Mid-Continent Region Production United States

Midland, TX 79702-0552

Telephone 915/682-1626

P.O. Box 552



December 14, 1998

Mr. Mike Stogner New Mexico Oil Conservation Division Energy Minerals and Natural Resources Department P.O. Box 2088 Santa Fe, New Mexico 87501-2088

Re: Request for Non - Standard Location Indian Hills Unit # 18 Unit "O" 409' FSL & 2324' FEL Section 20, T-21-S, R-24-E Eddy County, New Mexico

Dear Mr. Stogner,

Enclosed for your review is form 3160-3 Application for Permit to Drill for the above referenced well. Marathon proposes to drill the well to test the Indian Basin Upper Pennsylvanian Associated Pool which currently requires wells to be spaced on 320 acre proration units and setback limits of 660' from exterior boundaries. Marathon currently has only one well drilled to this gas pool in this section, well # 2.. The Indian Hills Unit # 2 was drilled by Ralph Lowe in 1965. The well was staked at 660' FSL & 1750' FEL, Section 20, T-21-S, R-24-E. See Exhibit "A", 1965 surveyors plat. A dependent re-survey was made in 1966 and filed and approved by the BLM on 1/28/70. The dependent re- survey caused an eastward shift in the interior sections of this township. Please note surveyors plat Exhibit "B" which certifies the current position of the Indian Hills Unit Well # 2 at 409' FSL & 2276' FEL. This well currently has an open hole completion with $5 \frac{1}{2}$ " casing to the Upper Pennsylvanian and is not capable of economic production at this time with the current hole geometry. Marathon has staked the referenced well 52' east to comply with Bureau of Land Management's policy of minimizing construction damage to steep hillsides within the East Indian Basin / Azotea Mesa development area. The Bureau has recommended that Marathon locate its proposed well on a site that has been previously disturbed and to limit any further damage to the steep terrain. Please note Exhibit "C", topographic map, there are no other practical standard locations in this section that would adhere to the BLM's order. A possible drillsite exists in the NE/4 of Section 20 but the logistics of removing the products from the top of the mesa to the production facility makes the location impractical and would require that significant damage be done to the steep terrain for pipelines and power lines.

Marathon proposes to abandon the lower producing zone in the # 2 well, and drill the # 18 as an replacement well to the Upper Pennsylvanian Associated Pool which currently requires wells to be spaced no less than 660' from exterior boundaries wells and 330' from interior boundaries. The proposed location falls 409' from the south section line and 362' from the half-section line and is non-standard only to a Marathon lease, within the unit, adjacent to this section, to the South. See exhibit "D" for offset ownership.

DEC 3 0 1998

Mr. Mike Stogner December 14, 1998 Indian Hills Unit #18 - Page 2

Marathon requests Administrative Approval for this non-standard location as it directly offsets another Marathon lease within the Indian Hills Unit.

Should you have any questions please contact me at (800) 351-1417.

Very truly yours,

٠

٠ ،

. Ehnan INIAHEN

Walter J. Dueease

N. _XICO OIL CONSERVATION COMMISS. WELL LOCATION AND ACREAGE DEDICATION PLAT

•

and the second second

•

· · · · ·

Form C-102 Supersedes C-128 Effective 14-65

· .

	All distances must be from the outer boundaries of the Section.								
Operator			L.ease			Well No.			
Ralph Lowe			II	ndian Hills	Unit	2			
Unit Letter	Section	Township	Rong	e	County				
0	20	T-21-S		3-24- ₿	Eddy				
Actual Footage Loca						· · · · · · · · · · · · · · · · · · ·			
660	feet from the	South line and	17	50 feet	from the East	line			
Ground Level Elev:	Producing For		Pool	ice.		Dedicated Acreage:			
3770		Y PENN)		lian Rasin	- Upper Rem	-			
		•							
1. Outline the	e acreage dedica	ted to the subject v	rell by co	lored pencil o	r hachure marks on th	e 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).								
		ifferent ownership is nitization, force-pool		to the well,	have the interests of	all owners been consoli-			
X Yes	No If an	swer is "yes," type	of consoli	dationF	ederal Unit				
11	· · · · · · · · · · · · · · · · · · ·	1	• ••	1.1.1					
	necessary.)	owners and tract des	criptions	which have ac	wally been consolida	ated. (Use reverse side of			
	•	d to the well until a	linterest	e have been c	angolidated (by com	munitization, unitization,			
						approved by the Commis-			
-	ing, or otherwise)	or uniti a non-standa	ru unit, ei	iminating such	a interests, has been	approved by the Commis-			
sion.			· • •						
		R-2K-E	a san baya ya wana ku ake jara	an a		CERTIFICATION			
	I	Is-c-t-D		1					
	1			1					
	1			1		ertify that the information con-			
	l			t	S	rein is true and complete to the			
R				1		knowledge and belief.			
	1					- manand			
1	1			ļ	Nome	W. Murray			
H				I					
II				1	Age	nt			
II	1			1	Position				
	•			1		ph Lowe			
1	1			1	Company				
N	1			1		3, 1965			
	1			1	Date				
T	l			1	· · · · · · · · · · · · · · · · · · ·				
21	L			1					
S				Ì					
	1	1		1	l hereby	certify that the well location			
	I			1	shown on	this plat was plotted from field			
11	ł			1 1		actual surveys made by me or			
]]	l			l.	H	supervision, and that the same			
	1			1		nd correct to the best of my			
	1			1		and belief.			
L	+			! +					
	1								
łł –	1			1	Date Survey				
			•	1750		27, 1965			
			0]		Professional Engineer			
1	1				and/or Land	Surveyor			
				1		11			
	<u> </u>				Vou	us Brouse			
			ann an tha an taige an air an	and the second					

DISTRICT I

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

DISTRICT II P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised February 10, 1994 Submit to Appropriate District Office State Lease - 4 Conjes Fee Lease - 3 Copies

