

Ernie Busch

From: Ernie Busch
To: Ben Stone
Subject: AMOCO HELEN JACKSON #2E(DHC)
Date: Thursday, March 21, 1996 1:22PM
Priority: High

B-33-29N-09W
RECOMMEND: APPROVAL

OPERATOR: LOUIS DREYRUS NATURAL GAS CORP		OGRID: 025773		MONTH/YEAR 08/95		PAGE 19 OF 26									
		INJECTION		PRODUCTION				DISPOSITION OF OIL, GAS, AND WATER							
7 POOL NO. AND NAME PROPERTY NO. AND NAME WELL NO. AND U-L-S-T-R API NUMBER		8 C O D VOLUME	9 9 VOLUME	10 10 PRESSURE	11 C O D OIL/COND- E ENSATE 2 PRODUCED	12 12 BBL'S OF PRODUCED	13 13 BBL'S OF WATER PRODUCED	14 14 GAS PRODUCED (MCF)	15 15 DAYS PRODUCED	16 C O D POINT OF DISPOS- E TION	17 17 GAS BTU OR OIL API GRAV	18 18 OIL ON HAND AT BEGINNING OF MONTH	19 19 VOLUME (BBL'S/MCF)	20 20 TRANS- PORTER OGRID	21 21 OIL ON HAND AT END OF MONTH
005954	FEDERAL 31														
31-21	C-31-27N-11W	T			0	0	0	0	0	G	1197050	1168	4214	007057	
30-045	24964									G			235		U
31-31	B-31-27N-11W	T			0	0	0	0	0						
30-045	24963														
31-43	I-31-27N-11W	F			0	66	4447	31		G	1197050	1168	4214	007057	
30-045	24965									G			66		U
005955	FEDERAL 32														
32-21	C-32-27N-11W	F			0	30	320	31		G	1188330	1185	8733	025244	
30-045	24793									G	1188430	1117	206	025244	
32-41	A-32-27N-11W	F			0	109	9183	31		G			466		U
30-045	24289									G			98		V
005956	FEDERAL 33														
33-11	D-33-27N-11W	F			0	0	1179	31		W	1188350		109		O
30-045	24795									W	1188450		30		O



Southern

Rockies

Business

Unit

February 28, 1996

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
2040 S. Pacheco Street
P. O. Box 6429
Santa Fe, NM 87505

RECEIVED
MAR 4 1996

OIL CON. DIV.
DIST. 3

Application for Exception to Rule 303-C

Downhole Commingling

Helen Jackson #2E Well

1010' FNL & 1660' FEL, Unit B Section 33-T29N-R9W

Basin Dakota (Pool IDN 71599) and Otero Chacra (Pool IDN 82329) Pools

San Juan County, New Mexico

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Basin Dakota and Otero Chacra Pools in the Helen Jackson #2E well referenced above. The Helen Jackson #2E is currently a dual completion in the Dakota and Chacra formations. We plan to complete the well with both the Dakota and Chacra formations being downhole commingled in the wellbore. The two zones are expected to produce at a total commingled rate of about 119 MCFD with less than 1 BCPD. The ownership (WI, RI, ORI) of these pools is common in this wellbore. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. Offset operators to this well will receive a copy of this application by certified mail.

The allocation method that we plan to use for this commingled well is as follows. Both formations have been producing at stabilized rates for some time. We recommend that the Dakota and Chacra formations gas and condensate be allocated based on current rates. The Dakota is currently producing 44 MCFD with 0.36 BCPD while the Chacra is currently producing 75 MCFD with 0.47 BCPD. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Dakota attributing 37% of gas production and 43 % of condensate production. The Chacra would be allocated at 63% of gas production and 57 % of condensate production. The actual commercial value of the commingled production will not be less than the sum of the values of the production from each of the common sources of supply.

Attached to aid in your review are plats showing the location of the well and offset wells in the same formation, a historical and recent production plot and a C-102 for each formation. This spacing unit is located on a federal lease (SF-079947) and we will send a copy of the application to the BLM as their notice.

Should you have questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,

A handwritten signature in black ink, appearing to read "Pamela W. Staley", with a long horizontal flourish extending to the right.

