DISTRICT 1
P.O. Box 1980, Hobbs NM 88241-1980

DISTRICT II
811 South First St., Artesia , NM 88210-2835

DISTRICT III
1000 Rio Brazos Rd. Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A
New 3-12-96

APPROVAL PROCESS:
x Administrative __ Hearing

EXISTING WELLBORE
x YES __ NO

Amoco Production Company — Operator
PO Box 3092 Houston, TX 77253-3092 — Address
Hughes A — Lease
2E — Well No
O 27-29N-08W — Unit Ltr - Sec Twp - Rge
San Juan — County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. **000778** Property Code **000701** API NO. **30-045-25403** Federal X , State , (and/or) Fee

FEB 2000
RECEIVED
OIL CON. DIV
DIST. 3

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	**Blanco Mesaverde** **72319**		**Basin Dakota** **71599**
2. Top and Bottom of Pay Section (Perforations)	**4868' - 5625' EST**		**7521' - 7741'**
3. Type of production (Oil or Gas)	**Gas**		**Gas**
4. Method of Production (Flowing or Artificial Lift)	**Flowing**		**Flowing**
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current	a. (Current) **563 psig (est)**	a.	a. **884 psig**
All Gas Zones: Estimated or Measured Original	b. (Original) **2489 psig (est)**	b.	b. **3352 psig**
6. Oil Gravity (° API) or Gas BTU Content	**1264 BTU**		**1242 BTU**
7. Producing or Shut-In?	**New zone**		**Producing**
Production Marginal? (yes or no)	YES		YES
• If Shut-In, give data 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: Rates:	Date: Rates:	Date: Rates:
• If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: **01/11/2000** Rates: **48 MCFD** **0 BCPD** **0 BWPD**
8. Fixed Percentage Allocation Formula -% for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? X Yes ___ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ___ Yes ___ No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes ___ No

11. Will cross-flow occur? ___ Yes X No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. X Yes ___ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? X Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes X No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the Untied States Bureau of Land Management has been notified in writing of this application. ___ Yes X No NO FEDERAL OR STATE LANDS

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S).____________________

16. 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. SEE ATTACHED
- Notification list of all offset operators.
- Notification list of working, overriding, and royalty interests for uncommon interest cases.
- Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Mary Corley TITLE **Sr. Business Analyst** DATE **02/01/2000**

TYPE OR PRINT NAME **Mary Corley** TELEPHONE NO. (**281**) **366-4491**

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
311 South First., Artesia, NM 88210
DISTRICTIII
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Sante Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505

Form C-102
Revised October 18, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-25403	Pool Code 71599 & 72319	Pool Name Basin Dakota & Blanco Mesaverde

Property Code 000701	Property Name Hughes A	Well Number 2E
OGRID No. 000778	Operator Name AMOCO PRODUCTION COMPANY	Elevation 6675' GR

