858-0600



20 North Bre Way, Suite 1500 Oklahoma C Oklahoma 73102-8260 Telephone: (405) 235-3611 Fax: (405) 552-4667

Fet

· 7

Mr. William J. LeMay Oil Conservation Division 1040 South Pacheco Street Santa Fe, NM 87505

Dear Mr. LeMay:

Devon Energy Corporation (Nevacine requests the Division to issue a Certification of Project. A draft Certification is enclosed.

st Shugart Unit, hereby Shugart Unit Waterflood

Your attention to this matter is appreciated.

Yours very truly,

DEVON ENERGY CORPORATION (NEVADA)

Ken Gray

District Landman

KG:da\ocd.lt Enclosure

EXHIBIT B

CERTIFICATION OF ENHANCED OIL RECOVERY PROJECT FOR THE 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 (L. 1992, Ch. 38). In order to qualify for the Recovered Oil Tax Rate, you must apply to the Division for certification of a 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:

East Shugart Unit Waterflood Project

DIVISION ORDER NOS.:

R-3769 and R-10760

OPERATOR'S ADDRESS:

Devon Energy Corporation (Nevada)

20 North Broadway, Suite 1500 Oklahoma City, OK 73102

Attention: Ken Gray

CERTIFICATION DATE:

February , 1997

PROJECT AREA:

Township 18 South, Range 31 East, N.M.P.M.

Section 27:

SE/4 SE/4

Section 34:

E/2, SE/4 NW/4, N/2 SW/4, SE/4 SW/4

Section 35:

W/2, NE/4, W/2 SE/4

Township 19 South, Range 31 East, N.M.P.M.

Section 3:

Lots 2 and 3, SE/4 NW/4, SW/4 NE/4

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY Director



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

June 29, 2000

Lori Wrotenbery
Director
Oil Conservation Division

Devon Energy Corporation (Nevada) C/o Mr. James Bruce P.O. Box 1056 Santa Fe, New Mexico 87504

Re:

Positive Production Response

East Shugart Unit Waterflood Project

Dear Mr. Bruce:

I have reviewed your request dated February 24, 2000, to certify a positive production response within the East Shugart Unit Waterflood Project currently operated by Devon Energy Corporation (Nevada). From the data submitted, it appears that due to the limited number of injection wells and incomplete line drive injection patterns, not all producing wells within the unit may be benefiting from injection operations.

In order to process your application, I am requesting that Devon provide the Division a list of the producing wells within the unit that have exhibited a response to injection operations, together with supporting data.

Your application will be processed upon receipt of the requested data. If you should have any questions, please contact me at (505) 827-8184.

Sincerely,

David Catanach

Engineer

Xc: Case File-11695

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS **Application Acronyms:** [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location] [DD-Directional Drilling] [SD-Simultaneous Dedication] [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion] [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase] [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production; Response] TYPE OF APPLICATION - Check Those Which Apply for [A] [1] Location - Spacing Unit - Directional Drilling FEB 2 1 2000 □ NSL ☐ NSP DD DD 40% CONSERVATION DIVISIO Check One Only for [B] or [C] Commingling - Storage - Measurement $\{B\}$ DHC ☐ CTB ☐ PLC ☐ PC OLS OLM OLM Injection - Disposal - Pressure Increase - Enhanced Oil Recovery [C] \square PMX □ SWD ☐ IPI ☐ EOR NOTIFICATION REQUIRED TO: - Check Those Which Apply, or \(\begin{aligned} \text{Does Not Apply} \end{aligned} \) [2] Working, Royalty or Overriding Royalty Interest Owners [A] Offset Operators, Leaseholders or Surface Owner [B] Application is One Which Requires Published Legal Notice [C][D]☐ Notification and/or Concurrent Approval by BLM or SLO U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or, ☐ Waivers are Attached [F]INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding [3] I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken. d by an individual with JAMES BRUCE P.O. BOX 1056 SANTA FE, NM 87504 ignature Print or Type Name

JAMES BRUCE

ATTORNEY AT LAW

POST OFFICE BOX 1056 SANTA FE, NEW MEXICO 87504

3304 CAMINO LISA SANTA FE, NEW MEXICO 87501

(505) 982-2043 (505) 982-2151 (FAX)

February 24, 2000

David Catanach Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505

Dear Mr. Catanach:

