Reservoir Engineering Property Management

### Byers & Dibert

Engineering & Operating Company Fourth Floor Great Plains Life Bldg. Lubbock, Texas

Telephone POrter 2-1004

7 42

August 25, 1964

Oil & Gas Conservation Commission State of New Mexico P. O. Box 2088 Santa Fe, New Mexico

Att: Mr. J. E. Kapteina

Dear Sir:

We return herewith duplicate copies of our request for approval of expansion of the water injection program for the Cone Jalmat Yates Pool Unit, Lea County, New Mexico.

Data offered through Form C-116 has been expanded to conform to our telephone conversation with your Mr. Nutter of this afternoon.

Yøgrs very truly,

John C. Byers

cc: Hobbs Office

Conservation Commission

Byers & Dibert

Reservoir Engineering
Property Management

Engineering & Operating Company
Fourth Floor
Great Plains Life Bldg.
Lubbock, Texas

**Teleph**orfe POrter 2-1004

1984 AUG 16 AN 7 AT A

August 15, 1964

Oil & Gas Conservation Commission State of New Mexico P. O. Box 871 Santa Fe, New Mexico

Att: State Engineer

Re: Request for adminestrative approval for water flood expansion.

Dear Sir:

Transmitted herewith are duplicate cipies of our request for approval of expansion of the water injection program in the Cone Jalmat Yates Pool Unit, Lea County, New Mexico.

One copy of this request has been forwarded to the Commission offices at Hobbs and to Cities Service Oil Company, operator of the properties offseting the affected unit.

Yours very truly,

John C. Byers

cc: Hobbs office

Cities Service Oil Co.

10/ / - 100

Reservoir Engineering Property Management

150 A 2110

M 7 42

Byers & Dibert

Engineering & Operating Company
Fourth Floor
Great Plains Life Bldg.
Lubbock, Texas

August 14, 1964

Telephone POrter 2-1004

1001 AUG 13 HH 7 77

Oil & Gas Conservation Commission State of New Mexico P. O. Box 2045 Hobbs, New Mexico

> Re: Water Flood Expansion Cone Jalmat Yates Pool Unit Lea County, N. M.

End store Time

Gentlemen:

The Cone Jalmat Yates Pool Unit was authorized for waterflood operations through Commission Orders No. R-2494 and R-2495, dated June 11, 1963. The Unit became effective on July, 1963, and water injection into four wells was commenced July 25, 1963.

Response, in the form of increased oil production rates and reduced gas oil ratio for producing wells affected by this initial water flood development, has been good. This response is reflected through well test data offered in the Form 116, reports attacted hereto. Production, from the two wells fully served on 4 sides by water injection, is now tending to increase at a rate averaging 15% per month. This pilot flood response is shown graphically through the pilot flood production curve attached hereto for your convenience.

The Working Interest Owners in the Unit hereby request that administrative approval be granted for expansion of the water injection program for this Unit. The planned expansion, for which approval is requested, will require the conversion of Unit wells No. 1-11, 1-10, 2-2 and 3-4 to water injection service. This expansion will enable the Unit to maintain full waterflood operations, serving that portion of the Unit located in the S 1/2 of Section 13 and the N 1/2 of Section 24 T22S, R35E, Lea County, New Mexico.

Attached hereto, please find Commission forms C-102, through which this request is set-out and form C-116, reflecting well test data relative to the affected Unit area. Also enclosed

herewith are production curves for the Unit and Pilot Flood area of the Unit, as well as maps setting out the pilot flood area now under operation and the area for which this request is made.

Your consideration of this request is appreciated and in the event additional information is required, we will be pleased to furnish that.

Yours very truly.

John C. Byers

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# NEW MEXICO OIL CONSERVATION COMMISSION OF COO

## MISCELLANEOUS NOTICES 19 M 7 45

returned to the sender on which or agent, of the plan submitted.	TE to the District Office, Oil Conservation Conwill be given the approval, with any modifics The plan as approved should be followed, and nd Regulations of the Commission.	tions consid	lered advisable, or the rejection by	the Commission
nonal man actions in the states a	Indicate Nature of Notice by C	hecking B	elow	
Notice of Intention to Change Plans	Notice of Intention to Temporarily Abandon Well		Notice of Intention to Drill Deeper	
Notice of Intention o Plug Well	Notice of Intention to Plug Back		Notice of Intention to Set Lines	
otice of Intention o Squeeze	Notice of Intention to Acidize		Notice of Intention to Shoot (Nitro)	
Jotice of Intention o Gun Perforate	Notice of Intention (Other)	Х	Notice of Intention (Other)	
DIL CONSERVATION COMM ANTA FE, NEW MEXICO	Lubbock, Texas (Place)		(Date)	
Gentlemen:				
•	ention to do certain work as described below	at the		•••••••
J. R. Cone Cone	Jalmat Yates Pool Unit		Well Noinin	/T%
(Compan	y or Operator) <b>Locs</b>	• NMPM	Jalmat Yates	(Unit)
			•••	
Lea	County.			
	FULL DETAILS OF PROPOSEI			
Wa managa	(FOLLOW INSTRUCTIONS IN THE RU		·	h 4h.
	to expand the pilot wate gh its orders No. R-2494			
include injection	n into Unit wells No. 1-	11, 1-	10, 2-2 & 3-4. This	s ex-
pansion will pla	ce all of the S $1/2$ Sect:	ion 13	and N $1/2$ Section 2	2 4
	. These wells will be co			
	injection will average 3 d pressure and through 2			
	e top of the cement in the			
	-		· · · · · ·	
	т.	. R. C	nne	
Approved Except as follows:	, 19	7	Company or Operator	
	Ву	uhu.	W Jufus	***************************************
	Position	Engi	neer  Communications regarding well to	***************************************
Approved OIL CONSERVATION COMM	ITSSION	Sene	Communications regarding well to	);
		Tob-	C Dyons	
Ву			C. Byers	
Title	Address	411 G	reat Plains Bldg. I	Lubbock, T

