NMOCD
UNORTHODOX LOCATION HEARING
ENRON OIL & GAS, CEDAR LAKE "35" FED. COM. NO. 2
990' FSL & 990' FEL, SECTION 35-17S-30E
EDDY COUNTY, NEW MEXICO

ENRON OIL & GAS COMPANY TESTIMONY OF THE LOWER MORROW "ARNOLD" SAND RESERVOIR SIZE

"Arnold" Sand Planimeter Results:

	ACRES	AC-FT
Total Reservoir	532.9	17,677

Volumetric Calculation:

Porosity - 10% SW = 25% Bgi = $\frac{5,090 \times 520}{15.02 \times 0.98 \times 631} = 285$

OGIP MCF/ac-ft = 43.56 x .10 x. 75 x 285 = 931.1 MCF/ac-ft

OGIP of Planimetered Volume = 931.1 MCF/ac-ft x 17,677 ac-ft = 16,458,966 MCF

OGIP by P/z vs Production Plot = 16,700,000 MCF

The "Arnold" sand map accurately depicts the reservoir size and extent.

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
Enron EXHIBIT NO. 10
CASE NO. 10827

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MEWBOURNE, CEDAR BREAKS "2" STATE NO. 2
PRODUCTION VOLUMES AND "CEDAR LAKE" SAND RESERVOIR SIZE

Cedar Breaks "2" State No. 2 Production:

MO - YR	MCF	BC	YIELD BC/MMCF	CUMULATIVE MCF	CUMULATIVE BC	SOURCE
4-93	24,248	990	41	24,248	990	C-112 + Compl. Report
5-93	150,920	7,404	49	175,168	8,394	C-115
6-93	112,606	4,076	36	287,774	12,470	C-115
7-93	108,648	3,097	28	396,422	15,567	C-115
8-93	155,638	3,891	25	552,060	19,458	C-112
9-93	250,000 est	6,250	25	802,060	25,708	Compl. Report Estimate

Estimated EUR: 3,300 MMCF + 88,000 BC at 70% annual decline.

Volumetric Calculation: $\emptyset$ = 12% SW = 14% Bgi = $\frac{5,229 \times 520}{15.02 \times 1.06 \times 630} = 271$

OGIP MCF/ac ft = 43.56 X .12 X .86 X 271 = 1,218.3 MCF/ac ft

Planimeter Results	Acres	Acre - Ft.	OGIP MMCF	RGIP @ 700 psig
Section 2	265.8	2,674	3,258	2,737
Section 35	277.4	2,490	3,034	2,549
Section 1	34.8	146	178	150
Section 36	46.5	202	246	207
Total Reservoir	624.5	5,512	6,716	5,643

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Conclusion:

The proposed location most likely will not encounter the "Arnold" Morrow sand that produces in the Enron, Cedar Lake "35" Fed. Com. No. 1 (N/2 Sec 35).

The Cedar Lake sand trends north-south and has produced 802 MMCF + 26 MBL in the Mewbourne, Cedar Breaks "2" State No. 2. The reservoir contains approximately 5,643 MMCF of recoverable gas from 5,512 acre feet. Well control and well performance support the reservoir size and trend.

The "Cedar Lake" Morrow sand's productive acres and acre feet are split almost equally between Sections 35 and 2. Sections 1 and 36 have a minor amount of the sand.

Reasoning For No Penalty Assessment:

The Mewbourne, Cedar Breaks "2" State No. 2 has gained thicker sand advantage due to its unorthodox location 990' FNL of Section 2 and is producing wide open without penalty. Assuming Enron successfully completes its well in January 1994, Mewbourne will have produced approximately 1,400 MMCF leaving approximately 4,200 MMCF to be produced equally or 2,100 MMCF for Enron, et al. This scenario shows that Enron cannot recover its share of the reserves (2,549 MMCF) even if not penalized.

Any penalty on production will deny Enron, et al the opportunity to recover its reserves and will not protect correlative rights.