Pamela W. Staley

Enclosures

cc: Stan Kolodzie
Gail Jefferson
Wellfile
Proration files

Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410

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

Application for Exception to Rule 303: SEGREGATION OF PRODUCTION FROM POOLS

Requirements

- (1) Name and address of the operator:

Amoco Production Company
P.O. Box 800
Denver, CO 80201

- (2) Lease name, well number, well location, name of the pools to be commingled:

Lease Name: Helen Jackson

Well Number: #21E

Well Location: 1010' FNL & 1660' FEL
Unit B Section 33-T29N-R9W
San Juan County, New Mexico

Pools Commingled: Basin Dakota Pool
Otero Chacra Pool

- (3) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

Attached

- (4) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas and water produced from each zone.

The Basin Dakota produced an average stabilized rate of 44 MCFD and 0.36 BCPD. The Otero Chacra zone produced at an average rate of about 75 MCFD and 0.47 BCPD.

- (5) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes.

Otero Chacra Completion:

Historical production curve attached.

Basin Dakota Completion:

Historical production curve attached.

- (6) Estimated bottomhole pressure for each zone. A current (within 30 days) measured bottom hole pressure for each zone capable of flowing.

Bottomhole pressures were estimated from 72 hour shut-in pressures during a packer leakage test for the well. Estimated bottomhole pressure in the Chacra formation is 568 PSI while the estimated bottomhole pressure in the Dakota is 827 PSI. See attached calculations.

- (7) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore.

The two formations do not produce any fluids that are expected to prohibit commingling, or promote the creation of emulsions or scale.

- (8) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

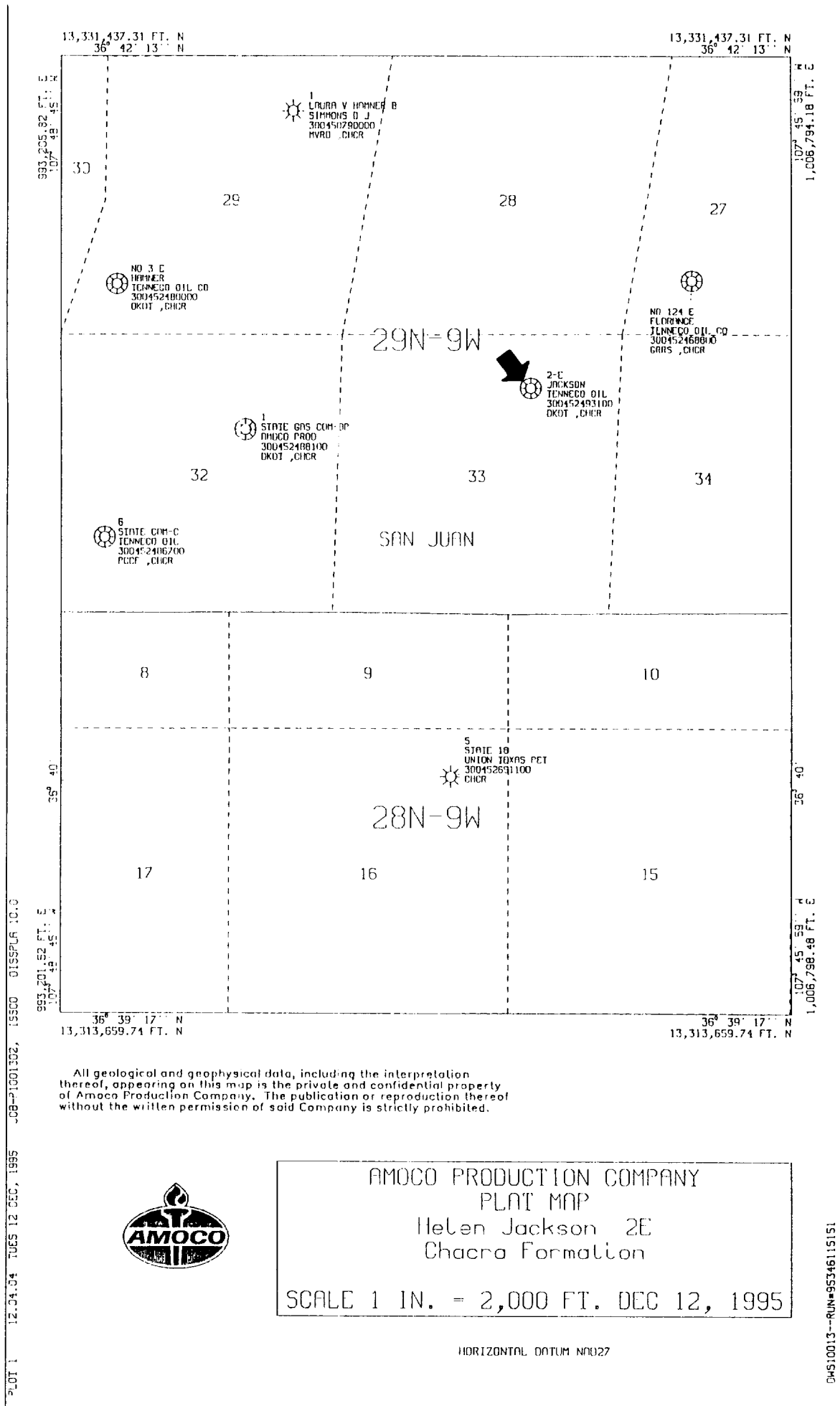
Since the BTU content of the produced gasses are very similar, we would expect the commingled production to have a similar value as the sum of the individual streams.