OIL CONSERVATION DIVISION P.O. Box 2088

Santa Fe. New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

□ AMENDED REPORT

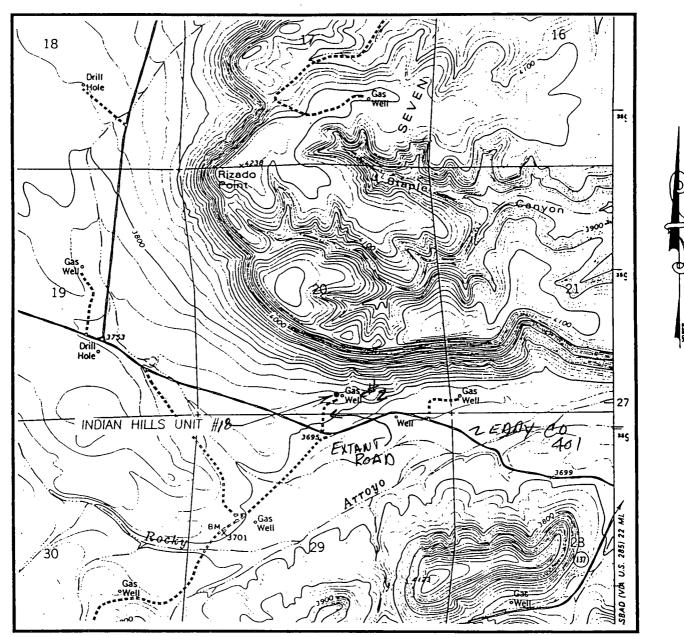
12641

12185

Pool Code Pool Name API Number **Property** Code **Property** Name Well Number INDIAN HILLS UNIT 2 **Operator** Name Elevation OGRID No. MARATHON OIL COMPANY 3738 Surface Location UL or lot No. Township Range Lot Idn Feet from the North/South line Feet from the East/West line County Section 21 S 24 F 409 SOUTH 2276 EAST FDDY 0 20 Bottom Hole Location If Different From Surface Lot Idn North/South line UL or lot No. Section Township Range Feet from the Feet from the East/West line County Joint or Infill Consolidation Code Order No. **Dedicated Acres** 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 OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature Printed Name Title 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 supervison and that the same is true and correct to the best of my belief. Date Surveyed NOVEMBER 2, 1998 Date Surveyea Signature & Seal Eof DMCC 2-10-98 EXISTING WELL - 1 362' Certificate No. RONALD CY EIDSUN GARANEDSON HUNDROFESNACON MCDONALD 2276 EIDSON 3239

409

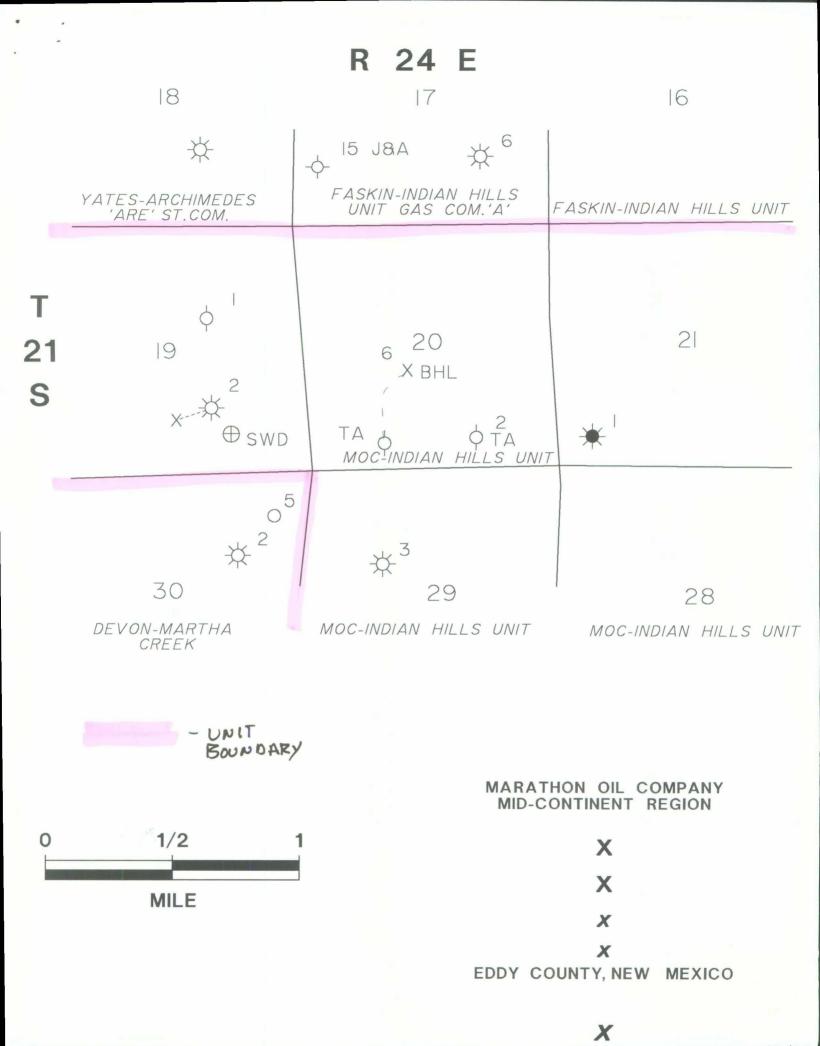
LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 20 TWP.21-S_RGE. 24-E SURVEY N.M.P.M. COUNTY EDDY DESCRIPTION 409' FSL & 2324' FEL ELEVATION 3739' OPERATOR MARATHON OIL COMPANY LEASE INDIAN HILLS UNIT U.S.G.S. TOPOGRAPHIC MAP MARTHA CREEK, NM CONTOUR INTERVAL - 20'

JOHN WEST SURVEYING CO. HOBBS, NEW MEXICO (505) 393-3117



IBWD4 AFF EXPL

40/00

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

4

?

م. مر ا

DISTRICT II P.O. Drawer DD. Artonia, NM 88211-0719

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico

Energy, Minerais and Natural Resources Department

Form C-102 Revised February 10, 1994 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

G AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number]	Pool Code		Pool Name				
Property Code			Property Name					Well Number	
INDIAN HILLS UNIT			UNIT		18				
OGRID No.		Operator Name					Elevation		
		MARATHON OIL COMPANY 3739')'			
Surface Location									
UL or lot No.	Section	Township	ship Range Lot Idn Feet from the North/South line Feet from the				East/West line	County	

O 20 21 S 24 E 409 SOUTH 2324 EAST EDDY 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
Dedicated Acre	Joint o	r Infill Co	nsolidation (Code Or	der No.	1		1	I

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

		OPERATOR CERTIFICATION
		I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.
		Signature
		Printed Name
•		Title Date
		SURVEYOR CERTIFICATION I hereby certify that the well location shown
	320 AC	on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.
•	PROPATION	NOVEMBER 2, 1998 Date Surveyed Willing CDG Signature, & Seat-60 Professional Surveyor O
		MEX C. 1 0 000 01 01 01 01 01 01 01 01 01 01 01 0
409' 0	2324'	Centificate No. RONALD-) - EIDSON 3239 CARNEDSON 12641

