CASE 6000: YATES PERFORMING CONTINUES.

FOR A DUAL CONTUNENT DOMESTICS.

COMMINGLING, AND SALT WATER DESCRIPTIONAL,

EDDY COUNTY, MEM MEXICO

ase Number

10081

Application Transcripts.

Transcripes.

5 man Exhibits

T/



BRUCE KING GOVERNOR LARRY KEHOE

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 1505I 827-2434

May 16, 1980

Yates Petroleum Corporation 207 South Fourth Street Artesia, New Mexico 88210

Caso 6088

Attention: Mr. Johnny M. Morgan

Gentlemen:

This is with reference to your letter of April 16, 1980, wherein you request approval to retain your Mitchell "IN" Well No. 2 located in Unit I, Section 23, Township 17 South, Range 25 East, Eddy County, New Mexico, as a dual completion with the East Eagle Creek Atoka-Morrow perforation shut-in while disposing of water into the Devonian formation.

This office has no objection to this proposal providing you install a pressure gauge on the tubing-casing annulus and conduct a suitable tracer survey at least once yearly.

Yours very truly,

JOE D. RAMEY Director

JDR/fd



ARTESIA. NEW MEXICO 88210

TELEPHONE (505) 746.3558

P. YATES PRESIDENT TIN YATES, III VICE PRESIDENT N A. YATES VICE PRESIDENT W. HARPER SEC TREAS

April 16, 1980

Mr. Joe Ramey, Secretary-Director New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

Subject: Yates Petroleum Corporation, Mitchell "IN" No. 2,

Unit I, Section 23, T17S, R25E, Eddy County, New Mexico

Dear Sir:

Yates Petroleum Corporation was authorized (Order No. R-5602) to complete its Mitchell "IN" well No. 2, located in Unit I of Section 23, Township 17 South, Range 25 East, NMPM, as a dual completion (conventional) to produce gas from the East Eagle Creek Atoka-Morrow Gas Pool through the casing-tubing annulus and to dispose of produced water into the Devonian formation, with injection into the perforated interval from 8879-9362 feet. Disposal began May 5, 1978. We did not get our pipeline connection for gas sales until December 1978 and the gas well was placed on production in January 1979. The gas production was disappointing as we were unable to sustain flow up the tubing-casing annulus. We ceased disposal in January 1979, when Devonian SWD well was TA'd allowing the Morrow to be produced up the tubing, gas sales were maintained at commercial volumes until Febraury 1980.

The Morrow gas well is now at its economic limit. We asked by letter dated February 3, 1980 that we be allowed to return the Devonian to SWD status as provided for in the original order dated December 27, 1977. Under the authority granted by Division Rule 70313 (2) Yates Petroleum was granted authority to reinstitute salt water disposal into the Devonian provided that upon discontinuance of production from the East Eagle Creek Atoka-Morrow Gas Pool, the Atoka-Morrow perforations be squeeze cemented and the casing-tubing annulus be loaded with an inhibited fluid, and a pressure gauge or approved leak detection device be attached to the annulus in order to determine leakage in the casing, tubing or packer.

Yates Petroleum now asks that they be allowed to retain the present East. Eagle Creek Atoka-Morrow perforations, without squeeze cementing. We feel that a leak in the casing, tubing or packer could be detected using a pressure gauge and periodic radioactive tracer surveys. We foresee the possibility of utilizing the Atoka-Morrow interval for disposal of produced water, though we

at least a year

Mr. Joe Ramey, Secretary-Director April 16, 1980 Page 2

do not intend to seek your approval of disposal status for the Atoka-Morrow at this time, we do request that we be allowed to retain the present perforations, temporarily abandoned, in the casing tubing annulus. Yates Petroleum Corporation is the only operator within a two mile radius of the subject well.

Yours truly,

YATES PETROLEUM CORPORATION

Johnny M. Morgan Production Superintendent

JMM/ob

OIL CONSERVATION DIVISION P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

February 18, 1980

Case 6088

Yates Petroleum Corporation 207 South Fourth Street Artesia, New Mexico 88210

Attention: Johnny Morgan

Gentlemen:

Under the authority granted me by Division Rule 703 B(2) Yates Petroleum Corporation is hereby granted authority to reinstitute salt water disposal into the Devonian formation in its Mitchell "IN" Well No. 2 located in Unit I of Section 23, Township 17 South, Range 25 East, Eddy County, New Mexico.

Said well shall continue to be bound by all provisions of Division Order No. R-5602 which originally authorized its use for salt water disposal purposes. Further, upon discontinuance of production from the East Eagle Creek Atoka-Morrow Gas Pool, the Atoka-Morrow perforations shall be squeeze cemented, the casing-tubing annulus shall be loaded with an inhibited fluid, and a pressure gauge or approved leak detection device shall be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

Yours very truly,

JOE D. RAMEY Director

JDR/fd



207 SOUTH FOURTH STREET ARTESIA. NEW MEXICO 88210 TELEPHONE (505) 746-3558



February 13, 1980

Mr. Joe Ramey, Secretary-Director New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87501

Subject: Exception to NMOCC Rule 703B(1)

Dear Sir:

Under the provisions of NMOCC Rule 703B (2) Yates Petroleum Corporation seeks an exception to NMOCC Rule 703B(1) for its Mitchell "IN" well No. 2.

Yates Petroleum Corporation was authorized (Order No. R-5602) to complete its Mitchell "IN" well No. 2, located in Unit I of Section 23, Township 17 South, Range 25 East, NMFM, as a dual completion (conventional) to produce gas from the East Eagle Creek Atoka-Morrow Gas Pool through the casing-tubing annulus and to dispose of produced water into the Devonian formation, with injection into the perforated interval from 8879-9362 feet. Disposal began May 5, 1978, we did not get a pipe line connection from gas sales until December 1978 and the gas well was placed on production in January 1979. The gas sales were disappointing and we were unable to maintain flow up the casing-tubing annulus. We ceased disposal in January 1979 when the Devonian SWD well was TA'd allowing the Morrow gas well to be produced through the tubing. The Morrow interval is now at the economic limit and we now ask that we be allowed to return the Devonian to SWD status as provided for in the original order No. 5602, dated December 27, 1977.

My thanks,

YATES PETROLEUM CORPORATION

Johnny M. Morgan Production Superintendent

JMM/ob



207 SOUTH FOURTH STREET
ARTESIA. NEW MEXICO 88210
TELEPHONE (505) 746.3558

S. P. YATES
PRESIDENT

MARTIN YATES, III

VICE PRESIDENT

JOHN A. YATES

VICE PRESIDENT

B. W. HARPER

SEC.-TREAS

February 13, 1980

Mr. Joe Ramey, Secretary-Director New Mexico Cil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87501

Subject: Exception to NMOCC Rule 703B(1)

Dear Sir:

Under the provisions of NMCCC Rule 703B (2) Yates Petroleum Corporation seeks an exception to NMCCC Rule 703B(1) for its Mitchell "IN" well No. 2.

Yates Petroleum Corporation was authorized (Order No. R-5502) to complete its Mitchell "IN" well No. 2, located in Unit I of Section 23, Township 17 South, Range 25 East, NMFM, as a dual completion (conventional) to produce gas from the East Eagle Creek Atoka-Morrow Gas Pool through the casing-tubing annulus and to dispose of produced water into the Devonian formation, with injection into the perforated interval from 8879-9362 feet. Disposal began May 5, 1978, we did not get a pipe line connection from gas sales until December 1978 and the gas well was placed on production in January 1979. The gas sales were disappointing and we were unable to maintain flow up the casing-tubing annulus. We ceased disposal in January 1979 when the Devonian SWD well was TA'd allowing the Morrow gas well to be produced through the tubing. The Morrow interval is now at the economic limit and we now ask that we be allowed to return the Devonian to SWD status as provided for in the original order No. 5602, dated December 27, 1977.