Pursuant to Division Rule 30, Devon Energy Corporation (Nevada) ("Devon") applies for administrative approval of a positive production response for its East Shugart Unit Waterflood Project. In support thereof, Devon submits the following information:

- 1. <u>Exhibit A</u>: A copy of Order No. R-10760, which qualified the project as an Enhanced Oil Recovery Project.
- 2. <u>Exhibit B</u>: The letter from Devon requesting certification of the project. I do not know the exact date the certification was issued.
- 3. <u>Exhibit C</u>: A land plat of the unit. The project area is as follows:

Township 18 South, Range 31 East, NMPM

Section 27: SE¼SE¼

Section 34: E½, SE¼NW¼, N½SW¼, SE¼SW¼

Section 35: N½, SW¼, W½SE¼

Township 19 South, Range 31 East, NMPM Section 3: Lots 2, 3, SW4NE4, SE4NW4

- 4. Exhibit \underline{D} : Data on the injection wells for the project.
- 5. <u>Exhibit E</u>: Information on the unit wells for which a positive production response is requested. The completion dates of the wells are given on the list.
- 6. Exhibits F and G: Graphical and tabular production data on the unit. Devon requests a response date of June 1, 1998.

Please call me if you need anything further on this matter.

Very truly yours,

James Bruce

Attorney for Devon Energy Corporation (Nevada)

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATON DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11695 ORDER NO. R-10760

APPLICATION OF DEVON ENERGY CORPORATION (NEVADA) TO QUALIFY A WATERFLOOD EXPANSION PROJECT FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "ENHANCED OIL RECOVERY ACT", EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 23, 1997, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 5th day of February, 1997, 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) By Order No. R-3769 dated May 28, 1969, the Division authorized Atlantic Richfield Company to institute a waterflood project in its East Shugart Unit Area, described as follows, by the injection of water into the Yates and Queen formations, Shugart Yates-Seven Rivers-Queen-Grayburg Pool, Eddy County, New Mexico, through eleven initial injection wells located in Sections 27, 34 and 35, Township 18 South, Range 31 East, NMPM:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM

Section 27: SE/4 SE/4

Section 34: E/2, SE/4 NW/4, N/2 SW/4, SE/4 SW/4

Section 35: W/2, NE/4, W/2 SE/4

EXHIBIT A

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM

Section 3: Lots 2 & 3, SE/4 NW/4, SW/4 NE/4

- (3) The applicant, Devon Energy Corporation (Nevada), being the current operator of the East Shugart Unit, seeks to qualify the East Shugart Unit Waterflood Project for the recovered oil tax rate pursuant to the "Rules and Procedures for Qualification of Enhanced Oil Recovery ("EOR") Projects and Certification for the Recovered Oil Tax Rate", as promulgated by Division Order No. R-9708, and pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (4) According to applicant's evidence and testimony, active waterflood operations commenced within the East Shugart Unit in 1969 and continued until approximately the late 1980's.
- (5) Division records indicate that at the time initial waterflood operations began within the East Shugart Unit, there were approximately twenty-nine producing wells and three injection wells. By the mid 1970's, there were approximately twenty-one producing wells and eleven injection wells.
- (6) Division records further indicate that by 1988, there were only fourteen wells actively producing and eight wells actively injecting within the East Shugart Unit. In June, 1988, production averaged approximately 6.4 BOPD per producing well and injection averaged approximately 33 BWPD per injection well.
- (7) As of January 1, 1989, cumulative production from the East Shugart Unit was approximately 3.6 MMBO and 1.9 BCFG.
 - (8) The applicant assumed operations of the East Shugart Unit in 1992.
- (9) In mid-1993, applicant commenced an infill drilling program within the East Shugart Unit. To date, the applicant has drilled thirty-two new infill producing wells and has converted or otherwise re-activated ten injection wells within the unit area.
- (10) Applicant testified that additional future development within the East Shugart Unit will include the drilling of an additional twelve infill producing wells, and the completion of a line-drive injection pattern.
- (11) To date, applicant has invested approximately \$10 million dollars in its infill drilling and waterflood expansion program. In addition, applicant expects to incur an additional \$3.5 million dollars in capital costs completing its proposed infill drilling and waterflood expansion program.