و

See Alse Order Nos R-4911 6-9922-A R-9972-6 L-9922-6

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

NOMENCLATURE CASE NO. 12006 ORDER NO. R-9922-D

APPLICATION OF MARATHON OIL COMPANY, YATES PETROLEUM CORPORATION, ORYX ENERGY COMPANY, DEVON ENERGY CORPORATION (NEVADA) AND SANTA FE ENERGY RESOURCES, INC. FOR THE EXPANSION OF THE INDIAN BASIN-UPPER PENNSYLVANIAN ASSOCIATED POOL AND THE CONCOMITANT CONTRACTION OF THE INDIAN BASIN-UPPER PENNSYLVANIAN GAS POOL, APPROVAL OF FOUR NON-STANDARD 320-ACRE GAS PRORATION UNITS, AN UNORTHODOX GAS WELL LOCATION, AND APPORTIONMENT OF GAS ALLOWABLES, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on July 9, 1998, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>7th</u> day of December, 1998, the Division Director, having considered the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The Indian Basin-Upper Pennsylvanian Gas Pool is a prorated gas pool currently governed by the "General Rules for the Prorated Gas Pools of New Mexico/Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Gas Pool," as promulgated by Division Order No. R-8170, as amended, which require standard 640-acre spacing and proration units ("GPU") with wells to be located no closer than 1650 feet from the outer boundary of the GPU nor closer than 330 feet from any governmental quarter-quarter section line or subdivision inner boundary. The current gas allowable for the Indian Basin-Upper Pennsylvanian Gas Pool is approximately 6.5 MMCFG per day per GPU.

(3) The Indian Basin-Upper Pennsylvanian (Prorated) Gas Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 21 SOUTH.	RANGE 23 EAST. NMPM
Section 3:	W/2
Section 4:	All
Sections 8 and 9:	All
Section 10:	W/2
Section 15:	W/2
Sections 16 through 30:	All
Sections 32 through 36:	All
TOWNSHIP 21 SOUTH.	RANGE 24 EAST. NMPM
Sections 19 through 21:	All
Sections 28 through 32:	All
TOWNSHIP 22 SOUTH.	RANGE 23 EAST. NMPM
Sections 1 through 5:	All
Sections 8 through 17:	All
Section 21:	N/2
Section 22:	All.

(4) The Indian Basin-Upper Pennsylvanian Associated Pool is currently governed by the "Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool," as promulgated by Division Order No. R-9922, as amended, which require standard 320-acre oil and gas spacing units with wells to be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary, and with no more than one well per 80-acre tract to be drilled or produced on a standard proration unit. The special depth bracket allowable for the pool is 1,400 barrels of oil per day. The limiting gas-oil ratio for the pool is 7,000 cubic feet of gas per barrel of oil, which results in a casinghead gas allowable of 9.8 MMCFG per day.

(5) The Indian Basin-Upper Pennsylvanian Associated Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 21 SOUTH, I	RANGE 24 EAST. NMPM
Section 27:	S/2
Sections 33 and 34:	All

TOWNSHIP 22 SOUTH.	RANGE 24 EAST. NMPM
Sections 2 through 10:	All
Section 11:	N/2
Sections 16 and 17:	All.

(6) The applicants, Marathon Oil Company, Yates Petroleum Corporation, Oryx Energy Company, Devon Energy Corporation (Nevada), and Santa Fe Energy Resources, Inc. seek an order expanding the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico to include:

TOWNSHIP 21 SOUTH, RA	NGE 23 EAST. NMPM
Section 36:	E/2
TOWNSHIP 21 SOUTH, RA	NGE 24 EAST. NMPM
Sections 20 and 21:	All
Sections 28 through 32:	All
TOWNSHIP 22 SOUTH, RA	NGE 23 EAST, NMPM
Section 1:	E/2
Section 12:	E/2
Section 13:	E/2

TOWNSHIP 22 SOUTH. RANGE 24 EAST. NMPM Section 18: All

AND THE concomitant contraction of the Indian Basin-Upper Pennsylvanian Gas Pool by deleting therefrom:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPMSection 36:E/2TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPMSections 20 and 21:AllSections 28 through 32:AllTOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPMSection 1:E/2Section 1:E/2

E/2.

Section 13:

(7) In conjunction with the proposed adjustment to the boundaries of the two subject pools, the applicants seek to establish the following four 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool within Section 36, Township 21 South, Range 23 East, NMPM, and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico:

(A) the W/2 of Section 36, comprising 320 acres, which is to be dedicated to the existing Lowe State Gas Com Well No. 1 (API No. 30-015-10342), located 1995 feet from the North line and 1712 feet from the West line (Unit F) of Section 36;

(B) the W/2 equivalent of Section 1, comprising 336.57 acres, on which there is currently no well;

(C) the W/2 of Section 12, comprising 320 acres, which is to be dedicated to the existing Smith Federal Gas Com Well No. 2 (API No. 30-015-26834) located 2049 feet from the North line and 480 feet from the West line (Unit E) of Section 12; and

(D) the W/2 of Section 13, comprising 320 acres, which is to be dedicated to the HOC Federal Gas Com Well No. 2 (API No. 30-015-26939) located 330 feet from the North and West lines (Unit D) of Section 13.

(8) The proposed acreage and pool rededication results in the Lowe State Gas Com Well No. 1 being only 928 feet from the outer boundary of its newly designated 320acre gas proration unit. The resulting unorthodox gas well location for this well requires proper authorization pursuant to the appropriate rules and regulations governing the Indian Basin-Upper Pennsylvanian Gas Pool.

(9) On behalf of the applicants, Marathon Oil Company presented geologic, petroleum engineering, and oil and gas mineral ownership and land evidence, which demonstrates that this application should be granted and which is summarized as follows:

(A) In the Indian Basin area, the Upper Pennsylvanian interval contains multiple compartmentalized reservoirs, which are productive of oil, gas and water from several dolomitized horizons from the top of the Cisco formation to

the base of the Canyon formation.

(B) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Gas Pool, including the extension area, and the Indian Basin-Upper Pennsylvanian Associated Pool were originally developed with flowing gas wells on 640-acre gas spacing such that, once the gas wells stopped flowing as a result of water encroachment, the wells were abandoned.

(C) The Indian Basin-Upper Pennsylvanian Gas Pool attained its maximum extension in the 1970s and, since then, water encroachment has advanced from east to west slowly watering out the flowing gas wells. Currently, flowing gas production occurs west of a structural contour line at minus 3300 feet subsea elevation.