My thanks,

YATES PETROLEUM CORPORATION

Johnny M. Morgan Production Superintendent

JMM/ob

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6088 Order No. R-5602

APPLICATION OF YATES PETROLEUM CORPORATION FOR A DUAL COMPLETION, DOWNHOLE COMMINGLING, AND SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 16, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 27th day of December, 1977, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Yates Petroleum Corporation, seeks approval for the downhole commingling of Bast Eagle Creek Atoka-Morrow, Eagle Creek-Streen and Eagle Creek Permo-Penn production in the wellbore of its Mitchell "IN" Well No. 2 located in Unit I of Section 23, Township 17 South, Range 25 Bast, Eddy County, New Mexico, and to dually complete said well in such a manner as to permit disposal of produced salt water into the Devonian formation thru tubing and production of the aforesaid commingled sones thru the casing-tubing annulus.
- (3) That the applicant's request for dismissal of that portion of this case concerning downhole commingling should be approved.
- (4) That the applicant seeks authority to complete said Mitchell "IN" Well No. 2, as a dual completion (conventional) to produce gas from the East Eagle Creek Atoka-Morrow Gas Pool through the casing-tubing annulus and to dispose of produced salt water into the Devonian formation, with injection into the perforated interval from approximately 8879 feet to 9362 feet.

-2-Case No. 6088 Order No. R-5602

- (5) That the injection should be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 8840 feet. That the water to be disposed of in said well should be continuously treated to prevent corrosion or the tubing should be plastic lined; and the well should be inspected at least weekly in order to detect any failure of the downhole or surface injection equipment.
- (6) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1776 psi.
- (7) That the operator should notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (8) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.
- (9) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THERRFORE ORDERED:

(1) That the applicant, Yates Petroleum Corporation, is hereby authorised to complete its Mitchell "IN" Well No. 2, located in Unit I of Section 23, Township 17 South, Range 25 East, NMPM, Eddy County, New Mexico, as a dual completion (conventional) to produce gas from the East Eagle Creek Atoka-Morrow Gas Pool through the casing-tubing annulus and to dispose of produced water into the Devonian formation.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall annually provide the supervisor of the Commission's Artesia district office with evidence demonstrating the continued separation of the Morrow producing zone from waters injected into or being injected into the Devonian formation.

(2) That the injection shall be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 8840 feet.

-3-Case No. 6088 Order No. R-5602

- (3) That the water to be injected shall be continuously treated to prevent corrosion or the tubing shall be plastic-lined.
- (4) That the applicant shall inspect the well at least once each week in order to detect any failure of the downhole or surface injection equipment.
- (5) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1776 psi.
- (6) That the operator shall notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (7) That the operator shall immediately notify the supervisor of the Commission's Artesia district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (8) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (9) That that portion of the application in this case for approval of the downhole commingling of Bast Eagle Creek Atoka-Morrow, Eagle Creek-Strawn and Eagle Creek Permo-Pennsylvanian production is hereby dismissed.
- (10) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Pe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

SOF D RAMEY, Member & Secretary

SEAL

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION:
OF YATES PETROLEUM CORPORATION FOR:
DUAL COMPLETION AND SALT WATER
DISPOSAL, EDDY COUNTY, NEW MEXICO:

CASE NO. 6088

APPLICATION

COMES NOW YATES PETROLEUM CORPORATION, by its attorneys, and in support hereof, respectfully states:

 Applicant is the operator of the Pennsylvanian system underlying:

Township 17 South, Range 25 East, N.M.P.M.

Section 23: E/2

in Eddy County, New Maxico, upon which it has drilled its
Mitchell "IN" No. 2 Well, at a location 2,030 feet from the
South line and 660 feet from the East line of said Section 23.

- 2. Applicant proposes to dually complete its Mitchell
 "IN" No. 2 Well to produce gas from the Pennsylvanian formation
 of the East Eagle Creek Morrow, Eagle Creek Strawn, and Eagle
 Creek Permo Penn, and to dispose of water through the tubing
 into the Devonian formation.
- 3. A diagrammatic sketch of the proposed conventional dual completion in accordance with Rule 112-A of the Commission Rules and Regulations is hereto attached; that the mechanics of the proposed dual completions are feasible in accordance with good conservation practices; and will otherwise prevent waste and protect correlative rights.

4. To the best of applicant's knowledge and belief there will be no opposition to this application.

Attached is the data concerning the well within one-half mile of Yates Petroleum Corporation's Mitchell "IN" No. 2

Well. Also attached hereto are the items required by Rule 701-B.

WHEREFORE, applicant prays:

- A. That this application be set for hearing before an examiner and that notice of said hearing be given as required by law.
- B. That upon hearing the Commission enter its order granting permission to applicant to conventionally dual complete its Mitchell "IN" No. 2 Well for the production of gas from the Pennsylvanian formation of the East Eagle Creek Morrow, Ragle Creek Strawn, and Eagle Creek Permo Penn, and that the Commission permit the disposal of water in the Devonian formation through the tubing.
- C. And for such other and further relief as may be just in the premises.

YATES PETROLEUM CORPORATION

LOSEE & CARSON, P.A.

