

YATES DRILLING COMPANY

105 SOUTH FOURTH STREET — (505) 748-1471

FAX (505) 746-6480

TELEX 508891 (YPCART)

ARTESIA, NEW MEXICO 88210

PEYTON YATES
PRESIDENT

S. P. YATES
VICE PRESIDENT

RANDY G. PATTERSON
SECRETARY

DENNIS G. KINSEY
TREASURER

May 19, 1994

William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy
Minerals and Natural Resources
P. O. Box 2088
Santa Fe, NM 87504-2088

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: Yates Drilling Company's Application for
Positive Production Response Certification
Cactus Queen (Voluntary) Unit
Chaves County, New Mexico

Dear Mr. LeMay:

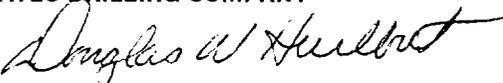
Yates Drilling Company hereby makes application for Certification of a Positive Production Response in its Cactus Queen (Voluntary) Unit. Attached hereto is Yates Drilling Company's report dated May 12, 1994, which complies with all requirements of Rule E2a of the Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects and Certification for the Recovered Oil Tax Rate promulgated by Division Order No. R-9708 on August 27, 1992. As you will note, this report contains all required plats, graphs and supporting data and demonstrates that a positive production response to Yates Drilling Company's waterflood operations in this unit was achieved by November 1, 1993. Also enclosed are (1) a copy of Division Order No. R-9075-B-1, which approved this Enhanced Oil Recovery Project for the Recovered Oil Tax Rate, and (2) a draft of a Certification of Positive Production Response.

Yates Drilling Company requests that, pursuant to the provisions of Rule E2(3)c, the Division certify that the Positive Production Response has occurred in this unit and notify the Secretary of the Taxation and Revenue Department of this Certification of a Positive Production Response effective November 1, 1993.

Your attention to this application is appreciated.

Very truly yours,

YATES DRILLING COMPANY


Douglas W. Hurlbut
Landman

DWH/jrw
Enclosure

**YATES DRILLING COMPANY
CACTUS QUEEN (VOLUNTARY) UNIT
CERTIFICATION OF POSITIVE PRODUCTION RESPONSE**

May 12, 1994

The subject unit was originally defined by New Mexico Oil Conservation Division Order No. R-9075-B. The subsequent expansion of the unit was approved by NMOCD Order No. R-9075-B-1. The NMOCD also found that the expansion area should qualify as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Finding 11, Order No. R-9075-B-1). This project was certified by the NMOCD as an "Enhanced Oil Recovery Project" with an effective date of April 30, 1993.

The expansion area of the unit consists of five (5) injection wells and four (4) producing wells for a total of nine (9) wells. All of these wells had been drilled and were producing by the end of 1984, except for the No. 15 well, which first produced in August, 1993. The nine (9) wells are identified as wells 7 -15 on the attached map know as EXHIBIT - 1.

Injection began into each of the five (5) injection wells during the month of June, 1993. Each of the wells have been continuously utilized as injection wells since that time. Cumulative injection through March, 1994 totals 370,779 barrels of water, for an average of 74,156 barrels of water injected per injection well. A table containing the monthly and total water injection volumes, broken down by well, is attached and identified as EXHIBIT - 2.

