



ENERGY CORPORATION

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Oklahoma City, Oklahoma 73102-8260Telephone 405/235-3611
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November 2, 1994

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 88505

Attention: Ben Stone, Room 305, fax (505) 827-8177

RE. Wells to be Converted to Injection
East Shugart Unit, Eddy County

Gentlemen:

Following please find, as per your request of letter dated November 1, additional information for the four well expansion of the ESU Waterflood.

- 1) Construction information for ESU Well Nos. 15, 28, 29, 54 and 59. (See attached.)
- 2) Construction information for Amoco's Well No. 11 in Unit Letter L of Section 34. (See attached.)
- 3) Plugging schematic for ESU No. 28. (See attached.)
- 4) Please be advised Marathon Oil is the current operator for the Keohane Federal Well No. 1 and has already received proper notification by Devon.

In addition we are supplying the TOC for each ESU Well involved in this matter.

Please direct inquiries concerning this matter to Ernie Buttross, Jr., at (405) 235-3611, X4509.

Yours truly,

DEVON ENERGY CORPORATION (NEVADA)

Ms. Candace R. Graham
Engineering Tech

/cg
Attachments

Post-It™ brand fax transmittal memo 7671		# of pages ▶ 8
To Ben Stone	From Candi Graham	
Co.	Co.	
Dept.	Phone #	
Fax # (505) 827-8177	Fax #	

CALCULATED CEMENT TOPS for AREA OF REVIEW RANDOM GROUP

Proposed Injection Well: Proposed Injection Zone: Minimum Required TOC:		East Shugart Unit 3298 to 3871 2798 Feet		e Project Formation: Queen Yield: 70%					
Well Name	No.	Type	T.D.	Casing	Depth	Borehole	Cement	TOC	Remarks
East Shugart Unit	#1	INU	3850	8.625	915	12.25	50 sx	ERR 815	
				7	3968	8.25	150	2,776	
East Shugart Unit	#2	OIL	4246	8.625	714	12.25	250 sx	214	
				5.5	2785	7.875	350	1,116 ERR	
East Shugart Unit	#3	INU	4117	8.625	910	12.25	50 sx	ERR 810	
				7	4117	8.25	200	2,528	
East Shugart Unit	#18	OIL	3905	8.625	911	12.25	50 sx	811	
				7	2655	8.25	100	1,861	
Greenwood Unit	#1	GAS	13446	4.5	3550	6.25	250	1,537	
				16	358	20	790 sx	(473)	
Greenwood Unit	#2	GAS	12925	10.75	4679	13.75	1600	1,382	
				7.625	11915	9.25	1000	6,392	
Greenwood Unit	#2	GAS	12925	16	770	20	400 sx	349	
				10.75	6420	13.75	1735	2,845	
East Shugart Unit	#17	OIL	3925	7	12863	8.25	770	6,746	
				4.5	3925	6.25	225 sx	ERR ERR	
Hinkle "B" Federal	#6	OIL	4493	4.5	3925	6.25	225	2,114	
				8.625	650	12.25	300 sx	ERR 50	
East Shugart Unit	#27	OIL	3675	4.5	4481	6.25	300	2,066	
				7	2570	12.25	0 sx	ERR 2,570	
East Shugart Unit	#14	OIL	3682	5.5	3448	7.25	25	3,278	
				7	2570	12.25	0 sx	ERR 2,570	
East Shugart Unit	#14	OIL	3682	8.625	898	12.25	75 sx	ERR 748	
				5.5	3676	7.25	200	2,318	
Mudded Up NEED INFO ON THIS WELL									

Mudded Up
NEED INFO ON THIS WELL

Numbers in () denote negative values. , i.e., cement circulated to surface.

