



AMOCO PRODUCTION COMPANY

Application for Qualification of Well  
Workover Project

Canyon No. 5 Well

NMOCD CASE NO. 11555  
JUNE 27, 1996

CAMPBELL, CARR, BERGE  
& SHERIDAN, P.A.  
LAWYERS

MICHAEL B. CAMPBELL  
WILLIAM F. CARR  
BRADFORD C. BERGE  
MARK F. SHERIDAN

MICHAEL H. FELDEWERT  
TANNIS L. FOX  
TANYA M. TRUJILLO  
PAUL R. OWEN

JACK M. CAMPBELL  
OF COUNSEL

**HAND DELIVERY**

JEFFERSON PLACE  
SUITE 1 - 110 NORTH GUADALUPE  
POST OFFICE BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
TELEPHONE: (505) 988-4421  
TELECOPIER: (505) 983-6043

June 5, 1996

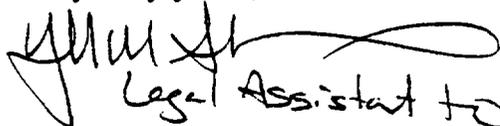
William J. LeMay, Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Re: Application of Amoco Production Company for Qualification of the  
Canyon No. 5 Well Workover Project and Certification of Approval, San  
Juan County, New Mexico

Dear Mr. LeMay:

Enclosed in triplicate is an Application of Amoco Production Company in the above-referenced case. Also enclosed is a draft of a legal advertisement for this case. Amoco Production Company requests that this case be set for hearing before a Division Examiner on June 27, 1996.

Very truly yours,



Legal Assistant to

WILLIAM F. CARR

WFC:jar

Enclosures

cc: Ms. Pam Staley (w/enclosures)  
Amoco Production Company  
Mr. Frank Chavez, District Supervisor (w/enclosures)  
Oil Conservation Division, District III

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATION  
OF AMOCO PRODUCTION COMPANY FOR  
QUALIFICATION OF A WELL WORKOVER  
PROJECT AND CERTIFICATION OF APPROVAL,  
SAN JUAN COUNTY, NEW MEXICO.

CASE NO. \_\_\_\_\_

APPLICATION

AMOCO PRODUCTION COMPANY ("Amoco"), through its undersigned attorneys, hereby seek an order from the Division pursuant to the Rules and Procedures for Qualification of a Well Workover Project and Certification for the Well Workover Incentive Tax Rate promulgated by Division Order No. R-10505, entered in Case 11273 on November 1, 1995, and in support hereof states:

1. Amoco is the operator of the Canyon No. 5, Unit O, 800 feet from the South line and 1840 feet from the East line, Section 3, Township 25 North, Range 11 West, located in San Juan County, New Mexico, upon which it has undertaken procedures that have been approved by the Division which are intended to increase the production therefrom.

2. The workover procedure on the subject well commenced after June 16, 1995.

3. Amoco filed an Application for Qualification of Well Workover Project and Certification of Approval For the subject well on April 25, 1996, to which it attached a straight line estimate of the production rate of the well and table showing monthly gas project

production from the well based on at least twelve months of established production which shows the future rate of production based on well performance prior to performing the workover.

4. The use of a straight line estimate of the future production rate for the well prior to performing the workover should be another acceptable method of projecting the future production rate for workover projects for:

- A. it will be easy for operators to prepare;
- B. it will be easy for the Division and the Department of Taxation and Revenue to read and confirm the accuracy of the data contained therein;  
and
- C. it does not violate the intent of the " Natural Gas and Crude Oil production Incentive Act" for it will result in an estimate of future production that will limit the amount of oil or gas which will qualify for the Incentive Tax Rate authorized therein.

5. The application filed for the subject well was complete, accurate and properly verified as required by Division rules.

6. The Division's Aztec District Office declined to approve this application within thirty days of the date it was filed and advised Amoco that, if it desired to utilize a straight line estimate of production prior to performing the workover, it would have to request that the application be set for hearing before a Division hearing Examiner in accordance with the

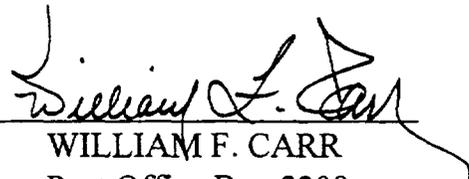
rules of the Division.