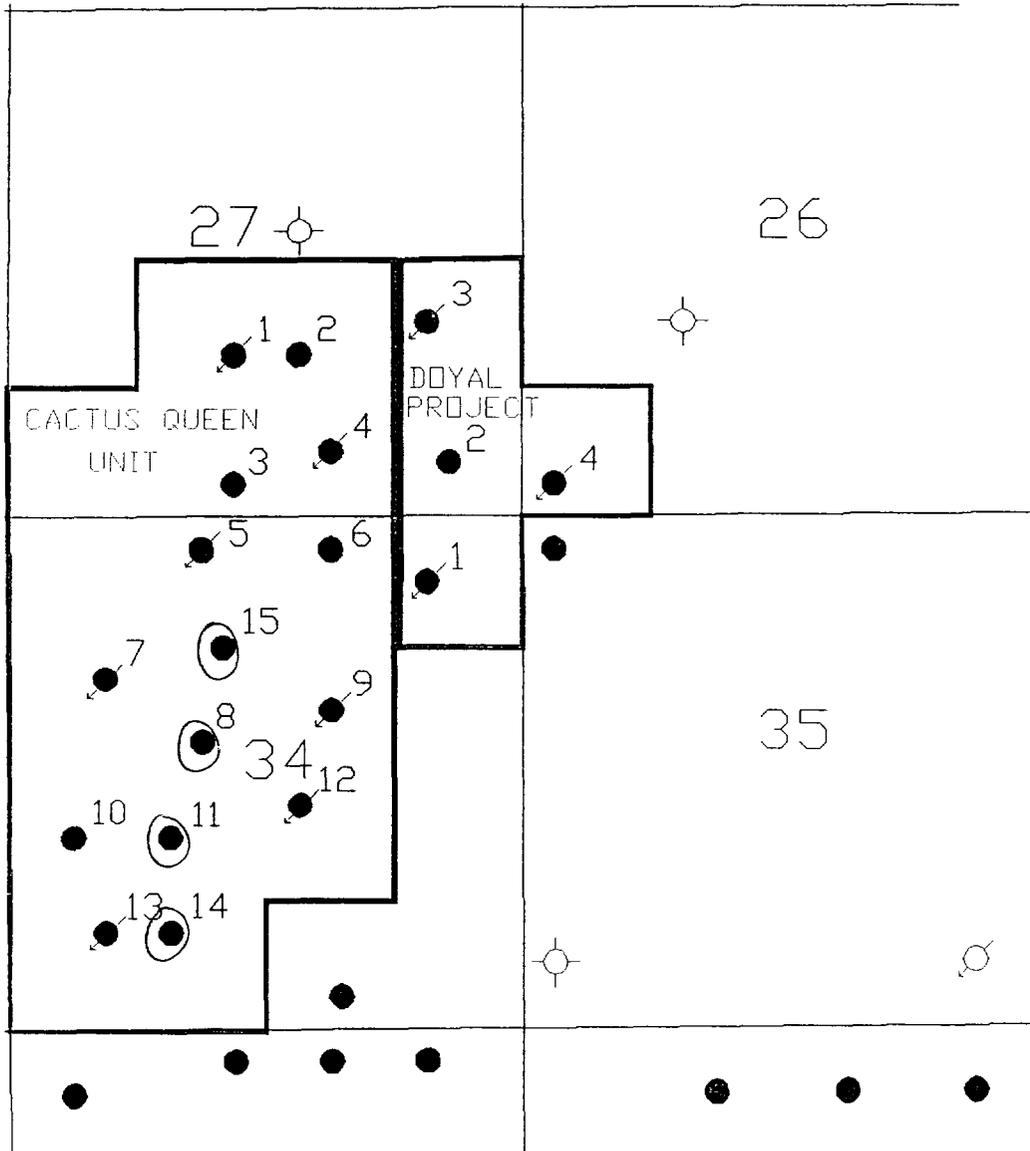
Production of oil from the expansion area has been continuous since the first well was drilled in 1983. Oil production from each of the original wells in this area declined as expected during primary production. Oil production peaked in 1984 while averaging 6,035 barrels per month. By 1992 the expansion area only averaged 340 barrels of oil per month. Production continued to decline after 1992, until it reached a low of 155 barrels for the month of June, 1993. Verification of the production decline and recent increase can be found in EXHIBIT - 3. This exhibit contains individual and summary oil production figures, by month, for each of the wells in the expansion area.

Significant positive production response, in each individual producing well, was first noticed during the period of September to November, 1993. In November, 1993 oil production from the area had increased to 1,361 barrels. Since November, 1993 production has continued to increase, evidenced by the 1,947 barrels of oil produced in March, 1994. A production curve identified as EXHIBIT - 4 is attached which shows the response that has been seen in the expansion area.

The data provided herein exhibits undeniable proof that the Cactus Queen (Voluntary) Unit has experienced positive production response. The project has been certified as an "Enhanced Oil Recovery Project." Accordingly, all oil production since November, 1993 should qualify for the "Recovered Oil Tax Rate" pursuant to the provisions of the "New Mexico Enhanced Oil Recovery Act."

