

Monthly Production
Section 9 Chi Operating Wells
East Catclaw Draw (Delaware) Pool

	Chi Operating Hondo Federal #2			Chi Operating Hondo Federal #3			Chi Operating Oxy State #1			Chi Operating Oxy State #2			Chi Operating Wiser State #1			Chi Operating Wiser State #2			Chi Operating Wiser State #3			Chi Operating Wells Total		
	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR
Jul-90							456	0	0										456	0	0			
Aug-90							668	0	0										668	0	0			
Sep-90							1054	3500	3321				885	2015	2277	688	1395	2028	1054	3500	3321			
Oct-90							868	2653	3056				675	1537	2277	395	965	2443	2441	6063	2484			
Nov-90							503	1526	3034				505	4185	8287	824	1650	2002	1573	4028	2561			
Dec-90							494	2837	5743				2050	4765	2324	1798	4974	2766	1823	8672	4757			
Jan-91							2285	4890	2140				1238	4312	3483	2019	3326	1647	6133	14629	2385			
Feb-91				1975	3620	1833	1584	3160	1995				1006	2265	2251	1095	3675	3356	6816	14418	2115			
Mar-91				1639	4370	2666	1345	1975	1468				1089	2921	2682	1180	2030	1720	5085	12285	2416			
Apr-91				2356	2250	955	1295	1925	1486				702	4675	6660	931	4370	4694	5920	9126	1542			
May-91				2005	960	479	1111	4621	4159				1236	4592	3715	1435	4172	2907	4749	14626	3080			
Jun-91	218	579	2656	1066	1495	1402	1146	4539	3961				779	5735	7362	1023	4965	4853	5101	21117	4140			
Jul-91	1321	899	681	1953	2690	1377	1008	4896	4857				581	4847	8343	661	4137	6259	6952	25600	3682			
Aug-91	1359	2001	1472	2039	6003	2944	776	3594	4631				655	4530	6916	950	3418	3598	6177	24339	3940			
Sep-91	2271	4655	2050	2940	7278	2476	996	3317	3330				625	4385	7016	392	4075	10395	8333	27729	3328			
Oct-91	2387	5115	2143	2731	6613	2421	852	3170	3721				641	4050	6318	295	2329	7895	943	3463	3672			
Nov-91	1962	5047	2572	2310	6625	2868	836	2737	3274				571	3875	6786	434	1601	3689	853	3325	3898			
Dec-91	1653	4712	2851	2418	5756	2380	757	2325	3071				835	3723	4459	996	3420	3434	899	1674	1862			
Jan-92	189	1150	6085	264	2133	8080	880	2470	2807				822	4205	5116	975	3275	3359	468	2945	6293			
Feb-92	1352	1247	922	1984	2775	1399	808	2755	3410	86	1126	13093	946	3121	3299	920	2544	2765	390	2280	5846			
Mar-92	1795	2443	1361	2294	4875	2125	705	1975	2801	138	1060	7681	995	3915	3935	840	2670	3179	309	1767	5718			
Apr-92	1232	4426	3593	2160	4745	2197	587	2640	3843	187	1230	6578	925	1475	1595	557	1079	1937	398	2032	5106			
May-92	1477	2040	1381	2108	2325	1103	588	875	1488	289	497	1720	925	1475	1595	563	2265	4023	589	950	1613			
Jun-92	1023	4229	4134	1875	4645	2477	515	2325	4515	284	1085	3820	825	3750	4545	563	2265	4023	532	1574	2959			
Jul-92	1340	3596	2684	1448	4185	2890	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Aug-92	1234	3310	2682	1393	3735	2681	495	1878	3794	435	1735	3989	770	1980	2571	617	1880	3047	448	2036	4545			
Sep-92	1170	3954	3379	1260	4740	3762	479	978	2042	376	840	2234	625	1350	2160	735	1170	1592	527	857	1626			
Oct-92	996	1544	1550	1267	2132	1683	715	1275	1783	539	750	1391	503	1215	2416	574	1052	1833	434	848	1954			
Nov-92	852	1606	1885	1083	2042	1886	773	1421	1838	516	1028	1992	540	1444	2674	570	1215	2132	270	835	3093			
Dec-92	725	730	1007	198	206	1040	782	1490	1905	564	1075	1906	0	0	0	646	1079	1670	317	742	2341			

