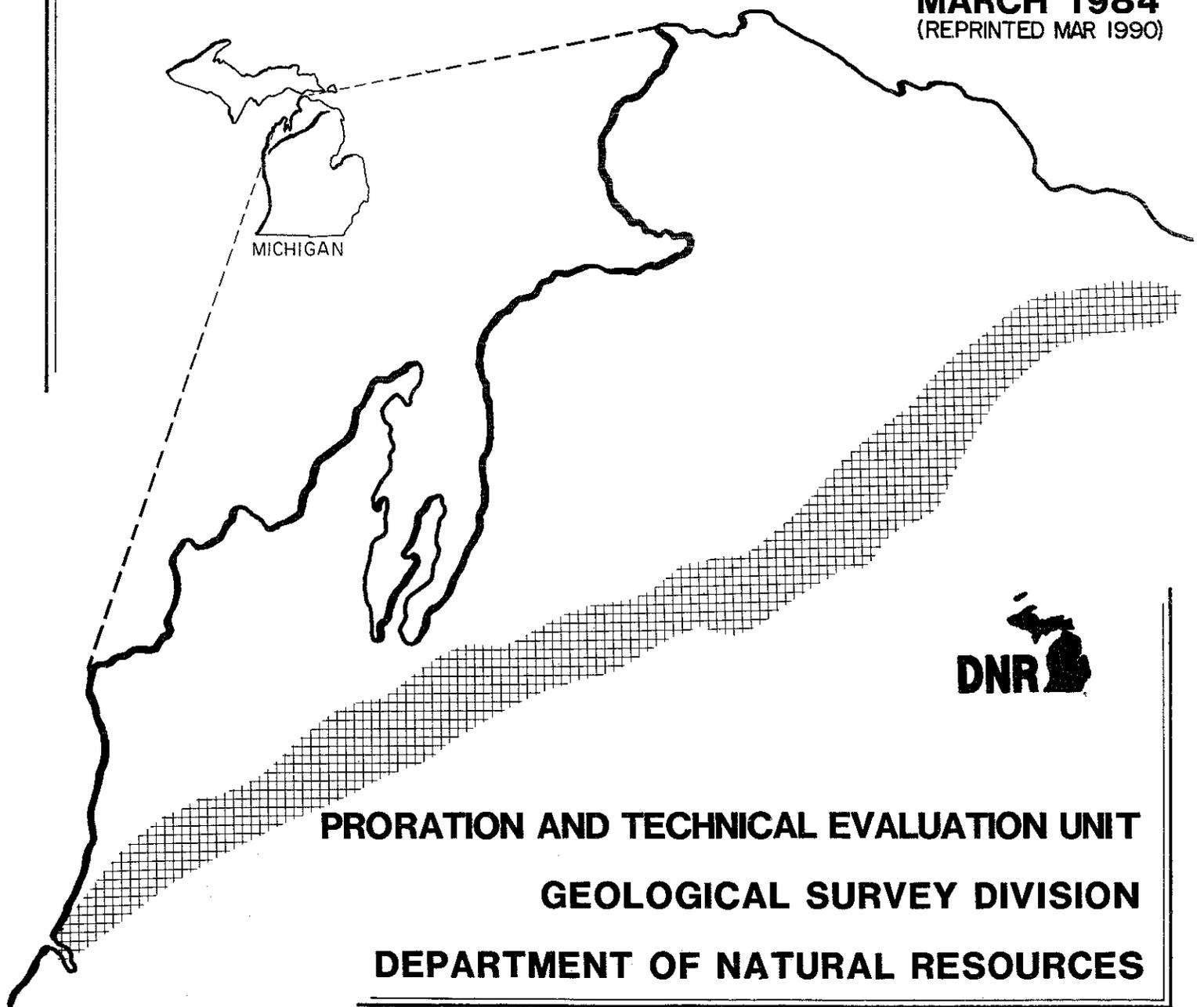


SUBSURFACE PRESSURE REPORT ON THE NORTHERN MICHIGAN REEF DEVELOPMENT

MARCH 1984
(REPRINTED MAR 1990)



**PRORATION AND TECHNICAL EVALUATION UNIT
GEOLOGICAL SURVEY DIVISION
DEPARTMENT OF NATURAL RESOURCES**

STATE OF MICHIGAN
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The Subsurface Pressure Report on the Northern Michigan Reef Development includes the results of all bottom-hole pressure tests that were made available to the Production and Proration Unit either at the discretion of the companies or at the request of the State. Bottom-hole pressure tests are not requested for wells that are on artificial lift. The shaded areas of the cover indicates those areas in which the Northern Michigan Salina-Niagaran wells are located. Wells are located in their respective fields based upon the best information available.

The subsurface report contains two sections.

Section I summarizes field performance in terms of barrels oil production per pound of pressure drop. Reported in this section for a number of fields are cumulative oil production histories, most recent field performances, and life of the the field performances. Tables of Section I from previous subsurface reports are not included in this report in an effort to reduce the costs of publication associated with the report. Graphs in Section II can be used to estimate production associated with pressure tests not evaluated in Section I.

Section II lists bottom-hole pressure test results for reported wells. Included in this section are graphs for a number of fields which illustrate cumulative oil production versus bottom-hole pressures for the life of the field. On these cumulative oil production graphs above the respective bottom-hole pressure test is the Sales G.O.R. for the month prior to the bottom-hole pressure test. Cumulative production figures for a number of gas fields can be found in this section.

Compiler: Gunther Schmidt
Lansing, Michigan
March, 1984

SECTION I

FIELD PERFORMANCE AS A FUNCTION OF BARRELS
OIL PRODUCTION PER POUND OF PRESSURE DROP

RELATED RESERVOIR PRESSURE & PRODUCTION PERFORMANCE
MARCH 1984

FROM FIRST B. H. P. TEST

CURRENT DATA

FIELD	DATES	PRESSURE DROP PSIG	INTERVAL OIL PRODUCTION IN BBLs.	BARRELS PER POUND DROP	DATES	PRESSURE DROP PSIG	INTERVAL OIL PRODUCTION IN BBLs.	BARRELS PER POUND DROP	CURRENT DATA
ANTRIM County									
MANCELONA 33-29N-05W	2/77-12/12/83	-983	206,900	210	06/05/81-12/12/83	-137	99,200	724	
BENZIE County									
COLFAX 25-25N-13W	12/80-12/02/83	-517	408,500	790	09/27/82-12/02/83	-178	236,900	1331	
COLFAX 36-25N-13W	11/76-01/29/79	-965	80,000	62	11/23/76-01/29/79	-965	80,200	62	
CHEBOYGAN County									
FOREST 14-33N-01E	11/76-12/16/83	-747	338,500	453	11/17/82-12/16/83	-747	338,500	453	
CRAWFORD County									
FREDERIC 02-28N-04W NORTHEAST	5/73-10/14/82	-2387	668,600	280	01/21/80-10/14/82	-700	205,700	294	
FREDERIC 04-28N-04W	3/74-11/09/82	-2809	390,900	14	03/31/77-11/09/82	-558	320,100	574	
FREDERIC 07-28N-04W	11/73-05/16/79	-2795	114,700	41	05/09/78-05/16/79	-859	45,600	53	
FREDERIC 08-28N-04W	11/74-03/05/81	-1301	831,500	638	07/03/79-03/05/81	-243	227,400	935	
FREDERIC 11-28N-04W NORTHEAST	3/77-01/13/84	-1745	1,095,800	628	10/15/81-01/13/84	-260	229,600	883	
FREDERIC 11-28N-04W SOUTHWEST	8/76-06/03/83	-2661	538,600	202	11/09/82-06/03/83	-21	37,100	1769	
FREDERIC 13A-28N-04W	9/81-01/13/84	-1323	28,100	21	09/21/81-01/13/84	-1323	28,100	21	
FREDERIC 16-28N-04W	8/76-10/05/79	-3011	30,000	10	11/28/78-10/05/79	-1220	14,100	12	
FREDERIC 16A-28N-04W	2/80-12/12/83	-1400	214,700	153	12/01/82-12/12/83	-284	30,100	106	
FREDERIC 21-28N-04W	12/81-12/12/83	-2034	40,500	20	12/11/81-12/12/83	-2034	40,500	20	
FREDERIC 22-28N-04W	2/73-09/23/83	-1115	242,900	218	11/03/81-09/23/83	-264	144,100	546	
GRAND TRAVERSE County									
BLAIR 13-26N-11W	6/82-12/03/83	-659	36,700	56	06/05/82-12/03/83	-659	36,700	56	
BLAIR 14-26N-11W	6/78-12/16/83	-1048	111,500	106	09/14/82-12/16/83	-253	25,300	100	
BLAIR 25-26N-11W	5/74-12/14/83	-1051	390,500	372	03/31/81-12/14/83	-240	110,600	461	
BLAIR 25A-26N-11W	5/74-10/22/81	-1974	108,400	55	10/16/80-10/22/81	-250	4,200	17	
BLAIR 28-26N-11W	9/79-12/27/83	-1309	256,500	196	05/30/83-12/27/83	-326	110,500	339	
BLAIR 33-26N-11W	4/73-09/01/78	-1535	609,600	397	05/03/78-09/01/78	-29	13,400	462	
BLAIR 35-26N-11W	1/75-12/14/83	-1391	111,300	80	11/10/82-12/14/83	-142	7,300	51	
EAST BAY 09-26N-10W	7/82-06/20/83	-965	57,500	60	09/06/82-06/20/83	-285	49,700	175	
EAST BAY 10-26N-10W	2/80-12/28/83	-1591	469,000	295	10/07/82-12/28/83	-443	185,400	418	
EAST BAY 11-26N-10W	3/76-01/31/84	-825	571,300	692	11/26/82-01/31/84	-188	66,700	356	
EAST BAY 12-26N-10W	11/80-04/22/83	-682	115,900	170	03/15/82-04/22/83	-34	44,200	1299	
EAST BAY 12A-26N-10W	9/82-12/15/83	-268	47,700	178	06/23/83-12/15/83	-101	29,900	296	
EAST BAY 14-26N-10W	10/79-02/06/84	-593	53,700	91	10/09/81-02/06/84	-365	37,800	104	
EAST BAY 17-26N-10W	6/77-01/07/83	-1956	785,500	402	10/10/81-01/07/83	-271	161,900	597	
GRANT 03-25N-12W	7/74-12/12/79	-1729	263,300	152	10/08/76-12/12/79	-574	168,700	294	
GRANT 03A-25N-12W	5/77-09/28/83	-616	30,200	49	05/09/77-09/28/83	-616	30,200	49	
GRANT 04-25N-12W	6/75-10/24/83	-1373	79,900	58	06/04/75-10/24/83	-1373	79,900	58	
GRANT 09-25N-12W	9/76-08/02/82	-1817	317,800	175	03/20/81-08/02/82	-108	85,400	117	
GRANT 10-25N-12W	9/75-07/10/77	-617	26,800	43	03/04/77-07/10/77	-249	15,900	64	
GRANT 22-25N-12W	9/75-09/25/79	-2024	392,800	194	12/01/78-09/25/79	-689	152,200	221	
GRANT 22A-25N-12W	5/79-01/23/81	-1065	94,600	89	02/01/80-01/23/81	-3	65,600	-	

RELATED RESERVOIR PRESSURE & PRODUCTION PERFORMANCE
MARCH 1984

FROM FIRST B. H. P. TEST

CURRENT DATA

FIELD	DATES	PRESSURE		INTERVAL OIL PRODUCTION		BARRELS PER POUND DROP	CURRENT DATA	
		DROP PSIG	IN BBL	IN BBL	PER POUND DROP		DROP PSIG	IN BBL
GRANT 26-25N-12W	10/71-04/06/81	-1506	396,700	263	11/23/79-04/06/81	-516	85,900	166
GRANT 26A-25N-12W	10/82-12/08/82	-613	25,100	41	10/01/82-12/08/82	-283	7,100	25
GRANT 29-25N-12W NORTH	11/73-11/05/81	-2132	841,600	395	04/15/80-11/05/81	-472	131,000	278
GRANT 29-25N-12W SOUTH	2/75-11/09/82	-2277	506,400	222	04/15/80-11/09/82	-686	114,300	167
GRANT 33-25N-12W	3/80-11/30/82	-2249	67,500	30	04/01/81-11/30/82	-1837	60,400	33
GRANT 34A-25N-12W	1/77-04/03/81	-2462	279,700	114	09/28/79-04/03/81	-524	115,400	220
MAYFIELD 01-25N-11W	1/75-12/14/83	-991	528,700	534	02/20/80-12/14/83	-370	175,900	475
MAYFIELD 01A-25N-11W	9/74-12/14/83	-1368	737,100	539	03/31/81-12/14/83	-248	279,900	1129
MAYFIELD 03B-25N-11W	7/75-11/21/82	-1530	339,700	222	02/28/82-11/21/82	-208	21,100	101
MAYFIELD 04-25N-11W	6/77-05/01/82	-1174	244,300	208	06/16/77-05/01/82	-1174	244,300	208
MAYFIELD 04A-25N-11W	2/75-10/31/79	-2431	398,700	168	10/15/81-09/21/83	-903	145,300	161
MAYFIELD 06-25N-11W	6/77-10/24/79	-1435	381,400	131	10/29/78-10/31/79	-569	102,400	180
MAYFIELD 09-25N-11W	11/74-08/23/82	-1971	1,394,300	707	09/22/77-10/24/79	-1435	135,300	94
MAYFIELD 10A-25N-11W	3/76-12/14/83	-2636	342,700	130	10/27/81-08/23/82	-99	71,400	721
MAYFIELD 10B-25N-11W	4/76-11/09/81	-977	172,600	177	04/08/82-12/14/83	-555	27,700	50
MAYFIELD 15A-25N-11W	1/75-05/15/82	-1660	369,000	222	10/15/77-11/09/81	-45	137,500	3056
MAYFIELD 16-25N-11W	12/72-12/15/83	-1412	1,539,500	1090	04/07/80-05/15/82	-355	66,800	188
MAYFIELD 16A-25N-11W	1/74-10/23/78	-1478	646,400	437	04/02/81-12/15/83	-250	444,400	1778
MAYFIELD 17-25N-11W	7/75-12/14/83	-2106	2,112,100	1003	04/15/77-10/23/78	-210	241,300	1149
MAYFIELD 18-25N-11W	7/75-12/16/83	-1432	1,561,200	1090	04/07/80-12/14/83	-506	808,700	1598
MAYFIELD 18A-25N-11W	9/75-10/10/81	-576	90,100	156	04/06/81-12/16/83	-326	587,000	1801
MAYFIELD 19A-25N-11W	1/74-09/15/78	-2074	66,700	32	09/29/75-10/10/81	-576	90,100	156
MAYFIELD 20-25N-11W EAST	3/75-12/16/83	-2050	343,000	167	04/19/77-09/15/78	-438	14,000	32
MAYFIELD 20-25N-11W WEST	12/74-06/25/80	-2841	383,000	135	11/10/82-12/16/83	-180	46,600	259
MAYFIELD 21-25N-11W	5/74-12/15/83	-1991	1,041,200	523	10/18/78-06/25/80	-378	34,000	90
MAYFIELD 28A-25N-11W	9/77-12/15/83	-501	287,600	574	04/01/81-12/15/83	-147	102,200	695
MAYFIELD 29A-25N-11W	3/77-12/15/83	-1746	577,300	331	11/10/82-12/15/83	-70	12,200	174
MAYFIELD 30-25N-11W	9/73-03/31/81	-1479	82,500	56	10/29/80-12/15/83	-544	245,800	452
PARADISE 19A-26N-10W	6/75-03/30/78	-789	16,800	21	10/19/79-03/31/81	-412	14,000	34
PARADISE 20-26N-10W	10/77-12/16/83	-2398	52,200	219	06/09/75-03/30/78	-789	16,800	21
PARADISE 20A-26N-10W	8/79-05/28/80	-584	10,600	18	10/21/81-12/16/83	-530	114,000	215
PARADISE 21-26N-10W	8/74-01/29/84	-1854	1,578,200	851	08/21/79-05/28/80	-584	10,600	18
PARADISE 27-26N-10W	2/76-10/10/79	-2421	47,100	19	10/21/81-01/29/84	-324	300,900	929
PARADISE 33A-26N-10W	4/76-06/27/83	-1846	49,400	27	12/14/78-10/10/79	-203	13,300	66
UNION 03A-26N-09W	12/81-12/30/83	-980	183,200	187	10/03/79-06/27/83	-15	12,700	847
UNION 06-26N-09W	1/75-11/11/83	-2535	268,300	106	08/22/83-12/30/83	-115	149,500	1300
WHITEWATER 20-27N-09W	12/78-11/04/83	-1376	220,200	160	09/09/82-11/11/83	-111	28,600	258
WHITEWATER 20A-27N-09W	1/79-10/18/83	-1356	545,800	403	10/29/82-11/04/83	-361	72,800	202
WHITEWATER 28-27N-09W	4/75-11/17/83	-1748	432,200	247	03/08/82-10/18/83	-563	227,200	403
WHITEWATER 32-27N-09W	9/72-04/26/79	-1982	806,900	407	12/17/81-11/17/83	-200	144,700	724
WHITEWATER 34-27N-09W	8/72-02/15/77	-2001	61,500	31	04/20/78-04/26/79	-244	120,700	495
WHITEWATER 35-27N-09W	3/72-02/27/84	-2522	168,200	67	11/02/72-02/15/77	-1442	55,400	38
WHITEWATER 35A-27N-09W	7/80-11/11/83	-1256	84,400	67	10/22/80-02/27/84	-197	16,400	83
BLUE LAKE 05-28N-05W	9/78-01/27/83	-592	131,200	222	12/13/82-01/27/83	-42	1,900	46

KALKASKA County

RELATED RESERVOIR PRESSURE & PRODUCTION PERFORMANCE
MARCH 1984

FROM FIRST B. H. P. TEST

CURRENT DATA

FIELD	DATES	PRESSURE		INTERVAL OIL PRODUCTION		BARRELS PER POUND DROP	CURRENT DATA	
		DROP PSIG	IN BBL	IN BBL	PER POUND DROP		DROP PSIG	IN BBL
BLUE LAKE 05A-28N-05W	10/81-06/21/83	-503	103,100	205	10/31/81-06/21/83	-503	103,100	205
BLUE LAKE 08-28N-05W	3/82-12/15/83	-1754	133,700	76	11/03/82-12/15/83	-1016	106,600	105
BLUE LAKE 12-28N-05W	4/71-03/06/81	-2782	41,700	15	05/24/79-03/06/81	-449	8,600	19
BLUE LAKE 13A-28N-05W	7/79-07/15/81	-3044	22,700	7	07/28/79-07/15/81	-2326	22,700	10
BLUE LAKE 16-28N-05W	12/77-10/11/83	-1474	916,200	622	05/04/82-10/11/83	-392	390,600	997
BLUE LAKE 16A-28N-05W	1/79-11/14/83	-1154	168,000	146	03/02/82-11/14/83	-368	48,700	132
BLUE LAKE 17-28N-05W	10/76-12/14/83	-1838	1,501,600	817	03/18/81-12/14/83	-546	429,000	786
BLUE LAKE 18-28N-05W	5/75-01/10/84	-749	2,055,300	2744	10/04/83-01/10/84	-10	367,900	---
BLUE LAKE 19-28N-05W	2/74-01/10/84	-820	1,560,400	1903	06/01/82-01/10/84	-115	275,400	2395
BLUE LAKE 19A-28N-05W	12/77-07/10/80	-732	78,600	107	11/03/78-07/10/80	-11	14,900	1355
BLUE LAKE 19B-28N-05W	1/79-12/04/81	-2151	38,000	18	07/14/81-12/04/81	-476	1,600	3
BLUE LAKE 20-28N-05W	3/78-11/10/83	-1867	368,900	198	11/17/81-11/10/83	-381	80,300	211
BLUE LAKE 23A-28N-05W	9/81-12/12/83	-2113	42,800	20	09/24/81-12/12/83	-2113	42,800	20
BOARDMAN 06-26N-08W	9/73-09/21/82	-1058	85,300	81	09/21/73-09/21/82	-1058	85,300	81
COLDSPRINGS 19-28N-06W	8/71-12/20/83	-2065	774,600	375	04/24/82-12/20/83	-268	79,700	298
COLDSPRINGS 20-28N-06W	11/71-06/03/83	-2342	1,261,900	539	04/01/80-06/03/83	-517	278,800	539
COLDSPRINGS 22-28N-06W	1/76-11/21/83	-2544	82,600	32	09/23/82-11/21/83	-1638	26,400	16
COLDSPRINGS 22A-28N-06W	8/78-11/21/83	-1332	55,300	42	08/07/78-11/21/83	-1332	55,300	42
COLDSPRINGS 23-28N-06W	9/74-08/05/83	-1112	244,200	220	11/14/82-08/05/83	-308	64,400	209
COLDSPRINGS 25A-28N-06W	1/73-10/22/76	-2838	142,300	50	04/28/76-10/22/76	-153	11,000	72
COLDSPRINGS 28-28N-06W	5/76-12/16/83	-1186	106,600	90	02/07/75-11/29/83	-1186	106,600	90
COLDSPRINGS 29-28N-06W	1/78-08/08/83	-2384	1,013,600	481	11/11/81-12/16/83	-539	186,600	346
COLDSPRINGS 30-28N-06W	8/74-12/01/83	-1981	331,300	139	04/03/83-08/08/83	-1324	223,800	169
COLDSPRINGS 32-28N-06W	1/77-08/12/83	-1426	734,700	371	10/02/80-12/01/83	-97	209,300	2158
KALKASKA 03-27N-07W	7/73-09/07/79	-2216	340,400	239	11/16/81-08/12/83	-160	96,400	603
KALKASKA 03A-27N-07W	9/73-12/15/83	-2610	95,800	43	05/13/78-09/07/79	-318	12,400	39
KALKASKA 03B-27N-07W	4/77-03/12/79	-1118	193,600	74	07/20/81-12/15/83	-73	27,000	370
KALKASKA 05-27N-07W	9/70-05/16/75	-1449	537,600	371	05/02/77-03/12/79	-1118	14,000	13
KALKASKA 10-27N-08W	3/78-04/13/83	-1470	619,900	422	08/07/82-04/13/83	-173	87,600	506
KALKASKA 11-27N-07W	9/78-12/13/83	-963	107,000	111	04/02/81-12/13/83	-89	84,500	949
KALKASKA 11-27N-08W	9/73-10/03/79	-932	154,100	165	10/07/78-10/03/79	-588	43,400	74
KALKASKA 12-27N-07W	9/72-06/22/79	-1715	23,100	13	09/19/72-06/22/79	-1715	23,100	13
KALKASKA 13-27N-08W	10/72-12/19/83	-1259	660,200	524	03/31/83-12/19/83	-137	223,300	1630
KALKASKA 16A-27N-07W	9/73-01/31/81	-1751	115,400	66	04/10/80-01/31/81	-254	10,500	41
KALKASKA 16B-27N-07W	6/79-11/30/83	-1184	237,400	201	03/17/81-11/30/83	-796	150,700	189
KALKASKA 19-27N-07W	10/76-09/30/82	-1951	428,500	220	11/09/77-05/06/80	-845	25,700	30
KALKASKA 20-27N-08W	11/75-08/11/82	-2016	83,900	42	09/02/81-09/30/82	-163	37,700	231
KALKASKA 21-27N-08W Reservoir A	2/72-09/11/81	-1333	1,569,200	1177	01/01/79-08/11/82	-59	41,900	710
KALKASKA 21-27N-08W Reservoir B	5/72-09/02/81	-2230	488,500	219	09/23/80-09/11/81	-82	146,200	1782
KALKASKA 21-27N-08W Reservoir C	8/72-09/16/81	-1889	947,600	502	10/05/79-09/02/81	-73	60,000	822
KALKASKA 24-27N-08W	8/71-09/10/81	-1613	1,613,000	1000	10/25/80-09/16/81	-181	67,700	374
KALKASKA 25-27N-08W	6/73-07/20/83	-1743	1,221,200	701	09/26/80-09/10/81	-133	105,700	795
KALKASKA 26-27N-08W	7/72-11/15/83	-2492	157,400	63	01/05/82-07/20/83	-276	262,100	950
KALKASKA 32-27N-08W	6/73-02/26/81	-2044	228,500	112	06/30/82-11/15/83	-732	25,000	34
RAPID RIVER 24-28N-07W	12/75-05/05/78	-2525	86,100	34	04/11/79-02/26/81	-171	43,000	251
RAPID RIVER 27-28N-07W	6/72-12/30/83	-2121	1,494,700	678	03/10/77-05/05/78	-648	33,000	51
			314,500	148	04/24/82-12/19/83	-251	161,700	644
					11/15/82-12/30/83	-16	25,600	1622

RELATED RESERVOIR PRESSURE & PRODUCTION PERFORMANCE
MARCH 1984

FROM FIRST B. H. P. TEST

CURRENT DATA

FIELD	DATES	PRESSURE		INTERVAL OIL PRODUCTION		BARRELS PER POUND			
		DROP	PSIG	IN BBLs	PER POUND	PER POUND	DROP		
RAPID RIVER 27A-28N-07W	7/72-02/12/81	-1604		409,100	255	09/08/80-02/12/81	-8	17,600	2200
RAPID RIVER 32-28N-07W	7/73-01/13/84	-2877		2,422,200	842	09/26/82-01/13/84	-180	118,900	660
RAPID RIVER 33-28N-07W	6/71-12/14/83	-2609		466,100	179	03/30/81-12/14/83	-257	104,400	406
RAPID RIVER 33A-28N-07W	3/72-11/14/83	-1912		62,900	33	10/29/81-11/14/83	-5	1,500	300
MANISTEE County									
BEAR LAKE 02A-23N-15W	8/79-09/16/82	-973		133,800	138	12/14/81-09/16/82	-409	37,300	91
BEAR LAKE 11-23N-15W	9/74-02/07/81	-1382		1,743,200	1261	02/29/80-02/07/81	-318	264,600	832
BEAR LAKE 11A-23N-15W	9/75-10/27/79	-1294		429,100	332	10/07/78-10/27/79	-242	90,000	372
BEAR LAKE 13-23N-15W	9/74-09/09/83	-1165		3,508,600	3012	11/13/81-09/09/83	-61	853,200	—
BEAR LAKE 17-23N-15W	12/77-12/12/83	-1418		613,100	432	04/18/80-12/12/83	-687	401,400	584
BEAR LAKE 19-23N-15W	12/75-01/23/84	-1526		182,500	120	08/14/78-01/23/84	-1047	129,800	124
BEAR LAKE 20-23N-15W	2/75-10/27/80	-1797		245,200	136	09/28/77-10/27/80	-563	149,900	266
BEAR LAKE 22-23N-15W	10/74-12/08/83	-1895		3,123,400	1648	08/30/82-12/08/83	-191	320,320	1677
BEAR LAKE 23-23N-15W	9/73-12/09/83	-730		590,800	809	10/03/83-12/09/83	-36	11,400	317
BEAR LAKE 24-23N-15W	11/74-06/19/79	-523		180,700	346	11/16/78-06/19/79	-50	36,900	738
BEAR LAKE 25A-23N-15W	12/75-12/04/83	-375		667,100	1779	02/08/82-12/04/83	-154	314,100	2040
BEAR LAKE 26-23N-15W	12/74-11/23/83	-748		355,400	475	11/11/81-11/23/83	-177	68,300	386
BEAR LAKE 26A-23N-15W	2/75-12/21/83	-749		2,361,900	3153	10/10/80-12/21/83	-320	1,525,300	4757
BEAR LAKE 27-23N-15W	6/75-02/01/83	-631		589,300	934	04/10/82-02/01/83	-72	81,900	1137
BEAR LAKE 27A-23N-15W	1/76-11/11/81	-1450		416,300	287	03/26/80-11/11/81	-227	56,500	439
BEAR LAKE 28-23N-15W	2/76-07/11/83	-1772		624,500	352	11/11/81-07/11/83	-280	122,800	249
BEAR LAKE 31-23N-15W	9/74-10/27/76	-1172		113,700	97	04/02/76-10/27/76	-254	55,000	217
BEAR LAKE 32-23N-15W	11/74-12/12/83	-1062		2,066,200	1946	10/07/82-12/12/83	-311	310,300	1017
BEAR LAKE 33-23N-15W	6/74-11/29/83	-1231		2,830,100	2299	10/27/80-11/29/83	-395	783,800	1984
BEAR LAKE 34-23N-15W	10/75-12/29/83	-870		1,566,000	1800	03/33/81-12/29/83	-247	427,600	1731
BROWN 05-22N-15W	6/76-12/07/83	-702		430,300	613	04/14/81-12/07/83	-100	131,800	1318
BROWN 07A-22N-15W	1/82-12/16/83	-156		174,600	1119	05/05/82-12/16/83	-121	173,400	1433
CLEON 11-24N-13W	8/73-12/14/83	-2484		798,500	321	11/09/82-12/14/83	-55	74,600	1356
CLEON 12-24N-13W	10/74-07/18/77	-1250		53,200	43	10/11/74-07/18/77	-120	53,200	43
CLEON 12A-24N-13W	9/75-11/18/83	-2672		790,000	296	02/27/81-11/18/83	-421	264,300	628
CLEON 13-24N-13W	11/77-11/04/81	-2153		296,900	138	10/28/80-11/04/81	-706	47,300	67
CLEON 14-24N-13W	12/73-11/11/83	-2309		538,800	233	09/28/82-11/11/83	-706	74,900	106
CLEON 14A-24N-13W	5/76-12/28/83	-2534		433,200	171	10/28/80-12/28/83	-688	138,400	201
CLEON 19B-24N-13W	2/80-11/28/83	-1565		34,100	22	02/09/80-11/28/83	-1565	34,100	22
CLEON 23-24N-13W	5/80-12/02/83	-1531		81,500	53	11/03/81-12/02/83	-790	45,600	58
CLEON 29-24N-13W	11/77-10/09/81	-1905		2,300	1	02/27/79-10/09/81	-1905	1,500	1
CLEON 31-24N-13W	11/77-12/19/83	-1242		80,600	65	07/21/82-12/19/83	-165	8,700	53
CLEON 32A-24N-13W	3/78-08/15/83	-1307		502,100	384	10/14/82-08/15/83	-190	92,900	489
CLEON 32B-24N-13W	8/80-01/04/84	-1070		389,800	364	03/02/82-01/04/84	-611	222,200	364
MANISTEE 01-22N-16W	4/73-05/31/79	-174		432,200	2484	04/16/78-05/31/79	-136	58,000	1869
MANISTEE 01A-22N-16W	7/75-04/14/81	-355		173,900	490	03/30/79-04/14/81	-136	58,000	426
MANISTEE 02-22N-16W	9/75-03/28/77	-1206		81,000	67	09/00/75-03/28/77	-1206	81,000	67
MANISTEE 02B-22N-16W	9/80-05/02/83	-1361		56,100	41	09/05/80-05/02/83	-1361	56,100	41
MANISTEE 12-22N-16W	3/75-12/12/83	-1191		1,061,600	891	10/17/81-12/12/83	-655	291,700	445
MANISTEE 12A-22N-16W	3/81-11/03/83	-225		69,500	309	11/18/82-11/03/83	-44	27,800	632
MANISTEE 14-22N-16W	2/77-11/16/83	-461		100,600	218	11/06/81-11/16/83	-202	72,900	361
MANISTEE 15-22N-16W	9/74-06/21/79	-1204		286,300	238	09/27/77-06/21/79	-513	112,700	220