Tobin L. Rhodes
Petroleum Engineer

T-12-S R-31-E



YATES DRILLING COMPANY

EXHIBIT - 1

CACTUS QUEEN <VOLUNTARY> UNIT

Toby Rhodes		5/13/94
	1' = 2000'	

#8- 30-005-20952
11- 30-005-20942
14- 30-005-20920
15- 30-005-21116

EXHIBIT - 2

Cactus Queen (Voluntary) Unit
Expansion Area Injection
Barrels of Water Injected

	CQU #7	CQU #8	CQU #9	CQU #10	CQU #11	CQU #12	CQU #13	CQU #14	CQU #15	TOTAL
Jun-93	8,196	0	6,140	7,099	0	6,154	6,267	0	0	33,856
Jul-93	7,275	0	5,468	7,810	0	5,696	3,685	0	0	29,934
Aug-93	9,650	0	5,830	7,221	0	6,577	6,768	0	0	36,046
Sep-93	7,542	0	4,532	10,502	0	6,021	9,225	0	0	37,822
Oct-93	10,927	0	4,741	9,749	0	4,422	11,235	0	0	41,074
Nov-93	11,101	0	4,245	9,996	0	3,993	10,495	0	0	39,830
Dec-93	10,029	0	5,518	10,805	0	5,803	8,206	0	0	40,361
Jan-94	10,695	0	4,293	12,745	0	6,992	8,084	0	0	42,809
Feb-94	6,744	0	2,950	9,103	0	4,700	7,242	0	0	30,739
Mar-94	9,963	0	3,021	11,268	0	3,820	10,236	0	0	38,308
TOTALS	92,122	0	46,738	96,298	0	54,178	81,443	0	0	370,779

EXHIBIT - 3
Cactus Queen (Voluntary) Unit
Expansion Area Production
Barrels of Oil Produced

	COU #7	COU #8	COU #9	COU #10	COU #11	COU #12	COU #13	COU #14	COU #15	TOTAL
Jul-83	0	0	0	345	0	0	0	0	0	345
Aug-83	0	0	0	0	0	0	0	0	0	0
Sep-83	0	0	0	698	0	0	0	0	0	698
Oct-83	0	0	0	2	0	0	0	0	0	2
Nov-83	0	0	0	464	0	0	0	0	0	464
Dec-83	0	0	0	402	0	0	0	604	0	1,006
Jan-84	0	0	0	365	0	0	0	785	0	1,150
Feb-84	0	0	0	181	0	0	702	697	0	1,580
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	6,376
May-84	286	2,300	0	91	2,480	1,965	660	654	0	8,436
Jun-84	214	2,809	0	71	1,942	1,203	500	496	0	7,235
Jul-84	1,240	1,858	0	80	2,338	1,283	488	484	0	7,771
Aug-84	1,124	1,684	720	80	2,317	1,193	483	479	0	8,080
Sep-84	1,020	1,528	845	80	2,063	1,266	389	386	0	7,577
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	4,924
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-85	578	863	286	27	762	387	246	246	0	3,395
Aug-85	570	850	280	24	700	377	217	218	0	3,236
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	15	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	1,813
Mar-86	392	613	175	15	409	236	96	117	0	2,053
Apr-86	376	587	157	7	410	211	101	123	0	1,972
May-86	359	560	165	5	360	222	145	177	0	1,993
Jun-86	348	542	155	5	281	169	115	140	0	1,755
Jul-86	349	543	157	5	286	171	109	132	0	1,752
Aug-86	268	416	130	4	211	142	93	113	0	1,377
Sep-86	173	269	106	0	163	116	87	106	0	1,020
Oct-86	343	534	150	0	283	164	96	116	0	1,686
Nov-86	313	486	154	0	342	168	98	119	0	1,680
Dec-86	307	476	173	5	348	188	125	151	0	1,773
Jan-87	276	427	125	0	296	136	101	123	0	1,484
Feb-87	264	409	113	0	303	123	61	74	0	1,347
Mar-87	243	377	139	0	287	152	78	94	0	1,370
Apr-87	142	22	136	0	221	149	69	70	0	809
May-87	310	480	243	0	142	267	92	92	0	1,626
Jun-87	224	348	156	0	210	172	63	63	0	1,236

EXHIBIT - 3
Cactus Queen (Voluntary) Unit
Expansion Area Production
Barrels of Oil Produced

