



**Marathon  
Oil Company**

P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1626

*393-7106*

November 4, 1991

Mr. Michael E. Stogner  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, NM 87501

RE: Request for Exemption to Rule 303-A  
Downhole Commingling  
Pioneer Federal Com No. 1  
Section 19, T-21-S, R-27-E  
*Wildcat* ~~La Huerta~~ Strawn, La Huerta Atoka  
Eddy County, New Mexico

Dear Mr. Stogner: *Undersigned*

Marathon Oil Company respectfully requests Administration approval for an Exemption to Rule 303-A to permit the downhole commingling of production from the ~~La Huerta~~ <sup>bus</sup> Strawn and the La Huerta Atoka Pools in the subject well.

*Wildcat*  
The above referenced well was recompleted to the La Huerta Strawn and the La Huerta Atoka and put on production at the time of the workover. Our interpretation was that both perforated intervals were in the Strawn, however, after review by the State of New Mexico Geologist, Darryl Moore, it was brought to Marathon Oil Company's attention that both the Strawn and Atoka had been perforated.

While a definitive zone test has not been conducted on the two zones separately based on pressure response, it is believed that the vast majority of the current production is from the La Huerta Strawn. Due to the overpressured nature of the zones in question, Marathon Oil Company feels that further wellbore testing and zone isolation would pose unnecessary risks from both safety and economic standpoints. Marathon would however conduct more definitive zone testing during the next necessary workover procedure.

All ownership (WI, Royalty, and ORRI) in the wellbore is the same. As required, additional information is attached and all offset operators are being notified by copy of this application.

Mr. Michael E. Stogner

November 4, 1991

Page 2

*Wildcat*  
In summary, Marathon feels that as a prudent operator, we can effectively downhole commingle the ~~La Huerta~~ <sup>603</sup> Strawn and La Huerta Atoka and maximize production by doing so. We look forward to your approval of this application.

Sincerely,

*Undesignated*

*Steven P. Guidry*

Steven P. Guidry  
Production Superintendent

*Area Super*

ATTACHMENT NO. 1

Request for exemption to Rule 303-A

Pioneer Federal Com No. 1

*Wildcat Gas*  
~~La Huerta (Strawn), La Huerta (Atoka) pools~~  
Eddy County, New Mexico *Gas*

*Undesignated*  
Reference: Section C-2 Rule 303

- A. Marathon Oil Company  
P. O. Box 552  
Midland, TX 79702
- B. Pioneer Federal Com No. 1  
Unit G, 1980' FNL & 1740' FEL  
Section 19, T-21-S, R-27-E  
Eddy county, New Mexico (See attachment No. 2 Form 3160-5)
- C. Plat of area can be seen on attachments 3 & 4.
- D. Form C-116 for ~~La Huerta~~ *Wildcat* Strawn Completion (Attachment 5)  
Form C-116 for La Huerta Atoka Completion (Attachment 6)
- E. Natural Completion - Both the ~~La Huerta~~ *Undesignated* Strawn & ~~La Huerta~~ *Gas* Atoka were perforated and hooked up to flow w/no stimulation. Based on pressure response following perforating, the La Huerta Strawn is providing the majority of the wells production.
- F. Bottomhole pressure for both zones in question was estimated from hydrostatic fluid column used during workover operations.  
  
La Huerta Strawn - 4621 PSI  
  
La Huerta Atoka - 4729 PSI
- G. Fluids have been analyzed and no incompatibilities exist.
- H. Analysis of the produced fluid indicates no reduction in value from commingling.

- I. Estimated production assuming 90% contribution for the ~~La Huerta~~ Strawn based on pressure response following perforating.

