

Information in support of this application:

1. Operator:
Dugan Production Corp.
P.O. Box 420
Farmington, NM 87401
(505) 325-1821
Contact: John Alexander
2. Well:
Mona Lisa No. 2
1620' fsl & 1850' fel, S.14-T.26N-R.7W, Rio Arriba Co., NM
Lease No. NM 99002
API No. 30-039-25745
2. Order No. R-10963 granted commingling of the Basin Dakota and Blanco Mesa Verde formations in the Mona Lisa #2 wellbore.
3. The Ice Canyon Gallup proposed in this application is spaced 160 Acres in SE/4 S.14-T.26N-R.6W. Applicant is 100% working interest owner.
4. Caulkins Oil has recently completed an Ice Canyon Gallup in their Breech #377, located in M-23-26N-7W (API 30-039-25690), 1.2 miles Southwest of the Mona Lisa #2. The Breech #377 was not complete at the time the Mona Lisa #2 well application was being prepared. A seven (7) day shut-in casing pressure reported to the NMOCD was 1125 psi. The calculated Gallup bottom hole pressure at the Breech #377 well is 1388 psi. It is assumed that the Gallup will exhibit the same pressure in the Mona Lisa #2. In the order referenced in (1) above, the Dakota BHP was 2680 psi, and the Mesa Verde was 1087 psi. Correcting the Dakota BHP to the Gallup mid-perforation depth yields 2616 psi. The Gallup BHP is 53% of the higher pressured zone and as such qualifies under Rule 303C(vi). Correcting Gallup BHP to Mesa Verde mid-perforation depth yields 1338 psi. The Mesa Verde BHP is 81% of the higher pressured zone and so also qualifies under 303C(vi).
5. Caulkins reports that their Breech #377 Gallup well is being produced at approximately 300 MCFD with 1.5 BCPD. An average for area Gallup wells is 63 MCFD with .6 BCPD. This is marginal production for a well of this depth. Dugan's commingle application for the Dakota and Mesa Verde estimated production from those zones at 118 MCFD/0.9 BCPD and 74 MCFD/0.6 BCPD respectively. The ability to complete all three zones with one trip to the well will greatly reduce the completion costs and enhance economics of attempting a Gallup completion. Since the potential for a Gallup completion was unknown prior to drilling this well, the operator opted to run 5-1/2" casing. The small

tubing strings that would be required to complete as a dual or even worse a triple completion will not allow efficient operation of surface production facilities or facilitate liquid unloading. If a commingled configuration is approved, one 2-3/8" or 2-7/8" will be used, eliminating the operational problems noted above.

6. Average production from offsetting Gallup wells is 62.5 MCFD and .64 BCPD. Using this as initial production and the decline curve from the Universal Resources Lindrith 110E (C-10-26N-7W API 30-039-23134), estimated production from the Gallup formation is presented in the attached curve. The Lindrith 110E had more production history than other area Gallup wells and so provided the best model.
6. Order R-10239 allowed down hole commingling of the Basin Dakota, Ensenada Gallup, and Blanco Mesa Verde Pools. Burlington provided adequate evidence that fluids from all three zones were compatible and non-damaging. The proximity of these wells (approximately 4 miles SE) is confirmation of the fluid compatibility in the Mona Lisa 2 well.
7. Using a ratio of the daily estimated rates from each zone, the following allocation factors are recommended:

<u>Formation</u>	<u>Oil</u>	<u>Gas</u>
Dakota	45%	45%
Gallup	25%	25%
Mesa Verde	30%	30%

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30 039 25745		2 Pool Code 93235		3 Pool Name Ice Canyon Gallup	
4 Property Code 21582		5 Property Name Mona Lisa			6 Well Number 2
7 OGRID No. 006515		8 Operator Name Dugan Production Corporation			9 Elevation 6121' Estimated

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	14	26N	7W	J	1620	South	1850	East	Rio Arriba