(D) In 1992, Yates Petroleum Corporation reentered and recompleted the Hickory "ALV" Federal Well No 1 (API No. 30-015-10566), located 1650 feet from the North and West lines (Unit F) of Section 17, Township 22 South, Range 24 East, NMPM. Using the same high capacity pumps used in the nearby South Dagger Draw-Upper Pennsylvanian Associated Pool, Yates was able to achieve rates of 400 BOPD, 500 MCFGPD and 1200 BWPD in a former Indian Basin-Upper Pennsylvanian Gas Pool well which had previously been depleted. Thereafter the Division entered Order No. R-9922 and created the Indian Basin-Upper Pennsylvanian Associated Pool.

(E) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are in a structural feature separated from the Indian Basin-Upper Pennsylvanian Gas Pool by a structural saddle at the top of the Cisco at a subsea elevation of minus 3500 feet. New wells located within 320-care spacing units in the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are now producing or have the potential to produce oil and gas that was not previously recovered when this area was originally developed as part of the Indian Basin-Upper Pennsylvanian Gas Pool.

Ľ

> (F) Current oil and gas production from the Cisco/Canyon formations in the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area required extensive formation "de-watering." Hydrocarbons are mobilized by continuous movement of large volumes of water with artificial lift.

(G) Pressure data demonstrates that:

(i) the Indian Basin-Upper Pennsylvanian Associated Pool, with a pressure on average of 1600 psi, is not in pressure communication with the Indian Basin-Upper Pennsylvanian Gas Pool, which has a current pressure on average of 500 psi; and

(ii) wells in the extension area of Township 21 South, Range 24 East, NMPM, have a pressure related to the Indian Basin-Upper Pennsylvanian Associated Pool.

(H) Production data demonstrates that:

(i) there are no flowing gas wells in the extension area; and

(ii) old flowing gas wells in the extension area were abandoned when they watered out and new wells are attaining oil and gas production by using high capacity pumps.

(I) The division of Section 36, Township 21 South, Range 23 East, NMPM and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM (the transition area) into non-standard 320-acre, more or less, gas proration and spacing units will provide an equitable "buffer" between the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Upper Pennsylvanian Associated Pool because:

-

> (i) wells have been located or can be located such that drainage by wells in the Indian Basin-Upper Pennsylvanian Associated Pool can be met with counter drainage from wells located or to be located on the eastern side of each of the four 320-acre, more or less, non-standard gas spacing and proration units in the Indian Basin-Upper Pennsylvanian Gas Pool provided that wells located on the eastern side of these units can be no closer than 660 feet from the eastern boundary, which is also the setback requirement for wells in the Indian Basin-Upper Pennsylvanian Associated Pool; and

> (ii) wells located in the Indian Basin-Upper Pennsylvanian Gas Pool will not suffer unfair competition from wells located or to be located in these four, non-standard gas proration units because allowables will be apportioned based upon the gas proration system adopted for the Indian Basin-Upper Pennsylvanian Gas Pool.

(J) The granting of this application should not impair the correlative rights:

(i) of any working interest owner within any of the existing 640-acre GPUs because there are voluntary joint operating agreements requiring that all those owners continue to share in production and pay costs from the new 320-acre spacing units on the same proportional basis as in the original 640-acre unit;

(ii) of any overriding royalty interest owner or the federal royalty under a federal oil and gas lease within any of the existing 640-

> acre GPUs because there are federal communitization agreements requiring that all those owners continue to share in production from the new 320-acre spacing units on the same proportional basis as in the original 640acre unit;

(iii) under Section 32, Township 21 South, Range 24 East, NMPM, which consists of two 320-acre State of New Mexico leases and is operated by Marathon Oil Company, because there are no overriding royalty owners and the State Land Office desires that the communitization agreement for the existing 640-acre proration unit terminate and be replaced by two 320-acre proration units coextensive with the two State leases; and,

(iv) under Section 36, Township 21 South, Range 23 East, NMPM, which consists of two State of New Mexico leases and is operated by ORYX Energy Company, because there are no overriding royalty owners and the State Land Office desires that the existing 640-acre communitization agreement terminate and be replaced by two 320-acre communitization agreements.

(10) The evidence and testimony presented at the hearing further indicate that:

(A) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are a single structural feature such that wells located in this area should be subject to the same special rules and regulations.

(B) Geologic and petroleum engineering evidence demonstrate that substantial volumes of oil and gas, which otherwise would not be produced, can be economically recovered from the extension area if that area is subject to the

> current rules applicable to the Indian Basin-Upper Pennsylvanian Associated Pool, thereby preventing waste.

> (C) Making the extension area part of the Indian Basin-Upper Pennsylvanian Associated Pool will afford the opportunity to increase the de-watering process in the reservoir and improve recovery efficiencies for both oil and gas.

> (D) The adoption of the four 320-acre, more or less, nonstandard gas proration and spacing units will establish a temporary "buffer" or transition area between the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Upper Pennsylvanian Associated Pool, which at this time will establish equity and protect correlative rights.

(11) The applicants are all of the operators of wells in the extension area and they have met and unanimously agreed upon this application.

(12) In accordance with Division notification rules, notification of this application and request for hearing has been sent to the owners within the proposed expansion area and to the offset operators to each non-standard gas proration and spacing unit and no objections have been received by either the Division or Marathon Oil Company, which sent out these notices.

(13) In order to prevent waste, to prevent the drilling of unnecessary wells, to protect correlative rights and provide for a more orderly development of the Cisco/Canyon formations, it is necessary to do the following:

(A) contract the Indian Basin-Upper Pennsylvanian Gas Pool and <u>expand</u> the Indian Basin-Upper Pennsylvanian Associated Pool as described in Finding Paragraph No. 6;

(B) approve the four non-standard 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool as described in Finding Paragraph No. 7; and,

(C) approve an unorthodox gas well location for the Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line (Unit K) of said Section

36.

(14) Marathon Oil Company, Santa Fe Energy Resources, Inc. and ORYX Energy Corporation were present at the hearing and Marathon Oil Company, on behalf of the applicants, provided technical land, geologic and engineering testimony concerning the reservoir and, these pools.

(15) No other operator and/or interest owner appeared at the hearing in opposition to the application.

(16) Approval of the applicant's request will allow the interest owners the opportunity to economically recover their share of the oil and gas in the subject pools, will not reduce ultimate recovery from the subject pools, and will not violate correlative rights.

IT IS THEREFORE ORDERED THAT:

Section 13:

(1) The Indian Basin-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, is hereby <u>contracted</u> by the deletion of the following described area:

Section 36:	E/2
TOWNSHIP 21 SOUTH.	RANGE 24 EAST, NMPM
Sections 20 and 21:	All
Sections 28 through 32:	All
TOWNSHIP 22 SOUTH.	RANGE 23 EAST. NMPM
Section 1:	. E/2
Section 12:	E/2

TOWNSHIP 21 SOUTH RANGE 23 FAST NMPM

(2) Concomitantly, the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein the following described area:

E/2.