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FIELD	DATES	PRESSURE		INTERVAL OIL PRODUCTION		BARRELS PER POUND			
		DROP	PSIG	IN BBLs	PER POUND	PER POUND	DROP		
MANISTEE 16-22N-16W	6/75-10/01/76	-553		99,300	180	06/19/75-10/01/76	-553	99,300	180
MANISTEE 17-22N-16W	7/76-11/30/83	-1470		945,800	643	04/23/81-11/30/83	-201	262,600	1306
MANISTEE 17B-22N-16W	2/82-07/11/83	-849		59,500	70	09/21/82-07/11/83	-655	32,000	49
MANISTEE 18-22N-16W	7/77-11/30/83	-1332		1,058,700	795	04/23/81-11/30/83	-414	427,600	1033
MANISTEE 20-22N-16W	6/75-06/27/83	-1227		476,800	389	04/29/80-06/27/83	-198	156,700	791
MANISTEE 24A-22N-16W	4/77-11/22/83	-289		304,500	1054	11/03/81-11/22/83	-144	91,400	635
MANISTEE 25-22N-17W	11/77-05/01/83	-604		454,400	752	01/26/83-05/01/83	-91	51,100	562
MANISTEE 36A-22N-17W	6/79-12/27/83	-597		302,200	506	07/31/83-12/27/83	+59	49,700	843
MAPLE GROVE 01-23N-14W	3/80-07/31/83	-630		381,700	606	06/05/82-07/31/83	-253	168,000	664
MAPLE GROVE 01A-23N-14W	8/74-12/15/83	-1708		302,500	177	11/05/81-12/15/83	-46	51,100	1111
MAPLE GROVE 03-23N-14W	10/81-11/28/83	-584		235,800	404	03/04/83-11/28/83	-370	149,000	403
MAPLE GROVE 04-23N-14W	9/76-11/27/78	-1664		128,100	77	09/25/77-11/27/78	-728	86,100	118
MAPLE GROVE 06-23N-14W	6/75-11/28/83	-1192		425,600	357	07/13/81-11/28/83	-264	59,800	227
MAPLE GROVE 06-23N-14W	6/73-10/22/81	-1721		2,556,400	1485	02/11/80-10/22/81	-443	666,200	1504
MAPLE GROVE 07-23N-14W	9/74-11/09/82	-2105		458,100	218	09/27/77-11/09/82	-724	296,100	409
MAPLE GROVE 08-23N-14W	12/74-09/08/81	-1287		1,941,300	1508	10/09/80-09/08/81	-294	340,800	1159
MAPLE GROVE 09-23N-14W	7/73-06/20/79	-1464		26,900	18	09/21/77-06/20/79	-413	8,300	20
MAPLE GROVE 10-23N-14W	6/73-05/04/81	-1410		398,800	283	08/22/80-05/04/81	-339	92,700	273
MAPLE GROVE 10A-23N-14W	6/74-10/05/83	-801		378,800	473	05/21/82-10/05/83	-110	102,100	928
MAPLE GROVE 10B-23N-14W	3/80-12/08/83	-2366		84,000	36	10/04/82-12/08/83	-286	12,500	44
MAPLE GROVE 12-23N-14W	7/77-11/09/82	-810		350,000	432	10/27/80-11/09/82	-195	135,100	693
MAPLE GROVE 16-23N-14W	2/73-11/21/83	-984		378,800	385	11/04/83-11/21/83	-44	65,600	1491
MAPLE GROVE 17-23N-14W	6/74-11/06/81	-1275		509,400	400	10/27/80-11/06/81	-511	71,500	140
MAPLE GROVE 17A-23N-14W	12/77-01/23/84	-1201		871,300	725	04/01/82-01/23/84	-178	191,900	1078
ONEKAMA 24-23N-16W	7/79-05/26/83	-548		405,600	237	03/01/80-05/26/83	-434	257,800	594
PLEASANTON 36A-24N-15W	8/75-10/10/83	-1245		415,700	170	10/15/81-05/26/83	-77	47,500	617
SPRINGDALE 21-24N-14W	1/78-04/14/81	-1341		312,700	233	08/21/80-10/10/83	-536	127,000	237
SPRINGDALE 25-24N-14W	3/75-11/06/81	-2122		1,263,000	595	06/27/80-04/14/81	-341	114,100	335
SPRINGDALE 26-24N-14W	12/72-03/17/80	-1733		319,900	185	10/13/78-03/17/80	-627	269,500	—
SPRINGDALE 28-24N-14W	12/74-11/17/82	-1019		1,101,300	1081	04/17/80-11/17/82	-268	326,600	1219
SPRINGDALE 28-24N-14W	4/73-10/12/79	-1763		437,700	248	07/29/78-10/12/79	-131	141,100	1077
SPRINGDALE 34-24N-14W	9/74-10/23/78	-752		23,600	31	09/10/74-10/23/78	-752	23,600	31
SPRINGDALE 34A-24N-14W	5/75-11/14/83	-1675		1,071,200	640	01/19/80-11/14/83	-626	495,900	792
SPRINGDALE 35-24N-14W	2/78-05/04/79	-1620		49,300	30	02/24/78-05/04/79	-1620	49,300	30
MASON County									
HAMLIN 13-19N-18W NORTH	8/72-10/26/82	-1835		477,800	260	03/07/79-10/26/82	-523	122,800	235
HAMLIN 13B-19N-18W SOUTH	9/75-11/11/82	-1011		193,800	192	02/05/79-11/11/82	-591	85,400	145
HAMLIN 13B-19N-18W	9/75-11/30/83	-1035		174,800	169	03/07/79-11/30/83	-477	62,300	131
HAMLIN 25-19N-18W	10/72-11/30/83	-388		360,300	929	11/17/82-11/30/83	-101	54,900	544
VICTORY 07-19N-17W	10/73-11/29/83	-1844		105,700	57	08/12/82-11/29/83	-173	4,900	28
VICTORY 18-19N-17W	6/74-04/21/78	-718							

RELATED RESERVOIR PRESSURE & PRODUCTION PERFORMANCE
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CURRENT DATA

FIELD	DATES	PRESSURE		INTERVAL OIL PRODUCTION		BARRELS PER POUND DROP		DATES	PRESSURE		INTERVAL OIL PRODUCTION		BARRELS PER POUND DROP	
		DRIP PSIG	PSIG	IN BBLs	PER POUND DROP	IN BBLs	PER POUND DROP		DRIP PSIG	PSIG	IN BBLs	PER POUND DROP	IN BBLs	PER POUND DROP
BAGLEY 25-30N-03W	4/72-12/08/81	-2244		499,900		223		05/27/80-12/08/81	-337		39,900		118	
BAGLEY 25A-30N-03W	5/72-08/22/83	-2168		1,207,900		557		07/06/82-08/22/83	-18		84,800		4711	
BAGLEY 31-30N-03W	5/77-10/28/81	-1942		513,500		264		10/16/79-10/28/81	-672		313,400		466	
BAGLEY 35-30N-03W	7/74-12/05/83	-2070		2,164,100		1045		07/07/81-12/05/83	-13		612,200		---	
CHARLTON 04-31N-01W	6/70-04/15/81	-1102		1,577,200		1431		10/08/79-04/15/81	-257		124,300		484	
CHARLTON 05-31N-01W	11/72-11/11/82	-904		917,900		1015		10/20/81-11/11/82	-157		114,800		731	
CHARLTON 06-30N-01W	2/82-03/24/83	-603		86,500		143		10/28/82-03/24/83	-181		41,000		227	
CHARLTON 06-30N-01W	10/74-05/31/83	-779		1,245,700		1599		01/31/83-05/31/83	-19		71,900		3837	
CHARLTON 07-30N-01W	8/72-10/10/79	-2313		458,400		198		04/26/78-10/10/79	-349		80,000		229	
CHARLTON 09-31N-01W	6/72-11/10/82	-612		2,016,100		3294		10/11/79-11/10/82	-151		659,800		4370	
CHARLTON 10-30N-01W	5/74-08/13/79	-1415		436,100		308		11/29/78-08/13/79	-132		79,900		605	
CHARLTON 12-30N-01W	11/73-03/17/83	-1703		217,400		128		11/18/80-03/17/83	-71		56,900		801	
CHARLTON 13-30N-01W	4/76-12/15/83	-850		293,800		346		10/13/81-12/15/83	-315		40,100		127	
CHARLTON 24-30N-01W	5/73-11/26/83	-3084		172,400		56		11/17/82-11/26/83	-180		3,700		21	
CHARLTON 27-31N-01W	2/73-10/08/75	-1850		1,488,400		760		11/17/82-11/17/83	-56		59,900		1070	
CHARLTON 27-31N-01W NORTH	1/73-10/08/75	-1850		68,100		37		04/08/75-10/08/75	-682		22,700		33	
CHARLTON 31-31N-01W	1/73-01/12/81	-2522		987,000		391		11/02/79-01/12/81	-399		25,500		64	
CHARLTON 33-31N-01W	9/76-12/07/83	-2356		535,300		227		02/18/81-12/07/83	-596		209,400		351	
CHARLTON 34-31N-01W	9/74-11/17/83	-1657		1,089,600		658		11/26/82-11/17/83	-373		91,600		246	
CHESTER 02-30N-02W	3/74-08/22/77	-1652		346,100		210		07/22/76-08/22/77	-70		96,600		1380	
CHESTER 05-29N-02W	7/78-11/30/83	-2381		353,400		119		11/04/81-11/30/83	-374		71,500		191	
CHESTER 06-30N-02W	1/73-11/05/79	-1898		822,400		433		06/14/78-11/05/79	-263		176,100		670	
CHESTER 10-29N-02W	2/75-01/10/84	-2601		572,200		220		10/13/81-01/10/84	-277		109,200		394	
CHESTER 10-30N-02W	1/72-04/23/76	-2590		382,800		148		09/08/75-04/23/76	-310		66,200		214	
CHESTER 10A-30N-02W	6/73-06/11/79	-2218		760,400		343		04/15/75-06/11/79	-835		705,300		845	
CHESTER 16-30N-02W	1/71-10/08/76	-2009		1,212,400		603		03/31/76-10/08/76	-86		127,200		1479	
CHESTER 18-30N-02W	5/71-10/28/76	-1509		1,173,400		839		05/04/76-10/28/76	-61		88,200		1466	
CHESTER 19-30N-02W	10/71-01/28/81	-1604		1,285,100		801		12/04/79-01/28/81	-43		189,600		4408	
CHESTER 21-30N-02W	8/70-02/12/82	-2263		2,412,100		1066		04/02/80-02/12/82	-162		316,700		1955	
CHESTER 30-30N-02W	12/73-10/20/76	-2343		206,200		88		04/13/76-10/20/76	-234		56,900		243	
CHESTER 34-30N-02W	5/78-02/06/83	-1625		367,300		226		12/17/81-02/06/83	-277		67,100		242	
CORWITH 31-32N-01W	5/82-07/08/83	-263		135,000		513		05/28/82-07/08/83	-263		135,000		513	
DOVER 12-31N-02W	8/74-11/17/83	-1443		408,500		283		04/16/81-11/17/83	-138		115,700		838	
DOVER 33-31N-02W	5/74-10/26/76	-1161		363,800		313		04/22/76-10/26/76	-147		113,300		771	
DOVER 35-31N-02W	6/73-11/24/75	-1279		86,500		68		12/30/74-11/24/75	-588		56,700		96	
DOVER 36-31N-02W	5/73-09/08/75	-1401		239,600		171		04/18/75-09/08/75	-135		108,800		806	
HAYES 11-29N-04W	3/76-03/14/79	-1566		29,400		19		03/29/76-03/14/79	-1566		29,400		19	
HAYES 11-29N-04W NORTHEAST	10/69-04/15/76	-2033		687,400		338		04/10/74-04/15/76	-384		141,400		368	
HAYES 15-29N-04W	2/73-11/19/79	-1947		1,557,600		800		03/18/74-11/19/79	-622		1,393,400		2240	
HAYES 21-29N-04W	2/72-10/26/74	-1620		135,000		83		04/10/74-10/26/74	-200		56,000		280	
HAYES 21A-29N-04W	12/72-03/03/81	-1920		1,334,200		695		01/29/81-03/03/81	-153		9,900		65	
HAYES 29-29N-04W	4/73-11/05/79	-2045		843,000		412		06/22/78-11/05/79	-247		239,500		970	
HAYES 32-29N-04W	12/72-03/27/78	-1830		656,400		359		04/13/77-03/27/78	-245		169,900		693	
HAYES 34-29N-04W	6/74-12/78/80	-2723		745,500		274		10/17/75-12/18/80	-1047		615,300		588	
HAYES 36-29N-04W	8/76-12/28/82	-2005		536,200		267		10/22/79-12/28/82	-59		272,200		4614	
OTSEGO LAKE 02-29N-03W	5/78-12/28/82	-1529		493,100		322		04/01/80-12/28/82	-447		294,100		658	
OTSEGO LAKE 03-29N-03W	5/71-11/30/83	-2805		831,600		296		08/22/81-11/30/83	-527		60,600		115	
OTSEGO LAKE 24-29N-03W	8/74-12/01/83	-2188		221,000		101		04/16/81-12/01/83	-527		86,500		164	

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CURRENT DATA

FIELD	DATES	PRESSURE		INTERVAL OIL PRODUCTION		BARRELS PER POUND DROP		DATES	PRESSURE		INTERVAL OIL PRODUCTION		BARRELS PER POUND DROP	
		DRIP PSIG	PSIG	IN BBLs	PER POUND DROP	IN BBLs	PER POUND DROP		DRIP PSIG	PSIG	IN BBLs	PER POUND DROP	IN BBLs	PER POUND DROP
OTSEGO LAKE 26-29N-03W	8/75-01/13/83	-2381		23,600		10		08/15/75-01/13/83	-2381		23,600		10	
OTSEGO LAKE 35-29N-03W	1/77-08/01/83	-1224		174,800		143		04/02/80-08/01/83	-301		123,500		410	
PRESQUE ISLE County														
ALLIS 19-33N-02E	9/78-07/15/83	-496		67,100		135		04/29/83-07/15/83	-249		50,400		202	
ALLIS 29-33N-02E	6/82-05/11/83	-134		22,600		169		06/08/82-05/11/83	-134		22,600		169	
CASE 03-33N-03E	12/80-07/02/83	-564		44,200		78		11/12/82-07/02/83	-43		17,000		395	
WEXFORD County														
WEXFORD 05-24N-12W EAST	8/79-10/30/81	-1478		146,500		99		08/15/79-10/30/81	-1478		146,500		99	
WEXFORD 05-24N-12W NORTH	2/80-10/30/81	-859		97,900		114		08/03/81-10/30/81	-224		14,700		66	
WEXFORD 05-24N-12W SOUTHWEST	3/78-02/13/79	-1785		67,400		38		03/02/78-02/13/79	-1785		67,400		38	
WEXFORD 05-24N-12W WEST	7/76-09/02/81	-2576		232,800		90		09/25/79-09/02/81	-257		57,700		225	
WEXFORD 05A-24N-12W	7/76-01/06/84	-2607		184,200		71		11/04/81-01/06/84	-376		26,400		70	
WEXFORD 06-24N-12W	9/75-11/05/83	-2697		1,773,000		657		09/09/82-11/05/83	-207		236,600		1143	
WEXFORD 09-24N-12W	11/74-12/02/83	-1965		664,600		338		10/31/82-12/02/83	-84		11,900		142	
WEXFORD 09B-24N-12W	11/74-12/02/83	-1965		664,600		338		10/31/83-12/02/83	-84		11,900		142	
WEXFORD 18A-24N-12W	4/75-11/22/78	-2679		428,600		160		09/27/77-11/22/78	-713		134,200		188	

SECTION II

BOTTOM-HOLE PRESSURE TEST RESULTS FOR
REPORTED WELLS

ANTRIM

FIELD NAME MANCELONA 25-29N-5W COUNTY ANTRIM TOWNSHIP MANCELONA DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 1-74 VIRGIN PRESSURE 3467 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Mancelona #2-25	1-74	18	6453	3467	.575	3467	Initial	Test		1231	
			DECEMBER 18, 1973								
St. Mancelona #2-35	1-74	N.A.	6453	3446	.590	3446	3467	12-18-73	-21		
			JANUARY 13, 1974								
St. Mancelona #2-35	1-74	N.A.	6453	3367	.309	3367	3446	1-13-74	-79		
			FEBRUARY 8, 1974								
St. Mancelona #2-25	1-74	47 8	6443	2080	.400	2084	3367	2-8-74	- 1283	524	
			MARCH 11, 1975								

REMARKS:

FIELD NAME MANCELONA 26-29N-5W COUNTY ANTRIM TOWNSHIP MANCELONA DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 10-23-72 VIRGIN PRESSURE 3475 NO. PRODUCING WELLS _____

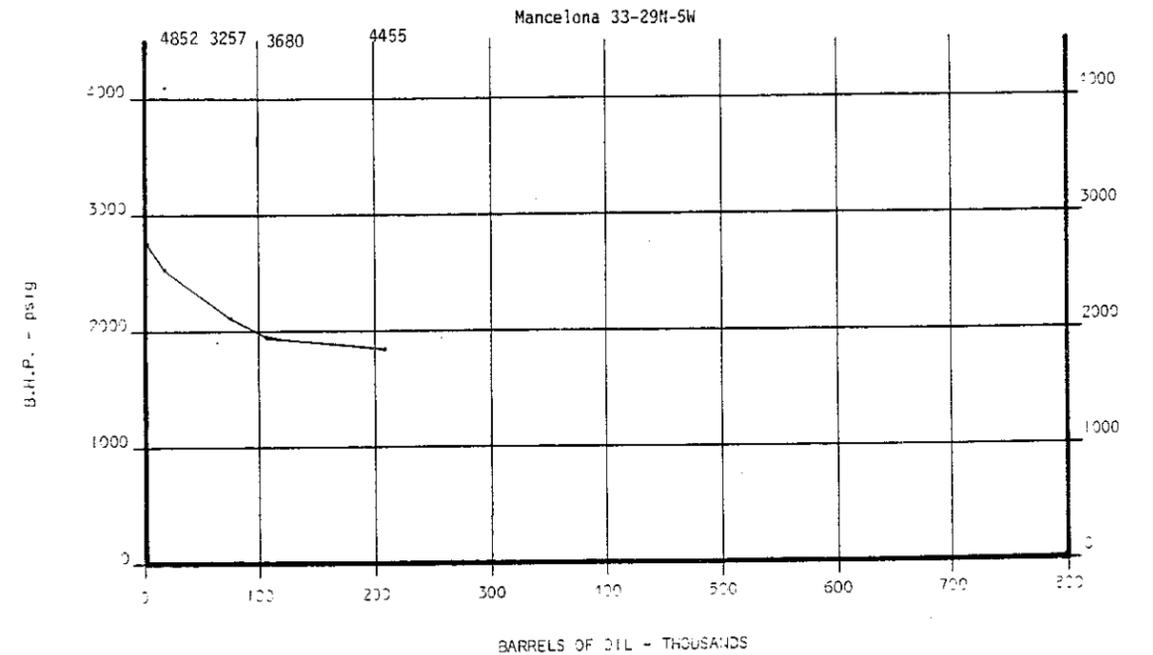
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Mancelona #1-26	10-72	25	6530	3475	.325	3475	Initial	test			
			NOVEMBER 3, 1972								

REMARKS:

FIELD NAME MANCELONA 33-29N-5W COUNTY ANTRIM TOWNSHIP MANCELONA DATE OF TESTS _____
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 6-74 VIRGIN PRESSURE 2797* NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
State Mancelona "B" 3-33	2-77	84	6636	2797	.103	2797	INITIAL	TEST		2163	
			FEBRUARY 14, 1977								
			* State Mancelona "B" 1-33, A well in this field, has produced 1164 barrels at the time of this test.								
St. Mancelona "B" 3-33	2-77	96	6636	2463	.118	2463	2797	2-14-77	- 334	1921	1894
			MARCH 3, 1978								
St. Mancelona "B" 3-33	2-77	49.3	6636	2122	.074	2122	2463	3-3-78	- 341	1689	1693
			April 7, 1979								
St. Mancelona "B" 3-33	2-77	99	6636	1951	.066	1951	2122	4-7-79	- 171	1565	1592
			June 28, 1980								
St. Mancelona "B" 3-33	2-77	573.3	6636	1962	.255	1962	Not used in calculations			1477	
			June 9, 1981								
St. Mancelona "B" 6-33	12-83	450	6692	1828	.302	1814	1951	6-28-80	-137	700	977
			December 12, 1983								

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION



FIELD NAME MANCELONA 34-29N-5W COUNTY ANTRIM TOWNSHIP MANCELONA DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-74 VIRGIN PRESSURE 3528 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5321 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Mancelona "C" 1-34	5-74	66	6590	3528							
						JUNE 6, 1974					
					137	3528	INITIAL TEST				
St. Mancelona "C" 1-34 5-74	5-74	480	6508	2531							
						MARCH 30, 1977					
					087	2538	3528	6-6-74	- 990	1965	1219
St. Mancelona "C" 1-34 5-74	5-74	24	6508	2057							
						DECEMBER 21, 1977					
					075	2063	2538	3-30-77	- 475	1637	
Gas injection project begins September, 1979.											
St. Mancelona "C" #3-34 9-79	9-79	49.5	6674	1819							
						March 29, 1979					
					529	1775	2063	12-21-77	- 288	28	178
St. Mancelona "C" #3-34 9-79	9-79	49	6544	1758							
						October 8, 1979					
					.055	1761	1775	3-29-79	- 14	1428	1428

REMARKS:

BOTTOM-HOLE PRESSURE TESTS - Page 2

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5321 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Mancelona "C" #3-34 9-79	9-79	575.5	6540	1614							
						September 27, 1980					
					.052	1617	1761	10-8-79	- 144	1291	1299
St. Mancelona "C" #3-34 9-79	9-79	143.3	6550	1303							
						December 15, 1981					
					569	1326	1617	9-27-80	- 291	659	1105
St. Mancelona "C" #1-34 5-74	5-74	166.3	6513	1273							
						January 27, 1984					
					.035	1276	1326	12-15-81	- 50	1044	

BENZIE

REMARKS:

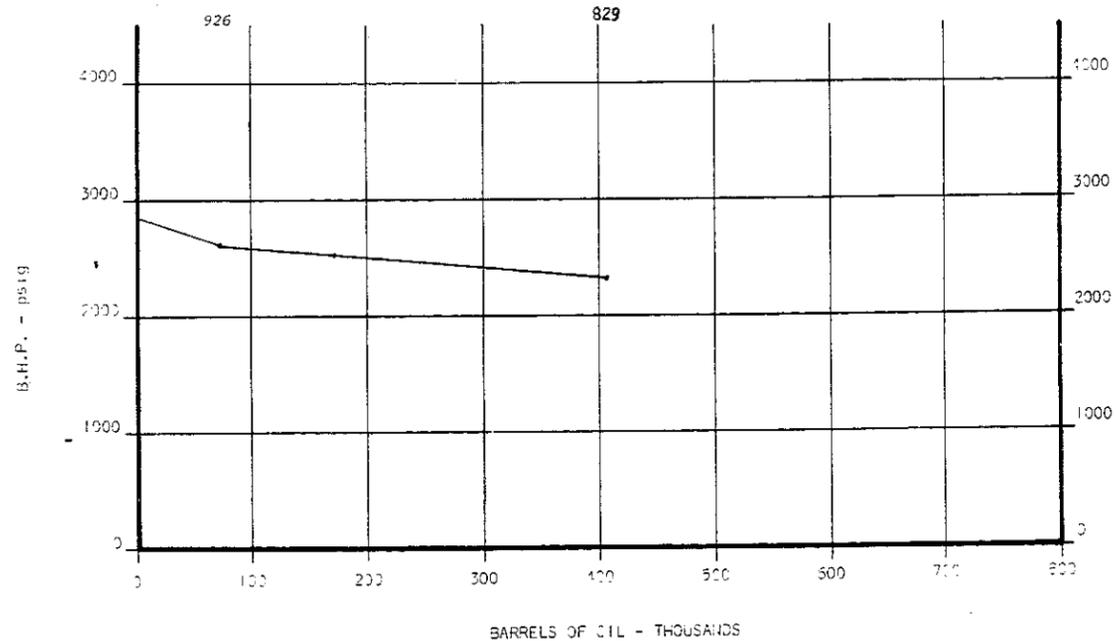
FIELD NAME COLFAX 25-25N-13W COUNTY BENZIE TOWNSHIP COLFAX DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-80 VIRGIN PRESSURE 2860 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHOT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4691 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Colfax 2-25	12-80	65.9	5698	2860	DECEMBER 8, 1980 .32	2860	INITIAL	TEST		1303
St. Colfax 2-25	12-80	24	5697	2618	NOVEMBER 4, 1981 27	2618	2860	12-8-80	- 242	1153
St Colfax 1-26	9-82	9	5627	2520	SEPTEMBER 27, 1982 .26	2521	2618	11-4-81	-97	
St Colfax 2-25	12-80	120	5697	2347	DECEMBER 2, 1983 31	2343	2521	9-27-82	-178	1041

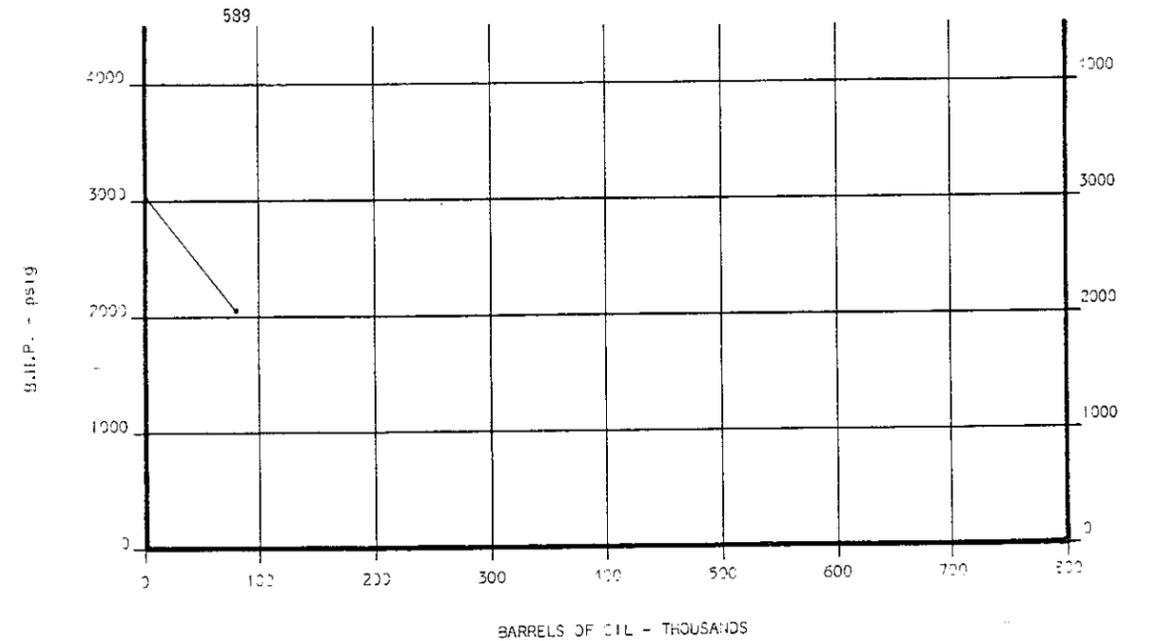
FIELD NAME COLFAX 36-25N-13W COUNTY BENZIE TOWNSHIP COLFAX DATE OF TESTS
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 11-76 VIRGIN PRESSURE 3007 NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHOT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4680 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Dinger-State Colfax #1-36	11-76	114.2	5847	3007	NOVEMBER 23, 1976 .28	3007	INITIAL	PRESSURE		1300
Dinger St. Colfax #1-36	11-76	62.75	5718	2003	JANUARY 29, 1979 .30	2042	3007	11-23-76	- 965	636

BOTTOM-HOLE PRESSURE DROP VERSUS
 RESERVOIR CUMULATIVE OIL PRODUCTION
 COLFAX 25-25N-13W



BOTTOM-HOLE PRESSURE DROP VERSUS
 RESERVOIR CUMULATIVE OIL PRODUCTION
 COLFAX 36-25N-13W



CHEBOYGAN

FIELD NAME FOREST 14-33N-1E COUNTY CHEBOYGAN TOWNSHIP FOREST DATE OF TESTS
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 11-76 VIRGIN PRESSURE 1952 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 2800 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
St. Forest 1-14	12-76	66.9	3678	1952	.34	1952		NOVEMBER 30, 1976			862
St. Forest 2-14	3-78	66	3687	1921	.29	1919		MARCH 20, 1978			830
St. Forest 1-24	6-78	72	3668	1905	.375	1908		JUNE 9, 1978			820 460
U.S.A. St. Forest	1-13a 9-78	74.5	3626TVD	1917	.340	1925		SEPTEMBER 23, 1978			837 558
St. Forest #2A-24	8-80	71	3626TVD	1927	.305	1941		AUGUST 26, 1980			786
St. Forest #2-24A	11-82	65	3653TVD	1938		1941		NOVEMBER 17, 1982			861
USA St. Forest	1-13A 9-78	24.5	3629TVD	1187	327	1194	1941	DECEMBER 16, 1983	11-17-82	-747	491 818

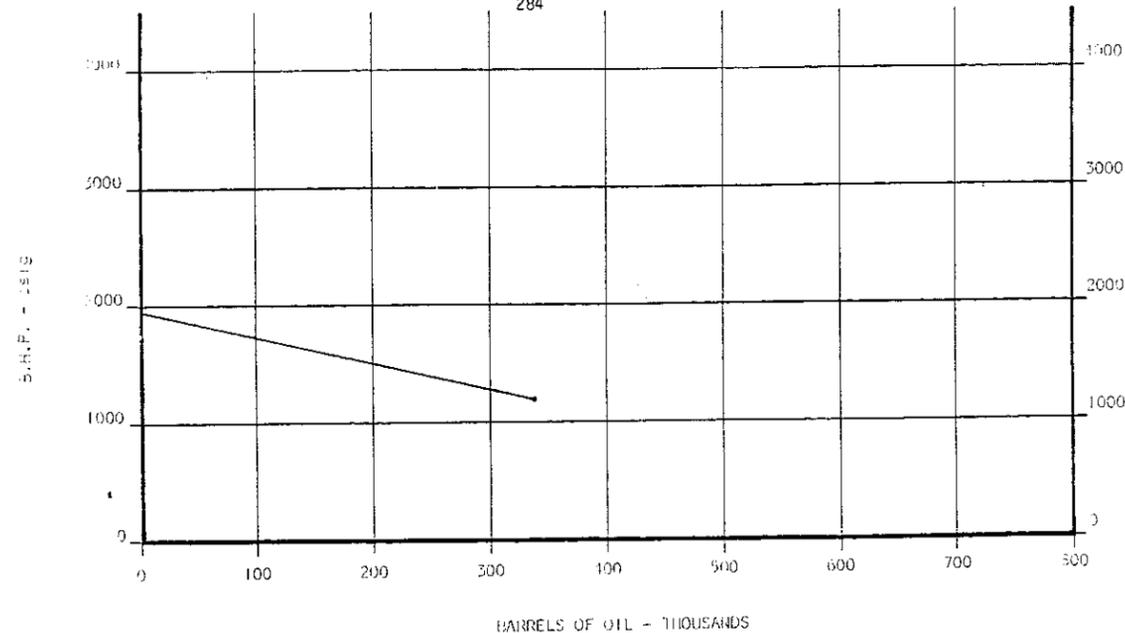
FIELD NAME FOREST 22-33N-1E COUNTY CHEBOYGAN TOWNSHIP FOREST DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-82 VIRGIN PRESSURE 1582 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3054 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
St. Forest #1-22A	2-82	111.6	3982 TVD	1582	.10	1582		FEBRUARY 16, 1982			586