Artesia, New Mexico 88210

Attorneys for Applicant

•		. 1	Yearns day	100	Puber Van	10266 U.S.		. SA	ne ne	#2	Receipt Wetter	Morris eres	7331 Z	Arrama a		" 22
\mathbf{a}	Mir E	e la l	nen (6.32	Marathan 3 - 1 - 75 2736	775	1-66 7/2	6-1-9 1-63-4 2-8		Yates Pet.e 8 · 1 · 8 16075 ##.	1 10 to 10 t	Pubce	Gulf 18-1-84 18-1903	Smith oto	100000000000000000000000000000000000000	Surveyer Ci	ceeding
2000	44	31	51010	32	State	Steh	Northern		Yates Petrol		5 · 19 · 60 • · 4492 4 ½	s-H	Sau ; Yotes Fet, etc	A Andes Like Geo	7 10 79 8	
و ک	7.0	.a A.		P.W. Wetcons M.		7 L Elliott 2-1 R3 16076	1 & Ellio11 2 1 83 16076		Marriett Morrie Walter Morrie	Yotes Petieto	1	36 Lillie	Yates	3! 	Le Matione Vales Pet Call Marojo Ref. 11	4311
1	20 de	ARRIADE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	U.S.	Elwine Crow Forme Crow fork For Programs		U.S. Jock Fovensore		Fred Savoic brk Eavenso		15.		Variet Colored	un 3.0	TE Witten M.	73 78 77 78 78 78 78 78 78 78 78 78 78 78	Nopos Silen V
1	9 - 2 C	MH.Christ	Pasagoo reen SP veres,etal	R W Vertees M.	Yo :	1900 1 73 1900 1es,etal.VE	C1227762	1142.17	144 10 114 1	TOTAL CONTROL OF THE	09.46 409.97 j 1316.19	1 2 2 2 2 2 2 2	Mar Dist	I. Jammans, atal	Semment Helen	E Leren 3-
	H.Gee B	1041 L6-1476 30	- Of Vinters	Alogo Oil etel	Jock Eore		P Vares enaling	Augus Bil Ca	H. Soeer Att.	1 1	Suck Reg.	The interest of	A P. IZ 10-00 Mary I I IO-00 Mary I I I I I I I I I I I I I I I I I I I	May E Tobacco	A STATE OF	
	1.02 (6.1 15. 91 27	WHC: The leng	Pereior 1:23-0c 1:20-0c 1:20-0c 1:21-0c	No Nat Gas, Ye US Thornhill	3-7: Northern N	در دون رومه روم و دون وي	Yotes Pet, il-1-74 0526053	10- 1- 82 16786	Myco Ind		U.S. Mins Yorks C.A. 16077	Cet. Pto	1000 Pron 14 24 17 1 B2	I A	77954	\$
Jeones.	ra 3 3 Service Mana tine	nis) sinte	State Punco	7121	Lettie	Vales Pet, etal	Migro):	0RT	City of Artesto	8 4.	TOTES U.S. Mires Cet. etc. J.F. 2 . etc. J.F. Studd- 16077 erth 57	16077	33.44 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Whiteen College	7 8.	
	han af	No Not Gos	3- 25 (8) 10 Not Gos 1/2 (Pubco)	hater ex kind		F. Heste.	fores fore	. Pad	Yates P	der#i,3 u.s.	Torre Control of	Votes Votes	Va Forrey, etal	Minison Colege	warrin Carege [& i	ainci
A Balan thon et etel	A Sulling	Friscille Bos	Province .	16618 Abo 0,sc	ا ^{بر} ه اله	Cack Eavenson(s)	Mycethe, 1= 25-79		₂ ⊙ _M ,	Most particular to the second		S 17 M OLISSON	Scos Paters	enna 4 84 -	roles designation of the control of	e come julie Harris III
ine Serve 1	17 6			es Pet, etal 27910 5 16/2	1 -	7	no Ž	utes Per lesse - 12 er	MOLAND		Seffers Boyle of	1411111 2 (11) 2 (14) 2 (14) (14)	12 19 4	L'ALLE	Thon . E se	S (Asia)
galon :		nec diamena Sum			ock train overs one ories as	Per 17 per 22 po 23 rejecte J. R. Monnie	City of Ai	Yoth Pet	Artesia Airport			ट्री भारती हैं।		o e refe	•	Y.
	# ₽ ^{5.6} .	res III '/s rates '/s rates '/s rates '/s	Pubce 6 : 1 Habi Northern	••	G.D.W:		Myco 1-3	"。	31	E TISY TO	often Det Cart					
	n≃gn ara-l	18	Natyral Gas 12	renktinetal red-Shirdan 1 379 10 1545 D/A 2-8-60	Yates Pet. 9 - 1 - 86 LO-3711 6128		WE Melling.		Hensley 235 37	Yoles Peter etol Seat J.W. Myr sezan AT Votesan Deriffer Ow	often of other offen of other offen	Organia Organia Garage	Don Angle 19 au 19 au 19 au 19 au	AR	TES	IA
4.1	en I ei s zil				16	AGA	Yates Petr. 0039900 02-08	Yoles Yetr M.A.	Appress Votes	AS Mecou	The state of the s	o Bonne S & M.	ores Pet et of	-		, ,
29.77			U.S.	W. 7. L.	100mg 100 21-80 4671 Stelle	70.07	DE 14	WatteEst W. Marris Marris	FOR PORT STAY	Onition) Yours Breeding SAD no Youes U.S.	107 TOPTO 4	cheme. eu	1991) 27 A		Yates Fet \$ 4 - 89	A Mediater Cal
	M . I	? Co. · 78 !768	A.R.Co. If - I - 7 0650268 "J. Å. Yoles	' . L	Votes Per (A.R.Co.) (858268	etal	Yotes F catigo "Fed." • 4"80	25 Tel		son Winters	trun Graces	A Aiten to	To The State of th			
Yहु∙क शुक्क	nel -	19	Antique perser gi sign millim20	14.7	Pubco No.Nel 3-29-81 Gas 12 Honie Corlets J.	Yates Pet V	- C-			Broat 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	City of Arres	10 79 10 79 10 79	moco se J. B.	Union #21 76		J.A Yates 9 25-71
	M. York	1 10 17 17 17363		1: 1: 1 1: 1: 2	- 12	Ft. etol, EJR	Pay 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	JEGZU J PAZ JIN JINAS JONES JONES		IVales Pel	S. L. Fer	ger II	Champlings 4		tore	Tates Per 9 - 22 - 28 3-1 Bien
etor	5 0000	nimson 1	Yotes Per. Y. 10 P 12822 W.0	ates Pet. J. 1 27:16 Jack Flynn, siel W. 1 A Goble, Est, Mena	Yotseff A Co		90719634 95 "8%"	Jechsen 4	Jay of Yal	es Pet. Yo	Wanda Duel O'A	PATENTE LINE	3-942 (11-6 78	12 -25 - 781 PM	rmer k	An Bien MCPribaker TO 8755 B/A 7-74 66
Fe1	N. W. A.	4 is is Yotes idea Yotes Yotes Yotes Yes Yes	Yates Pel		, u		SC Yeller S	ies esev	Yates P	At Creek - Vestien Vesti			efee Mesos	70 78 7 31 71 D.	Wilds Vellows di 13566 E Manufer Mary 805 L. Fellows	Yores Per
Marian Ma Marian Marian Marian Marian Marian Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma	7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	S.S. B.S. MBP RETER 7449 OCTOR 7449 OCTOR 745	Gable* E.S. Flynn, B. E. Gable,	etal wery Aus	72 28 28 28 28 28 28 28 28 28 28 28 28 28	oz `	osaa para a Yosaa ka	Jockson Votes	The J. M. Jeck:	en	0 6907' Y	28 76 No	Yates Pat, vajo Ref Co. 74 2 2	Ore Per Vi No Per Vi Ny co Ind., Vi Ore New (LSon La	D. Jehnson 9-77 Z 29-77 E Manefee 16.67 BMG L. Fehous &	Coquina 7 27 78 W Karnbaser
	17501 1464	ring sone	Yates Pet etal	35.42 J.1.	Gryncerg Yafe	Pit Pet eloi		1 1	Total J. M. Jeek		Plant" OCCUP	A PLEMOLT ST. TH. K.	Nelforetol 30	[55] · 文川	107'01 F-081 / 1 8	rigii (at
	• • •	1461	Read Series	et etal 4 G HPP (Yo Zels be	8 2-CR	orb A	U.S. Yates Pet eta	43	Due:	ล์ตั้	Messon yote	yearure portesan portesan portesan portesan	341.14	77 10 2 78 78 78 78 78 78	Contra de la contra del la contra del la contra del la contra de la contra del la contra de la contra de la contra del la co	
•	185 Egs 6073 44	fates Per	totes Percei si 10 64-75 15 unv			721 221 321	erit & Marie Crist Votes Criq	" ————————————————————————————————————	des Des post	1 52	wort-p	₩ ₩				

Elev: 3476 GL= 3491 KB Spull: 8-9-72

TD reached: 9-9-77

San andres & 756 KB Artesian Water Zone 2788-1068

Glorieta a 1945KB

Abo 0 4112 KB

Wolfcemp & 5300'KB

Cisco : 0 6314 KB

L. Canyon & 7142KB

Straion 27357 KB

Atoka @ 7866 KB

Morrow Clastics & 8011KB

Chester @ 8161 KB Mississippi @ 8301 KB

Devonian 2 8761 KB

DST#1 8865-9160 TO-30 SI-60 TO-120 SI-180 Recovered 76.09' Salt Water 23000 pen Chlorides

174 hole to 360'KB. 13% 61" J.SS Cag set a 358' KB, contd w/ 280 sr & C 4% CaCl, circulated

Propose Morrow Completion in Casing Amulus

51 4 Propose Salt Water Disposal down 21/8" Tbg.

12/4" hole to 1262" KB. 8% 24 J-55 Csg set @ 1262 KB. emtd w/ 1310 sx el c 29. Coci, eirculatal.

DV. Tool 2 2238 KB could wi 500 sx Cl CARC ent circulated. 29219 flosal. Drispok. KU mud between cements

Top of 2nd Stage Cement

Cisco Pay 2 6556-6559, 6570-6580

Strawn Pay 2 7314-7318, 7571-7576, 7682-7686, 7720-77

Blast Joints 2% 10 Plastic-coated, 300.

Morrow Perfavations: 8018-8024 0:34" 24 holes

.BV Tool @ 8108, emtd w/ 215 sr C1 C+ 145 sx Hal-lite + 2005; Cl H

Sliding Sleeve 21, "ID Stainless Stoel.

- On-Off Tool w Profile for blanking plug.

- Guiberson UNI-VI Packer 21, x5/2 plastie-coated on inside to set at affine 8300 KB.

5/2" 17" N.80 & 555 Cag & 9461 KB entd at 275 se 4 Hend circulated 2 DV Tool 2 8108'KB TD: 9500' KB

Care 6088

LIBURTON DIVISION LABORA RY

HALLIBURTON SERVICES

MIDLAND DIVISION LOVINGTON, NEW MEXICO 88260

LABORATORY WATER ANALYSIS

lo lates Fetroleum	Corroration	Date 9-14-77					
207 S. 4th Stree		This report is the property of Holliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of loboratory managements it may however, be used in the course of regular business operations by any person or concern					
			and employees thereof receiving Company.	ng such report from Hallburton			
Submitted by			Date Rec9	-13-77			
Well No. Mitchell	IN #2 Depth_		Formation	Devonian			
County Eddy	Field		SourceD	ST #1			
	Sampler	Circ. Sub.	Tor Recovery	Pit Sample			
Resistivity	0.221 @ 74°F.	0.208 @ 74°F.	0.214 @ 74°F.	0.208 9 74°F.			
Specific Gravity	1.031	1.032	1.031	1.032			
pH	6.9	7.2	6.9	7.5			
Calcium (Ca)	2,300	1,500	2,100	1,500 *MPL			
Magnesium (Mg)	330	120	150	120			
Chlorides (CI)	23,000	24,000	23,000	24,000			
Sulfates (SO ₄)	2,950	3,400	3,000	3,400			
Bicarbonates (HCO ₃)	855	17,900	1,165	24,500			
Soluble Iron (Fe)	Trace		Trace	Nil			
•••••							
•••••	••••						
•••••							
Remarks:				*Milligrams per liter			
	*						
		n					
		Respectfully submitt					
Analyst: Brewer cc:			HALLIBURTON CO	OMPANY ()			
		Ву	W. CHEN	Drewer			

