#### BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

## STATE ENERGY, MINERALS AND OIL CONS

Case No. <u>11223</u> Exhibit No. <u>1</u>

Submitted by: <u>Yates Drilling Company</u>

IN THE MATTER OF THE HEAF CALLED BY THE OIL CONSERV. DIVISION FOR THE PURPOSE OF CONSIDERING:

Hearing Date: \_\_\_\_ April 6, 1995

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CASE NO. 10642 ORDER NO. R-9075-B-1

# APPLICATION OF YATES DRILLING COMPANY FOR THE EXPANSION OF THE CACTUS QUEEN (VOLUNTARY) UNIT WATERFLOOD PROJECT AREA, TO AMEND DIVISION ORDER NO. R-9075-B, AND TO QUALIFY SAID EXPANSION AREA FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "NEW MEXICO ENHANCED OIL RECOVERY ACT", CHAVES COUNTY, NEW MEXICO

## ORDER OF THE DIVISION

#### **BY THE DIVISION**:

This cause came on for hearing at 8:15 a.m. on December 17, 1992, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 26th day of January, 1993 the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

## FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) At the time of the hearing, this case was consolidated with Case No. 10641 for the purpose of testimony.

(3) Division Order No. R-9075-B, issued in Case No. 9810 and dated March 15, 1990, authorized, in part, Yates Drilling Company to institute a waterflood project in the Southeast Chaves Queen Gas Area Associated Pool designated the Cactus Queen (Voluntary) Unit Waterflood Project in a unit area with the same designation (approved by Division Order No. R-9075-A) both comprising the following described 320 acres in Township 12 South, Range 31 East, NMPM, Chaves County, New Mexico:

Section 27: NE/4 SW/4, S/2 SW/4, and W/2 SE/4 Section 34: NW/4 NE/4 and N/2 NW/4. (4) The applicant, Yates Drilling Company, now seeks to expand the previously approved waterflood project area to include an additional 320 acres comprising the SW/4 NE/4, S/2 NW/4, SW/4, and NW/4 SE/4 of said Section 34, which would make the project area conterminous with the proposed expanded Cactus Queen (Voluntary) Unit Area, being the subject of Division Case No. 10641.

(5) The operator proposes to inject water into the Queen interval within said expanded area through the following Queen producing wells to be converted to injectors:

Well Name and Number	Footage Location	Unit	Perforated Interval (feet)
Burkitt Federal No. 2	1650' FNL - 990' FWL	E	2754 - 2760
Dave Federal No. 2	990' FS & WL	М	2723 - 2730
DeLuna Federal No. 1	1980' FSL - 660' FWL	L	2718 - 2724
Garner Federal No. 2	2310' FS & EL	1	2982 - 2990
Garner Federal No. 3	1980' FN & EL	G	2981 - 2986

(6) The wells in the proposed expanded area are in an advanced state of depletion and should be properly classified as "stripper" wells.

(7) Expansion of the project area as requested will serve the interests of conservation of oil and gas, should result in the recovery of otherwise unrecoverable oil, and will prevent waste.

(8) The expanded area, including the five proposed injection wells, should be subject to all applicable terms and requirements of Division Order No. R-9075-B.

(9) The applicant further seeks an order pursuant to the Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects and Certification of Recovered Oil Tax Rates, as promulgated by Division Order No. R-9708, qualifying said expanded area for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(10) Based on the record in Case No. 9810 and on the testimony presented in this case:



- (a) the application of water injection in the expanded area should result in an increase in the amount of crude oil ultimately recovered therefrom (an approximation of 250,000 barrels was given by the applicant as a rough estimate);
- (b) the project area has been so depleted that it is prudent to implement a waterflood to maximize the ultimate recovery of crude oil from the expanded area; and,
- (c) the proposed expanded waterflood project is economically and technically feasible and has not been prematurely filed.

(11) The subject expanded area should be qualified an "Enhanced Oil Recovery Project" (EOR) pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(12) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which will specify the proposed project area as described above.

(13) At such time as a positive production response occurs and within five years from the date of Certification of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for credit. The Division may review the application administratively or set it for hearing. Based on the evidence presented, the Division will certify to the Department of Taxation and Revenue those lands and wells which are eligible for credit.