Surface Location

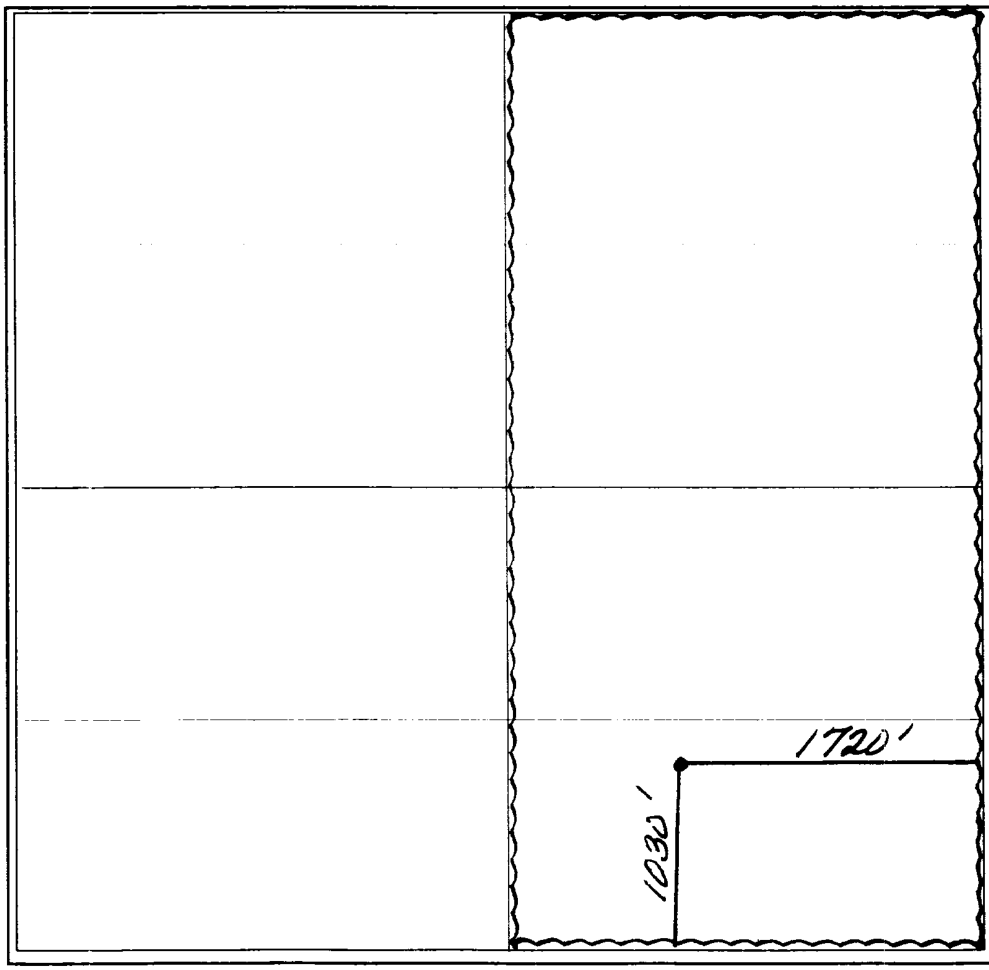
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
UNIT O	27	29N	8W		1030'	SOUTH	1720'	EAST	San Juan

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

Dedicated Acreage:	Joint or Infill	Consolidation Code	Order No.
320			

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



OPERATOR CERTIFICATION

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

Signature Mary Corley

Printed Name MARY CORLEY

Position
Sr. Business Analyst

Date
02/01/2000

SURVEY 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 knowledge and belief.

05/03/1982

Date of Survey

Signature & Seal of Professional Surveyor

Fred B. Kerr, Jr.

Certificate No.
3950

Hughes 1E
Pressure Data

DK	0.08	PC	0.04
MV	0.07	FT	0.04
		CK	0.04

WELL NAME: Hughes A 2E
FORMATION: DK
SURFACE PRESS: 274
PERFS TOP: 7521
BOTTOM: 7741

(7521 + 7741)/ 2 = 7631 Mid Perf
7631 x 0.08 = 610
610.48 + 274 = 884 **Bottom Hole Pressure**

Initial Bottom Hole Pressure= 3352 est.

WELL NAME: Hughes C 2A
FORMATION: MV
SURFACE PRESS: 210
PERFS TOP: 4898
BOTTOM: 6065

(4898 + 6065)/ 2 = 5482 Mid Perf
5481.5 x 0.07 = 384
383.71 + 210 = 594 **Bottom Hole Pressure**

Initial Bottom Hole Pressure= 2626 est.

WELL NAME: Hughes C 3
FORMATION: MV
SURFACE PRESS: 182
PERFS TOP: 4584
BOTTOM: 5432

(4584 + 5432)/ 2 = 5008 Mid Perf
5008 x 0.07 = 351
350.56 + 182 = 533 **Bottom Hole Pressure**

Initial Bottom Hole Pressure= 2352 est.

WELL NAME: Hughes 1E
FORMATION: MV
Initial Bottom Hole Pressure: (2626 + 2352) / 2 = 2489
Bottom Hole Pressure: (594 + 533) / 2 = 563 est.