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

ENJAY CHEMICAL COMPANY

Houston Chemical Plant 8230 Stedman, Houston, Texas 77029 April 12, 1973 WATER ANALYSIS



SAMPLE DESCRIPTION: Produced water from Gissler SWD tank (Eagle Creek Field) submitted for routine correlation and stability to CaCO3. Sample taken 4-5-73

COMPANY:

Yates Petroleum Corporation

STSR NUMBER:

#47371

DATE RECEIVED:

4-9-73

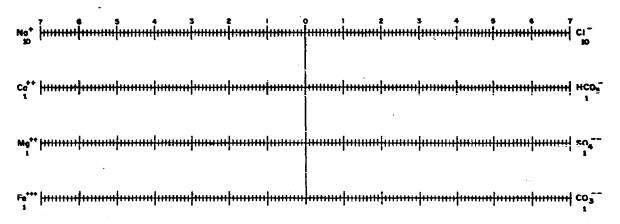
REQUESTED BY: Harold Langen

ANALYZED BY:

T. C. Crawford

	Mg/L	Meq/L		
Sodium	95,405	4,148.0	pН	7.3
Calcium	2,280	114.0	Specific Gravity at 60 °F.	1.1608
Magnesium	802	66.0	Resistivity, ohms/m @ 77°F.	0.057
Chloride	149,850	4,225.8		Mg/L
Sulfate	4,368	90.9	Oil Content	
Bicarbonate	695	11.4	Organic Matter	
Carbonate	0	0.0	Hydrogen Sulfide	110
Hydroxide	0	0.0	Total Alkalinity, as CaCO3	570
TOTAL	253,400		Supersaturation, as CaCO ₃	65
Dissolved Iron				
Total Iron	0.66	0.0		

WATER PATTERN (Stiff Method)



Meq/LITER

Remarks:

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico November 16, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Yates Petroleum Corpora-) CASE tion for a dual completion, downhole 6088 commingling, and salt water disposal, Eddy County, New Mexico.

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil Conservation Commission:

Lynn Teschendorf, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico

For the Applicant:

LOSEE & CARSON Attorneys at Law 300 American Home Building

Artesia, New Mexico

A. J. Losee, Esq.

INDEX

	Page
1. Appearances	1
2. The Witness, Mr. Eddie M. Mahfood	
Direct Examination by Mr. Losee	3
Cross Examination by fir. Stamets	10
Witness Excused	16
3. Reporter's Certificate	17
EXHIBIT INDEX	
Applicant's Exhibit No. 1, Map	4
Applicant's Exhibit No. 2, Diagrammatic Sketch	5
Applicant's Exhibit No. 3, Log	6
Applicant's Exhibit No. 4, Water Analysis	7
Applicant's Exhibit No. 5, Water Analysis	8
Exhibits No. 1 thru No. 5 Admitted	9

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

10

11

12

13

15

16

17

18

19

2Ü

21

22

23

25

MR. STAMETS: Call next case, Case 6088.

MS. TESCHENDORF: Case 6088, application of Yates Petroleum Corporation for a dual completion, downhole commingling, and salt water disposal, Eddy County, New Mexico.

MR. LOSEE: A. J. Losee, appearing on behalf of the applicant and I have one witness, Mr. Mahfood, who was previously been sworn and testified.

MR. STAMETS: The record will show that Mr. Mahfood was sworn and has been qualified.

EDDIE M. MAHFOOD

was called as a witness by the applicant, and having been first duly sworn, testified upon his oath as follows, to-wit:

DIRECT EXAMINATION

BY MR. LOSEE:

- Q. You are Eddie Mahfood and you live in Artesia, New Mexico, and you are employeed as an engineer by Yates Petroleum Corporation?
 - A. Yes.
- Would you explain the purpose of the application in Q. Case Number 6088?
- We wish to dual complete this well prior to injection to dispose of water, of produced water, and part as a producer,

Sid morrish reporting service General Court Reporting Service Calle Majn, No. 125, Santa Fe, New Mexico 875(

the gas field.

2

10

11

12

13

14

15

16

17

18

19

20

21

22

23

- Q. You no longer desire to produce the Eagle Creek Strawn and the Eagle Creek Permo-Penn and commingle those downhole with a Atoka Morrow at this time?
 - A. I think it would be better to separate it at this time.
- Q As I understand there is already administrative procedures for you where you can downhole commingle them?
- A. Right. We have completed the well in the Morrow and it will be the Eagle Creek Atoka Morrow at two and three quarter million per day. I would not advise Yates to attempt to do any more completions in that well bore.
 - Q Until after they --
- A. Until after the Morrow has declined to some low further activity.
- Q Please turn to what has been marked as Exhibit Number
 One and explain what is shown by this exhibit?
- A Exhibit One is a lease map showing the location of the well. We are dedicating, of course, the east half and the well is an unorthodox location.
- Q Is there any producing or plugged and abandoned wells within one half mile of this well which has penetrated the Devonian formation?
 - A No.
- Q. And it is the Devonian where you propose to inject the salt water?

A. That's correct.

Q Please turn to what has been marked as Exhibit Two and explain what is shown on this sketch.

A. Exhibit Two is a diagrammatic sketch of the proposed dual completion showing the gas completion in the annulus and the injectivity down the tubing into the Devonian.

There is a packer with a blanking plug set at eighty-eight forty and right now the Morrow is completed in the tubing but it is not reflected on this diagram.

What we proposed to do is to kill the Morrow and run plastic lined tubing and set it in the packer at eighty-eight forty and remove the blanking plug and inject the produced water for disposal down the plastic coated tubing below the packer at eighty-eight forty in the perforations in the Devonian which are eighty-eight seventy-nine to ninety-three sixty-two.

The Morrow, will produce up the annulus and we have the last joint across the Morrow at eighty-eight oh one to eighty-eight twenty-four and have a sliding sleeve perhaps thirty feet above the packer.

- Q Where is the cement in this well behind the pipe?
- A. This well was cemented in three stages. The first stage went around the casing shoe and the bond log shows it came from eighty-one seventy to eighty-three seventy and there might be cement in that interval but there is no bonding.

At eighty-three -- at eighty-one seventy to fiftynine hundred feet there is good bonding. The DV2 is at
eighty-one oh eight. So, it is possible that there is
cement all of the way to the DV2. That's the first stage.

The second stage was cemented at fifty-nine hundred teet and then there is mud and the DV2 which was at twenty-two seventy-eight and from there to surface is cemented.

- Q Let me ask you, looking at this proposed treatment of this well would you have any way to -- at the surface -- to monitor and determine whether there was any communication between the tubing and the casing -- tubing annulus?
- A. The immediate indication would be loading of the annulus with water which would kill the Morrow, of course.

If there is any communication you know it immediately because the gas completion would be affected.

- Q And your Morrow would quit producing gas?
- A. That's correct.
- Q All right. Turn to what has been marked as Exhibit
 Three and briefly explain what is shown on this exhibit?
- A. Exhibit Three are portions of the electric log. There are two logs on this sheet here and on the left side is the compensating neutron density log and on the right is the dual laterolog.

It shows the interval, the Devonian interval, which was drill stem tested and in which we are going to inject

our produced water from the San Andres field.

Shown on the top of the Morrow, in the Morrow perforations, which incidentally I said earlier, the Morrow gave up two point seven-five million a day.

I have the pay shown on this strip log here and it carries, in addition, some Cisco pay which I failed to show on the strip log.

- Q But you don't propose to produce that Strawn and Cisco at this time?
 - A No, not at this time.
- Q All right. Turn to what has been marked as Exhibit Four and identify it?

A Exhibit Four is a water analysis done from a drill stem test in the Devonian. The first column is the sampler and is nothing but formation water. Immediately above the sampler was the circ sub which could have been very diluted but it is pretty near all formation water.

Then, we have top recovery which would be a <u>dilution</u> or it could have been a dilution with the pit or the drilling fluid.

The pit sample, of course, is the sample on the extreme right.

- Q Does it reflect whether or not this water is potable in the Devonian?
 - A. This is not potable water. It has twenty-three

thousand chlorides and I haven't computed the total solids there but I would estimate the total solids there to be forty thousand to fifty thousand parts per million.