<u>Zone</u>	<u>Oil (BOPD)</u>	<u>Oil (%)</u>	<u>Gas (MCFPD)</u>	<u>Gas (%)</u>	<u>Water (BWPD)</u>
<i>Undesignated</i> <del>La Huerta</del> Strawn <i>Bas</i> (Estimated)	13.5	90	2285.8	82.8	0
<i>Undesignated</i> La Huerta Atoka <i>Bas</i> (Estimated)	1.5	10	476.2	17.2	0

- J. By copy of this letter via certified mail, we are notifying all offset operators of the proposed commingling.

## ATTACHMENT NO. 2

Form 3160-5  
(June 1990)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM 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

## SUBMIT IN TRIPLICATE

## 1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

## 2. Name of Operator

Marathon Oil Company

## 3. Address and Telephone No.

P. O. Box 552 Midland, TX 79702

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Unit G 1980' FNL & 1740' FEL  
Sec. 19, T-21-S, R-27-E

## 5. Lease Designation and Serial No.

## 6. If Indian, Allottee or Tribe Name

## 7. If Unit or CA, Agreement Designation

## 8. Well Name and No.

Pioneer Federal Com #1

## 9. API Well No.

30-015-24777

## 10. Field and Pool, or Exploratory Area

La Huerta-Strawn/Atoka *gas*

## 11. County or Parish, State

Eddy County, New Mexico *Strawn*

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

## TYPE OF SUBMISSION

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice

## TYPE OF ACTION

☐ Abandonment☐ Recompletion☐ Plugging Back☐ Casing Repair☐ Altering Casing☒ Other *Downhole Commingle*☐ Change of Plans☐ New Construction☐ Non-Routine Fracturing☐ Water Shut-Off☐ Conversion to Injection☐ 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.)

Request authorization to downhole commingle the La Huerta Strawn and La Huerta Atoka zones.

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

Signed

Steven P. Guidry *Steven P. Guidry*

Title

Production Superintendent

Date

11-5-91

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

\*See instruction on Reverse Side

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Marathon Oil Company			Lease Pioneer Federal		Well No. 1
Unit Letter G	Section 19	Township 21S	Range 27E	County NMPM	Eddy
Actual Footage Location of Well: 1980 feet from the North line and 1740 feet from the East line					
Ground level Elev. 3181'	Producing Formation <del>La Huerta Strawn</del> <i>Wildcat</i>		Pool <del>La Huerta Strawn</del> <i>Can</i>	Dedicated Acreage: 320 Acres	