CALCULATED CEMENT TOPS for AREA OF REVIEW RANDOM GROUP

Proposed Injection Well: Proposed Injection Zone: Minimum Required TOC:		East Shugart Unit 3298 to 3871 2798 Feet		Formation: Yield:		e Project Queen 70%			
Well Name	No.	Type	T.D.	Casing	Depth	Borehole	Cement	TOC	Remarks
East Shugart Unit	#1	INJ	3850	8.625 7	915 3968	12.25 8.25	50 150	ERR 815 2,776	
East Shugart Unit	#2	OIL	4246	8.625 5.5	714 2785	12.25 7.875	250 350	214 1,116 ERR	
East Shugart Unit	#3	INJ	4117	8.625 7	910 4117	12.25 8.25	50 200	ERR 810 2,528	
East Shugart Unit	#18	OIL	3905	8.625 7 4.5	911 2655 3550	12.25 8.25 6.25	50 100 250	811 1,861 1,537	
Greenwood Unit	#1	GAS	13446	16 10.75 7.625	358 4679 11915	20 13.75 9.25	790 1600 1000	(473) 1,382 6,392	
Greenwood Unit	#2	GAS	12925	16 10.75 7	770 6420 12863	20 13.75 8.25	400 1735 770	349 2,845 6,746	
East Shugart Unit	#17	OIL	3925	4.5	3925	6.25	225	ERR ERR 2,114	
Hinkle "B" Federal	#6	OIL	4493	8.625 4.5	650 4481	12.25 6.25	300 300	ERR 50 2,066	
East Shugart Unit	#27	OIL	3675	7 5.5	2570 3448	12.25 7.25	0 25	ERR 2,570 3,278	Mudded Up NEED INFO ON THIS WELL
East Shugart Unit	#14	OIL	3682	8.625 5.5	898 3676	12.25 7.25	75 200	ERR 748 2,318	

Numbers in () denote negative values. , i.e., cement circulated to surface.

ATTACHMENT VI for ESU four well expansion (additional wells as requested by NMOCB by letter dated 11-01-94)

WELL NAME	LOCATION	SPUD DATE	COMPLETION DATE	TYPE OF WELL	DEPTH/PBTD	COMPLETION RECORD
East Shugart Unit #15 (Devon)	2310' FNL & 2310' FWL Unit F, Sec. 34-18S-31E Eddy Cnty, NM	01/07/59	06/14/59 09/05/69 11/23/80	Oil Converted to dual WIW (Queen/Yates) Converted to single WIW (Queen)	4494' TD 3950' PBTD 2810' TOC	8 5/8" csg @ 875' (50 sx cmt) 7" csg @ 4045' (225 sx cmt) 4 1/2" liner @ 4461' (w/50 sx cmt, TOC 3900') CLBP cmt'd @ 3950' Perf'd 5/59 4422-4434' (72 holes) Delaware Perf'd 6/59 3818-3832' (84 holes) Queen Perf'd 8/69 2621-2769' Yates (sqzd 9/80) Perf'd 8/69 2700-2771' (4 holes) sqzd 9/80 Perf'd 9/69 2070-2071' (4 holes) sqzd Perf'd 9/69 3315-3811' Perf'd 9/90 3315-3832' 7" Baker Model D packer nipple placed @ 3233'
East Shugart Unit #28 (Devon)	330' FSL & 2310' FWL Unit O, Sec. 34-18S-31E Eddy Cnty, NM	08/17/40	09/39/40 9/69 4/17/82	Oil Converted to WIW P&A	2678' TD 1840' TOC	8 1/4" csg @ 944' (50 sx cmt) 7" csg @ 2591' (100 sx cmt) Perf'd 4/90 2660-2678' (Yates OH) Cmt'd retainers at 2514' & 806' and set cmt plugs
East Shugart Unit #29 (Devon)	330' FSL & 2310' FWL Unit N, Sec. 34-18S-31E Eddy Cnty, NM	1944	1944 6/26/59	Oil Oil	2685' TD 3612' TD 1705' TOC	8 5/8" csg @ 918' (50 sx cmt) 7" csg @ 2646' (100 sx cmt) Perf'd 1944 2646-2685' (Yates OH) Decapped w/4 1/2" csg @ 3595' (150 sx cmt) Perf'd 6/59 3380-3430' (120 holes) Queen OH Perf'd 7/59 3306-3322' (96 holes) Queen Perf'd 9/69 3501-3511' (20 holes) Queen CLBP at 3465', dtd to 3540' Perf'd 3501-3511' (20 holes) Queen 4 1/2" Johnson 101-S tension packer @ 3276'
East Shugart Unit #54 (Devon)	1690' FNL & 1940' FWL Unit F, Sec. 34-18S-31E Eddy Cnty, NM	07/30/94	09/29/94	Oil	3924' TD 3873' PBTD TOC @ surface	8 5/8" csg @ 954' (500 sx cmt) 5 1/2" csg @ 3923' (1050 sx cmt) Perfs: 2670-2727' (16 holes) Yates 3757-3763' and 3824-3834' (24 holes) Queen
East Shugart Unit #59 (Devon)	1100' FSL & 1650' FWL Unit N, Sec. 34-18S-31E Eddy Cnty, NM	10/15/94	W/O Completion 10/23/94	Oil	4020' TD TOC @ surface	8 5/8" csg @ 949' (500 sx cmt) 5 1/2" csg @ 4009' (1190 sx cmt)
Greenwood #11 (Amoco)	1980' FSL & 660' FWL Unit H, Sec. 34-18S-31E Eddy Cnty, NM	10/15/78	02/05/79	Gas	12,220' TD Calc TOC @ surface for 9 5/8"	13 3/8" csg @ 721' (800 sx cmt) 9 5/8" csg @ 4601' (2075 sx cmt) 5 1/2" csg @ 12,220' (1950' sx cmt) Perfs: 11,854-11,906' and 12,053-12,060' Morrow