- (12) The evidence and testimony presented in this case indicates that:
 - a) the line-drive injection pattern proposed to be utilized by the applicant within the East Shugart Unit represents a more efficient injection pattern than that previously utilized within this project;
 - b) modern completion technology and the completion of zones previously not subject to waterflood/production operations will enhance the efficiency of the project;
 - c) the reduction in the waterflood injection well pattern, increased producing well density and increased efficiency within the East Shugart Unit should result in the recovery of an additional 2.0 million barrels of oil from the unit area which would otherwise not be recovered:
 - d) the East Shugart Unit has been so depleted that it is prudent to implement a waterflood injection well pattern reduction and infill drilling program to maximize the ultimate recovery of crude oil from said area; and,
 - e) the proposed expansion is economically and technically feasible and has not been prematurely filed.
- (13) The East Shugart Unit Waterflood Project should be qualified as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (14) To be eligible for the EOR credit, the operator should advise the Division when water injection into each additional injection well commenced or will commence and at such time request that the Division certify the subject expansion project to the New Mexico Taxation and Revenue Department.

(15) At such time as a positive production response occurs and within five years from the date of the Certificate 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 the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the application of Devon Energy Corporation (Nevada), the East Shugart Unit Waterflood Project, described as follows, is hereby qualified as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5):

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM

Section 27: SE/4 SE/4

Section 34: E/2, SE/4 NW/4, N/2 SW/4, SE/4 SW/4

Section 35: W/2, NE/4, W/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM

Section 3: Lots 2 & 3, SE/4 NW/4, SW/4 NE/4

- (2) The approved "project area" shall comprise the entire East Shugart Unit described in Finding No. (1) above.
- (3) To be eligible for the EOR credit, the operator shall advise the Division when water injection into each additional injection well commenced or will commence and at such time request that the Division certify the subject expansion project to the New Mexico Taxation and Revenue Department.
- (4) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the operator 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 the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.
- (5) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

CASE NO. 11695 Order No. R-10760 Page -5-

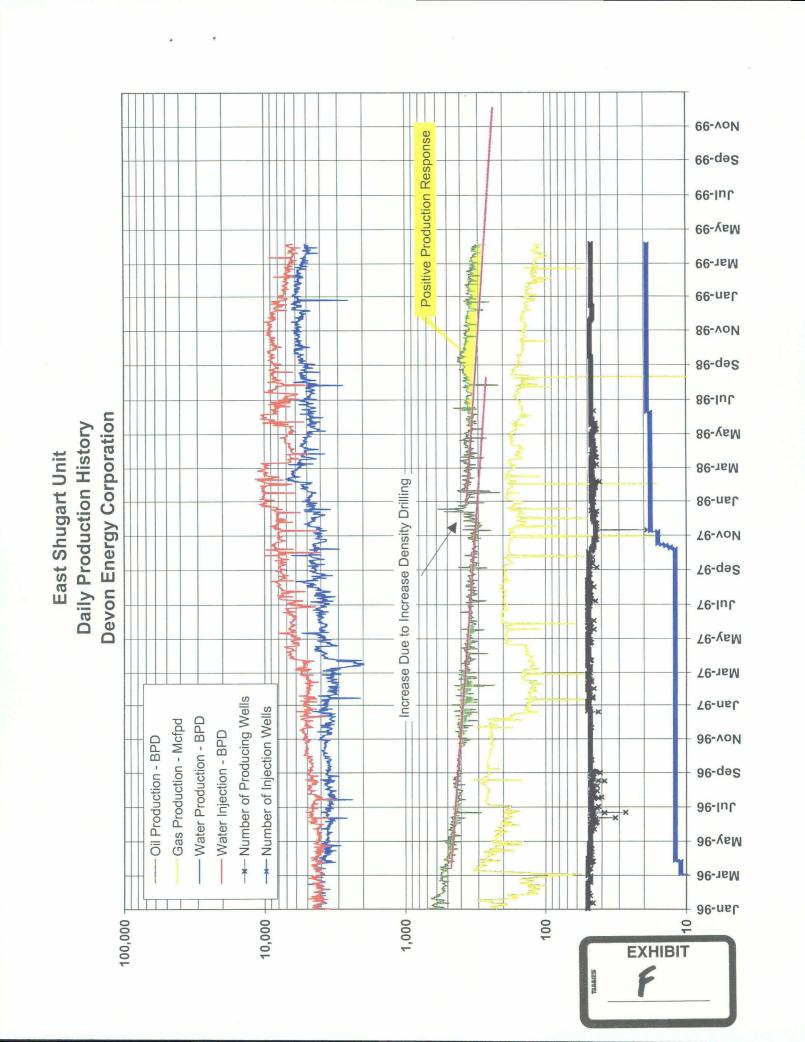
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LeMAY

