/79	0	0 ④	NE/4-160
O'Henry #1	30-045-08958	N	36-30N-14W	E6714	State	State	Basin Fruitland Coal	6/27/91	0	0 ⑤	W/2-320
Winifred #2	30-045-23200	G	35-30N-14W	Fee	Fee	SCR-141	Harper Hill FR Sand-PC	3/15/79	0	0 ⑥	NE/4-160

NOTES

N/A - Not Applicable

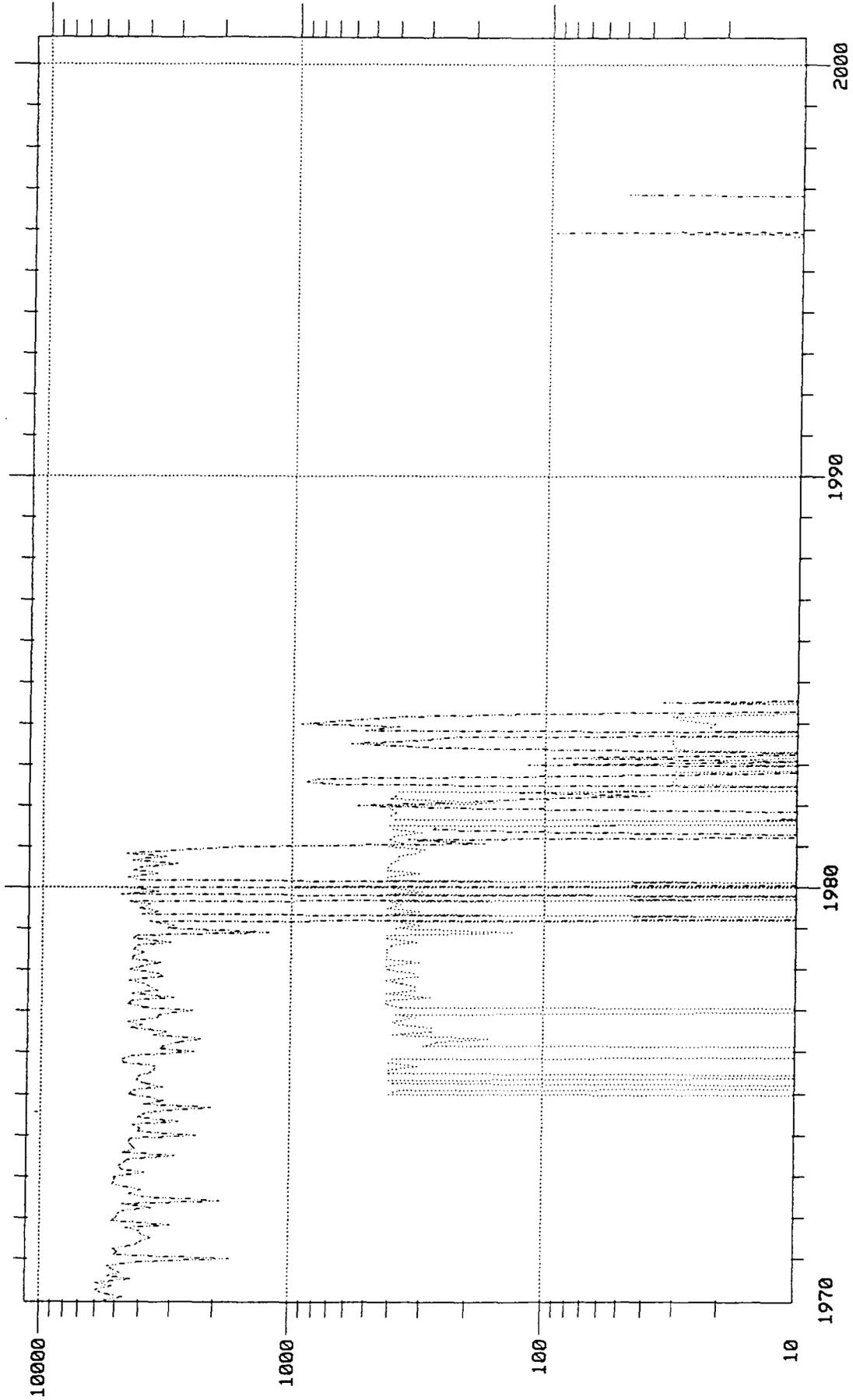
- ①- Well shut in waiting on pipeline connection. Cumulative production = 0 MCF. Test 4/97: SITP=350 psig, est. rate = 30 MCFD with light spray of water.
- ②- Well shut in pending water disposal system. Cumulative production=540,606 MCF. Test 4/97: SITP=230 psig, estimated rate=15 MCFD w/1-2 BWPD.
- ③- Well shut in waiting on pipeline connection. Cumulative production=0 MCF. Test 12/96: SITP=330 psig. Est. rate=30 MCFD.
- ④- Well shut in pending water disposal system. Cumulative production= 154,170 MCF. Test 4/97: SITP=270 psig, est. rate=30 MCFD + 1 BWPD.
- ⑤- Well shut in waiting on pipeline connection. Cumulative production= 0 MCF. Test 12/96: SITP=330 psig, est. rate=30 MCFD with light spray water
- ⑥- Well shut in waiting on water disposal system. Cumulative production=69,966 MCF. Test SITP=230 psig, est. rate=18 MCFD + 4.5 BWPD.