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPMSection 36:E/2

Section 12:

Section 13:

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPMSections 20 and 21:AllSections 28 through 32:AllTOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPMSection 1:E/2

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM Section 18: All.

(3) The following four 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool within Section 36, Township 21 South, Range 23 East, and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, are hereby approved:

E/2

E/2.

(A) the W/2 of Section 36, comprising 320 acres, which is to be dedicated to the existing Lowe State Gas Com Well No. 1 (API No. 30-015-10342), located at an unorthodox gas well location for the 320-acre GPU, 1995 feet from the North line and 1712 feet from the West line (Unit F) of Section 36;

(B) the W/2 of Section 1, comprising 336.57 acres, on which there is currently no well;

(C) the W/2 of Section 12, comprising 320 acres, which is to be dedicated to the existing Smith Federal Gas Com Well No. 2 (API No. 30-015-26834) located 2049 feet from the North and 480 feet from the West lines (Unit E) of Section 12; and,

(D) the W/2 of Section 13, comprising 320 acres, which is to be dedicated to the HOC Federal Gas Com Well No. 2 (API No. 30-015-26939) located 330 feet from the North line and 330 feet from the West line (Unit D) of Section 13.

(4) Any future well located in any of these four non-standard gas proration and spacing units no closer than 660 feet to the eastern boundary of the unit shall be considered

،د

SEAL

to be at a standard location.

(5) The apportionment of gas allowables for the four non-standard GPU's shall be accomplished by applying a 0.5 acreage factor to each of the non-standard GPU's.

(6) An unorthodox gas well location for the following well in the Indian Basin-Upper Pennsylvanian Gas Pool, which became unorthodox as a result of the change in pool boundary, is hereby approved: Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line and of Section 36, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico.

(7) The locations of all wells presently drilling to or completed in the Indian Basin-Upper Pennsylvanian Associated Pool within this expansion area are hereby approved; the operator of any well having an unorthodox location shall notify the Artesia District Office of the Division in writing of the name and location of the well within thirty days from the date of this order.

(8) Pursuant to Paragraph A of Section 70-2-18, NMSA (1978), contained in Chapter 271, Laws of 1969, existing wells in the Indian Basin-Upper Pennsylvanian Associated Pool within this expansion area shall have dedicated thereto 320 acres; or, pursuant to Paragraph C of Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

(9) Failure to file new Forms C-102 with the Division dedicating 320 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to being shut-in.

(10) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DOFF * Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

gri Wrotenberg

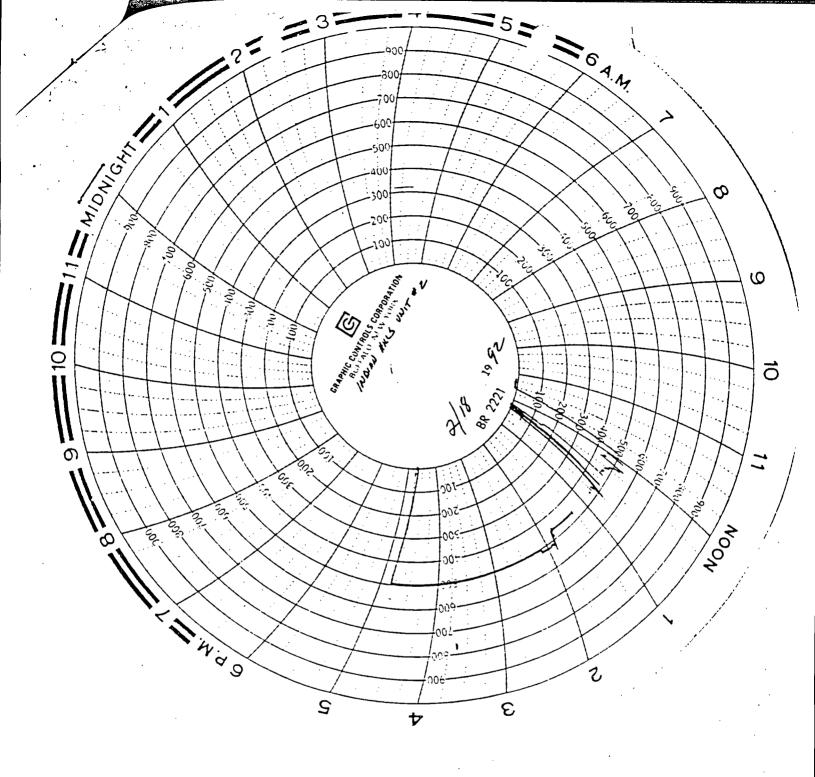
LORI WROTENBERY Director

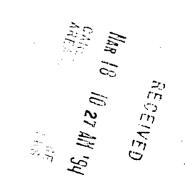
• •		CY
(June 1990) DEPARTI ONSERVE ON ONVESTON BUREAU RECT (ED) SUNDRY NOTICES	UNITED STATES MENT OF THE INTERIOR OF LAND MANAGEMENT AND REPORTS ON WELLS drill or to deepen or reentry to a different reservoir	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lease Designation and Serial No. LC 064391 B 6. If Indian, Allottee or Tribe Name
AP-25 HIL 8 Dec "APPLICATION	FOR PERMIT - " for such proposals	7. If Unit or CA, Agreement Designation
1. Type of Well	MIT IN TRIPLICATE	Indian Hills Unit
Oil Gas Cother		8. Well Name and No.
2. Name of Operator Marathon Oil Company		Indian Hills Unit 2 9. API Well No.
	79702 915/682/1626	30-015-10718 10. Field and Pool, or exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Sur UL "O", 660' FSL & 1750' FE		Indian Basin Upper Penn 11. County or Parish, State
SEC 20, T-21-S, R-28-E		Eddy, NM
12. CHECK APPROPRIATE BO	DX(s) TO INDICATE NATURE OF NOTICE, REP	ORT, OR OTHER DATA
	TYPE OF AC	
Notice of Intent	Abandonment Recompletion Plugging Back	Change of Plans Chave Construction Non-Routine Fracturing
Final Abandonment Notice	Casing Repair Altering Casing X Other <u>Extend TA Stat</u>	Water Shut-Off Conversion to Injection Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
give subsurface locations and measured and t Marathon Oil Co is requesti was tested 2/18/92. The we	state all pertinent details, and give pertinent dates, including estimated date rue vertical depths for all markers and zones pertinent to this work of ng extension of the TA status of this 11 is in an area of development and h economic reserves are found the weight t continues in the area.	SEIVED asing integrity has Indian Basin Upper Penn
TH		ON. DIV. 197. 2 100 105 105 105 105 105 105 105 105 105
14. I hereby certify the foregoing is true and cor		
14. I hereby certify the foregoing is true and con- Signed	e Title Adv. Eng. Tech	Date <u>3-7-96</u>
Conditions of approval, if any:	by person knowingly and willfully to make to any department or agency of	
or representations as to any matter within its jurisdict		

