

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

January 27, 1989

Arrowhead Oil Corporation P.O. Box 548
Artesia, NM 88210

Attention: Shirley Loop,

Secretary/Treasurer

Administrative Order NFL-176

Dear Ms. Loop:

Reference is made to your application for an Infill Well Finding and Well-Spacing Waiver made pursuant to Section 271.305(b) of the Federal Energy Regulatory Commission regulations, Natural Gas Policy Act of 1978, and the Oil Conservation Division Order No. R-6013 for the following described wells:

Wallingford Well No. 2 located 330 feet from the North line and 2310 feet from the West line and the Wallingford Well No. 3 located 990 feet from the North line and 2310 feet from the West line, both in Unit C of Section 32, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico.

THE DIVISION FINDS THAT:

- (1) Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling that subsequent wells are necessary to effectively and efficiently drain portions of the reservoir covered by the proration unit which cannot be so drained by any existing well-spacing requirements.
- (2) By Division Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that infill wells are necessary.
- (3) The wells for which findings are sought are to be completed in the Maljamar Grayburg San Andres Pool, and the standard spacing unit in said pool is 40 acres.

Administrative Order NFL-176 January 27, 1989 Page 2

- (4) A standard 40-acre oil proration unit comprising the NE/4 NW/4 of said Section 32 is currently dedicated to the applicant's Wallingford Well No. 1 located 660 feet from the North line and 1980 feet from the West line of said Section 32.
- (5) Said unit is <u>not</u> being effectively and efficiently drained by the existing wells on the unit.
- (6) The drilling and completion of the wells for which a finding is sought should result in the production of an additional 108,609 MCF of gas from the proration unit which would not otherwise be recovered (96,493 MCF from the Wallingford Well No. 2 and an additional 12,116 MCF from the Wallingford Well No. 3).
- (7) All the requirements of Division Order No. R-6013 have been compiled with, and the wells for which a finding is sought is necessary to effectively and efficiently drain portions of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.
- (8) In order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED THAT:

(1) The applicant is hereby authorized to drill both the Wallingford Well Nos. 2 and 3 as described above, as infill wells on the existing 40-acre oil proration unit comprising the NE/4 NW/4 (Unit C) of Section 32, Township 17 South, Range 32 East, NMPM, Maljamar Grayburg San Andres Pool, Lea County New Mexico. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit drainage of portions of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

Administrative Order NFL-176 January 27, 1989 Page 3

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

Sincerely,

Michael E. Stogner

Examiner

MES/ag

cc: Oil Conservation Division - Hobbs

NM Oil and Gas Engineering Committee - Hobbs

Vic Lyon

Revised Dec. 16, 1985

Reliace 1/23/84

Arrowhead Oil Corporation
P.O. Box 548
Artesia, MM 88210

Attention: Shirley harp

Secretary / Trescurer

RE: Administrative Order NFL-

Dear Mr. Soop

Reference is made to your application for an Infill Well Finding and Well-Spacing Waiver made pursuant to Section 271.305(b) of the Federal Energy Regulatory Commission regulations, Natural Gas Policy Act of 1978, and the Oil Conservation Division Order No. R-6013 for the following described wells:

Well No. 2 located 330 feet from the North line and 2310 feet from the North line and 2310 feet from the North line of and the Wallengford Well No. 3 beated 990 feet from the North line and 2310 feet from the West line, both in (Unit () of Section 32, Journaly 17 South, Range 32 East, SIMPM,

Section Township Range, NMPM,
County, New Mexico.

THE DIVISION FINDS THAT:

- Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of subsequent wells are drilling, that the well to necessary to effectively and efficiently drain a portions of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.
- (2) By Division Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill wells is necessary.
- (3) The wells for which or findings is sought is to be completed in the Maljamas brayberg San Andres Pool, and the standard spacing unit in said pool is 40 acres.

(4) A γ standard 40 -acre (gas) (oil) proration unit
comprising the NE/4 NW/4 of Section 32 Township
Range is currently dedicated to
the applicants Wallingford Well No. / located in Unit of
said Section 32.
More
(_) Said non-standard unit was previously approved by Order
No.
(5) Said unit is <u>not</u> being effectively and efficiently
drained by the existing (well) (wells) on the unit.
(\underline{b}) The drilling and completion of the wells for which a
(b) The drilling and completion of the wells for which a finding is sought should result in the production of an
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necessary to effectively and efficiently drain a portions of the

said proration unit, the subject application should be approved as

In order to permit effective and efficient drainage of

reservoir covered by said proration unit which cannot be

drained by any existing well within the unit.

an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED THAT:

(1) The applicant is hereby authorized to drill the Welling for Well Now Zand as described above, as are infill wells on the existing 40 -acre (oil) (gas) proration unit comprising the NE/4 NW/4 (Monte) of Section 32, Township 17 South, Range 32 East, NMPM, Magainer Progles.

Pool, Reserved by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portions of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

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

Sincerely,

Michael E. Stogner

Examiner

cc: Oil Conservation Division - / Hobba

MMO + GEC

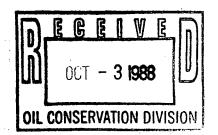


ARROWHEAD

OIL CORPORATION

September 29, 1988

(505) 748-3436 POST OFFICE BOX 548 ARTESIA, NEW MEXICO 88210



Energy & Minerals Dept. P.O. Box 2088 Santa Fe, New Mexico 87504

Attention; Michael E. Stogner

RE: NGPA Section 103 application Wallingford Well Nos. 2 & 3 both located in Unit C, Sec. 32, Township 17South, Range 32 East, NMPM, Maljamar Grayburg San Andres Pool, Lea County, New Mexico.

Dear Mike:

Enclosed is information regarding the infill well findings for the Wallingford # 2C and 3C. I hope this additional information will satisfy the requirement.

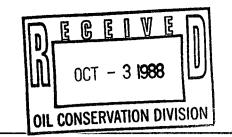
If we need further documentation please contact me. Thank you for your patience.

Since ely,

Shirley Loop

Secretary/Treasurer





September 28, 1988

Arrowhead Oil Corporation P.O. Box 548 Artesia, NM 88210

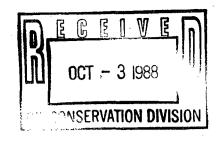
RE: Wallingford Lease
NE/4 NW/4 Section 32
T-17S, R-32E,
Lea County, New Mexico

Gentlemen:

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You have provided me with a copy of the letters from Michael Stogner dated September 2, 1988 and February 6, 1986, and a copy of Infill Well Findings for the Wallingford #2-C and #3-C including Paul White's report.