Hughes C 2A + Hughes C 3 BBLS (308 + 215) / 2 = 262 est. annual production
Hughes C 2A + Hughes C 3 MCF (63537 + 56023) / 2 = 59780 est. annual production

ALLOCATION: SUBTRACTION METHOD

Hughes A 2E
Future Production Decline Estimate

Month	Gas Volume
Jan-2000	48
Feb-2000	48
Mar-2000	48
Apr-2000	47
May-2000	47
Jun-2000	47
Jul-2000	47
Aug-2000	46
Sep-2000	46
Oct-2000	46
Nov-2000	46
Dec-2000	45
Jan-2001	45
Feb-2001	45
Mar-2001	45
Apr-2001	45
May-2001	44
Jun-2001	44
Jul-2001	44
Aug-2001	44
Sep-2001	43
Oct-2001	43
Nov-2001	43
Dec-2001	43
Jan-2002	43
Feb-2002	42
Mar-2002	42
Apr-2002	42
May-2002	42
Jun-2002	42
Jul-2002	41
Aug-2002	41
Sep-2002	41
Oct-2002	41
Nov-2002	40
Dec-2002	40
Jan-2003	40
Feb-2003	40
Mar-2003	40
Apr-2003	39
May-2003	39
Jun-2003	39
Jul-2003	39
Aug-2003	39
Sep-2003	38
Oct-2003	38
Nov-2003	38
Dec-2003	38
Jan-2004	38
Feb-2004	38
Mar-2004	37
Apr-2004	37
May-2004	37
Jun-2004	37
Jul-2004	37
Aug-2004	36
Sep-2004	36
Oct-2004	36
Nov-2004	36
Dec-2004	36
Jan-2005	36
Feb-2005	35
Mar-2005	35
Apr-2005	35
May-2005	35
Jun-2005	35
Jul-2005	34
Aug-2005	34
Sep-2005	34
Oct-2005	34
Nov-2005	34
Dec-2005	34
Jan-2006	33
Feb-2006	33
Mar-2006	33
Apr-2006	33
May-2006	33
Jun-2006	33
Jul-2006	32
Aug-2006	32
Sep-2006	32
Oct-2006	32
Nov-2006	32
Dec-2006	32
Jan-2007	32
Feb-2007	31
Mar-2007	31
Apr-2007	31
May-2007	31
Jun-2007	31
Jul-2007	31
Aug-2007	30
Sep-2007	30
Oct-2007	30
Nov-2007	30
Dec-2007	30
Jan-2008	30
Feb-2008	30
Mar-2008	29
Apr-2008	29
May-2008	29
Jun-2008	29
Jul-2008	29
Aug-2008	29
Sep-2008	28
Oct-2008	28
Nov-2008	28
Dec-2008	28
Jan-2009	28
Feb-2009	28
Mar-2009	28
Apr-2009	28
May-2009	27
Jun-2009	27
Jul-2009	27
Aug-2009	27
Sep-2009	27
Oct-2009	27
Nov-2009	27
Dec-2009	26
Jan-2010	26
Feb-2010	26
Mar-2010	26
Apr-2010	26
May-2010	26
Jun-2010	26
Jul-2010	26
Aug-2010	25
Sep-2010	25
Oct-2010	25
Nov-2010	25
Dec-2010	25
Jan-2011	25
Feb-2011	25
Mar-2011	25
Apr-2011	24
May-2011	24
Jun-2011	24
Jul-2011	24
Aug-2011	24
Sep-2011	24
Oct-2011	24
Nov-2011	24
Dec-2011	23