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	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR	OIL	GAS	GOR
Jan-93	725	730	1007	198	206	1040	782	1490	1905	564	1075	1906	540	1444	2674	646	1079	1670	317	742	2341	3772	6766	1794
Feb-93	145	160	1103	1146	328	286	1377	1755	1275	0	0	0	348	713	2049	415	851	2051	203	415	2044	3634	4222	1162
Mar-93	141	158	1121	2948	3172	1076	1610	2826	1755	0	0	0	416	732	1760	497	873	1757	244	427	1750	5856	8188	1398
Apr-93	138	155	1123	2964	3316	1119	1329	2899	2181				343	747	2178	411	896	2180	203	442	2177	5388	8455	1569
May-93	63	98	1556	2030	2425	1195	1340	1704	1272				352	694	1972	455	980	2154	222	408	1838	4462	6309	1414
Jun-93	25	152	6080	3082	4915	1595	1130	1563	1383				429	851	1984	547	1272	2325	184	270	1467	5397	9023	1672
Jul-93	59	357	6051	2168	7475	3448	1104	2207	1999				434	1450	3341	795	2086	2624	71	228	3211	4631	13803	2981
Aug-93	28	327	11679	2457	6069	2470	1387	2182	1573				202	1603	7936	693	2029	2928	22	47	2136	4789	12257	2559
Sep-93	14	125	8929	2269	7819	3446	1068	2547	2385				315	1045	3317	1107	3218	2907	10	32	3200	4783	14786	3091
Oct-93	7	107	15286	2320	11140	4802	983	3263	3319				215	912	4242	988	5115	5177	4	12	3000	4517	20549	4549
Nov-93	12	75	6250	2078	7831	3769	801	2417	3017				288	676	2347	1139	3790	3327	28	9	321	4346	14798	3405
Dec-93	13	70	5385	2252	7353	3265	1018	2631	2584				282	735	2606	1116	4125	3696	27	10	370	4708	14924	3170
Jan-94	172	533	3099	1550	4795	3094	939	3176	3382				198	672	3394				67	224	3343	2926	9400	3213
Feb-94	170	523	3076	1532	4706	3072	746	1801	2414				158	381	2411				52	127	2442	2658	7538	2836
Mar-94				1805	5606	3106	969	3477	3588				205	735	3585				68	245	3603	3047	10063	3303
Apr-94				1473	4324	2936	814	3026	3717				172	640	3721				57	213	3737	2516	8203	3260
May-94				1466	3976	2712	824	3636	4413				175	769	4394				58	256	4414	2523	8637	3423
Jun-94				1066	2495	2341	383	1254	3274				183	564	3092				62	188	3032	1694	4501	2657
Jul-94				0	0	0	0	0	0				0	0	0				0	0	0	0	0	0
Aug-94				1905	5407	2838	588	1612	2741				264	725	2746				88	242	2750	2845	7986	2807
Sep-94				1531	4937	3225	515	1486	2885				232	669	2884				78	223	2859	2356	7315	3105
Oct-94				1551	4762	3070	590	1644	2786				266	740	2782				88	247	2807	2495	7393	2963
Nov-94				1624	3385	2084	561	1391	2480				253	626	2474				84	209	2488	2522	5611	2225
Dec-94				2129	5788	2719	462	1467	3175				208	660	3173				69	220	3188	2868	8135	2836
Cumulative	26268	56853	2164	84310	198428	2354	46781	123201	2634	3978	11501	2891	27502	103650	3769	30922	95045	3074	11833	51207	4327	231594	639885	2763

**EFFECT OF GAS/OIL RATIO ON RECOVERY
FROM SOLUTION GAS DRIVE RESERVOIRS**

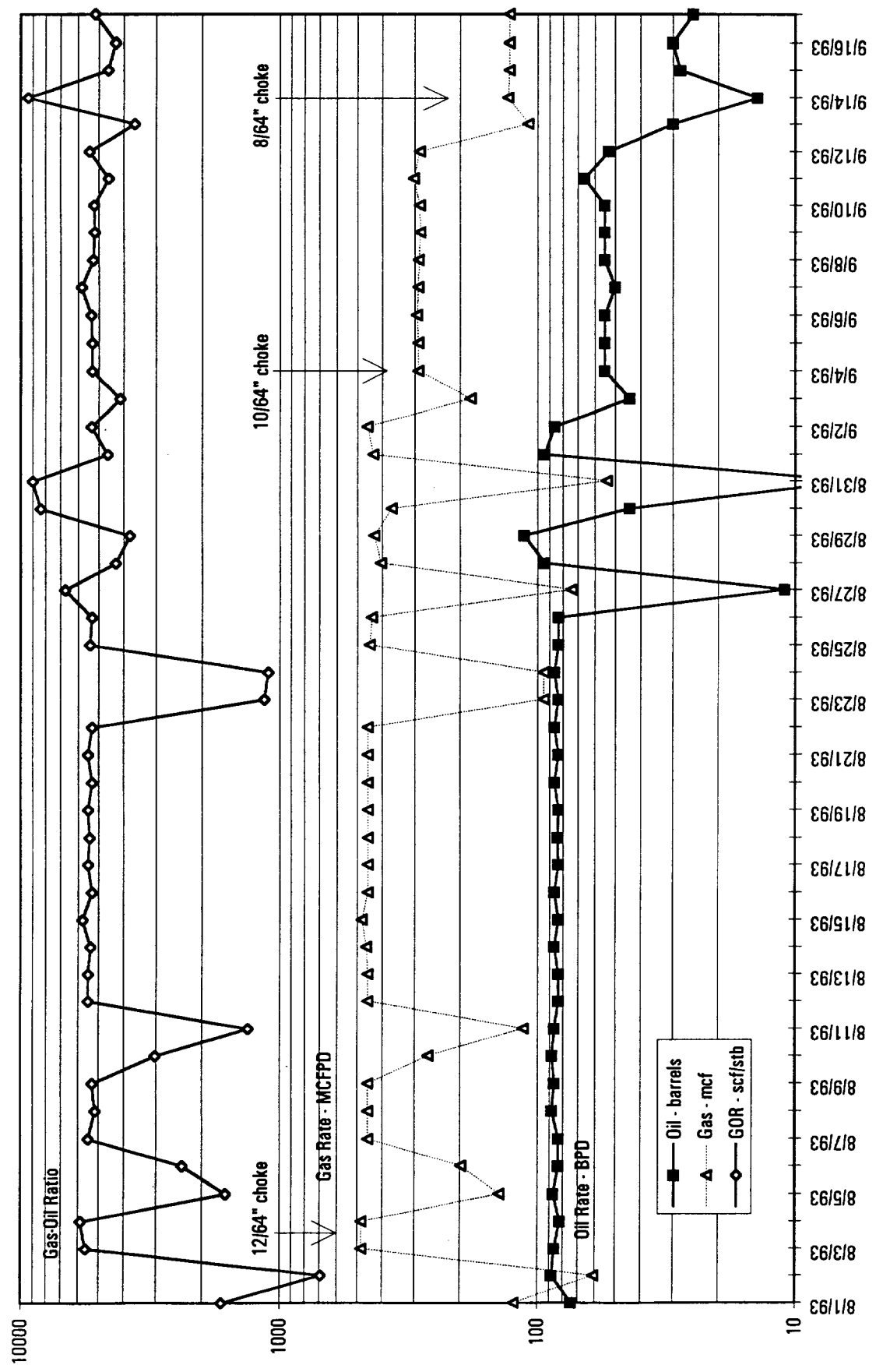
$$r = \frac{N_p}{N} = \frac{B_o - B_{oi} + B_g(R_{si} - R_s)}{B_o - B_g(R_p - R_s)} \quad \text{Equation 3.14}$$