# **IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Yates Drilling Company, is hereby authorized to expand its Cactus Queen (Voluntary) Unit Waterflood Project Area, as defined and authorized by Division Order No. R-9075-B, issued in Case No. 9810 and dated March 15, 1990, to include an additional 320 acres, more or less, comprising the SW/4 NE/4, S/2 NW/4, SW/4 and NW/4 SE/4 of Section 34, Township 12 South, Range 31 East, NMPM, Southeast Chaves Queen Gas Area Associated Pool, Chaves County, New Mexico.

. (2) Injection into the "expanded area" shall be through the following described five existing wells to be converted from producing wells to injectors:

Case No. 10642 Order No. R-9075-B-1 Page No. 4

Well Name and Number	Footage Location	Unit	Perforated Interval (feet)
Burkitt Federal No. 2	1650' FNL - 990' FWL	E	2754 - 2760
Dave Federal No. 2	990' FS & WL	М	2723 - 2730
DeLuna Federal No. 1	1980' FSL - 660' FWL	L	2718 - 2724
Garner Federal No. 2	2310' FS & EL	J	2982 - 2990
Garner Federal No. 3	1980' FN & EL	G	2981 - 2986

(3) The expanded area including the five above-described injection wells shall be subject to all applicable terms and requirements of Division Order No. R-9075-B.

## **IT IS FURTHER ORDERED THAT:**

(4) The subject "enhanced oil recovery project area" shall initially comprise the following described area in Chaves County, New Mexico:

## TOWNSHIP 12 SOUTH, RANGE 31 EAST, NMPM

Section 34: SW/4 NE/4, S/2 NW/4, SW/4 and NW/4 SE/4

(5) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of EOR Project, which certificate will specify the proposed project area as described above.

(6) At such time as a positive production response occurs, and within five years from the date of the Certificate of EOR Project, the applicant must apply to the Division for certificate of positive production response, which shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for credit. The Division may review the application administratively or set it for hearing. Based upon the evidence presented, the Division will certify to the Department of Taxation and Revenue those lands and wells which are eligible for credit.

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

Case No. 10642 Order No. R-9075-B-1 Page No. 5

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY Director

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BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

STATE OF NEV

ENERGY, MINERALS AND NATUR/

OIL CONSERVATI

Case No. <u>11223</u> Exhibit No. <u>2</u> Submitted by: <u>Yates Drilling Company</u>

Hearing Date: \_\_\_\_ April 6, 1995

February 25, 1994

POST OFFICE 80X 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

> Yates Drilling Company 105 South Fourth Street Artesia, NM 88210

## Attention: Doug Hulbut Toby Rhodes

## CERTIFICATION OF ENHANCED OIL RECOVERY PROJECT FOR RECOVERED OIL TAX RATE

The New Mexico Oil Conservation Division hereby certifies that the following Enhanced Oil Recovery Project has been approved by the Division as a secondary project, pursuant to the provisions of the *New Mexico Enhanced Oil Recovery Act* (Laws of 1992, Chapter 38). In order to qualify for the *Recovered Oil Tax Rate*, you must apply for certification of positive production response within five years from the date of this certification. Only production from that portion of the project area identified herein which is actually developed for enhanced recovery will qualify for the reduced tax rate.

If operation of this project is terminated for any reason, the operator of the project must notify this Division and the Secretary of the Taxation and Revenue Department not later than the thirtieth day after termination.

NAME OF PROJECT:	Cactus Queer	(Voluntary) Unit
OCD ORDER NO.	R-9075-B-1	
OPERATOR: ADDRESS:	Yates Drilling 105 South Fo Artesia, NM	ourth Street
	Attention:	Doug Hulbut and
CERTIFICATION DATE:	April 30, 199	93