7. Approval of this application and the use of straight line estimates of production prior to performing the workovers on the subject well will be consistent with law, the prevention of waste and the protection of correlative rights.

WHEREFORE, Amoco Production Company requests that this application be set for hearing before a duly appointed Examiner of the Oil Conservation on June 27, 1996 and that, after notice and hearing as required by law, the Division enter its Order (1) granting this application, (2) qualifying the subject well as a Well Workover Project and (3) certifying the production projection for the project.

Respectfully submitted,

CAMPBELL, CARR, BERGE &  
SHERIDAN, P.A.

By:   
WILLIAM F. CARR  
Post Office Box 2208  
Santa Fe, New Mexico 87504-2208  
Telephone: (505) 988-4421

ATTORNEYS FOR AMOCO PRODUCTION  
COMPANY

CASE \_\_\_\_\_:

Application of Amoco Production Company for qualification of a well workover project and certification of approval, San Juan County, New Mexico. Applicant seeks an order qualifying the Canyon No. 5, Unit O, 800 feet from the South line and 1840 feet from the East line, Section 3, Township 25 North, Range 11 West, N.M.P.M., as a well workover project for the incentive tax rate authorized by the Natural Gas and Crude Oil Production Incentive Act and the Rules and Procedures for Qualification of Well Workover Projects and Certification for the Well Workover Incentive Tax Rate promulgated by Division Order No. R-10505. Said well is located approximately \_\_\_\_\_ miles \_\_\_\_\_ of \_\_\_\_\_, New Mexico.



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

AZTEC DISTRICT OFFICE  
1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON  
GOVERNOR

JENNIFER A. SALISBURY  
CABINET SECRETARY

May 10, 1996

Patricia J. Haefele  
Amoco Production Company  
PO Box 800  
Denver CO 80201

Re: C-140 Application for Canyon #5 O-3-25N-11W 30-045-21315

Dear Patricia:

The referenced application is hereby denied. The method of determining the future rate of production is not acceptable.

As per Rule 1140 you may request a hearing on this application.

Sincerely,

A handwritten signature in black ink, appearing to read "F. Chavez".

Frank T. Chavez  
District Supervisor

FTC\sh

cc: well file

District I - (305) 393-6161  
PO Box 1980  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
811 S. First  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Road  
Aztec, NM 87410  
District IV

New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Form C-140  
Originated 11/1/95  
Submit Original  
Plus 2 Copies  
to appropriate  
District Office

APPLICATION FOR  
QUALIFICATION OF WELL WORKOVER PROJECT  
AND CERTIFICATION OF APPROVAL

THREE COPIES OF THIS APPLICATION MUST BE FILED WITH THE APPROPRIATE DISTRICT OFFICE OF THE OIL CONSERVATION DIVISION.

I. Operator: Amoco Production Company OGRID #: 000778

Address: P.O. Box 800, Denver, Colorado 80201

Contact Party: Patricia J. Haefele Phone: (303) 830-4988

II. Name of Well: Canyon #5 API #: 3004521315

Location of Well: Unit Letter O, 800 Feet from the South line and 1840 Feet from the East line, Section 3, Township 25N, Range 11W, NMPM, San Juan County.

III. Date Workover Procedures Commenced: 7/13/95

Date Workover Procedures were Completed: 8/4/95

IV. Attach a description of the Workover Procedures undertaken to increase the projection from the Well.

V. Attach an estimate of the production rate of the Well (a production decline curve or other acceptable method, and table showing monthly oil and/or gas Project Production) based on at least twelve (12) months of established production which shows the future rate of production based on well performance prior to performing Workover.

VI. Pool(s) on which Production Projection is based:

Basin Dakota

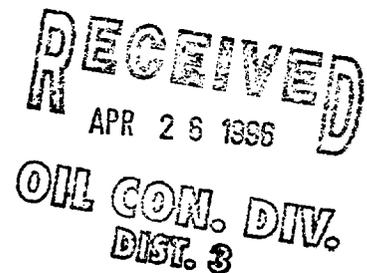
VII. AFFIDAVIT:

State of Colorado )  
) ss.  
County of Denver )

Patricia J. Haefele, being first duly sworn, upon oath states:

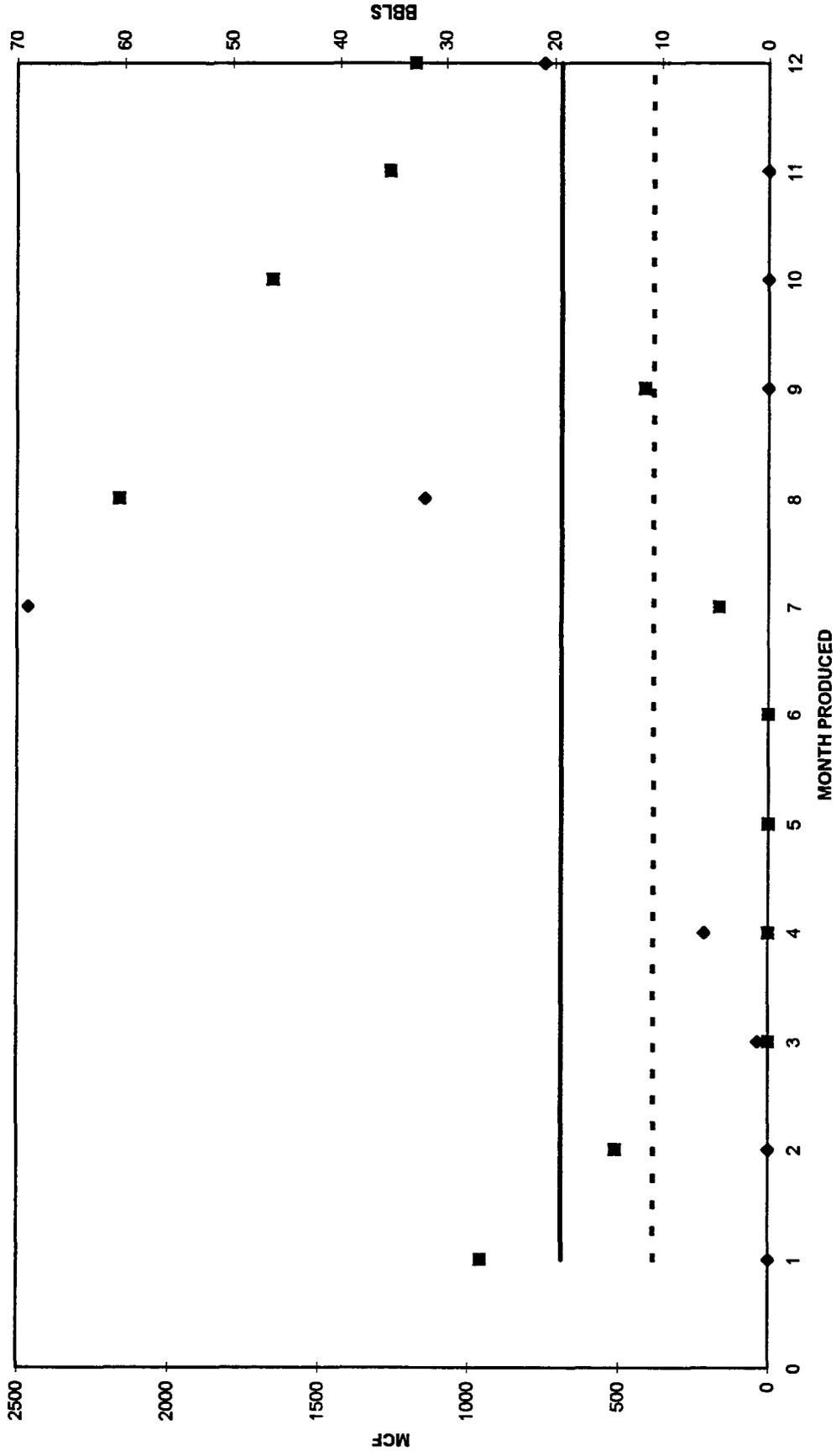
1. I am the Operator or authorized representative of the Operator of the above referenced Well.
2. I have made, or caused to be made, a diligent search of the production records which are reasonably available and contain information relevant to the production history of this Well.
3. To the best of my knowledge, the data used to prepare the Production Projection for this Well is complete and accurate and this projection was prepared using sound petroleum engineering principles.