	COU #7	COU #8	COU #9	COU #10	COU #11	COU #12	COU #13	COU #14	COU #15	TOTAL
Jul-87	219	339	104	0	234	115	84	84	0	1,179
Aug-87	209	324	148	0	273	162	95	96	0	1,307
Sep-87	216	334	111	0	199	122	77	77	0	1,136
Oct-87	205	317	115	0	226	126	52	53	0	1,094
Nov-87	158	244	129	0	207	142	70	71	0	1,021
Dec-87	185	285	110	0	177	122	77	77	0	1,033
Jan-88	124	190	127	0	130	141	44	44	0	800
Feb-88	165	253	104	0	246	116	70	70	0	1,024
Mar-88	173	265	126	0	193	140	65	65	0	1,027
Apr-88	167	255	98	0	221	109	60	60	0	970
May-88	118	181	102	0	189	114	54	53	0	811
Jun-88	163	250	104	0	177	116	57	57	0	924
Jul-88	144	222	109	0	185	123	39	40	0	862
Aug-88	132	203	81	0	180	90	59	59	0	804
Sep-88	136	209	98	0	140	109	58	28	0	778
Oct-88	133	205	124	0	117	137	52	25	0	793
Nov-88	118	181	92	0	79	101	96	46	0	713
Dec-88	152	232	87	0	110	96	37	18	0	732
Jan-89	88	135	91	0	87	101	42	20	0	564
Feb-89	115	176	68	0	77	76	46	22	0	580
Mar-89	122	186	71	0	78	79	58	27	0	621
Apr-89	109	165	75	0	76	83	59	28	0	595
May-89	86	129	43	0	60	47	50	23	0	438
Jun-89	66	99	80	0	62	88	47	22	0	464
Jul-89	71	106	80	0	48	87	52	24	0	468
Aug-89	71	106	70	0	59	77	50	23	0	456
Sep-89	70	104	52	0	48	54	41	19	0	388
Oct-89	60	90	37	0	99	38	76	35	0	435
Nov-89	100	151	38	0	85	39	51	23	0	487
Dec-89	96	144	38	0	95	38	55	26	0	492
Jan-90	97	145	81	0	91	81	45	21	0	561
Feb-90	69	102	65	0	62	65	44	20	0	427
Mar-90	85	125	49	0	53	50	44	20	0	426
Apr-90	69	102	44	0	50	45	30	14	0	354
May-90	46	69	49	0	58	50	40	19	0	331
Jun-90	138	123	62	0	139	63	50	24	0	599
Jul-90	118	105	63	0	98	64	32	15	0	495
Aug-90	107	96	59	0	76	60	34	16	0	448
Sep-90	101	90	68	0	43	68	24	12	0	406
Oct-90	97	87	48	0	64	48	29	15	0	388
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

EXHIBIT - 3
Cactus Queen (Voluntary) Unit
Expansion Area Production
Barrels of Oil Produced

	COU #7	COU #8	COU #9	COU #10	COU #11	COU #12	COU #13	COU #14	COU #15	TOTAL
Jul-91	66	57	62	0	63	63	31	16	0	358
Aug-91	71	60	71	0	57	72	36	19	0	386
Sep-91	51	44	48	0	44	49	26	14	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	0	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	132	58	0	47	58	9	29	0	362
Aug-92	18	84	56	0	35	56	6	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	208
Nov-92	17	74	32	0	36	32	5	17	0	213
Dec-92	16	67	39	0	31	40	5	16	0	214
Jan-93	15	62	37	0	40	38	5	14	0	211
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	208
Jun-93	0	92	0	0	43	0	0	20	0	155
Jul-93	0	59	0	0	59	0	0	59	0	177
Aug-93	0	59	0	0	59	0	0	59	775	952
Sep-93	0	48	0	0	42	0	0	68	640	798
Oct-93	0	92	0	0	80	0	0	131	858	1,161
Nov-93	0	151	0	0	131	0	0	213	866	1,361
Dec-93	0	182	0	0	158	0	0	257	927	1,524
Jan-94	0	198	0	0	171	0	0	280	975	1,624
Feb-94	0	206	0	0	178	0	0	292	825	1,501
Mar-94	0	311	0	0	269	0	0	439	928	1,947
TOTALS	24,963	45,708	15,302	4,192	43,091	23,673	12,494	15,531	6,794	191,748