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

FOREST 14-33N-1E

284



FIELD NAME FOREST 34-33N-1E COUNTY CHEBOYGAN TOWNSHIP FOREST DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-79 VIRGIN PRESSURE 2194 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3261 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
National Bank of Detroit	9-79	64.8	4161	2194	304	2194		SEPTEMBER 17, 1979			1009 724

CRAWFORD

STATE OF MICHIGAN

FIELD NAME FREDERIC 1-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 5-75 VIRGIN PRESSURE 3527 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5241 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Salling Hanson #1-1	5-75	65	6619	3527	.26	3527	Initial	Test		2007
Talbot #1-6	8-76	46.1	6558	3519	.15*	3522	INITIAL	TEST		2569

* Assumed

STATE OF MICHIGAN

FIELD NAME FREDERIC 2-28N-4W NORTHEAST COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-10-73 VIRGIN PRESSURE 3459 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5117 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Wood #2-2	5-73	17.5	6424	3459	.285	3459	INITIAL	TEST		1797
Wood #2-2	5-73	22.3	6424	2882	.26	2882	3459	5-14-73	- 577	1318 525
Wood #2-2	5-73	25.5	6423	2711	.29	2707	2882	10-16-75	- 175	1216 Pkr.
Wood #2-2	5-73	27	6423	2605	.28	2601	2707	4-21-76	- 106	1105 Pkr.
Wood #2-2	5-73	53.5	6423	2402	.30	2402	2601	10-26-76	- 199	1029
Wood #2-2	5-73	24.5	6424	2135	.29	2131	2402	9-27-77	- 271	576
Wood #6-2	9-79	132	6606	2493	.295	2429	Not used in calculations.			
Wood #6-2	9-79	144	6607	1845	.338	1772	2131	3-1-79	- 359	Vac.
Wood #6-2	9-79	178	6709	1179	.34	1072	1772	1-21-80	-700	832

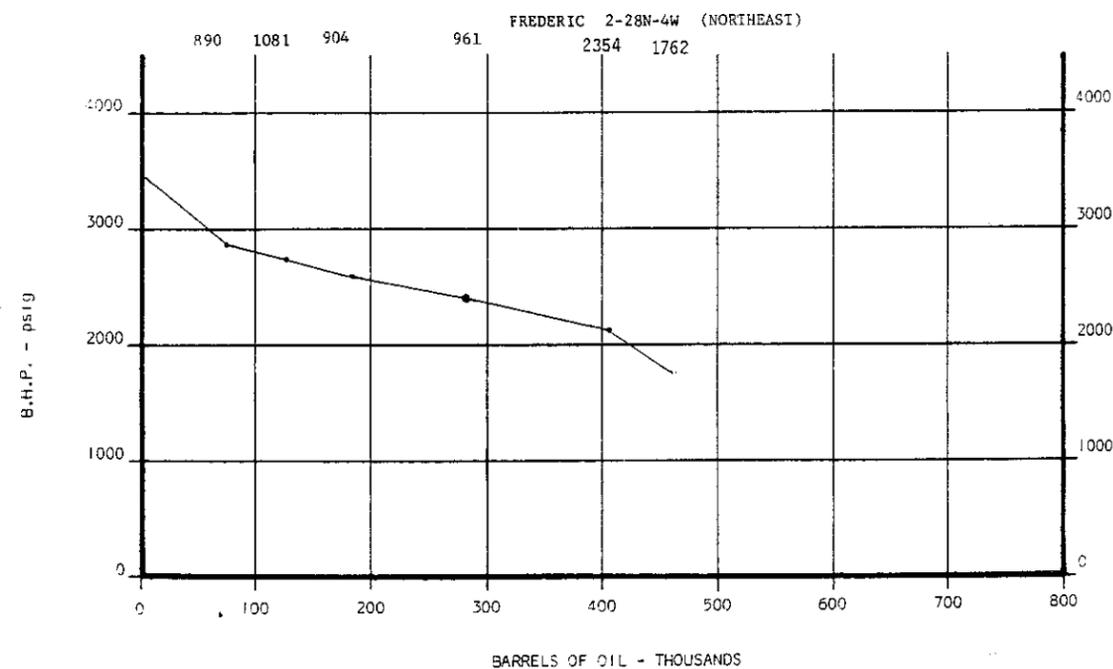
The Wood #2-2 is believed to be in a separate pool from that pool in which the State Frederic #3-2 and Wood #4-2 is located.

FIELD NAME: FREDERIC 2-28N-4W (NE)

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERNAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5117 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		
Wood 2-2	5-73	45	6565	1685	.05	1678	NOT USED	IN CALCULATIONS		1388

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION



STATE OF MICHIGAN

FIELD NAME FREDERIC 2-28N-4W (SOUTHWEST) COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-74 VIRGIN PRESSURE 3459 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG
						P.S.I. @ 5117 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
State Frederic #3-2	12-74	89	6834	3497	.300	3361				
							INITIAL TEST			
Wood #4-2	6-75	224	6724	1302	.042	1287				1020
							BUILDUP INCOMPLETE, NON COMMERCIAL WELL			

The Wood #2-2 is believed to be in a separate pool from that pool in which the State Frederic #3-2 and Wood #4-2 is located

STATE OF MICHIGAN

FIELD NAME FREDERIC 4-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-74 VIRGIN PRESSURE 3622 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5520 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
KERR #1-4	3-74	65	6933	3622	.305	3622				
							INITIAL TEST			
Kerr #1-4	3-74	66.3	6933	2075	.305*	2080	3622	3-22-74	- 1542	1508
Kerr #1-4	3-74	25	6933	1371	.40	1371	2080	11-24-75	- 709	1069 Pkr.
Kerr #3-4	3-77	360	6856	2506	.32	2544				780
							NOT USED IN CALCULATIONS			
Kerr 3-4	3-77	30	6823	760	.01	813	1371	4-21-76	-558	498

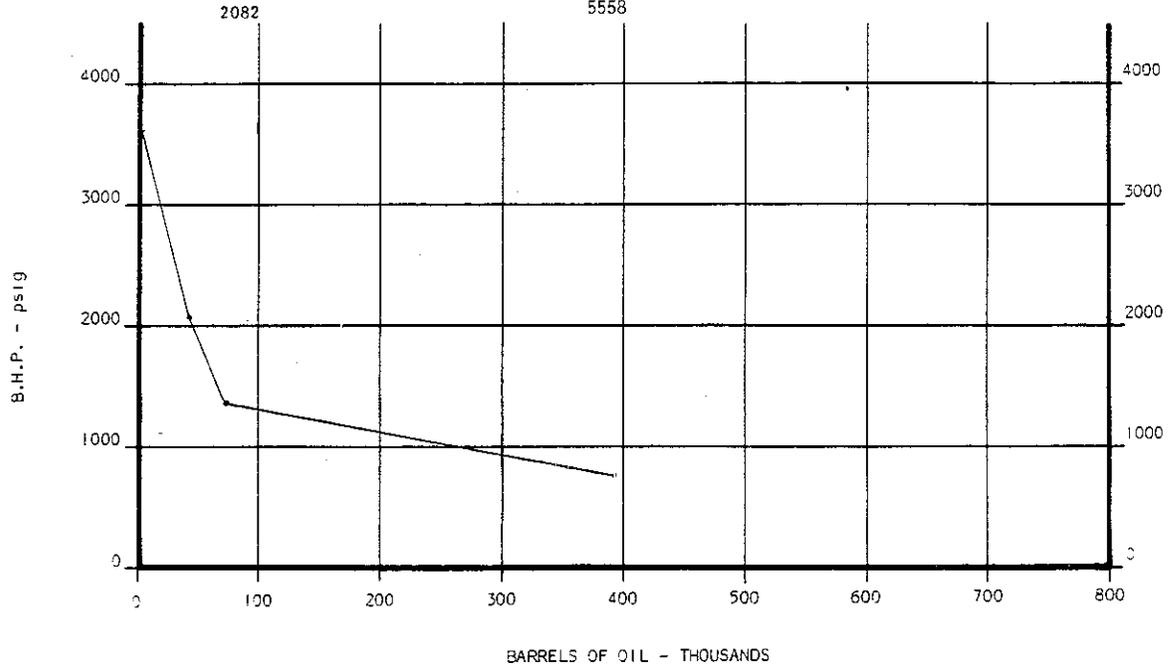
Even though well is in Frederic 4-28N-4W Field well is believed to be separate from Kerr #1-4.

* Assumed

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

FREDERIC 4-28N-4W
5558



STATE OF MICHIGAN

FIELD NAME FREDERIC 7-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF REVISION _____
 ROCKING FORMATION SAL.-NIAG. DISCOVERY DATE 11-73 VIRGIN PRESSURE 3377 NO. PRODUCING WELLS _____

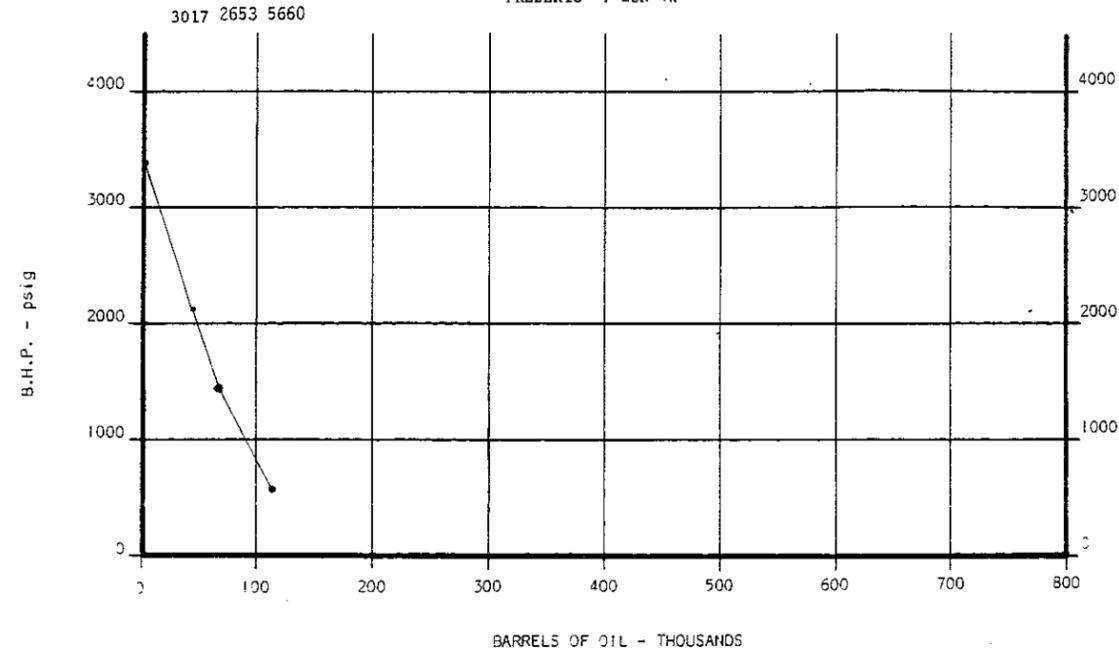
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5520 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Frederic 1-7	11-73	64									
			<u>NOVEMBER 16, 1978</u>								
			6755	3377	.265	3377				1680"	2080
			<u>MAY 2, 1977</u>								
St. Frederic "A"	1-7 11-73	528	6785	2129	.070	2127	3377	11-16-73	- 1250	1697	
			<u>MAY 9, 1978</u>								
St. Frederic "A"	1-7 11-73	145	6785	1442	.042	1441	2127	5-2-77	- 686	1175	670
			<u>May 16, 1979</u>								
St. Frederic "A"	1-7 11-73	139	6750	582	.016	582	1441	5-9-78	- 859	479	479
			<u>JANUARY 26, 1981</u>								
St. Frederic "A"	#1-7 11-73	Flowing	6955	748	.146	719	NOT USED	IN CALCULATIONS		151	598
			<u>FEBRUARY 23, 1982</u>								
St. Frederic "A"	#1-7 11-73	Flowing	7000	502	.548	368	NOT USED	IN CALCULATIONS			

REMARKS:

FIELD NAME: FREDERIC 8-28N-4W

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

FREDERIC 7-28N-4W



OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME (HOURS)	RECORD DEPTH (FEET)	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERNAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5484 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		TUB. CSG.	CSG.
St. Frederic "B" #1-8	11-74	24	6760	2220	292	2220	2463	7-3-79	- 243	1418	1784
						MARCH 5, 1981					

REMARKS:

STATE OF MICHIGAN

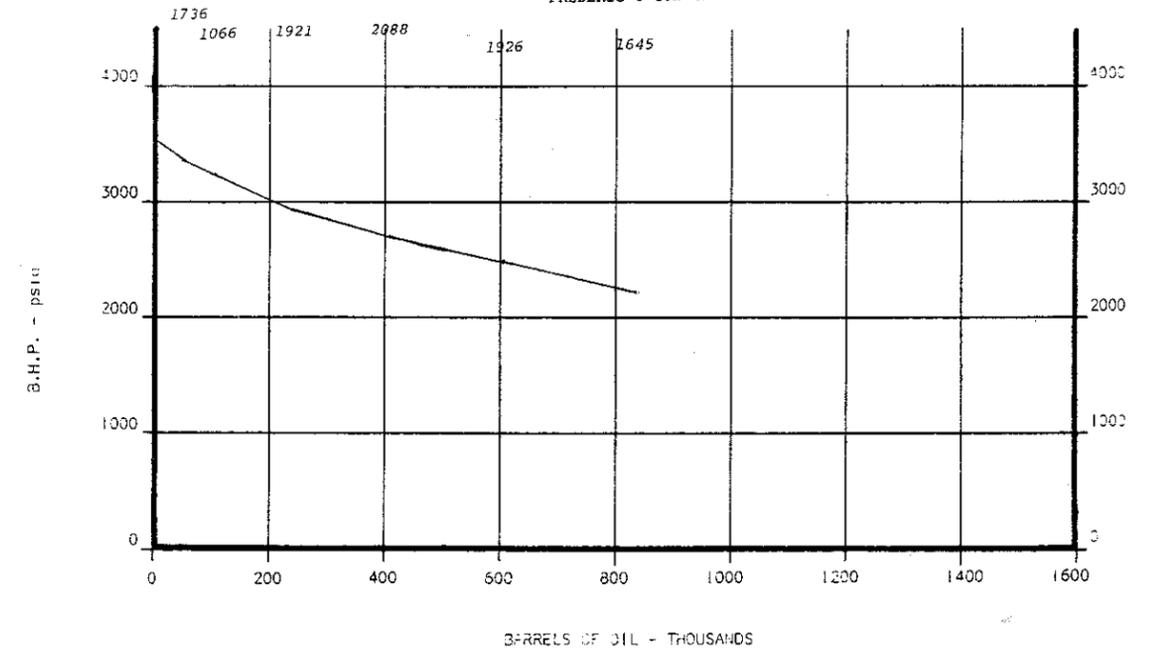
BOTTOM-HOLE PRESSURE TESTS

FIELD NAME FREDERIC 8-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-74 VIRGIN PRESSURE 3523 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME (HOURS)	RECORD DEPTH (FEET)	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5484 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Frederic #1-8	11-74	64	6760	3523	.400	3523					
						NOVEMBER 25, 1974					
St. Frederic #2-8	9-75	66	6720 TVD	3341	.590	3365	3523	11-25-74	- 158		
						SEPTEMBER 22, 1975					
St. Frederic #1-8	11-74	24	6760	3341	.273	3345	3365	9-22-75	- 20	2050	
						OCTOBER 14, 1975					
St. Frederic #1-8	11-74	24	6760	3244	.26	3247	3345	10-14-75	- 98	1692	900
						MAY 4, 1976					
St. Frederic #2-8	9-75	24	6710 TVD	2915	.272	2929	3247	5-4-76	- 318	1490	2253
						APRIL 15, 1977					
St. Frederic #1-8	11-74	48	6760	2700	.281	2704	2929	4-15-77	- 225	1663	2195
						APRIL 26, 1978					
St. Frederic #2-8	9-75	84.3	6710 IVD	2449	.28	2463	2704	4-26-78	- 241	1544	1948
						JULY 3, 1979					
St. Frederic #2-8	9-75	69.3	6906 IVD	2580	.582	2495	Not used	in calculations		948	1923
						OCTOBER 14, 1979					
St. Frederic "B" #5B-8	3-81	0.0	6829 TVD	1924	.596	1865	NOT USED	IN CALCULATIONS		57	700
						MARCH 3, 1981					

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

FREDERIC 8-28N-4W



FIELD NAME: FREDERIC 10-28N-4W

FIELD NAME FREDERIC 10-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION NIAGARAN DISCOVERY DATE 9-6-71 VIRGIN PRESSURE 3760 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5713 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	CSG.
Kerr #1-10	9-6-71	20	SEPTEMBER 23, 1971 7000 3241			3241		1st test		1527	1650
Kerr #1-10	9-6-71	23.5	JANUARY 4, 1972 6685 3665		300*	3760	3241	9-23-71	+ 519	1959	
Kerr #1-10	9-6-71	35	FEBRUARY 3, 1972 6685 3638		300*	3733	3760	1-4-72	- 27	1950	
Kerr #2-10	7-72	20.5	JULY 16, 1972 6963 3657		300*	3735	3733	2-3-72	+ 2	1865	
Kerr #1-10	9-6-71	24	OCTOBER 28, 1972 7063 3452		.320	3432	3735	7-16-72	- 303	1703	Pkr.
Kerr 1-10	9-6-71	24	APRIL 13, 1973 6685 3202		.290	3293	3432	10-28-72	- 139	1589	Pkr.
Kerr 1-10	9-6-71	71	OCTOBER 11, 1973 6685 3046		.270	3131	3293	4-13-73	- 162	1553	Pkr.
Kerr 1-10	9-6-71	24	APRIL 11, 1974 6685 2947		.300	3042	3131	10-11-73	- 89	1534	Pkr.

REMARKS: * assumed

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFE	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5713 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		
Kerr 2-10	7-72	NA	6963	1854	.41	1924	1998	10-17-79	-74	
Kerr 10-10	12-82	62	7053TVD	2254	.32	2251	1924	7-7-82	+327	743

REMARKS:

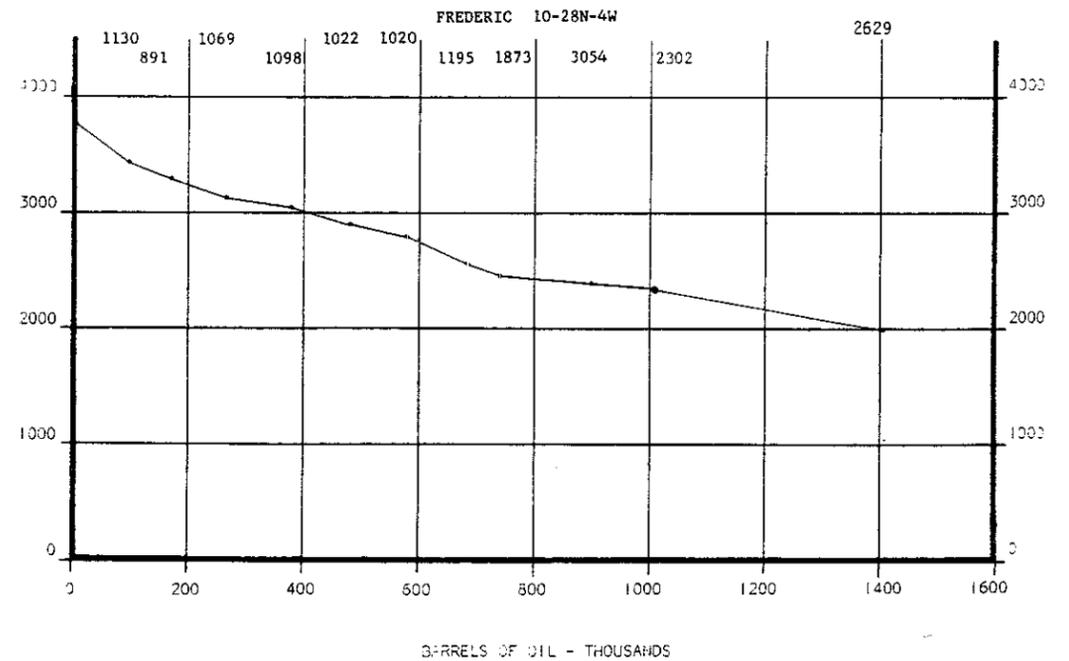
BOTTOM-HOLE PRESSURE TESTS - PAGE 2

FREDERIC 10-28N-4W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5713 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		TUB. CSG.	CSG.
Kerr 1-10	9-71	24	OCTOBER 24, 1974 6685 2808		.280	2896	3042	4-11-74	- 146	1271	Pkr.
Kerr 1-10	9-71	30	APRIL 18, 1975 6685 2708		.2696	2793	2896	10-24-74	- 103	1378	1630
Kerr #2-10	7-72	26.5	OCTOBER 16, 1975 6947 2501		.270	2551	2793	4-18-75	- 242	1306	500
Kerr #2-10	7-72	66	APRIL 22, 1976 6947 2400		.298	2452	2551	10-16-75	- 99	1450	
Kerr #2-10	7-72	264	MAY 2, 1977 6847 2331		.280	2411	2452	4-22-76	- 41	1500	
Kerr #4-10	8-77	135	AUGUST 25, 1977 6934 2414		.282	2459	NOT USED IN CALCULATIONS			1212	
Kerr #5-10	6-78	38.4	JUNE 30, 1978 7045 2337		.29	2331	2411	5-2-77	- 80	785	
Kerr #6-10	7-78	17.8	JULY 13, 1978 7043 2330		.24	2319	2331	6-30-78	- 12	830	
Kerr #2-10	7-72	120	OCTOBER 17, 1979 6947 1972		.15	1998	2319	7-13-78	- 321	1561	
Kerr #7-10 (WIW)	4-80	N.A.	SEPTEMBER 5, 1980 7084 2361		.46	2386				0	
Kerr #8-10 (WIW)	4-80	N.A.	6959 2184		.46	2219				0	
Kerr #9-10 (WIW)	6-80	68	7104 2535		.46*	2516					
Average						2374	NOT USED IN CALCULATIONS				

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION



FIELD NAME FREDERIC 11-28N-4W (NE) COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 3-77 VIRGIN PRESSURE 3650 NO PRODUCING WELLS

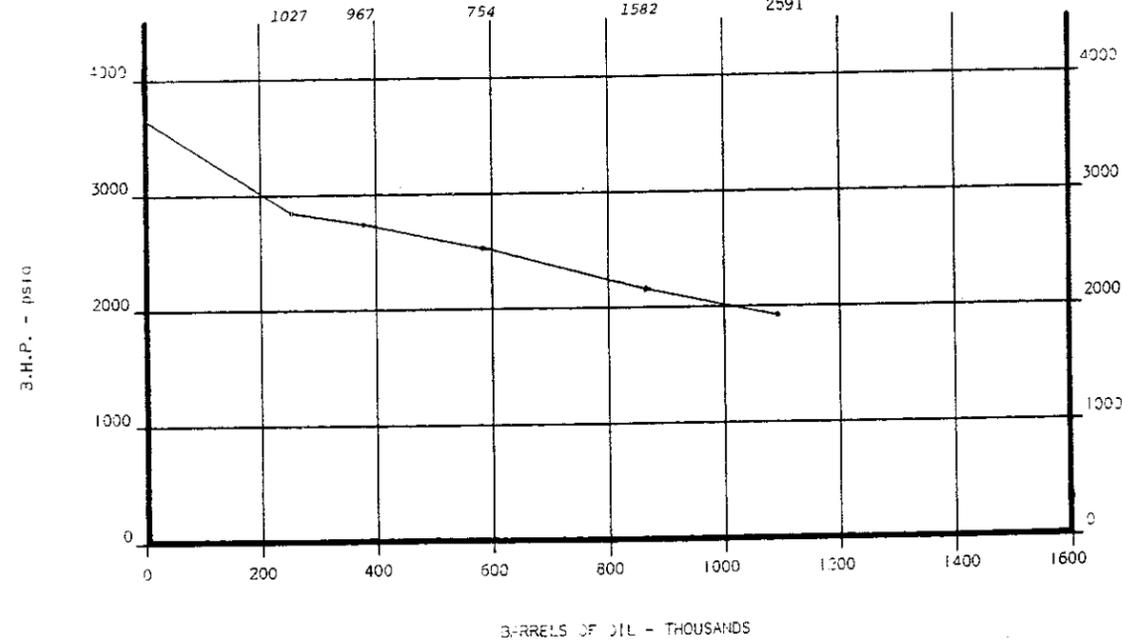
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5775	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Wood #2-11	3-77	118	6759	3564						
						MARCH 28, 1977				
						29	3650		- 179	1811
						JULY 18, 1977				
Salling Hanson #3-11	7-77	66	7030 IVD	3368	.26	3389	3650	3-28-77	- 261	1611
						OCTOBER 5, 1978				
Salling Hanson #3-11	7-77	25	7030 IVD	2848	.28	2866	3389	7-18-77	- 523	1220
						APRIL 19, 1979				
Wood #2-11	3-77	25	6759	2648	.30	2737	2866	10-5-78	- 129	1092
						APRIL 1, 1980				
Wood #2-11	3-77	24	6758	2468	.27	2552	2737	4-19-79	- 185	1116
						OCTOBER 15, 1981				
Salling-Hanson #3-11	7-77	55	7030 TVD	2141	.31	2165	2552	4-1-80	- 387	1183
						JANUARY 13, 1984				
Salling-Hanson #3-11	7-77	26	7050 TVD	1890	.33	1905	2165	10-15-81	-260	1176

FIELD NAME FREDERIC 11-28N-4W (SW) COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 8-76 VIRGIN PRESSURE 3829 NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 5775 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Talbot #1-11	8-76	61.8	7006 IVD	3829	.27					1968
						AUGUST 13, 1976				
Talbot #1-11	8-76	24.5	7006 TVD	1990	.27	1986	3829	8-13-76	-1843	1058
						MARCH 23, 1979				
Talbot #1-11	8-76	24	7006 IVD	1804	.43	1804	1986	3-23-79	- 182	1043
						APRIL 1, 1980				
Talbot #1-11	8-76	28	7032 TVD	1190	.05	1189	1804	4-1-80	-615	966
						NOVEMBER 9, 1982				
Talbot #1-11	8-76	28	7005 TVD	1169	.04	1168	1189	11-9-82	-21	-
						JUNE 3, 1983				

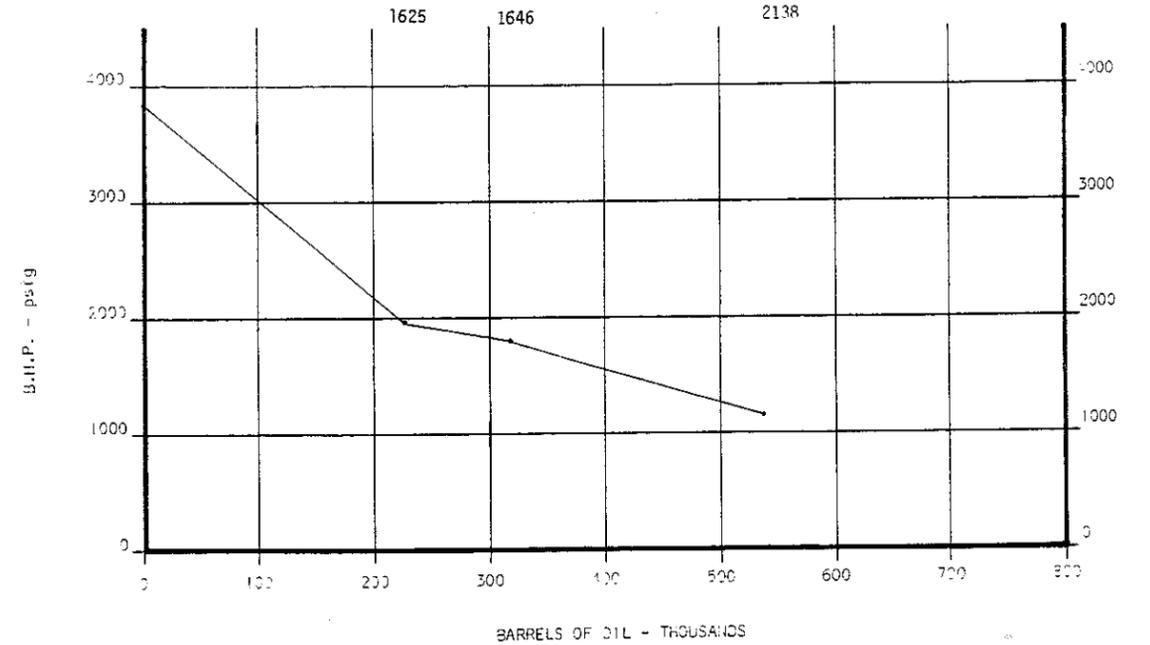
BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

FREDERIC 11-28N-4W (NORTHEAST)



BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

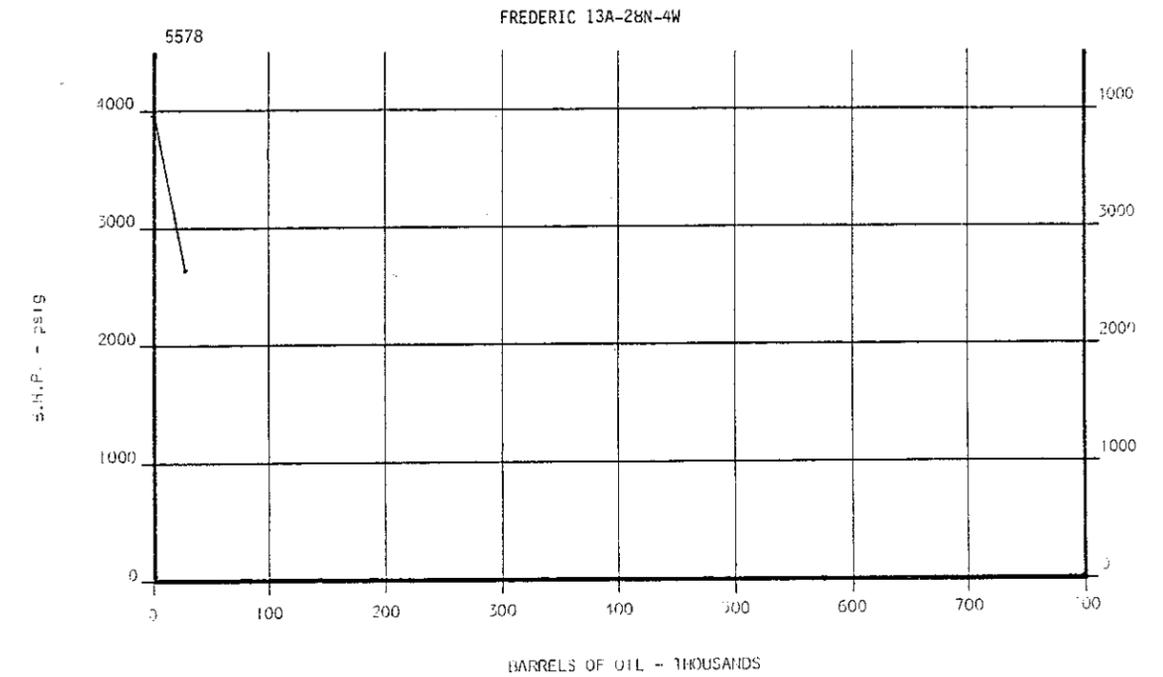
FREDERIC 11-28N-4W, Southwest



FIELD NAME FREDERIC 13-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 10-24-72 VIRGIN PRESSURE 3975 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5448 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Salling Hansen #1-13	10-72	41	6862	3975	.670*	3975	Initial test		2897	
Salling-Hansen 1-13	10-72	65	6763	3678	.140	3692	INITIAL TEST			
Salling Hansen #1-13	10-72	30 days	6912	3965	.50	3940	INITIAL TEST		516	
Salling Hansen #1-13	10-72	N.A.	6904	3687	.10**	3683	3975	12-11-72	- 292	2550 Pkr
Salling-Hansen #1-13	10-72	--	6862	2463	.09	2463	3683	12-13-78	-1220	1847

REMARKS: * Probably mud in hole
 ** Estimate



FIELD NAME FREDERIC 13A-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-81 VIRGIN PRESSURE 3979 NO. PRODUCING WELLS _____

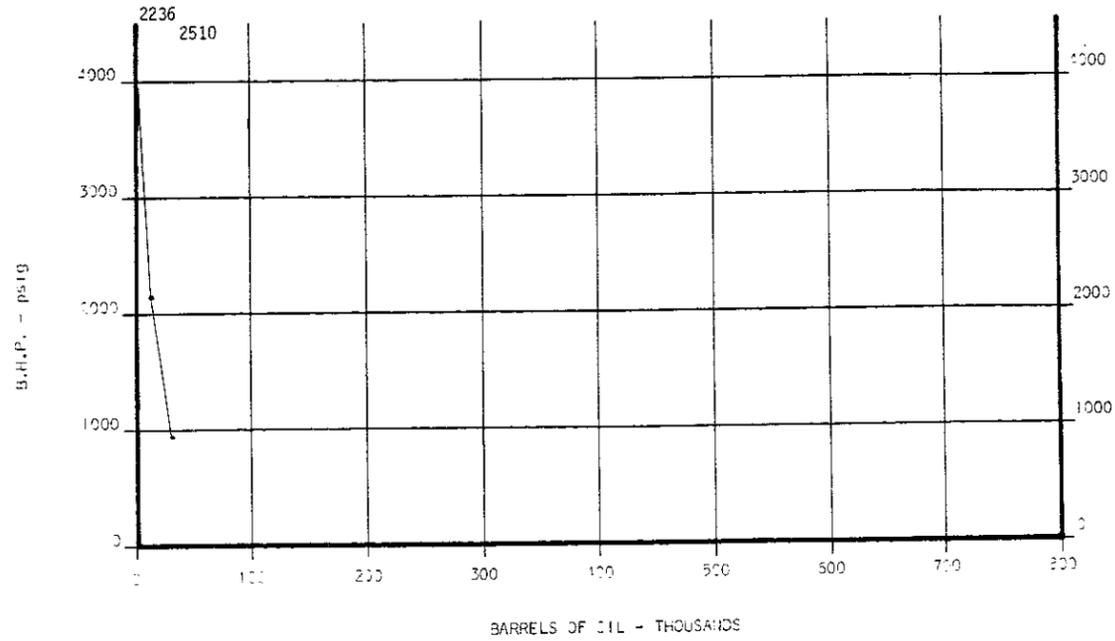
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5864 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Salling Hansen #2-13B	9-81	63 1	7245 TVD	3979	.29	3979	INITIAL TEST			
Salling-Hansen #2-13B	9-81	25	7245 TVD	2657	.13	2656	3979	9-21-81	-1323	1785

FIELD NAME FREDERIC 16-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 9-76 VIRGIN PRESSURE 3954 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5748 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Fisher St. Frederic #1-16	9-76	297	7164	3954	.270	3954	INITIAL PRESSURE			
Fisher St. Frederic #1-16	9-76	360	7206	2175	.27	2163	3954	8-21-76	-1791	1050
Fisher St. Frederic #1-16	9-76	99	7106	941	.04	943	2163	11-28-78	-1220	772

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

FREDERIC 16-28N-4W



BARRELS OF OIL - THOUSANDS

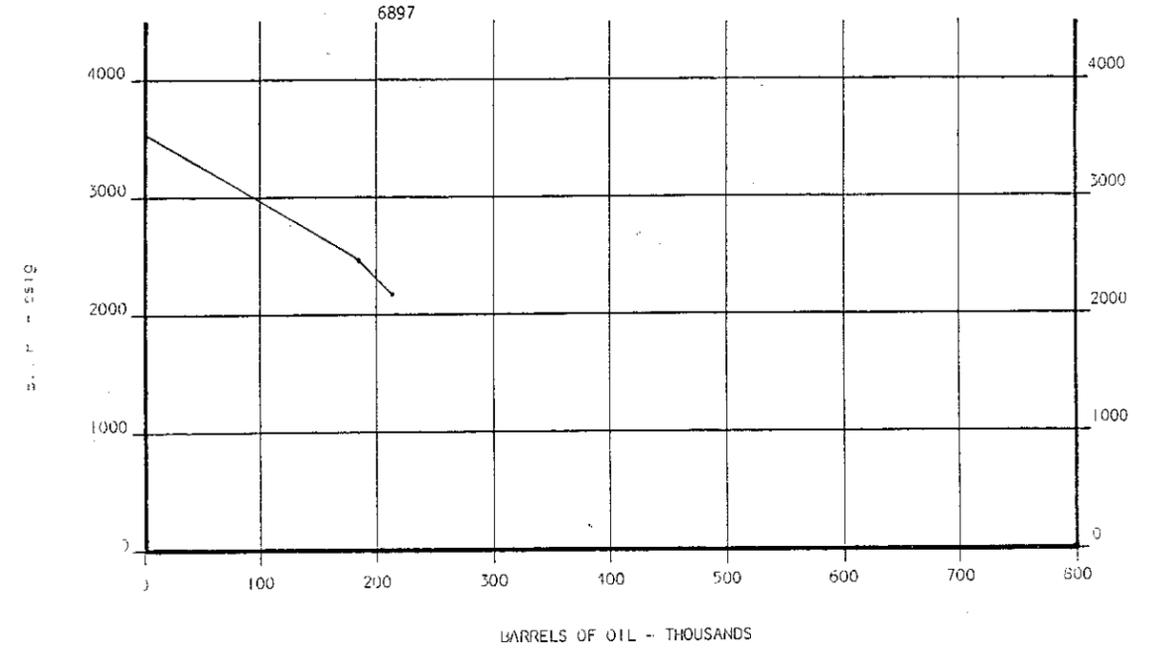
STATE OF MICHIGAN

FIELD NAME FREDERIC 16A-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-80 VIRGIN PRESSURE 3554 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5911 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Frederic-Fisher #2-16	2-80	90	7338	3586	27	3586	INITIAL TEST		-	1736
St. Frederic-Fisher #2-16	2-80	24	7338	3095	32	3095	3586	2-12-80	- 491	1625
St. Frederic-Fisher #2-16	2-80	296	7338	2470	29	2470	3095	3-25-81	- 625	1524
St. Frederic-Fisher #2-16	2-80	29	7338	2186	28	2186	2470	12-1-82	- 284	1495

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

FREDERIC 16A-28N-4W



BARRELS OF OIL - THOUSANDS

STATE OF MICHIGAN

FIELD NAME FREDERIC 20-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-81 VIRGIN PRESSURE 2575 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5949 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Frederic #4-20A	6-81	---	7281 TVD	2575	09	2575	INITIAL TEST		-	
St. Frederic #4-20A	6-81	40	7281 TVD	1841	07	1840	2575	6-17-81	- 735	1466

FIELD NAME FREDERIC 21-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-82 VIRGIN PRESSURE 3998 NO PRODUCING WELLS

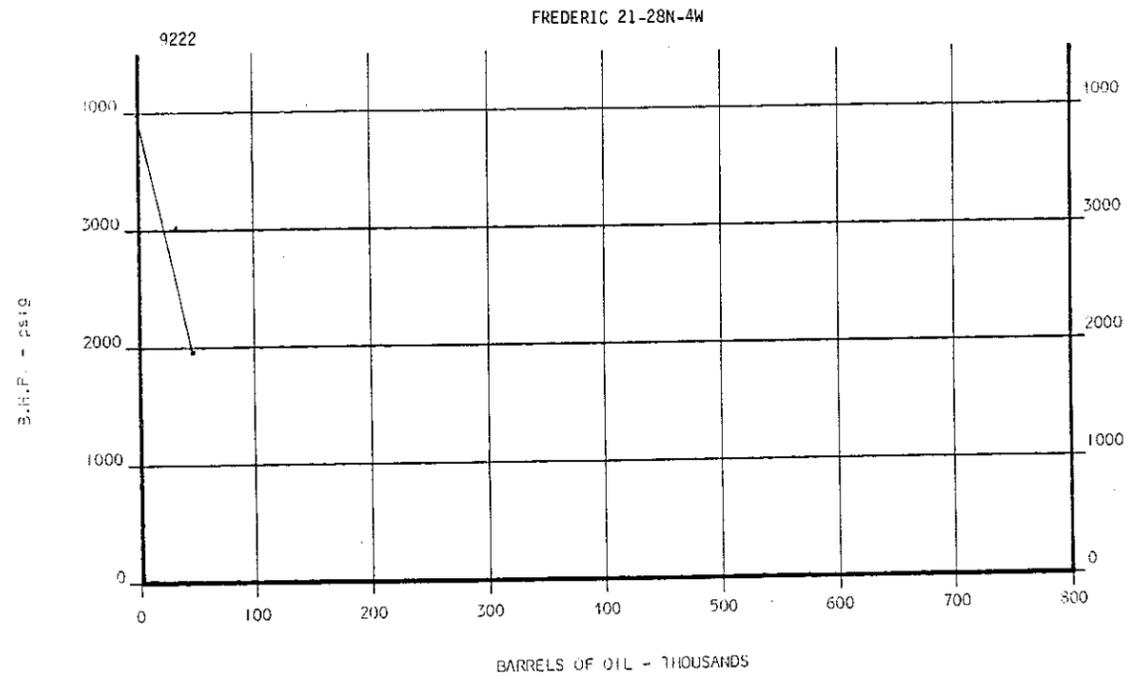
OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. # 6020 CURRENT PRESS.	PREVIOUS PRESS	DATE OF PREV PRESSURE		
St Frederic #3-21	1-82	65	7394	3998	.253	DECEMBER 11, 1981				2170
						3998		INITIAL TEST		
St. Frederic #3-21	1-82	31	7392	1970	.22	DECEMBER 12, 1983			-2034	1425
						1964		3998		12-11-81

FIELD NAME FREDERIC 22-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-27-73 VIRGIN PRESSURE 3913 NO PRODUCING WELLS

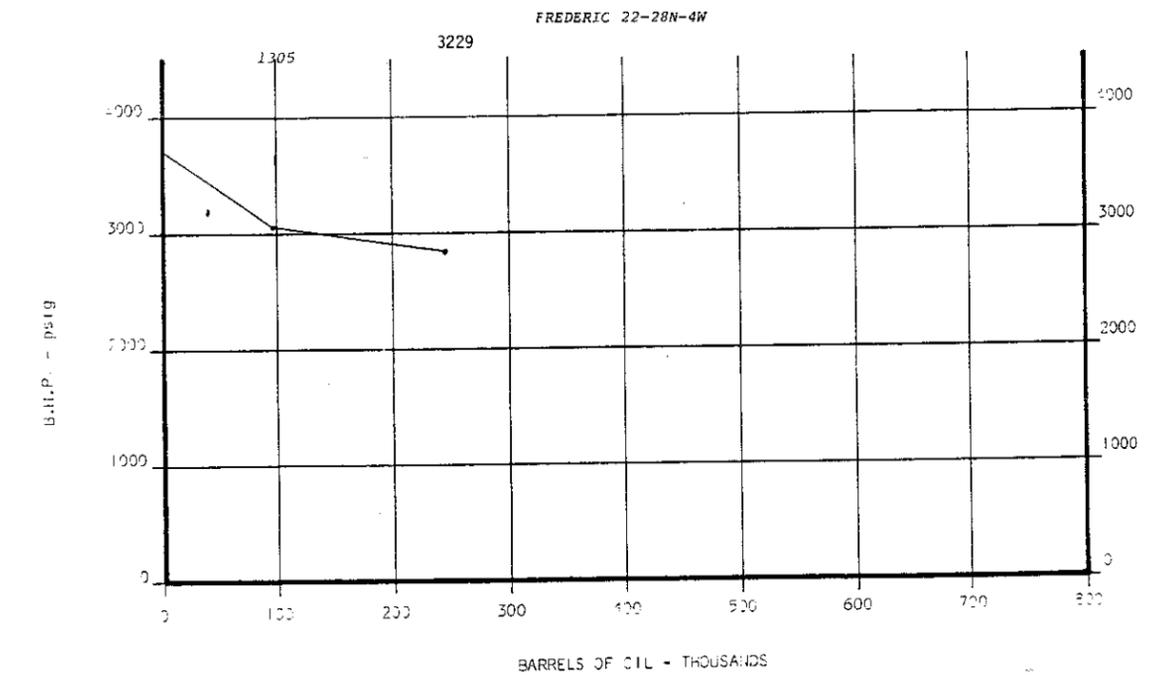
OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. # 5344 CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Frederic 1-22	1-73	46	6750	3704	.140	FEBRUARY 27, 1973				2811
						3704		Initial Test		
St. Frederic 1-22	1-73	Since Completion	7098	3965	.148	SEPTEMBER 28, 1977				2915
						3965		INITIAL TEST		
St. Frederic 1-22	1-73	288	7100	2877	.098	OCTOBER 24, 1978				2230
		Final buildup rate of 1psi/3hours				2877		NOT USED IN CALCULATION		
St. Frederic 2-21	9-80	171.6	7404	3671	.31	SEPTEMBER 9, 1980				1870
		This well appears to be in pressure communication with the St. Frederic 1-22.				3671		9-28-77 - 440		
St Frederic 2-21	9-80	51	7404	3227	.25	NOVEMBER 3, 1981				1436
						3227		9-9-80 - 411		
St Frederic 1-22	1-73	--	7090	2832	.10	SEPTEMBER 23, 1983				2160
						2832		11-3-81 - 264		

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION



BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION



FIELD NAME FREDERIC 24-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 1-77 VIRGIN PRESSURE 4170 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5750 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Salling Hansen #1-24	1-77	174.5	7138	4170	.10*	MAY 9, 1977	4170			2976
Salling Hansen #1-24	1-77	236	7057	4053	.14	APRIL 26, 1978	4064			2890
Buildup after recompletion										
* Assumed										

FIELD NAME FREDERIC 27-28N-4W COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 10-77 VIRGIN PRESSURE 4357 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5720 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Bender Salling Hanson #1-27	4-77	N.A.	6966	4357	.153	OCTOBER 5, 1977	4357			3337
Bender Salling Hanson 1-27	4-77	692	6966	4317	.153	SEPTEMBER 7, 1980	4357	10-5-77	- 40	3290

FIELD NAME FREDERIC 29-28N-4W (EAST) COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-78 VIRGIN PRESSURE 3996 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5985 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Johns 1-21a	7-78	63.3	7371 IVD	3996	.1385	JULY 14, 1978	3996			2971	
St. Frederic #2-20	10-78	37.6	7433	3885	.10*	OCTOBER 6, 1978	3878			3000	
Johns 1-21A	7-78	144	7371 IVD	3888	.16	JUNE 26, 1980	3888			2660	
Johns 1-21A	7-78	14 DA	7370 TVD	3529	.16	AUGUST 3, 1982	3529	3888	6-26-80	-359	2450
*Estimated											

FIELD NAME FREDERIC 29-28N-4W (NORTH) COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-11-73 VIRGIN PRESSURE 3955 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5685 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Frederic #1-20	5-73	18	MAY 10, 1973 7037	3955	.125	3955				2912
St. Frederic #1-20	5-73	20 days	FEBRUARY 7, 1978 7037	3828	.131	3829	3955	5-10-73	- 126	2905
St. Frederic #1-20	5-73	67.5	AUGUST 25, 1978 7037	3673	.124	3674	3829	2-7-78	- 155	2800
St. Frederic #3-20	11-78	89.9	NOVEMBER 10, 1978 6898TVD	3549	.121	3564	3674	8-25-78	- 110	2718
St. Frederic #1-20	5-73	48	JUNE 9, 1981 ; 7037	2416	.076	2417				1876
	5-73	NA	7037	2619	.060	2619	3564	11-10-81	- 1046	
AVG 2518										

REMARKS:

FIELD NAME FREDERIC 29-28N-4W (SOUTH) COUNTY CRAWFORD TOWNSHIP FREDERIC DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-12-72 VIRGIN PRESSURE 4084 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 6131 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Frederic 1-29	12-72	24 +	7490	4084	.160	4084					
FEBRUARY 3, 1973											
St. Frederic 1-29	12-72	46	7437	2968	.090	2972	4084	1-3-73	- 1112		
FEBRUARY 14, 1973											
St. Frederic 1-29	12-72	43	7250	2511	.090 *	2533	2972	2-14-73	- 439	1942	
FEBRUARY 20, 1973											
St. Frederic 1-29	12-72	N.A.	7250	2882	104	2907	2533	2-20-73	+ 374	2232	965
MAY 20, 1975											
St. Frederic 1-29	12-72	N.A.	7314	2622	09	2638	2907	5-20-75	- 269	2020	
MAY 29, 1976											

REMARKS: * Assumed

FIELD NAME MAPLE FOREST 3-28N-3W COUNTY CRAWFORD TOWNSHIP MAPLE FOREST DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE _____ VIRGIN PRESSURE 3700* NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5339 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Maple Forest Diefenbauch #1-3	10-76	N.A.	6731	1992	.251	1992	3700*	5-76	- 1708	1535	
NOVEMBER 23, 1977											
* First well bore burned out of control May 27 1976 to June 27, 1976											
St. Maple Forest Diefenbauch #1-3	10-76	N.A.	6377	1715	.271	1811	1992	11-23-77	- 181	1064	
JUNE 11, 1980											
St. Maple Forest Diefenbauch #1-3A	10-76	N.A.	6377	1559	.050	1577	1811	6-11-80	- 234	1272	
MAY 29, 1981											

STATE OF MICHIGAN

FIELD NAME BLAIR 11-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 12-82 VIRGIN PRESSURE 3035 NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4615 CURRENT PRESS.	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Conroy Watson #1-11A	12-82	73.3	5361 TVD	3035	273	3035	INITIAL TEST			1594

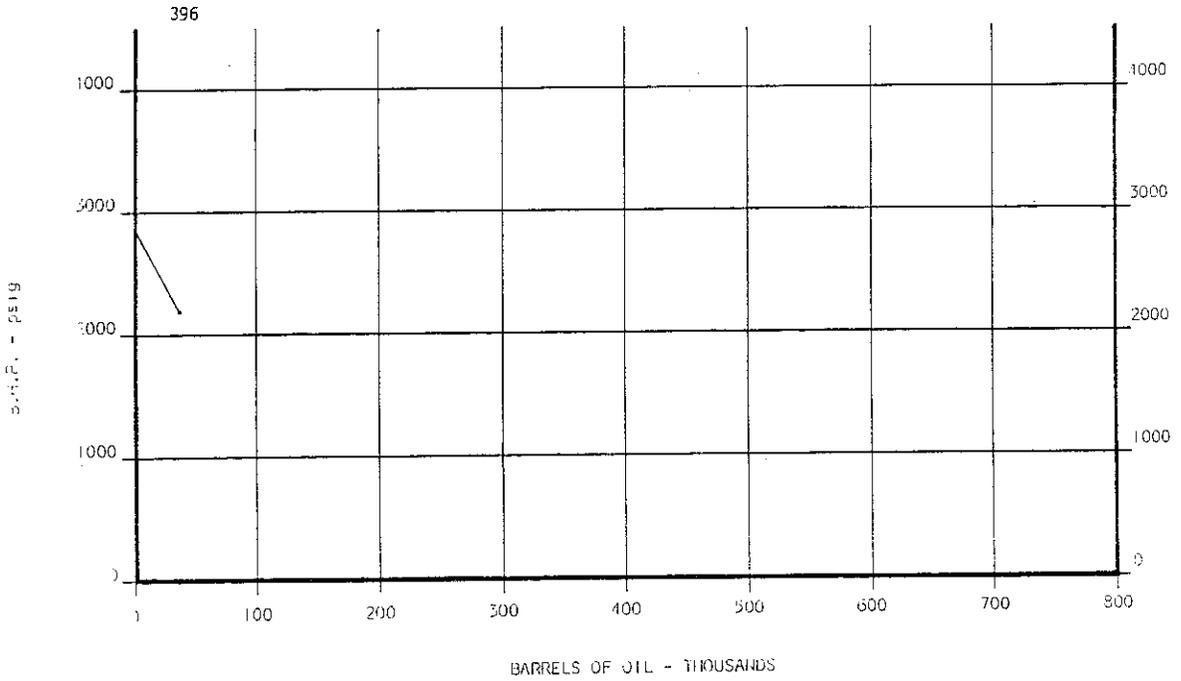
STATE OF MICHIGAN

FIELD NAME BLAIR 13-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 5-82 VIRGIN PRESSURE 2854 NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4902 CURRENT PRESS.	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Shumsky-St. Blair	#1-13 5-82	45.3	5652 TVD	2854	534	2854	INITIAL TEST			676 1706
Shumsky-St. Blair	#1-13 5-82	24.3	5651 TVD	2195	302	2195	2854	6-5-82	-659	1068 1123

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

BLAIR 13-26N-11W



STATE OF MICHIGAN

FIELD NAME BLAIR 14-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-78 VIRGIN PRESSURE 2792 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4878 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Jones St. Blair #1-14	6-78	72	5787	2771	.222	2771				1990
Shumsky #3-22	7-78	74 3	5666	2757	.08	2767				2209 2180
Powell #1-15	12-78	65 3	5702	2767	.29	2792				1962
Shumsky #3-22	7-78	24	5666	2646	.110	2660	2792	11-14-78	- 132	2108 2124
Powell #1-15	12-78	48+	5702	2589	.44	2623	2660	4-13-79	- 37	
Jones St. Blair #1-14	6-78	23	5787	2587	.406	2587	2623	7-16-79	- 36	1228 Pkr.
Shumsky #3-22	7-78	26.5	5674	2586	.10	2598	NOT USED IN CALCULATIONS			2050 2044
St. Blair #1-14	10-79	70 3	5707	2528	.62	2578	2587	9-15-79	- 9	1550 1551
Shumsky #3-22	7-78	23 5	5674	2510	.12	2524	2578	10-15-79	- 54	1995 1997

BLAIR 14-26N-11W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
					FLUID GRADIENT LOWER FT. 100	P.S.I. @ 4878 FEET	PREVIOUS PRESS. DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
St. Blair #1-14 Shumsky #3-22	10-79 7-78	74	5636	2416	.09	2430	17 (Shumsky #3-22), 19 (St. Blair #1-14), 1980	- 88	1957	1971
		24	5674	2428	.110	2441	Average 2436	2524	4-28-80	1929
St. Blair #1-14 Shumsky #3-22	10-79 7-78	72.5	5636	2220	.090	2234	AUGUST 22, 1981	- 194	1803	1664
		24.5	5674	2239	.100	2251	Average 2243	2436	9-19-80	1787
St. Blair #1-14 Shumsky #3-22	10-79 7-78	--	5636	1968	.070	1979	SEPTEMBER 24, 1982	-246	1607	1625
		--	5674	2000	.130	2015	AVG 1997	2243	8-22-81	1623
Jones-St. Blair #1-14	6-78	90+	5787	1749	31	1744	DECEMBER 16, 1983	-253	1200	

REMARKS:

STATE OF MICHIGAN

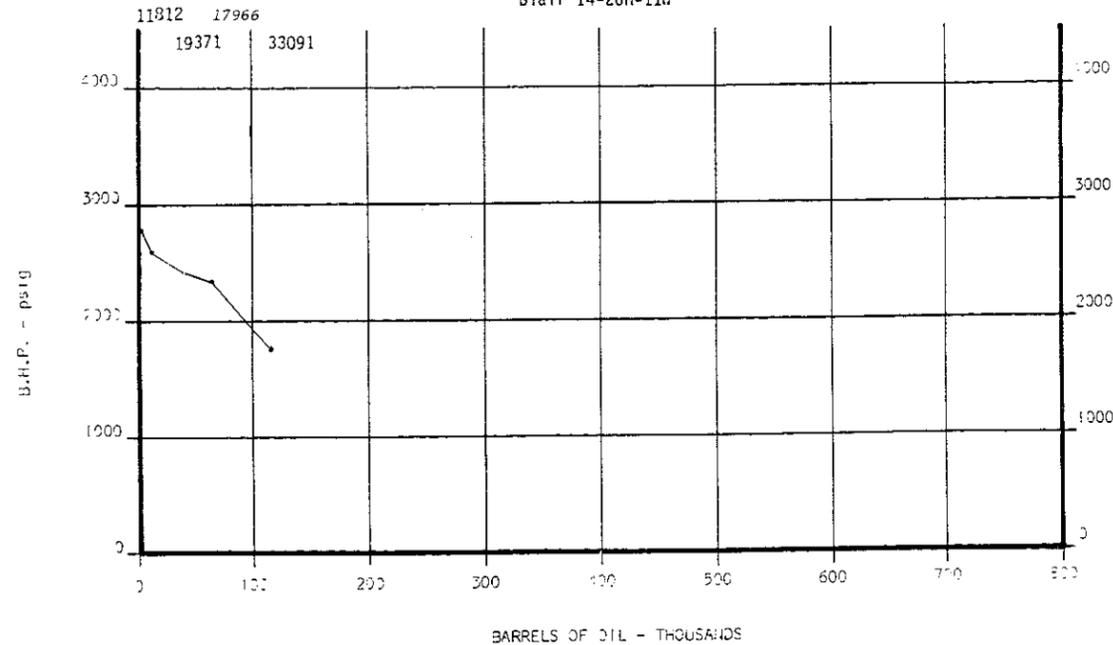
FIELD NAME BLAIR 16-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-80 VIRGIN PRESSURE 3029 NO. PRODUCING WELLS NO

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4077 FEET	PREVIOUS PRESS. DATE OF PREV. PRESSURE	TUB. CSG.		TUB. CSG.	
Meuzel Friauf #1-16	9-80	135.5	5457	3029	.568	3029	SEPTEMBER 30, 1980	INITIAL TEST		1364	1342

STATE OF MICHIGAN

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

Blair 14-26N-11W



FIELD NAME BLAIR 20-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 6-82 VIRGIN PRESSURE 2118 NO. PRODUCING WELLS NO

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4673 FEET	PREVIOUS PRESS. DATE OF PREV. PRESSURE	TUB. CSG.		TUB. CSG.	
Norton Wood #1-20A	6-82	10 days	5577 TVD	2118	.310	2118	JULY 6, 1982	INITIAL TEST		332	1314
(1708 BBL PRODUCED PRIOR TO TEST)											

STATE OF MICHIGAN

FIELD NAME BLAIR 21-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAGARAN DISCOVERY DATE 7-76 VIRGIN PRESSURE 3119 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4723 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
State Blair #2-21A	9-76	N.A.	5627* TWD	3119	.100*	3119	INITIAL PRESSURE			
Ryder State Blair #1-15a 8-77	8-77	120	5563 IVD	3002	.10	3007	INITIAL PRESSURE		2436	2018
Ryder State Blair #1-15a 8-77	8-77	N.A.	5568 IVD	1999	.210	2011	NOT USED IN CALCULATIONS		1602	1663
St Blair 2-21A	9-76	N.A.	5534 IVD	2522	.086	2530	NOT USED IN CALCULATIONS		2053	2066
St. Blair 2-21A	9-76	72	5534 IVD	1885	.095	1894	3119	9-11-76	-1225	1542 1562
Ryder St. Blair #1-15A	8-77	728	5568 IVD	1654	.58	1686	NOT USED IN CALCULATIONS		666	1129
St Blair #2-21A	9-76	72 5	5534 IVD	1841	.095	1850	1894	4-16-79	- 44	1516 1551
St. Blair #2-21A	9-76	18 days	5534 IVD	1762	.057	1767	1850	9-27-79	- 83	1454 1481
St. Blair #2-21A	9-76	69	5534 IVD	1450	.048	1454	1767	3-6-80	- 313	1183 1216

* Assumed

FIELD NAME BLAIR 25-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-74 VIRGIN PRESSURE 2871 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4966 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Blair St. Et al #1-25	5-74	21	5884	2864	.270	2864	INITIAL TEST			
St Blair #1-24A	1-75	88	5849 IVD	2832	.540	2850	INITIAL TEST			
St Blair #1-24A	1-75	99	5849 IVD	2845	.2475	2853	INITIAL TEST			1395
St. Blair #1-24A	1-75	48	5834 IVD	2858	.27	2871	INITIAL TEST AFTER REWORK			1375
Percha St. Blair #1-25	5-74	27.5	5884	2552	.25	2552	2871	7-28-75	- 319	1890
Percha St. Blair #1-25	5-74	26	5884	2400	.28	2400	2552	4-14-77	- 152	1578

REMARKS:

STATE OF MICHIGAN

FIELD NAME BLAIR 22-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 5-27-77 VIRGIN PRESSURE 2748 NO. PRODUCING WELLS _____