Applied Petroleum Reservoir Engineering
by Craft and Hawkins

where r = fractional recovery of oil-in-place
 N_p = cumulative oil produced
 N = initial oil in place
 B_o = oil formation volume factor
 B_{oi} = initial oil formation volume factor
 B_g = gas formation volume factor
 R_{si} = initial solution gas-oil ratio
 R_s = solution gas-oil ratio
 R_p = cumulative produced gas-oil ratio

"An inspection of Eq. 3.14 indicates that all of the terms except the produced gas-oil ratio, R_p , are functions of pressure only, and are the properties of the reservoir fluid. As the nature of the fluid is fixed, it follows that the fractional recovery, r , is fixed by the PVT properties of the reservoir fluid and the produced gas-oil ratio."

CACTUS STATE #1



DEVON ENERGY

Cactus State No.2

RFLM 94010

SUMMARY OF PVT DATA

Reported Reservoir Conditions

Average Reservoir Pressure	1282	psig
Average Reservoir Temperature	85	°F

Pressure-Volume Relations

Saturation Pressure	1277	psig
Avg Single-Phase Compressibility	7.69	E-6 v/v/psl (5000 to 1277 psig)
Thermal Exp @ 5000 psig	1.00810	V at 85 °F / V at 70 °F

Differential Vaporization Data (at 1277 psig and 85 °F)

Solution Gas/Oil Ratio	512	scf / bbl of residual oil at 60 °F
Relative Oil Volume	1.249	bbl / bbl of residual oil at 60 °F
Density of Reservoir Fluid	0.7508	gm/cc

Reservoir Fluid Viscosity

0.701 cp at 1277 psig and 85 °F

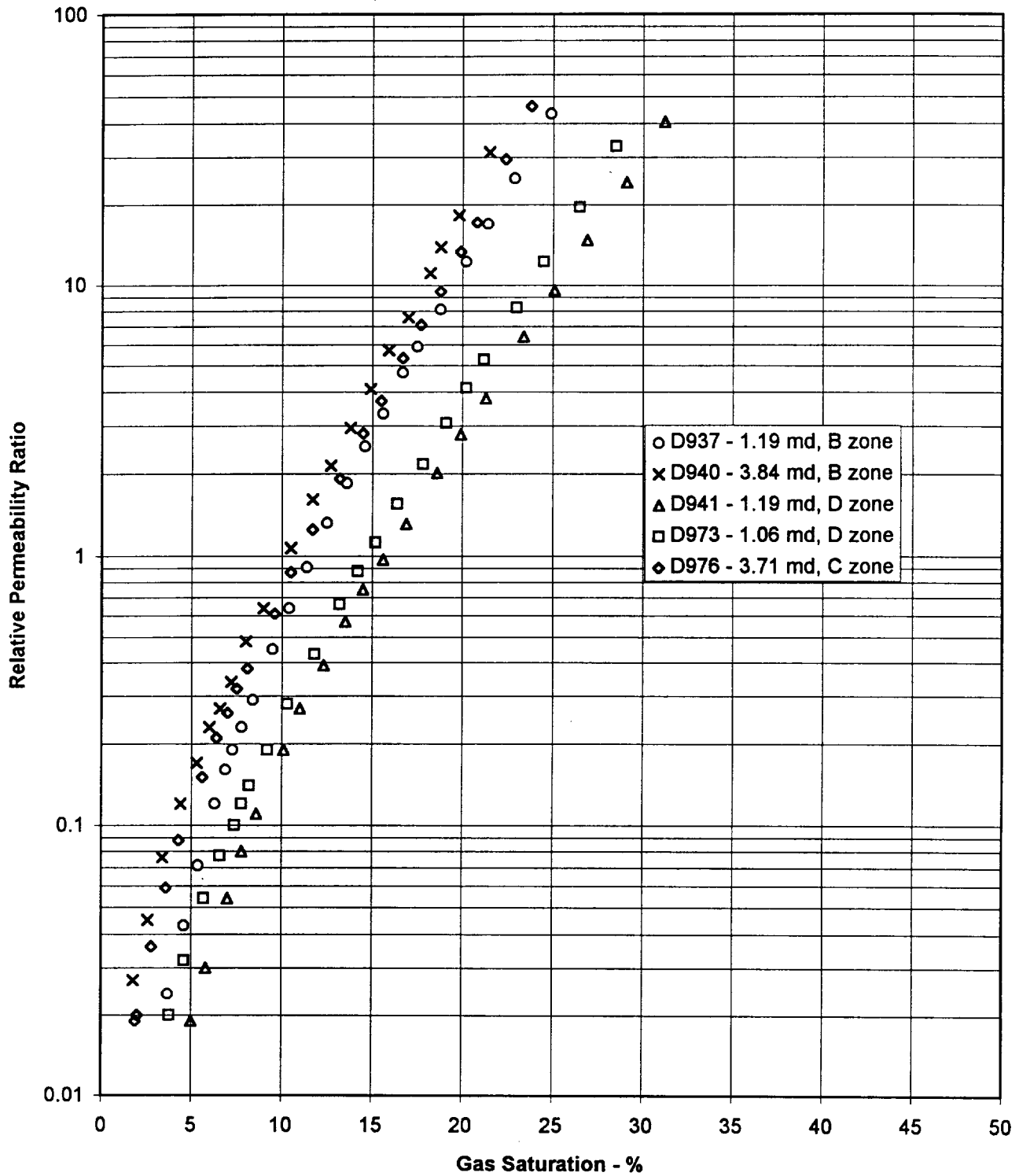
Separator Test Results

Separator Conditions		Formation Volume Factor (A)	Total Solution Gas/Oil Ratio (B)	Tank Oil Gravity (°API at 60 °F)
psig	°F			
35	71	1.245	508	40.5