Hughes A 2E
Future Production Decline Estimate

Month	Gas Volume
Jan-2012	23
Feb-2012	23
Mar-2012	23
Apr-2012	23
May-2012	23
Jun-2012	23
Jul-2012	23
Aug-2012	23
Sep-2012	22
Oct-2012	22
Nov-2012	22
Dec-2012	22
Jan-2013	22
Feb-2013	22
Mar-2013	22
Apr-2013	22
May-2013	22
Jun-2013	21
Jul-2013	21
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Feb-2018	16
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May-2019	15
Jun-2019	15
Jul-2019	15
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Nov-2019	15
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Feb-2020	14
Mar-2020	14
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May-2020	14
Jun-2020	14
Jul-2020	14
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Oct-2020	14
Nov-2020	14
Dec-2020	14
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Feb-2021	14
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May-2021	13
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Jul-2021	13
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Feb-2022	13
Mar-2022	13
Apr-2022	13
May-2022	13
Jun-2022	12
Jul-2022	12
Aug-2022	12
Sep-2022	12
Oct-2022	12
Nov-2022	12
Dec-2022	12
Jan-2023	12
Feb-2023	12
Mar-2023	12
Apr-2023	12
May-2023	12
Jun-2023	12
Jul-2023	12
Aug-2023	12
Sep-2023	12
Oct-2023	12
Nov-2023	11
Dec-2023	11

Hughes A 2E
Future Production Decline Estimate

Month	Gas Volume
Jan-2024	11
Feb-2024	11
Mar-2024	11
Apr-2024	11
May-2024	11
Jun-2024	11
Jul-2024	11
Aug-2024	11
Sep-2024	11
Oct-2024	11
Nov-2024	11
Dec-2024	11
Jan-2025	11
Feb-2025	11
Mar-2025	11
Apr-2025	11
May-2025	10
Jun-2025	10
Jul-2025	10
Aug-2025	10
Sep-2025	10
Oct-2025	10
Nov-2025	10
Dec-2025	10
Jan-2026	10
Feb-2026	10
Mar-2026	10
Apr-2026	10
May-2026	10
Jun-2026	10
Jul-2026	10
Aug-2026	10
Sep-2026	10
Oct-2026	10
Nov-2026	10
Dec-2026	10

Month	Gas Volume
Jan-2027	9
Feb-2027	9
Mar-2027	9
Apr-2027	9
May-2027	9
Jun-2027	9
Jul-2027	9
Aug-2027	9
Sep-2027	9
Oct-2027	9
Nov-2027	9
Dec-2027	9
Jan-2028	9
Feb-2028	9
Mar-2028	9
Apr-2028	9
May-2028	9
Jun-2028	9
Jul-2028	9
Aug-2028	9
Sep-2028	9
Oct-2028	9
Nov-2028	8
Dec-2028	8
Jan-2029	8
Feb-2029	8
Mar-2029	8
Apr-2029	8
May-2029	8
Jun-2029	8
Jul-2029	8
Aug-2029	8
Sep-2029	8
Oct-2029	8
Nov-2029	8
Dec-2029	8

Month	Gas Volume
Jan-2030	8
Feb-2030	8
Mar-2030	8
Apr-2030	8
May-2030	8
Jun-2030	8
Jul-2030	8
Aug-2030	8
Sep-2030	8
Oct-2030	8
Nov-2030	7
Dec-2030	7
Jan-2031	7
Feb-2031	7
Mar-2031	7
Apr-2031	7
May-2031	7
Jun-2031	7
Jul-2031	7
Aug-2031	7
Sep-2031	7
Oct-2031	7
Nov-2031	7
Dec-2031	7
Jan-2032	7
Feb-2032	7
Mar-2032	7
Apr-2032	7
May-2032	7
Jun-2032	7
Jul-2032	7
Aug-2032	7
Sep-2032	7
Oct-2032	7
Nov-2032	7
Dec-2032	7