Calculated
 Oil
 Gas
 Water

HARPER HILL FRUITLAND SAND-PICTURED CLIFFS
 Production Rate vs Time
 BBl/Mo or Mcf/Mo vs Months
 FEDERAL I NO. 4
 C-1-29N-14W

Production
 Oil
 Gas
 Water

Attachment
 No. 3
 Pg 1 of 3



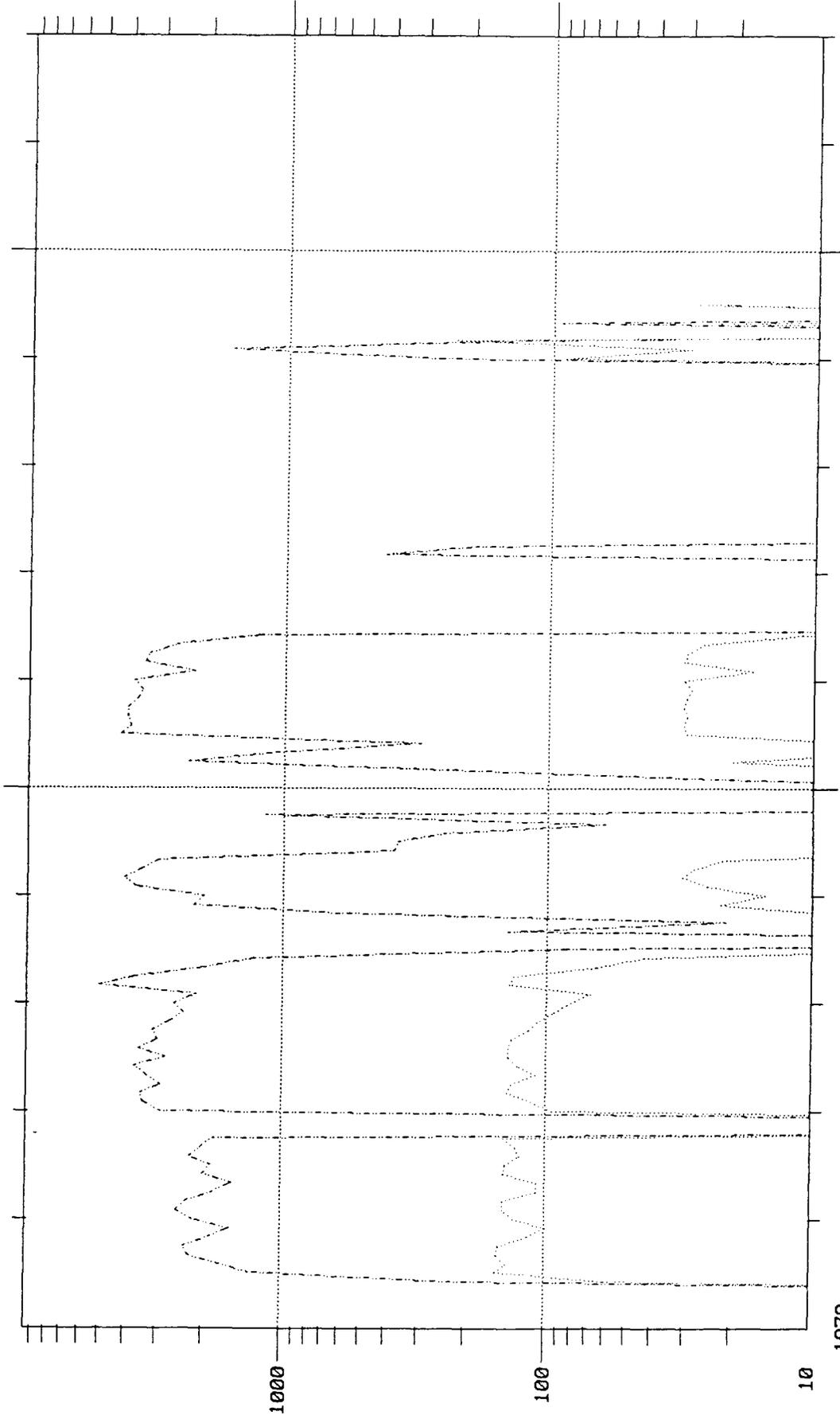
Reported Oil Production = 0 Bbls
 Reported Gas Production = 540655 Mcf
 Reported Water Production = 29405 Bbls
 As of 7-1-97