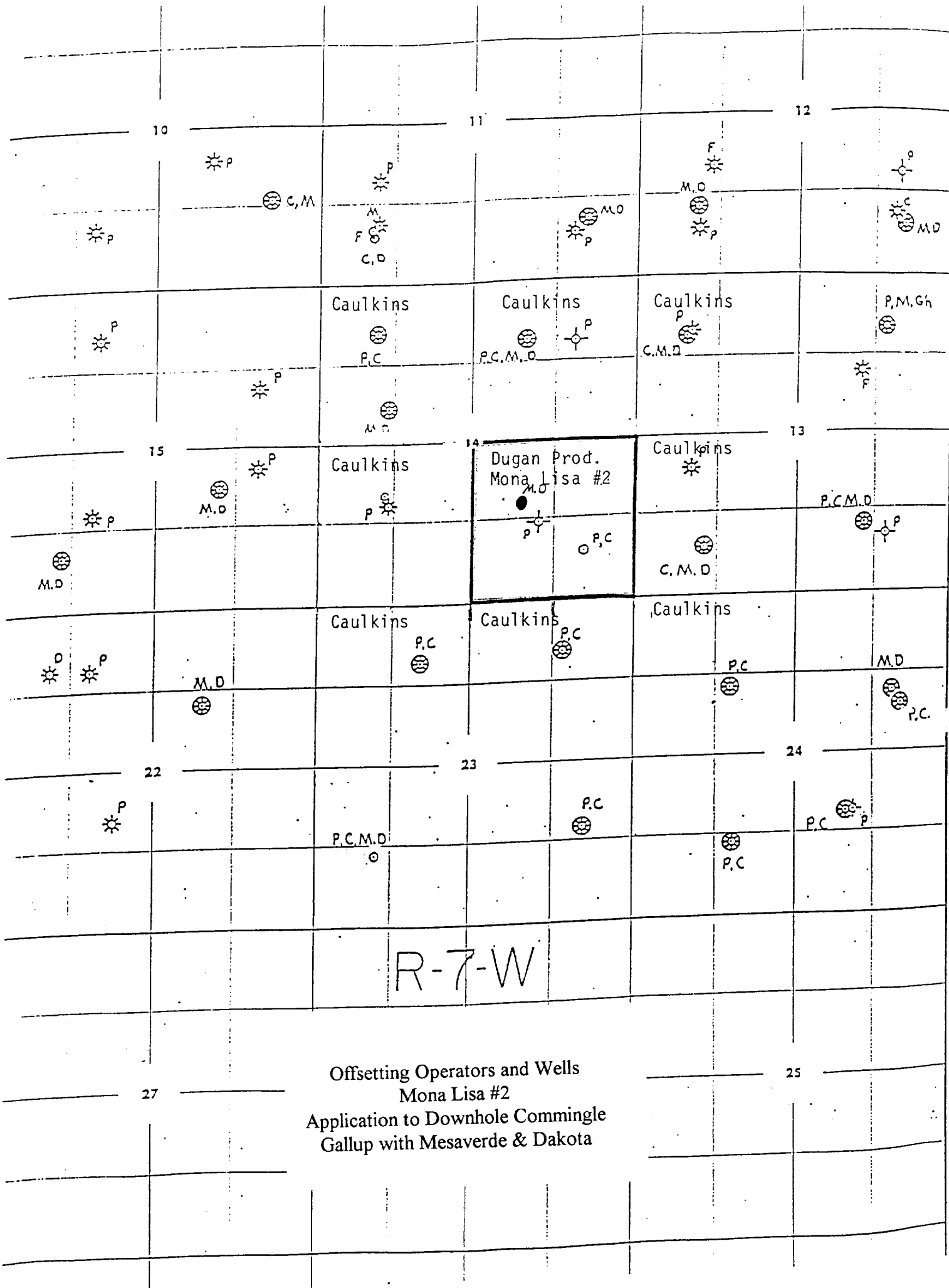
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres 160	13 Joint or Infill	14 Consolidation Code	15 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

16 				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature <u>John Alexander</u> Printed Name John Alexander Title Vice-President Date 4/13/98	
				18 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 August 26, 1997 Signature and Seal of <u>Edgar L. Risenhoover</u> Certificate Number 5979	