I have reviewed the information and arrived at the following conclusion. Mr. White reviewed the data on this forty acre tract and proposed a necessary drainage based on twenty acre spacing on two (2) wells. Yet, as Mr. Stogner pointed out there are three (3) wells on this tract. Mr. White failed to outline in his letter that the #1 Wallingford was drilled in 1943. It was plugged and abandoned in 1950 with some casing left in the hole. A re-entry was done in 1968 whereby 4 1/2" casing was set at 2525 feet or 25 feet inside the original 5 1/2" casing which had an original total depth of 3,700 feet. The well was then cleaned out to a depth of 4,025 feet, possible treated and returned to production. The well was originally completed open hole and reported "very little" gas in January, 1943. The open hole re-entry reported "not enough to measure" gas in May, 1968. has been no true gas production ever recorded from this well. Also since 4 1/2" casing has been cemented into this well bore, additional work and/or treatment is nearly impossible to do. experience of trying to retreat 1940-1950 casing and cement and open holes that were shot in that time frame have yielded low to nil results.



As such, I feel Mr. White directed his review of the drainage to the two new wellbores in that it was his conclusion that the #1 well could not be utilized to drain any portion of the forty acretract. I'm sorry his report did not include this analysis at the time. If you have any further questions, please contact me.

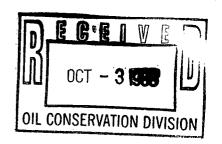
Sincerely,

Raye Miller Consultant

RM/dr

Paul G. White Engineering

OIL AND NATURAL GAS



November 14, 1985

Arrowhead Oil Corporation P. O. Box 548 Artesia, New Mexico 88210

Re: Pertinent Engineering Data
Wallingford No. 3
Maljamar Field
Lea County, New Mexico

Gentlemen:

The subject well, located 990' FNL and 2310' FWL, Section 32-17S-R32E, Lea County, New Mexico was completed May 1, 1981.

I have estimated the oil and gas reserves for the subject well based on a 20 acre well density. From the electrical log, analagous well study, and rate time curve, I have estimated that the well will recover 38,341 barrels of oil and 12,116 MCF of gas.

A study of nearby producing well rates and initial potentials reveals that wells will have to be drilled on a 20 acre spacing to properly and adequately recover the oil and gas reserves in this field.

Therefore, it is my recommendation that in-fill wells be drilled and the well density be increased to at least 20 acre spacing.

From my study the in-fill wells will characteristically exhibit new reservoir conditions.

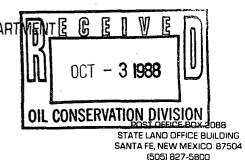
Paul G. White
Petroleum Engineer

Date November 14, 1985



ENERGY, MINERALŞ AND NATURAL PESOURCES DEPARTIME

OIL CONSERVATION DIVISION



GARREY CARRUTHERS
GOVERNOR

September 2, 1988

Arrowhead Oil Corp. Box 548 Artesia, NM 88210

Attention: Shirley Loop

RE: NGPA Section 103 Application

Wallingford Well Nos. 2 and 3

both located in Unit C,

Section 32, Township 17 South, Range 32 East, NMPM, Maljamar Grayburg San Andres Pool, Lea

County, New Mexico.

Dear Ms. Loop:

To date I have not received a response to my letter dated February 6, 1988 requesting additional information on the "Infill Well Findings" submitted for the subject wells, see attached. So that we may properly process your NGPA application, please submit this information within 90 days, otherwise these filings will be dismissed.

Thank you for your cooperation.

Sincerely

Michael E. Stogner Petroleum Engineer

MES/ag



STATE OF NEW MEXICO

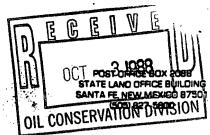
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

TONEY ANAYA

ARROWHEAD OIL CORPORATION
BOX 548
Artesia. NEW Mexico 88210
Attention: Shirley Loop

INFORMATION.



RE: Well head price ceiling determination, NGPA of

1978

Gentlemen:

The New Mexico Oil Conservation Division has received your application for a wellhead price ceiling category determination under the sections(s) of the Natural Gas Policy Act of 1978 indicated below if your application is incomplete, forms are attached hereto, indicating the documents and further information which must be filed before your application can be considered. If your application is complete, it will be acted upon administratively unless written objection is received within 15 days of its filing.

WELL NAME AND LOCATION_	WALLINGFORD	32-17S-32E	#3-C		
SECTION(S) APPLIED FOR_	103	·			
DATE APPLICATION RECEIVE	December	per 16, 1985	·		•
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optimal developmen	it spacing for the	hii portun of s	de pool, bet	thile to pro	re why
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		mill b	rete		
DATE: 7.6. 6, 1986		Muhael	Migue	2	
NOTE:	•				•

THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

TONEY ANAYA

ARROWHEAD OIL CORP. BOX 548

ARTESIA, NEW MEXICO 88210

Attention: Shirty look



RE:

Well head price ceiling

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WELL NAME AND LOCATION	WALLINGFORD	32-17S-32E	#2-C	
SECTION(S) APPLIED FOR	108	· · · · · · · · · · · · · · · · · · ·		
DATE APPLICATION RECEIVED_	December			
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\sim		Muha	18 Stogue	>
DATE: Jelmany 6, 1980	<u></u>			
NOTE:				,

THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY INFORMATION.



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

September 2, 1988

Arrowhead Oil Corp. Box 548
Artesia, NM 88210

Attention: Shirley Loop

RE: NGPA Section 103 Application Wallingford Well Nos. 2 and 3 both located in Unit C, Section 32, Township 17 South, Range 32 East, NMPM, Maljamar Grayburg San Andres Pool, Lea

County, New Mexico.

Dear Ms. Loop:

To date I have not received a response to my letter dated February 6, 1988 requesting additional information on the "Infill Well Findings" submitted for the subject wells, see attached. So that we may properly process your NGPA application, please submit this information within 90 days, otherwise these filings will be dismissed.

Thank you for your cooperation.