* See instruction on Reverse Side

(June 1990) GIE CONSERVE UN DIPERARTMEN RECEVED SUNDRY NOTICES Do not use this form for proposals to d	AND REPORTS ON WELL rill or to deepen or reentry to	.S a different reservoir.	51 FORM APPROVED B210 Budget Burges No. 1004-0135 Expires: March 31, 1993 3. Lesse Designation and Serial No. LC 064391-B 6. If Indian, Allottes or Tribe Name
	OR PERMIT—" for such propo	sals	7. If Unit or CA, Agreement Designation
L. Type of Well	T IN TRIPLICATE	1111	
	RILY ABANDONED	APR ~ 5 1994	INDIAN HILLS UNIT 8. Well Name and No.
2. Name of Operator		· · ·	INDIAN HILLS UNIT #2
MARATHON OIL COMPA	<u>ANY</u>		9. API Well No. 300151076180000
P.O. BOX 1324, ART	TESIA, NM 88210 (5	05) 457-2621	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey I UNIT 0; 660' FSL a	• •	20-T215-BZ3E 24	INDIAN BASIN UPPER PENN 11. Courry of Purish, State EDDY COUNTY, NM
12. CHECK APPROPRIATE BOX	(S) TO INDICATE NATURE	OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
Notice of Intent	Abandonment		Change of Plans
X Subsequent Report	Recompletion Plugging Back Casing Repair		New Construction Nou-Routine Fracturing Water Statt-Off
Final Abandonment Notice	Altering Casing	ST T.A. STATUS	Conversion to Injection Dispose Water (Note: Report results of studies completion on Well Completions or Recompletion Report and Log form.)
 Describe Proposed or Completed Operations (Clearly state a give subsurface locations and measured and true vertices) 			
-	a copy of the 1992		t.
on this well this time, th	he well is targeted the undeveloped oi:	s capable of p d for possible	roducing at recompletion
TĤ	Approved for 12	Month Period	<u>*</u>
	ENDING	,	AFE IN
\sim			27
i. I hereby certify that the foregoing is true well correct Signed	Tide GANG PUSH	E R	Date 3/1594
(This space for Federal of State office use) Approved by	Tide PENRO	定口路 日时非洲石建筑	Dete 4/4/94

de 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 statements representations as to any matter within its jurisdiction.





			\sim
Une 1990) ERA N DIVISION DEPARTMEN	TED STATES T OF THE INTERIOR LAND MANAGEMENT	Received Mar - 5 1992	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lease Designation and Serial No.
'S2 APR 1: ANSUNDAY NOTICES	AND REPORTS ON WELLS ill or to deepen or reentry to R PERMIT—" for such propos	a different reservoir.	LC 064391-B 6. If Indian, Allottee or Tribe Name
SUBMIT	IN TRIPLICATE		7. If Unit or CA, Agreement Designation
I. Type of Well Oil Well Gas Well X Other Temporar	ily Abandoned		Indian Hills Unit
2. Name of Operator Marathon Oil Company		<u> </u>	Indian Hills Unit #2 9. API Well No.
3. Address and Telephone No. P.O. Box 1324, Artesia,	NM 88210 (505)	457-2621	30015106180000 10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey Du Unit 0; 660' FSL and 17		24 1S-R23E	Indian Basin Upper Pe 11. County or Parish, State Eddy County, NM
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE	OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
X Notice of Intent	Abandonment	· ·	Change of Plans
Subsequent Report	Plugging Back Casing Repair		Non-Routine Fracturing
Final Abandonment Notice	Altering Casing	nical Integri	Conversion to Injection
13. Describe Proposed or Completed Operations (Clearly state a give subsurface locations and measured and true vertices and true states and	cal depths for all markers and zones pertine		RECEIVED FEB 10 9 23 MH '92 CARLSEN DEP URCE AREA HOOD OF AREAS
14. I hereby certify that the foregoing is true and correct Signed Tim Wi (This space for Federal/or State office yet) () Approved by () () () () () () () () () () () () ()	Inters Title Gang Pushe		Date 2/4/92 Date 3/2/92
Title 18 U.S.C. Section 1001, makes it a crime for any person or representations as to any matter within its jurisdiction.	n knowingly and willfully to make to any de *See Instruction on Reve		d States any false, fictitious or fraudulent statements

- +

•

1 *

MECHANICAL INTEGRITY TEST PROCEDURE Indian Hills Unit No. 2 Eddy County, New Mexico

4.4 DATE: February 17, 1992 PURPOSE: Run mechanical integrity test. (MIT) 3753' DF ELEVATION: 2D: 7411' SURFACE CASING: 13 3/8" set @ 235'. INTERMEDIATE CASING: 9 5/8" set @ 3050'. PRODUCTION CASING: 5 1/2" set @ 7372'. 2 3/8" set @ 7374'. TUBING: TIW set @ 7411'. PACKER: SAFETY PRECAUTION: Monitor H₂S at the wellhead while running test.

