

DHC = 8/2/99  
2405



**Cross Timbers Operating Company**

July 6, 1999

Ms. Lori Wrotenbery  
New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

JUL 12 1999

Re: Administrative Approval to Downhole Commingle  
Cross Timbers Operating Co.  
Schwerdtfeger A #5E  
1,060 FEL, 850' FNL Sec. 6, T27N, R08W  
San Juan County, New Mexico

Dear Ms. Wrotenbery,

Cross Timbers Operating Company hereby request administrative approval to downhole commingle the undesignated Gallup and Basin Dakota pools in the above mentioned well. The Gallup formation was recently perforated and completed in order to determine economic justification. Currently the Dakota formation has been plugback and only the Gallup formation is flowing to sales. In order to determine long term benefit and future re-completion practices, Cross Timbers feels that if the two formations are downhole commingled then economic justification can be obtained quicker based on the following reasons. 1) Returning the Dakota formation back to production, 2) eliminating the need for redundant sub-surface and surface production equipment and 3) using various types of artificial lift and compression to explore production optimization and formation response. Supporting documentation used for allocation determination is enclosed.

To comply with New Mexico Oil Conservation Rules, Cross Timbers Operating Co is submitting the following data for your approval of the proposed commingling:

1. C-107A Application for Downhole Commingle
2. C-102 Well Location & Acreage Dedication Plat
3. Production curves for the Dakota Formation
4. Offset Operators Plat
5. Well Location Plat

In accordance to New Mexico Oil Conservation Division Rule 303C, all offset operators are being notified of this application by certified mail. As an offset operator, if you do not have any objections to this application, you do not have to respond to this notification.

If additional information is needed, please feel free to contact Cross Timbers Operating Co.



**Cross Timbers Operating Company**

Sincerely,

Jeffery W. Patton  
Production Engineer

CC: NMOCD –Aztec, Offset Operators, BLM, wellfile

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

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

OIL CONSERVATION DIVISION

APPROVAL PROCESS:  
 Administrative  Hearing

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

2040 S. Pacheco  
Santa Fe, New Mexico 875054-6429

EXISTING WELLBORE  
 YES  NO

APPLICATION FOR DOWNHOLE COMMINGLING

Cross Timbers Operating Company 2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401  
Operator Address

Schwerdtfeger A #5E A 6 27N 08W San Juan  
Lease Well No. Unit Ltr. - Sec - Twp - Rge County

OGRID NO. 167067 Property Code 022634 API NO. 30-045-24790 Spacing Unit Lease Types: (check 1 or more)  
Federal  State  (and/or) Fee

The following facts are submitted in support of downhole commingling.	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Undesg. Gallup		Basin Dakota 71599
2. Top and Bottom of Pay Section (Perforations)	6,111' - 6,554' (perf'd)		7,042' - 7,147' (perf'd)
3. Type of production (Oil or Gas)	Oil & 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 All Gas Zones: Estimated Or Measured Original	a. (Current) 385 psig (calc)	a.	a. 474 psig (calc)
	b. (Original) 980 psig (calc)	b.	b. 1,340 psig (calc)
6. Oil Gravity ( <sup>o</sup> API) or Gas BTU Content)	40.6 grav / 1186 BTU		1156 BTU
7. Producing or Shut-In?	Producing		Shut In
Production Marginal? (yes or no)	yes		yes
* If Shut-In, give 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: Rates:	Date: Rates:	Date: 6/1/99 Rates: 0 bopd/20 MCFPD/0 bwpd
	Date: 7/7/99 Rates: 2 bopd/50 MCFPD/0 bwpd	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 88% Gas: 71%	Oil: % Gas: %	Oil: 12% Gas: 29%

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?  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?  Yes  No
11. Will cross-flow occur?  Yes  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.  Yes  No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other?  Yes  No
13. Will the value of production be decreased by commingling?  Yes  No (If Yes, attach explanation)
14. If this well in on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application.  Yes  No
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.  
\* 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 Jeffery W. Patton TITLE Production Engineer DATE 7/7/99  
TYPE OR PRINT NAME Jeffery W. Patton TELEPHONE NO( 505 ) 324-1090

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 S. 1st Street, Artesia, NM 88210-2834  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Submit to Appropriate District O  
State Lease - 4 Copie  
Fee Lease - 3 Copie