EOR Project Certification Cactus Queen (Voluntary) Unit

## PROJECT AREA:

# TOWNSHIP 12 SOUTH, RANGE 31 EAST, NMPM

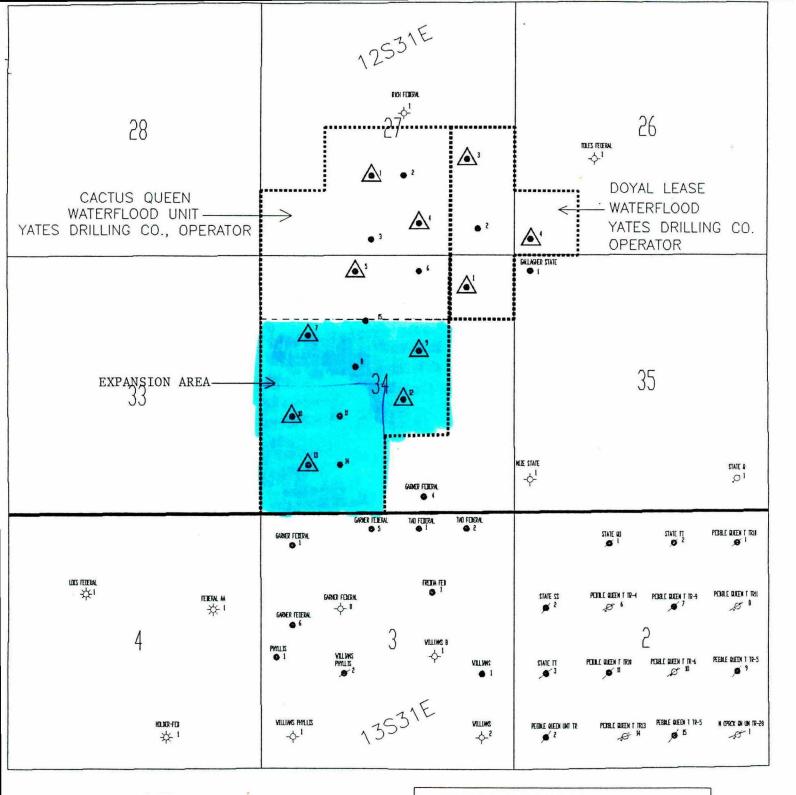
Section 27: NE/4 SW/4, S/2 SW/4 and W/2 SE/4 Section 34: W/2, W/2 NE/4 and NW/4 SE/4

APPROVED BY:

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

20 WILLIAM J. LEMAY DIRECTOR 1

SEAL



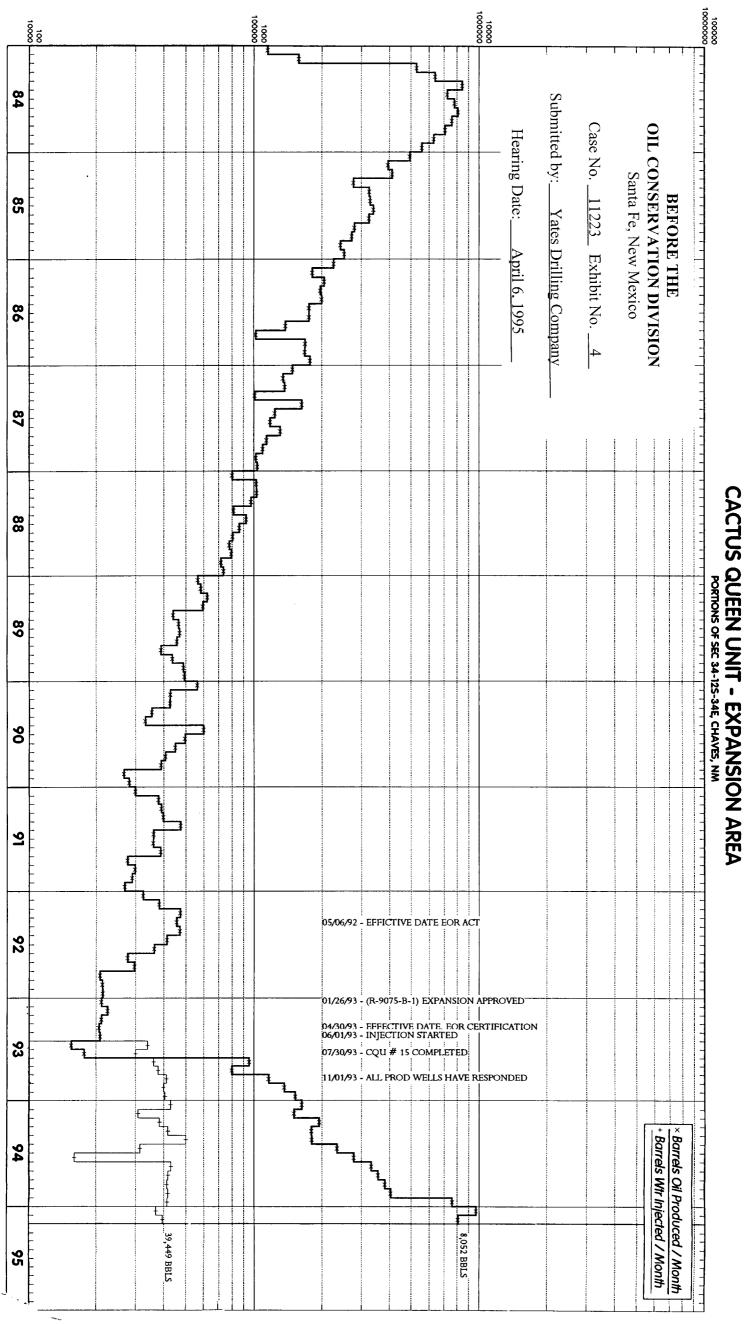
# BEFORE THE OIL CONSERVATION DIVISION Santa Fe, New Mexico