SENT BY:

11- 3-94 : 17:01 :

DEVON ENERGY-

5058275741;# 3/ 8

Temp 6/23/71

P&A 4/82



Devon

ENGINEERING CHART

SHEET NO

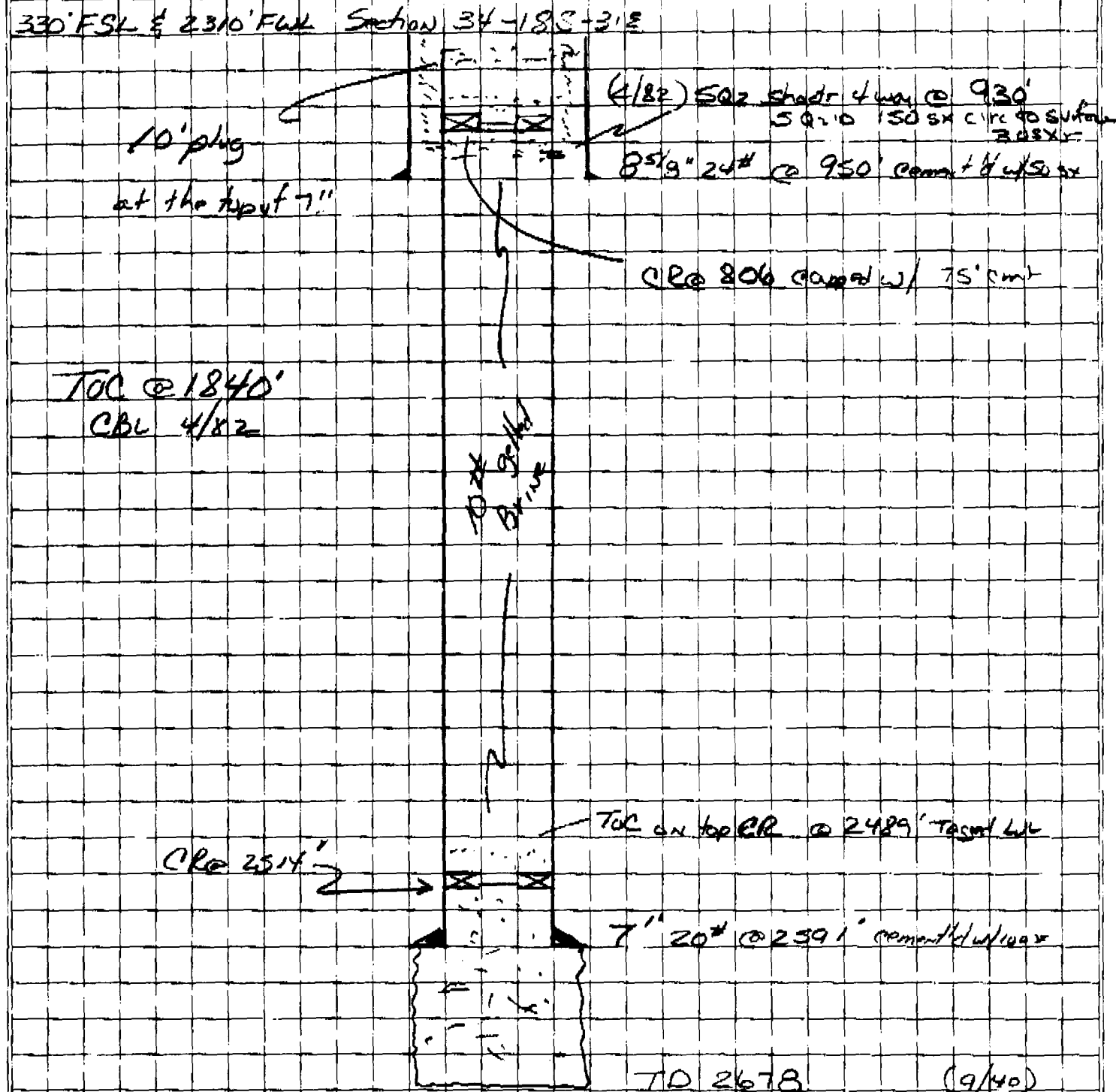
OF

FILE

DATE 9/26/92

BY LS Powell

SUBJECT: EAST SHUGART UNIT #28 (Hinkle "A" #1)

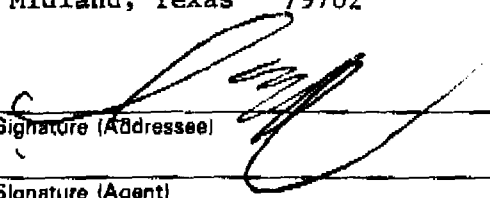


SENT BY:

11- 3-94 : 17:02 :

DEVON ENERGY-

5058275741:# 4/ 8

Is your RETURN ADDRESS completed on the reverse side? SENDER: ESU #33 AAT • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. ☐ Addressee's Address 2. ☐ Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: MARATHON OIL (TXO) P. O. Box 552 Midland, Texas 79702		4a. Article Number Z 147 280 899	
5. Signature (Addressee)  6. Signature (Agent)		4b. Service Type ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise	
		7. Date of Delivery DEC 1 1994	
		8. Addressee's Address (Only if requested and fee is paid)	

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

ATTACHMENT VI for ESU four well expansion (listing TOC for ESU wells previously listed)