Month	Gas Volume
Jan-2033	7
Feb-2033	7
Mar-2033	7
Apr-2033	6
May-2033	6
Jun-2033	6
Jul-2033	6
Aug-2033	6
Sep-2033	6
Oct-2033	6
Nov-2033	6
Dec-2033	6
Jan-2034	6
Feb-2034	6
Mar-2034	6
Apr-2034	6
May-2034	6
Jun-2034	6
Jul-2034	6
Aug-2034	6
Sep-2034	6
Oct-2034	6
Nov-2034	6
Dec-2034	6
Jan-2035	6
Feb-2035	6
Mar-2035	6
Apr-2035	6
May-2035	6
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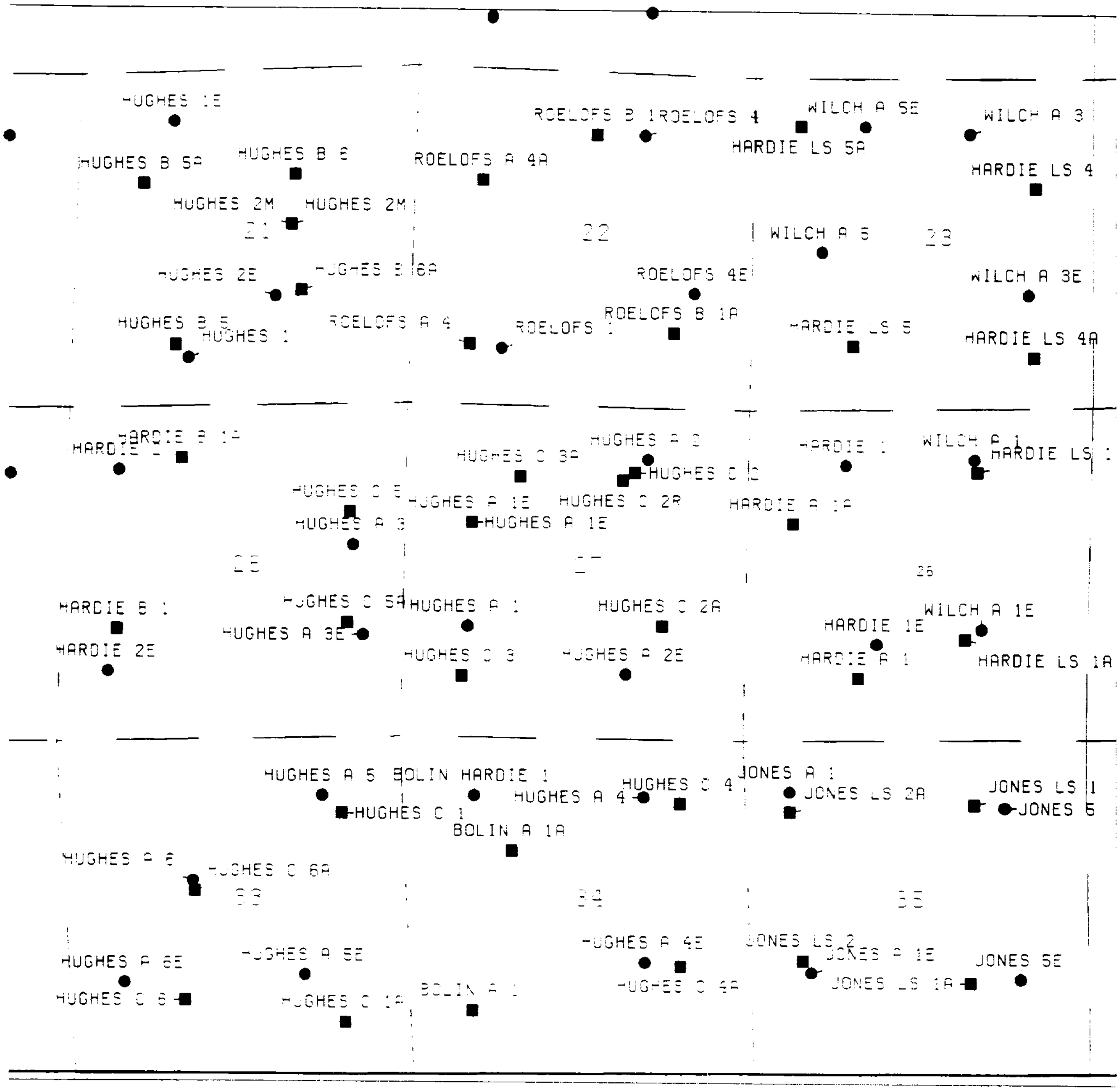
Nov-2035	6
Dec-2035	6