DRILLING REPORT
CEDAR BREAKS "2" STATE #2

1- 4" GUN BULL PLUG	0.80'
1- 4" PERFORATIGN GUN LOADED 4 SPF	22.00'
1- 3 3/8" FIRING HEAD	1.41'
1- 2 3/8" TBG SUB W/1.56" NO-GO	4.10'
1- 2 3/8" N-80 EUE 8RD TBG SUB	9.87'
1- 2 3/8" X 2 7/8" CROSS-OVER	0.34'
1JT- 2 7/8" N-80 EUE 8RD TBG	33.07'
1- 2 7/8" MECHANICAL RELEASE W/ 2.124" LATCH	1.67'
1JT- 2 7/8" N-80 EUE 8RD TBG	33.09'
1- 2 7/8" MAXIMUM DIFFERENTIAL VENT	2.40'
1JT- 2 7/8" N-80 EUE 8RD TBG	27.41'
1- 2 7/8" "XN" NIPPLE W/2.313" ID AND 2.205" NO-GO	1.28'
1- 2 7/8" N-80 EUE 8RD TBG SUB	10.02'
1- 2 7/8" X 5 1/2" OTIS PERMA-LATCH PACKER W/ 40K SHEAR AND 10K ELEMENTS	4.05'
1- 2 7/8" X 5 1/2" ON-OFF TOOL W/ 2.313" ID "X" PROFILE	1.25'
1JT- 2 7/8" N-80 EUE 8RD TBG	33.15'
1- 2 7/8" N-80 EUE 8RD TBG SUB S/RA MARKER	4.20'
346 JTS - 2 7/8" N-80 EUE 8RD TBG	11080.29'
4- 2 7/8" N-80 EUE 8RD TBG SUBS (10.25', 8.26', 6.06', 2.18')	26.75'
1 JT- 2 7/8" N-80 EUE 8RD TBG	32.65'
TOTAL TBG	11329.80'
KB CORR	13.00'
TBG SETTING	11342.80'

GUNS POSITIONED TO PERFORATE LOWER MORROW ORANGE SAND FROM 11320'-11342' W/4 SPF FOR A TOTAL OF 80 HOLES. RD HLS. SET PACKER WITH 5 PTS COMPRESSION. RD BOP. FLANGED UP TREE. TESTED TREE TO 7000#. HELD OK. DROPPED TUBE TO OPEN VENT. VENT OPENED IN 40 SECONDS. PACKER TESTED OK. SHUT WELL IN AND SDFD AT 6:30 PM.
DC: $20800 TWC: $72400

04-27-93 DROPPED DETONATING BAR. GUNS FIRED IN 35 SECONDS. HAD GAS TO SURFACE IN 3 MINUTES WITH 1500#. CLEANED WELL UP TO PIT IN 2 HOURS AND HAD 3500# FTP ON 12/64" CHOKE. EST GAS RATE OF 3.0 MMCFPD. UNLOADING SLUGS OF CONDENSATE. RDMO WELL SERVICE UNIT. SHUT WELL IN TO TIE IN PIPELINE. SITP: 3700# T.O. FOR FIRST GAS SALES TO TRANSWESTERN PIPELINE CO. @ 2:15 pm 4/26/93 @ RATE OF 4000 MCF/DAY & 3525# FTP ON A 14/64" CHOKE.
DC: $900 TC: $73300

04-28-93 162 BO 0 BW 3415 MCF 3560# FTP 15/64" CHOKE 16 HR PROD.

04-29-93 231 BO 0 BW 5091 MCF 3550# FTP 15/64" CHOKE.

04-30-93 286 BO 0 BW 5474 MCF 3525# FTP 15/64" CHOKE.

05-01-93 311 BO 0 BW 5500 MCF 3500# FTP 15/64" CHOKE.

05-02-93 255 BO 0 BW 5500 MCF 3350# FTP 14/64" CHOKE. FIRST FLASH GAS SALES TO CONOCO GAS CO. 10:00 AM.

05-03-93 327 BO 0 BW 5333 MCF 3300# FTP 14/64" CHOKE. 111 MCF FLASH.