WELL NAME	LOCATION	SPUD DATE	COMPLETION DATE	TYPE OF WELL	DEPTH/PBTD	COMPLETION RECORD
East Shugart Unit #1 (Devon)	330' FSL & 330' FEL Sec. 27-18S-31E	12/11/57	2/20/58	Oil	4010' TD 3801' PBTD 2560' TOC	8 5/8" csg @ 915' (50 sx cmt) 7" csg @ 3968' (150 sx cmt) Perf'd 3764'-3754' (60 holes) Perf'd 2/3/61 3323'-3336' (4 holes/ft) Perf'd 5/10/62 2608'-2630', 2638'-2656', 2690'-2702', and 2715'-2726' Perf'd Queen 3303'-3307', 3520'-3533', 3635'-3638', 3646'-3655', 3797'-3802', 3806'-3813' w/2 JSPF. Perf'd Queen 3820'-3834' w/2 JSPF. Squeezed Yates 2608'-2736' (350 sx CI C)
			8/22/69 3/3/94	Converted to dual WTW Converted to single WTW	3850' New PBTD	
East Shugart Unit #2 (Devon)	990' FNL & 1650' FEL Sec. 34-18S-31E	7/15/59	8/4/59	Oil	4500' TD 4246' PBTD 1760' TOC	8 5/8" csg @ 714' (250 sx cmt) 5 1/2" csg @ 4246' (350 sx cmt) Perf'd 3765'-3871' Perf'd 10/61 3384'-3534' w/4 JSPF Plug at 3560' Perf'd Yates 8/5/69 2633'-2634' w/4 JSPF Cemented behind 5 1/2" csg w/200 sx Class C Squeezed perfs w/60 sx cmt. Perf'd Queen 3632'-3644' & 3298'-3306' w/2 JSPF Perf'd 2632', 2668', 2701', 2708', 2714', 2766', & 2782' w/1 .40" jet (8 holes) Perf'd 3300'-3882' (64 holes)
East Shugart Unit #3 (Devon)	990' FNL & 330' FEL Sec. 34-18S-31E	8/9/58	10/27/58	Oil	4117' TD 2135' TOC	8 5/8" csg @ 910' (50 sx cmt) 7" csg @ 4117' (200 sx cmt) Perf'd 3880'-3890' (60 holes), 3822'-3832' (6 shots/ft) 3836'-3850' (6 shots/ft) Squeezed 3/11/64 2794' through 2 holes (75 sx cmt) Perf'd 2735', 2730', 2726', 2722', 2709', 2699', 2692', 2680', 2670', 2662', 2640', 2632' Perf'd 2804', 2807', 2813', 2818', 3324', 3330', Perf'd Queen 8/26/69 3538'-3545', 3650'-3652' and 3656'-3662' w/2 JSPF. Squeezed Yates 12/7/75 2632'-2818' (250 sx cmt) Perf'd 3324'-3844'
East Shugart Unit #4 (Devon)	330' FNL & 330' FVL Sec. 35-18S-31E	6/21/57	8/57	Oil	2785 TD 2773' PBTD 1845' TOC	8 5/8" csg @ 895' (50 sx cmt) 7" csg @ 2785' (100 sx cmt) Perf'd 2653'-2669' w/6 shots/ft, 2671'-2680' w/4 shots/ft, and 2711'-2719' w/4 shots/ft

ATTACHMENT VI for ESU four well expansion (listing TOC for ESU wells previously listed)