Case No. <u>11223</u> Exhibit No. <u>3</u>

Submitted by: Yates Drilling Company

Hearing Date: April 6, 1995

YATES DRILLING COMPANY SE CHAVES QUEEN FIELD CHAVES COUNTY, NEW MEXICO ▲ INJECTION WELL SCALE : 1"=24,000' 1-6-95 DRAFT\92086-A JF



CQU # 07 CQU # 08 CQU # 09 CQU # 09	cQU # 11 cQU # 12	CQU # 13 CQU # 14	CQU # 15 TOTAL
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LOCATION	E-34-12S-31E	F-34-12S-31E	G-34-12S-31E	J-34-12S-31E	K-34-12S-31E	L-34-12S-31E	M-34-12S-31E	N-34-12S-31E	F-34-12S-31E
COMPLETION DATE	07-10-1984	04-07-1984	08-12-1984	07-07-1982	03-01-1984	06-01-1984	02-09-1984	12-12-1983	07-30-1993
CURENT STATUS	INJECTOR	PRODUCER	INJECTOR	INJECTOR	PRODUCER	INJECTOR	INJECTOR	PRODUCER	PRODUCER

Jul-83	0	0	0	345	Ö	0	0	0	0	345
Aug-83	0	0	0		0	0	0	0	0	
Sep-83	0	0	0	698	0	0	0	0	0	
Oct-83	0	0	0	2	0	0	0	0	0	
Nov-83	0	0	0	464	0	0	0	0	0	464
Dec-83	0	0	0	402	0	0	0	604	0	
Jan-84	0	0	0	365	0	0	0	785	0	
Feb-84	0	0	0	181	0	0	702	697	0	
Mar-84	0	0	0	620	3,174	0	746	740	0	5,280
Apr-84	0	2,222	0	220	2,791	0	574	569	0	
May-84	286	2,300	0	91	2,480	1,965	660	654	0	
Jun-84	214	2,809	0	71	1,942	1,203	500	496	0	
Jul-84	1,240	1,858	0	80	2,338	1,283	488	484	0	
Aug-84	1,124	1,684	720	80	2,317	1,193	483	479	0	
Sep-84	1,020	1,528	845	80	2,063	1,266	389	386	0	
Oct-84	1,128	1,691	809	40	1,543	1,211	323	320	0	7,065
Nov-84	679	1,017	1,010	35	1,339	1,375	425	421	0	6,301
Dec-84	971	1,455	557	40	1,166	758	311	308	0	5,566
Jan-85	786	1,178	460	40	1,121	623	360	356	0	
Feb-85	710	1,063	420	26	746	568	199	197	0	3,929
Mar-85	666	998	410	32	926	555	260	258	0	4,105
Apr-85	381	570	244	0	844	330	198	197	0	2,764
May-85	590	881	399	23	650	540	84	84	0	3,251
Jun-85	578	863	314	23	649	426	215	215	0	3,283
Jul-8 <mark>5</mark>	578	863	286	27	762	387	246	246	0	
Aug-85	570	850	280	24	700	377	217	218	0	,
Sep-85	489	728	236	20	605	318	176	216	0	2,788
Oct-85	500	745	232	18	536	312	168	206	0	2,717
Nov-85	439	653	205	16	481	276	156	192	0	2,418
Dec-85	414	648	205		624	277	148	183	0	2,514
Jan-86	372	581	188	15	531	253	142	175	0	2,257
Feb-86	322	503	133	13	436	179	102	125	0	
Mar-86	392	613	175	15	409	236	96	117	0	
Apr-86	376	587	157	7	410	211	101	123	0	
May-86	359	560	165	5	360	222	145	177	0	
Jun-86	348	542	155	. 5	281	169	115	140		
Jul-86	349	543	157	5	286	171	109	132	0	
Aug-86	268	416	130	4	211	142	93	113		
Sep-86	173	269	106	0	163	116	87	106	0	
Oct-86	343	534	150	0	283	164	96	116		
Nov-86	313	486	154	0	342	168	98	119		· · · · · · · · · · · · · · · · · · ·
Dec-86	307	476	173	5	348	188	125	151	0	
Jan-87	276	427	125	0	296	136	101	123	0	
Feb-87	264	409	113	0	303	123	61	74	0	1,347