Director

S E A L



EXHIBIT

EAST SHUGART UNIT PRODUCTION

	· ·	
Water Inj Rate (CD) bbl/d	2110 2110 2110 2110 2115 2104 2105 2410 2410 2410 2410 2410 1140 1140 1140	11/4 1207 1454 2712 0 787 708 654 654 491 537 543
Gas Prod Rate (CD) Mcf/d	0 0 0 0 4 4 8 8 8 1 2 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1	
Water Rate (CD) bbl/d		535 535 541 208 410 612 612 443 445 445 445
Oil Rate (CD) bbl/d	1	11008 11008 11009 11006 11006 11006
Wells on Wate Inj	 	D D D D D D D D D D D D D D D D D D D
Wells on Oil Prod		+ M M M M M M M M M M M M M M M M M M M
MONTHLY WATER INJECTED bb1	6 5 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	34040 34432 43633 84053 84053 1005 19607 16097 16659 16838
MONTHLY WATER PRODUCED bbl	8791 8791 10821 10821 12353 12353 12413 16419 16419 16413 16413 16413 16413 16413 16413 16413 16585 16585 16585 16585 16585 16585 17475 17475 17475 17475 18471 18685 18685 184711 18471 18471 18471 18471 18471 18471 18471 18471 184	15936 16584 16221 70759 6167 14753 18976 15557 14856 15032 14166
MONTHLY GAS PRODUCED MCf	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 / 1 1 / 6 2 / 7 3 / 7 4 / 7 5 / 7 6 / 7 7 6 / 7 7 6 / 7 7 6 / 7 7 6 / 7 7 7 6 / 7
MONTHLY OIL PRODUCED bbl	0.00	3991 3839 33236 3035 3225 3176 3159 3235 2349
DATE	198890501 198890501 198890701 198890801 198890801 198890801 198900801 198900801 198900801 198900801 1989100101 1989100101 1989100101 1989100101 1989100101 1989100101 1989100101 1989100101	, , , , , , , , , , , , , , , , , , ,

EAST SHUGART UNIT PRODUCTION

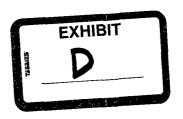
Water Inj Rate (CD) bbl/d	608	55 C	510	502	812	1538	29	15	1056	1163	1023 2223	9 1	1583	1092	962	1000	1326	1247	1730	3754	4861	5149	5575	5075	2414	3222	2594	2749	2638	3480	3296	9/75	0 4 0 7	000	4257	7	4569	$\overline{}$	70	4874	4723
Gas Prod Rate (CD) Mcf/d	11	100) [-	13	16	13	13	11	12		7 1 -	21.0	21	18	20	19	82	173	000	180	149	214	237	279	5226 526	377	342	226	260	245	201	12.1	030	210	· 근	258	267	260	245	247	165
Water Rate (CD) bbl/d	475	474	452	493	608	1300	1172	1020	1033	1058	1000 2228	1910	1454	196	1190	1343	1819	1275	1800 2563	2083	2709	2813	2987	2832	2803	3536	3727	3848	4046	4257	4138	4166	4200	4143	4097	4406	4668	4714	5068	3888	5018
Oil Rate (CD) bbl/d	9 a) m	9 8	95	199	364	342	278	239	259	303	27.0	263	258	245	200	491	437	561 503	546	655	829	688	610	522 9 29	25.5 27.7	266	577	506	909	575	537	010	4 4 0 7 0 7	427	406	427	+-4	392	396	379
Wells on Wate Inj	ហេ	ט ע) LS	Ŋ	വ	4	4	ហ	S	மு	ר ע	ט ענ	വ	_C	ហ	വ	4	ক	Z† <	r (~	7	0	o ,	10	သာဝ	၁တ	nω	ω	ω	Q	o .	on •	# L) L		14		15		15	15
Wells on Oil Prod	14	1 4	11	12	19	20	20	19	19	20	21	21	21	22	23	23	28	30	3.5) e1	36	38	99	40	40	T 7 7	41	41	48	20	48	0.0) o	יי ער הייני	50	50	50	50	20	49	20
MONTHLY WATER INJECTED bbl	18858	7.	15288	15553	25169	46137	40022	34657	32736	36068	43442	58511	49061	32753	29813	.30990	39778	38664	30593 53631	116382	136118	159624	167245	157326	72412	99883	77805	85218	79133	107877	102170	94992	٠ ر	73	127701	28	141624	83	145967	146226	146404
MONTHLY WATER PRODUCED bbl	14713	14695	13571	15285	LΩ	39001	36325	30594	32035	32798	46469	57314	45075	29006	36883	41622	54555	39535	53993 7845	64577	75862	87208	00968	87785	8408/	109602	111811	119292	121389	131982	128271	120819	105130	128447	122903	136581	144716	4141	_	116630	155567
MONTHLY GAS PRODUCED Mcf	331	311	331	406	499	392	391	343	373	356	322 4 ዳ ዓ	618	643	539	635	595	2460	5374	5/12	5571	4163	6640	7114	8651	15/91	11686	10248	7020	7809	7581	6231	36/5	0.40	00±0 00±0	3324	7986	8284	7810	7604	7408	5102
MONTHLY OIL PRODUCED bbl	3082	2896	2664	2960	6171	\circ	10591	8337	7403	8037	9 9 9 9 9 9 9 9	8374	8143	7733	7600	15506	14717	13556	⊥0834 18656	16914	18334	25687	20638	18902	158/0	17853	16986	17888	15180	18785	17828	155/4	14000	14138	12800	12594	13237	12379	21	89	176
DATE	19930301	19930501	19930601	19930701	19930801	19930901	19931001	19931101	19931201	o, c	19940201	1 01	o,	0)	O)	19940801	O١	U) (19941101	וט ו	Oi	O,	19950401	19950501	19950601 19950701	19950801	19950901	19951001	19951101	19951201	19960101	19960201	19960301	19960501	19960601	19960701	0966	19960901	19961001	961	19961201