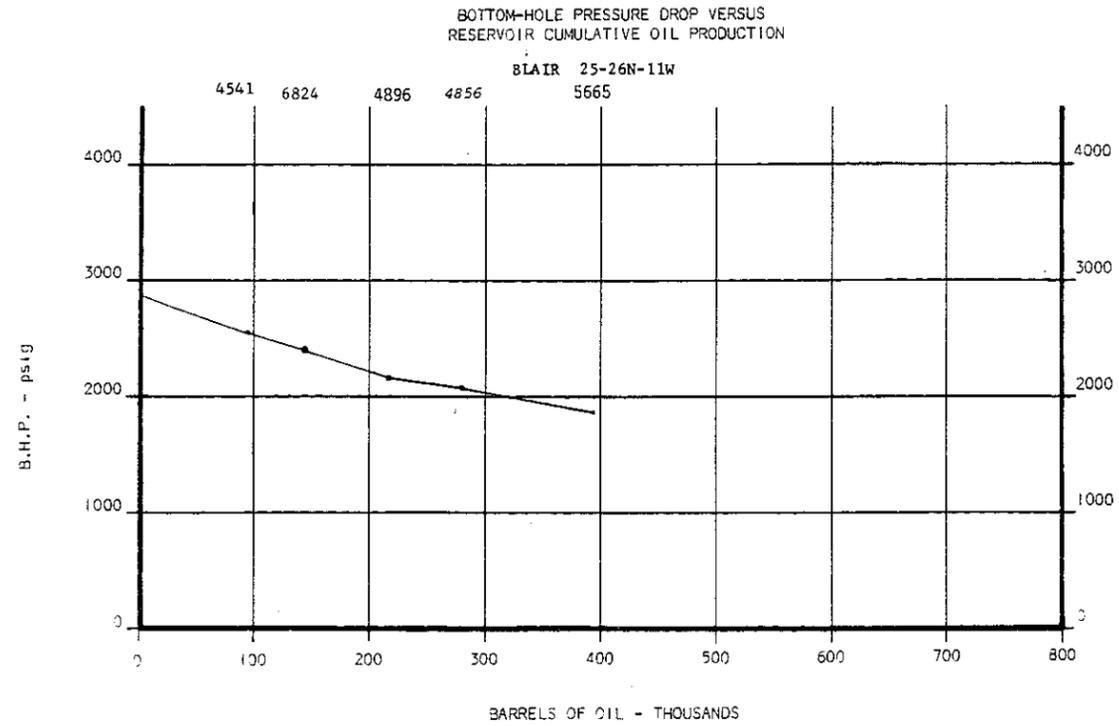
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4729 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Shumsky State Blair #1-22A 5-77	5-77	N.A.	5638 IVD	2748	.196	2748	INITIAL TEST		2234	2214
Shumsky State Blair #1-22A 5-77	5-77	N.A.	5643 IVD	1875	.089	1875	2748	5-31-77	- 873	1540 1584
Shumsky State Blair #1-22A 5-77	5-77	24.3	5643 IVD	1257	.228	1256	1875	4-13-78	- 619	1033 54
Shumsky St. Blair 1-22A 5-77	5-77	28.3	5643 IVD	1236	.198	1235	1256	4-11-79	- 21	1022 716
Shumsky St. Blair 1-22A 5-77	5-77	18 days	5643 IVD	1211	.198	1210	1235	9-27-79	- 25	997 154
Shumsky St Blair 1-22A 5-77	5-77	24	5643 IVD	1188	.376	1186	1210	3-6-80	- 24	893 102

BLAIR 25-26N-11W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4966 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Percha St Blair 1-25 5-74	5-74	24	5884	2224	.31	2220	2400	5-2-78	- 180	1681
Percha-St Blair #1-25	5-74	93	5884	2060	.27	2060	2220	10-24-79	- 160	1637
Percha-St Blair #1-25 5-74	5-74	30	5883	1823	.26	1820	2060	3-31-81	-240	641

REMARKS:

BLAIR 25a-26N-11W



STATE OF MICHIGAN

FIELD NAME BLAIR 25a-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 5-74 VIRGIN PRESSURE 2965 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5001 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Blair #2-25	5-74	N.A.	MAY 12, 1974 5940 TVD	2965	N.A.	2965		Initial Test			1626
St. Blair Weaver #1-26	1-75	63.5	JANUARY 28, 1975 5926 TVD	2866	.23	2869		INITIAL TEST			1275
St. Blair #2-25	5-74	66.9	JANUARY 15, 1976 5940 TVD	2790	.33	2790	2965	5-12-74	- 175		1950
St. Blair #2-25	5-74	42.5	MARCH 1, 1976 5625 TVD	2575	.51	2736	2790	1-15-76	- 54		1652
St. Blair Weaver #1-26	1-75	N.A.	AUGUST 19, 1976 5927 TVD	2627	.33*	2632	2736	3-1-76	- 104		
St. Blair Weaver #1-26	1-75	65	JULY 6, 1977 5922 TVD	2367	.13	2369	2632	8-9-76	- 263		1888

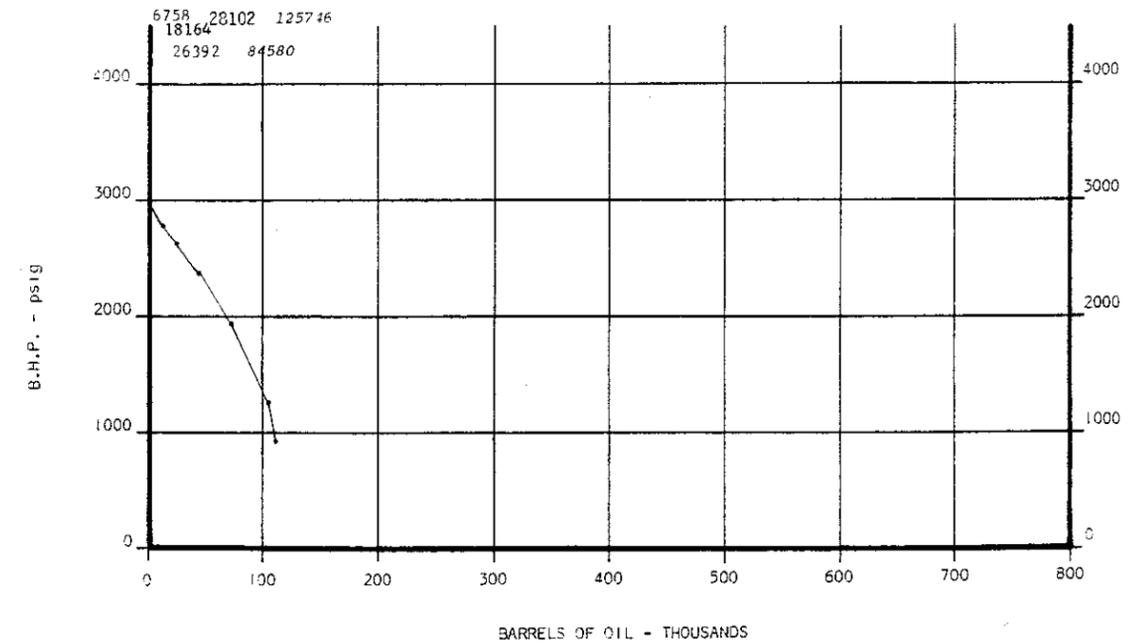
* Assumed

REMARKS:

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5001 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Blair #2-25	5-74	49	5940 TVD	1948	.05	1948	2369	7-6-77	- 421		1599
St. Blair #2-25	5-74	48	5940 TVD	1650	.24	1650	1948	11-8-78	- 298		1290
St. Blair #2-25	5-74	72	5834 TVD	1237	.04	1241	1650	10-24-79	- 409		1036
St. Blair-Weaver #1-26	1-75	76	5846 TVD	988	.03	991	1241	10-16-80	- 250		835

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION
BLAIR 25a-26N-11W



STATE OF MICHIGAN

FIELD NAME BLAIR 26-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-75 VIRGIN PRESSURE 2732 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. #4918 CURRENT PRESS.	FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Biermacher-State Blair 2-26A	2-75	100	5872 TVD	2732	38	2732				
							INITIAL TEST (DEEPER ZONE)			
Biermacher-State Blair 2-26A	2-75	155	5844 IVD	2690	06	2692			2197	
							(INITIAL TEST AFTER REWORK (SHALLOWER ZONE))			
Biermacher State Blair 2-26A	2-75	114 7	5843 IVD	1913	.056	1915	2732	1-31-75	- 817	1575
Biermacher St Blair 2-26A	2-75	114	5843 IVD	1749	.09	1752	1915	2-8-78	- 163	1440
Biermacher-St. Blair 2-26A	2-75	48	5843 TVD	1223	04	1224	1752	12-3-79	-528	1034

STATE OF MICHIGAN

FIELD NAME BLAIR 26a-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAGARAN DISCOVERY DATE 4-77 VIRGIN PRESSURE 3056 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. # 4991 CURRENT PRESS.	FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Weaver #4-26	4-77	63.67	5935	3056	.20	3056				
							INITIAL TEST			
Weaver #4-26	4-77	48	5935	2142	.065	2142	3056	4-26-77	- 914	1767
Weaver #4-26	4-77	64	5935	1978	.10	1978	2142	12-31-78	- 164	
Weaver #4-26	4-77	170	5827	776	.02	778	1978	3-28-79	-1200	664

STATE OF MICHIGAN

FIELD NAME BLAIR 27-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 4-75 VIRGIN PRESSURE 2735 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. # 4710 CURRENT PRESS.	FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Kyselka #1-27	4-75	111.5	5626*	2735						
							INITIAL TEST			2135
Kyselka #1-27	4-75	N.A.	5625	2595	.09	2595	2735	5-1-75	- 140	1995
Kyselka #1-27	4-75	120	5596	1942	.07	1944	2595	9-1-77	- 651	1567

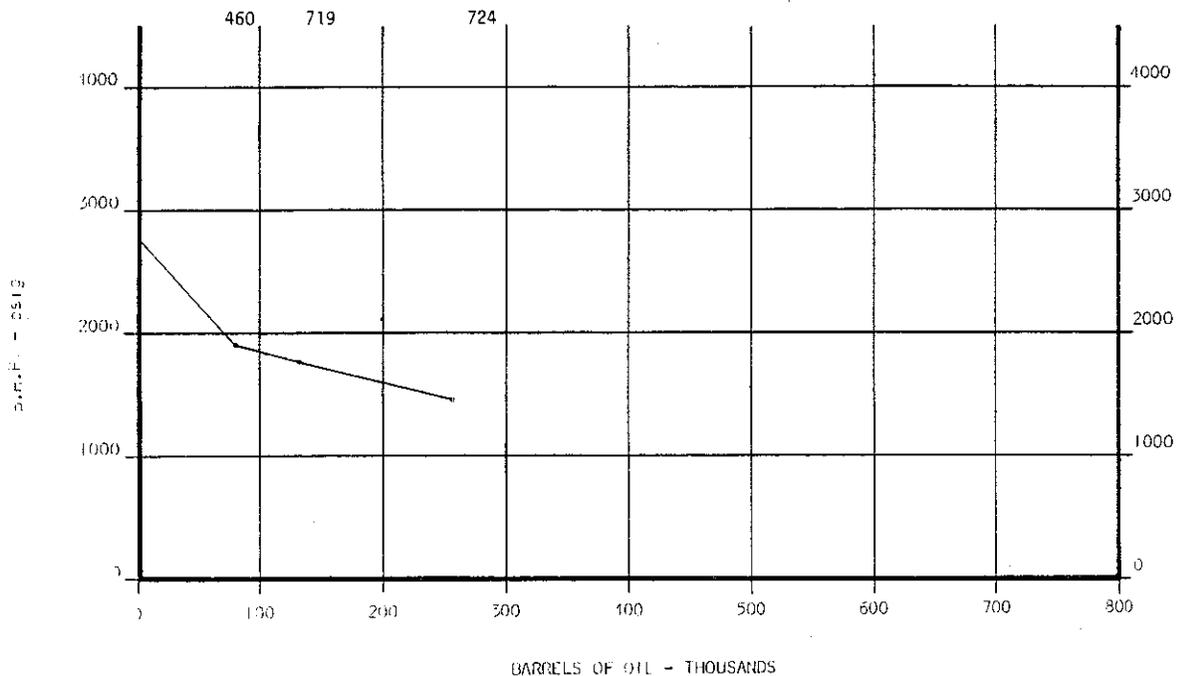
* Assumed to be center of perforations

STATE OF MICHIGAN

FIELD NAME BLAIR 28-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 9-79 VIRGIN PRESSURE 2753 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. # 4640 CURRENT PRESS.	FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Widow-St Blair #1-28	9-79	73.3	5563	2753	.56	2753				322 1352
							INITIAL TEST			
Widow-St Blair #1-28	9-79	149.5	5563	1910	55	1910	2753	9-24-79	-843	
Steinmiller #1-320	8-82	41	5787 TVD	1883	.530	1860	1910	5-13-83	-50	190 560
Steinmiller #1-29	9-82	72	5709	1994	.316	1986				
							NOT USED IN CALCULATIONS			
Steinmiller #2-32	4-83	69.5	5720	1747	.309	1755				840
Hargraves Youker #1-29	4-83	72	5719	1791	300	1787	1860	8-30-82	-89	767 0
					AVG	1771				
Janofski #1-29A	5-83	74.5	5627 TVD	1773	.288	1770	1771	4-12-83	-1	138 1382
Youker #1-28	12-83	93.3	5701 TVD	1445	.280	1444	1770	5-30-83	-326	1080 PKR

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
BLAIR 28-26N-11W



STATE OF MICHIGAN

FIELD NAME BLAIR 29-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-81 VIRGIN PRESSURE 2750* NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4609 CURRENT PRESS.	FEET PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Rasho-Lemcool #1-29	8-81	NA	5539	2005	.310	2005	INITIAL	TEST		1469
Rasho-Lemcool #1-29B	5-82	137	5589 TVD	2326	.310*	2312	Initial	Test		
Rasho-Lemcool #1-29B	5-82	305	5586 TVD	1890	.307	1876	2312	5-10-82	-436	438

* Estimated

FIELD NAME BLAIR 33-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 4-73 VIRGIN PRESSURE 2793 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4815 CURRENT PRESS.	FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Friauff #2-33	4-73	18	APRIL 29, 1973 5849	2780	265	2780	Initial	test			
Burroughs 1-28	4-74	16	APRIL 23, 1974 5778 TVD 2786		280	2793	Initial	test			
Younkers #3-33a	9-74	82.5	OCTOBER 3, 1974 5858 TVD 2760		280	2757	Initial	test			
Friauff #2-33	4-73	25	APRIL 1, 1975 5850	2482	290	2481	2793	4-23-74	- 312	1097	1285
Friauff #2-33	4-73	24.7	OCTOBER 3, 1975 5850	2226	26	2226	2481	4-1-75	- 255	1802	1000
Friauff #2-33	4-73	53	MARCH 10, 1976 5850	2078	29	2077	2226	10-3-75	- 149	1616	1000
Friauff #2-33	4-73	25.5	APRIL 14, 1977 5850	1687	33	1687	2077	3-10-76	- 390	932	
Friauff #2-33	4-73	41	MAY 3, 1978 5850	1287	26	1287	1687	4-14-77	- 400	1028	

REMARKS:

BOTTOM-HOLE PRESSURE TESTS - Page 2

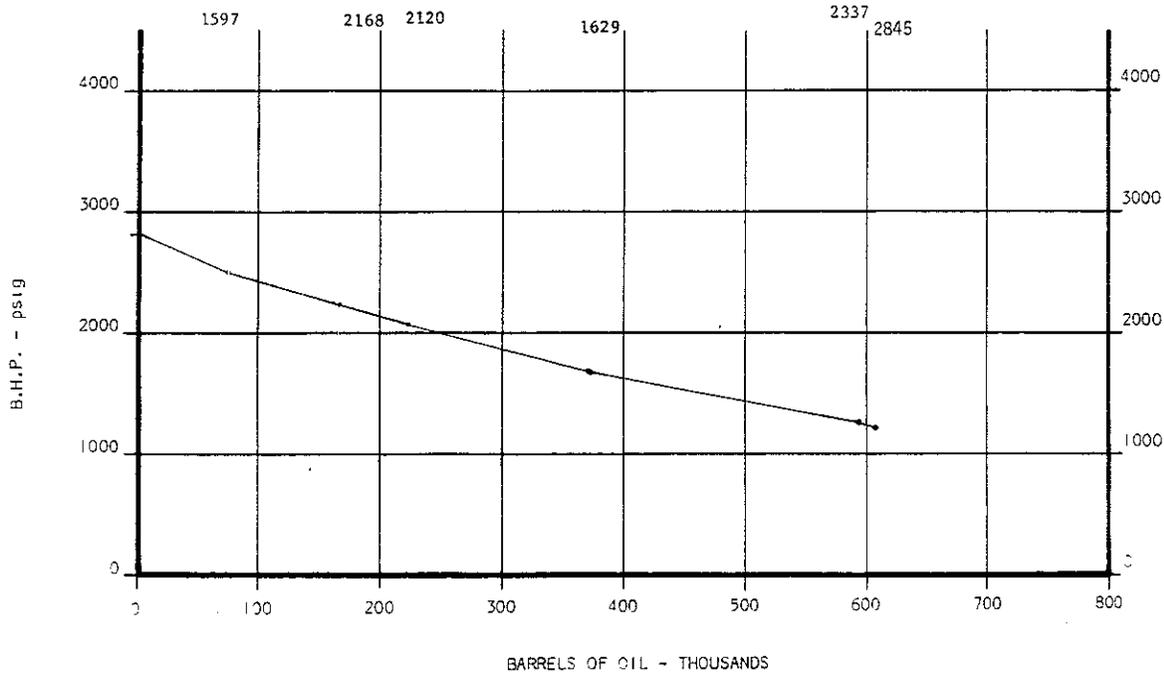
BLAIR 33-26N-11W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4815 CURRENT PRESS.	FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Burroughs #1-28	4-74	120	5779 TVD	1249	SEPTEMBER 1, 1978 .28	1256					660
Younkers #3-33a	9-74	384	5858 TVD	1260	.05	1259					1030
					Average	1258	1287	5-3-78	- 29		

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

BLAIR 33-26N-11W



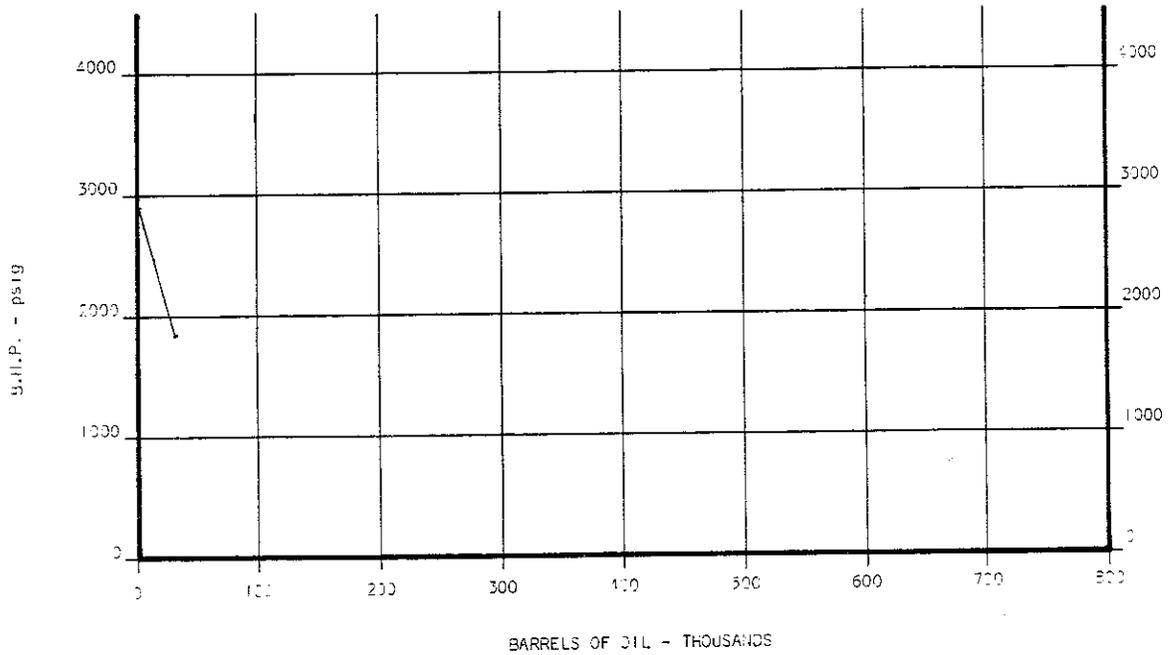
STATE OF MICHIGAN

FIELD NAME BLAIR 34-26N-11W (EAST) COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-8-70 VIRGIN PRESSURE 2877 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4886 FEET	PREVIOUS PRESS	DATE OF PREY PRESSURE		TUB.	CSG
Thomas 1-34	7-70	72	2696	N.A.			1st	TEST		2200	N.A.
Thomas 1-34	7-70	N.A.	5380	2794	.106	2849				2280	N.A.
Thomas 1-34	7-70	N.A.	5880	2825	.104	2877	2849	4-71	+ 28	2260	N.A.
Thomas 1-34	7-70	N.A.	5880	2812	.095	2812	2877	5-71	- 65	2260	N.A.
Thomas 1-34	7-70	22	5880	2352	.080	2352	2812	4-72	- 460	1918	N.A.
Thomas 1-34	7-70	246	5880	2156	.086*	2156	2352	4-28-73	- 196	1766	N.A.
Thomas 1-34	7-70	240	5880	2153	.06	2153	2156	5-21-74	- 3	1757	
Thomas 1-34	7-70	N.A.	5870	2211	.06*	2212	NOT USED IN CALCULATIONS				
Thomas 1-34	7-70	5 Days	5888	1713	.051	1713	2212	10-29-76	- 499	1415	

* Assumed

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
GRANT 3A-25N-12W

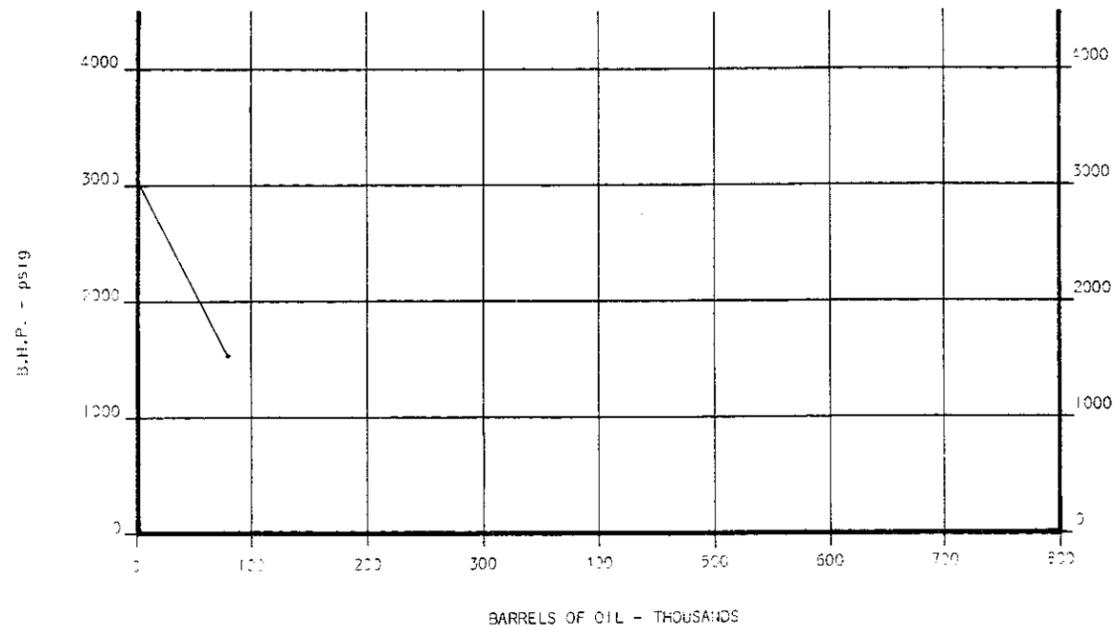


STATE OF MICHIGAN

FIELD NAME GRANT 4-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-75 VIRGIN PRESSURE 3005 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG
						P.S.I. @ CURRENT PRESS.	4489 FEET PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Zezulka #1-4	6-75	60.2	5478	JUNE 4, 1975 3005	.32	3005	INITIAL TEST		1343	
Zezucka 1-4A	10/83	73	5484 TVD	OCTOBER 24, 1983 1632	.336	1632	3005	6/4/75	-1373	432

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
GRANT 4-25N-12W

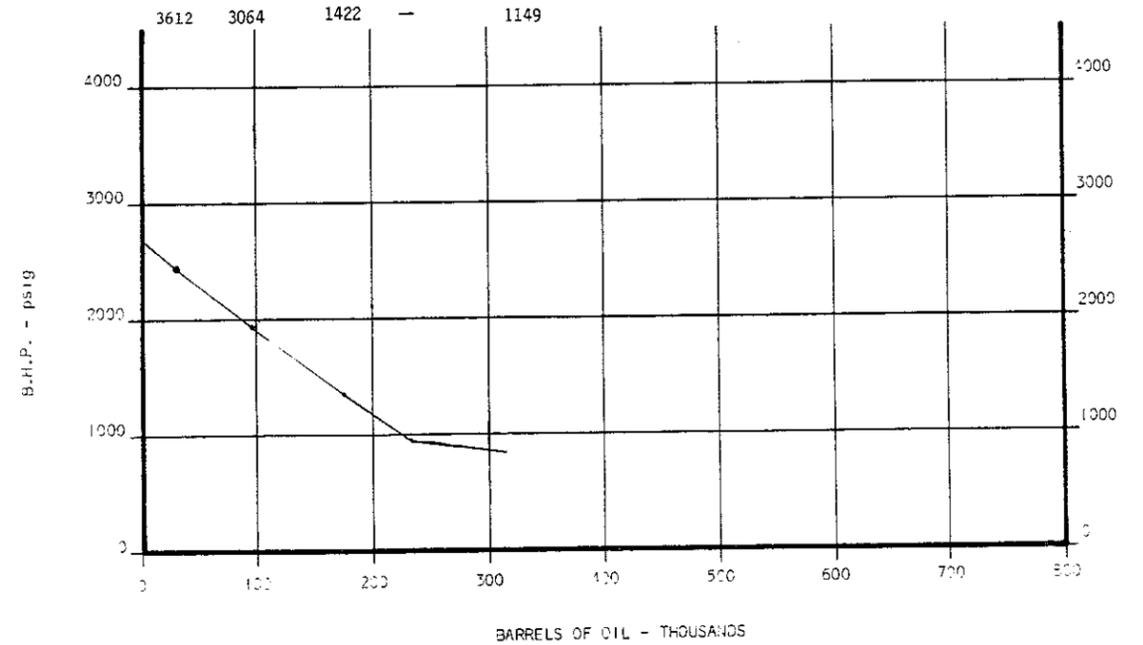


STATE OF MICHIGAN

FIELD NAME GRANT 9-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-76 VIRGIN PRESSURE 2670* NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4619 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Grant #1-9	9-76	69.5	5631	2670	.311	2670*	INITIAL TEST			1742	
* Buildup complete after initial production of 1935 barrels.											
Svec #1-9a	4-77	69	5631 IVD	2632	.32	2658	INITIAL TEST			758	
Svec #1-9a	4-77	N.A.	5631 IVD	2531	.293	2558	2670	9-11-76	- 112	738	
St. Grant 1-9	9-76	73	5631	2440	.329	2440	2558	8-20-77	- 118	1649	2000
Svec #1-9a	4-77	N.A.	5632 IVD	1925	.30	1949	2440	4-6-78	- 491	1153	1696
Svec #1-9A	4-77	24.5	5757 IVD	1379	.417	1360	1949	4-16-79	- 589	735	1050
Svec #1-9A	4-77	28	5757 IVD	986	.562	961	1360	4-21-80	- 399	0	580
St. Grant 2-9	2/81	NA	5544 TVD	824	.324	853	961	3/20/81	-108	556	

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
GRANT 9-25N-12W

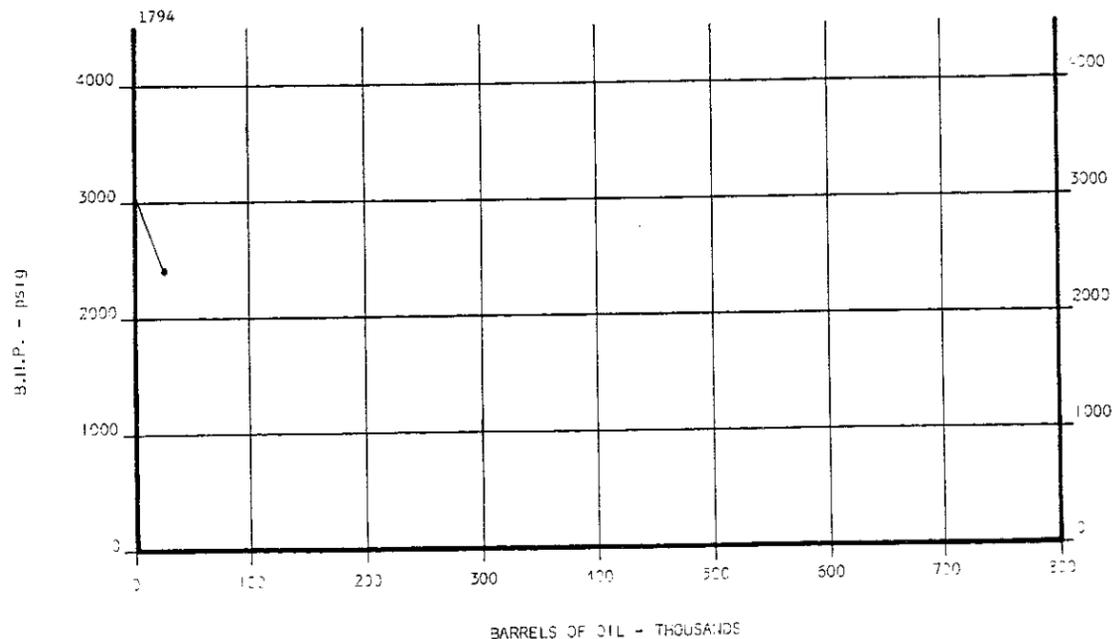


STATE OF MICHIGAN

FIELD NAME GRANT 10-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-75 VIRGIN PRESSURE 3018 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4620 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Grant Robertson #1-10	9-75	109.7	5694	3018	47	3018	INITIAL TEST			1386	
Randall #1-11	5-76	178	5758	2989	.554	2973	INITIAL TEST			1480	1722
Randall #1-11	5-76	49.3	5758	2665	.523	2650	3018	9-8-75	- 368	1182	918
Randall #1-11	5-76	N.A.	5758	2412	.407	2401	2650	3-4-77	- 249	1339	1339

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
GRANT 10-25N-12W



STATE OF MICHIGAN

FIELD NAME GRANT 12-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-75 VIRGIN PRESSURE 2815 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4673 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Traylor #1-12	7-75	90	5775 TVD	2804	.299	2804				2223 2254
Weidenhamer-Kreiser #2-1	8-75	28 Days	5771	2813	.040	2815				2205
Kolbusz #1-1	7-75	67 Days	5723	2765	.284	2788				1738
Kolbusz #1-1	7-75	Since Completion	5723	2729	.250	2750	2815	9-16-75	- 65	1793
Wedenhamer Kreiser #2-1	8-75	46.5	5771	1936	.065	1939	2750	6-14-76	- 811	1564
Kreisner #3-1	12-77	87.7	5771	1898	.10*	1902	2750	6-14-76	- 848	1555
Traylor #1-12	7-75	N.A.	5775 TVD	1765	.255	1765	1902	12-8-77	- 137	1134 1210
Traylor #1-12a	7-75	72	5709 TVD	1408	.040	1411				1161 1175
Traylor #1-12A	7-75	18 days	5710 TVD	1496	.040	1499	1765	4-21-78	- 266	1223 1243