WELL NAME	LOCATION	SPUD DATE	COMPLETION DATE	TYPE OF WELL	DEPTH/PBTD	COMPLETION RECORD
East Shugart Unit #5 (Devon)	380' FWL & 990' FNL Sec. 35-18S-31E	9/29/61	10/8/61	Oil	2832' TD 1630' TOC	9 5/8" csg @ 190' (70 sx cmt) 7" csg @ 2823' (365 sx cmt) Perf'd 2650'-2664' w/ 4 shots/ft, 2670'-2678' w/4 shots/ft Perf'd Yates 2620'-2628 w/one 1/2" JSPP 4 1/2" csg @ 4360' (200 sx Lic + 300 sx Class C) Perf'd 4192'-4246' (8 holes), 4020'-4058' (10 holes), 3318'-3893' (55 holes)
East Shugart Unit #13 (Devon)	2310' FNL & 330' FEL Sec. 34-18S-31E	4/19/57	7/15/94	Oil	3855' TD 2748' TOC	8" csg @ 190' (50 sx cmt) 5 1/2" csg @ 3850' (200 sx cmt) Perf'd 3832'-3854' 10 shots/ft Perf'd (10/5/69 - 10/7/69) 2740'-2741' w/4 JSPP Cmt'd 8 5/8" X 5 1/2" annulus w/ 400 sx Class C cmt. Squeezed perfs 2740'-2741' w/ 75 sx cmt. Perf'd Queen (10/7/69 - 10/13/69) 3335', 3339', 3399', 3408', 3412', 3418', 3427', and 3438' w/ one 1/2" JSPP (8 holes) Perf'd Yates (10/7/69 - 10/13/69) 2651', 2656', 2672', 2698', 2707', 2755', 2762', 2768', 2774', and 2782' w/one 1/2" JSPP. Perf'd Queen (11/22/91) 3812' - 3819' w/1 JSPP (8 holes). 3333', 36', 83', 93', 94', 98', 3405', 07', 10', 11', 15', 19', 26', 28', 67', 68', 70', 3528', 30', 34', 36', 53', 54', 57', 3638', 42', 45', 48', 50', 53', 91', 97', 3712', 13', 14', 67', 68', 69', and 70' w/1 JSPP (39 holes).
East Shugart Unit #14 (Devon)	2310 FNL & 1650' FEL Sec. 34-18S-31E	5/14/58	7/15/58	Oil	3682' TD 960' TOC	8 5/8" csg @ 898' (75 sx cmt) 5 1/2" csg @ 3676 (200 sx cmt) Perf'd 3520'-31', 3540'-46', and 3548'-52'
East Shugart Unit #15 (Devon)	2310 FNL & 2310 FWL Sec. 34-18S-31E	1/7/59	5/29/59	Oil	4494' TD 3950' PBTD 2820' TOC	8" csg @ 875' (50 sx cmt) 7" csg @ 4075' (225 sx cmt.) 4 1/2" csg @ 4461' (50 sx cmt.) Perf'd 4422' - 4434' (72 holes) Perf'd 3818' - 3832' (84 holes)
East Shugart Unit #16 (Devon)	1650' FSL & 990' FWL Sec. 34-18S-31E	7/26/59	9/29/59	Oil	3857' TD 2900' PBTD 2252' TOC	8" csg @ 862' (50 sx cmt) 5 1/2" csg @ 2900' (150 sx cmt) Perf'd 2777'-59', 2724'-16', 2712'-02', 2684'-68', and 2652'-34'.