Sincerely

Michael E. Stogner Petroleum Engineer

MES/ag

WITH PRAW THESE FILE 12/2/88



STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

TONEY ANAYA

POST OFFICE SOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800

ARROWHEAD OIL CORPORATION
BOX 548
Artesia. NEW Mexico 88210
Attention: Shirley Loop

INFORMATION.

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DATE AP	PLICAT	ION RECEIV	EDDecemb	per 16, 1985			
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THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

TONEY ANAYA

POST OFFICE BOX 2089 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800

ARROWHEAD OIL CORP.
BOX 548
ARTESIA, NEW MEXICO 88210
Attention: Shirly look

INFORMATION.

RE: Well head price ceiling determination, NGPA of

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SECTION(S) APPLIED FOR	108	
DATE APPLICATION RECEIVED_	December 16, 1985	·
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APPLICATION INCOMPLETE Your R-6013-A, The standy for the effectively and	4. While west indicates .	that 20-use slaving in the
oftenial spaning for	This portion of the pool. To	by then are three well needed
to effectively and	Sincerely,	-acres;
	va. 1.	l E Slogue
DATE: February 6, 1986	, ——	
NOTE:		

THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY

Request for Infill Finding on

Wallingford State # 2

in accordance with Administrative

Procedures amended February 8, 1980

DISTRIBUTION NEW MEXICO OIL CONSERVATION COMMISSION New Mexico Oil Conservation New Mexico Oil Conser
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b. Type of Well cit. Cas well cas well condition 3 Address of Operator Arrowhead Oil Corporation 3. Address of Operator P. O. Box 548, Artesia, New Mexico 88210 1. Location of Well UNIT LETTER C LOCATED 330 FEET FROM THE North LINE AND 2309.3 FLET FROM THE West LINE OF SEC. 32 TWP. 17-S RGE. 32-E NAPO Legal 19. Frojosed Depth 4200' Grayburg-S. Andres Rotary Lea 19. Frojosed Depth 4200' Grayburg-S. Andres Rotary 21. Elevations (3 how whether DF, RT, etc.) 3906' GL Blanket Alta West 22. Approx. Date Work will strit March 9, 1980 PROPOSED CASING AND CEMENT PROGRAM SIZE OF HOLE SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH SACKS OF CEMENT EST. TOP 12. 1/4" 8 5/8" 24# 900' Z00 Sacks Circulate
Since of Operator Arrowhead Oil Corporation 3. Address of Operator P. O. Box 548, Artesia, New Mexico 88210 1. Location of Well Unit LETTER C LOCATED 330 FEET FROM THE West LINE OF SEC. 32 TWP. 17-S age. 32-E MUSP 23. Proposed Lepth 19A. Formation 20. Rotary of C.T. Leea 21. Elevations (3 how whether DF, RT, etc.) 21A. Kind 6 Status Plug. Bond 21B. Drilling Contractor 3906' GL Blanket Alta West 22. Approx. Date Werk will status and proposed Casing and Cement Program SIZE OF HOLE SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH SACKS OF CEMENT EST. TOP 12. 1/4" 8 5/8" 24# 900' Z00 Sacks Circulate
2. Name of Operator Arrowhead Oil Corporation Arrowhead Oil Corporation Arrowhead Oil Corporation Arrowhead Oil Corporation Address of Operator P. O. Box 548, Artesia, New Mexico 88210 1. Location of Well UNIT LETTER C LOCATED 330 FEET FROM THE North LINE 2309.3 FLET FROM THE West LINE OF SEC. 32 TWP. 17-S acc. 32-E MUSIC 12. County Lea 12. County Lea 21. Elevations (3how whether DF, RT, etc.) 3906' GL Blanket 21A. Kind & Status Plug. Bond Alta West PROPOSED CASING AND CEMENT PROGRAM SIZE OF HOLE SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH SACKS OF CEMENT EST. TOP 12 1/4" 8 5/8" 24# 900' 200 Sacks Circulate
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3906' GL Blanket Alta West March 9, 1980 PROPOSED CASING AND CEMENT PROGRAM SIZE OF HOLE SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH SACKS OF CEMENT EST. TOP 12 1/4" 8 5/8" 24# 900' 200 Sacks Circulate
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12 1/4" 8 5/8" 24# 900' 200 Sacks Circulate
7 7/6" 4 1/2" 10.5# 4200 425 Sacks 2550
\cdot
We propose to drill to approximately 900' and run 8 $5/8$ " casing. Circulate the cement and wait 18 hours.
Drill on to approximately 4200' and run 4 1/2" casing. Cement
with 425 sacks Class C 50/50 poz cement, up to the base of the salt.
A 10" 900 Series Cameron SS 3000# blowout preventer will be
used in drilling this well.
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM, IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.
hereby certify that the information above is true and complete to the best of my knowledge and belief.
Signed Stages try Title Secretary Date March 4, 1980
(This apage for State Use) / 1981
APPROVED BY TITLE WALL DISTRICT DATE

NEW JEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C+10? Supersedes C-128 Effective 14-65

All distances must be from the outer boundaries of the Section

Operator ARROWHE	AD OIL CORPO	RATION	VALLINGFO	ORD STATE	Well No.
Jnit Letter	Section	Township.	Honae .	County	
C Actual Footage Loc	32 ation of Wells	17 South	32 East	Lea	
330	teet from the	North line and		met tom the West	. Itae
Ground Level-Elev. 3906	Graybı	irg-San Andres	Maljamar		Dedicated Acreige: 40
	e acreage dedic	ated to the subject we	II by colored penci	l or hachure marks o	
	ian one lease in nd royalty).	s dedicated to the well	, outline each and i	dentify the ownersh	ip thereof (both as to working
dated by c	ommunitization,	unitization, force-pooli	ng. etc?	l, have the interest	s of all owners been consoli-
Yes	No If	answer is "yes;" type o	f consolidation		
	is ''no'' list the f necessary.)	owners and tract desc	riptions which have	actually been cons	olidated. (Use reverse side of
No allowat	ole will be assig				communitization, unitization, peen approved by the Commis-
: -		33			CERTIFICATION
	?30 b 3'	— Ÿ	. 1	l her	eby certify that the information con-
t t				toine	ed herein is true and complete to the
* 6	WAIL	Sport #1	1.	best	of my knowledge and belief.
	C Range	ARMWHERE D. 1 Comp.	, 4.	Nome	eorges (Toyl
	oct 31		-1 # g-1		gia A. Loyd
. 4	Ì		; !	Secr	etary
; ; ;	!	·	1	Compa	
- i	1			Pate	whead Oil Corporation
	· [l i	Marc	h 4, 1980
	1		; : - 	1 j	inby certify that the well location in an this plat was plotted from field
	! ! !) · ! . !	unde is tr	s of actual surveys made by me or r my supervision, and that the same ue and correct to the best of my ledge and belief
· <u>- </u>	 +				
i t	l I		<u> </u>	tuite Si	nveyed
· ;	1		1	} 	bruary 27, 1980
· •	1		1 1 1	/ I + Y	All Alexander
					1559