Calculated
 Oil
 Gas
 Water - - - -

HARPER HILL FRUITLAND SAND-PICTURED CLIFFS
 Production Rate vs Time
 BBl/Mo or Mcf/Mo vs Months
 FEDERAL I NO. 6
 G-1-29N-14W

Production
 Oil
 Gas
 Water

Attachment
 No. 3
 Pg 2 of 3



1979

1984

1989

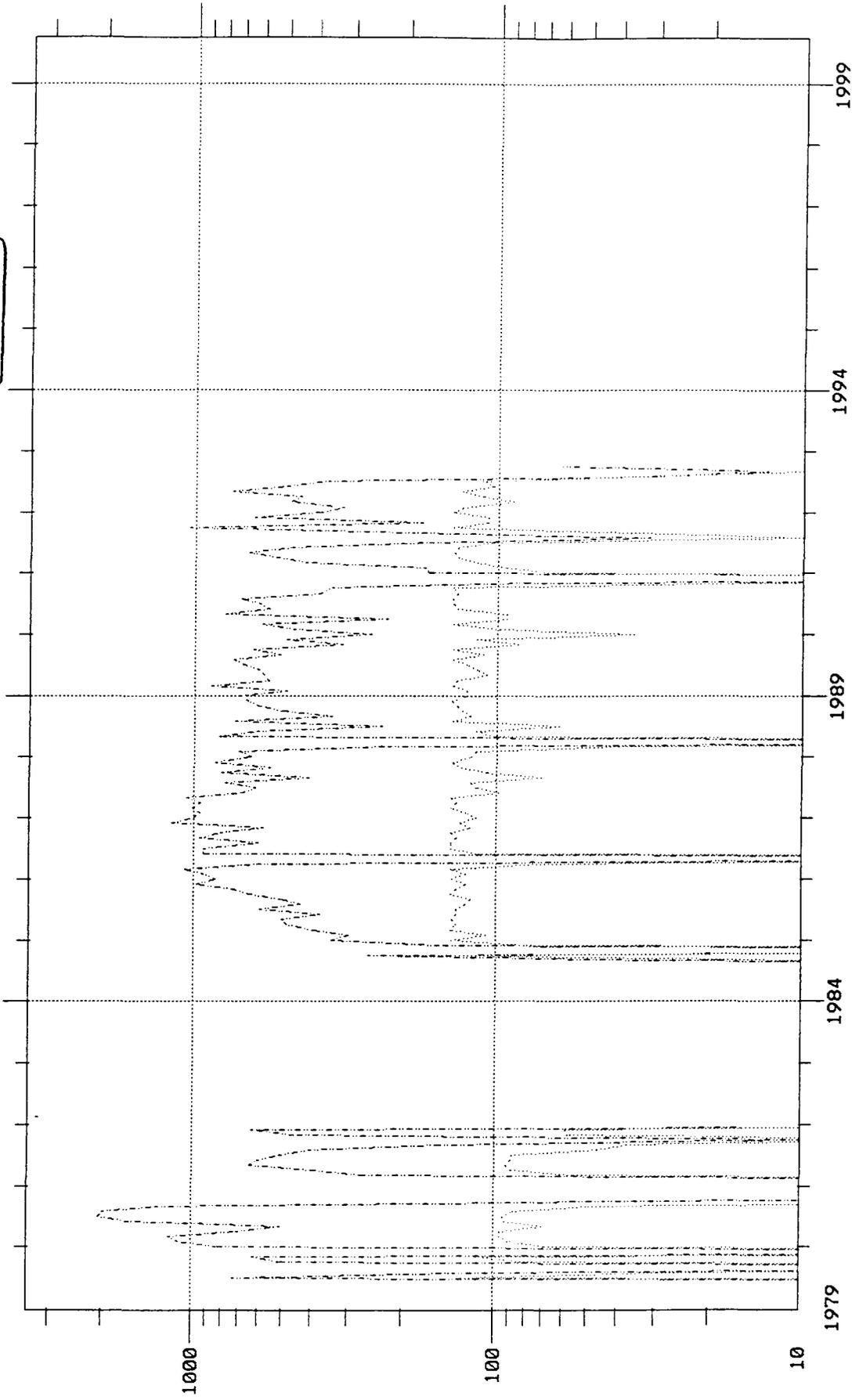
Reported Oil Production = 0 Bbls
 Reported Gas Production = 154170 Mcf
 Reported Water Production = 5127 Bbls
 AS of 2-1-97