05-04-93 267 BO 0 BW 5261 MCF 3350# FTP 14/64" CHOKE 111 MCF FLASH.

05-05-93 266 BO 0 BW 5501 MCF 3350# FTP 14/64" CHOKE 152 MCF FLASH.

DRILLING REPORT
CEDAR BREAKS "2" STATE #2

05-06-93 261 BO 0 BW 5511 MCF 3320# FTP 14/64 CHOKE 138 MCF FLASH

05-07-93 286 BO 0 BW 5410 MCF 3250# FTP 14/64" CHOKE 138 MCF FLASH.

05-08-93 311 BO 0 BW 5400 MCF 14/64 CHOKE 3210# FTP 138 MCF FLASH.

05-09-93 327 BO 0 BW 5462 MCF 14/64 CHOKE 3175# FTP 141 MCF FLASH.

05-10-93 258 BO 0 BW 5286 MCF 14/64 CHOKE 3150# FTP 141 MCF FLASH.

05-11-93 320 BO O BW 5170 MCF 14/61 CHOKE 3075# FTP 141 MCF FLASH.

05-12-93 211 BO 0 BW 5109 MCF 11/61 CHOKE 3050# FTP 141 MCF FLASH.

05-13-93 277 BO 0 BW 5069 MCF 14/64 CHOKE 3010# FTP 141 FLASH GAS.

05-14-93 222 BO 0 BW 5508 MCF 11/64 CHOKE 3000# FTP 138 MCF FLASH.

05-15-93 258 BO 0 VW 4968 MCF 14/64 CHOKE 2950# FTP 121 MCF FLASH.

05-16-93 236 BO 0 BW 4948 MCF 14/64 CHOKE 2940# FTP 121 MCF FLASH.

05-17-93 202 BO 0 BW 4467 MCF 14/64 CHOKE 2940# FTP 110 MF FLASH. TRASH IN CHOKE.

05-18-93 238 BO 0 BW 4846 MCF 14/64 CHOKE 2900# FTP 133 MCF FLASH.

05-19-93 225 BO 0 BW 4885 MCF 14/64 CHOKE 2900# FTP 94 MCF FLASH.

05-20-93 236 BO 0 BW 4867 MCF 14/64 CHOKE 2880# FTP 90 MCF FLASH.

05-21-93 208 BO 0 BW 4838 MCF 14/64 CHOKE 2850# FTP 90 MCF FLASH.

05-22-93 242 BO 0 BW 4803 MCF 14/64 CHOKE 2800# FTP 90 MCF FLASH.

05-23-93 194 BO 0 BW 4852 MCF 14/64 CHOKE 2780# FTP 90 MCF FLASH.

05-24-93 204 BO 0 BW 4834 MCF 14/64 CHOKE 2750# CHOKE 90 MCF FLASH.

05-25-93 186 BO 0 BW 4919 MCF 14/64 CHOKE 2740# FTP 80 MCF FLASH.

05-26-93 204 BO 0 BW 4781 MCF 14/64 CHOKE 2725# FTP 40 MCF FLASH.

05-27-93 190 BO 0 BW 4666 MCF 14/64 CHOKE 2700# FTP 48 MCF FLASH.

05-28-93 206 BO 0 BW 4599 MCF 2680 # FTP 60 MCF FLASH GAS.

05-29-93 206 BO 0 BW 4599 MCF 2680# FTP 14/64 CHOKE 60 MCF FLASH.

05-30-93 231 BO 0 BW 4470 MCF 14/64 CHOKE 2640# FTP 47 MCF FLASH.

05-31-93 202 BO 0 BW 4471 MCF 14/64 CHOKE 2625# FTP 48 MCF FLASH.

06-01-93 174 BO O BW 4515 MCF 14/64 CHOKE 2610# FTP 44 MCF FLASH. WELL STABILIED. DROP FROM REPORT.

9-01-93 116 BO 3 BW 9333 MCF 1150# FTP 36/64" CHOKE.

9-16-93 Field Check 8550 MCF 780# FTP 64/64" choke.