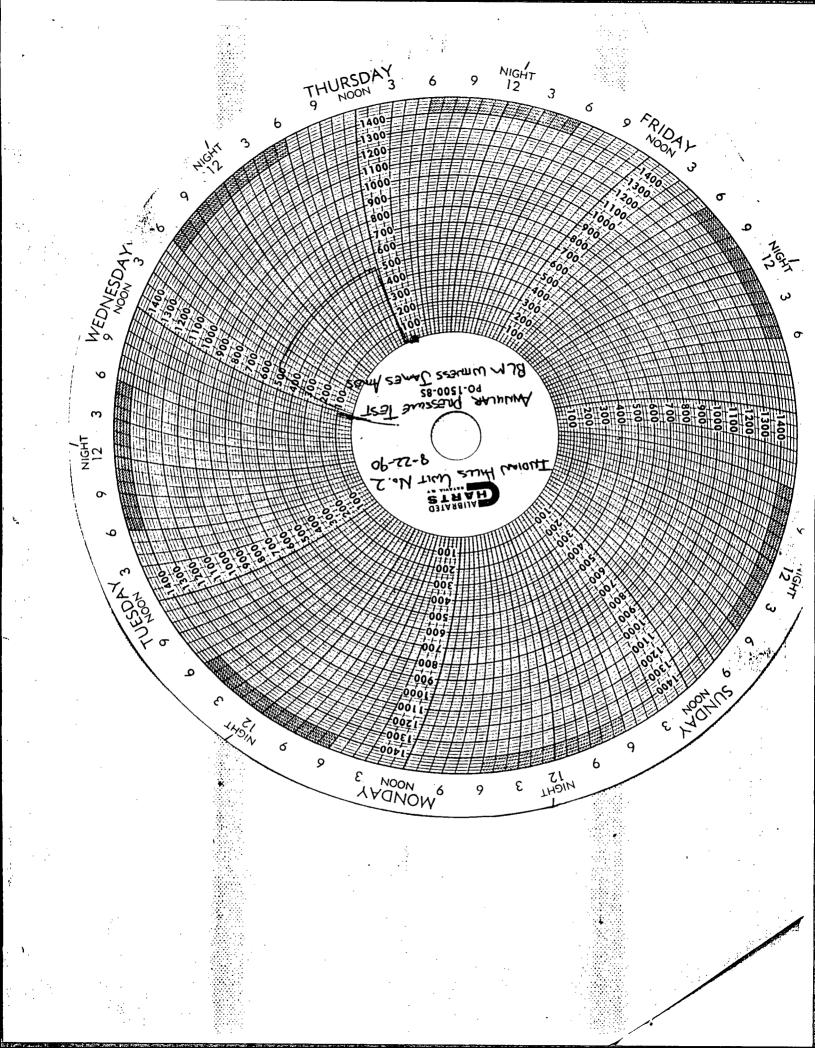
- Notify BLM representative, Duncan Whitlock, 48 hours prior to 1. (BLM telephone number (505) 887-6544) running MIT.
- 2. RU Service Company.
- 3. Test line and valves to 500 psig.

···

- Install pressure gauges with pen records on casing annulus. 4.
- 5. Fill tubing-casing annulus with 2% KCl water and pressure test to 500 psig.
- 6. Monitor pressure for 15 minutes.
- 7. RD Service Company.
- Send pressure chart to Midland Production office. 8.

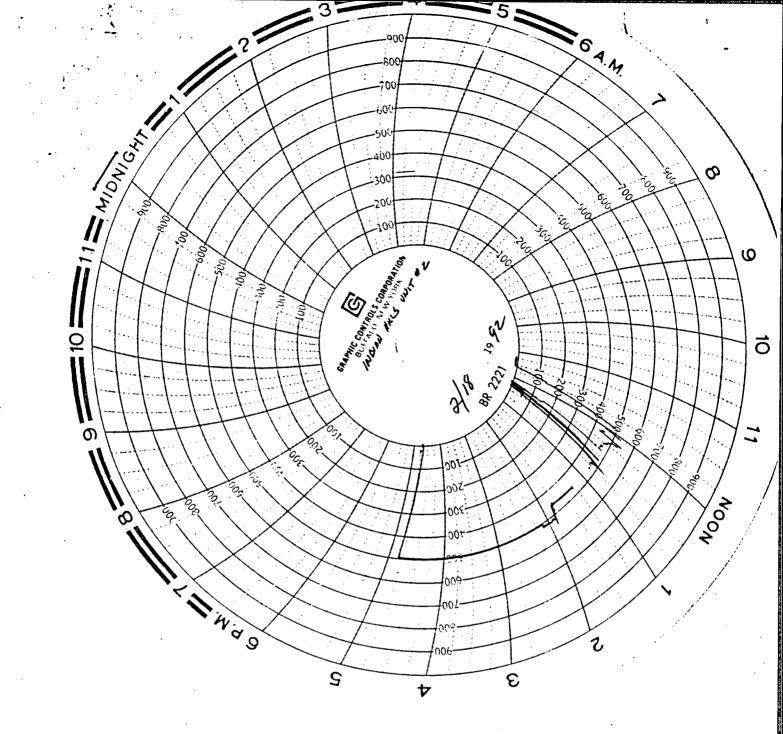
TLW/all

une 1990) DEPARTMEN	TED STATES IT OF THE INTERIOR LAND MANAGEMENT	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lesse Designation and Serial No.
Do not itset this form for proposals to dr	AND REPORTS ON WELLS ill or to deepen or reentry to a different reservoir. R PERMIT—" for such proposals	LC-064391-B 6. If Indian, Allottee or Tribe Name
SUBMIT	IN TRIPLICATE	7. If Unit or CA, Agreement Designation
1. Type of Well Oil Gas Well Well Sother Temporari	SEP 21'90	Indian Hills Unit 8. Well Name and No.
2. Name of Operator Marathon Oil Company 3. Address and Telephone No.	O. C. D.	Indian Hills Unit #2 9. API Well No.
P. O. Box 552, Midalnd, Texas	79702	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey D SEC. 20, T	escription) 215, R24E	Indian Basin (U. Per 11. County or Parish, State
660' FSL & 1750' FEL		Eddy County, New Mey
2. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPO	
TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent	Abandonment Recompletion	Change of Plans
Einal Abandonment Notice	Casing Repair	Non-Routine Fracturing Water Shut-Off Conversion to Injection
	Other Casing Integrity Tes	
 8-22-90. Following is the pro- Notified Mr. Shannon ment of casing integra Installed chart record Rigged up kill truck Pressured up on casing 	Shaw of Bureau of Land Management 24 rity test.	hrs. prior to commence
	mocontativo Mr. James Ames	w _ w
(Witnessed by BIM Rep	presentative Mr. James Amos)	
APPROVED FOR 12 MONTH F		ECEIVE
		ECEIVE
APPROVED FOR 12 MONTH F		ECEIVED
APPROVED FOR 12 MONTH F ENDING 9/1191	Title Engineering Technician	Date 9-14-90
APPROVED FOR 12 MONTH F ENDING 9/1191 14. I hereby certify that the foregoing is trug and correct SignedARL A. BASWELL	Title Engineering Technician	ECEIVED



UN DIVISIONDEPARTMEN	ARTESIA OFFICE	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lease Designation and Serial No. LC 064391-B
Do not use this form for proposals to dr	AND REPORTS ON WELLS III or to deepen or reentry to a different reservoir. R PERMIT—" for such proposals	6. If Indian, Allottee or Tribe Name
SUBMIT	IN TRIPLICATE	7. If Unit or CA, Agreement Designation Indian HI11s Unit
2. Name of Operator Marathon Oil Company	ily Abandoned	8. Well Name and No. Indian Hills Unit #2 9. API Well No.
3. Address and Telephone No. P.O. Box 1324, Artesia	a, NM 88210 (505) 457-2621	30015107180000 10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey D Unit 0; 660' FSL and	escription) 24 1750' FEL; Sec 20-T21S-R23E	Indian Basin Upper F 11. County or Parish, State Eddy County, NM
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
	TYPE OF ACTION	
Notice of Intent Subsequent Report Final Abandonment Notice	Abandonment Recompletion Plugging Back Casing Repair Altering Casing Other <u>Request T.A. Status</u>	Change of Plans Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water (Note: Report results of multiple completion or Completion or Recompletion Report and Log f
 On February 18 th: casing integrity. The test proved in 	is year the above mentioned well was ntegrity as witnessed by Mr. D. Whith request temporary abandoment status o	ock.
	y of the test chart. APPROVED FOR MONTH ENDING 04-01-93	HAR 25 AREA S
		Date3/2.3/9 2
14. I hereby certify that the foregoing is true and correct Signed Voel R-Day a		

