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U.S.G.S.		
LAND OFFICE		
TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRODUCTION OFFICE		

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

I. Operator
Marathon Oil Company
Address
P. O. Box 2409, Hobbs, New Mexico 88240
Reason(s) for filing (Check proper box)
New Well ☒ Change in Transporter of:
Recompletion ☐ Oil ☐ Dry Gas ☐
Change in Ownership ☐ Casinghead Gas ☐ Condensate ☐
Other (Please explain)

If change of ownership give name
and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name State Section "7" Com	Well No. 1	Pool Name, including Formation Undesignated	Kind of Lease State, Federal or Fee	State	Lease No. K-5796
Location Unit Letter <u>G</u> , 1980 Feet From The <u>North</u> Line and 1980 Feet From The <u>East</u> Line of Section <u>7</u> Township <u>17S</u> Range <u>35E</u> , NMPM, <u>Lea</u> County					

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☒ Mobil Oil Corp. - Truck	Address (Give address to which approved copy of this form is to be sent) Box 900, Dallas, Texas 75221				
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☒ Gas Company of New Mexico	Address (Give address to which approved copy of this form is to be sent) 1507 Pacific Ave., Dallas, Texas 75201				
If well produces oil or liquids, give location of tanks.	Unit G	Sec. 7	Twp. 17S	Range 35E	is gas actually connected? No
					When September 15, 1976

If this production is commingled with that from any other lease or pool, give commingling order number:

V. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		X	X					
Date Spudded 5-24-76	Date Compl. Ready to Prod. 7-31-76		Total Depth 12,220'		P.B.T.D. 12,173'			
Elevations (DF, RKB, RT, GR, etc.) GL 4003'; KDB 4027'	Name of Producing Formation Atoka		Top Oil/Gas Pay 12,078'		Tubing Depth 11,971'			
Perforations 12,078', 81', 86', 89', 91', 98', 12,100', 11', 14', 20', 28', 32', 34', & 41'					Depth Casing Shoe			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			
17 1/2"	13 3/8"		354'		425 sx Class "C"			
12 1/4"	9 5/8"		5012' 2300 sx Lite Wate & 250 sx Class C					
8 1/2"	5 1/2"		12,220'		2000 Class "H"			
	2 7/8"		11,971'					

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

GAS WELL

Actual Prod. Test-MCF/D 14,183 (CAOF)	Length of Test 4 hours	Bbls. Condensate/MMCF 15.7	Gravity of Condensate 47.8
Testing Method (pilot, back pr.) back pressure	Tubing Pressure (knt-in.) 4340	Casing Pressure (knt-in.) -	Choke Size Varied

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Robert J. Quenschel
(Signature)

Petroleum Engineer
(Title)

August 30, 1976
(Date)

OIL CONSERVATION COMMISSION

APPROVED SEP 17 1976, 19____
BY John W. Kinyan
TITLE Geologist

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

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12/15/76

U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D. C.

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 8-2-76				
Company Marathon Oil Company				Connection -					
Pool North Vacuum Atoka-Morrow				Formation Atoka				Unit 320	
Completion Date 7-31-76		Total Depth 12,220'		Plug Back TD 12,173'		Elevation 4027' KB		Farm or Lease Name State Sec. "7" Com	
Csg. Size 5 1/2"	Wt. 20#	d 4.653"	Set At 12,220'	Perforations: From 12,078' To 12,141'		Well No. 1			
Tbg. Size 2 7/8"	Wt. 6.5#	d 2.441"	Set At 11,965'	Perforations: From - To -		Unit G 7 17S 35E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 11,971'		County Lea		
Producing Thru Tubing		Reservoir Temp. °F 165 @ 12,220'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 11,971	H 11,971	G _g 0.632	% CO ₂ 0.3	% N ₂ 1.5	% H ₂ S -	Prover	Meter Run 4"	Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							4340	60	-	-	SI 43 hrs.
1.	4" X 2.75"			225	16.0"	76	3810	60	0	60	1 hr
2.	4" X 2.75"			315	24.0	66	3469	60	-	-	1 hr
3.	4" X 2.75"			405	32.0	60	3191	60	-	-	1 hr
4.	4" X 2.75"			420	40.0	62	3197	60	-	-	1 hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	41.10	61.73	238.2	.9850	1.258	1.021	3,210
2	41.10	88.75	328.2	.9943	1.258	1.030	4,699
3	41.10	115.68	418.2	1.000	1.258	1.041	6,226
4	41.10	131.64	433.2	.9981	1.258	1.041	7,072
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.36	536	1.47	0.960	63.7	47.8	0.623	X X X X X	669	365
2	0.49	526	1.44	0.942						
3	0.63	520	1.42	0.923						
4	0.64	522	1.43	0.923						
5										

P _r 5731.2	P _w 32,846.7		
NO.	P _i ²	P _w ²	P _e ² - P _w ²
1	5188.2	26,917.4	5929.3
2	4832.2	23,350.2	9496.5
3	4473.2	20,009.5	12,837.2
4	4481.2	20,081.2	12,765.5
5			

(1) $\frac{P_e^2}{P_e^2 - P_w^2} = 2.559$

AOF = Q $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 14,183$

(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 2.278$

Absolute Open Flow	14,183	Mcfd @ 15.025	Angle of Slope θ	Slope, n	0.876
Remarks: *BHP at 12,163 (-8141) used for pressure calculations.					

Approved By Commission:	Conducted By: R. J. Duenckel	Calculated By: R. J. Duenckel	Checked By: R. J. Duenckel
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JUN 15 1976

U.S. CONSERVATION COMM.
HOBBS, N. M.