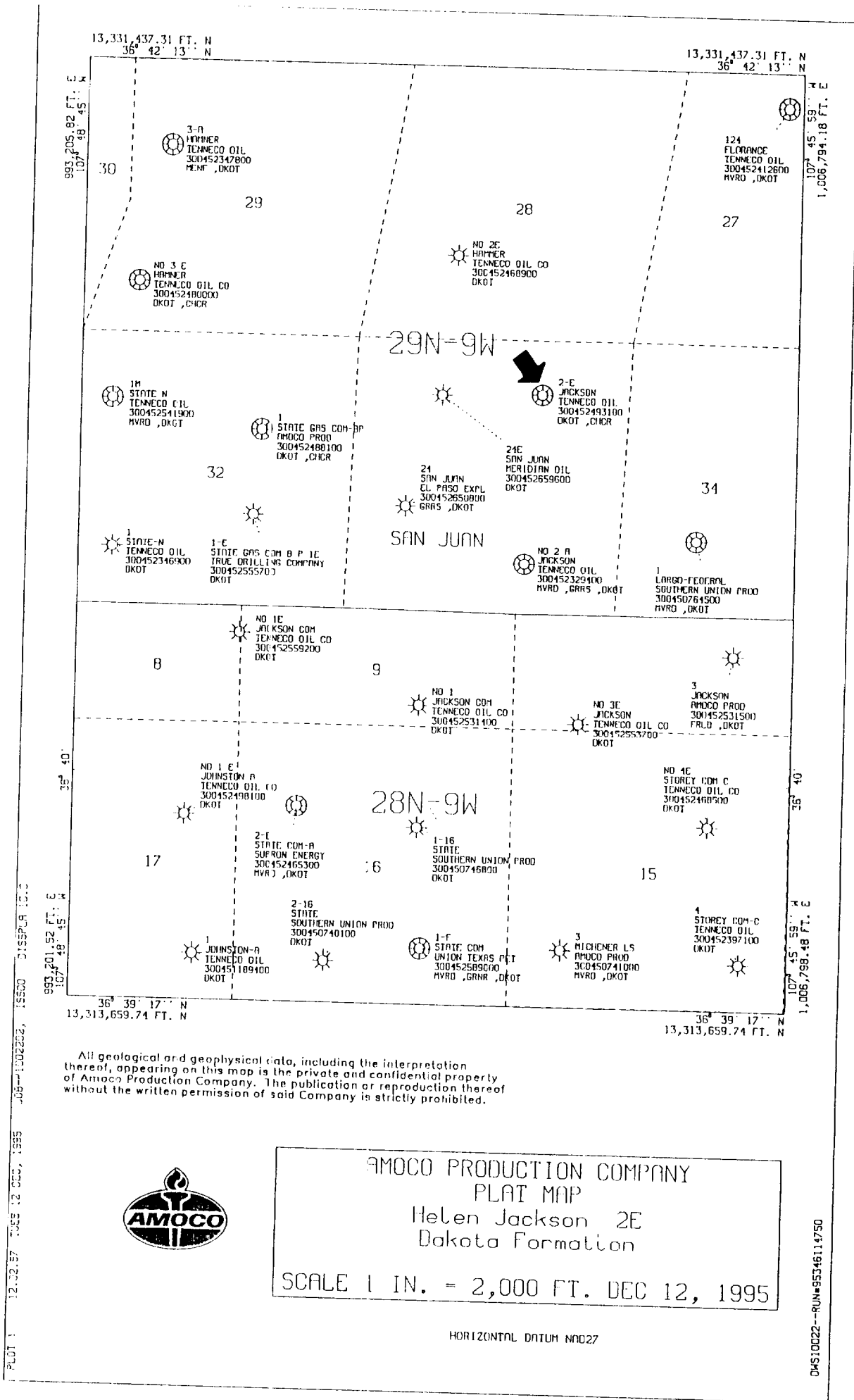
- (9) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula:

The allocation method that we plan to use for this commingled well is as follows. Both formations have been producing at stabilized rates for some time. We recommend that the Dakota and Chacra formations gas and condensate be allocated based on current rates. The Dakota is currently producing 44 MCFD with 0.36 BCPD while the Chacra is currently producing 75 MCFD with 0.47 BCPD. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Dakota attributing 37% of gas production and 43 % of condensate production. The Chacra would be allocated at 63% of gas production and 57 % of condensate production. The actual commercial value of the commingled production will not be less than the sum of the values of the production from each of the common sources of supply.