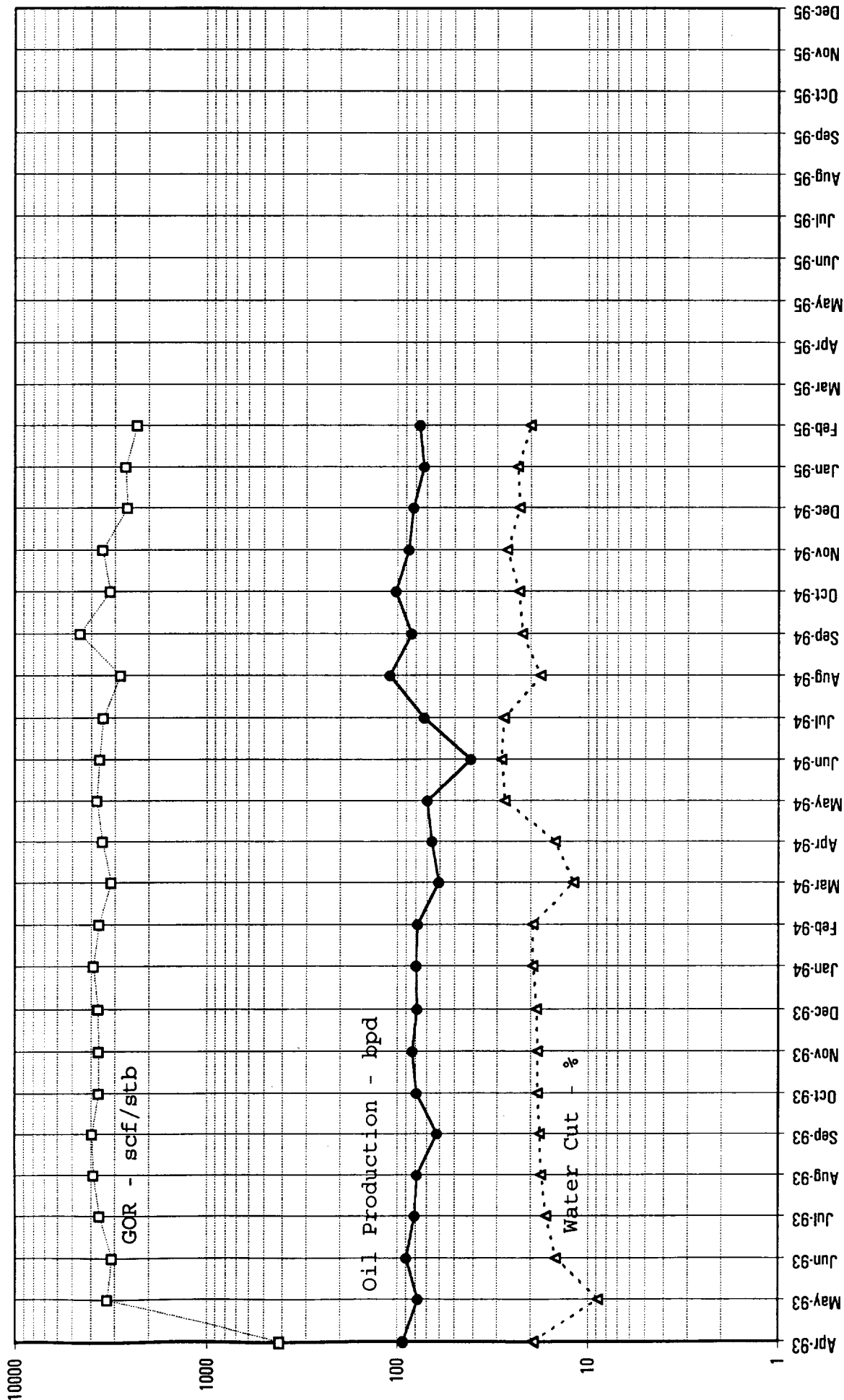
(A) Barrels of saturated oil per barrel of stock tank oil at 60 °F.

(B) Total standard cubic feet of gas per barrel of stock tank oil at 60 °F.