Patricia J. Haefele  
(Name)  
Staff Assistant  
(Title)



CANYON 5

DECLINE CURVE



■ GAS PRODUCTION    ◆ OIL PRODUCTION    — GAS AVERAGE    - - - OIL AVERAGE

CANYON 5

WELLNAME	WELLNO	POOL	FLAC	API	QOSTR	MONTH	OIL	GAS
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	7/31/94	0	958
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	8/31/94	0	510
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	9/30/94	1	0
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	10/31/94	6	0
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	11/30/94	0	0
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	12/31/94	0	0
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	1/31/95	69	164
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	2/28/95	32	2159
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	3/31/95	0	413
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	4/30/95	0	1653
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	5/31/95	0	1260
CANYON #05	005003	BASIN-DAKOTA-GAS	97925101	30045213	SWSE0003025011	6/30/95	21	1175
					12-month average - Future Trend		11	691

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT - " for such proposals.

RECEIVED  
GENERAL ROOM  
SEP 18 PM 2:19

070 FARMINGTON, NM

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator Attention:  
 Amoco Production Company Patty Haefele

3. Address and Telephone No.  
 P.O. Box 800, Denver, Colorado 80201 (303) 830-4988

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 800' FSL 1840' FEL Sec. 3 T 25N R 11W Unit O

5. Lease Designation and Serial No.  
 NOO C 14 20 3597

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.  
 Canyon 5

9. API Well No.  
 3004521315

10. Field and Pool, or Exploratory Area  
 Basin Dakota

11. County or Parish, State  
 San Juan New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other Re-perf/ Same Formation
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Amoco Production Company has performed the following work:

On 7/13/95, MIRUSU. Set RBP at 5825'. Dump sand in hole. Press test to 700#, failed. Perf Dakota 5780' - 5786' with 2 JSPF, diameter .450", total of 12 shots. Set packer and frac Dakota. Frac failed, packer failure. TOH with packer. TIH, set RBP at 5659'. With packer, isolate leaks 3951-4015 ft. Squeeze with 150 sacks of 65/35 cement. Set RBP at 2495 ft. Test casing to 1000 psi, held. Run CBL 2495 to surface. TOC 1200 ft. Perf with 2 shots at 1180 ft. Circulate dye water out bradenhead. Squeeze with 190 sx of 65/35 plug 50 sx of Class B neat. Circ to surface and squeeze to 500 psi. WOC. Drill out cement 1047-1186 ft, test to 500 psi, held. Retrieve RBP. Drill cement 3702-3892, test to 500 psi, failed. Spot 95 sx of Class B neat and squeeze 1 bbl into leak. WOC. Tag top of cement at 3041 ft. Drill out cement to 4119 ft. Test to 500 psi, held. Clean out and spot acid on perms. Set packer at 5657 ft. Frac with foam pad 10,100 scf, 70 quality foam; frac fluid 45,600 scf of 70 quality foam and 50,000 lbs of 20/40 sand. Shut in well. Cleanout to 5903 ft. Land tubing at 5828 ft. RDSUMO 8/4/95.

(Revision of undated subsequent sent by L. Raeburn)

14. I hereby certify that the foregoing is true and correct

Signed Patty Haefele SBBU RECEIVED SEP 22 1995 Staff Assistant Date 09-15-1995

(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title ADMINISTRATIVE GROUP

Conditions of approval, if any: \_\_\_\_\_

ACCEPTED FOR RECORD SEP 18 1995

NMOCD Case No. 11555

Canyon #5 Well

Orig. Compl. 1973 in Basin Dakota.

Workover 7/13/95 - 8/4/95

Re-perf and Frac Basin Dakota.

\* Avg 12 month production is in error (used Gallegos #8 well by mistake).  
Should be 1627 mcf/mo (based on Dwight's data 7/94-6/95)