* Estimated

GRANT 12-25N-12W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4673 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Van Dellen #1A-1	5-80	49.5	5795 TVD	1628	.050	1628				1334
Traylor #1-12A	7-75	72.8	5710 TVD	1423	.08	1428	1499	3-6-80	- 71	1172 789
Traylor #1-12A	7/75	77.3	5710 TVD	1208	.04	1211	1428	9/18/80	-217	992 1009
Weidenhamer-Kreiser #2-1	8-75	34 DA	5771	1068	.04	1070	1211	4-5-82	-141	894
Weidenhamer-Kreiser #2-1	8-75	--	5771	931	.03	932	1070	1-21-83	-138	800

REMARKS:

STATE OF MICHIGAN

FIELD NAME GRANT 13-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 9-74 VIRGIN PRESSURE 2940 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4702 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Komrska-Svec #1-23	9-74	69.5	5842	2940	.080	2940				
Komrska-Svec #1-23	9-74	Shut-in Since completion	5842	2904	.100	2904				2331
Komrska #1-14	9-74	Shut-in since completion	5898	2906	.100	2900				2333
					Average	2902				
Komrska #1-14	9-74	18	5878	2644	.102	2640				2122
Komrska-Svec #1-23	9-74	19.5	5843	2635	.0940	2635				2116
					Average	2637	2902	5-10-75	- 264	
Komrska #1-14	9-74	17	5878	2620	.096	2615				2106
Komrska-Svec #1-23	9-74	17	5843	2616	.082	2616				2108
					AVERAGE	2616	2637	11-19-75	- 21	

REMARKS:

GRANI 13-25N-12W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4702 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Komrska #1-14	9-74	3	5878	2546	JANUARY 22, 1976 .096*	2542	2616	12-3-75	- 74	1768
Komrska #1-14	9-74	10 Days	5883	1561	FEBRUARY 8 (1-23), 9 (1-14), 1978 .047	1559				
Komrska Svec #1-23	9-74	11 Days	6020	1595	.049	1586				1296
				AVERAGE		1573	2542	1-22-76	- 969	
Imhoff #1	7-74	N.A.	5894	1557	APRIL 19, 1978 .050	1554	1573	2-8-78	- 19	1314 1347
Imhoff #1	7-74	24?	5894	1500	OCTOBER 13, 1978 .05	1497	1554	4-19-78	- 57	
Imhoff #1	7-74	25.3	5894	1434	April 12, 1979 .06	1430	1497	10-13-78	- 67	1194 1201
Imhoff #1	7-74	24	5894	1366	SEPTEMBER 24, 1979 .06	1362	1430	4-12-79	- 68	1136 1149
Imhoff #1	7-74	126.3	5894	1290	MARCH 25, 1980 .05	1287	1362	9-24-79	- 75	1073 839
Komrska #1-14	9-74	52	5878	1082	OCTOBER 27, 1981 .02	1081	1287	3-25-80	- 206	911

* Assumed

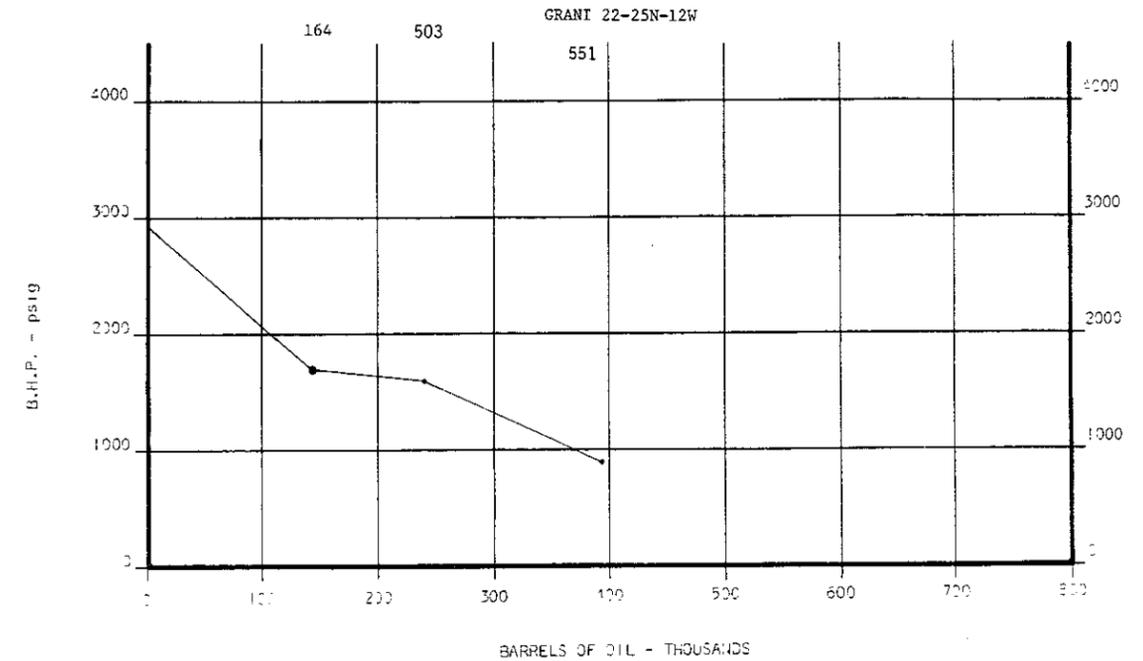
REMARKS:

STATE OF MICHIGAN

FIELD NAME GRANT 22-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-75 VIRGIN PRESSURE 2944 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4664 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Bracebridge #1-A	9-75	67.5	5795 IVD	2944	N.A.	2944		INITIAL TEST		1147 1219
Bracebridge #1-A	9-75	24	5792 TVD	1633	.231	1631		NOT USED IN CALCULATIONS		237 1117
Bracebridge #1-A	9-75	24	5798 TVD	1562	.403	1561		NOT USED IN CALCULATIONS		484 1164
Malik #2-22	3-78	80.6	5888	1796	.34	1765	2944	10-6-75	- 1179	400
Bracebridge #1-A	9-75	24	5798 IVD	1702	.365	1701	1765	3-28-78	- 64	747 328
Malik #2-22	3-78	98.5	5889	1637	.53	1609	1701	4-6-78	- 92	255
Bracebridge #1-A	9-75	24	5798 IVD	920	.036	920	1609	12-1-78	- 689	780 772

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

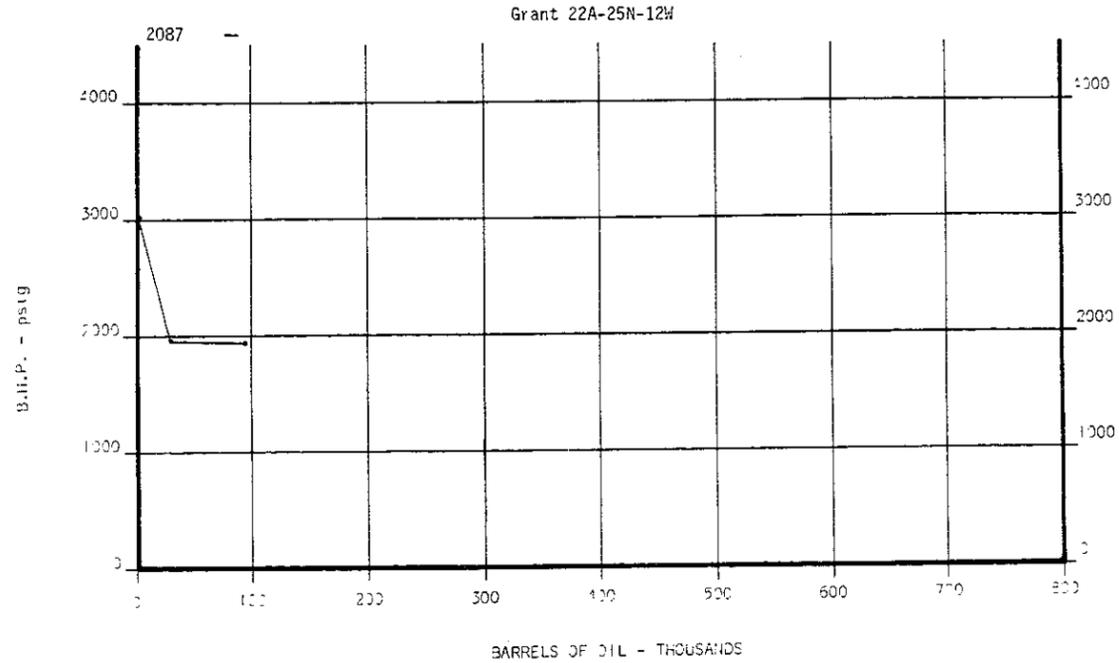


STATE OF MICHIGAN

FIELD NAME GRANT 22a-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 5-79 VIRGIN PRESSURE 3026 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4835 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Fryzelka #1-22	5-79	71.5	5974	3026	JUNE 1, 1979 .270	3026		INITIAL TEST		1456 Pkr
Fryzelka #1-22	5-79	66.5	5973	1964	FEBRUARY 1, 1980 .296	1964	3026	6-1-79	- 1062	1034
Fryzelka #1-22	5-79	N.A.	5750	1944	JANUARY 23, 1981 .077	1961	1964	2-1-80	- 3	1552 1600

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION



STATE OF MICHIGAN

FIELD NAME GRANT 24-25N-12W (East) COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-9-73 VIRGIN PRESSURE 3174 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 4826 FEET			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Pavlis-State #1-24	7-73	40	AUGUST 7, 1973 5867	3174	.172	3174	INITIAL TEST			
Pavlis State #1-24	7-73	N.A.	MARCH 28, 1974 5849	3147	.172*	3145	3174	8-7-73	- 29	2423
Pavlis State #1-24	7-73	24	MAY 29, 1975 5867	2175	.23	2179	3145	3-28-74	- 966	1719
Pavlis State #1-24	7-73	54	SEPTEMBER 25, 1975 5867	1865	.068	1866	2179	5-29-75	- 313	
Pavlis State #1-24	7-73	24	APRIL 13, 1976 5849	1184	.07	1186	1866	9-25-75	- 680	963
Pavlis State #1-24	7-73	40	SEPTEMBER 8, 1977 5849	922	.027	923	1186	4-13-76	- 263	763
Pavlis State #1-24	7-73	29	SEPTEMBER 20, 1978 5849	437	0.12	442	923	9-8-77	- 481	360

REMARKS:

STATE OF MICHIGAN

FIELD NAME GRANT 24-25N-12W (West) COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-80 VIRGIN PRESSURE 3150* NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 5026 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Pavlis-St. Grant #4-24	5-80	36	6103	2542	.096	2523	INITIAL	REPORTED PRESSURE		1956
* Estimated										

STATE OF MICHIGAN

FIELD NAME GRANT 24a-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-74 VIRGIN PRESSURE 3097 NO. PRODUCING WELLS _____

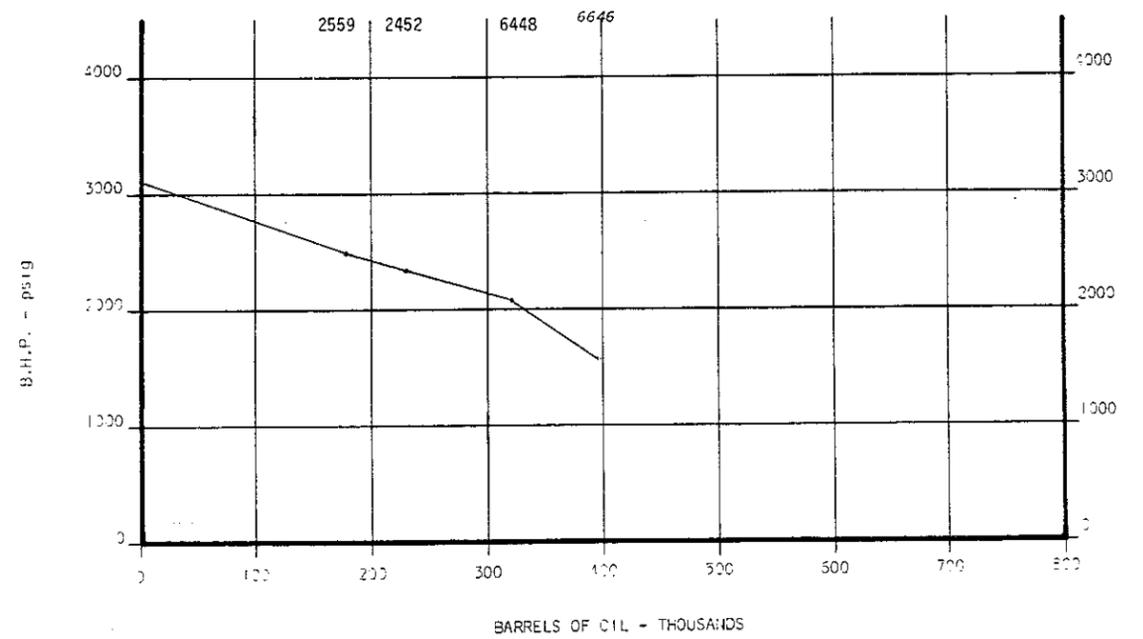
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 5001 FEET			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Weller #2-24	1-74	244	6119	3097	.260	3097	Initial Test			

REMARKS:

FIELD NAME GRANT 26-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION NIAGARAN DISCOVERY DATE 10-27-71 VIRGIN PRESSURE 3074 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4884 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Coates #1-26	10-27-71	42	OCTOBER 10, 1971 6000	3074	.300	3074		1st test		1600	
Coates #1-26	10-27-71	95.75	OCTOBER 25, 1971 6000	2889	.293	2889	3074	10-10-71	- 185		
Coates #1-26	10-27-71	282	NOVEMBER 14, 1971 6000	2995	.300	2995	2889	10-25-71	+ 106		
Coates 1-26	10-71	22	APRIL 16, 1973 5833	1280	.080	1285		NOT USED IN CALCULATIONS		1061	Pkr.
Coates 1-26	10-71	67	OCTOBER 12, 1971 6001	1641	.060	1641		NOT USED IN CALCULATIONS		1359	Pkr.
Coates 1-26	10-71	25	APRIL 9, 1974 6001	1003	.190	1003 *		(Not Used in Calculations)		827	Pkr.
Coates #1-26	10-71	72	OCTOBER 3, 1975 6001	1448	.180	1448		NOT USED IN CALCULATIONS		1183	Pkr.
Coates #1-26	10-71	120	APRIL 1, 1976 6001	1776	.06	1775		NOT USED IN CALCULATIONS		1451	Pkr.

REMARKS: * Probably not built-up



BOTTOM-HOLE PRESSURE TESTS - Page 2

GRANT 26-25N-12W

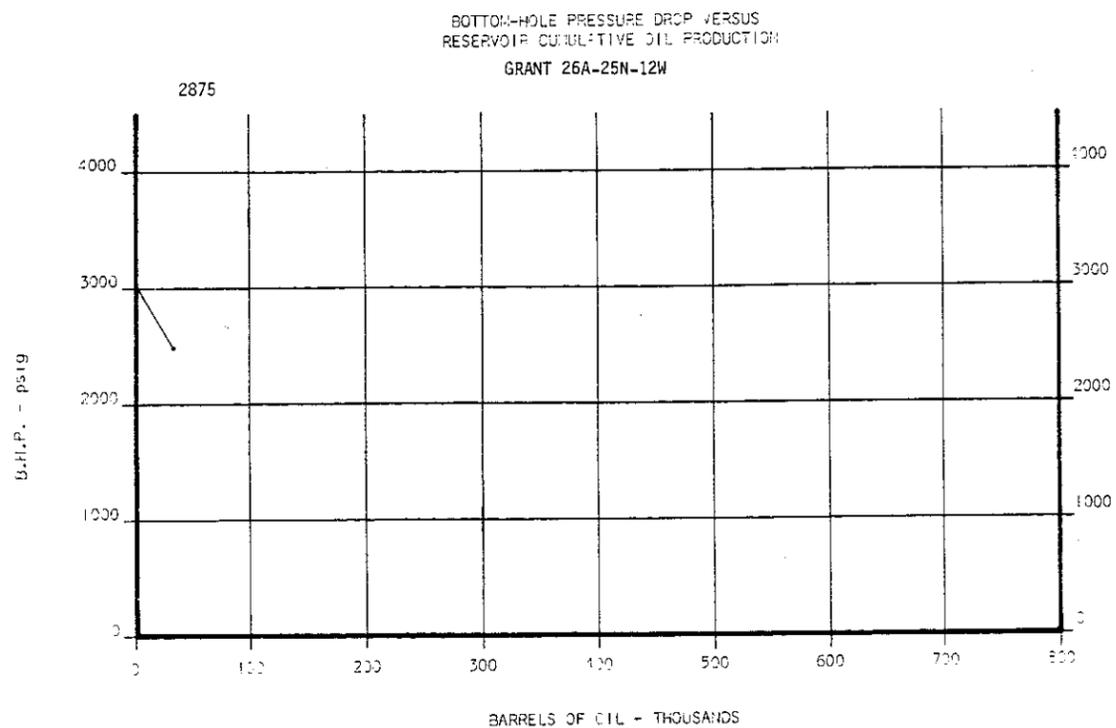
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4884 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Pavlis Grant Farms #1-27 11-74	24	6042	2484	281	2470			NOT USED IN CALCULATIONS		1565	
Moon #2-27	2-78	67.8	FEBRUARY 6, 1978 6129	2523	.32	2483	2995	11-14-71	- 512	1102	
Coates #2-26	9-78	66.2	SEPTEMBER 22, 1978 6065	2353	.39	2325	2483	2-6-78	- 148	875	
Coates #2-26	9-78	50.5	SEPTEMBER 28, 1979 6065	410	.34	380		NOT USED IN CALCULATIONS		287	
Pavlis Grant Farms #1-27 11-74	71.8	6042	NOVEMBER 23, 1979 2086	.065	2084	2325	2325	9-22-78	- 241	1693	1713
Moon #2-27	2-78	48	APRIL 6, 1981 6129	1606	.27	1568	2084	11-23-79	- 516	1223	

REMARKS:

FIELD NAME Grant 26A-26N-12W COUNTY Grand Traverse TOWNSHIP Grant DATE OF TESTS _____
 PRODUCING FORMATION Sal - Niag DISCOVERY DATE 1/82 VIRGIN PRESSURE 3000* NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5134 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Coates 3-26	9/82	64	6249	2670	30*						
OCTOBER 1, 1982 INITIAL TEST Approx. 17,900 BBL oil produced from field prior to test											
Dixon 1-26	1/82	--	6185	2365	DECEMBER 8, 1982 .297	2387	2670	10/1/82	-283	1480	1430

* - Estimated



STATE OF MICHIGAN

FIELD NAME GRANT 29-25N-12W (NORTH) COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-73 VIRGIN PRESSURE 3011 NO. PRODUCING WELLS _____

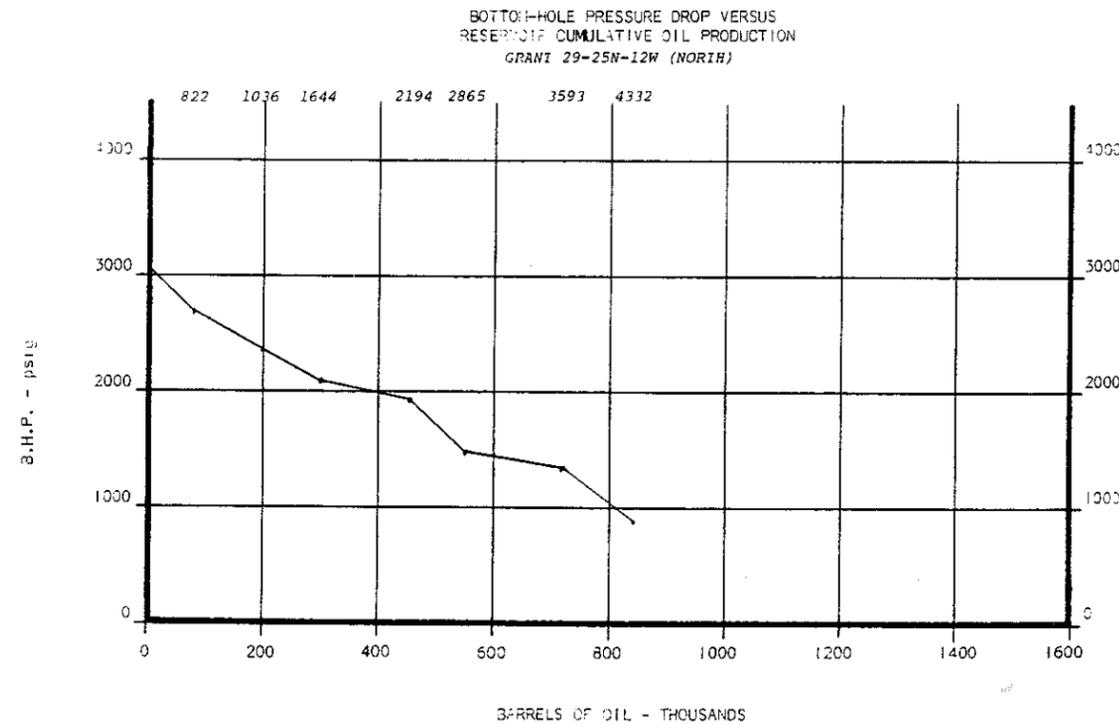
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES		
						P.S.I. @ 4648 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.	
Stack Jewell #1-29	11-73	100	5761	3011	.290	3011						
				NOVEMBER 29, 1973 INITIAL TEST								
Ramsay #1-29A	6-75	Shut-in since Completion	5813 IVD	2854	.274	2844	3011	11-29-73	- 167	1243	1410	
				JULY 7, 1975								
Jewell #3-29	9-75	67.2	5778	2762	.30	2763	2844	7-7-75	- 81			
				SEPTEMBER 22, 1975								
Stack Jewell #1-29	11-73	70.5	5761	2688	.28	2692	2763	9-22-75	-71	1180	1250	
				OCTOBER 7, 1975								
Ramsay #1-29A	6-75	29.5	5813 IVD	2715	.323	2703	2692	10-7-75	+ 11	1130	1500	
				OCTOBER 20, 1975								
Ramsay #1-29A	6-75	24 +	5813 IVD	2549	.279	2539	2703	10-20-75	- 164	1116	1979	
				APRIL 7, 1976								
Stack Jewell #1-29	11-73	N.A.	5687	2530	.29 *	2556	2539	4-7-76	+ 17	1923		
				MAY 14, 1976								
Ramsay #1-29A	6-75	25.3	5813 TVD	2151	.282	2141						
Stack Jewell #1-29	11-73	26	5761	2023	.29	2027						
				APRIL 7, 1977								
				Average								
						2084	2556	5-14-76	- 472	1060		

* Assumed

GRANT 29-25N-12W (NORTH)

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES		
						P.S.I. @ 4648 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.	
Stack Jewell #1-29	11-73	56	5761	1944	.30	1949	2084	4-7-77	- 135	472		
				MARCH 15, 1978								
Stack Jewell #1-29	11-73	97	5761	1480	.12	1482	1949	3-15-78	- 467	1228		
				DECEMBER 1, 1978								
Jewell #3-29	9-75	26	5778	1351	.10	1351	1482	12-1-78	- 131	1127		
				APRIL 15, 1980								
Stack Jewell #1-29	11-73	72	5761	874	.50	879	1351	4-15-80	- 472	451		
				NOVEMBER 5, 1981								

REMARKS:



STATE OF MICHIGAN

STATE OF MICHIGAN

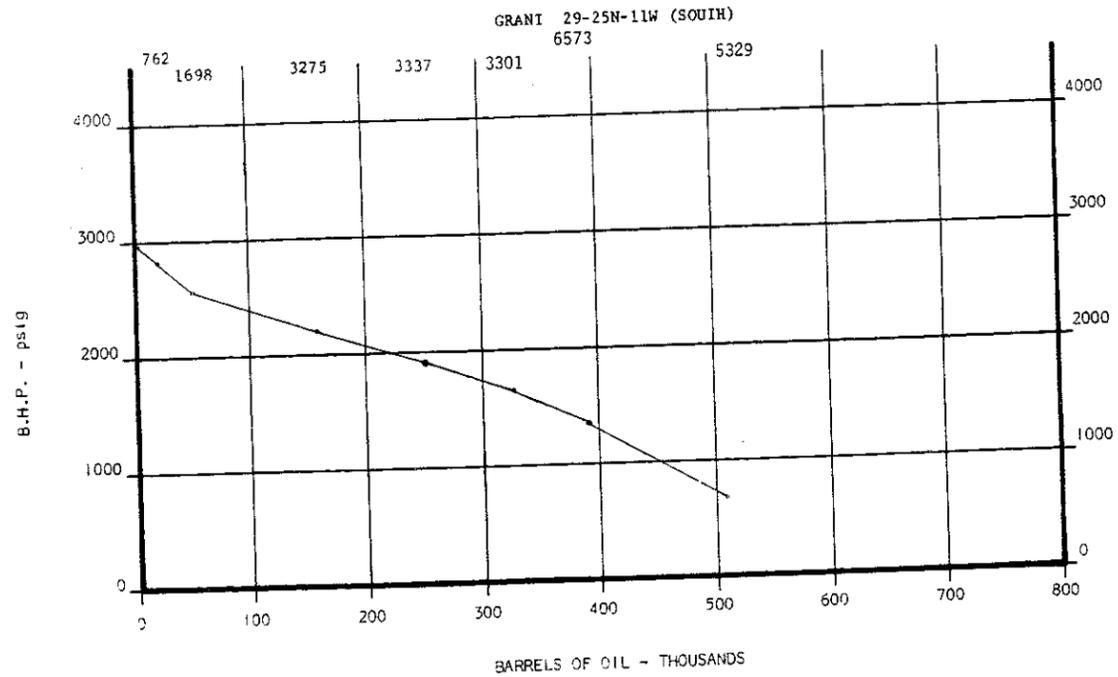
FIELD NAME GRANT 29-25N-12W (SOUTH) COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-75 VIRGIN PRESSURE 2966 NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4648 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Stack-Cook 2-29	2-75	114.9	5778	2970	.31	2966	INITIAL	TEST		1348
Cook 1-28	10-75	64.7	5610	2755	.35	2806	2966	2-25-75	- 160	1291
Stack-Cook #2-29	2-75	46.8	5725	2688	.32	2700	2806	10-27-75	- 106	1199
							REWORK			
Stack-Cook #2-29	2-75	52	5778	2565	.30	2557	2700	1-23-76	- 143	1720 Pkr
Stack-Cook #2-29	2-75	26	5726	2178	.30	2189	2557	4-7-76	- 368	1602 Pkr.
Stack Cook #2-29	2-75	57	5726	1904	.29	1915	2189	4-7-77	- 274	1522
Stack Cook #2-29	2-75	66	5726	1664	.34	1672	1915	3-15-78	- 243	1285
Stack Cook #2-29	2-75	27	5729	1366	.25	1375	1672	3-23-79	- 297	1123
Cook 1-28	10/75	27	5734	683	.29	689	1375	4/15/80	-686	299

FIELD NAME GRANT 32-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-76 VIRGIN PRESSURE 3005 NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4765 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Henigan #1-32	11-76	67 1/2	5873	3005	N.A.	3005	INITIAL	PRESSURE		2297
Henigan #3-32B	10-80	7 Days	5731 IVD	1039	.44	1102	3305	11-2-76	- 1903	

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

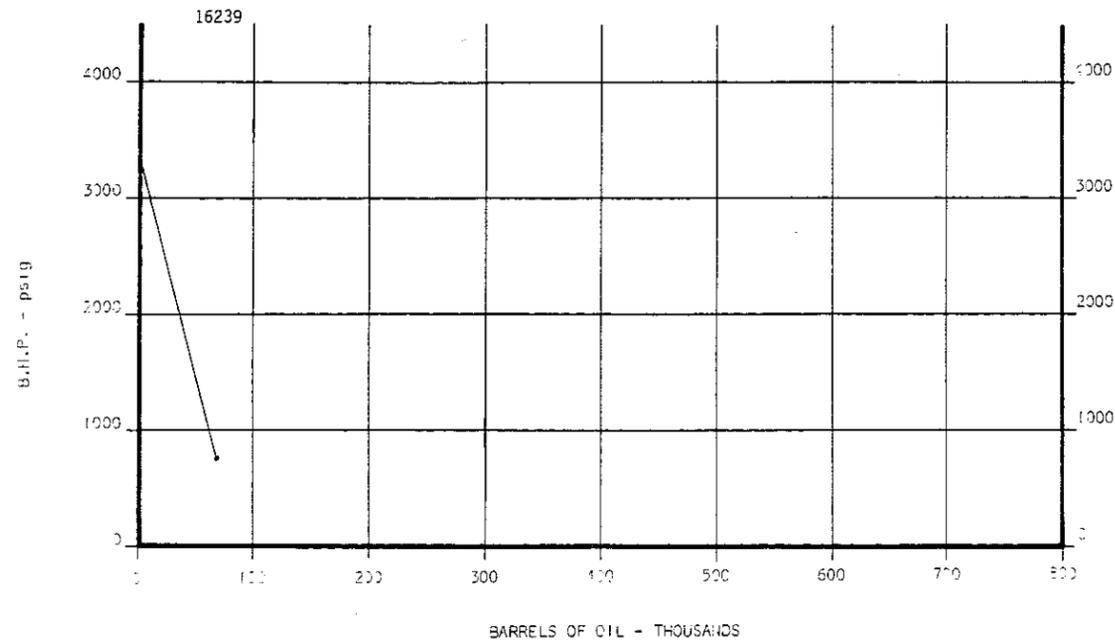


STATE OF MICHIGAN

FIELD NAME GRANT 33-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-80 VIRGIN PRESSURE 3029* NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4826 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Schworn #1-33	3-80	N.A.	5916	2884	.113	2884	INITIAL	REPORTED PRESSURE		2174
Haggerty-Conway #1-35	2-81	87.5	5920	2614	.260	2617	2884	3-24-80	- 267	1932 2079
Youker-Schworn 3-33	8/81	24	6044	782	.023	780	2617	4/6/81	-1837	651 657