- (10) A statement that all offset operators and, in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.

BLM will receive a copy of this application by certified mail. The offsetting operators listed on the attached sheet will receive a copy of this application by certified mail.





All distances must be from the outer boundaries of the Section.

TENNECO OIL COMPANY			Lessee JACKSON		Well No. 2E
Tract Letter B	Section 33	Township 29N	Range 9W	County San Juan	
Actual Surface Location of Well:					
1630 feet from the North		line and 1660 feet from the East		line	
Section Depth Below 5002	Producing Formation Dakota		Foot Basin Dakota		Dedicated Acreage: 5.29 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

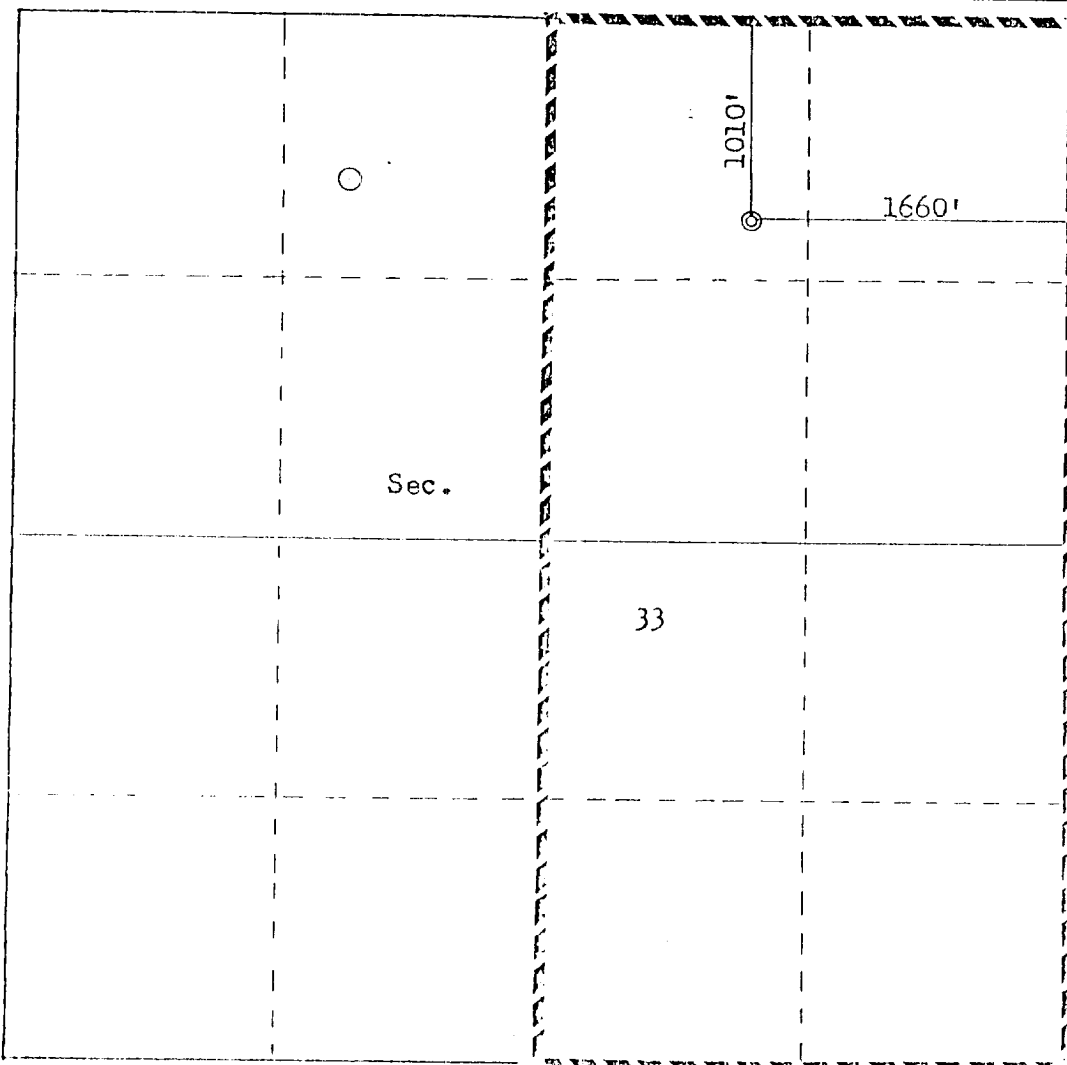
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