- Q Turn to Exhibit Five and explain what is shown on this water analysis?
- A. Exhibit Five is an analysis of produced water and it is from the Eagle Creek Field. It was taken from the present disposal well and it gives the lease.

The column Mg over L, that is milligrams per liter is approximately equal to the parts per million. You will notice the chlorides from the San Andres is approximately one hundred thousand parts per million and the total solids is two hundred fifty-three parts per million. There is some iron in there.

- Q Do you think that water from this San Andres field is compatible with the water encountered in the Devonian?
- A. I cannot see any problems because of the dilution that is taking place with the Devonian. It would help injectivity, if anything.
- Q What quantity of water do you -- does Yates propose to inject into this Devonian?
- A. At the present time the Eagle Creek Field is producing in the neighborhood of two hundred and fifty barrels a day.

This well is capable of three thousand or better a day. But I suspect that after we have been disposing in

10

11

12

13

14

15

16

17

18

19

29

21

22

23

25

this for awhile the activity in the Eagle Creek will increase because the San Andres, itself, gives a fairly bit of water and the water produced from the Eagle Creek now is what is being recycled through the disposal in the San Andres so we treat those wells once a week.

- Q. What would be the maximum water you think you would need to dispose in this well?
- A. Well, I would rather not commit myself but the well is capable of three thousand barrels a day at a pressure not to exceed seventeen sixty at the surface.
 - Q And you won't exceed that pressure at the surface?
 - A. Right.
- 0. Will the approval of this application avoid the drilling of unnecessary wells and otherwise prevent waste?
- A. Yeah, it would -- we need another disposal system like this to dispose of the San Andres because of the recycling which is expensive and hazardous for shallow water, too.
 - Q Were Exhibits One through Five prepared by you?
 - A. Yes.

MR. LOSEE: We move their introduction.

MR. STAMETS: These exhibits will be admitted.

MR. LOSEE: I have no further questions at this

24 time.

CROSS EXAMINATION

BY MR. STAMETS:

2

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

A. Mr. Examiner, I did not make a calculation but
-- on a drill stem test it made -- I have it written do

What does the Morrow make in the way of liquids?

we -- on a drill stem test it made -- I have it written down here -- seventy-six hundred feet -- okay. The tube was open -- the information that was furnished was it was open for one hundred and twenty and it should have been one hundred and eighty -- but on examining the drill stem test chart I cannot see where the tube was ever shut in and so I would say that it was open a total of three hundred and thirty minutes and at that time it produced seven -- hundred and six feet of salt water with the pressure being thirty-six oh five, which is pretty near -- well you know -- well, it was still flowing, apparently, after that period of time but none the less it

- Q. Is that from the Morrow?
- A. No, that is from the Devonian.
- Q. The Morrow is what I was concerned with. How much in the way of liquids are being produced from the Morrow.

is seventy-six oh nine feet which is a tremendous flow.

- A. The Morrow makes -- it does make liquid condensate, only.
 - Q That's what I was getting at.
 - A. I am sorry. I mis --
 - Q. Will you be able to effectively and efficiently

sid morrish reporting service
General Court Reporting Service
25 Calle Mejia, No. 122, Seats Fe, New Mexico 875
Phone (505) 982-9212

7

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

produce the Morrow from the annulus without tubing because of the liquid production?

- A. I would say yes. Our experience in the Morrow is that the pressure drops so much it just is making condensate.
- Q. If the hole starts to load up with liquids do you have any option on how you might be able to produce that?
- A. We can unload the annulus by setting a blanking plug in the packer and opening the sliding sleeve and swabbing the well.
- Q The sliding sleeves are notorious leakers when you move them.

What about the possibility of running a string of small diameter tubing down besides this two and a half in order to get the liquids off?

- A. That would be rather difficult because we plan to put two and seven-eighths tubing or three inch tubing -- I am not sure which we had set up on this.
- Q Your exhibit shows three inch O.D. but that's on this last joint.
- A Okay. Anyway, there is five and a half casing in the well. So, it would have to be a rather thin string -a macaroni string like one inch or something like that to get into that annulus space there.

It is not very feasible.

Q Do you plan to do anything else besides running

that plastic coated tubing to try to prevent corrosion in this injection well?

A. The injected water, of course, is treated for iron sulfide and bactericides -- treated with bactericides -- and we put it, in fact, in the fluid.

The packer is already plastic coated and other than that I don't see where we could have any corrosion. The annular part would have been contacted with the Morrow gas and, in fact, all of the Pennsylvanian gas would be sweet gas and not corrosive.

Q There is some concern on my part what might happen if you sprung a leak in that tubing and the Morrow gas which might be left in the ground in case the formation was damaged by such water --

A. Mr. Examiner, I can only say that we are very anxious not to lose any of that gas. We would make every effort -- if there was solution and it would up and die -- it would be sudden if there is a leak and we would immediately want to correct it.

Q Three hundred and fifty barrels of water a day is a pretty good bunch of water for what -- what is your unattended period of time on the weekend or a holiday?

A. I think -- if we had to shut this injection down on the weekends, for instance, we could put everything into the San Andres disposal well. We could make that condition.

Q I was thinking of the situation where the well went bad after your pumper was there on a Firday. When is the next time anybody is going to be around to check it, this three hundred and fifty barrels of water, is that every day?

- A. Every day.
- Q That's weekends included?
- A. Yes, we check those gas wells every day.
- Q Okay. Nonetheless, if this water did get out of the tubing it could severly damage the Morrow could it not?
 - A Yes, it could.
 - Q Where are the Devonian perforations, again?
 - A Eighty-eight seventy-nine to ninety-three sixty-two.
- Q. Okay. Now, this, I believe you said, was the only well which had been drilled to the Devonian?
- A Within a half mile. There is one that was drilled to the Devonian but it is about a mile and a half away and it was plugged back with cement and completed in the Morrow.
- Q It's a mile and a half away -- and you indicated that there was a zone on the five and a half which indicated no bonding? What was the depth of that, again?
- A. The broken bond was at eighty-one seventy to eighty-three seventy which is five hundred, almost, above our packer.

 That would be one hundred and fifty feet below the Morrow perforations.

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

Q Now, what kind of pressure are you anticipating using on this well for injection purposes?

A. Well, we will plan to use the existing equipment that we have which is not capable of going over a thousand pounds.

But we could -- a point two gradient would be seven hundred and sixty pounds and if we had to we could get some additional equipment out there.

- Q. Three point two if you measured to the top of the perforations would be something like sixteen hundred and twenty-four -- and a pressure limitation like that would be adequate for your purposes?
 - A. Yes.
- Q How long do you think -- have you made any projections on how long that Morrow well might last in there?
- A. From experience in there I would say two and a half or maybe three years.
- Q Are you going to have any trouble plugging the Morrow zone when the well is abandoned if you are still using this for water injection?
- A. No. There shouldn't be any problem but after the Morrow is gone we will probably want to perforate the Strawn and the Cisco.
- Q. What would you do, run some kind of a blanking plug down there, inside, inside the tubing packer?

3

10

11

12

13

14

15

16

17

18

19

20

22

23

A. On the top of the Morrow we could set a blanking plug and pull off the packer and drop some sand on top of the blanking plug and come up and freeze the Morrow and clean it out and wash the sand off of the blanking plug and back into the disposal well.

- Q And you could inspect your tubing during that kind of an operation as well?
 - A. That's correct, yes.
 - Q. I see.
- A. Incidentally, there are some tools, now, that go down and check the tubing in holes. I am not suggesting that we need to, but --
- Q. We are interested in that sort of thing since we have had problems in certain areas with these.
- A. I want to show you that we are concerned, too, we don't want to lose that Morrow.
 - Q Do you have some literature on those tools?
- A There is in the -- well, let's see, I was in Lubbock a week or so ago, ten days or so ago, and who was it that had that -- Dial-a-Log was advertising that tool -- most of these well companies have it --

MR. STAMETS: Any other questions of the witness?

He may be excused. Anything further in this case? The case

will be taken under advisement and if there is nothing further

the hearing is adjourned.

_	3.0
Page	7.0

(THEREUPON, the witness was excused and the case was concluded.)