EAST SHUGART UNIT PRODUCTION

Water Ini Rate		- 1	0	4800	5620	5597	5430	5338	6252	6835	6457	6752	7389	8707	10629	9700	6974	6383	7215	8204	7170	7986	0	8388	8791	7837	6919
Gas Prod Rate	(CD)	Mc1/d 	131	135	134	160	191	203	202	199	182	170	159	159	186	181	169	171	165	153	156	149	155	147	147	141	133
Water Rate		- :	4123	3437	3677	4300	4250	4558	4092	4637	4067	4177	4102	4421	4904	10180	5274	5079	4516	4887	4629	5302	5174	5662	5517	3906	5221
Oil Rate	(CD)	q/1gq	361	365	355	346	332	336	326	332	325	315	317	361	351	349	349	351	333	345	339	372	386	358	354	338	329
Wells on Wate	Inj	1	0	15	15	15	15	15	15	15	15	20	20	20	20	20	19	19	13	20	20	19	0	20	20	20	17
Wells on Oil	Prod	1	20	50	50	50	50	50	50	50	45	44	46	47	47	47	47	47	47	47	47	47	46	47	46	46	47
MONTHLY WATER	INJECTED	1gg	0	134390	174235	167896	168338	160141	193801	211877	193700	209311	221673	269925	329484	271598	216193	191502	223677	246124	222269	247553	0	260024	263728	242952	214504
MONTHLY WATER	PRODUCED	199	127823	96237	113985	129014	131741	136745	126850	143753	121999	129479	123064	137050	152030	285034	163479	152360	140010	146598	143487	164348	155221	175535	165495	121077	161842
MONTHLY GAS	PRODUCED	MCI	4063	3787	4140	4810	5931	6082	6261	6181	5463	5268	4756	4923	5756	5061	5254	5144	5115	4577	4825	4632	4656	4565	4418	4358	4131
MONTHLY OIL	PRODUCED	Tag	11189	10226	11020	10367	10302	10084	10110	10295	9746	7776	9507	11195	10887	9763	10830	10538	10325	10352	10502	11521	11566	11106	10611	10488	10191
	C E S	DATE	19970101	19970201	19970301	19970401	19970501	19970601	19970701	19970801	19970901	19971001	19971101	19971201	19980101	19980201	19980301	19980401	19980501	19980601	19980701	19980801	19980901	19981001	19981101	19981201	19990101