Scale: 1" = 1000'

CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	R. A. Mishler
Position	Sr. Production Analyst
Company	Tenneco Oil Company
Date	February 5, 1981
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.	
Date Surveyed	AUGUST 28, 1980
Registered Professional Engineer and Land Surveyor	Fred B. Kerr, Jr.
Certificate No.	3950

All distances must be from the outer boundaries of the Section

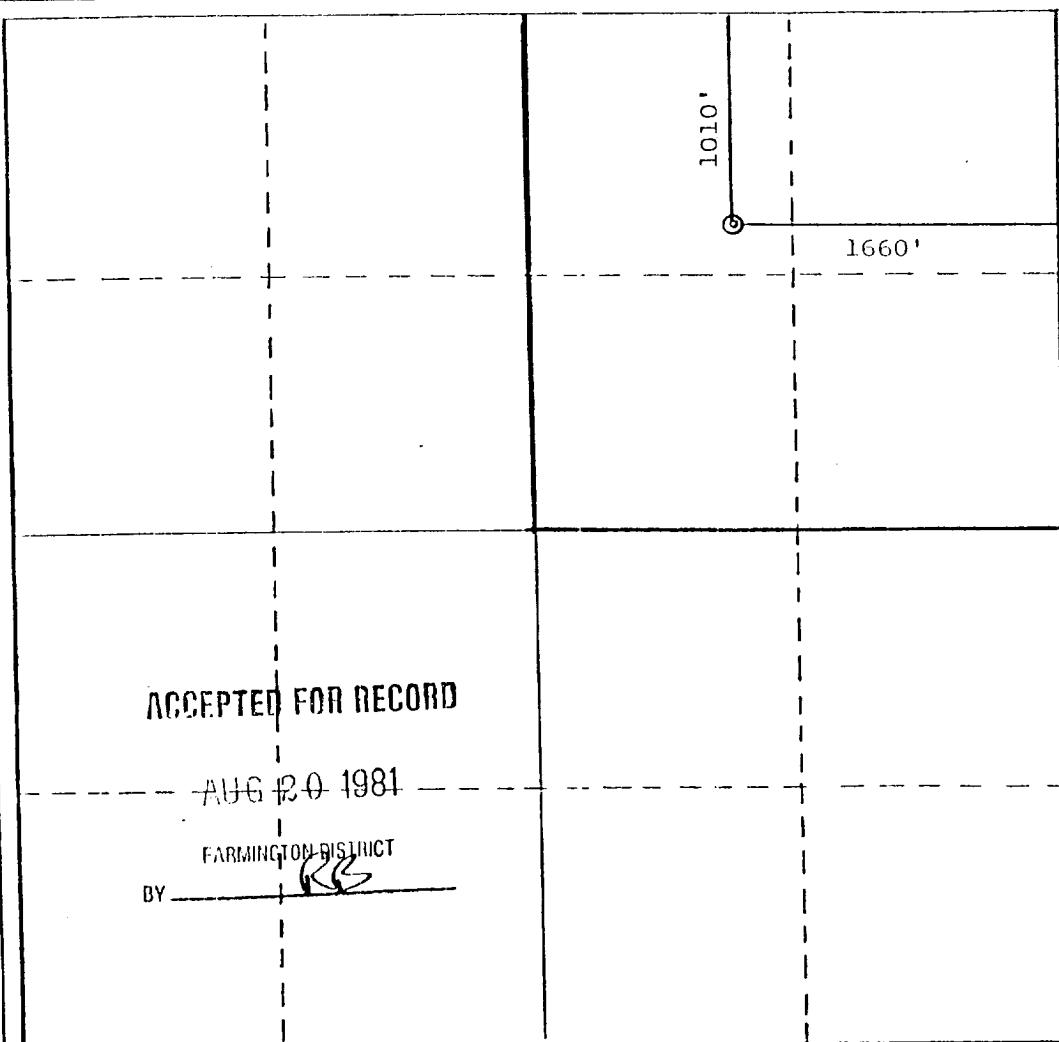
Operator Tenneco Oil Company		Lease Jackson		Well No. 2E
Unit Letter B	Section 33	Township 29N	Range 9W	County San Juan
Actual Footage Location of Well:				
1010	feet from the North	line and	1660	feet from the East line
Ground Level Elev: 5902'	Producing Formation Dakota/Chacra	Pool Dakota/hacra	Dedicated Acreage: 160 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