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-24790		<sup>2</sup> Pool Code 71599 (Dakota)		<sup>3</sup> Pool Name Undesignated Gallup / Basin Dakota	
<sup>4</sup> Property Code		<sup>5</sup> Property Name Schwerdtfeger A			<sup>6</sup> Well Number #5E
<sup>7</sup> OGRID No. 167067		<sup>8</sup> Operator Name Cross Timbers Operating Company			<sup>9</sup> Elevation 6,456'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	6	27N	08W		850	North	1,060	East	San Juan

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

	<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p style="text-align: right;"><i>Jeffery W. Patton</i></p> <p>Signature Jeffery W. Patton Printed Name Production Engineer Title 07/08/99 Date</p>
	<p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p style="text-align: center;">Aug. 7, 1980</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyer: ORIGINAL SIGNED BY FRED B KERR, JR.</p> <p style="text-align: center;"># 3950</p> <p>Certificate Number</p>



**Cross Timbers Operating Company**

Mr. David Catanach  
New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Re: Administrative Approval to Downhole Commingle  
Cross Timbers Operating Co.  
Schwerdtfeger A #5E  
1,060' FEL, 850' FNL Sec. 6, T27N, R08W  
San Juan County, New Mexico

Dear Offset Operator,

As an offset operator to the above mentioned well, you are hereby notified that Cross Timbers Operating Co is filing for downhole commingle approval.

If you do not have any objections to the above well being commingled, you can either sign this letter waiving your rights to an objection or let the twenty days, upon receipt of this letter, expire.

Please return this letter or a letter of objection to Mr. David Catanach at the above address.

Cross Timbers Oil Co sincerely appreciate your prompt response concerning this approval.

Energen Resources Corp.	Signature:
Amoco Production Company	Signature:



**Cross Timbers Operating Company**

**Schwerdtfeger A #5E**  
**Offset Operator / Ownership Plat**  
**Undesignated Gallup / Basin Dakota**  
**Downhole Commingle**

Township 27 N, Range 08 W

1. Energen Resources Corp.  
2198 Bloomfield Hwy  
Farmington, NM 87401
2. Amoco Production Company  
200 Amoco Ct.1717 Main  
Farmington, NM 87401
3. Cross Timbers Operating Co.  
2900 Farmington Ave. Bldg K, Suite 1  
Farmington, NM 87401

AMOCO  
2 408  
0 0 0  
0186-0488  
DKOT

TZLN ROAW

NOCK A 8  
BURLINGTON RES  
1180  
02  
0187  
PCPF

KA 18  
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338  
28  
1887  
DR

C1  
ROBO  
128  
18  
197

S 18  
25

HEB 18  
N RES  
0  
17

EPD 6  
RO 60  
49  
75  
1187  
20

18  
RES  
3  
187

ILL 4 8  
0 6 4 2  
231  
0 197  
0 17

LL 6 11  
TAP 0 4 2  
7 0 3  
82  
1187  
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COM 18  
RES  
57

DAKOTA

AMOCO

AMOCO

DAKOTA

DAKOTA

DAKOTA

TZLN ROBW

DAKOTA

DAKOTA

AMOCO

ENERGEN  
RESOURCES

DAKOTA

DAKOTA

36

31

32

BLANCO 1  
FOUR STAR O&G  
12 2070  
0 111  
0854-1187  
MVRD

SCHWERTFEGER A 2  
CTOC  
08-11870188-1187  
MVRDDKOT

SCHWERTFEGER A 17  
DBA 7238  
EL PASO NATURAL GAS  
5/12/1981

FLAN 3  
BURLINGTON RES  
DBA 2439  
EL PASO NATURAL GAS  
9/12/1958

FLAN 4  
BURLINGTON RES  
FLAN 5  
BURLINGTON RES  
FLAN 6  
BURLINGTON RES  
FLAN 7  
BURLINGTON RES

TZLN ROAW

TZLN ROBW

1

6

5

JG MARSHALL 1  
FOUR STAR O&G  
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0 24  
0854-1187  
PCPF

DAHLBAND ET AL 1  
TAURUS EXPL.  
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SCHWERTFEGER A 3E  
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08-11870087-11870082-1187  
CHGRMVRDDKOT

SCHWERTFEGER A 8  
CTOC  
170 431845  
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0788-11870188-1187  
MVRDDKOT

FLAN 8  
BURLINGTON RES  
08-11870084  
00 5471  
MVRDDKOT

FLAN 9  
BURLINGTON RES  
08-11870085  
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MVRDDKOT

CHARLES ET AL 2  
BURLINGTON RES  
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0854-1188  
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CHARLEY PAH 2  
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PCPF