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LOCATION	E-34-12S-31E	F-34-12S-31E	G-34-12S-31E	J-34-12S-31E	K-34-12S-31E	L-34-12S-31E	M-34-12S-31E	N-34-12S-31E	F-34-12S-31E
COMPLETION DATE	07-10-1984	04-07-1984	08-12-1984	07-07-1982	03-01-1984	06-01-1984	02-09-1984	12-12-1983	07-30-1993
CURENT STATUS	INJECTOR	PRODUCER	INJECTOR	INJECTOR	PRODUCER	INJECTOR	INJECTOR	PRODUCER	PRODUCER

Mar-87	243	377	139	0	287	152	78	94	0	1,370
Apr-87	142	220	139	0	207	132	69	70	0	
May-87	310	480	243	0	142	267	<u> </u>	92	0	
Jun-87	224	348	156	0	210	172	63	63	0	
Jul-87	219	339	104	0	210	112	84	84	0	
Aug-87	209	324	148	0	273	162	95	96	0	,
Sep-87	205	334	111	0	199	102				
Oct-87	205	317	115	0	226	122	52	53	0	
Nov-87	158	244	129	0	207	142	70	71	0	
Dec-87	185	285	110	0	177	122	70	77	0	,
Jan-88	124	190	110	0	130	141	44	44	0	<u> </u>
Feb-88	165	253	104	0	246	116	70	70	0	
Mar-88	173	265	126	0	193	140	65	65	0	
Apr-88	167	255	98	0	221	140	60	60	0	í
May-88	118	181	102	0	189	103	54	53		
Jun-88	163	250	102	0	103	114	57	47	0	
Jul-88	144	230	104	0	185	123	39	40	0	
Aug-88	132	203	81	0	180	90	59	59	0	
Sep-88	136	203	98	0	140	109	58	28	0	
Oct-88	133	205	124	0	140	103	52	25	0	<u> </u>
Nov-88	118	181	92	0	79	101	96	46		
Dec-88	152	232	87	0	110	96	30	18	0	
Jan-89	88	135	91	0	87	101	42	20	0	
Feb-89	115	135	68	0	77	76	46	20		·
Mar-89	113	186	71	0	78	79	58	27	0	
Apr-89	109	165	75	0	76	83	59	28		
May-89	86	129	43	0	60	47	50	23		
Jun-89	66	99	80	0	62	88	47	23	0	
Jul-89	71	106	80	0	48	87	52	24	0	
Aug-89	71	106	70	0	59	77	50	23	0	
Sep-89	70	100	52	0	48	54	41	19	0	
Oct-89	60	90	37	0	99	38	76	35	Ő	
Nov-89	100	151	38	0	85	39	51	23	Ō	
Dec-89	96	144	38	0	95	38	55	26	Ő	
Jan-90	97	145	81	0	91	81	45	21		
Feb-90	69	102	65	0	62	65	44	20		
Mar-90	85	125	49	0	53		44	20		
Apr-90	69	102	44	0	50		30	14		
May-90	46	69	49	0	58		40	19		
Jun-90	138	123	62	0	139	63	50	24		
Jul-90	118	105	63	0	98	64	32	15		
Aug-90	107	96	59	0	76	60	34	16		
Sep-90	101	90	68	0	43		24	12		
Oct-90	97	87	48	0	64		29	15		