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

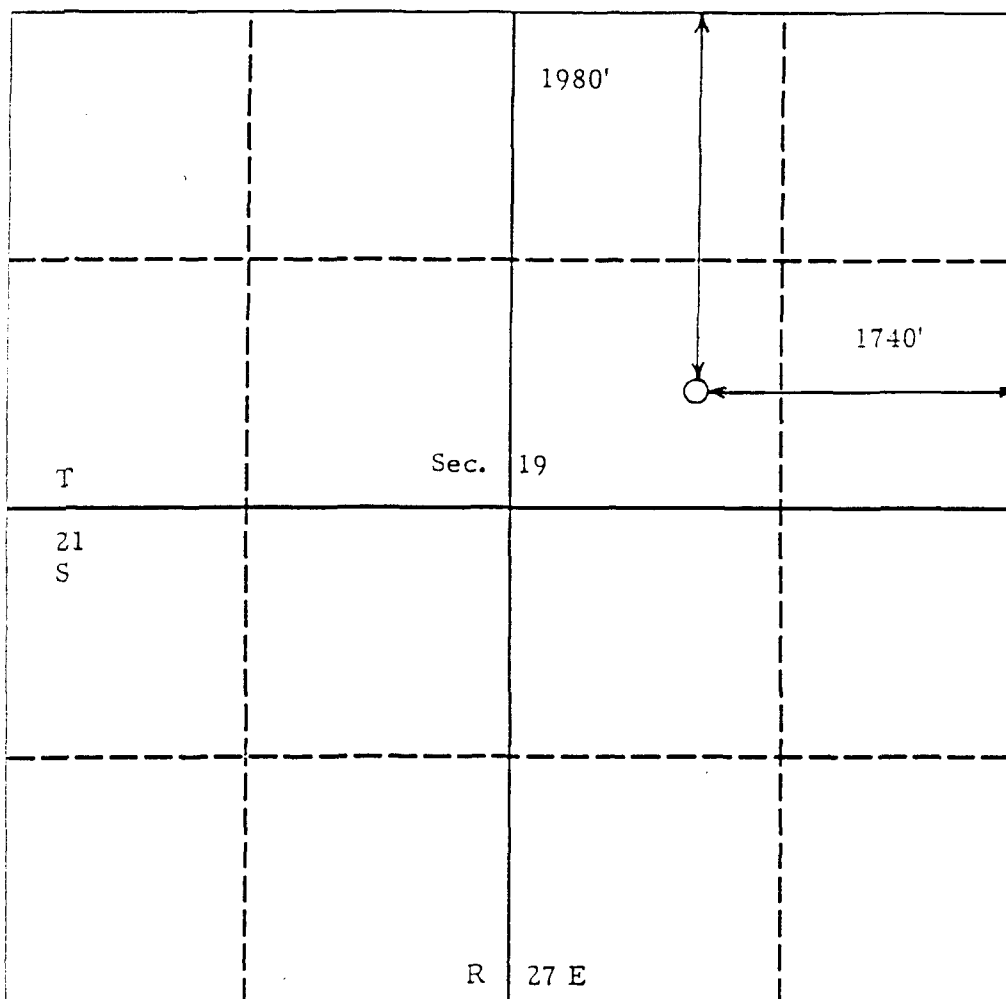
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest 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 interest, has been approved by the Division.



## OPERATOR CERTIFICATION

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

*Steven P. Guidry*  
SignatureSteven P. Guidry  
Printed NameProduction Superintendent  
PositionMarathon Oil Company  
Company11-5-91  
Date