Calculated
 Oil
 Gas
 Water

HARPER HILL FRUITLAND SAND-PICTURED CLIFFS
 Production Rate vs Time
 BB1/Mo or Mcf/Mo vs Months
 WINIFRED NO. 2
 G-35-30N-14W

Production
 Oil
 Gas
 Water

Attachment
 No. 3
 Pg 3 of 3



Reported Oil Production = 0 Bbls
 Reported Gas Production = 69966 Mcf
 Reported Water Production = 12303 Bbls

As of 7-1-97

Attachment No. 4
Allocation Procedures
Dugan Production Corp.'s
Proposed Surface Commingling & Off Lease Measurement
Federal I Central Gathering System
CPD: C-1-29N-14W
San Juan County, New Mexico

Base Data:

U=Water volume (BWPD) from Periodic Well Test

V=Water volume (bbl) at Central Battery

W=Gas volume (MCFD) from Periodic Well Test

X=Gas volume (MCF) from CPD Sales Meter

Y=BTU's from CPD Sales Meter

Z=Gas Revenue (\$) from CPD Sales Meter

1. Individual Well Gas Production = A+B+C+D+E

A = Allocated Sales Volume, MCF.

$$= (W / \text{SUM } W) \times X$$

B = On lease fuel usage, MCF. Determined from equipment specifications and operating conditions.

C = Purged and/or vented gas from well and/or lease equipment, MCF. Calculated using equipment specifications and pressures.

D = Allocated fuel from gathering system equipment, MCF. The total fuel required to operate gathering system equipment will be allocated to the individual wells benefiting from the equipment using allocation factors determined by $W / \text{Sum } W$ for the wells involved.

E = Allocated volume of gas lost and/or vented from the gathering system and/or gathering system equipment, MCF. The total volume will be determined using industry accepted procedures for the conditions existing at the time of the loss. All volumes corresponding to liquid condensation within the gathering system will also be determined. The total volume lost and/or vented will be allocated to the individual wells affected using factors determined by $W / \text{Sum } W$.

2. Allocated Individual Well BTU's = $(W \times \text{Individual well BTU}) / \text{Sum } (W \times \text{individual well BTU}) \times Y$.

Individual well gas heating values to be determined in accordance with BLM's On Shore Order No. 5.