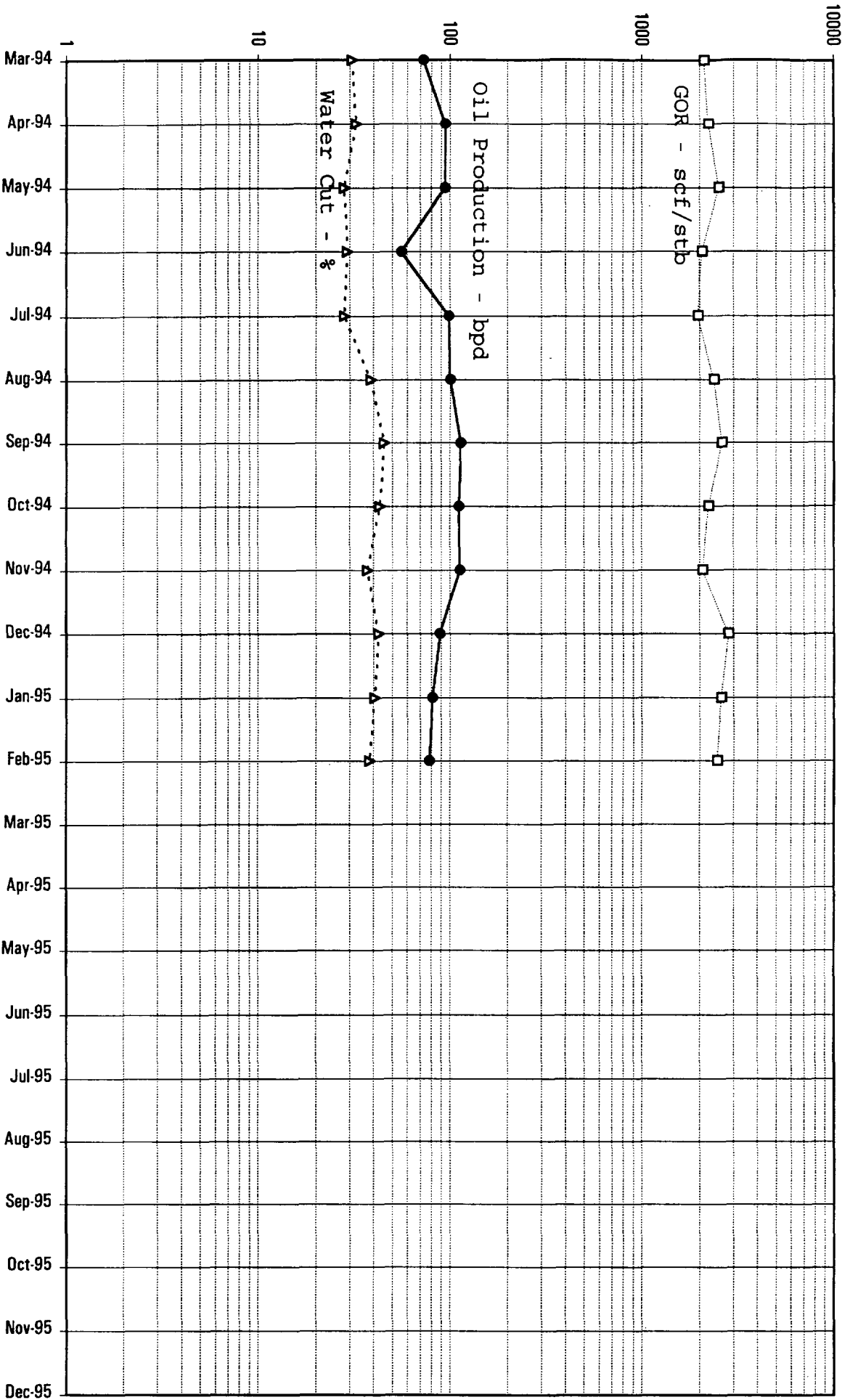
**CACTUS STATE #3
GAS-OIL RELATIVE PERMEABILITY**



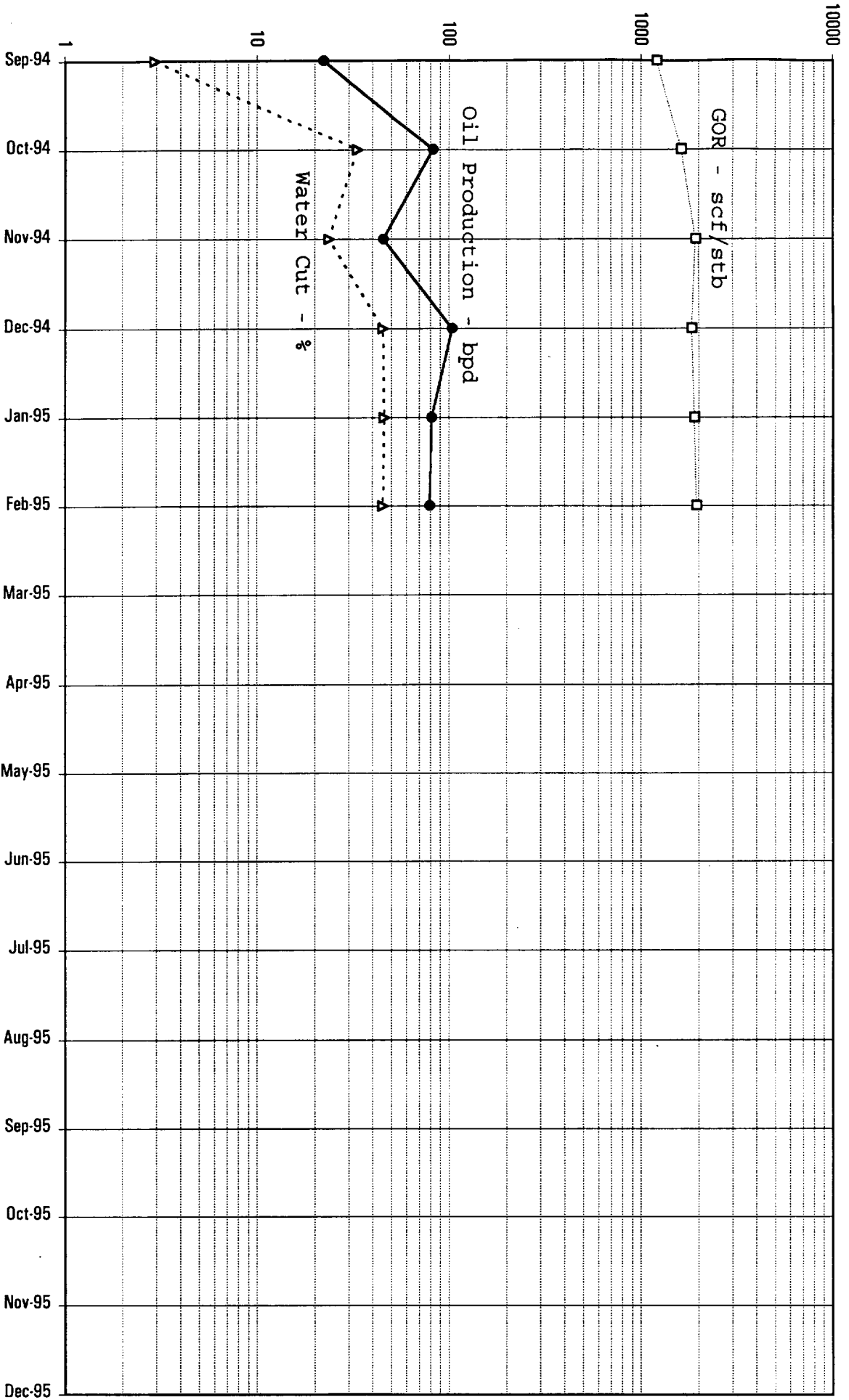
CACTUS STATE #1



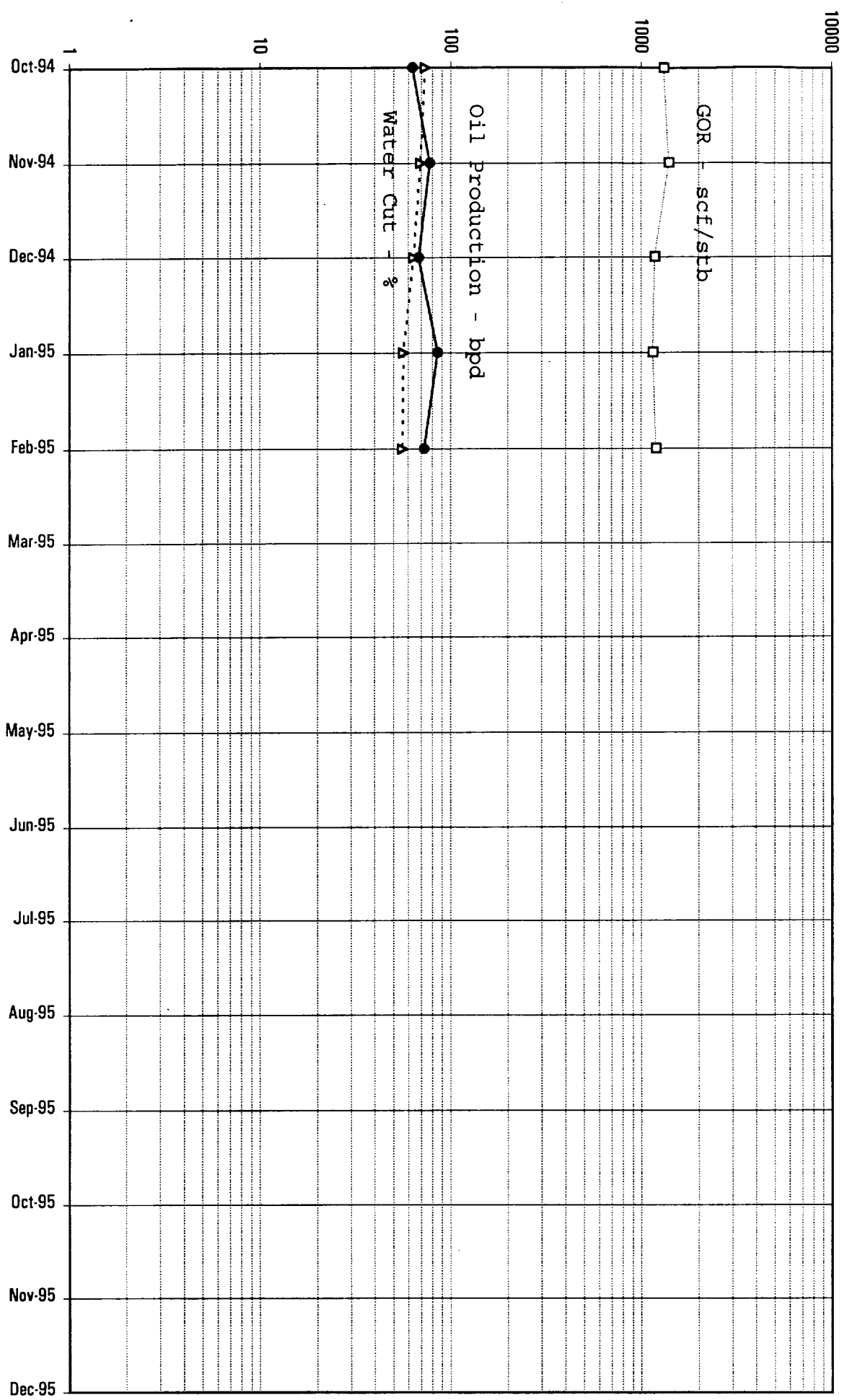
CACTUS STATE #2



CACTUS STATE #3



CACTUS STATE #4



Case No. 10746

Devon Energy Corporation Exhibit No. 10

May 18, 1995

SUMMARY

At the request of Devon Energy Corporation (Devon), a simulation of natural depletion from a typical well spacing unit in East Catclaw Draw (Delaware) field has been performed. All data necessary to initialize the simulator was either supplied or specified by Devon. The results of two simulation cases, one constrained by a maximum oil rate and minimum flowing bottom hole pressure, and a second constrained by a maximum gas rate and minimum flowing bottom hole pressure, are presented. These results show that while oil and gas recovery rates differed depending on which phase was constrained, the cumulative volumes of oil and gas recovered during the simulated period (16 years) were little affected. Table 1 quantifies the recovery comparison.

TABLE 1
SIMULATION RESULTS SUMMARY

CONSTRAINING CONDITION		CUMULATIVE VOLUME RECOVERED	
PHASE	RATE	OIL	GAS
Oil	80 stbd	72,340 stb	535 MMcf
Gas	160 Mcfd	72,050 stb	525 MMcf

It is emphasized that both cases were eventually constrained by an assumed flowing bottom hole pressure of 200 psig. The simulations did not account for wellbore pressure losses due to multi-phase flow in the tubing or artificial lift.

CONCLUSIONS

On the basis of the simulations described in this report, the following conclusions are drawn:

1. Primary production rate constraints of 80 stbd oil or 160 Mscfd gas yielded essentially the same cumulative volumes of oil and gas recovery to the end of the 16 year simulation period.
2. The rates of oil and gas recovery are accelerated when the constraining phase is oil at the rate of 80 stbd as compared to a gas constraining rate of 160 MMscfd.