[Signature]

Name

Production Analyst

Position

Tenneco Oil Company

Company

8/3/81

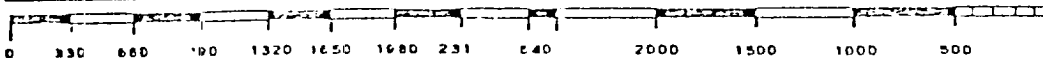
Date

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.

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.



OPERATOR

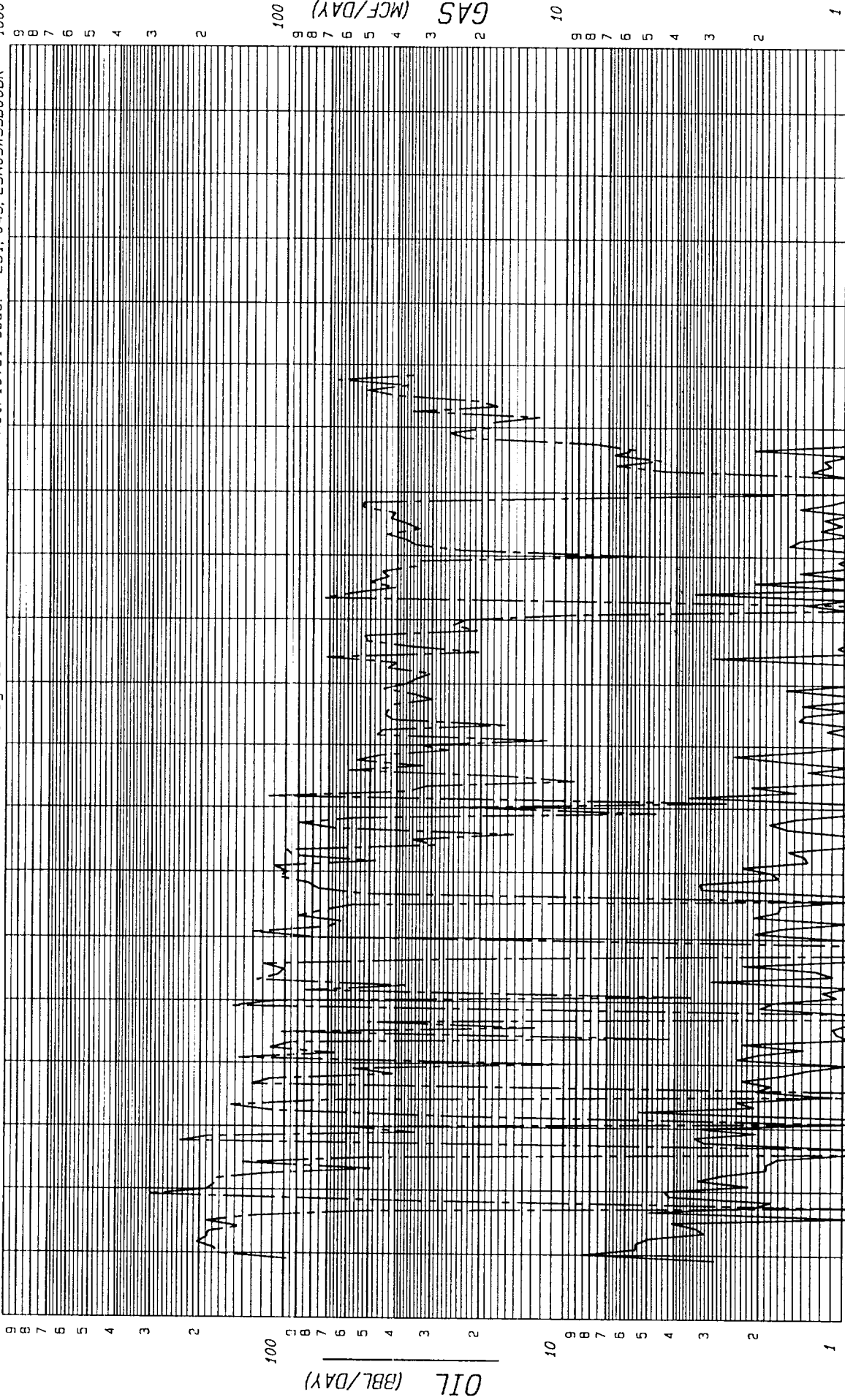