East Shugart Unit Waterflood Project Injection Well Activity Review and Status Devon Energy Corporation, Operator Since 1992

	Well	4/1/99	Date of First	
Well #	Type	Status	Injection	Comments
1	ı	SI	*	Injecting prior to Devon's operations
2	J	Α	May-92	Converted producer to WIW
3	l	A	*	Injecting prior to Devon's operations
6	1	Α	Mar-96	Re-activate inactive injector
9	I	Α	Mar-96	Converted T&A'd producer to WIW
15	I	Α	*	Injecting prior to Devon's operations
16	Ī	Α	*	Injecting prior to Devon's operations
20	l	Α	Oct-97	Converted producer to WIW
22	J	Α	*	Injecting prior to Devon's operations
23	I	A	Mar-96	Re-activate inactive injector
24	I	Α	Mar-96	Converted T&A'd producer to WIW
29	3	Α	*	Injecting prior to Devon's operations
32	ı	Α	Mar-96	Re-activate inactive injector
33	1	Α	Mar-95	Converted T&A'd producer to WIW
41	Ī	Α	Jan-95	Converted producer to WIW
42	Ţ	SI	Mar-95	Converted producer to WIW
52	I	Α	Oct-97	Converted producer to WIW
56	1	Α	Oct-97	Converted producer to WIW
58	I	Α	Oct-97	Converted producer to WIW
75	l	Α	Jun-98	Drill WIW
76	_1	Α	Oct-97	Converted producer to WIW
	19		ection wells	
	_2	Shut-in in	jection wells	







Well	API	Completion
Name	Number	
		DATE
ESU_1	300150561300	19580220
ESU_2 ESU_3	300150568400 300150568300	19590804 19581027
ESU 4	300150569200	19570801
ESU 5	300150569700	19890413
ESU_6	300150569600	19960301
ESU_7	300150570000	19660903
ESU_8	300150570400	19900405
ESU_9 ESU_11	300150570300	19960301 19790205
ESU 13	300150569500 300150568100	19790205
ESU 14	300150568200	19930826
ESU 15	300150568700	19801123
ESU_16	300150568800	19590929
ESU_17	300150568600	19450101
ESU 18	300150567900	19590510
ESU_20 ESU_22	300150570200 300150569800	19971022
ESU 23	300150569900	19590118 19600617
ESU 24	300150569100	19570408
ESU_25	300150569000	19561011
ESU_26	300150567600	19401120
ESU_27	300150567700	19520726
ESU_29	300150568500	19690916
ESU_31 ESU_32	300150571900 300152025400	19890407 19691003
ESU 33	300152648400	19930804
ESU 34	300152648300	19910411
ESU_35	300152742800	19930812
ESU_36	300152743600	19930804
ESU_37	300152746200	19930819
ESU_38 ESU_39	300152742900 300152743000	19930915
ESU 40	300152743000	19930731 19940720
ESU 41	300152767600	19940528
ESU_42	300152767000	19940705
ESU_43	300152767100	19940325
ESU_44	300152768100	19940110
ESU_45 ESU 46	300152786700	19940901
ESU 47	300152787000 300152787100	19941218 19950104
ESU 49	300152787300	19941208
ESU_50	300152794400	19940723
ESU_51	300152794500	19940731
ESU 52	300152794600	19951018
ESU_54 ESU_55	300152794800	19940929
ESU 56	300152795600 300152794900	19941108 19951130
ESU_57	300152795000	19941113
ESU_58	300152795100	19951203
ESU_59	300152795200	19950304
ESU_61	300152820200	19950201
ESU_62 ESU_63	300152795300 300152821700	19950216
ESU 66	300152795500	19950118 19940914
ESU 67	300152795800	19951006
ESU_69	300152821800	19951015
ESU_70	300152820900	19950512
ESU_71	300152821100	19950331
ESU_72 ESU_74	300152820300	19950222
ESU_74 ESU_75	300152835900 300152820400	19950827
ESU 76	300152820400	19971212 19950721
ESU 77	300152821900	19950721
ESU_78	300152827800	19951111
ESU_79	300152832600	19951216
ESU_83	300152877600	19971121
ESU_86	300152991700	19971204





20 North Broadway, Suite 1500 Oklahoma City, Oklahoma 73102-8260 Telephone: (405) 235-3611 Fax: (405) 552-4667

July 28, 2000



New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505

Attention: Mr. David Catanach

Re: Positive Production Response

East Shugart Unit Waterflood Project

In response to your request for additional information for your review of the positive production response within the East Shugart Unit waterflood project, I have attached a list of the wells in the East Shugart Unit that have exhibited a positive production response to injection operations. Supporting data is also enclosed.