FIGURE 6

One Well Natural Depletion Simulation
40 acre S.U. - Case 1 (oil constrained)

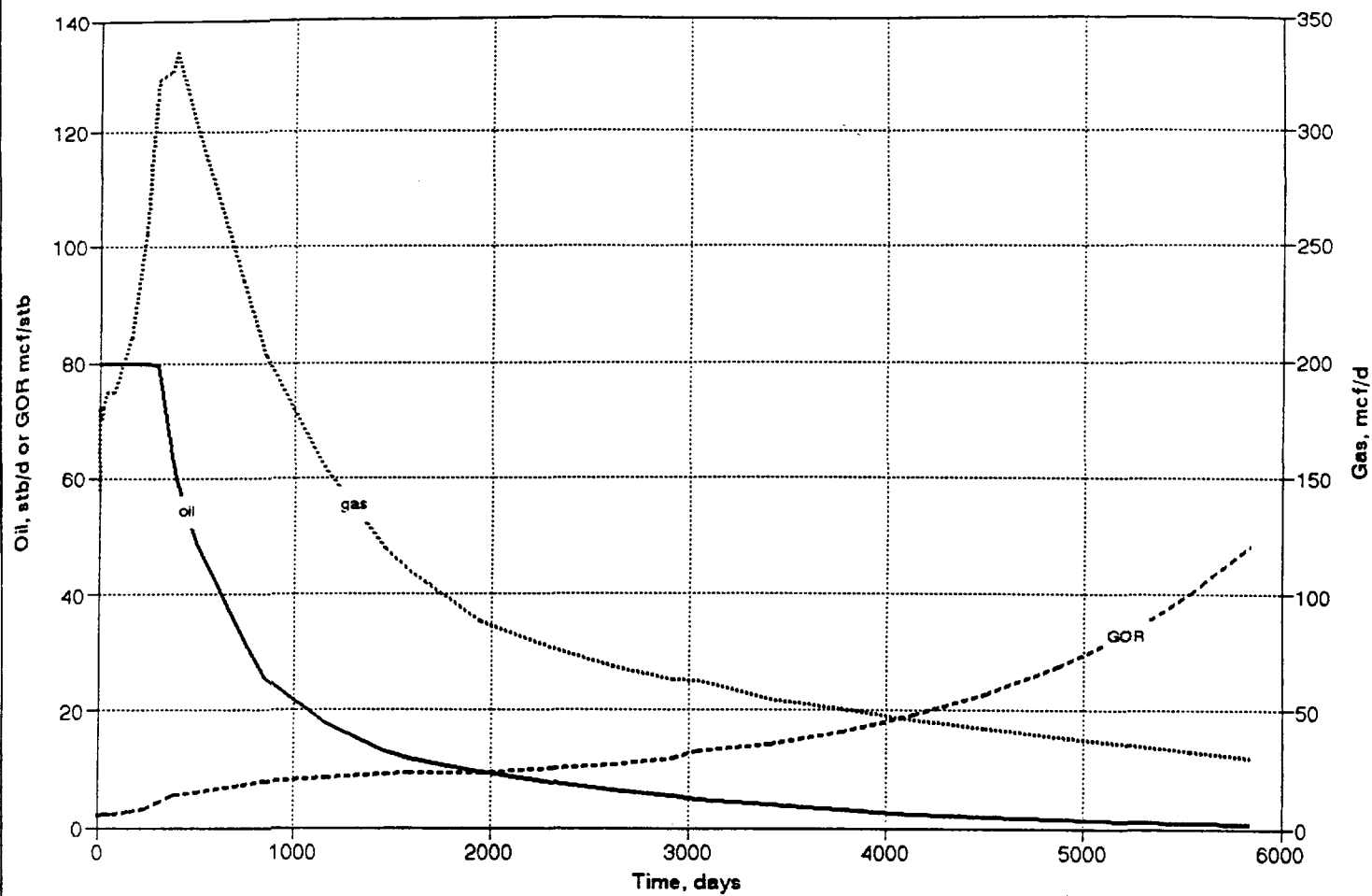


FIGURE 7

One Well Natural Depletion Simulation
40 acre S.U. - Case 2 (gas constrained)