## 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 knowledge and belief.

Date Surveyed

Signature & Seal of  
Professional Surveyor

Certificate No.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

## DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

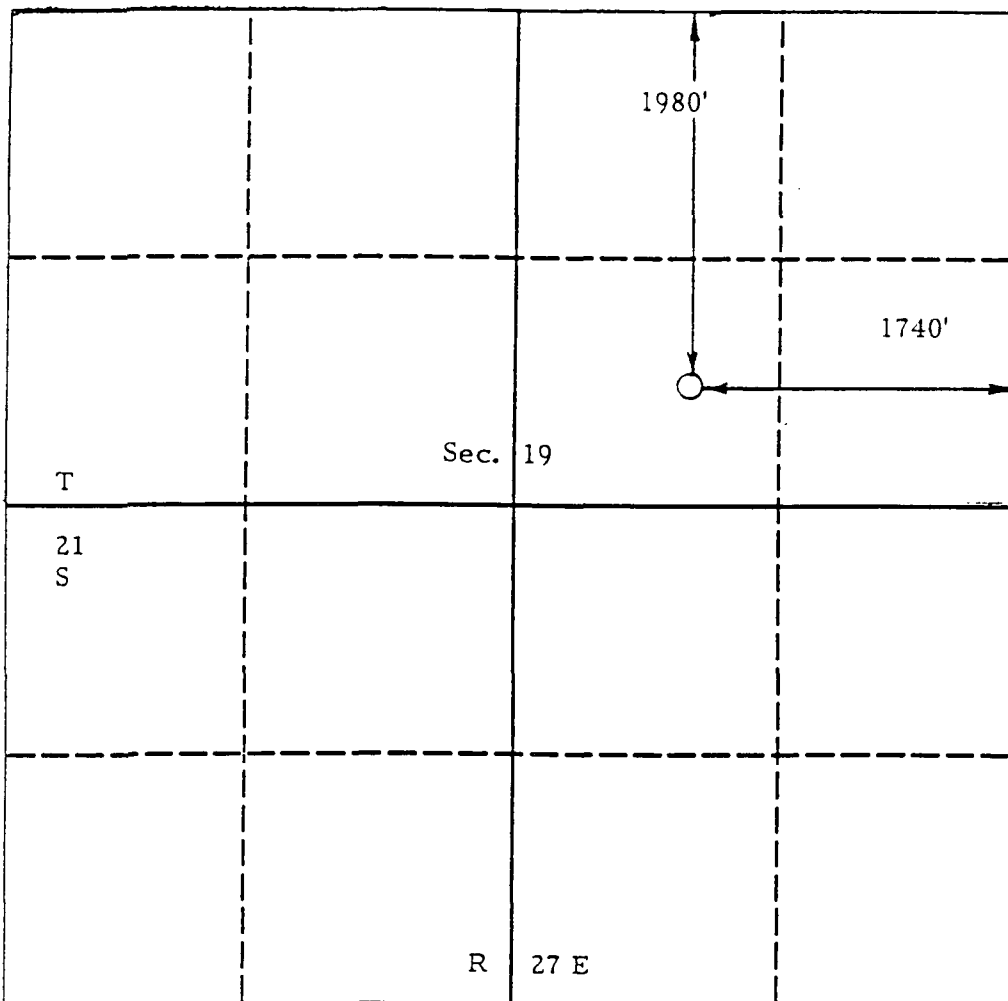
Operator Marathon Oil Company			Lease Pioneer Federal		Well No. 1
Unit Letter G	Section 19	Township 21S	Range 27E	County Eddy	
Actual Footage Location of Well: 1980 feet from the North line and 1740' feet from the East line					
Ground level Elev. 3181'	Producing Formation La Huerta Atoka	Pool <i>Under is needed</i> La Huerta Atoka		Dedicated Acreage: 320 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 interest 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 interest, has been approved by the Division.