ATTACHMENT VI for ESU four well expansion (listing TOC for ESU wells previously listed)

WELL NAME	LOCATION	SPUD DATE	COMPLETION DATE	TYPE OF WELL	DEPTH/PBTD	COMPLETION RECORD
East Shugart Unit #17 (Devon)	1650' FSL & 2310 FWL Sec. 34-18S-31E	1944	7/44	Oil	3925' TD 3892' PBTD 1700' TOC	4 1/2" csg @ 3925' (225 sx cm) Perf'd Queen 3833' - 3308' (22 holes). Perf'd Yates 2697' -70', and 2740'-16' (15 holes).
East Shugart Unit #18 (Devon)	1650' FSL & 1650' FEL Sec. 34-18S-31E	3/9/59	5/10/59	Oil	3905' TD 3905' PBTD 2410' TOC	8 5/8" csg @ 911' (50 sx cm) 7" csg @ 2655' (100 sx cm) 4 1/2" csg @ 3550' (250 sx cm) Perf'd Yates 2685' 94', 2709', 16', 38', 43', 2821', 40', and 47' (9 holes). Open hole 3550' - 3905'.
East Shugart Unit #27 (Devon)	990' FSL & 1650' FEL Sec. 34-18S-31E	4/28/52	7/26/52	Oil	3675' TD 3671' PBTD 2738' TOC	7" csg @ 2570' (mudded) 5 1/2" csg @ 3448' (25 sx cm.) Perf'd 3398' - 3416'
East Shugart Unit #33 (Devon)	2380' FSL & 1680' FWL Sec. 34-18S-31E	9/28/90	3/14/91	Oil	3999' TD 3390' PBTD TOC @ surface	8 5/8" csg @ 963' (600 sx premium plus cm) 5 1/2" csg #3999' (1500 sx Lite + 300 sx Class C) Perf'd 3822' -57' (22 holes), 3716' -3807' (29 holes), 3400' - 3644' (32 holes), and 2606' -2777' (74 holes).
East Shugart Unit #35 (Devon)	1650' FNL & 330' FWL Sec. 35-18S-31E	6/14/93	8/12/93	Oil	4500' TD 4449' PBTD TOC @ surface	8 5/8" csg @ 942' (480 sx cm) 5 1/2" csg @ 4495' (985 sx cm) Perf'd 3779' -3856' (53 perfs, 0.52")
East Shugart Unit #36 (Devon)	2310' FSL & 2310' FEL Sec. 34-18S-31E	5/31/93	8/4/93	Oil	4470' TD 4425' PBTD TOC @ surface	8 5/8" csg @ 974' (480 sx cm) 5 1/2" csg @ 4470' (805 sx cm) Perf'd 3762' -3442' (1 shot/H, 40 perfs), 3820' -24' and 3830' -3842' (32 perfs)
East Shugart Unit #37 (Devon)	2270' FSL & 840' FEL Sec. 34-18S-31E	6/28/93	8/19/93	Oil	4500' TD 4427' PBTD TOC @ surface	8 5/8" csg @ 965' (480 sx cm) 5 1/2" @ 4500' (1110 sx cm) Perf'd 3765' -3844' (34 perfs)
East Shugart Unit #38 (Devon)	1060' FSL & 2430 FEL Sec. 34-18S-31E	7/11/93	9/15/93	Oil	4500' TD 4463' PBTD TOC @ surface	8 5/8" csg @ 972' (480 sx cm) 5 1/2" csg @ 4478' (970 sx cm) Perf'd 3740' -48', 3757' -61', (14 holes, sqzd), 3816' -22', 3830' -40' (34 holes) 0.40 EHD.
East Shugart Unit #40 (Devon)	1650' FNL & 840' FEL Sec. 34-18S-31E	11/20/93	7/20/94	Oil	4013' TD 3883' PBTD TOC @ surface	8 5/8" csg @ 973' (478 sx cm) 5 1/2" csg @ 4009' (1113 sx cm) Perf'd 2736' -52' (17 holes, 0.40 EHD), 3651' -70' (20 holes), 3766' -81' (8 holes, 0.52 EHD), 3822' -25' (14 holes, 0.52 EHD), 3840' -53' (14 holes, 0.52 EHD)