10000

EXHIBIT - 4

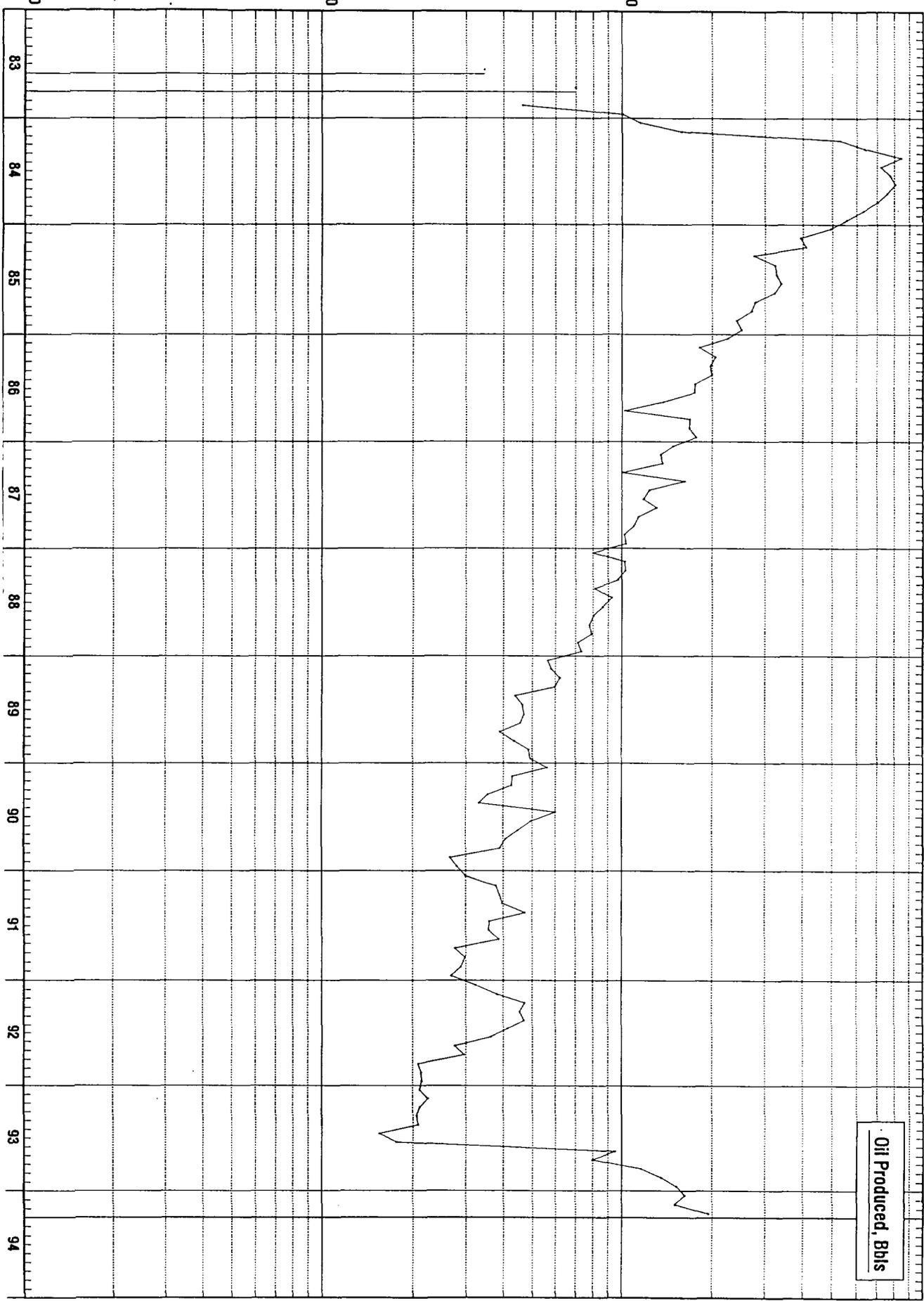
Cactus Queen (Voluntary) Unit
Expansion Area Production

Oil Produced, Bbls

1000

100

10



**BEFORE THE
OIL CONSERVATION DIVISION**
Santa Fe, New Mexico

Case No. 11223 Exhibit No. 6

Submitted by: Yates Drilling Company

Hearing Date: April 6, 1995