# NEW MEXICO OIL CONSERVATION COMMISSION NEW DEFICE O

### 1984 AUG 127 MM 7 42 **GAS-OIL RATIO REPORT**

OPERATOR J. R. Cone	POOL Jalmat Yates	
ADDRESS Lubbock, Texas	MONTH OF August , 1	64
SCHEDULED TESTCOMPLETION TEST	SPECIAL TEST X	k Onc)

(See Instructions on Reverse Side)

This is a comparative well test report showing the change in productive ability of wells before and after water injection into the Yates Sand reservoir.

	Well Day of Badusing Chal-	GL.I	Daily	Production During Test			GOR			
Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Allowable Bbls.	Water Bbls.	Oil Bbls.	Gas MCF	Cu. Ft. Per <b>B</b> bl.
Cone Jalmat										
Yates Pool Unit		8/63 8/64	F F		24	0	0 1	1.4		119,286 40,273
	1-4		r injed	tion we			_	_ • _		,270
	1-3 1-3	7/63 8/64	F P		24 24		0 0	12.0 30.0		4,525 169
	1-5	Wate	r injed	tion we	11					
		7/63 8/64	P P		24 24		1 1	6.0 16.4		4,433
	1-9	Wate	r injed	tion we	11					1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
		7/63 7/64	P P		24 24		1 1	1.4		5,330 2,636
		7/6 <b>3</b> 4/64	F F		24 24		0 0	2.0 5.1		55,200 31,300
	1-7	Wate	r injed	tion we	11					
	1 - 2 1 - 2	9/63 7/64	P P		24 24		5 3	5.5 15.7		2,222 1,527
		9/63 7/64	P P		24 24		0 1	1.0		3,752 440

(I certify that the information given is true and complete to the best of my knowledge.)

Date 8/14/64	J.R. Cone
Date	Company
	By family California

### **INSTRUCTIONS**

Mail original to Oil Conservation Commission, Santa Fe, New Mexico, and one copy to District Office, Hobbs, New Mexico.

This report shall be mailed to the Commission on or before the 15th of the month following the period in which the well is scheduled to be tested. The ratios, as reported, shall become effective for proration purposes the first of the month following the end of the period in which the test is scheduled to be made. Failure to make the required test and report will be penalized as the Commission's Regulations provide.

Under "producing methods," show flowing, pumping, or gas lift; under "hours," show the duration of the test in hours, which includes all time the well is open for production of oil or gas during the 24-hour test period. The allowable is the caily allowable for the well at the time of test.

METHOD OF TESTING: Produce each well in the normal operating manner and the customary production rate and measure all gas, oil and water produced during 24 hours.

MEASUREMENTS: To be made in accordance with Rule 301. In computing the gas-oil ratio on gas lift wells, input is subtracted from output to obtain net gas volume.

PRESSURE BASE: 15.025 lbs. per sq. in., Specific Gravity .70. Temperature 60° F.

### NEW MEXICO OIL CONSERVATION COMMISSION: 10 000

# GAS-OIL RATIO REPORT 7 42

OPERATOR J. R. Cone	POOL Jalmat Yates
ADDRESSLubbock, Texas	MONTH OF August , 19 64
SCHEDULED TESTCOMPLETION TEST	SPECIAL TEST X page 2 (Check One)

(See Instructions on Reverse Side)

This is a comparative well test report showing the change in productive ability of wells before and after water injection into the Yates sans reservoir.

				G1 1	-	Daily	Produ	Production During Test		GOR
Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Allowable Bbls.	Water Bbls.	Oil Bbls.	Gas MCF	Cu. Ft. Per Bbl.
Continue Cone Jalmat										
Yates Pool Unit		9/63 5/64	P P	•	24 24		0 0	12.0		3,650 4,336
		7/63 5/64	F F		24 24		0 0	1.0		20,000 17,100
	3-3 3-3	9/63 5/64	F F		24 24		0 0	5.0 8.7		7,121 3,399
	3-4 3-4	9/63 7/64	P P		24 24		1 0	1.1 2.0		356 311
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(I certify that the information given is true and complete to the best of my knowledge.)

Date August 14, 1964

By John C. Byers

Engineer

### **INSTRUCTIONS**

Mail original to Oil Conservation Commission, Santa Fe, New Mexico, and one copy to District Office, Hobbs, New Mexico.