# Dwights

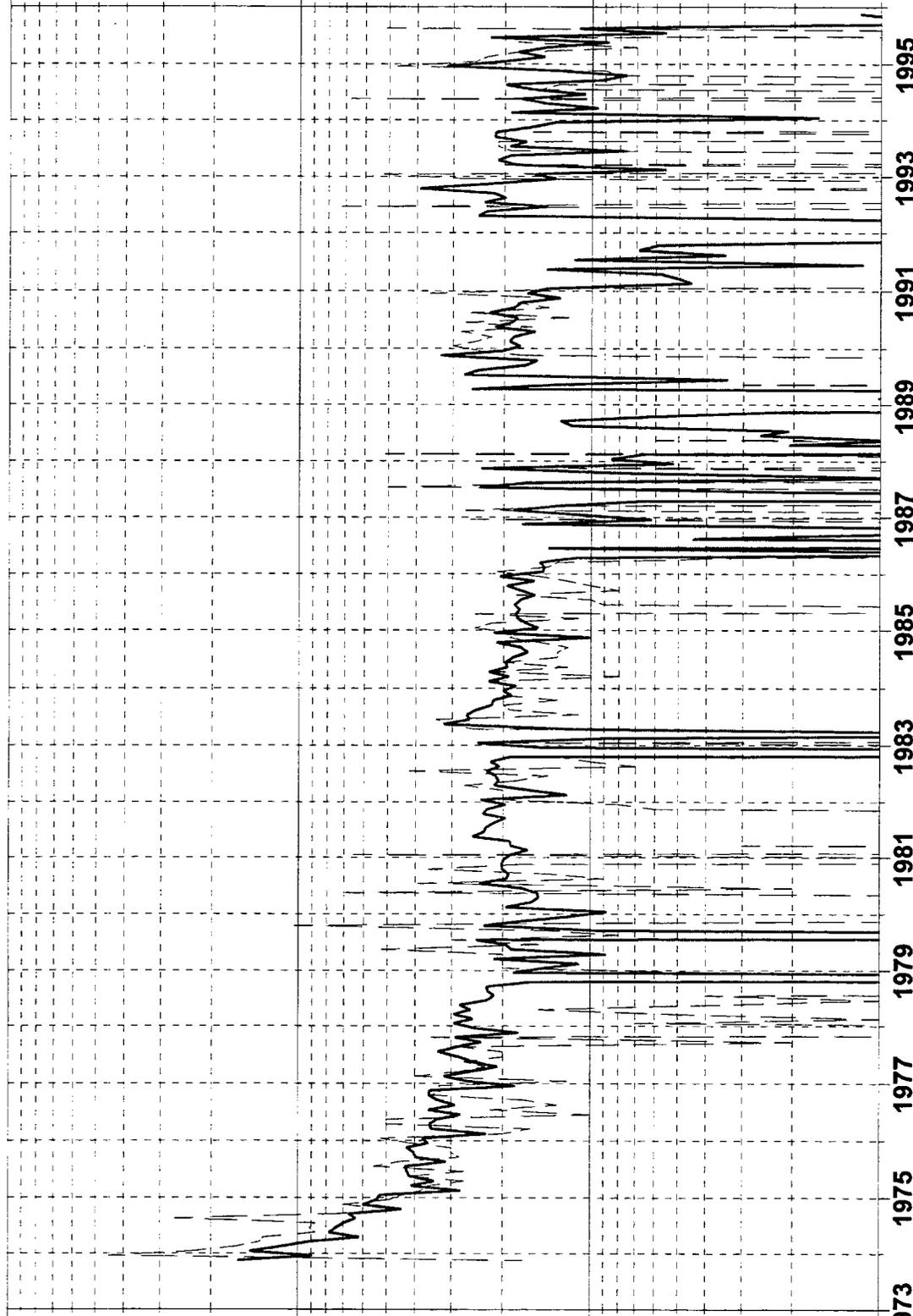
Lease: CANYON 000005

Retrieval Code: 251,045,25N11W03O00DK

06/18/96

10<sup>5</sup>

10<sup>3</sup>



Oil (bbl/mo)

Gas (mcf/mo)

County: SAN JUAN, NM	F.P. Date: 11/73
Field: BASIN (DAKOTA) DK	Oil Cum: 5446 bbl
Reservoir: DAKOTA	Gas Cum: 556.8 mmcf
Operator: AMOCO PRODUCTION CO	Location: 30 25N 11W

DWIGHTS ENERGYDATA, INC.  
 GAS WELL HISTORY  
 NEW MEXICO GAS NORTHWEST

RUN DATE: 05/09/96  
 Published 4/96  
 (#251,045,25N11W03000DK )

OPERATOR (#19922)	WELL NAME	WELL #
AMOCO PRODUCTION CO	CANYON	000005

LOCATION	STATE	DIST	COUNTY (#045)	LEASE #
30 25N 11W	NM	004	SAN JUAN	39832

API #	FIELD (#8004974)	RESERVOIR
30-045-2131500	BASIN (DAKOTA) DK	DAKOTA

TOTAL DEPTH	UPPER PERF	LOWER PERF	GAS GATH	LIQ GATH	GAS GRAV	LIQ GRAV	TEMP GRAD	N-FACTOR
5940	5837	5847	WFS	G R	0.73		1.750	0.750