## OPERATOR CERTIFICATION

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

*Steven P. Guidry*  
Signature

Steven P. Guidry

Printed Name  
Production Superintendent

Position  
Marathon Oil Company

Company  
11-5-91

Date

## SURVEYOR CERTIFICATION

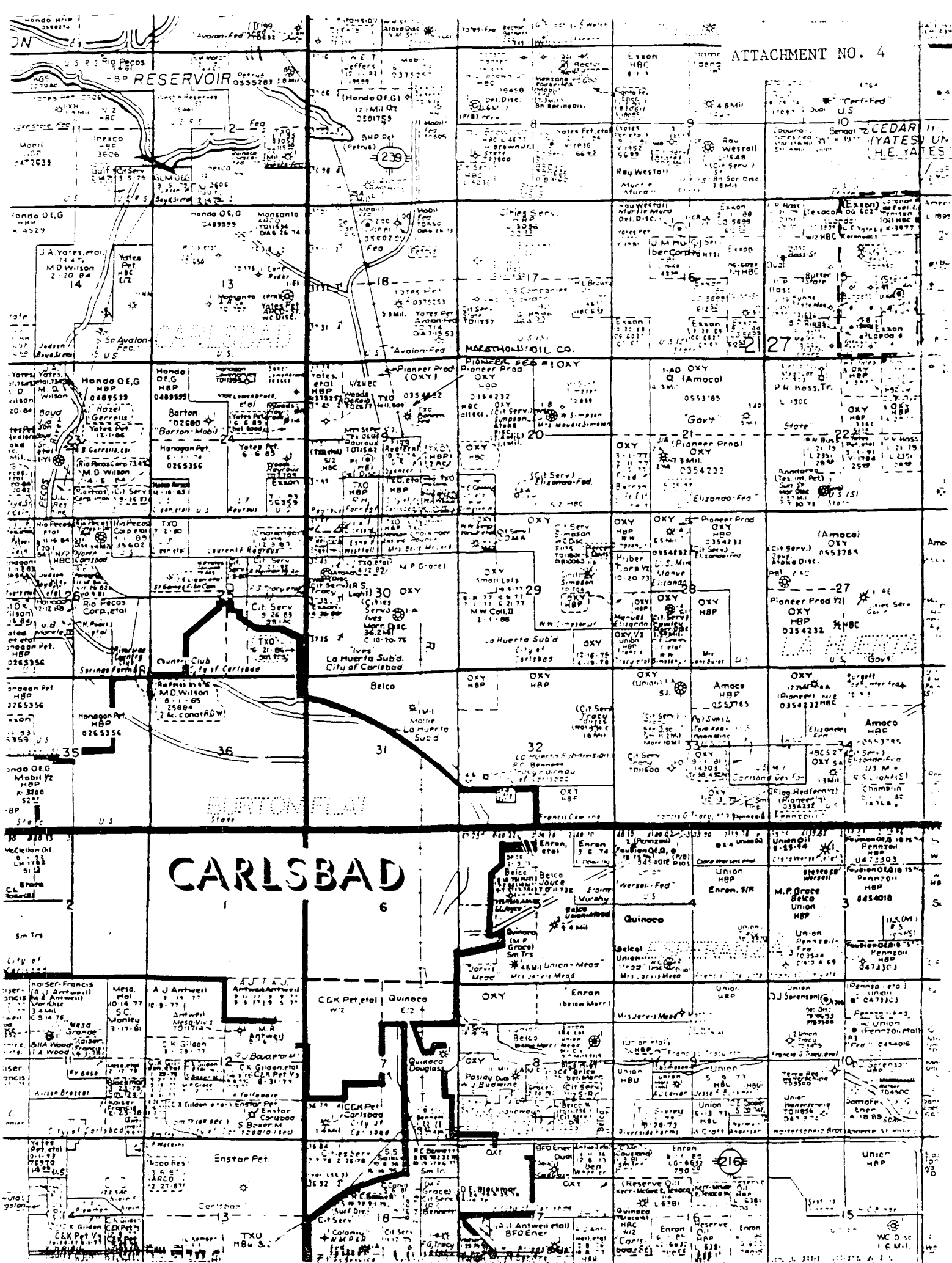
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Signature & Seal of  
Professional Surveyor

Certificate No.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0





Submit 2 copies to appropriate District Office.

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-116  
Revised 1/1/77

# OIL CONSERVATION DIVISION

P.O. Box 1980, Hobbs, NM 88240  
DISTRICT II

P.O. Drawer DD, Anesia, NM 88210  
DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

**P.O. Box 2088**

Santa Fe, New Mexico 87504-2088

## GAS-OIL RATIO TEST

Operator Marathon Oil Company		Address P. O. Box 552 Midland, TX 79702		Pool <del>La Brea</del> <i>Strawn</i>		County Eddy										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	STATUS	CHOKE SIZE	TBG PRESS	DAILY ALLOW. ABLE	LENGTH OF TEST HOURS	Completion			Special	GAS - OIL RATIO CU FT/BBL	
		U	S	T							R	WATER BBL S	PROD. GRAV. OIL			OIL BBL S
Pioneer Federal Com	1	F	19	21	27	10/15/91 (Estimated)	F	13/64"	3000	Gas	24	0	53	13.5	2485.8	184,100

**Instructions:**

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

(See Rule 301, Rule 1116 & appropriate pool rules.)