SCHWERTFEGER A 12  
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SCHWERTFEGER A 9  
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SCHWERTFEGER A 10  
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SCHWERTFEGER A 11  
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CHARLEY PAH 4  
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DAY B 5  
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SCHWERTFEGER A 14  
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JOHN CHARLES 7E  
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JOHN CHARLES 7A  
FOUR STAR O&G  
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0854-1187  
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DAY B 6  
BURLINGTON RES  
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0788-1187  
PCPF

DAY B 7  
BURLINGTON RES  
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0788-1187  
PCPF

SCHWERTFEGER A 15  
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0 10  
1088-1187  
PCPF

SCHWERTFEGER A 16  
CTOC  
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1088-1187  
PCPF

JOHN CHARLES 8  
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1188-0288  
PCPF

JOHN CHARLES 8A  
FOUR STAR O&G  
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CHGRMVRD

DAY B 8  
BURLINGTON RES  
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0788-1187  
PCPF

DAY B 9  
BURLINGTON RES  
0 11  
0788-1187  
PCPF

SCHWERTFEGER A 17  
CTOC  
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PCPF

SCHWERTFEGER A 18  
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1088-1187  
PCPF

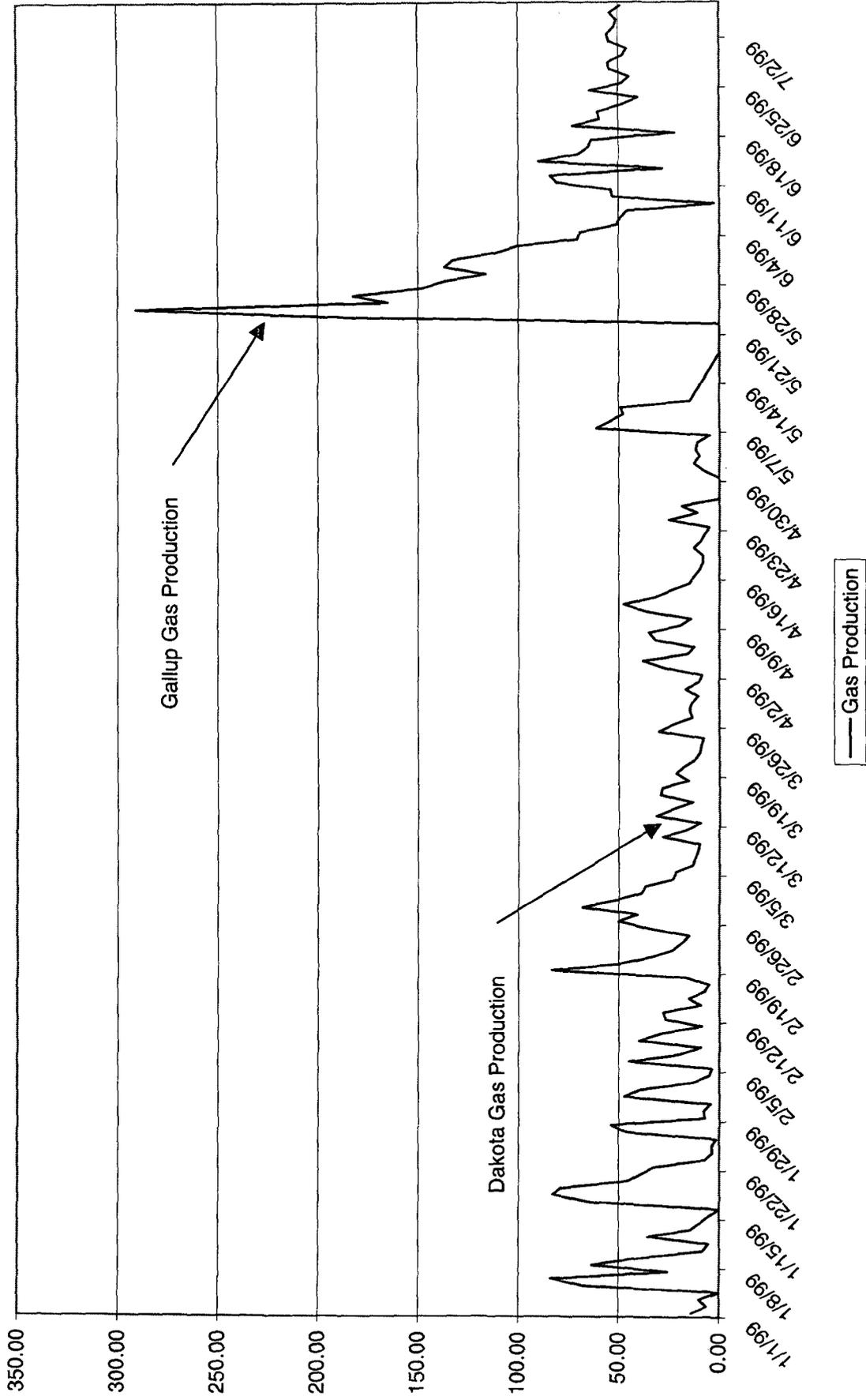
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PCPF