■ *Mesaverde*
● *Dakota*

AMOCO PRODUCTION COMPANY
HOUSTON, TX

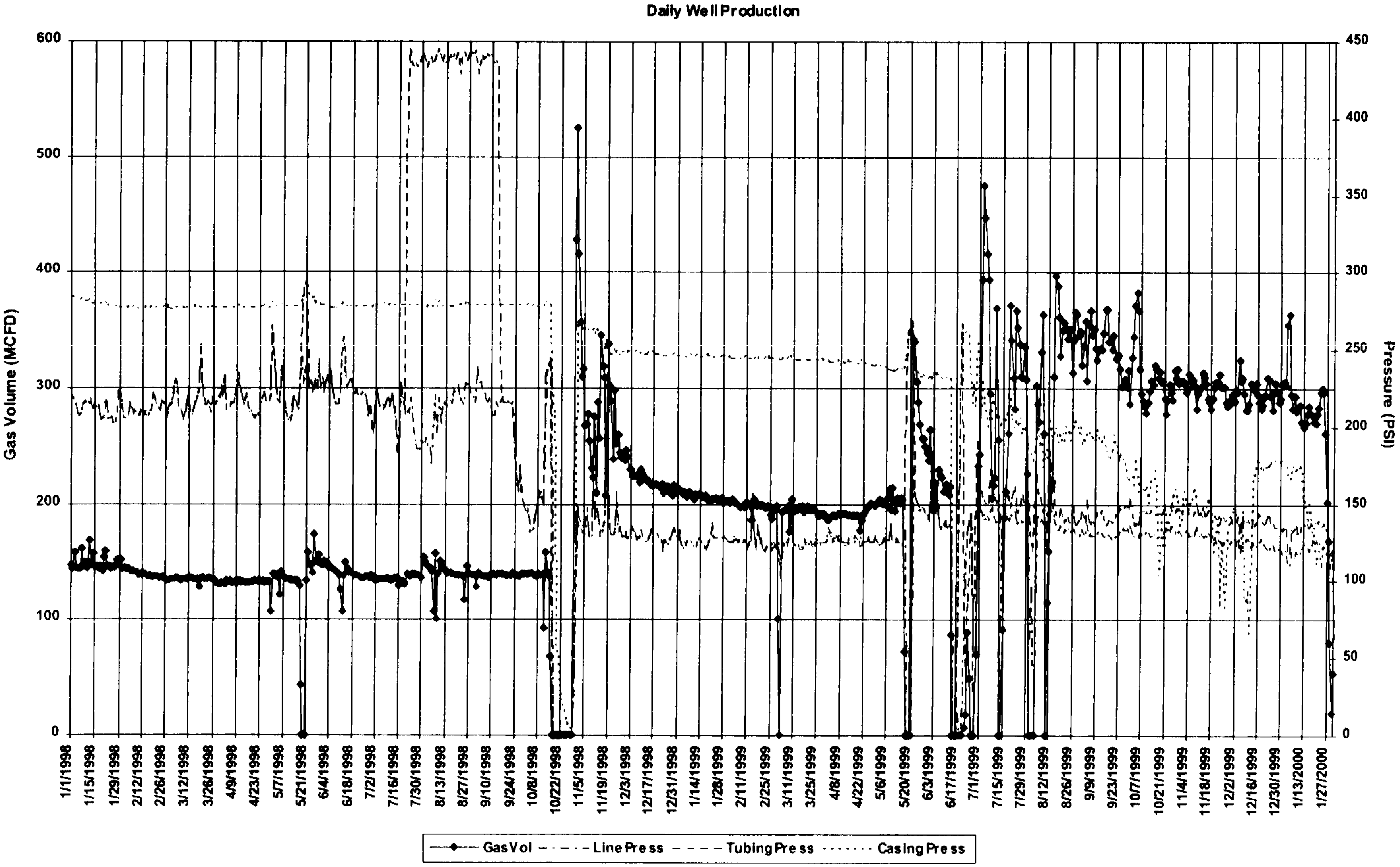
WESTERN GAS BUSINESS UNIT

MESAVERDE & DAKOTA WELLS
T29N R8W SEC 27
[REF. HUGHES A 2E]