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

	- F	11.0			Washing Street	30150	Edwin Mei	10266 U.S.	[†]	u.	SH Store		1		5, 7	1	~		** 234.35	TH_
*	ı		1,	Sarather	Potes Person	ı	Pubes		Fubro Pubro		Yotes Pe	R.S.		Harriett Marris eret Watter Marris for	101142	tarte etc. Per		i presi		ff and
1	Ţ,	er Bil		8-1 79 8-1 79	" " " —	Marathan	2 . 63/8	17	6-1-4- 6-1-4- 1-6-6- 1-4-1-		81601	75 62	Pube	I But	32/ 7		Trans	1000	1000	1
1	L"	.14 2000	170	~***	Stee	3736	7.8 Not Books	l,	orthern Norther	, 1			U.S	60 LB 1903	1.5			101 50	$\psi_{i,j}(t,t)$, s
1	-		-31		51010	32	State		State No Gos	/è _	YotesPe	- 1	143	<u>, 1 ≥ 22</u>	112.00	A 0 0 0	in Bar Stat	7.5.3		/ .
1		Ĭ			1	1		1 1 Ellio	off 11 Files	- 34	1	35 Ernest M		1	1	Pet etai	· •	1 all areas	: 17	S 🗪
1	4.6	n 🛊		•	1			2-1 M. 19076	1	T"	Verriet! Au	HEPT ME HEEL IN I	Peterol	36 _{Till}	┉┪╌╌	1 31	i	To Parago	3	1
**		_]	polenet	هتر	V.S.	Algor francist Sign E. Crow				i	Welter Mar	erris (8) 160	75	1 74	fith cores 2 P. et etal 1 C T T T	It	Milen M	Merojo Ref	A Bolose	
1	77	107	LAN	198		P. A. S. L. S. B. Le Longe	lizerieti Mare (a) Aziter Merris	reizelei U.S. 11. [1] Jock Foren	U.B.	Fred Soid for k For an	The state of	us.	7	Ser.	A tour		Ailes Let	∦ ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	" 漢特	W.
	¥,			es se	Intes Per	1,1121 1/11 92	in sele tett	e) 1/46.69 2/00	U.S. 414.9	THE PARTY NAMED IN CO.	A) 7 (1) 14 (1)	tch Edverson(s)		31010 5	47 HE 179.1.	PO	Personal of of			1
1	1.	C	dy MHC	hrainne.	0419700 1 5 P rates, etal	1	1 .	01es Pej 0439900	civil 1	'	AT A TO RECORD ST	Chana rales	13'es 1314 (G	197 July 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	al a manage	Shuddle 1 200	10025	Compal Make	- Blim	- I-N
	L	270	10 14	76 30 M			۱4 ° ۶	S P Yotes, etal. VE U.S.	to alling	Z+ +	Yortes:	Evens votes Det 1 25 80	er,eto' } ! 1 • 93 ! 16 93 }	2 1 63	ero 2 a m	10 80		THE SECOND	830 II.	100.0
_	11.7			estret - ·	1/ Y-t	Mer Oil etal	1 Jock	k Eavenson(s)	1	- 1				16077		More	e romen	A TO THE OF	;; j. 87.00	*
•	ves	-82(8:1.		. 61	Per etot	No No Gas Ve		Pubco	Proins erall		Mist Vera sene	reder Moll Mi	(360) Burk R Brasin I Kaingt As 7 60 \$	Roy Co		then.	- ce		Smm 11	19:35
		رهرء افي	シュー	TS FROM	1-27 00 1-4043 255	16 Thornhili	North	3-25-81 Pro Natural Gos ta	11. f. 74 0929055	. YG'es Fei, e	etal Myco Inc	,	U.S. Mine	TO COLUMN	1201 T		<u> </u>	79 242 7.	3.7.3	1
eck endonési		Lock Egg.	7. 647	* mg	* ***		1	Yates Pet. et	Toi A	IRPORT-	7160	1 1	Dentonist	10077 VOTE DEL	110' L	3.4	ELION 173 Walles	2 25 2	7-1	A
	113	7	1451 54	1010	liste	Here & Com	Lettie	17 31 80		i	1	1000 J. S.	rores U.	S Mires 16277	31.4 V	inhitse.	n College	17.00	wi l	سينا
	M.	orothon	1	j.	Pubco 3-25-01	Normern /	7		Steel & V	ds. I	City of Arts	110 de 15	10165 U.S. Fet eta: 3 16077 er	r.F. U.S.		A Par No.	100 July 100	Sopringer	1	1
reinere	-	ri	No See	Gos 1/2	3- 25-84 No Not Gos Va (funco)	Gres Per etail	100	NF Hester 26676	Tail 12 AIRE	POR THI-1-74		e Pet	You seriol !	Yotes Vale		ey,etal Whitso		ila nge E8.	l. Balleet	
Comp.			0.00	CO DM	Emple for	. 65 16618	1,77	1-	1.00		- 1		Yorks shall be say that the say of the say o	2 3 5 17 to 0 Up		Yotes Fell 30 B	w.,,, o.,	¥ 200	وَ يَجُو مِنْ جُوا وَ	100
stnea	No.	1	-90	50 m. 2		Abo 0 sc	t. ♦.	Jock	Myco Ind. 1 : 25 : 72		1 ~	D 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Your Te.	Holl M.	2 22 1		1	22.00 . 1015.6	eter ci es I	£ 28.4
Pet eret	Fine Fig.	*	LHOM	10/2		tesPet. etal	۲. ح	Eavensons	" "	to us.	100		7. 20 E	Holl M.I.	10.22	C Se	السار:	Tope	7 5	0000
ine	Dist.	10.00	Memoral 6 3	المستعطم	27042 KG	S 16/2	• • ,	Yeles Pel	1		"IOLA"	محددات بعديدا	Ma Yemania	Jan 2 Constructor	3 to . Li		J i	. 5.741 ^{12.5} 		
700		×,	· 1	`` "		dester -	Jock	Yoles Pad Sacho Food 70 73411 (7/A H-2-71) WIL 7950]	Affesia Afresia Afresia	I IIA	tien hiterante	d'a diameter la	20 1 2 C 1	0 0	53	- [▼	•	1
	77.	#==	er Bionias	2000	1 260	· <u>*</u>	Eover Son(S)	TTA H 2 70 DM 9 70 79KA J. P. B.S. S. Worn		YatesPy	Artesio A.r.			To as Pet of		i'er tele	1			
· •	T -	M Yore	esm's	!	Puber		' ' G.L	U. Williamean		er arresio (City of Allers			(四月間)	Callas	.,	į			Ì
1		4 7 4 10	afes 1/3	i	6 - 1 . 11 9 01	- BO	ļ	U.Williamson 7-21-80 1-4671	M	ucoind Yate					4 3-22-10	1938/4	[_		i
1	1 .	1895	· 83	'	Marthaga	2 1		_[]보		3 73 73	61 11 at 155	The state of the s	Tolses Par Yates Del Ser Yates Yates	划像影響	.Don Angla	, ,		P == =		<u> </u>
	ר בענים בי	•	18			renklimetel ree. Shriden 1 3396 10 1545 7 3/4 2 4 53	Yertes Pe	3 "	W.E.	Kens	9 8 Vitte Sing Mensley 9 28 1200 16 Ockson			Canta Waller	10 Ac	· 🔎	/ KI.	TES	IV	4
- 1	Mara-I	.1		7	. 17	7 3/4 2 3 63	#131	16	Melisa	R J M.Jeckson	7		207 Sim	Subv.	ores Par		-44	- - -	4	/]
3.	4-1 au 3)40 21	ŗl		i		ļ		Face	Yoles Pe	etr. Yotes	Thempson Yote			1 3 Donned Jahos	ores Per	ğ,- ¸	Ĭ			A
· •	13395	ŧ	Flynn			10	Mom			2-CB M.A.	4cc Per			Yates Pet.	137	18	F.	Yares Fer	17	
	,	t.s.	€76.950 + 18.950	1		17.	Yilliami 300 7-21-801 1-4671		1	Valie E	Est Yates Per	AT (Wiler) Yorks	Brog JAH73 TORY	Achen-Freu	Amorbit	•		7 4 - 83	+ Trobat	rer Cal.
ł	יו דו,פו	AR	Co.		U.S.		177	Pat all	7 25 🚌		Morris	SAT CHAT	יביפור ביותר	Yates Pet	Tur 1		f		10 H72	7
L	فسيوا	# 7 7 3 055 82	60 D	3EF&I	RE EXAM	TINER STA	AMETS	Pet etal Co.)	Yat	es Pet Volsille	20,00,00	Clecksen wings	Toi Joceson John	Gold J.A. Achen (3)	Surf		, f	ı	;	
F	12 a.e.	i	بر ا	7,	SERAL LOIM	ICIN COM	HAISSID	449	Fed. •	S TIRTOT Primes	TO COURS PAG /	TIR SILL TIMISON	etal Yutes,etal	Yotes Pet at-	TUDOCO 1 3	1	-		13.4	
1.	***************************************		UIL	· cyi	El sera	7		Yare Per	Vota GA	98, 97 1	C 010 10(N	Millian Bross W Francis	Tull 1/2	un 4 12 79 4 10 79 4 24 79 Arres a 7 M.		J.B. Chempion J:	T T		Yates 3 25 7	
10 P	10	M. Yates	9	moco	EX PAG	··· +	7	2 E Malhane	8V" 2	Yates etal	1 '3	definences 12 cm of the state	es Cryof		i ue	Saltaine	827 70 J.		÷	11
HE	¿ 3 .	1 24 78	3.75	CHON	1 1-	788	er Pe! 12 Yo		Jackson for 2	Z Jezuj Pez Legistas	d3-		4	L. Barger	J.B. Chemplin	rdr 4 G Balle		***	Yates Pe	74 IM
Ma:	7-1	1	1. Serie	学計り	vies Per	Tales Pes. J. 1-27-16 D. Frynn eist Jes. 14 Goble, Est. Mein	1 19 50 67	2:9603 PZ PZ	PSD 3	Weilie Gissler s	E.A.Beh endt	PARTIES PEL	Yates Pet	refractionale of the control of the	37. 1 J.A	49 22 80	s Fer	2		
W"	7.50	Contraction of the contraction o	หรือจัก เกล		HBP WB	Flynn etal Vet	tksen F2	87" 15 87	6 6 Yorks				witchell Dag	100	Att see cto	1 2 3	5.76		OATI FICT	. 旧
	e es	्रोणन	Pet U		<u> </u>	# Goble. Est. Wen.	Vin beneg	<u></u>	1 10 1	ال 🐧 م	C/35/e/ (5) ~ 2.8	Yotes Pet.	Yates Put. et at	TO THE LOT FE	1349 A HATEL	Yares Pe	er Porn	Mer Garner	\mathbf{E}	
1	72	M Yo	2 15 75 Ye	W =	Dulyotes Pe	n	Vales 9.4	A.R.Co.	3 0344 24	Yoles	e-ev Yate		****	Morajo Ref	500 E 1 55	nain 2 20 7	7 00	Wilde Frilows Dissip Marrice, water	T Votes Pe	न्त्र हि
Par.	- 1∫±	9 27 61 (2 17 K 2	w-	Gabie*		1701 17832 PERS	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7375 BG Yotes	ay tog om lev	Z av HB	es Petiero Yates BP Petri	I MESLEUM O'I		17.44		1 2/8/	BASE FEMALE !!	W W Forroos	200-
er He	ree o	25 8 g	chine 24 chine 24 chine 24 chine 27 chine 27 chi	1	W.O. Flynn,	, elai pro ikui I, Est. Tostoo ete Wilettz	1 3 ca 1	Yotes Pet, etal	"Stant A Total Stant Sta	ofeselod	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Jeckson	ta 8907'	Yutes Pet, etal 8 • 16 • 78 12 • 28 • 76 3 • 23 • 84	Yates Pet NavojaRef Co	0.4 Mucolad	3/9 HL3E !	77 2 20 77 Meneton 168	Coquing 7 27 78	11 1
E S	72 3 1 3 mm	2 3(10000	one!		TOPING CE	120 TO	, f88102	(M. Votes (A)	KGS Pet	(Yotee) Rey In		1	3 . 25 . 56	B .	2 29 76 Mag	L San L Har	Menerge WALL	4 4 Karrista	11 3
2	301130 12:514	" '	N.R. CONO 111-12-78	יין ביייני	tes i	J Grunberg	Carynberg	Yafes Pet, eloi	LOY 27	ISEZS HOP	The second	26	May to the	Lannie Kemperki	Al so Nello	OF DE	11		Ton Poc. f.c.	-162
P 1		. 1	Yates Pet	that 3	erioni Celli	3142	9542	5-14-79	ĺ	1 1	Yati	fee Pet atra	Flint 2	つんていだけ ソカラかのこうふく 目	H.K. Nelfor, etal	30 15 376 5	2.1 427	29		164
	*9*e3 P		4 - 1 -80	6	Colling Tates P		GR 2GR	1 1	U.S. Yates Pet	Vestien	**************************************	ह्या चा.काळा च्यो	C 12597	10-00-0	Navoja Ref Ca	0 4 5 77 0	2.74	****		#1
- Pro-70		<u> </u>	7	100	-11-		v 5 Fed"	Barb. B. Conegan		cetal I-Em			Lossee & Corson, MI	D. Maria	Re 1 3401100			organia susan		13
1	3'es:	ere's l	rates Pr		es Percerati Tu dann ISUNI Ya				Ayth 2. M	erlee		# Goozeff	FENDTOD 1	*** *					·	1-1
		فسيد	f 6 4			٧٠ - مُعَنِّد	ates, et si	Yates Pet Jetor	Yores Yores O		Yates Pet et al			130 3000	10 - 6- Tal.			and the last	-	1
***						191 19	The state of the s	The second second second second												