3. Allocated Individual Well Gas Revenues = $(\text{Allocated Individual well BTU's} / \text{Sum Allocated individual well BTU's}) \times Z$

4. Individual Well Water Production = Allocated production volume, bbl = $(U / \text{Sum } U) \times V$

EL PASO NATURAL GAS COMPANY
 VOLUME ACCOUNTING DEPARTMENT
 MEASUREMENT DIVISION
 POST OFFICE BOX 1492
 EL PASO, TEXAS 79978
 PHONE: (915) 541-5267
 CHROMATOGRAPHIC GAS ANALYSIS REPORT

DATE 8/23/89

MAILEE
 26730

DUGAN PRODUCTION CORPORATION
 P. O. BOX 208
 FARMINGTON, NEW MEXICO 87401

Attachment
 No. 5
 Pg 1 of 1

METER NUMBER 90544 - ~~FEDERAL I #6 - Harper Hill Fruitland Sand - PC~~
 OPERATOR 1862 - DUGAN PRODUCTION CORP

ANALYSIS DATE 0/00/00 TYPE CODE 2 - ACTUAL
 SAMPLE DATE 12/30/87 H2S GRAINS 0
 EFFECTIVE DATE 7/01/89 LOCATION M - MAIN OFFICE
 EFFECTIVE FOR 6 MONTHS

COMPONENTS	NORMALIZED MOL %	GPM
CO2	.85	.000
H2S	.00	.000
N2	.20	.000
METHANE	98.70	.000
ETHANE	.06	.016
PROPANE	.08	.022
ISO-BUTANE	.02	.007
NORM-BUTANE	.02	.006
ISO-PENTANE	.01	.004
NORM-PENTANE	.00	.000
HEXANE PLUS	<u>.06</u>	<u>.026</u>
	100.00	0.081

SPECIFIC GRAVITY .567
 MIXTURE HEATING VALUE
 (BTU @ 14.73 DRY) 1009
 RATIO OF SPECIFIC HEATS 1.306
 NO TEST SECURED FOR H2S CONTENT



115 Farmington Ave. - Farmington, NM 87401

(505) 325-6622

ANALYSIS NO. DUG10002

WELL/LEASE INFORMATION

Attachment
No. 6
Pg 1 of 1

COMPANY: DUGAN PRODUCTION CORP.

WELL NAME: CAMP DAVID #1

LINE PRESSURE: 350 PSIG

LOCATION: SEC. 36, 30N, 14W

SAMPLE TEMP.: DEG.F

LEASE:

WELL FLOWING: NO

FORMATION: BASIN FRUITLAND Coal

DATE SAMPLED: 2/14/91

METER NO.:

SAMPLED BY: MARK BROWN

REMARKS:

ANALYSIS

COMPONENT	MOLE%	GPM
NITROGEN	0.562	0.000
CO2	0.638	0.000
METHANE	97.715	0.000
ETHANE	0.644	0.172
PROPANE	0.254	0.070
I-BUTANE	0.044	0.014
N-BUTANE	0.065	0.020
I-PENTANE	0.023	0.008
N-PENTANE	0.017	0.006
HEXANE+	0.038	0.017
TOTAL	100.000	0.308
COMPRESSIBILITY FACTOR	(1/Z)	1.00210
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1015.95
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	998.38
REAL SPECIFIC GRAVITY		0.57224

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE 365 PSIG

DATE RUN: 2/15/91

ANALYSIS RUN BY: CHELLE DURBIN

FEB 1991

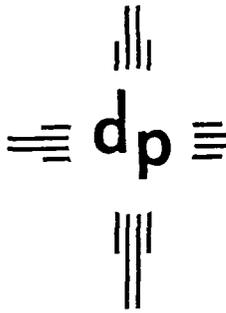
RECEIVED

ATTACHMENT NO. 7
INTEREST OWNERSHIP
PROPOSED FEDERAL I CENTRAL GATHERING SYSTEM
DUGAN PRODUCTION CORP.
SAN JUAN COUNTY, NEW MEXICO

	Camp David Com #1		Federal I Lease ①		O'Henry #1		Winifred #2	
	WI	NI	WI	NI	WI	NI	WI	NI
<u>Working Interest Owners</u>								
Dugan Production	1.0000	0.8326	1.0000	0.8750	1.0000	0.7024	1.0000	0.8650
<u>Royalty Interest Owners</u>								
USA-Federal				0.1250				0.0625
State of New Mexico		0.1250				0.1250		
Joseph O. & Cicily Muench								0.03125
Patricia Harbin								0.03125
<u>Overriding Royalty Owners</u>								
Conoco		0.0068				0.1504		
Anne B. Little		0.0051						
Sylvia Little		0.0051						
Texaco Exploration		0.0253						
Edward & Juanita Lopez						0.0036		
Ruby Maculsay						0.0012		
Martin A. Moe, Jr.						0.0036		
James W. & Ella E. Post						0.0036		
Harper L. & Nellie A. Proctor						0.0036		
Gisle W. Romo						0.0012		
Clara Sault						0.0012		
Ernest J. & Valene M. Sill						0.0042		
Winifred & Forest Jacobs								0.0100

Total 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000

① Federal I Wells No. 4, 5R & 6.



dugan production corp.