RULE 6:

Wallingford State # 2
Maljamar Grayburg San Andres
Standard spacing unit: 40 acres

RULE 7:

N/A

RULE 8:

- a. Wallingford State # 1/660'FNL 1980'FWL Sec.32T17SR32E Wallingford State # 2/330'FNL 2309.3'FWL Sec32T17SR32E
- b. #1-10/01/42, re-entry 3/30/68 #2-3/11/80
- c. #1-1/15/43, re-entry 5/13/68 #2-4/08/80
- d. None:
- e. #1-40 bbl oil, gas TSM/day #2-76 bbl oil, 100 mcf gas/day
- f. N/A
- g. The Wallingford # 2 was drilled because the low permeability and low quality solution gas recovery mechanism require reduced spacing to efficiently drain the reservoir.

 The Wallingford # 1 was completed openhole in January 1943, re-entered in May 1968 and returned to production. It did not produce a commercial quanity of gas and additional workover could not be justified because of downhole conditions.

 Since the Wallingford # 2 experienced new reservoir type conditions we feel the additional drilling was justified.

Paul G. White Engineering

OIL AND NATURAL GAS

November 14, 1985

Arrowhead Oil Corporation P. O. Box 548 Artesia, New Mexico 88210

Pertinent Engineering Data Wallingford No. 2 Maljamar Field Lea County, New Mexico

Gentlemen:

The subject well, located 330' FNL and 2309.3' FWL, Section 32-17S-R32E, Lea County, New Mexico was completed April 10, 1980.

I have estimated the oil and gas reserves for the subject well based on a 20 acre well density. From the electrical log, analagous well study and rate time curve, I have estimated that the well will recover 83,000 barrels of oil and 96,493 MCF of gas.

A study of nearby producing well rates and initial potentials reveals that wells will have to be drilled on a 20 acre spacing to properly and adequately recover the oil and gas reserves in this field.

Therefore, it is my recommendation that in-fill wells be drilled and the well density be increased to at least 20 acre spacing.

From my study the in-fill wells will characteristically exhibit new reservoir conditions.

> Signed Petroleum Engineer November 14, 1985 Date

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Rule 11:

Notice of this infill request has been sent to:

1. Conoco, Inc.
1. Conoco, 2197
P.O. Box 77252
Houston, Texas 77252

2. Gulf Oil Corporation p.O. Box 1150 p.O. Texas 79702 Midland, Texas

Both are offset operators.



OIL CORPORATION

P.O. BOX 548 ARTESIA, NEW MEXICO 88210 1-505-748-6801 December 10, 1985

Conoco, Inc. P.O. Box 2197 Houston, Texas 77252

RE: Notice to offset operators

Gentlemen:

Notice is hereby given to you as an offset operator to the request of Arrowhead Oil COrporation to the New Mexico Oil Conservation Division for an infill finding on the following well:

Wallingford # 2 *330'FNL 2309.3'FWL Sec. 32-T17S-R32E Lea County, New Mexico

This notice is given pursuant to the Special Rules and Regulations Natural Gas Policy Act Infill Finding Administrative Procedure (amended February 8, 1980). These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978.

If there are any questions please contact our office.

Yours truly,

Shirley V/ Loop



OIL CORPORATION

P.O. BOX 548 ARTESIA, NEW MEXICO 88210 1-505-748-8601 December 10, 1985

Gulf Oil Corporation P.O. Box 1150 Midland, Texas 79702

RE: Notice to offset operators

Gentlemen:

Notice is hereby given to you as an offset operator to the request of Arrowhead Oil COrporation to the New Mexico Oil Conservation Division for an infill finding on the following well:

Wallingford # 2 330'FNL 2309.3'FWL Sec. 32-T17S-R32E Lea County, New Mexico

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If there are any questions please contact our office.

Yours truly,

Shirley V. Loop

Request for Infill Finding on

Wallingford State # 2

in accordance with Administrative

Procedures amended February 8, 1980

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DISTRIBUTION		NEW	MEXICO OIL CONS	ERVATION CON	MISSION	1	bim C-101	,
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2. Name of Operator	1 1						9. Well No.	
Arrowhead Oil Cor	poration			·			#2	
P. O. Box 548, Ar	tesia. Ne	ew Mexic	o 88210				Maljam	d Poet, er Wildeat Am
1. Location of Well UNIT LETT					Nort	h	7777777	
				FEET FROM THE	·	LINE		
AND 2309.3 PLET FROM	THE	est	32	TWP. 17-S	32-	E Nus	IIIIII	
							12. County	
HHHHHH	4444	4444		HHHH	<i>HHH</i>	<i>HHH</i>	Lea	HHA
				19. Franced De		A. Formation	S.Andres	20. Retary or C.T. Rotary
21. Elevations (Show whether Dr	RI, etc.)	21A. Kind	6 Status Plug. Hond	21B. Drilling Co.				. Date Work will start
3906° GL		Bla	nket	Alta Wes	st	· · · · · · · · · · · · · · · · · · ·		h 9, 1980
	·	P!	ROPOSED CASING A	ND CEMENT PRO	GRAM			
SIZE OF HOLE	SIZE OF		WEIGHT PER FOO			SACKS OF		EST. TOP
12 1/4"	8 <i>5,</i>		24#	4200		200 S		Circulate
7 7/8"	4 1	/ 2"	10.5#	4200		425 S	acks	2350
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			ent and wait		CHO I	יער טייים.	o casin	65 •
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D	rill on	to appro	ximately 4200	o and run	∤ 1/2"	casing.	Cement	
	ith 425 : alt.	Sacks CI	ass C 50/50 I	oz cement,	up to	the bas	e or the	
30	· ·		•	• .*				
A	10" 900	Series	Cameron SS 30	000# blowout	t preve	enter wi	11 be	
u	sed in d	rilling	this well.	•				
					-			
IN ADOVE SPACE DESCRIBE PR	OPOSED PH	OGRAMI IF P	PROPOSAL IS TO DEEPEN	OR PLUG BACK, GIV	E DATA ON	PRESENT PRO	DUCTIVE ZONE	AND PROPOSED NEW PHOT
I hereby certify that the informati	on above is tr	ue and comp	lete to the best of my	knowledge and be	lief.			
H	1	feel)	za. Secret	ary		_	Mar	ch 4, 1980
Signed College		1	Title Becre	- <i>y</i>)ate	
(This apage for	State Use)	//	/ grann -			· · · · · · · · · · · · · · · · · · ·	im	MARIN TO THE STATE OF
Loss	110	1MX	到是	AVISCE !		Carrens	<u> </u>	Man Andrew
APPROVED BY		yeur)	TITLE		- ·- ·*, ·•, ·	······································	ATE	