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LOCATION	E-34-12S-31E	F-34-12S-31E	G-34-12S-31E	J-34-12S-31E	K-34-12S-31E	L-34-12S-31E	M-34-12S-31E	N-34-12S-31E	F-34-12S-31E	
COMPLETION DATE	07-10-1984	04-07-1984	08-12-1984	07-07-1982	03-01-1984	06-01-1984	02-09-1984	12-12-1983	07-30-1993	
CURENT STATUS	INJECTOR	PRODUCER	INJECTOR	INJECTOR	PRODUCER	INJECTOR	INJECTOR	PRODUCER	PRODUCER	
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Nov-90	59	53	28	0	57	29	26	14	0	266
Dec-90	62	56	44	0	39	45	22	12	0	280
Jan-91	66	59	35	0	68	36	23	12	0	299
Feb-91	52	46	88	0	41	89	41	21	0	378
Mar-91	92	81	56	0	46	56	38	20	0	389
Apr-91	80	70	65	0	72	65	30	15	0	397
May-91	97	85	80	0	97	81	22	11	0	473
Jun-91	67	58	60	0	70	61	29	15	0	360
Jul-91	66	57	62	0	63	63	31	16	0	358
Aug-91	71	60	71	0	57	72	36	10	0	386
Sep-91	51	44	48	0	44	49	26	13	0	276
Oct-91	35	30	79	0	46	80	18	10	0	298
Nov-91	42	36	69	0	44	69	19	10	0	289
Dec-91	38	32	68	0	37	69	16	8	Ő	268
Jan-92	38	32	87	0	44	87	23	12	0	323
Feb-92	75	64	69	0	68	69	23	12	0	380
Mar-92	111	94	56	3	87	56	43	22	0	472
Apr-92	29	131	65	37	60	65	17	50	0	454
May-92	32	148	86	0	73	87	11	33	0	470
Jun-92	33	149	53	0	69	53	14	41	0	412
Jul-92	29	143	58	0	47	58	9	29	0	362
Aug-92	18	84	56	0	35	56	6	29 21	0	276
Sep-92	21	97	63	0	29	64	5	17	0	296
Oct-92	9	42	51	0	32	52	5	17	0	290
Nov-92	17	74	32	0	36	32	5	17	0	213
	16	67	39	0	31	40	5	16	0	213
Jan-93	15				40		5	14		214
Feb-93	0	111	10	0	71	9	0	24	0	225
Mar-93	0	121	0	0	69	0	0	21	0	211
Apr-93	0	111	0	0	64	0	0	31	0	206
May-93	0	123	0	0	58	0	0	27	0	200
Jun-93	0	92	0	0	43	0	0	20		155
Jul-93	0	<u>92</u> 59	0	0	43 59	0	0	<u>20</u> 59		135
Aug-93	0	59	0	0	59		0	59		952
Sep-93	0	48	0			0	0	68		798
Oct-93	0	92	0	0			0	131	858	1,161
Nov-93	0	151	0			0	0	213		1,361
Dec-93	0	182	0		158		0	257	927	1,524
Jan-94	0	198	0	0	1	0	0	280		1,624
Feb-94	0	206	0				0	292	825	1,501
Mar-94	0	311	0	0			0	439		1,947
Apr-94	0		0	0			0	388		1,793
May-94	0		0	0			0	374	934	1,802
Jun-94	0	900	0	0	67	0	0	157	1,210	2,334

CQU # 07	CQU # 08	CQU # 09	CQU # 10	cqU # 11	CQU # 12	CQU # 13	CQU # 14	CQU # 15	TOTAL
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LOCATION	E-34-12S-31E	F-34-12S-31E	G-34-12S-31E	J-34-12S-31E	K-34-12S-31E	L-34-12S-31E	M-34-12S-31E	N-34-12S-31E	F-34-12S-31E
COMPLETION DATE	07-10-1984	04-07-1984	08-12-1984	07-07-1982	03-01-1984	06-01-1984	02-09-1984	12-12-1983	07-30-1993
CURENT STATUS	INJECTOR	PRODUCER	INJECTOR	INJECTOR	PRODUCER	INJECTOR	INJECTOR	PRODUCER	PRODUCER

Jul-94	0	1,414	0	0	106	0	0	247	1,000	2,767
Aug-94	0	1,817	0	0	136	0	0	318	1,039	3,310
Sep-94	0	2,040	0	0	153	0	0	357	1,006	3,556
Oct-94	0	2,395	0	0	180	0	0	419	811	3,805
Nov-94	0	2,439	0	0	183	0	0	427	989	4,038
Dec-94	0	5,139	0	0	385	0	0	899	1,147	7,570
Jan-95	0	3,014	0	0	5,425	0	0	172	1,072	
Feb-95	0	2,483	0	0	4,468	0	0	142	959	8,052
TOTAL	55,836	98,866	46,208	34,331	85,403	54,507	43,215	50,083	52,033	240,646

# BEFORE THE OIL CONSERVATION DIVISION Santa Fe, New Mexico

Case No. <u>11223</u> Exhibit No. <u>5</u>

Submitted by: Yates Drilling Company

Hearing Date: \_\_\_\_ April 6, 1995\_\_\_\_