If you need additional information you may contact me at 405-552-8141.

Sincerely,

Jan Glasgow

Reservoir Engineer

JG/jh

Encl.

East Shugart Unit Waterflood Project

Wells exhibiting positive production response to the East Shugart Unit Water-flood Project are:

WELL NAME	LOCATION	API#_
ESU #7	990'FNL & 2310'FEL Sec.35-18S-31E	30-015-05700
ESU #8	990'FNL & 990'FEL Sec. 35-18S-31E	30-015-05704
ESU #11	2310'FWL & 2310'FNL Sec. 35-18S-31E	30-015-05695
ESU #14	1650'FEL & 2310'FNL Sec. 34-18S-31E	30-015-05682
ESU #17	1650'FSL & 2310'FWL Sec. 34-18S-31E	30-015-05686
ESU #25	990'FSL & 330'FWL Sec.35-18S-31E	30-015-05690
ESU #34	990'FNL & 2310'FWL NENW Sec. 3-19S-31E	30-015-26483
ESU #40	1650'FNL & 840'FEL Sec. 34-18S-31E	30-015-27690
ESU #45	2550'FSL & 580'FWL Sec. 35-18S-31E	30-015-27867
ESU #49	990'FNL & 1500'FEL NWNE Sec. 35-18S-31E	30-015-27873
ESU #50	1700'FNL & 2335'FEL Sec. 35-18S-31E	30-015-27944
ESU #51	550'FSL & 200'FEL Sec. 34-18S-31E	30-015-27945
ESU #57	375'FSL & 1950'FWL SESW Sec. 35-18S-31E	30-015-17950
ESU #61	2310'FNL & 865'FEL SENE Sec. 35-18S-31E	30-015-28202
ESU #69	990'FNL & 1700'FWL NENW Sec. 35-18S-31E	30-015-28218
ESU # 7 0	330'FSL & 280'FWL SWSW Sec. 35-18S-31E	30-015-28209
ESU #71	990'FSL & 990;FWL SWSW Sec. 35-18S-31E	30-015-28211
ESU #72	1650'FSL & 1150'FWL NWSW Sec. 35-18S-31E	30-015-28203
ESU #74	510'FSL & 2455'FWL SESW Sec.35-18S-31E	30-015-28359
ESU #77	1550'FSL & 2120'FEL NWSE Sec. 35-18S-31E	30-015-28219
ESU #78	2300'FSL & 2300'FEL NESW Sec. 35-18S-31E	30-015-28278
ESU #79	2120'FNL & 375'FWL SWNW Sec. 35-18S-31E	30-015-28326
ESU #86	330'FSL & 780'FEL SESE Sec. 34-18S-31E	30-015-29917



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

June 29, 2000

Lori Wrotenbery
Director
Oil Conservation Division

Devon Energy Corporation (Nevada) C/o Mr. James Bruce P.O. Box 1056 Santa Fe, New Mexico 87504

5059822151

Re:

Positive Production Response

East Shugart Unit Waterflood Project

Dear Mr. Bruce:

I have reviewed your request dated February 24, 2000, to certify a positive production response within the East Shugart Unit Waterflood Project currently operated by Devon Energy Corporation (Nevada). From the data submitted, it appears that due to the limited number of injection wells and incomplete line drive injection patterns, not all producing wells within the unit may be benefiting from injection operations.

In order to process your application, I am requesting that Devon provide the Division a list of the producing wells within the unit that have exhibited a response to injection operations, together with supporting data.

Your application will be processed upon receipt of the requested data. If you should have any questions, please contact me at (505) 827-8184.