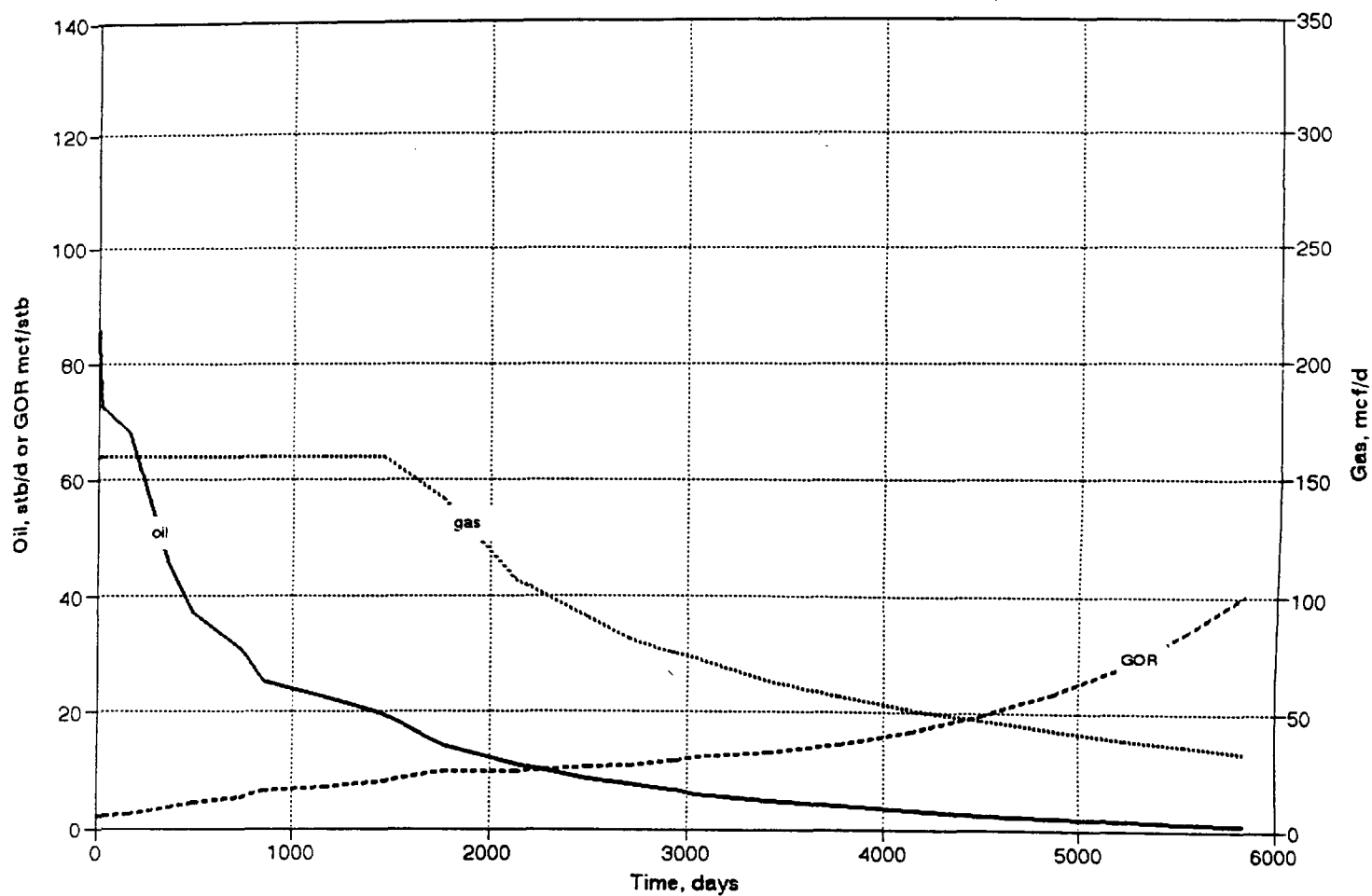


FIGURE 8

One Well Natural Depletion Simulation
40 acre S.U. - Cumulative Oil Recovery

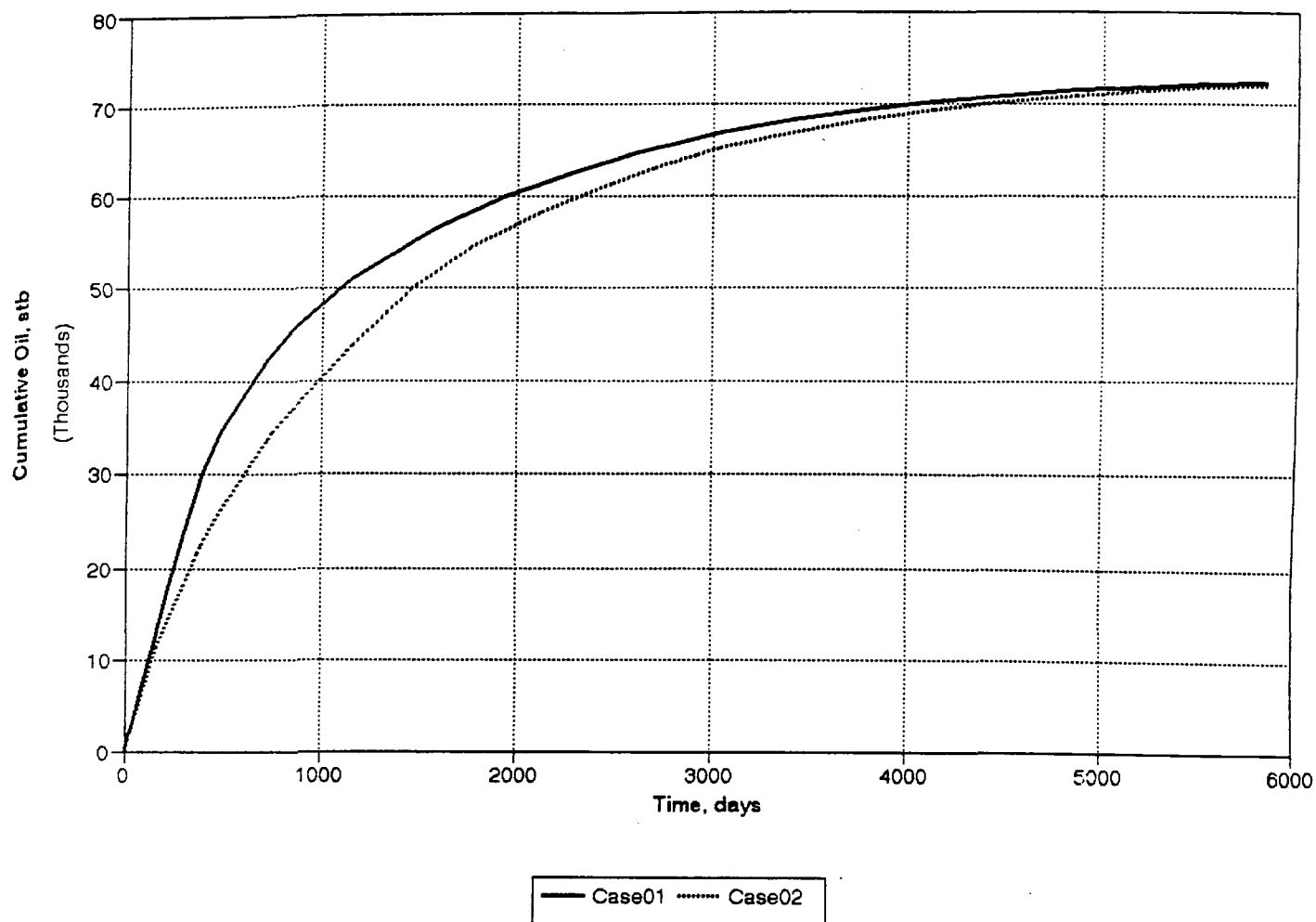


FIGURE 9

One Well Natural Depletion Simulation
40 acre S.U. - Cumulative Gas Recovery