ATTACHMENT VI for ESU four well expansion (listing TOC for ESU wells previously listed)

WELL NAME	LOCATION	SPUD DATE	COMPLETION DATE	TYPE OF WELL	DEPTH/PBTD	COMPLETION RECORD
East Shugart Unit #41 (Devon)	1650' FNL & 2210' FEL Sec. 34-18S-31E	12/2/93	5/28/94	Oil	3990' TD 3936' PBTD TOC @ surface	8 5/8" csg @ 973' (478 sx cm) 5 1/2" csg @ 3989' (978 sx cm) Perf'd 3760'-61', 3763'-65', 3816'-20', 3826'-35' (29 holes, 0.40" EHD) and 3634'-3650' (17 holes, 0.40" EHD)
East Shugart Unit #42 (Devon)	330' FNL & 1140' FEL Sec. 34-18S-31E	12/16/93	7/5/94 (SI)	Oil	4009' TD 3950' PBTD TOC @ surface	8 5/8" csg @ 955' (478 sx cm) 5 1/2" csg @ 4009' (889 sx cm) Perf'd 3641'-3658' w/ 1 SPF, 3758'-64', 3802'-04', 3809'-12' w/2 SPF (0.52" EHD). NOTE: Waiting on approval to convert to WIW
East Shugart Unit #43 (Devon)	630' FNL & 2310' FEL Sec. 34-18S-31E	1/2/94	3/25/94	Oil	3960' TD 3900' PBTD TOC @ surface	8 5/8" csg @ 975' (478 sx cm) 5 1/2" csg @ 3959' (950 sx cm) Perf'd 3734'-39' (11 holes), 3780' (1 hole), 3784'91' (16 holes), 3797'-3801' (5 holes), and 2664'74' (11 holes) 0.40 EHD
East Shugart Unit #44 (Devon)	990' FNL & 990' FWL Sec. 35-18S-31E	11/9/93	1/10/94	Oil	4025' TD 3958' PBTD TOC @ surface	8 5/8" csg @ 956' (478 sx cm) 5 1/2" csg @ 4025' (916 sx cm) Perf'd 3842'-51' (19 holes), 3858'-70' (25 holes) and 3794'- 3800' (7 holes).