COMP DATE	1ST PROD DATE	LAST PROD DATE	STATUS DATE	STATUS
'309	7311	9511		ACT

CUM THRU LPD GAS/MCF	GAS CUM SINCE DATE	CUM THRU LPD COND/BBLs	COND CUM SINCE DATE
556820	FPDAT	5446	FPDAT

\*\*\* MONTHLY PRODUCTION HISTORY \*\*\*

MONTH	GAS MCF	CUM GAS MCF	COND BBLs	CUM COND BBLs	WATER BBLs	DAYS ON
JAN	43	488419	0	4872	0	31
FEB	41	488460	0	4872	0	29
MAR	43	488503	0	4872	0	31
APR	2451	490954	0	4872	0	30
MAY	2292	493246	0	4872	0	31
JUN	1420	494666	72	4944	0	30
JUL	2335	497001	1	4945	0	31
AUG	1978	498979	0	4945	0	21
SEP	2178	501157	0	4945	0	30
OCT	3897	505054	7	4952	0	31
NOV	2188	507242	0	4952	0	30
DEC	1332	508574	27	4979	0	31
1992	20198	508574	107	4979	0	
JAN	1579	510153	52	5031	0	31
FEB	555	510708	0	5031	0	28
MAR	1810	512518	20	5051	0	24
APR	2109	514627	0	5051	0	30
MAY	1904	516531	0	5051	0	30
JUN	758	517289	19	5070	0	12
JUL	1911	519200	21	5091	0	31
AUG	1684	520884	21	5112	0	31
SEP	2154	523038	0	5112	0	30
OCT	2140	525178	16	5128	0	31
NOV	1620	526798	0	5128	0	30
DEC	1337	528135	0	5128	0	31
1993	19561 (1630)	528135	149	5128	0	
JAN	164	528299	0	5128	0	31
FEB	1894	530193	0	5128	0	28
MAR	951	531144	0	5128	0	31
APR	1428	532572	0	5128	0	28
MAY	1748	534320	67	5195	0	31
JUN	1053	535373	0	5195	0	10
JUL	1610	536983	15	5210	0	31
AUG	1989	538972	13	5223	0	31
SEP	920	539892	0	5223	0	30
OCT	760	540652	8	5231	0	31
NOV	1287	541939	9	5240	0	30
DEC	3154	545093	47	5287	0	31
1994	16958 (1413)	545093	159	5287	0	

DWIGHTS ENERGYDATA, INC.  
AMOCO PRODUCTION CO  
CANYON

RUN DATE: 05/09/96  
Published 4/96  
(#251,045,25N11W03000DK )

\*\*\* MONTHLY PRODUCTION HISTORY \*\*\*

MONTH	GAS MCF	CUM GAS MCF	COND BBLs	CUM COND BBLs	WATER BBLs	DAYS ON
JAN	2007	547100	25	5312	0	31
FEB	1456	548556	23	5335	0	28
MAR	1792	550348	18	5353	0	31
APR	1432	551780	7	5360	0	30
MAY	874	552654	18	5378	0	31
JUN	2237	554891	17	5395	0	30
JUL	555	555446	0	5395	0	12
AUG	1102	556548	51	5446	0	-
SEP	72	556620	0	5446	0	30
OCT	82	556702	0	5446	0	25
NOV	118	556820	0	5446	0	30
1995	11727 (1066)	556820	159	5446	0	



SUBSCRIBED AND SWORN TO before me this 25th day of April, 1994.

Patricia J. Archuleta  
Notary Public

My Commission expires: August 12, 1999

FOR OIL CONSERVATION DIVISION USE ONLY:

VIII. CERTIFICATION OF APPROVAL:

This Application for Qualification of Well Workover Project is hereby approved and the above referenced Well is designated as a Well Workover Project pursuant to the "Natural Gas and Crude Oil Production Incentive Act" (Laws 1995, Chapter 15, Sections 1 through 8). The Oil Conservation Division hereby verifies the Production Projection for the Well Workover Project attached to this application. By copy of this Application and Certification of Approval, the Division notifies the Secretary of the Taxation and Revenue Department of this Approval and certifies that this Well Workover Project has been completed as of \_\_\_\_\_, 19\_\_\_\_.