.NEW JEXICO OIL CONSCIEVATION COMMISSIO. WELL LOCATION AND ACREAGE DEDICATION PLAT

term south; Supervedex 1,4128 Little time court

All distances must be from the outer boundaries of the Section WALLINGFORD STATE ARROWHEAD OIL CORPORATION Unit Letter 32 East C 17 South Lea Actual Footage Location of Well: North teet from the Ground Level Elev. Erroducina Formation Grayburg-San Andres Maljamar 3906 1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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? 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 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, climinating such interests, has been approved by the Commission. : CERTIFICATION I hereby certify that the information coned herein is true and complete to the Georgia A. Loyd Secretary Arrowhead Oil Corporation March 4, 1980 I hereby certify that the well location is true and correct to the best of my knowledge and belief Insto Parviewed February 27, 1980 1559

RULE 6:

Wallingford State # 2
Maljamar Grayburg San Andres
Standard spacing unit: 40 acres

RULE 7:

N/A

RULE 8:

- a. Wallingford State # 1/660'FNL 1980'FWL Sec.32T17SR32E Wallingford State # 2/330'FNL 2309.3'FWL Sec32T17SR32E
- b. #1-10/01/42, re-entry 3/30/68 #2-3/11/80
- c. #1-1/15/43, re-entry 5/13/68 #2-4/08/80
- d. None
- e. #1-40 bbl oil, gas TSM/day #2-76 bbl oil, 100 mcf gas/day
- f. N/A
- g. The Wallingford # 2 was drilled because the low permeability and low quality solution gas recovery mechanism require reduced spacing to efficiently drain the reservoir.

 The Wallingford # 1 was completed openhole in January 1943, re-entered in May 1968 and returned to production. It did not produce a commercial quanity of gas and additional workover could not be justified because of downhole conditions.

 Since the Wallingford # 2 experienced new reservoir type conditions we feel the additional drilling was justified.

Paul G. White Engineering

OIL AND NATURAL GAS

November 14, 1985

Arrowhead Oil Corporation P. O. Box 548
Artesia New Mexico 88210

Re: Pertinent Engineering Data Wallingford No. 2 Maljamar Field Lea County, New Mexico

Gentlemen:

The subject well, located 330' FNL and 2309.3' FWL, Section 32-17S-R32E, Lea County, New Mexico was completed April 10, 1980.

I have estimated the oil and gas reserves for the subject well based on a 20 acre well density. From the electrical log, analagous well study and rate time curve, I have estimated that the well will recover 83,000 barrels of oil and 96,493 MCF of gas.

A study of nearby producing well rates and initial potentials reveals that wells will have to be drilled on a 20 acre spacing to properly and adequately recover the oil and gas reserves in this field.

Therefore, it is my recommendation that in-fill wells be drilled and the well density be increased to at least 20 acre spacing.

From my study the in-fill wells will characteristically exhibit new reservoir conditions.

Petroleum Engineer

Date November 14 1985

Date November 14, 1985

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Rule 11:

Notice of this infill request has been sent to: 1. Conoco, Inc. P.O. Box 2197 Houston, Texas 77252

> 2. Gulf Oil Corporation P.O. Box 1150 Midland, Texas 79702

Both are offset operators.

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OIL CORPORATION

P.O. BOX 548 ARTESIA, NEW MEXICO 88210 1-505-746-8601 December 10, 1985

Conoco, Inc. P.O. Box 2197 Houston, Texas 77252

RE: Notice to offset operators

Gentlemen:

Notice is hereby given to you as an offset operator to the request of Arrowhead Oil Corporation to the New Mexico Oil Conservation Division for an infill finding on the following well:

Wallingford # 2 330'FNL 2309.3'FWL Sec. 32-T17S-R32E Lea County, New Mexico

This notice is given pursuant to the Special Rules and Regulations Natural Gas Policy Act Infill Finding Administrative Procedure (amended February 8, 1980). These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978.

If there are any questions please contact our office.

Yours truly,

Shirley V/ Loop



OIL CORPORATION

P.O. BOX 548 ARTESIA, NEW MEXICO 88210 1-505-748-6601 December 10, 1985

Gulf Oil Corporation P.O. Box 1150 Midland, Texas 79702

RE: Notice to offset operators

Gentlemen:

Notice is hereby given to you as an offset operator to the request of Arrowhead Oil Corporation to the New Mexico Oil Conservation Division for an infill finding on the following well:

Wallingford # 2 330'FNL 2309.3'FWL Sec. 32-T17S-R32E Lea County, New Mexico

This notice is given pursuant to the Special Rules and Regulations Natural Gas Policy Act Infill Finding Administrative Procedure (amended February 8, 1980). These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978.

If there are any questions please contact our office.