1000 Lease: HELEN JACKSON

000002E

Dwights

Retrieval Code: 251, 045, 29N09W33B00DK

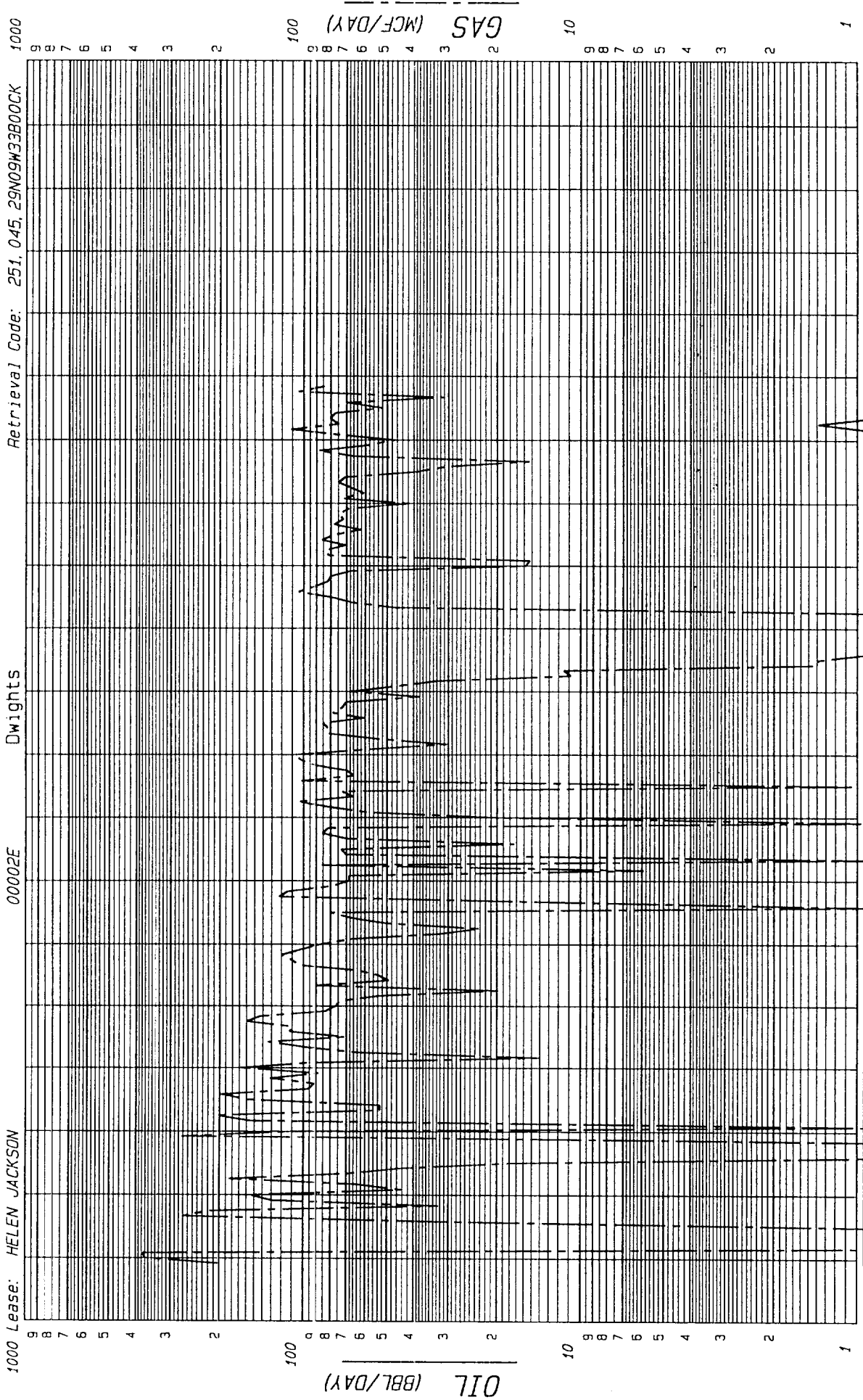
1000



County: SAN JUAN
Field: BASIN (DAKOTA) DK
Reservoir: DAKOTA
Operator: AMOCO PRODUCTION CO
Oil Cum: 6957
Gas Cum: 294645
Location: 33B 29N 9W
State: NM