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2
6
N

--QUICK BHP--

Calculate BHP and Z-factor from surface shut-in pressure

04/09/98

WELL NAME : Breech 377 - Gallup
GAS GRAVITY: 0.73 % N2 0.00
CONDENSATE (YES=1): 1 % CO2 0.00 %
RESERVOIR TEMP: 130 'F % H2S 0.00 %
SURFACE TEMP: 60 'F Pc = 662.34 %
DEPTH OF ZONE: 6,674 feet Tc = 389.80

SURFACE PRES	BHP	Z	BHP/Z
psia	psia		psia
1,125	<u>1,388</u>	0.8206	1,691

*BHP assumed for
MONG LISA #2*

--QUICK BHP--

Calculate BHP and Z-factor from surface shut-in pressure

04/13/98

WELL NAME : Mona Lisa 2 Dakota @ Gallup mid-perf
GAS GRAVITY: 0.73 % N2 0.00
CONDENSATE (YES=1): 1 % CO2 0.00 %
RESERVOIR TEMP: 150 'F % H2S 0.00 %
SURFACE TEMP: 60 'F Pc = 662.34 %
DEPTH OF ZONE: 5,868 feet Tc = 389.80

SURFACE PRES	BHP	Z	BHP/Z
psia	psia		psia
2,154	2,616	0.8094	3,232

^
Dakota SI
PRESSURE

--QUICK BHP--

Calculate BHP and Z-factor from surface shut-in pressure

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WELL NAME : Mona Lisa 2 Gallup @ MV mid-perf
GAS GRAVITY: 0.73 % N2 0.00
CONDENSATE (YES=1): 1 % CO2 0.00 %
RESERVOIR TEMP: 150 'F % H2S 0.00 %
SURFACE TEMP: 60 'F Pc = 662.34 %
DEPTH OF ZONE: 4,670 feet Tc = 389.80

SURFACE PRES	BHP	Z	BHP/Z
psia	psia		psia
1,160	1,338	0.8469	1,579

This pressure from surface pressure calculated to give 1388
psi BHP for Gallup

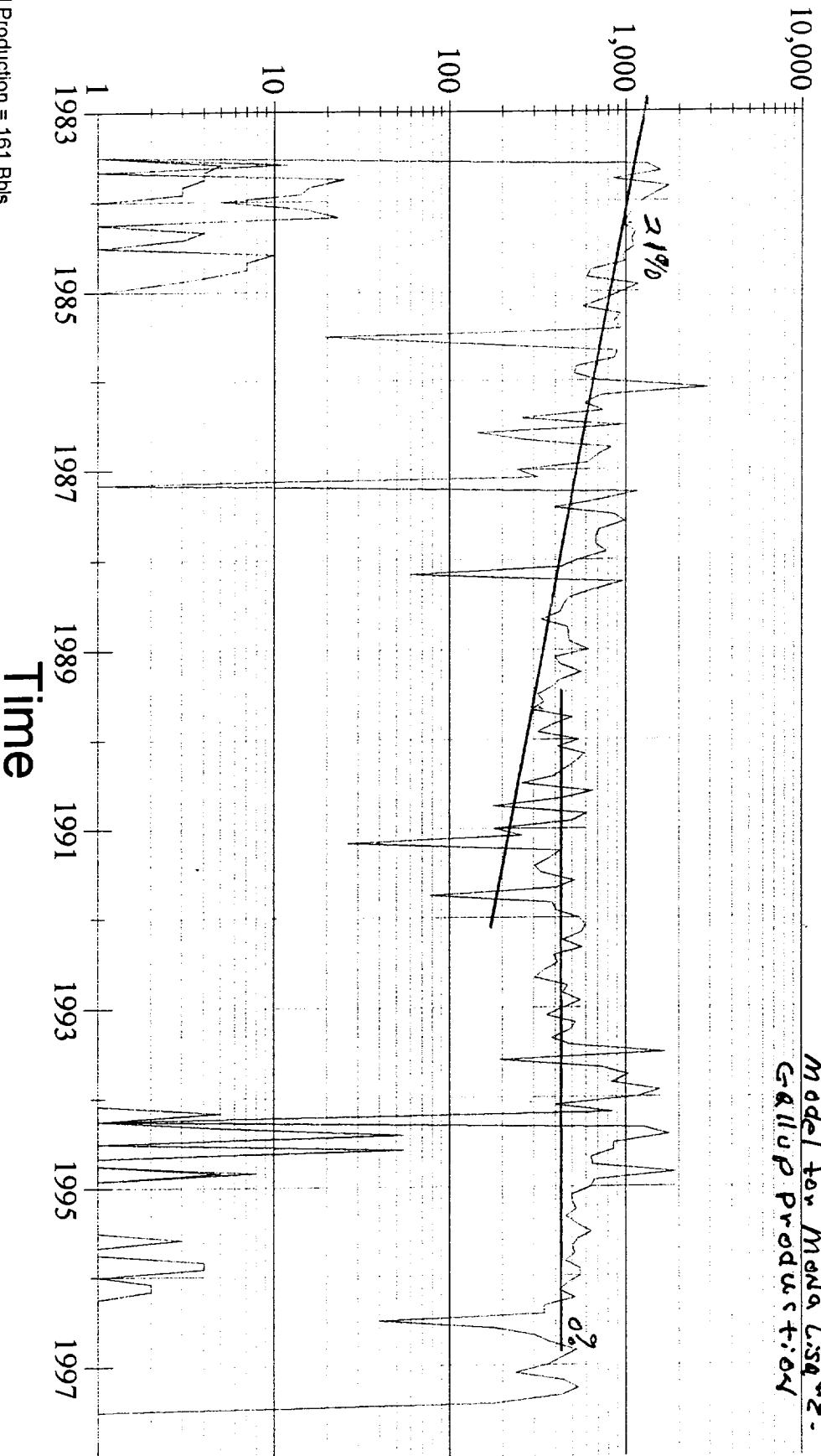
Dugan Production Corp.
Mona Lisa No. 2 (J--14-26N-R.7W)
Production Average for Offsetting Gallup Wells