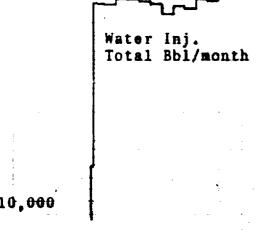
This report shall be mailed to the Commission on or before the 15th of the month following the period in which the well is scheduled to be tested. The ratios, as reported, shall become effective for proration purposes the first of the month following the end of the period in which the test is scheduled to be made. Failure to make the required test and report will be penalized as the Commission's Regulations provide.

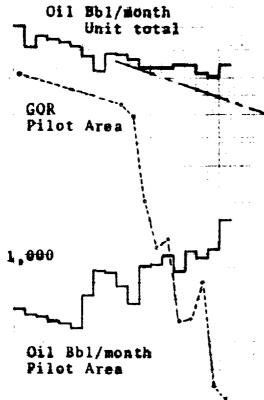
Under "producing methods," show flowing, pumping, or gas lift; under "hours," show the duration of the test in hours, which includes all time the well is open for production of oil or gas during the 24-hour test period. The allowable is the daily allowable for the well at the time of test.

METHOD OF TESTING: Produce each well in the normal operating manner and the customary production rate and measure all gas, oil and water produced during 24 hours.

MEASUREMENTS: To be made in accordance with Rule 301. In computing the gas-oil ratio on gas lift wells, input is subtracted from output to obtain net gas volume.

PRESSURE BASE: 15.025 lbs. per sq. in., Specific Gravity .70. Temperature 60° F.





PRODUCTION DATA
CONE JALMAT YATES POOL UNIT
Lea County, New Mexico

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# LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE



### STATE OF NEW MEXICO

# STATE ENGINEER OFFICE SANTA FE

S. E. REYNOLDS STATE ENGINEER

September 16, 1964

ADDRESS CORRESPONDENCE TO: STATE CAPITOL SANTA FE, N. M.

17501

Mr. A. D. Porter, Jr. Secretary-Director Cil Conservation Commission Santa Fe, New Maxico

Attn. hr. Jim Rapteina

D ar Jim:

I have just received the application, which was imposited by Byers & Dibert on behalf of J. R. Cone, which seeks to expand their pilot waterflood in the Cone Jalmat Yates Tool in Sections 13 and 24, T. 22 S., R. 35 E., by conventing this wells No. 1-11, 1-10, 2-2 and 3-4 to water injection survice. Although, the Miscellaneous Notices states that water injection will be through 2-inch tubing with packer set 300 feet or some below the top of the dement in the  $5\frac{1}{2}$ -inch casing string, I am still in the dark. We diagrammatic sketch of the wells is given. I have no idea of the depth of the casing setting, where the top of the cement in the  $5\frac{1}{2}$ -inch casing string is, whether other casing strings were set and cemented. This is not sufficient information for the determination of whether a tyreat of contamination to the fresh waters which may exist in the area will occur. Therefore, the State Engineer cannot give a waiver on the conversion of these wells.

I will be glad to advise the Commission of the State Engineer's

position tith regard to this application as soon as I have received and had an opportunity to examine the sketches required by the Oil Conservation Commission rules and regulations,

Yours trill ,

S. E. Re-molus State Engineer

Frank E. Irby

Chie :

Water Rights Div.

FBI/wa cc-F. H. Hemaiyaausen

Byers & Dibert

Reservoir Engineering Property Management



Telephone POrter 2-1004

September 19, 1964

Mr. S. E. Reynolds State Engineer State of New Mexico

Att: Frank E. Irby Water Rights Div.

Re: Cone Jalmat Yates Pool Unit Expansion of Water Flood

Dear Sir:

Following your request as set out in your letter to Mr. A. L. Porter dated September 16, 1964, a copy of which was sent to us, we transmit herewith three copies of well diagrams.

The diagrams transmitted herewith pertain to the four wells in the subject unit which we plan to convert to water injection wells to serve the Yates sand reservoir. These sketches set out casing and cement programs conducted in each well as well as our plan for seting tubing and packer in each well for conduct of injected water to the Yates formation.

I hope that these data will serve your needs. If you do require additional information please call upon me.

Yours very truly

John C. Byers

cc: Mr. A. L.Porter



S. E. REYNOLDS STATE ENGINEER

ADDRESS CORRESPONDENCE TO: STATE CAPITOL SANTA FE, N. M.

11501

Er. A. D. Porter, Jr. Secretary-Director Oil Conservation Commission Santa Fe, New Mexico

often. Or. Jim Kapteina

Dear Ji:

I have received necessary information from Ever. A Dipart concerning the expansion of the Cone Jalmat Mates Tool Waterflood. If the injection wells are completed is the manner shown on the diagrammatic sketches for the four individual wells, it appears that no threat of machanination to the Eresh waters which may exist in the area will occur. Therefore, this office offers no objection to the granting of this application.

Yours truly,

S. H. Rev, 103 (1) State Enriceer

Frank E. Irby

Chief

Water Rights Div.

FBI/Da co-Syers & Jibert

F. H. Hennighausen