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
GRANT 33-25N-12W



FIELD NAME GRANT 34a-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-77 VIRGIN PRESSURE 3072 NO. PRODUCING WELLS

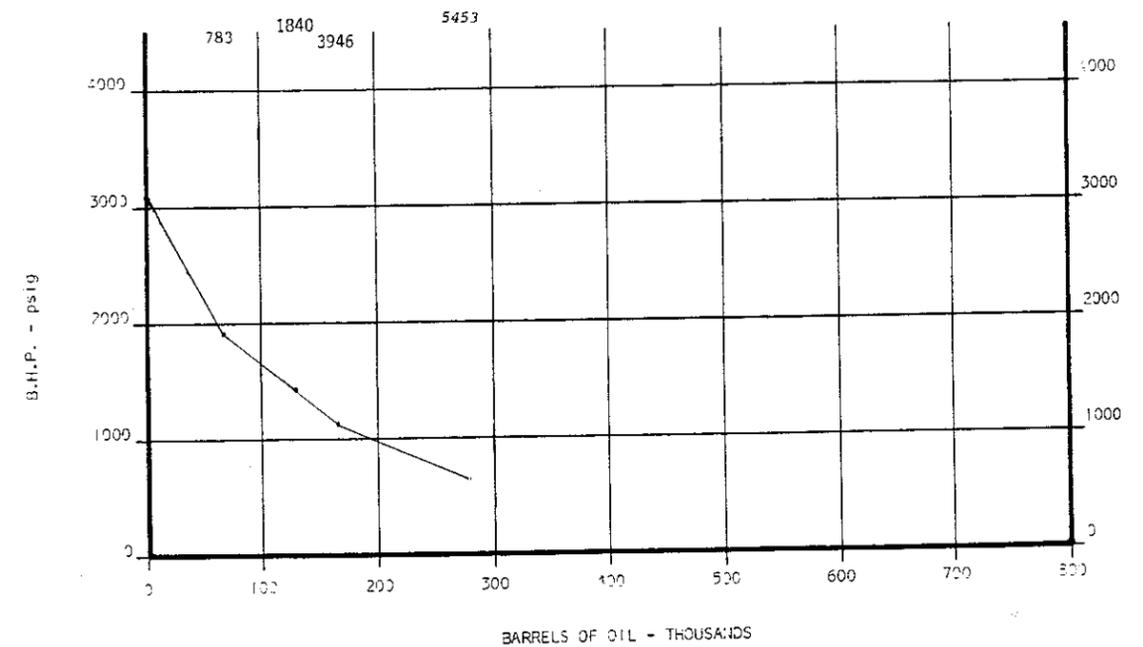
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4967 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		
Myers #2-34	1-77	64.4	6076	3072	.35	3072	INITIAL	PRESSURE		1318
Myers #2-34	1-77	55	6076	1944	.30	1944	3072	1-6-77	- 1128	758
Myers #2-34	1-77	67	6076	1431	.16	1431	1944	3-15-78	- 513	1184
Youker #1-34	2-79	47	6073	2444	.297	2443	Not used in calculations			952 915
The Youker #1-34 and Myers #2-34 are likely located in the same reef structure, although likely located in separate reservoirs (hydrocarbon accumulations)										
Youker #1-34	2-79	46.5	6073	2455	.297	2434	Not used in calculations			782 800
Myers #2-34	1-77	50	6076	1136	.11	1134	1431	12-3-78	- 297	943
Myers #2-34	1-77	40	6076	610	.02	610	1134	9-28-79	- 524	503
Youker 1-34	2/79	--	6085	1286	.318	1282	NOT USED IN CALCULATIONS			283

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

GRANT 34a-25N-12W

FIELD NAME GRANT 34-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-76 VIRGIN PRESSURE 3136 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5146 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		
Weber #1-34A	7-76	67.4	6189 TVD	3136	N.A.	3136	INITIAL	TEST		
Cooper #3-34	7-77	89	6108	3039	.10*	3055	3136	6-26-76	- 81	
Weber #1-34a	7-76	80.5	6196 TVD	2936	.117	2943	3055	7-7-77	- 112	2200
Cooper #3-34	7-77	72	6108	2286	.077	2298	Not used in calculations.			1825
Weber #1-34a	7-76	528	6196 TVD	2224	.082	2229	2943	9-27-77	- 714	1727



STATE OF MICHIGAN

FIELD NAME GRANT 35-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 4-76 VIRGIN PRESSURE 3200* NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.		
						P.S.I. @ 4993 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.	
Clous #1-35	4-76	90.5	6098	2645	MAY 5, 1976 .104	2645	NOT USED	IN CALCULATIONS		2054	2045	
Clous #1-35	4-76	48.8	6098	1702	JULY 21, 1977 .057	1702	NOT USED	IN CALCULATIONS		1365	1764	
					APPROXIMATELY 133 BBL. CONDENSATE PRODUCTION AND 57,000 Mcf PRODUCTION AT TIME OF TEST.							
Clous #2-35	4-79	52	6249	2800	MAY 25, 1979 .10*	2784	3200	4-76	- 416	1760		
DPS Associates 1-16A 2-80	2-80	39.5	6248 IVD	2603	FEBRUARY 8, 1980 .107	2587	2784	5-25-79	- 197	1976	1941	

*Estimated

STATE OF MICHIGAN

FIELD NAME Green Lake 35-26N-12W COUNTY Grand Traverse TOWNSHIP Green Lake DATE OF TESTS
 PRODUCING FORMATION Sai - Niag DISCOVERY DATE 4/82 VIRGIN PRESSURE 2882 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4636 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Morrison 1-35B	4/82	72	5711 TVD	2882	APRIL 11, 1982 .101	2882					2294
Morrison 1-35B	4/82	72	5711 TVD	1726	SEPTEMBER 10, 1983 .053	1726	2882	4/11/82	-1156	1420	1418

STATE OF MICHIGAN

FIELD NAME GRANT 36-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAGARAN DISCOVERY DATE 8-76 VIRGIN PRESSURE 3211 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5101 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Grant Farms #1-36	8-76	42.8	6195	3211	AUGUST 30, 1976 N.A.	3211					2446
Grant Farms 1-36	8-76	47	6195	2607	DECEMBER 14, 1979 .097	2607	3211	8-30-76	- 604	2005	
Grant Farms 2-36	7-80	230	6408	2425	JULY 14, 1980 .10*	2405	2607	12-14-79	- 202		
Grant Farms 2-36	7-80	120	6408	1988	AUGUST 27, 1980 .071	1974	2405	7-14-80	- 431	1530	
Grant Farms 2-36	7-80	181.8	6408	1865	SEPTEMBER 29, 1980 .047	1856	1974	8-27-80	- 118	1560	
Grant Farms 1-36	8-76	7 DA	6194	384	MAY 13, 1983 .01	384	1856	9-29-80	-1472	329	

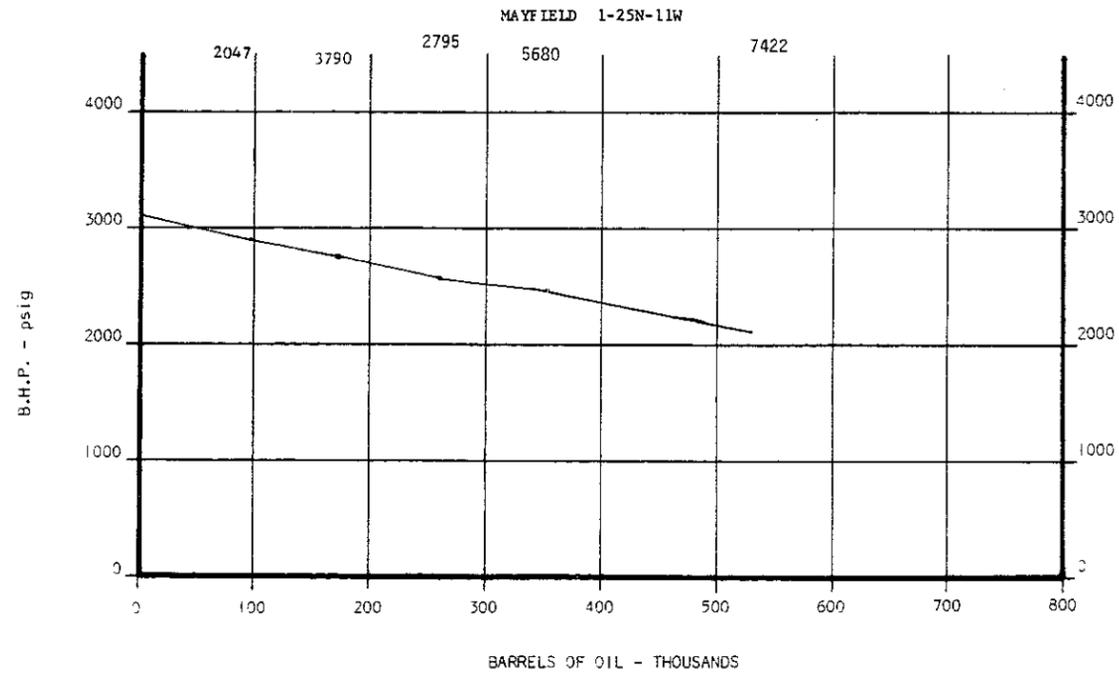
*Estimated

STATE OF MICHIGAN

FIELD NAME MAYFIELD 1-25N-11W COUNTY GRAND TRAVERSE TOWNSHIP MAYFIELD DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-75 VIRGIN PRESSURE 3092 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5273 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Bancroft #3-1	1-75	64	6326	3086	JANUARY 20, 1975 .290	3086					1521
Ockert #1-2A	10-75	62.2	6335 IVD	3095	OCTOBER 14, 1975 .27	3092					1508
BANCROFT #3-1	1-75	25	6326	2897	OCTOBER 13, 1976 .30	2892	3092	10-14-75	- 200	2201	
Bancroft #3-1	1-75	70	6326	2746	AUGUST 26, 1977 .27	2746	2897	10-13-76	- 151	1885	
Bancroft #3-1	1-75	24	6326	2596	OCTOBER 15, 1978 .27	2596	2746	8-26-77	- 150	1996	
Ockert #1-2A	10-75	41.3	6315 IVD	2468	FEBRUARY 20, 1980 .28	2471	2596	10-15-78	- 125	1690	
Bancroft 3-1	1/75	26	6328	2101	DECEMBER 14, 1983 .14	2101	2471	2/20/80	-370	1702	

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION



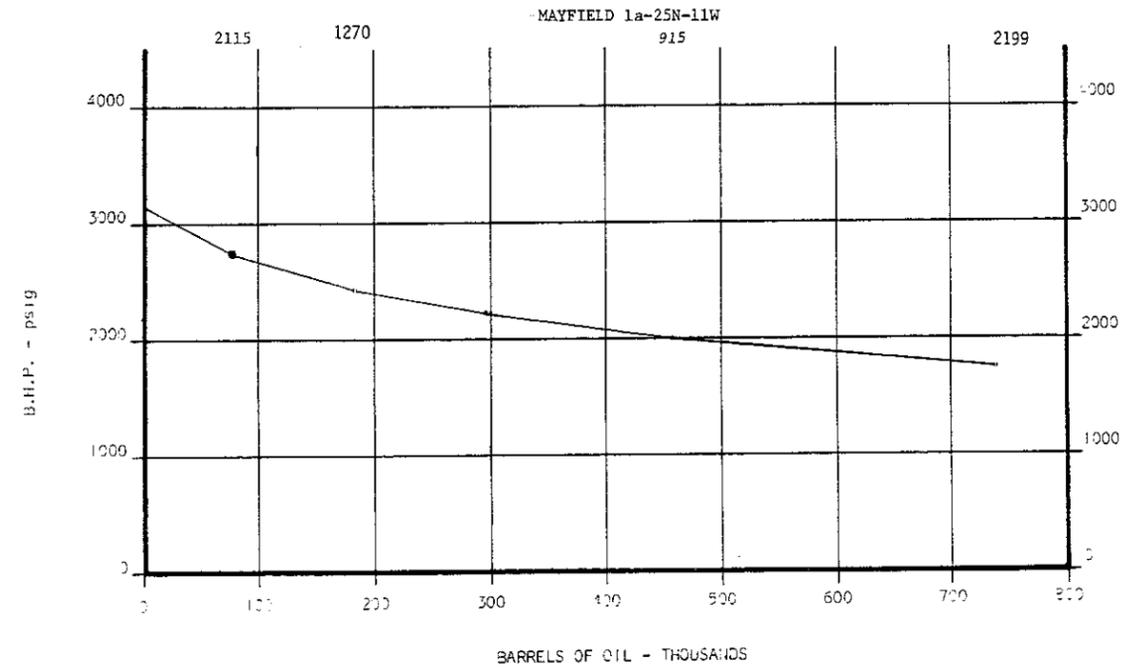
STATE OF MICHIGAN

FIELD NAME MAYFIELD 1A-25N-11W COUNTY GRAND TRAVERSE TOWNSHIP MAYFIELD DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 9-74 VIRGIN PRESSURE 3120 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5283 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Bancroft-Bisard #2-1 9-74	21.5	6298 IVD	3120	.270	3120			Initial Test		
		SEPTEMBER 18, 1974								
Bancroft Bisard #2-1 9-74	25	6298 IVD	2753	.26	2753	3120	9-18-74	- 367	1299	
		OCTOBER 4, 1977								
Bancroft Bisard #2-1 9-74	25	6298 IVD	2444	.25	2444	2753	10-4-77	- 309	1062	
		OCTOBER 15, 1978								
Bancroft Bisard 2-1 9-74	24.5	6298 TVD	2226	.26	2226	2444	10-15-78	- 218	836	
		OCTOBER 25, 1979								
Bancroft-Bisard #2-1 9-74	24.5	6298 IVD	2000	.29	2000	2226	10-25-79	- 226	701	
		MARCH 31, 1981								
Bancroft-Bisard 2-1 9/74	26	6299 TVD	1753	.63	1752	2000	3/31/81	-248	538	
		DECEMBER 14, 1983								

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION



STATE OF MICHIGAN

FIELD NAME MAYFIELD 1B-25N-11W COUNTY GRAND TRAVERSE TOWNSHIP MAYFIELD DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-80 VIRGIN PRESSURE 3145 NO. PRODUCING WELLS _____

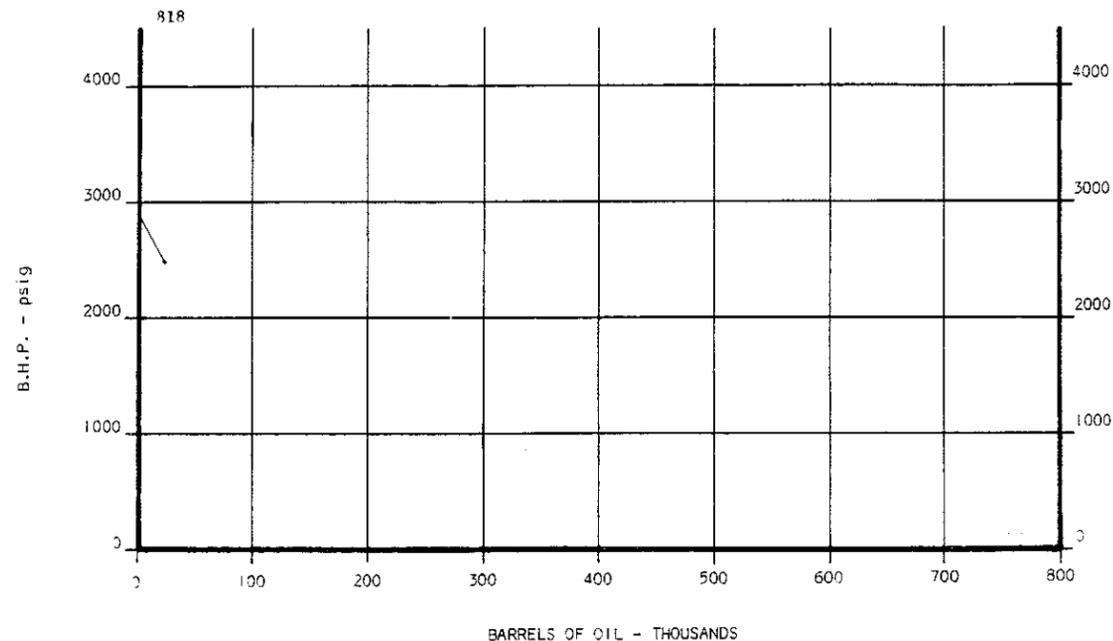
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5262 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Nickerson #1-1	2-80	16	6319 IVD	3145	.137	3145		INITIAL TEST		2363 2398
		FEBRUARY 2, 1980								
Nickerson 1-1	2/80	--	6388 TVD	689	.398	662	3145	2/2/80	-2483	481 539
		AUGUST 14, 1982								

FIELD NAME MAYFIELD 3-25N-11W COUNTY GRAND TRAVERSE TOWNSHIP MAYFIELD DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 4-29-73 VIRGIN PRESSURE 2862 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4925 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Schmuckal 1-3	4-73	17	6022	2862	.135	2862		Initial test		2268
Schmuckal 1-3	4-73	--	5974	2632	.135 *	2635	2862	4-29-73	- 227	
Schmuckal 1-3	4-73	42	5974	1132	.030	1133	2635	2-25-74	- 1502	
Schmuckal 1-3	4-73	240	5974	1082	.10	1086	1133	2-17-75	- 47	907
Schmuckal 1-3	4-73	110.6	5974	482	.10*	486	1086	5-20-75	- 600	402
Schmuckal 1-3	4-73	216	5973	450	.012	450	486	4-27-77	- 36	384

REMARKS: * Assumed

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION
MAYFIELD 3a-25N-11W



FIELD NAME MAYFIELD 3A-25N-11W COUNTY GRAND TRAVERSE TOWNSHIP MAYFIELD DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-75 VIRGIN PRESSURE 2872 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4942 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Zimmerman #3-3	3-75	87.9	6028	2872	.27	2872		INITIAL TEST		1262
Zimmerman #3-3	3-75	65.7	6008	2507	.34	2508	2872	3-14-75	- 364	1152

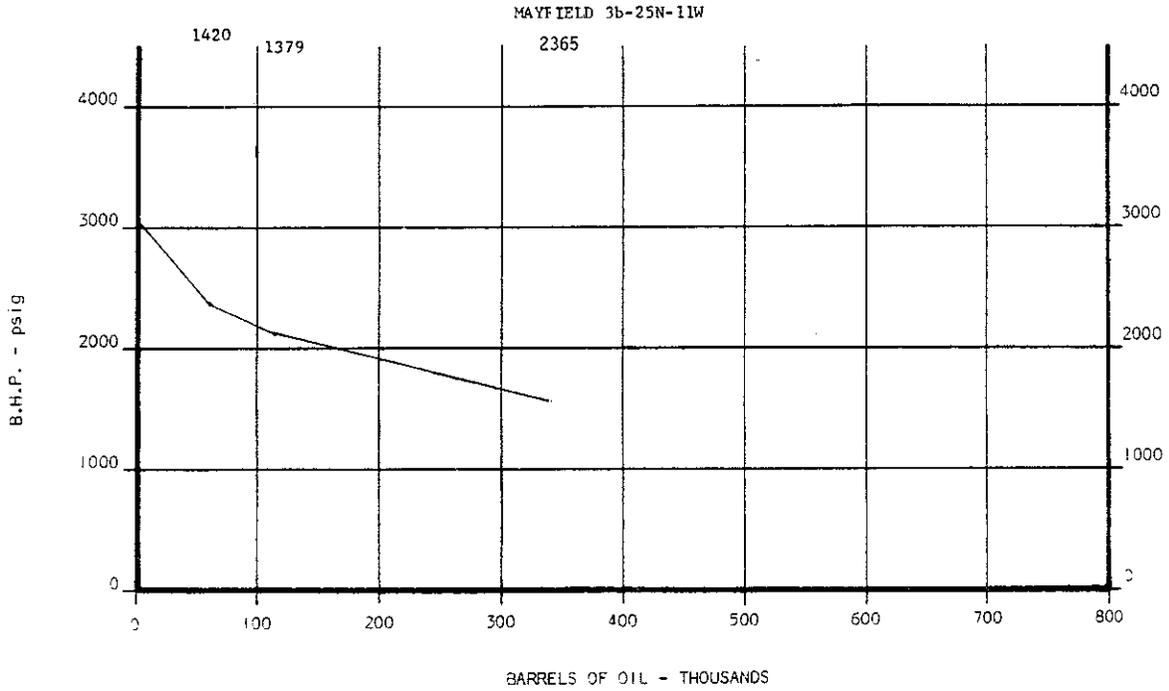
Initial test subsequent to rework

FIELD NAME MAYFIELD 3B-25N-11W COUNTY GRAND TRAVERSE TOWNSHIP MAYFIELD DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-75 VIRGIN PRESSURE 3059 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5035 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Waslawski 5-3	7-75	42.5	6127	3059	.270	3059		INITIAL TEST		1466
Waslawski #5-3	7-75	46.5	6127	2370	.27	2366	3059	7-15-75	- 693	860 Pkr.
Waslawski #5-3	7-75	46.1	6108	2254	.24	2258	2366	5-11-76	- 108	1025
Waslawski #5-3	7-75	41	6109	2125	.28	2127	2258	6-4-76	- 131	806
Preston Trust 1-10	3/82	75	6139	1739	.08*	1737	2127	11/11/76	-390	--
Preston Trust 1-10	3/82	--	6139	1531	.079	1529	1737	2/28/82	-208	1270 1264

* = Assumed

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

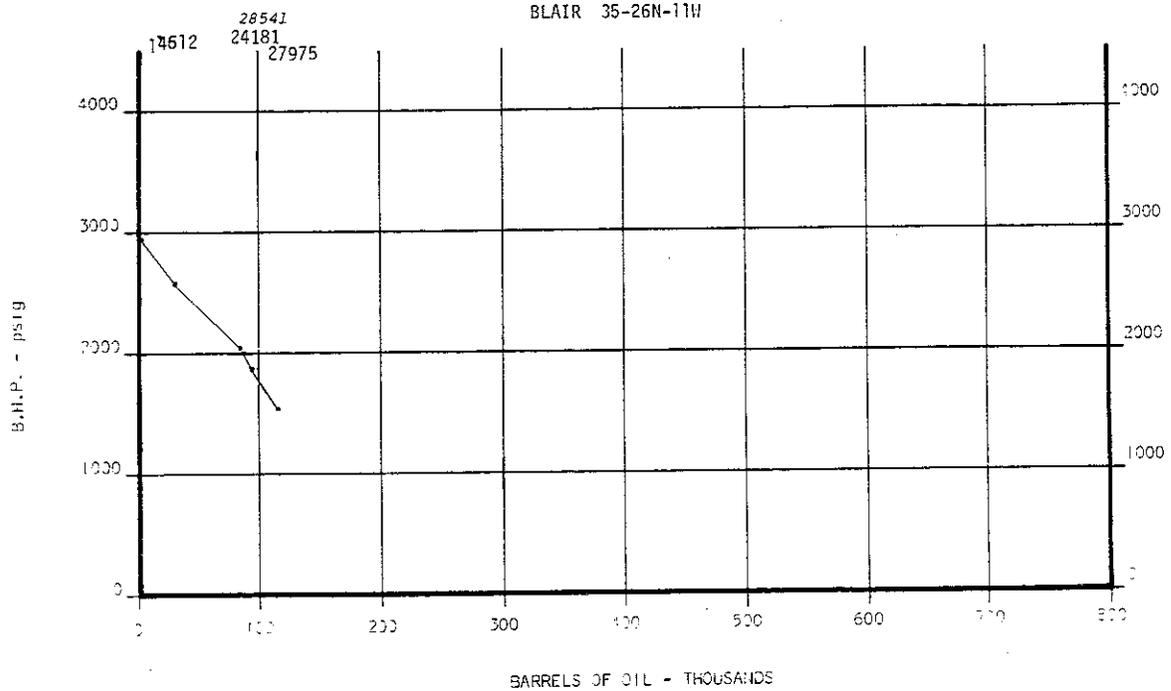


STATE OF MICHIGAN

FIELD NAME MAYFIELD 4-25N-11W COUNTY GRAND TRAVERSE TOWNSHIP MAYFIELD DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 6-77 VIRGIN PRESSURE 2985 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4881 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Henry #2-4	6-77	68.6	5973	2985	JUNE 16, 1977 .34	2985	INITIAL PRESSURE		1386	
Miller 1-33	12/81	120	5986	1728	JANUARY 7, 1982 .216	1723	NOT USED IN CALCULATIONS			
Miller 1-33	12/81	156	5986	1819	MAY 1, 1982 .39	1811	2985	6/16/77	-1174 240	

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION



STATE OF MICHIGAN

FIELD NAME BLAIR 36-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 12-19-72 VIRGIN PRESSURE 3027 NO. PRODUCING WELLS _____

WELL OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT-IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5164 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Morgan #1-36	12-72	38.5	JANUARY 13, 1973 6216	3027	.100	3027	Initial test			
Morgan #1-36	12-72	--	FEBRUARY 28, 1974 6089	2891	(M.P.S.C.) 100 *	4 Point test) 2902	3027	1-13-73	- 125	
Weaver #1-A	2-74	N.A.	APRIL 19, 1974 6222 TVD	2827	.430	2817	2902	1-28-74		
Weaver #1-A	2-74	N.A.	APRIL 23, 1974 6184 TVD	2811	.520	2819	2902	1-28-74	- 83	
Morgan #1-36	12-72	5.5	OCTOBER 10, 1974 5916	2314	.080	2338	2819	4-23-74	- 481	
Morgan #1-36	12-72	21	JANUARY 29, 1975 5950	2070	.063	2087	2338	10-10-74	- 251	
Weaver #1-A	2-74	64.7	FEBRUARY 17, 1975 6195 TVD	2058	.070	2058	2087	1-29-75	- 29	
Morgan #1-36	12-72	6	MAY 12, 1975 6076	1881	.07*	1891	2058	2-17-75	- 167	1545

REMARKS: * Assumed

BLAIR 36-26N-11W

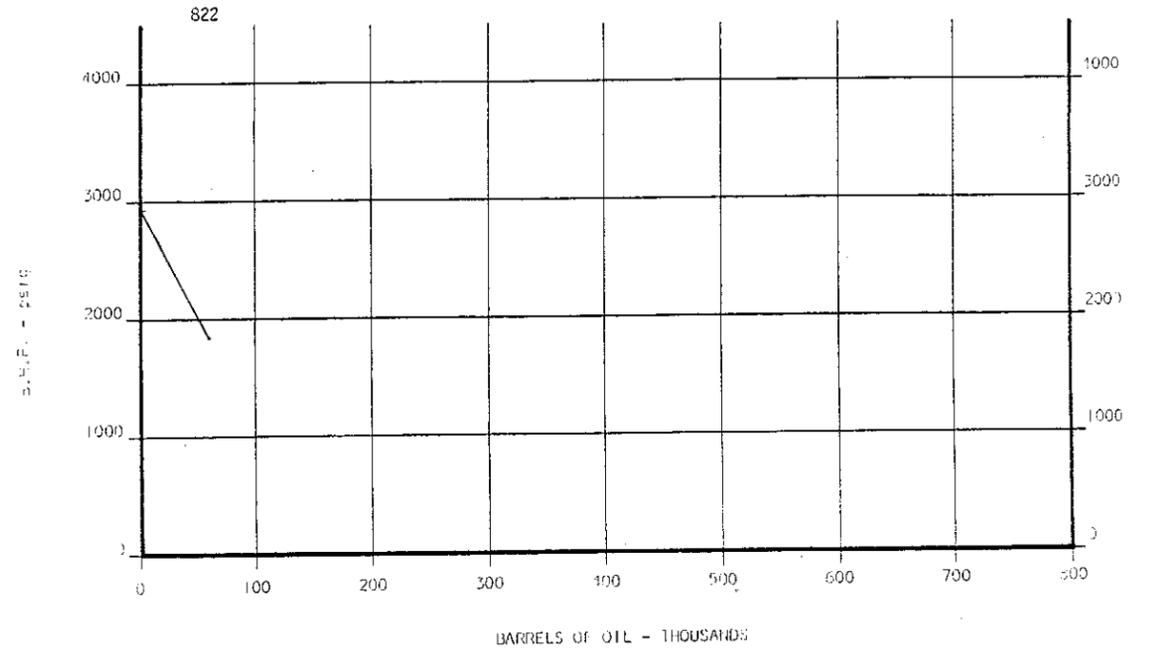
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5164 FEET	CURRENT PRESS.	PREVIOUS PRESSURE		
Morgan #1-36	12-72	67	6067	1755	.054	1763	1891	5-12-75	-128	1442
Morgan #1-36	12-72	2.4	6090	1365	.053	1372	1763	7-21-75	-391	1142
Weaver 7-1	1-77	61.7	6127	1087	.053*	1090	1372	3-25-76	-282	902
Morgan #1-36	12-72	7 Days	6089	957	.03	961	1090	1-17-77	-129	809
Morgan #1-36	12-72	152	6087	777	.022	780	961	11-28-77	-181	657
Morgan #1-36	12-72	67.5	6089	288	.01	289	780	2-16-79	-491	

* Assumed

REMARKS:

STATE OF MICHIGAN

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION EAST BAY 9-26N-10W



STATE OF MICHIGAN

FIELD NAME: East Bay 9-26N-10W COUNTY: Grand Traverse TOWNSHIP: East Bay DATE OF TESTS:
 PRODUCING FORMATION: Sal - Niag DISCOVERY DATE: 6/82 VIRGIN PRESSURE: 2956 NO. PRODUCING WELLS:

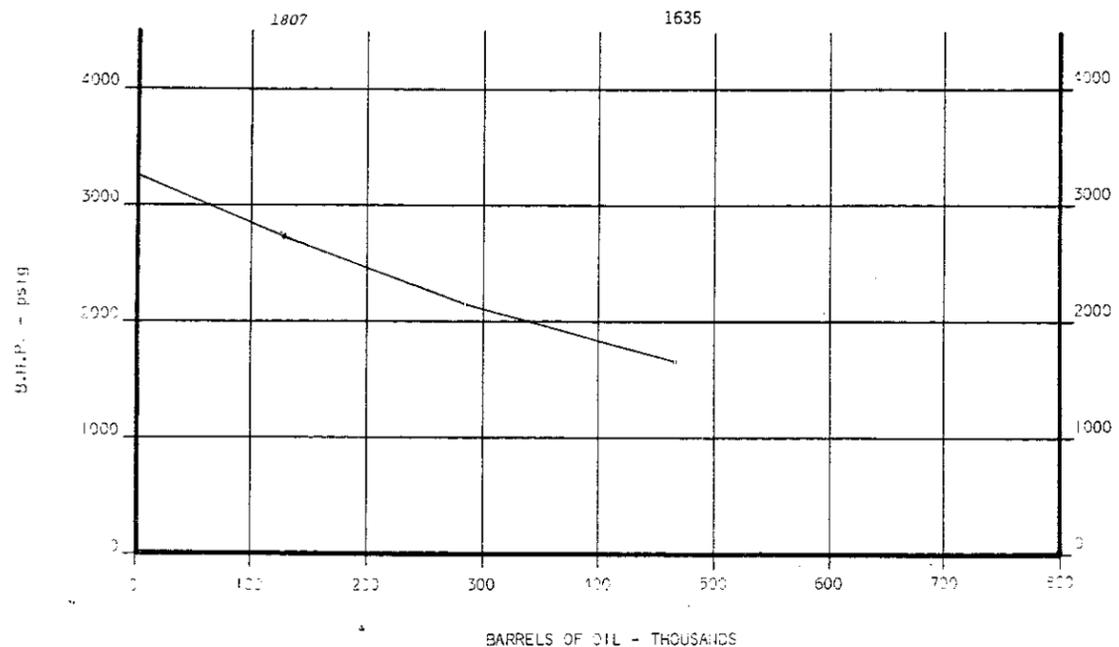
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5509 FEET	CURRENT PRESS.	PREVIOUS PRESSURE		
Arbutus Lake 1-9S	6/82	67	6344	2956	318	2956	INITIAL TEST			1203
Arbutus Lake 1-9S	6/82	72	6334	2475	.287	2475	2956	7/2/82	-481	1002
Arbutus Lake 1-9S	6/82	139	6334	2276	.280	2276	2475	8/15/82	-199	1107
Salon 1-9C	9/82	242	5833 TVD	2744	.296	2897	NOT USED IN CALCULATIONS			986 1756
Arbutus 1-9A	6/83	66.3	5823 TVD	1861	.255	1991	2276	9/6/82	-285	1349 1351