Donal De  
District Supervisor, District \_\_\_\_\_  
Oil Conservation Division

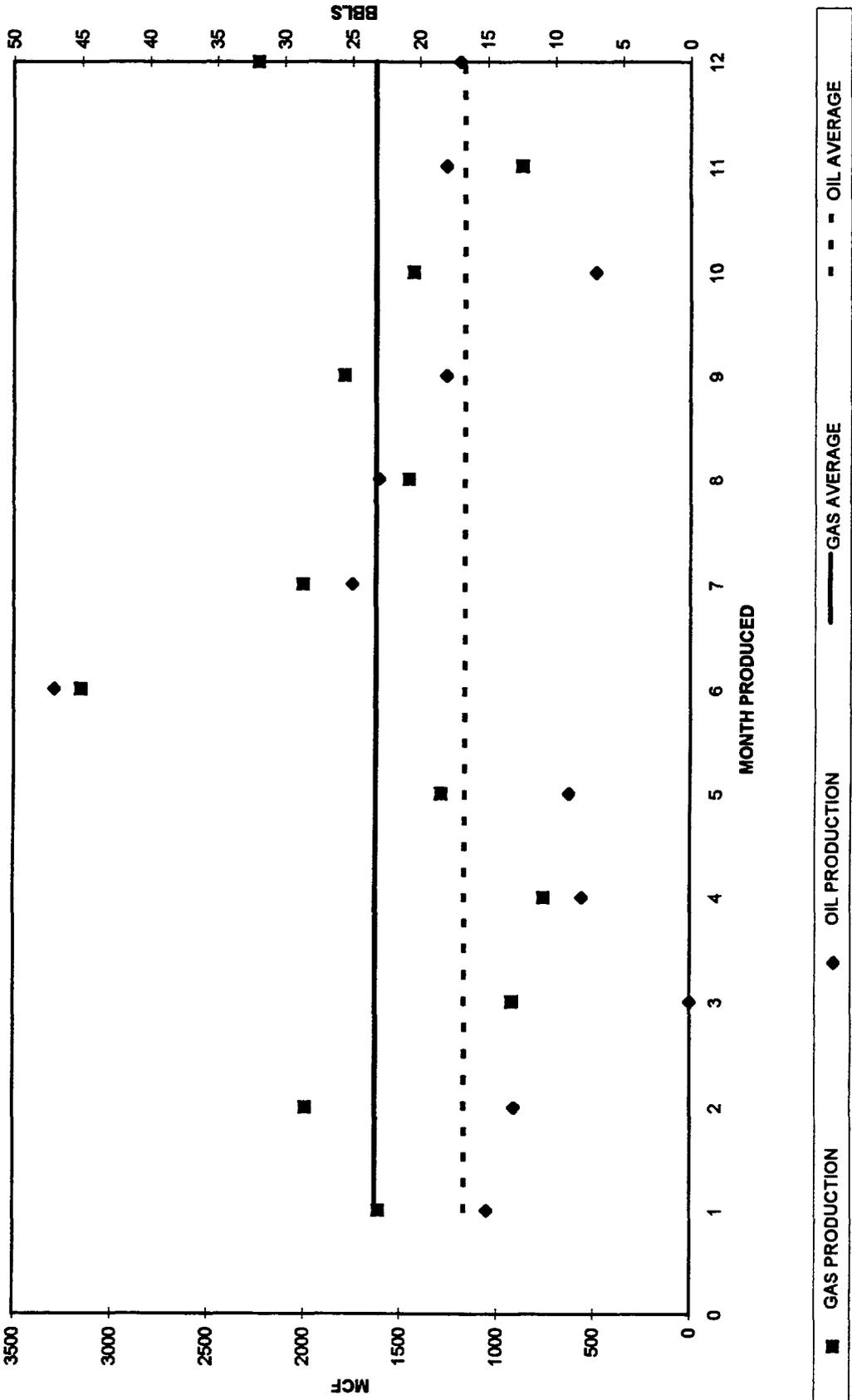
Date: \_\_\_\_\_

IX. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT.