Operator		API	Lease	Well Nbr	Spot	Section	Township	Range	Initial Monthly Prod		Initial Daily Prod	
UNIVERSAL RESOURCES		30-039-23134	LINDRITH	110E	C	10	26N	7W	MCFM	BCPM	MCFD	BCPD
BURLINGTON RESOURCES		30-039-23923	VAUGHN	32M	D	29	26N	6W	1000	10	32.89	0.33
BURLINGTON RESOURCES		30-039-21968	SANCHEZ A	2L		20	26N	6W	400	20	13.16	0.66
BURLINGTON RESOURCES		30-039-22264	VAUGHN	31B		29	26N	6W	7000	0	230.26	0.00
BURLINGTON RESOURCES		30-039-22264	VAUGHN	31B		29	26N	6W	700	6	23.03	0.20
BURLINGTON RESOURCES		30-039-20371	VAUGHN	13A		27	26N	6W	300	10	9.87	0.33
BURLINGTON RESOURCES		30-039-23937	KLEIN	28E	C	33	26N	6W	2000	70	65.79	2.30
Average Initial Monthly Rate									1900.00	19.33	62.50	0.64

Oil
Gas
Water
Wells

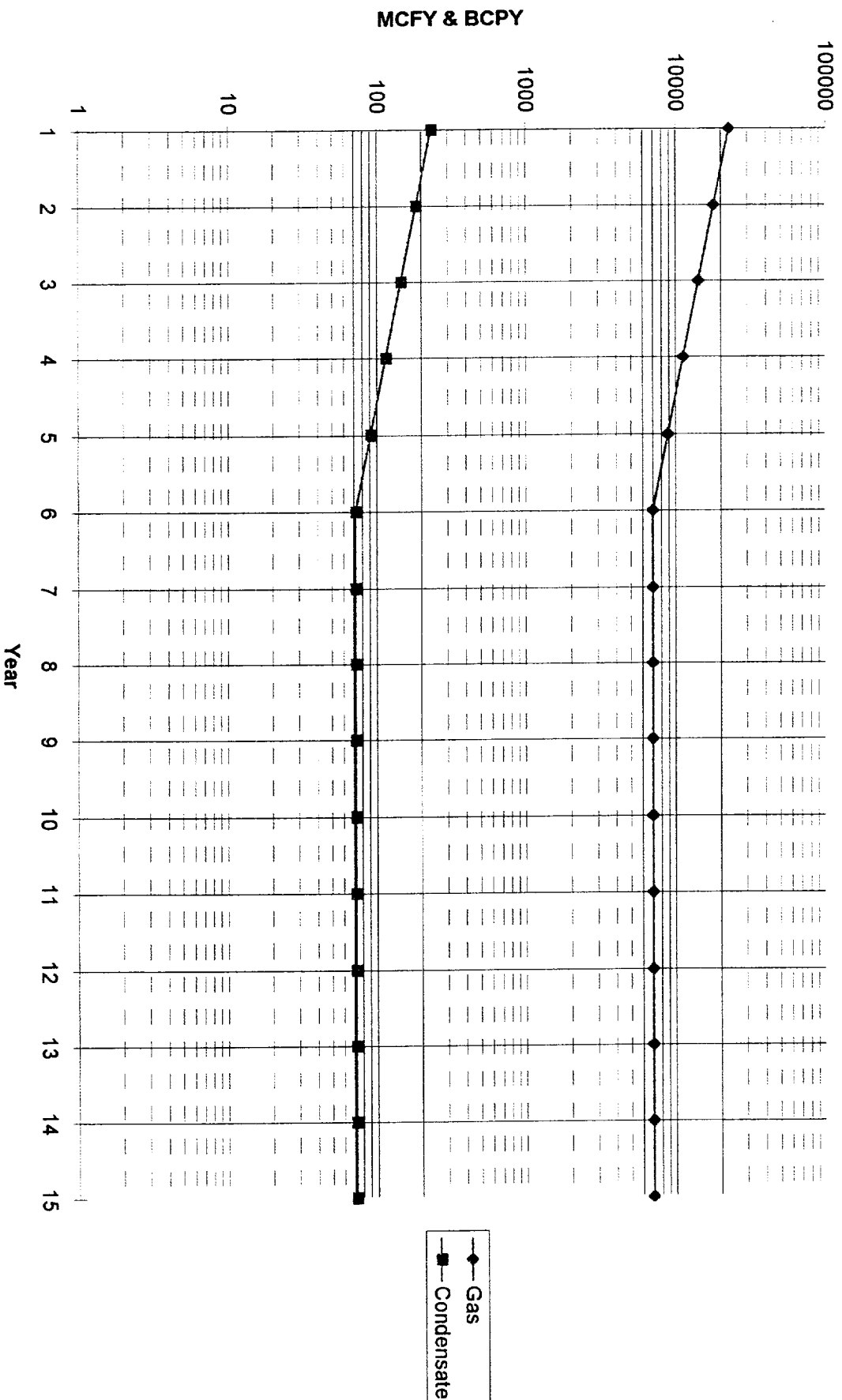
Field: LARGO
Lease: LINDRITH | Well #110E
Operator: UNIVERSAL RESOURCES CORPORATION
Production Rate vs Time
For the Period 01/1983 to 12/1997 | API: 30039231340000

Model for Model Lisa #2 -
Gallup Production



Reported Oil Production = 161 Bbls
Reported Gas Production = 102,159 Mcf
Reported Water Production = 190 Bbls

Mona Lisa #2 - Gallup Projected Yearly Production





709 E. MURRAY DR. • P. O. BOX 420 • FARMINGTON, N.M. 87499-0420 • PHONE: (505) 325-1821 • FAX# (505) 327-4613

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Shelby Tucker
Caulkins Oil Co.
P.O. Box 340
Sloomfield, NM 87413-0340

4a. Article Number

P 358 627 126

4b. Service Type

- ☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

4/16/98 C

5. Received By: (Print Name)

S.M. Feulmer

6. Signature: (Addressee or Agent)

X S.M. Feulmer

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

102595-97-8-0179

Domestic Return Receipt

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I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

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

4a. Article Number

P 358 627 125

4b. Service Type

- ☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: (Print Name)

George

6. Signature: (Addressee or Agent)

X George

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

102595-97-8-0179

Domestic Return Receipt

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