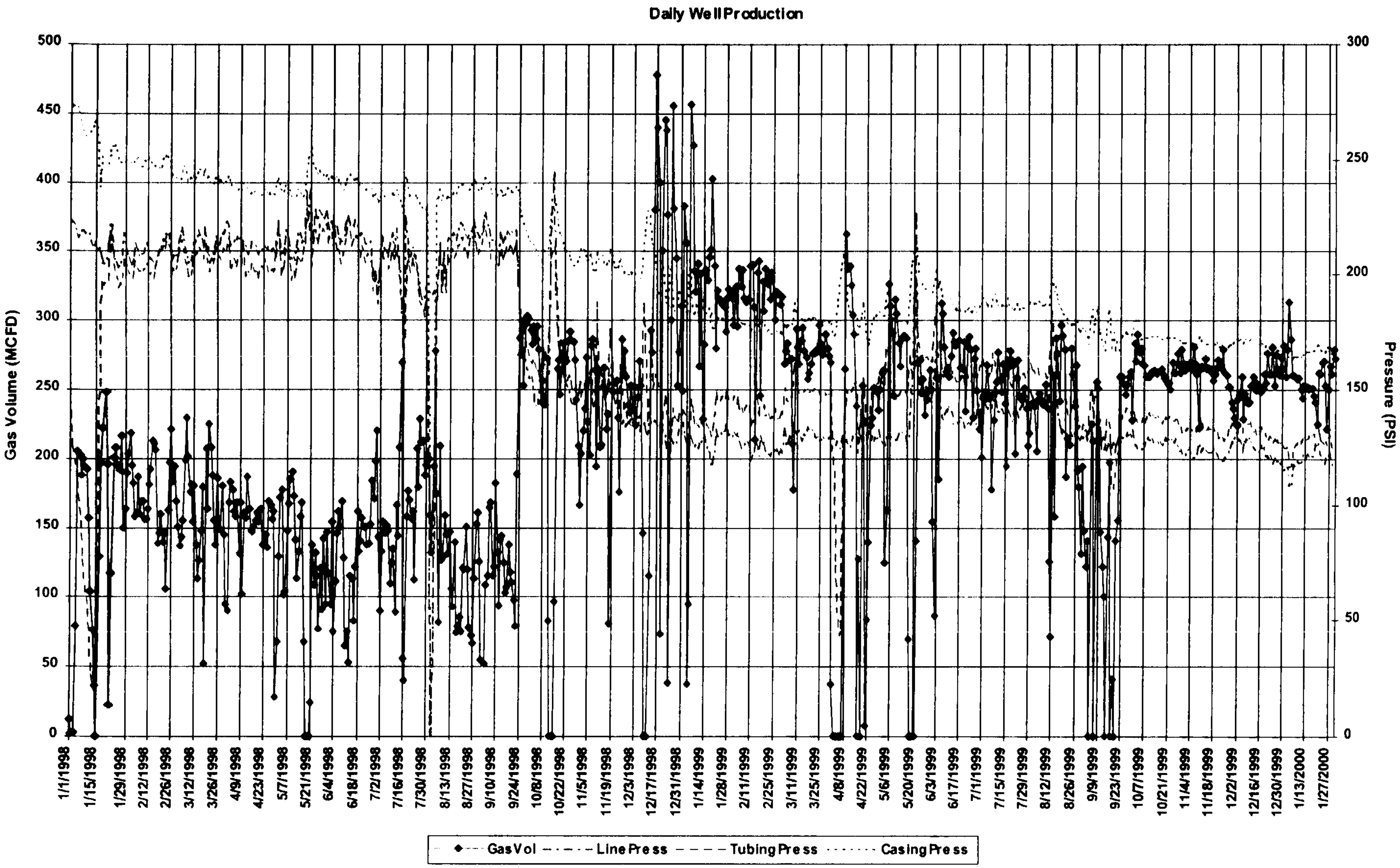
SCALE 1"=2500' DRAWN M. J. PITZ DATE 1-FEB-2002