F.P. Date 11-81

Date: 02-29-96



1000 Lease: HELEN JACKSON

00002E

Dwights

Retrieval Code: 251, 045, 29N09W33800CK

1000

OIL (BBL/DAY)

GAS (MCF/DAY)

County: SAN JUAN
Field: OTERO (CHACRA) CK
Reservoir: CHACRA
Operator: AMOCO PRODUCTION CO
Oil Cum: 172
Gas Cum: 367782
Location: 338 29N 9W
State: NM

F.P. Date 11-81

Date: 02-29-96

OFFSET OPERATORS

TOWNSHIP 29 NORTH, RANGE 9 WEST

SECTION 27	CHACRA	AMOCO	(27M)
	DAKOTA	AMOCO	(27C, 27M)
SECTION 28	DAKOTA	AMOCO	(28C, 28K)
	CHACRA	NONE	
SECTION 29 (NOT APP)	CHACRA	AMOCO	(29M)
		SIMMONS DJ CO LTD	(29B)
	DAKOTA	AMOCO	(29E, 29M)
SECTION 32 (NOT APP)	DAKOTA	CONOCO	(32D, 32M)
		AMOCO	(32G, 32J)
	CHACRA	CONOCO	(32L)
		AMOCO	(32G)
SECTION 33	CHACRA	AMOCO	(33B)
	DAKOTA	AMOCO	(33O, 33B)
		MERIDIAN	(33C, 33L)
SECTION 34	CHACRA	AMOCO	(34G)
	DAKOTA	AMOCO	(34G, 34O)
		MERIDIAN	(34K)

TOWNSHIP 28 NORTH, RANGE 9 WEST

SECTION 8 (NOT APP)	DAKOTA	AMOCO	(8I)
SECTION 9	DAKOTA	AMOCO	(9O)
SECTION 10	DAKOTA	AMOCO	(10I, 10M)

LIST OF ADDRESSES FOR OFFSET OPERATORS

Helen Jackson #2E

I Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87499

HELEN JACKSON 2E

CK	PERFORATIONS	TOP	3256	BOTTOM	3392	MIDPERF	3324		
DK	PERFORATIONS	TOP	6666	BOTTOM	6832	MIDPERF	6749		
	Oct-95	SHUT-IN PRESSURES							
	CK	=	302	PSIG					
	DK	=	287	PSIG					
	GRADIENT	= 0.8 PSI/FT							
	CK BHP =	302	PSIG +	3324	X 0.08 PSIG				
	=	568	PSI						
	DK BHP =	287	PSIG +	6749	X 0.08 PSIG				
	=	827	PSI						

STATE OF NEW MEXICO
ENERGY and MINERALS DEPARTMENT

Pgm, best estimate of surface pressure. - 33-29-9
wr Location of Well: B332909 Page 1

OIL CONSERVATION DIVISION
NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator: AMOCO PRODUCTION COMPANY Lease/Well #: JACSON, HELEN 002E
Meter #: 93999 RTU: - - County: SAN JUAN

	NAME RESERVOIR OR POOL	TYPE PROD	METHOD PROD	MEDIUM PROD
UPR COMP	HELEN JACKSON 002E OCH 93999	GAS	FLOW	TBG
LWR COMP	HELEN JACKSON 002E DK 93998	GAS	FLOW	TBG

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour/Date Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized
UPR COMP <i>Chcra</i>	10/10/95	72 HRS	302	Y
LWR COMP <i>Darkston</i>	10/10/95	72 HRS	287	Y

FLOW TEST DATE NO.1

Commenced at (hour,date)*

				Zone Producing (Up/Lwr)	
TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE		Prod Temp.	REMARKS
		Upper	Lower		
10/10/95	Day 1	325	335		Both Zones SI
10/11/95	Day 2	328	336		Both Zones SI
10/12/95	Day 3	328	339		Both Zones SI
10/13/95	Day 4	302	287		Flow Lower Zone
10/14/95	Day 5	293	276		" " "
10/15/95	Day 6	291	275		" " "

Production rate during test

Oil: _____ BOPD based on _____ BBLs in _____ Hrs _____ Grav _____ GOR _____
Gas: _____ MFCPD: Tested thru (Orifice or Meter): METER _____
MID-TEST SHUT-IN PRESSURE DATA

	Hour, Date SI	Length of Time SI	SI Press. PSIG	Stabilized (yes/no)
UPR COMP				
LWR COMP				

(Continue on reverse side)