Yours truly,

Shirley V. Loop

Request for Infill Finding on the
Wallingford State # 3
in accordance with Administrative
Procedures amended February 8, 1980

P. O. Box 548, Artesia, New Mexico 88210 UNIT LETTER C LOCATED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

年代の行政の政権を持ち合うというなどの対抗を連続が行政を表示が利用の構造が指するが、大学の大学の主義の対象の主義の対象の政権の対象を対象を支持しているというのでは、大学の

LAND OFFICE OPERATOR

la. Type of Work

b. Type of Well

2. Name of Operator

2310

3901' GL

SIZE OF HOLE

12 1/4"

7_7/8"

DRILL X

WELL

Arrowhead Oil Corporation
3. Address of Operator

(<u></u>		R E V L	S	E D		0	30-0.	25-272	9É
	NEW	MEXICO OIL CONSI	ER	VATION COMMISSION	N		orm C-101 evised 1-1-6	3	
	,			·		5	A. Indicate	Type of Lease]
		-				.5	. State Oil 6 B-4109	S Gas Lease No.	
FOR PE	RMIT TO	DRILL, DEEPEN,	. 0	R PLUG BACK	_				
							. Unit Agree	ement Name	7777
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								d Pool, or Wildcat	
Artesia	, New Me						Maljan	ar	~~~
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?T, etc.)	21 A. Kind	& Status Plug. Bond	211	4250' (Gr	ayburg-S		S Rotary Date Work will ste	
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		• •	300	00# blowout pre	ev	venter wi	11 be		
in drill	ling th:	is well.							

We propose to drill to approximately 900' and run 8 5/8 Circulate the cement and wait 18 hours.

Drill on to approximately 4250' and run 4 1/2" casing. with 425 sacks Class C 50/50 poz cement, up to the base salt.

A 10" 900 Series Shaffer Type F 3000# blowout prevente used in drilling this well.

***Cement on the production casing must be brought from the salt or anhydrite to the surface casing. the top by either circulating with sement or a DV tool at the top APPROVAL VALID FOR 180 DAYS PERMIT EXPIRES 9/9/ UNLESS DRILLING UNDERWAY

I hereby certify that the information above is true and complete to the	nest of my knowledge and hellef.				
Signed Turger (Tille	Secretary	Date _	March	6,	1981
APPROVED BY JUSTICE W. Clevelands TITLE	OIL & GAS INSPECTOR	DATE	MAR	ë	1981
CONDITIONS OF APPROVAL, IF ANY!		pr .	fe to per ;		

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

From Supersedes (+128 Effective 1-1-65

All distances must be from the outer boundaries of the Section ARROWHEAD OIL CORPORATION 3 WALLINGFORD STATE Township Unit Letter Section 17 South 32 East LEA Actual Footage Location of Well; North West feet from the line and Ground Level Elev. Producing Formation Leedlanted Acresses 3905 Maljamar Grayburg-San Andres 1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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? If answer is "yes!" type of consolidation Yes 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 operated by Annowheed I hereby certify that the information con tained herein is true and complete to the GRAY bung SAW ANDRES best of my knowledge and belief. # 1 Cumulation prod - 33973 165 #2 Cumulative prod. 74,685 Georgia A. Loyd Secretary Arrowhead_Oil Corporation March 6, 1981 shown on this plat was platted from field knowledge and belief. March 4, 1981

1 500

500

2000

RULE 6:

Wallingford State # 3

Maljamar Grayburg San Andres

Standard spacing unit: 40 Acres

RULE 7:

N/A

RULE 8:

- a. Wallingford St #1-660'FNL 1980'FWL Sec32-T17S-R32E Wallingford St #2-330'FNL 2309.3'FWL Sec32-T17S-R32E Wallingford St #3-990'FNL 2310FWL Sec32-T17S-R32E
- b. #1-1-10/01/42, re-entry 3/30/68 #2-3/11/80 #3-3/21/81
- c. #1-1/15/43, re-entry 5/13/68 #2-4/08/80
- d. #3-4/28/81
- #1-40 bb1 oil, TSM gas/day
 #2-76 bb1 oil, 100 MCF gas/day
 #3-30 bb1 oil, 54000 MCF gas/day
- f. N/A
- g. The Wallingford # 3 was drilled because the low permeability and low quality solution gas recovery mechanism require reduced spacing to efficiently drain the reservoir.

 Since both the Wallingford # 2 and # 3 experienced new reservoir type conditions we feel the additional drilling was justified.

Paul G. White Engineering

OIL AND NATURAL GAS

November 14, 1985

Arrowhead Oil Corporation P. O. Box 548
Artesia, New Mexico 88210

Re: Pertinent Engineering Data

Wallingford No. 3 Maljamar Field

Lea County, New Mexico

Gentlemen:

The subject well, located 990' FNL and 2310' FWL, Section 32-17S-R32E, Lea County, New Mexico was completed May 1, 1981.

I have estimated the oil and gas reserves for the subject well based on a 20 acre well density. From the electrical log, analagous well study, and rate time curve, I have estimated that the well will recover 38,341 barrels of oil and 12,116 MCF of gas.

A study of nearby producing well rates and initial potentials reveals that wells will have to be drilled on a 20 acre spacing to properly and adequately recover the oil and gas reserves in this field.

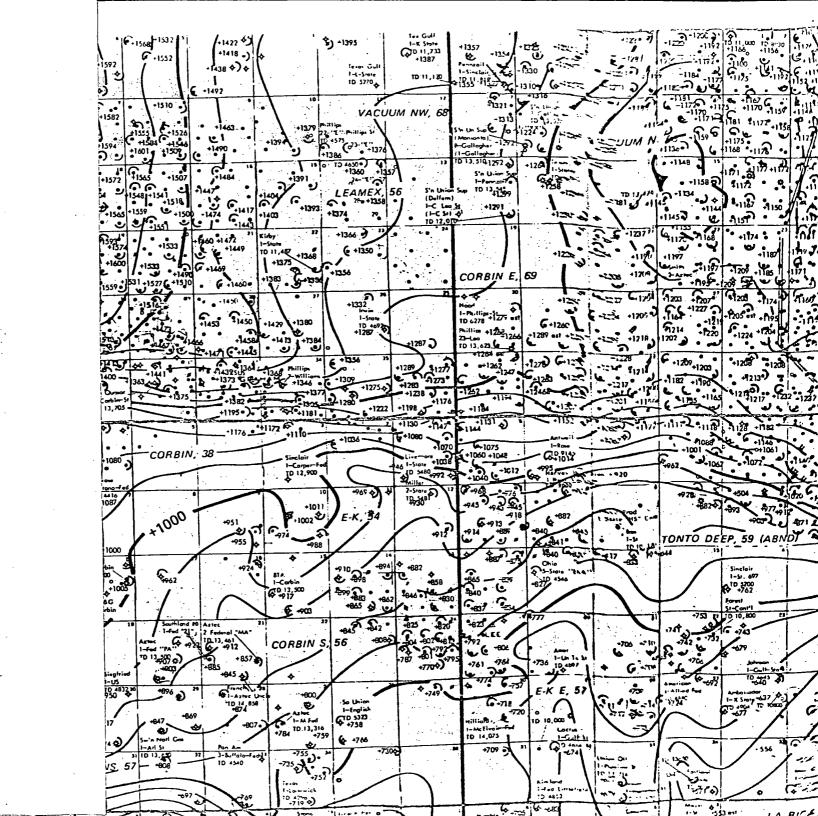
Therefore, it is my recommendation that in-fill wells be drilled and the well density be increased to at least 20 acre spacing.