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

Signature

Steven P. Guidry, Production Superintendent

Printed name and title

11-5-91

Date \_\_\_\_\_

505-393-7106

Telephone No. 5-251700

Submit 2 copies to Appropriate  
District Office.  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240  
DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210  
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-116  
Revised 1/1/89

## OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

### GAS - OIL RATIO TEST

Operator Marathon Oil Company	Pool La Huerta (Atoka) Gas	County Eddy								
Address P. O. Box 552 Midland, TX 79702										
LEASE NAME  Pioneer Federal Com	WELL NO.  1	LOCATION U S T R 6 19 21 27	DATE OF TEST  10/15/91 (Estimated)	CHOKE SIZE  13/64"	TBG PRESS.  3000	DAILY ALLOW-ABLE  Gas	LENGTH OF TEST HOURS  24	Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>		
								TEST - (X)	Scheduled <input type="checkbox"/>	
			PROD. DURING TEST	GAS - OIL RATIO						
			WATER BBL/S.	GRAV. OIL	CU FT/BBL					
			0	53	18,400					
				1.5	276.2					

#### Instructions:

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

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

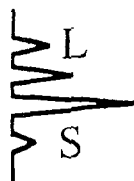
Steven P. Guidry (Rels are estimated)  
Signature

Steven P. Guidry, Production Superintendent

Printed name and title

11-5-91  
Date

505-393-7106  
Telephone No.



## Laboratory Services

1331 Tasker Drive  
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Marathon Oil Co.  
Attention: Mr. Mike Greenough  
P. O. Box 2409  
Hobbs, New Mexico 88240

SAMPLE Pioneer Federal  
IDENTIFICATION: Com Well No. 1  
COMPANY: Marathon Oil Co.  
LEASE:  
PLANT:

---

SAMPLE DATA: DATE SAMPLED:

ANALYSIS DATE: 11-04-91

PRESSURE - PSIG

SAMPLE TEMP. °F

ATMOS. TEMP. °F

GAS ( )

SAMPLED BY: Mike Greenough

ANALYSIS BY: Rolland Perry

C1 to C2 RATIO

CO2 to C2 RATIO

REMARKS: Sample Of Condensate.

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### COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	LIQ. VOL. PERCENT
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.00	0.00
Carbon Dioxide (CO2)	0.00	0.00
Methane (C1)	0.26	0.10
Ethane (C2)	0.69	0.43
Propane (C3)	2.29	1.47
I-Butane (IC4)	2.14	1.63
N-Butane (NC4)	4.14	3.03
I-Pentane (IC5)	5.80	4.94
N-Pentane (NC5)	4.62	3.89
Hexane (C6)	12.65	12.10
Heptanes Plus (C7+)	<u>67.41</u>	<u>72.41</u>
	100.00	100.00

SPECIFIC GRAVITY -

CALCULATED

0.664

API Gravity - 55.5 @ 60 F

VAPOR PRESSURE (ABSOLUTE) -

CALCULATED

30.17

MOLECULAR WT.

90.87

CU. FT. /GAL

23.81

---

SURFACE CASING 13 3/8", 48#, H-40 set @ 517'

w/475 sx (circ).

INTERMEDIATE CASING 8 5/8", 24 & 32# set @ 2609'

w/DV tool @ 1503'. Cemented w/a total of 2510 sx  
(did not circ).

PRODUCTION CASING 4 1/2", 11.6 & 13.5#, N-80 set @  
11,500'. Cemented w/325 sx (did not circ).

TUBING 2 3/8" w/packer set @ 10,116'.

LINER No liner.

RODS None

PUMPING UNIT None

PRESENT COMPLETION: (Formation and Interval)

Strawn 10,258'-10,594'

8 5/8" @ 2609'

Wolfcamp 8952-60'  
squeezed w/100 sx

DV Tool @ 9979'

2 3/8" tbg & pkr  
@ 10,116'

Strawn 10,258-10,594'

CIBP @ 11,150'  
w/45' cmt

Morrow 11,187-  
11,216'

CIBP @ 11,150'  
w/10' cmt

Morrow 11,267-  
11,332'

Morrow 11,361-  
11,431'

4 1/2" @ 11,500'

1 PBTD  
1,458'

HISTORY

PREPARED BY: Carl A. Bagwell

DATE 10/01/91