SCHWERTFEGER A 20  
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PCPF

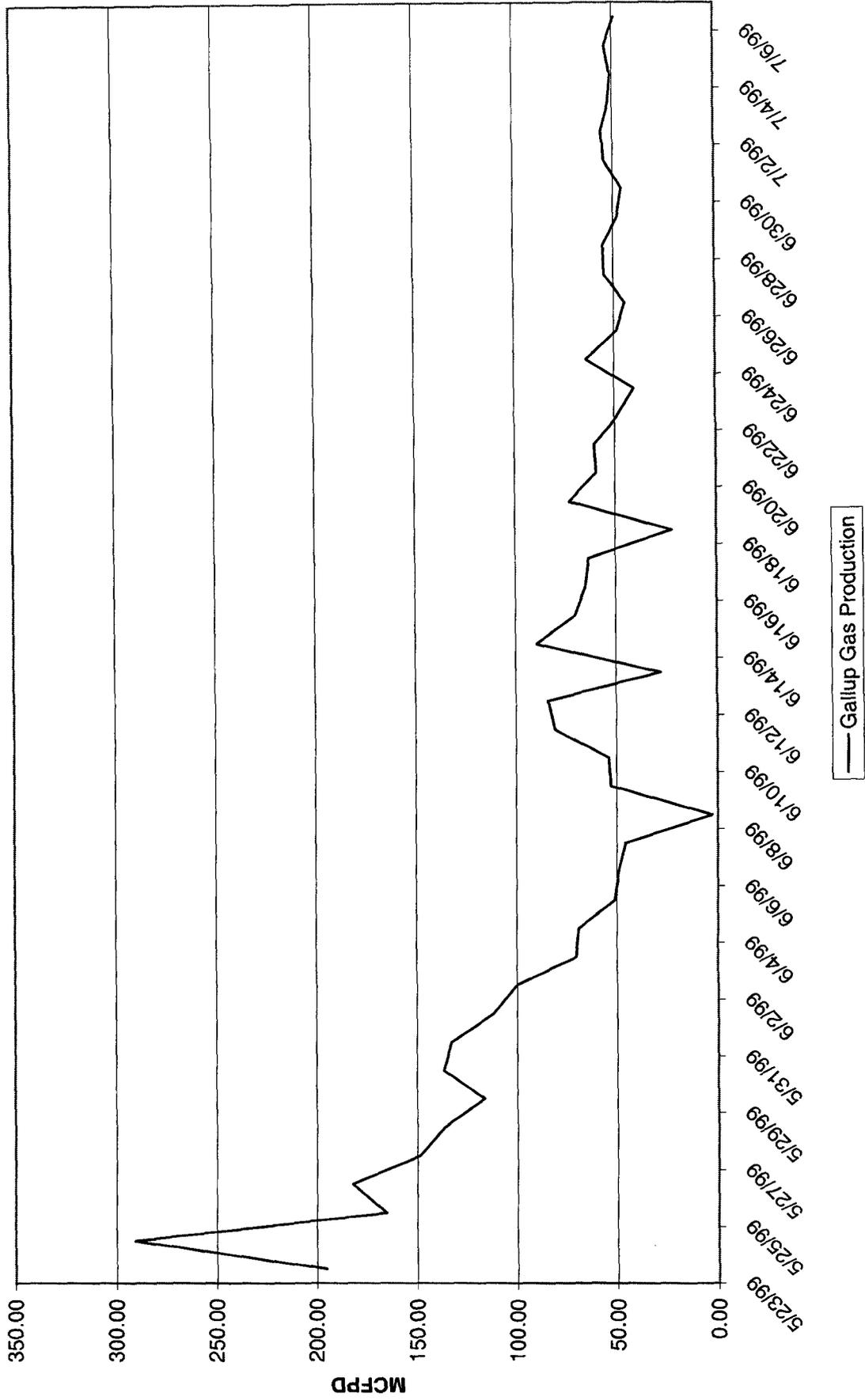
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CTOC  
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# Schwerdfeger A #5E



# Schwerdtfeger A #5E



# Schwerdtfeger A #5E