Diagrammatic Sketch of Proposed Dual Gas Producer & Water Disposel YPC-Mitchell IN No.2, I-23-175-25E 1 4- Propose Salt Water Disposal down 27/8 Thy. Propose Morrow Completion in Casing Annulus Elev: 3476 GL= 3491 KB Spud: 8-9-77 17% hole to 360'KB. TD reached: 9-9-77 13%" 61" J.55 Ccg set a 358'KB, emtd of 280 se el c 4% Caci, circulated San andres & 756 KB 12/4" hole to 1262" KB. Artesian Water Zone 2788-1062 8% 24 = J.ss Csg set @ 1262 KB, contd w/ 1310 sx C/ C 22. Coc/, eirculated Clorieta a 1945 KB DV. Tool 2 2238 KB could wi 500 sx Cl C 2% C ent eirenlated. 292119 flosal. Drispot. KG mud between concents Ato D 4112 KB Wdfcemp & S300 KB Top of 2nd Stage Cement a 5900 Cisco Pay 2 6556-6559, 6570-6580 Cisco 0 6314 kB L. Canyon D 7142KB Strawn 2 7357 KB Strawn Pay & 7314-7318, 7571-7576, 7682 7686, 7720-77 Atoka a 7866 KB Blast Joints 21, 10 Plastic-coated, 300. Morrow Perforations: 8018-8024 0:34" 24 holes Natural Completion Morrow Clastics 2 8011KB flowed 400 to Yalk = 2750 metal DV Tool @ 8108 cmtd w/ 215 => C1 C + 145sx Hal-lite + 2005, Cl H.
Sliding Sleeve 21," ID Stainless Steel.
- On-Off Tool w Profile for blanking plug. Chester 2 8161 KB Mississippi 10 8301 KB Guiberson IINI-VI Packer 2% x 5/2 plastic-coated INSIMBEFORE EXAMINER STRAKETSE. OIL CONSERVATION COMMISSION Devonian 2 8761 KB EXHIBIT NO. 🔪 DST#1 8865-9160 To-30 SI-60 To-120 SI-180 CASE NO. 6088 Recovered 76.09' Salt Water Submitted by 23000 ppm Chlorides Hearing Dates Cag 2 9461 ICB contil ou 275 so a Head to: 9500'KB

LIBURTON DIVISION LABORA RY HALLIBURTON SERVICES

MIDLAND DIVISION LOVINGTON, NEW MEXICO 88260

LABORATORY WATER ANALYSIS

To Yates Fetroleur	n Corroration		Date 9	-14-77		
207 S. 4th Str	•	This report is the property of Halliburton Company and net it has any part thereof nor a copy thereof is to be public or disclosed without first securing the express written approach to borotory management; it may however, be used in course of regular business operations by any person or company.				
Submitted by				-13-77		
Well No. Mitchell	IN #2 Depth_		Formation	Devonian		
County Eddy	Field		SourceD	ST #1		
•	Sampler	Circ. Sub.	Tor Recovery	Pit Sample		
Resistivity	0.221 @ 74°F.	0.208 @ 74°F.	0.214 @ 74°F.	0.208 6 74°F.		
Specific Gravity		1.032	1.031	1.032		
pH	6.9	7.2	6.9	7.5		
Calcium (Ca)		1,500	2,100	1,500 *MPL		
Magnesium (Mg)		120	150	120		
Chlorides (Cl)	23,000	24,000	23,000	24,000		
Sulfates (SO ₄)	2,950	3,400	3,000	3,400		
Bicarbonates (HCO ₃)	855	17,900	1,165	24,500		
Soluble Iron (Fe)	Trace	Nil	Trace	Nil		
Remarks:	CASE NO. Submitted b Hearing Da	E EXAMINER STAISERVATION COMM EXHIBIT NO. 4	Alberta :	*Milligrams per liter		
Analyst: <u>Brewer</u> cc:		Respectfully submitt	HALLIBURTON CO	Brewer		