From my study the in-fill wells will characteristically exhibit new reservoir conditions.

Signed

Paul G. White Petroleum Engineer

Date November 14, 1985



RULE 11:

Notice of this infill request has been sent to offset operators:

CONOCO, INC. P.O. BOX 2197 HOUSTON, TEXAS 77252

GULF OIL CORPORATION
P.O. BOX 1150
MIDLAND, TEXAS 79702



OIL CORPORATION P.O. BOX 548 ARTESIA, NEW MEXICO 88210 1-505-746-6601

Conoco, Inc. Box 2197 Houston, Tx 77252

RE: Notice to offset operators

Gentlemen:

Notice is hereby given to you as an offset operator to the request of Arrowhead Oil COrporation to the New Mexico Oil Conservation Division for an infill finding on the following well:

WALLINGFORD # 3 990' FNL 2310 FWL Sec 32 T17S R32E LEA COUNTY

This notice is given pursuant to the Special Rules and Regulations Natural Gas Policy Act Infill Finding Administrative Procedure (amended February 8, 1980). These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978.

If there are any questions please contact our office.

Yours truly,

Shirley V. Loop



OIL CORPORATION P.O. BOX 548 ARTESIA, NEW MEXICO 88210 1-505-746-6601

Gulf Oil Corporation Box 1150 Midland, Tx 79702

RE: Notice to offset operators

Gentlemen:

Notice is hereby given to you as an offset operator to the request of Arrowhead Oil COrporation to the New Mexico Oil Conservation Division for an infill finding on the following well:

WALLINGFORD # 3 990' FNL 2310' FWL Sec 32 T17S R32E LEA COUNTY

This notice is given pursuant to the Special Rules and Regulations Natural Gas Policy Act Infill Finding Administrative Procedure (amended February 8, 1980). These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978.

If there are any questions please contact our office.

Yours truly,

Shirley ♥. Loop

Request for Infill Finding on the
Wallingford State # 3
in accordance with Administrative
Procedures amended February 8, 1980

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SANTA FE				_		Type of Lease
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LAND OFFICE		•-		-	·	Gas Lease No.
OPERATOR			·	ľ	B-4109	
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APPL I	CATION FOR PE	RMIT TO DRILL, DEEPEN	I OR PLUG BACK			
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	ਾ ਹ		•		•	
b. Type of Well	LL [A]	DEEPEN	PLUG B	ACK L	, Farm or Le	ase Name
1	O		BINGLE MULT	1PLE []	Wallin	gford State
2. Name of Operator	CL COTH	EN .	IONE L_J	ZONE L.	Well No.	grota brace
Arrowhood	Oil Corporat	ion	•	1	1	2
3. Address of Operator	OIT COLPOTAL	1011				Pool, or Wildcat
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AND 2310 PEE	T PROM THE W	est line of sec. 32	TWP. 17-S RGE. 32	-E HMPM		
					2. County	
					Lea	
		HINNING BERNE		111111	TIIIII.	Hillian
			19, Proposed Depth	A. Formation	*****	20. Rotary or C.T.
			4250' G	rayburg-9	. Andre	s Rotary
21. Elevations (Show whe	ther DF, RT, etc.)	21A. Kind & Status Plug. Bond		· - /		Date Work will start
3901' GL		Blanket_	WEK Drilling	Company	Approx	. March 12, 1
23.		PROPOSED CASING A			,	
		PROPOSED CASING A	AND CEMENT PROGRAM			
SIZE OF HOLE	SIZE OF	CASING WEIGHT PER FO	OT SETTING DEPTH	SACKS OF	CEMENT	EST. TOP
12 1/4"	8 5/	8" 24#	900'	200	Sks.	Circulate
7 7/8"	4 1/	2" 11.5#	4250'	425	Sks.	2350'
		l	• 1	ł	ţ	
· ·	•				•	
		o drill to approxima		8 5/8" d	asing.	
	Circulate th	e cement and wait 18	hours.			
•		_			••	
		approximately 4250'		•		
		ks Class C 50/50 poz	cement, up to th	e base of	the	
	salt.		. •			
			3000# blowout pre	venter wi	lll be	
		ries Shaffer Type F				
		ries Shaffer Type F ling this well.				
	used in dril	ling this well.	: from	APPROVAL	. VALID FO	OR 180 nave
*Cement on the ;	used in dril	ling this well.	: from	- PLYIAIE!	EXPIRES	OR 180 DAYS
*Cement on the ; the top the	used in dril production ca salt or anhy	ling this well. Ising must be brought Idrite to the surface	casing	- PLYIAIE!	VALID FO EXPIRES DRILLING	CYINTOI
*Cement on the p the top the by either circu	used in dril production ca salt or anhy plating with	ling this well. sing must be brought drite to the surface coment or a DV tool	casing at the top	UNLESS	EXPIRES B DRILLING	G UNDERWAY
*Cement on the p the top the by either circ	used in dril production ca salt or anhy plating with	ling this well. Ising must be brought Idrite to the surface	casing at the top	UNLESS	EXPIRES B DRILLING	G UNDERWAY

Secretary

OIL & GAS PRETECTOR

March 6, 1981

MAR

7) 1981

,这一个一个一个人,我们就是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的,我们也是一个人的,也可以不是一个人

***SEE AGOVE

(This space for State Use)