Sincerely,

David Catanach

Engineer

Xc: Case File-11695

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATON DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11695 ORDER NO. R-10760

APPLICATION OF DEVON ENERGY CORPORATION (NEVADA) TO QUALIFY A WATERFLOOD EXPANSION PROJECT FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "ENHANCED OIL RECOVERY ACT", EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 23, 1997, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 5th day of February, 1997, 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) By Order No. R-3769 dated May 28, 1969, the Division authorized Atlantic Richfield Company to institute a waterflood project in its East Shugart Unit Area, described as follows, by the injection of water into the Yates and Queen formations, Shugart Yates-Seven Rivers-Queen-Grayburg Pool, Eddy County, New Mexico, through eleven initial injection wells located in Sections 27, 34 and 35, Township 18 South, Range 31 East, NMPM:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM

Section 27: SE/4 SE/4

Section 34: E/2, SE/4 NW/4, N/2 SW/4, SE/4 SW/4

Section 35: W/2, NE/4, W/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM

Section 3: Lots 2 & 3, SE/4 NW/4, SW/4 NE/4

- (3) The applicant, Devon Energy Corporation (Nevada), being the current operator of the East Shugart Unit, seeks to qualify the East Shugart Unit Waterflood Project for the recovered oil tax rate pursuant to the "Rules and Procedures for Qualification of Enhanced Oil Recovery ("EOR") Projects and Certification for the Recovered Oil Tax Rate", as promulgated by Division Order No. R-9708, and pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (4) According to applicant's evidence and testimony, active waterflood operations commenced within the East Shugart Unit in 1969 and continued until approximately the late 1980's.
- (5) Division records indicate that at the time initial waterflood operations began within the East Shugart Unit, there were approximately twenty-nine producing wells and three injection wells. By the mid 1970's, there were approximately twenty-one producing wells and eleven injection wells.
- (6) Division records further indicate that by 1988, there were only fourteen wells actively producing and eight wells actively injecting within the East Shugart Unit. In June, 1988, production averaged approximately 6.4 BOPD per producing well and injection averaged approximately 33 BWPD per injection well.
- (7) As of January 1, 1989, cumulative production from the East Shugart Unit was approximately 3.6 MMBO and 1.9 BCFG.
 - (8) The applicant assumed operations of the East Shugart Unit in 1992.
- (9) In mid-1993, applicant commenced an infill drilling program within the East Shugart Unit. To date, the applicant has drilled thirty-two new infill producing wells and has converted or otherwise re-activated ten injection wells within the unit area.
- (10) Applicant testified that additional future development within the East Shugart Unit will include the drilling of an additional twelve infill producing wells, and the completion of a line-drive injection pattern.
- (11) To date, applicant has invested approximately \$10 million dollars in its infill drilling and waterflood expansion program. In addition, applicant expects to incur an additional \$3.5 million dollars in capital costs completing its proposed infill drilling and waterflood expansion program.

- (12) The evidence and testimony presented in this case indicates that:
 - a) the line-drive injection pattern proposed to be utilized by the applicant within the East Shugart Unit represents a more efficient injection pattern than that previously utilized within this project;
 - b) modern completion technology and the completion of zones previously not subject to waterflood/production operations will enhance the efficiency of the project;
 - c) the reduction in the waterflood injection well pattern, increased producing well density and increased efficiency within the East Shugart Unit should result in the recovery of an additional 2.0 million barrels of oil from the unit area which would otherwise not be recovered;
 - d) the East Shugart Unit has been so depleted that it is prudent to implement a waterflood injection well pattern reduction and infill drilling program to maximize the ultimate recovery of crude oil from said area; and,
 - e) the proposed expansion is economically and technically feasible and has not been prematurely filed.
- (13) The East Shugart Unit Waterflood Project should be qualified as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (14) To be eligible for the EOR credit, the operator should advise the Division when water injection into each additional injection well commenced or will commence and at such time request that the Division certify the subject expansion project to the New Mexico Taxation and Revenue Department.

(15) At such time as a positive production response occurs and within five years from the date of the Certificate 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 the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the application of Devon Energy Corporation (Nevada), the East Shugart Unit Waterflood Project, described as follows, is hereby qualified as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5):

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM

Section 27: SE/4 SE/4

Section 34: E/2, SE/4 NW/4, N/2 SW/4, SE/4 SW/4

Section 35: W/2, NE/4, W/2 SE/4

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM

Section 3: Lots 2 & 3, SE/4 NW/4, SW/4 NE/4

- (2) The approved "project area" shall comprise the entire East Shugart Unit described in Finding No. (1) above.
- (3) To be eligible for the EOR credit, the operator shall advise the Division when water injection into each additional injection well commenced or will commence and at such time request that the Division certify the subject expansion project to the New Mexico Taxation and Revenue Department.
- (4) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the operator 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 the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.
- (5) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LeMAY

Director

S E A L