DATE: \_\_\_\_\_

CANYON 5

DECLINE CURVE



CANYON 5

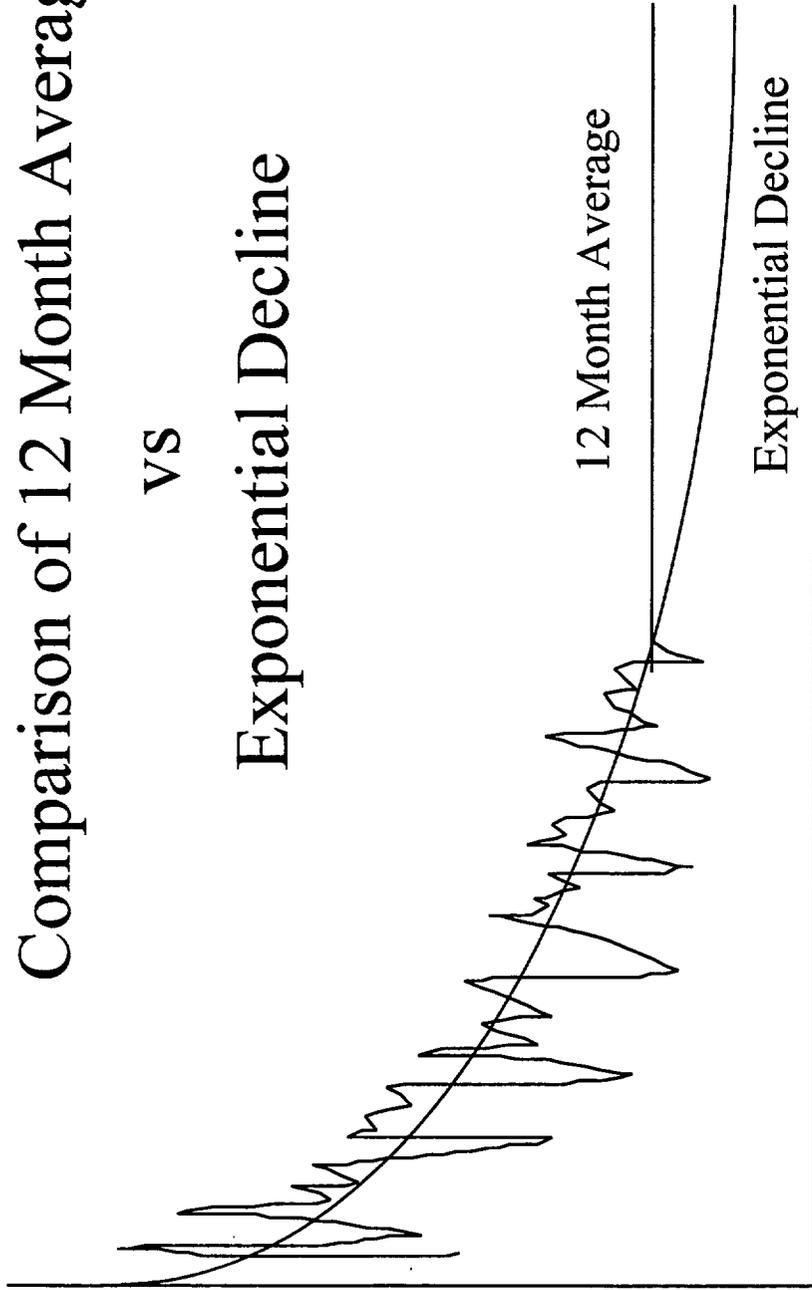
WELLNAME	WELLNO	POOL	FLAC	API	LOCATION	MONTH	OIL	GAS
Canyon	5	Basin-Dakota-Gas	979251	3004521315	Unit O 3-25N-11W	7/94	15	1610
						6/94	13	1989
						9/94	0	920
						10/94	8	760
						11/94	9	1287
						12/94	47	3154
						1/95	25	2007
						2/95	23	1456
						3/95	18	1792
						4/95	7	1432
						5/95	18	674
						6/95	17	2237
					12-month average - Projected Trend		17	1627

# Production Projection Method

Comparison of 12 Month Average

vs

Exponential Decline



12 Month Average

Exponential Decline

T I M E

R A T E

# 12 Month Average Production Projection Method

- Reasonable estimate of the productive capacity of the well.
- Less subjective than estimated decline.
- Simple for operator to determine.
- Easy for NMOCDD to verify and certify.
- Easy to manage in dual tax rate accounting.
- Limits the amount of production which will qualify for the Incentive Tax Rate.