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

102 Supersensitivity

Operation ARROWHEAD OIL CORPORATION WALLINGFORD STATE Lwishin 17 South 32 East Actual Footage Location of Wells Ground Level filev. 3905 Maljamar Grayburg-San Andres 1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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? Tes 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 operated by Annowheed
oil corporation certify that the information coned herein is true and complete to the GRAY bing SAW ANDRES # 1 Cumulation prod - 33973 165 #2 Camalative prod. 74 685 Georgia A. Secretary Arrowhead Oil Corporation March 6, 1981 shown on this plat was platted from field knowledge and belief March 4, 1981

1000

500

660

RULE 6:

Wallingford State # 3

Maljamar Grayburg San Andres

Standard spacing unit: 40 Acres

RULE 7:

N/A

RULE 8:

- a. Wallingford St #1-660'FNL 1980'FWL Sec32-T17S-R32E Wallingford St #2-330'FNL 2309.3'FWL Sec32-T17S-R32E Wallingford St #3-990'FNL 2310FWL Sec32-T17S-R32E
- b. #1-1-10/01/42, re-entry 3/30/68 #2-3/11/80 #3-3/21/81
- c. #1-1/15/43, re-entry 5/13/68 #2-4/08/80
- d. #3-4/28/81
- e. #1-40 bbl oil, TSM gas/day
 #2-76 bbl oil, 100 MCF gas/day
 #3-30 bbl oil, 54000 MCF gas/day
- f. N/A
- g. The Wallingford # 3 was drilled because the low permeability and low quality solution gas recovery mechanism require reduced spacing to efficiently drain the reservoir.

 Since both the Wallingford # 2 and # 3 experienced new reservoir type conditions we feel the additional drilling was justified.

Paul G. White Engineering

OIL AND NATURAL GAS

November 14, 1985

Arrowhead Oil Corporation P. O. Box 548 Artesia, New Mexico 88210

Re: Pertinent Engineering Data

Wallingford No. 3 Maljamar Field

Lea County, New Mexico

Gentlemen:

The subject well, located 990' FNL and 2310' FWL, Section 32-17S-R32E, Lea County, New Mexico was completed May 1, 1981.

I have estimated the oil and gas reserves for the subject well based on a 20 acre well density. From the electrical log, analagous well study, and rate time curve, I have estimated that the well will recover 38,341 barrels of oil and 12,116 MCF of gas.

A study of nearby producing well rates and initial potentials reveals that wells will have to be drilled on a 20 acre spacing to properly and adequately recover the oil and gas reserves in this field.

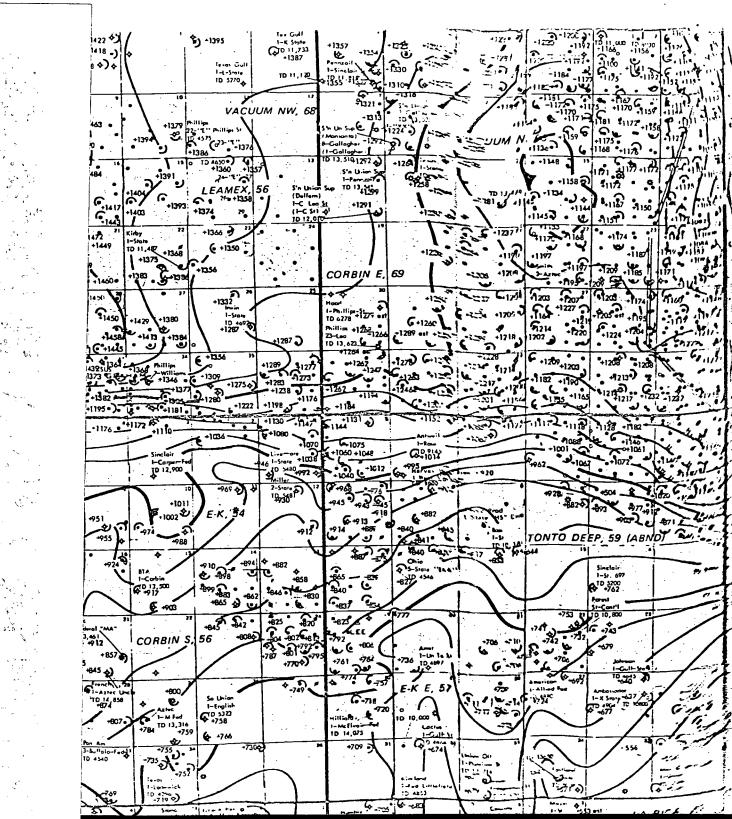
Therefore, it is my recommendation that in-fill wells be drilled and the well density be increased to at least 20 acre spacing.

From my study the in-fill wells will characteristically exhibit new reservoir conditions.

Signed

Paul G. White Petroleum Engineer

Date November 14, 1985



RULE 11:

Notice of this infill request has been sent to offset operators:

CONOCO, INC. P.O. BOX 2197 HOUSTON, TEXAS 77252

GULF OIL CORPORATION P.O. BOX 1150 MIDLAND, TEXAS 79702



OIL CORPORATION P.O. BOX 548 ARTESIA, NEW MEXICO 88210 1-505-746-8801

Conoco, Inc. Box 2197 Houston, Tx 77252

RE: Notice to offset operators

Gentlemen:

Notice is hereby given to you as an offset operator to the request of Arrowhead Oil Corporation to the New Mexico Oil Conservation Division for an infill finding on the following well:

WALLINGFORD # 3 990' FNL 2310 FWL Sec 32 T17S R32E LEA COUNTY

This notice is given pursuant to the Special Rules and Regulations Natural Gas Policy Act Infill Finding Administrative Procedure (amended February 8, 1980). These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978.

If there are any questions please contact our office.

Yours truly,

Shirley V. Loop



OIL CORPORATION

P.O. BOX 548 ARTESIA, NEW MEXICO 88210 1-505-746-6801

Gulf Oil Corporation Box 1150 Midland, Tx 79702

RE: Notice to offset operators

Gentlemen:

Notice is hereby given to you as an offset operator to the request of Arrowhead Oil COrporation to the New Mexico Oil Conservation Division for an infill finding on the following well:

WALLINGFORD # 3
990' FNL 2310' FWL Sec 32 T17S R32E
LEA COUNTY

This notice is given pursuant to the Special Rules and Regulations Natural Gas Policy Act Infill Finding Administrative Procedure (amended February 8, 1980). These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978.

If there are any questions please contact our office.

Yours truly,

Shirley ♥. Loop