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

ENJAY CHEMICAL COMPANY

Houston Chemical Plant 8230 Stedman, Houston, Texas 77029 April 12, 1973 WATER ANALYSIS



SAMPLE DESCRIPTION: Produced water from Gissler SWD tank (Eagle Creek Field) submitted for routine correlation and stability to 6aCO₃. Sample taken 4-5-73

Remarks:

COMPANY: Yates Petroleum Corporation STSR NUMBER: #47371

REQUESTED BY: Harold Langen

DATE RECEIVED: ANALYZED BY:

T. C. Crawford

	Mg/L	Meq/L		
	05 105			
Sodium	95,405	4,148.0	pН	7.3
Calcium	2,280	114.0	Specific Gravity at 60 °F.	L.1608
Magnesium	802	66.0	Resistivity, ohms/m @ 770F.	0.057
Chloride	149,850	4,225.8	•	Mg/L
Sulfate	4,368	90.9	Oil Content	·
Bicarbonate	695	11.4	Organic Matter	
Carbonate	0 0	0.0	Hydrogen Sulfide	110
Hydroxide	. 0	0.0	Total Alkalinity, as CaCO3	570
TOTAL	253,400		Supersaturation, as CaCO3	65
Dissolved Iron				
Total Iron	0.66	0.0		

WATER PATTERN (Stiff Method)

ce** 	ուսում առումիասումը առումիասումը ագրել առումիասում ագրել ա
Mg**	առույվուսավուսավուսավուսավուսավուսավուսավուսա
I	BEFORE EXAMINER STAMETS Meg/LITER OIL CONSERVATION COMMISSION
	CASE NO. 6088
	Submitted byHearing Date

CASE 6061: (Continued from October 12, 1977, Examiner Hearing)

Application of Yates Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Stinking Draw Unit Area comprising 2,881 acres, more or less, of Federal and State lands in Township 21 South, Range 22 East, Eddy County, New Mexico.

CASE 5983: (Continued from October 12, 1977, Examiner Hearing)

Application of Yates Petroleum Corporation for the amendment of Order No. R-5445, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5445 to provide for a 200 percent risk factor for drilling the unit well rather than 20 percent. Said order pooled the N/2 of Section 19, Township 20 South, Range 25 East, Eddy County, New Mexico.

CASE 6072: (Continued from October 26, 1977, Examiner Hearing)

Application of Harvey E. Yates Company for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Canyon production for its Travis Deep Unit Well No. 2, located in Unit G of Section 13, Township 18 South, Range 28 East, Eddy County, New Mexico, and the promulgation of special rules therefor, including a provision for 80-acre spacing.

Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the E/2 of Section 21, Township 17 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6087:

Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County,
New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of
its Ralph Nix "IT" Well No. 1 to be located 660 feet from the South line and 990 feet from the
East line of Section 13, Township 20 South, Range 24 East, Eddy County, New Mexico, the S/2 of
said Section 13 to be dedicated to the well.

CASE 6088: Application of Yates Petroleum Corporation for a dual completion, downhole commingling, and salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of East Eagle Creek Atoka-Morrow, Eagle Creek-Strawn and Eagle Creek Permo-Penn production in the wellbore of its Mitchell "IN" Well No. 2 located in Unit I of Section 23, Township 17 South, Range 25 East, Eddy County, New Mexico, and to dually complete said well in such a manner as to permit disposal of produced salt water into the Devonian formation thru tubing and production of the aforesaid commingled zones thru the casing-tubing annulus.

CASE 5981: (Continued from October 12, 1977, Examiner Hearing)

Application of W. A. Moncrief, Jr., for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of an oil pool for Upper-Pennsylvanian production for his State Well No. 1 located in Unit E of Section 26, Township 16 South, Range 33 East, Lea County, New Mexico, and the promulgation of special rules therefor, including a provision for 80-acre spacing.

CASE 6076: (Continued from October 26, 1977, Examiner Hearing)

Application of E. L. Latham, Jr., Roy G. Barton, Jr., and R. L. Force for a gas well curtailment and gas pool prorationing, Chaves County, New Mexico. Applicants, in the above-styled cause, seek an order temporarily shutting in, or limiting production from the La Rue and Muncy Nola Well No. 1, located in Unit O of Section 8, Township 14 South, Range 28 East, Sams Ranch Grayburg Gas Pool, Chaves County, New Mexico. Applicants further request that the Commission institute gas prorationing in said pool retroactively to date of first production and direct the gas purchaser(s) in said pool to take ratably from all wells in said pool.



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501

LAND COMMISSIONER
PHIL R. LUCERO



EMERY C. ARNOLD

DIRECTOR
JOE D. RAMEY

Other

December 27, 1977

Mr. A. J. Losee Losee & Carson Attorneys at Law Post Office Box 239 Artesia, New Mexico 88210	Re:		NO. 608 NO. R-560 cant:		
		Yates	Petroleum	Corpor	ation
Dear Sir:					•
Enclosed herewith are Commission order recen					
Fours very truly, JOE D. RAMEY Director			•		•
JDR/fd					
Copy of order also sen	it to:		•		
Hobbs OCC X Artesia OCC X Aztec OCC			•		` \

M

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 6088 Order No. R-5602

APPLICATION OF XATES PETROLEUM CORPORATION FOR A DUAL COMPLETION, DOWNHOLE COMMINGLING, AND SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 16, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of November, 1977, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- approval for the downhole commingling of East Egale Creek Atoka-Morrow, Eagle Creek-Strawn and Egale Creek Permo-Penn production in the wellbore of its Mitchell "IN" Well No. 2 located in Unit I of Section 23, Township 17 South, Range 25 East, Eddy County, New Mexico, and to dually complete said well in such a manner as to permit disposal of produced salt water into the Devonian formation thru tubing and production of the aforesaid commingled zones thru the casing-tubing annulus.
- (3) That the applicant's request for dismissal of that portion of this case concerning downhole commingling should be approved.
- (4) That the applicant seekesalthority to complete said
 Mitchell "IN" Well No. 2, as a dual completion (conventional) to
 produce gas from the East Eagle Creek Atoka-Morrow Gas Pool through
 the casing-tubing annulus and to dispose of produced salt water
 into the Devonian formation, with injection into the perforated

-2-Case No. 6088 Order No. R-

interval from approximately 8879 feet to 9362 feet.

- (5) That the injection should be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 8840 feet. That the water to be disposed of in said well should continuous to be treated to prevent corrosion or the tubing should be plastic lined; and the well shall be inspected at least weekly in order to detect any failure of the downhole or surface injection equipment.
- (6) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1776 psi.
- (7) That the operator should notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (8) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.
- (9) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Yates Petroleum Corporation, is hereby authorized to complete its Mitchell "IN" Well No. 2, located in Unit I of Section 23, Township 17 South, Range 25 East, NMPM, Eddy County, New Mexico, as a dual completion (conventional) to produce gas from the East Eggle Creek Atoka-Morrow Gas Pool through the casing-tubing annulus and to dispose of produced water in to the Devonian formation.

PROVIDED HOWEVER, that the applicant shall complete, operate,

887 N. 8

-3-Case No. 6088 Order No. R-

and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall annually provide the supervisor of the Commission's Artesia district office with evidence demonstrating the continued separation of the Morrow producing zone from waters injected into or being injected into the Devonian formation.

- (2) That the injection shall be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 8840 feet.
- (3) That the water to be injected shall be treated to prevent corrosion or the tubing shall be plastic-lined.
- (4) That the applicant shall inspect the well at least once each week in order to detect any failure of the downhole or surface injection equipment.
- (5) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1776 psi.
- (6) That the operator shall notify the supervisor of the Artesia ditrit office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (7) That the operator shall immediately notify the supervisor of the Commission's Artesia district office of the failure of the tubing, casing, or pakker, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (8) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(10) That jurisdiction