Attachment
NO. 8
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August 19, 1997

To: Royalty Interest Owners (address list attached)
Dugan's Platero Winifred No. 2
Unit G of Section 35, Section 35, T-30N, R-14W
San Juan County, New Mexico

Gentlemen:

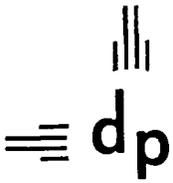
Attached for your information, review and file is a copy of our application to the New Mexico Oil Conservation Division (NMOCD), the New Mexico State Land Office, and the Bureau of Land Management to surface commingle and off lease measure natural gas produced from the captioned wells in which you have a royalty interest ownership. The proposed work will not diminish your interest and should allow Dugan to return this well to a producing status.

Should you have any questions, need additional information or have any concern as to our proposal, please let me know.

Sincerely,

John D. Roe
Engineering Manager

JDR/tmf



dugan production corp.



August 19, 1997

Attachment
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To: Overriding Royalty Interest Owners (address list attached)
Dugan Production Corp.'s
Camp David Com No. 1 (G-36-30N-14W)
O'Henry No. 1 (N-36-30N-14W)
Winifred No. 2 (G-35-30N-14W)
San Juan County, New Mexico

Gentlemen:

Dugan Production Corp. has filed an application with the New Mexico Oil Conservation Division (NMOCD), the New Mexico State Land Office and the Bureau of Land Management (BLM) requesting their approvals to surface commingle and off lease measure natural gas produced from each of the 3 captioned wells. This will allow us to place all 3 wells on production. Each of these wells produces only small volumes of gas and cannot be connected for gas sales individually.

This proposal should not reduce your interest and should allow a revenue to be produced.

We would be happy to provide a complete copy of our application should you desire to have it. Should you have questions, need additional information or have concerns, please let me know.

Sincerely,

John D. Roe
Engineering Manager

JDR/tmf

**Interest Owners-Proposed Federal I Central Gathering System
Camp David #1, Federal I #4, Federal I #5R, Federal I #6,
O'Henry #1, Stella Needs A Com #1E, and the Winifred #2 wells**

Bureau of Land Management 1235 La Plata Highway Farmington, NM 87401	Harper L. & Nellie A. Proctor 402 Masonic Temple Building Jacksonville, FL 32206
--	--

Ray Powell, Commissioner New Mexico State Land Office P. O. Box 1148 Santa Fe, NM 87504-1148	Gisle W. Romo 5012 Venice Blvd. Los Angeles, CA
---	---

Patricia Harbin c/o Marilyn Adragna 1708 Luthy Place, NE Albuquerque, NM 87112	Clara Sault Palmer W. Larson, Pers. Rep. Milwaukee, OR 97222
---	--

Joseph O. & Cicily M. Muench Family Trust of 10/12/84 P. O. Box 779 Placitas, NM 87043-0779	Ernest J. & Valerie M. Sill 2048 Monticell Dr. Glendale, CA
--	---

Conoco, Inc. Gas Revenue P. O. Box 951063 Dallas, TX 75395-1063	Winifred & Forrest Jacobs 1000 SW Santa Fe Road Towanda, KS 67144-9213
--	--

Anne B. Little
P. O. Box 82277
Albuquerque, NM 87198-2277

Sylvia F. Little
TTEE UTAD 5/25/90
P. O. Box 1258
Farmington, NM 87499-1258

Texaco Exploration & Prod., Inc.
P. O. Box 20078
Houston, TX 77216-0778

*Attachment
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Pg 3 of 3*

Edward A. & Juanita Lopez
782 North Broad Street
San Luis Obispo, CA 93401

Ruby Maculsay
873 Erie Street
Oakland, CA

Martin A. Moe, Jr.
10305 N.W. 6th St.
Plantation, FL 33324

James W. & Ella E. Post
1447 West 101st Street
Los Angeles, CA 90047