DRAWING

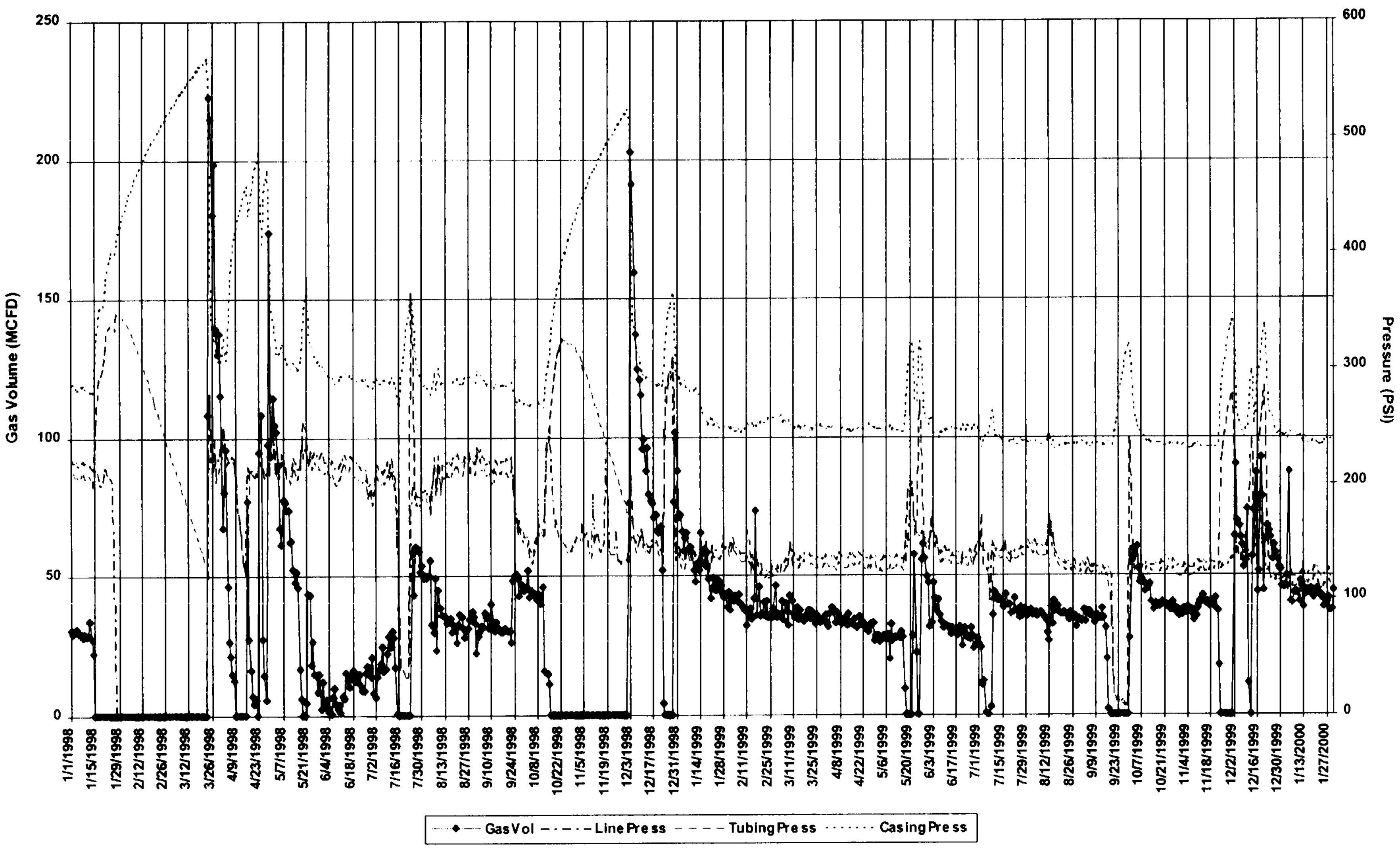
Wellname: **HUGHES C 003-MV** Flacwell: **97860501** API: **300450776400** Amoco - OIDB/Synergy Data



Wellname: **HUGHES C 002A-MV** Flacwell: **97939401** API: **300452272200** Amoco - OIDB/Synergy Data


Daily Well Production

Wellname: **HUGHES A 002E-DK** Flacwell: **97978801** API: **300452540300** Amoco - OIDB/Synergy Data


Daily Well Production