*See Instruction on Reverse Side



(Formerly 9-331) DEPARTMENT OF BUREAU OF LAND		(Other lastructions on re verse side)	LC-064391-B	
SUNDRY NOTICES AND (Do not use this form for proposais to drill or Use "APPLICATION FOR PE			6 IF INDIAN, ALLOTTEE	OR TRIDE NAME
1	RECEVED		7. UNIT AGREEMENT NAS	_
WELL WELL OTHER TEMPOTARI			Indian Hills	+ · · · -
Marathon Oil Company '90 AU	JG 21 AM 9 ^{AU}	92 1 10 20 Mil CC	Indian Hills	
3. ADDRESS OF OPERATOR P. O. Box 552, Midland, Texas 7	A C	REA HARD IN ERS	9. WBLL NO.	
 LOCATION OF WELL (Report location clearly and in a See also space 17 below.) At surface 	ccordance with any Stat	RECEIVED '	10. FIELD AND POOL OR Indian Basin 11. SBC., T., R., M., OR BI AURENT OR ADDR	(U Penn)
660' FSL & 1750 FEL		AUG 13'90	Sec 20, T-21-	S, R-24-E
14. PERMIT NO. 15. ELEVATIO	NS (Show whether DF, RT,		12. COUNTY OR PARISE	13. STATE
3738'	'GL; 3753'DF	O, C. D.	Eddy	NM
16. Check Appropriate Bo	ox To Indicate Natu	ARTESIA, OFFICE	Other Data	
NOTICE OF INTENTION TO:		QUENT REPORT OF :		
TEST WATER SHUT-OFF	CASING	WATER SHCT-OFF	BEPAIRING W	
PRACTUBE TREAT MULTIPLE COMP	PIETE	PRACTURE TREATMENT	ALTERING CA	SING
SHOOT OB ACIDIZE ABANDON"		SBOOTING OR ACIDIZING	ABANDONMEN	T •
REPAIR WELL CHANGE PLANS		(Other)		<u>_</u>
(Other) Casing Integrity Test	1 3 2 1	Nors Report resulf	ts of multiple completion of	on Well

7. DESCRIBE PROPOSED OF COMPLETED OPERATIONS IN HEAVY STATE AN PETIMENT details, and give pertiment 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 sones pertinent to this work.) *

Marathon Oil Company proposes to perform a casing integrity test on the above referenced well upon approval of Form 3160-5. Following is the procedure:

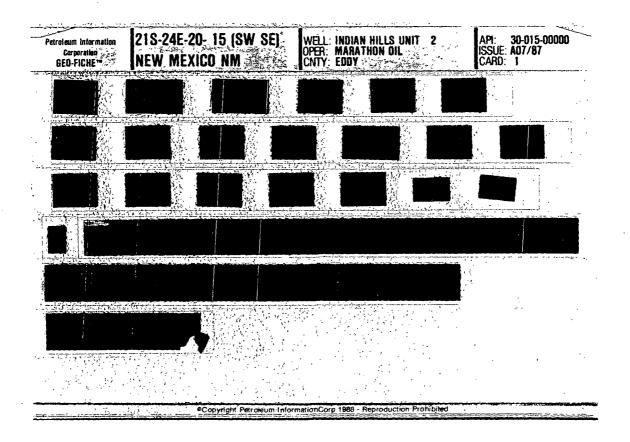
- * Marathon Oil Company respectfully requests permission to continue shut in status of this well for future evaluation.
- 1. Notify Mr. Shannon Shaw of Bureau of Land Management at (505) 887-6544 at least 24 hrs prior to commencement of casing integrity test.
- 2. Install chart recorder on casing.
- 3. Rig up kill truck and load backside with 2% KCl w/corrosion inhibitor.
- 4. Pressure up on casing/tubing annulus to 500 psig and hold for 15 minutes.
- 5. Rig down kill truck and chart recorder. Retain chart for submittal w/subsequent report.

NOTE: Tentative approval per telecon between Mr. Shannon Shaw and Mr. Carl Bagwell (Marathon) on 8-2-90.

IGNED J. R. Jenkins	TITLE Hobbs Production Sup't.	DATE 8-2-90
This space for Federal or State office use) Orig. Signed by Acain Salamah PPROVED BT	TITLE	DATE 84690

*See Instructions on Reverse Side

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 statements or representations as to any matter within its jurisdiction.



Page: 1 Document Name: untitled

CMD : OG5SECT	ONGARD INQUIRE LAND BY SECTION		01/04/99 12:33:09 OGOMES -TPG PAGE NO: 1	
Sec : 20 Twp : 21	S Rng : 24E Sectio	n Type : NORMAL		
4	3	2	1	
38.99	40.55	38.93	37.88	
Federal owned	Federal owned	Federal owned	Federal owned	
U	U	U	U	
5	6	7	8 38.34	
37.95	39.51	39.39		
Federal owned	Federal owned	Federal owned	Federal owned	
U	U	U	U	
PF01 HELP PF02		PF04 GoTo PF05	PF06	
PF07 BKWD PF08 FV		PF10 SDIV PF11	PF12	

78,32 76.22 154.54 16 314.54

76.22

Date: 1/4/99 Time: 12:34:25 PM

CMD : OG5SECT	ONGARD INQUIRE LAND BY SECTION		01/04/99 12:33:16 OGOMES -TPGC PAGE NO: 2
Sec : 20 Twp : 215	Rng:24E Sectio	on Type : NORMAL	
L	K	J	I
40.00	40.00	40.00	40.00
Federal owned	 Federal owned	Federal owned	Federal owned
U	U	U	U
Μ	N	0	P
40.00	40.00	40.00	40.00
Federal owned	 Federal owned	Federal owned	Federal owned
U	U	U	U
	A	A	
PF01 HELP PF02			 PF06
	ID PF09 PRINT		PF12

LINERISE

100 BERMEN STE STORE - 3. 395 1