FIELD NAME: EAST BAY 10-26N-10W COUNTY: GRAND TRAVERSE TOWNSHIP: EAST BAY DATE OF TESTS:
 PRODUCING FORMATION: SAL.-NIAG. DISCOVERY DATE: 2-80 VIRGIN PRESSURE: 3292 NO. PRODUCING WELLS:

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5103 FEET	CURRENT PRESS.	PREVIOUS PRESSURE			
Gembis McDonald 1-10 2-80	41.3	5961 IVD	3292	FEBRUARY 17, 1980	.285	3292	INITIAL TEST			1558 1625	
McDonald #2-10	9-80	24	5865	3172	SEPTEMBER 16, 1980	.34	3209	3292	2-17-80	-83	1600 1600
McDonald #2-10	9-80	24	5880	2696	NOVEMBER 3, 1981	.316	2726	3209	9-16-80	-483	1552 2175
Mueller 3-10	8/81	70	5958	1646	APRIL 9, 1982	.40*	1664	NOT USED IN CALCULATIONS		353 847	
Gembis-MacDonald 1-10 2/80	--	5962 TVD	2137	OCTOBER 7, 1982	.525	2144	2726	11/3/81	-582	1055 1597	
MacDonald 3-10	7/83	--	5958	2676	JULY 27, 1983	.299	2693	NOT USED IN CALCULATIONS		1114 1512	
Gembis MacDonald 1-10 2/80	---	5942 TVD	1682	DECEMBER 29, 1983	.588	1701	2144	10/7/82	-443	422	

*Assumed

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
EAST BAY 10-26N-10W



STATE OF MICHIGAN

FIELD NAME		COUNTY		TOWNSHIP		DATE OF TESTS			
EAST BAY 11-26N-10W		GRAND TRAVERSE		EAST BAY					
PRODUCING FORMATION		DISCOVERY DATE		VIRGIN PRESSURE		NO. PRODUCING WELLS			
SAL.-NIAG.		2-76		3250*					
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHIFT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER P.S.I. @ 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 5076 FEET	DATE OF PREV. PRESSURE	INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
Rotary Camps #1-11	2-76	N.A.	6000	2641	MARCH 16, 1976 .28	2641	Not used in calculations.		1257 1544
Rotary Camps #1-11	2-76	74	6193	1952	FEBRUARY 20, 1977 .295	1895	Not used in calculations. Incomplete buildup at 8 PSI/Hr. at end of test		1055 1125
Rotary Camps #1-11	2-76	55.8	6193	1570	JANUARY 19, 1978 .342	1504	Not used in calculations. Incomplete buildup at 10 PSI/hr. at end of test		896 900
Rotary Camps #2-11	2-79	50est.	6162	3054	FEBRUARY 9, 1979 .30*	3000	Not used in calculations Both wells are located in the same reef according to Total Leonard.		1575 Pkr
Rotary Camps #1-11	2-76	72	6192	2159	MARCH 14, 1980 .401	2077	Not used in calculations.		1228 1600
Rotary Camps #2-11	2-79	72	6162	3076	.272	3027	3250* 2-76 East Bay 11-26N-10W and East Bay 14-26N-10W may be located in the same reservoir according to Total Leonard.	- 223	1515 1700

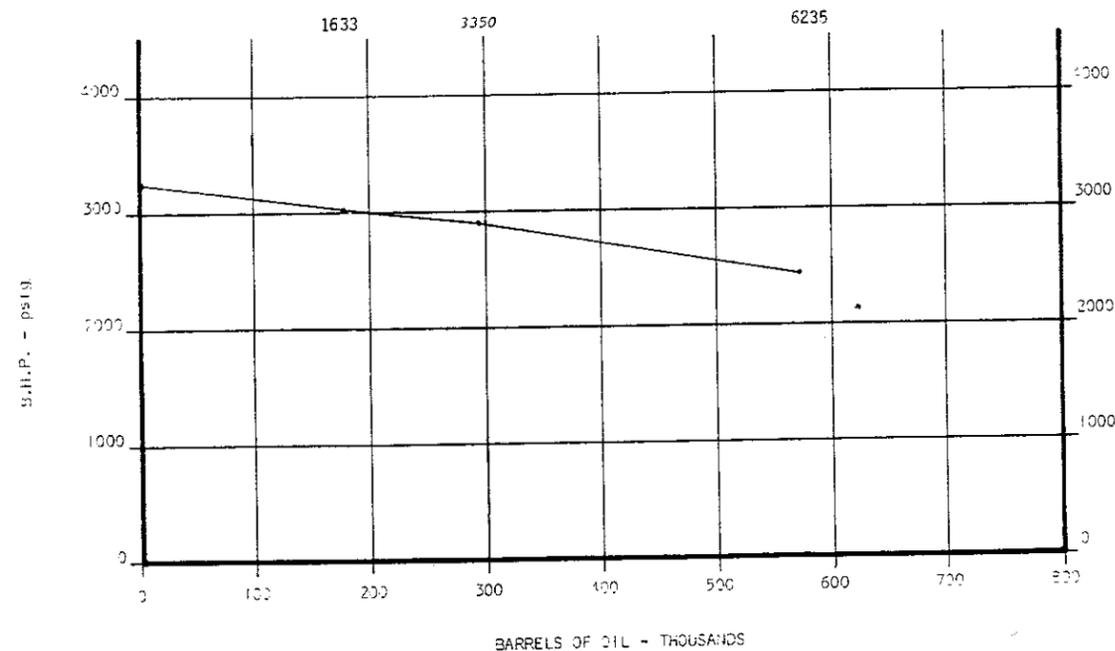
*Estimated

FIELD NAME: EAST BAY 11-26N-10W

OPERATOR, LEASE AND WELL NUMBER	WELL CAMP DATE	SHIFT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERNAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5076 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		
Rotary Camps #4-11	6-81	53	6155 TVD	2952	JUNE 6, 1981 .289	2906	3027	3-14-80	- 121	1413
Rotary Camps 1-11	2/76	24	6192	1650	NOVEMBER 26, 1982 .286	1595	NOT USED	IN CALCULATIONS		1056 1141
ROTARY CAMP 4-11	6/81	24	6092 TVD	2645	.340	2612	2906	6/6/81	-294	1871 357
Rotary Camp 4-11	6/81	--	6155 TVD	2467	JANUARY 31, 1984 .270	2424	2612	11/26/82	-188	1776

REMARKS:

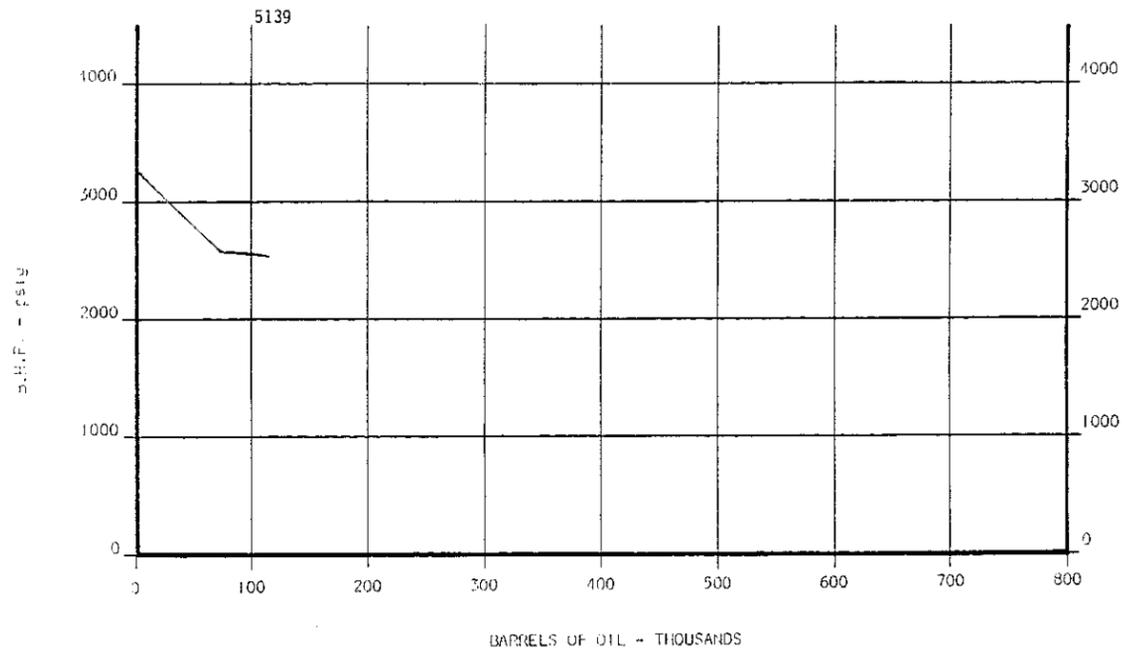
BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
EAST BAY 11-26N-10W



FIELD NAME EAST BAY 12-26N-10W COUNTY Grand Traverse TOWNSHIP East Bay DATE OF TESTS
 PRODUCING FORMATION Sai - Niag DISCOVERY DATE 1-81 VIRGIN PRESSURE 3250* NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5359 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Foster Unit #1-12	11/80	182	6197 TVD	3027	NOVEMBER 10, 1980 .568	3027		INITIAL TEST		1079	1636
East Bay 12-26N-10W and East Bay 11-26N-10W may be located in the same reservoir according to Total Leonard who has an interest in this well. The first reported pressure appears to be drawn down											
Foster 1-12	11/80	--	6197 TVD	2983	APRIL 27, 1981 .567	3040		INITIAL TEST		1602	1151
Foster 1-12	11/80	69.3	6201 TVD	2332	NOVEMBER 9, 1981 .557	2330		NOT USED IN CALCULATIONS		1109	607
Foster 1-12	11/80	257.5	6201 TVD	2603	MARCH 15, 1982 .30*	2602	3040	4/27/81	-438	1440	
Foster 1-12	11/80	93	6934 TVD	2542	APRIL 22, 1983 10*	2568	2602	3/15/82	-34	1994	

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION
EAST BAY 12-26N-10W

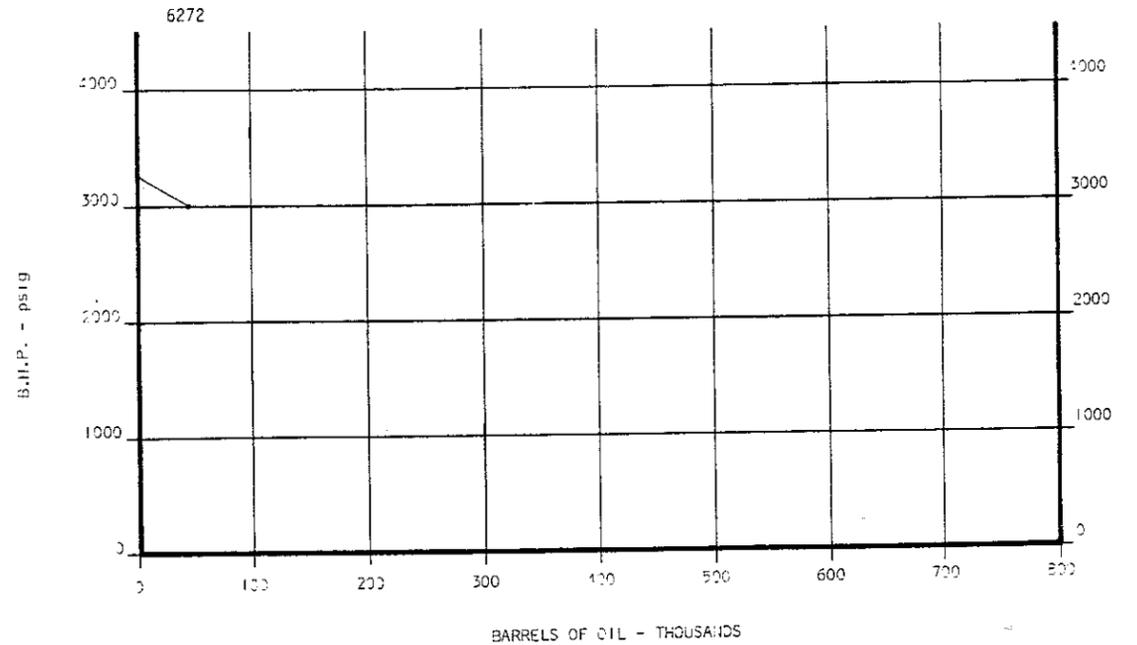


FIELD NAME East Bay 12A-36N-10W COUNTY Grand Traverse TOWNSHIP East Bay DATE OF TESTS
 PRODUCING FORMATION Sai - Niag DISCOVERY DATE 9/82 VIRGIN PRESSURE 3272 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5231 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Kantz #1-12	9/82	46	6161 TVD	3272	SEPTEMBER 19, 1982 .220	3272		INITIAL TEST		2493	1687
Kantz 1-12	9/82	71	6152 TVD	3103	JUNE 23, 1983 .241	3105	3272	9/19/82	-167	2224	1298
St. Rennie Lake 1-1	11/83	820	6174 TVD	3005	DECEMBER 15, 1983 .176*	3004	3105	6/23/83	-101	2469	1419

* = Estimated

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION
EAST BAY 12A-36N-10W



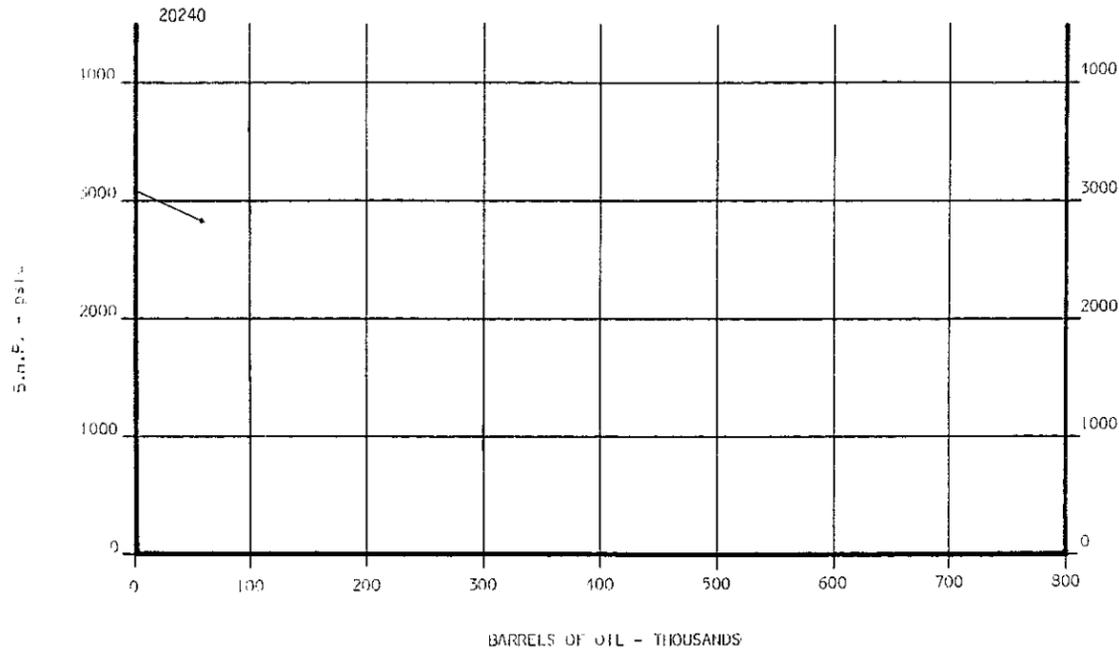
FIELD NAME EAST BAY 14-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP EAST BAY DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-79 VIRGIN PRESSURE 3084 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5143 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
St. East Bay 1-14	11-79	71.5	6086	3084	OCTOBER 27, 1979 .441	3084	INITIAL TEST		1072	1035	
East Bay 11-26N-10W and East Bay 14-26N-10W may be located in the same reservoir according to Total Leonard.											
St. East Bay 1-14	11-79	159.5	6086	3078	NOVEMBER 12, 1979 .291	3078	INITIAL TEST		2149	2200	
Rotary Camps #3-11	1-81	159	6005	2976	DECEMBER 24, 1980 .152	3002	3084	10-27-79	- 82	2310	2300
Rotary Camps #3-11	1-81	624	6005	2968	JANUARY 27, 1981 .153	2974				2307	2332
St. East Bay #1-14	11-79	96	6068	2972	.242	2976				2289	2293
					Average	2975	3002	12-24-80	- 27		
St. East Bay #1-14	11-79	---	6086	2856	OCTOBER 9, 1981 .231	2856	2975	1-27-81	- 119	2204	2204
St. East Bay 1-14	11-79	--	6086	2491	FEBRUARY 6, 1984 .453	2491	2856	10/9/81	-365	1860	

FIELD NAME East Bay 16-26N-10W COUNTY Grand Traverse TOWNSHIP East Bay DATE OF TESTS
 PRODUCING FORMATION Sal - Niag DISCOVERY DATE 7/82 VIRGIN PRESSURE 3007 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4885 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Edwards 1-16A	7/82	93.8	5873	3007	AUGUST 10, 1982 .452	3007	INITIAL TEST			1114	967

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION EAST BAY 14-26N-10W



FIELD NAME EAST BAY 17-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP EAST BAY DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6/77 VIRGIN PRESSURE 2903 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4885 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Salon #1-8	6-77	96	5728	2891	JULY 19, 1977 .218	2891	INITIAL TEST			1328	1345
Richardson Trust #2-18	4-78	15.5	5732	2918	APRIL 1, 1978 .30*	2903	INITIAL TEST			1352	1423
Kenney #1-18	3-78	22	5609	2857	JUNE 18, 1978 .280	2879	2903	4-1-78	- 24	1332	1436
Salon #1-8	6-77	25.3	5728	2520	OCTOBER 12, 1978 .309	2520	2879	6-18-78	-359	1114	1368
Richardson Trust #2-18	4-78	24.5	5732	2421	OCTOBER 28, 1978 .303	2406	2520	10-12-78	-114	1198	1910
Houck #2-17	7-79	74.8	5715	2294	JULY 2, 1979 .30	2294	2406	10-26-78	-112	1090	1258
Cudney #1-17	9-80	74.5	5763	1722	SEPTEMBER 21, 1980 .315	1737	2294	7-2-79	-557	1307	1383
Houck #2-17	7-79	25.8	5774	1712	SEPTEMBER 25, 1980 .31	1724	1737	9-25-80	- 13	1402	1598

*Estimated -

FIELD NAME: EAST BAY 17-26N-10W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERNAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES TUB. CSG.			
						P.S.I. @ 4885	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE					
Houck #2-17	7-79	25.3	5774	1207		SEPTEMBER 10, 1981	10	1218	1724	9-25-80	- 506	954	957
Cudney 1-17	9/80	68.8	5763 TVD	925		JANUARY 7, 1983		947	1218	9/10/81	-271	761	759

REMARKS:

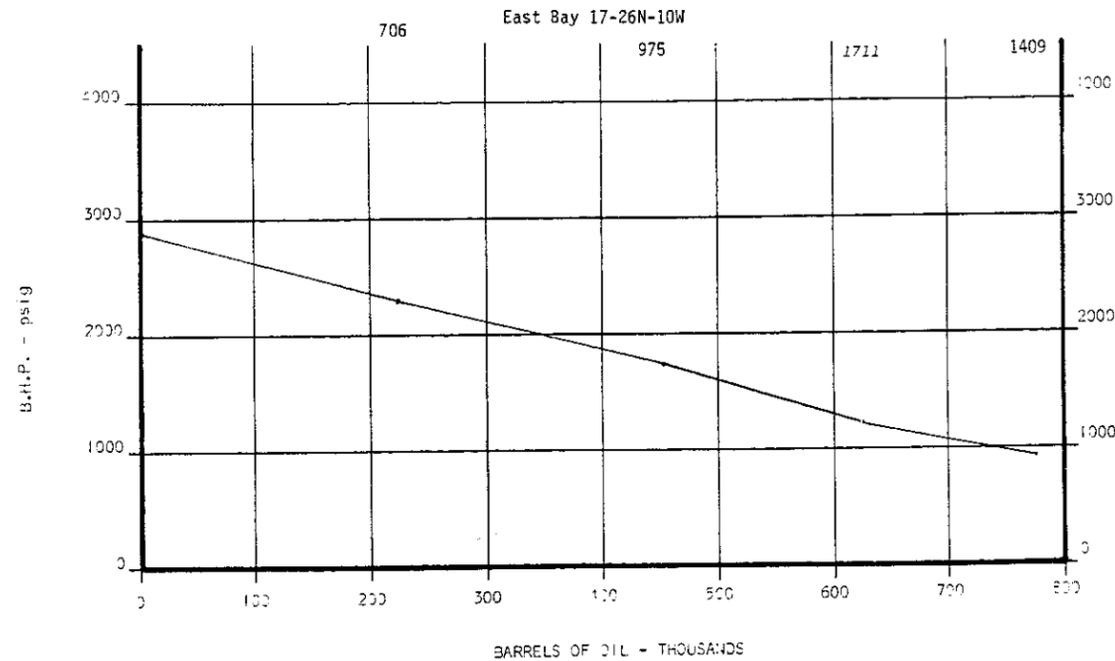
STATE OF MICHIGAN

FIELD NAME EAST BAY 25-27N-10W COUNTY GRAND TRAVERSE TOWNSHIP EAST BAY DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-78 VIRGIN PRESSURE 3340 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM FEET			INTERNAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES TUB. CSG.			
						P.S.I. @ 5024	PREVIOUS PRESS.	DATE OF PREV. PRESSURE					
St. East Bay 2-25	2-78	168	5959	3340		FEBRUARY 1, 1978		3340		INITIAL TEST		1520	

STATE OF MICHIGAN

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

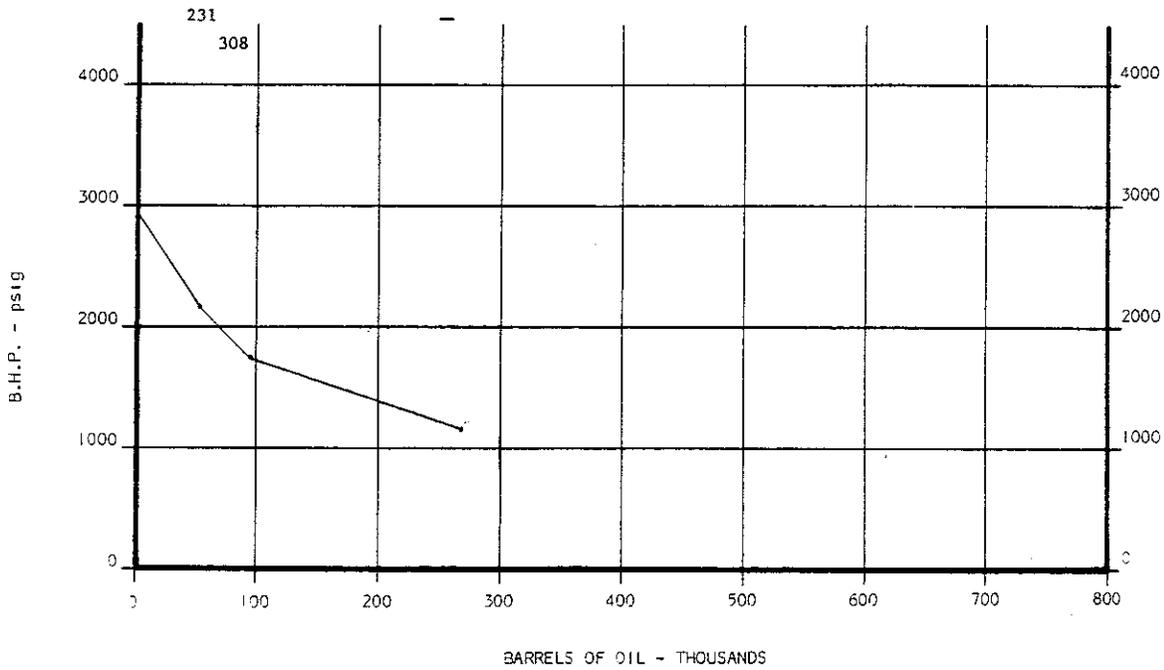


FIELD NAME GRANT 3-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 7-74 VIRGIN PRESSURE 2917 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERNAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4454	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Brink #1-3	7-74	24.5			.370	2917		Initial Test			1417
Brink #1-3	7-74	67			.291	2741	2917	7-21-74	- 176		1191
Brink #1-3	7-74	24			.26	2187	2741	8-29-74	- 554		548 Pkr
Brink #1-3	7-74	24.5			.319	1762	2187	4-28-76	- 425		768 1622
Pavlis 1-3	12/79	--			.529	1188	1762	10/8/76	-574		45 418

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION
GRANT 3-25N-12W



STATE OF MICHIGAN

FIELD NAME GRANT 3A-25N-12W COUNTY GRAND TRAVERSE TOWNSHIP GRANT DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 4-77 VIRGIN PRESSURE 2900* NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.		
						P.S.I. @	PREVIOUS PRESS.	DATE OF PREV. PRESSURE				
St. Grant #2-3	4-77	25	5388 TVD	2491	MAY 9, 1977 .44	2471	INITIAL	REPORTED TEST		918	930	
Schmuckal 1-3 (West Bay)	9/83	71	5428 TVD	1876	SEPTEMBER 28, 1983	277	1855	2471	5/9/77	-616	562	60

*Estimated

BLAIR 34-26N-11W (EAST)

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4886 FEET	PREVIOUS PRESS	DATE OF PREV PRESSURE		TUB.	CSG.
Thomas 1-34	7-70	50	5888	1442	JULY 17, 1978 .042	1442	1715	9-30-77	- 271	1202	
Thomas 1-34	7-70	192	5888	1428	FEBRUARY 22, 1980 .041	1427	1442	7-17-78	- 15	1190	
Thomas 1-34	7-70	---	5888	1062	MAY 3, 1988 .03	1062	1427	2-22-80	-365	900	

REMARKS:

STATE OF MICHIGAN

FIELD NAME BLAIR 34-26N-11W (WEST) COUNTY GRAND TRAVERSE TOWNSHIP BLAIR DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-8-70 VIRGIN PRESSURE 2877 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4886 FEET	PREVIOUS PRESS	DATE OF PREV PRESSURE		TUB.	CSG.
Lassa-Schmuckal #2-34	10-72	22.75	5968	2786	OCTOBER 14, 1972 121	2775		INITIAL TEST		2254	N.A.
Lassa-Schmuckal #2-34	10-72	MANY	5966	2718	FEBRUARY 8, 1974 096	2712	2775	10-4-72	- 63	2190	
Lassa-Schmuckal #2-34	10-72	N.A.	5906	2688	FEBRUARY 20, 1974 (M.P.S.C. 4 POINT TEST) .086	2682	2712	2-8-74	- 30		
Lassa-Schmuckal #2-34	10-72	67.2	5905	2373	MAY 18, 1976 .086*	2373	2682	2-20-74	-- 309	1933	
Lassa-Schmuckal #2-34	10-72	101 Days	5906	2219	FEBRUARY 9, 1978 .073	2219	2373	5-18-76	- 54	1790	
Franco #1-34	1-80	22.8	6000	1969	DECEMBER 13, 1979 .305	1956		NOT USED IN CALCULATION		391	
Franco #1-34	1-80	69	6000	2012	FEBRUARY 4, 1980 .060	2009	2219	2-9-78	- 210	1657	
Lassa-Schmuckal * Assumed	2-34 10-72	121	5832	1328	OCTOBER 21, 1981 .03	1330		NOT USED IN CALCULATIONS		1115	

FIELD NAME: BLAIR 34-26N-11W (West)

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4886 FEET	PREVIOUS PRESSURE	DATE OF PREV PRESSURE		TUB.	CSG.
Franco 1-34	1-80	118	5943	1506	MARCH 1, 1982 .06*	1507	2009	2-4-80	-502	1250	1279
Lassa -Schmuckal	2-34 10-72	--	5915	1340	MAY 2, 1983 .04	1339	1507	3-1-82	-168	1128	

*assumed

REMARKS:

STATE OF MICHIGAN

FIELD NAME BLAIR 35-26N-11W COUNTY GRAND TRAVERSE TOWNSHIP MAYFIELD DATE OF TESTS _____
 PRODUCING FORMATION SAL.,-NIAG. DISCOVERY DATE 1-75 VIRGIN PRESSURE 2947 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5087 FEET	PREVIOUS PRESS	DATE OF PREV PRESSURE		TUB.	CSG.
Schmuckal #1-35	2-75	42	6155	2918	JANUARY 31, 1975 .3548	2918		INITIAL TEST		1844	
Brown #2-35	4-77	86.6	6133	2942	APRIL 7, 1977 .36	2947		INITIAL TEST		1562	
Schmuckal #1-35a	6-77	65	6136 TVD	2899	JANUARY 24, 1977 .28	2904		INITIAL TEST			
Brown #2-35	4-77	71.5	6133	2583	JUNE 20, 1978 .30*	2587	2947	4-7-77	- 360	2042	
Brown #2-35	4-77	116	6133	2226	OCTOBER 24, 1979 .28	2230	2587	6-20-78	- 357	1750	
Schmuckal #1-35A	6-77	72	6136 TVD	2034	OCTOBER 16, 1980 .13	2034	2230	10-24-79	- 196	1578	
Brown #2-35	4-77	73	6133	1876	OCTOBER 22, 1981 .05	1877	2034	10-16-80	- 157	1523	
Brown 2-35	4-77	28	6133	1697	NOVEMBER 10, 1982 .06	1698	1877	10-22-81	-179	1383	
Brown 2-35 *Estimated	4-77	27	6133	1556	DECEMBER 14, 1983 .13	1556	1698	11-10-82	-142		

STATE OF MICHIGAN

FIELD NAME PARADISE 26A-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-80 VIRGIN PRESSURE 3400* NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5696 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
Baldwin Steadman #1-26B 8-80	71	6617	IVD	2547	AUGUST 18, 1980 .101	2547	INITIAL	REPORTED TEST		1989	2012
Kelly #1-35	11-82	68	6592	2223	NOVEMBER 15, 1982 .10*	2228	2547	8-18-80	-319		
Kelly #1-35	11-82	72	6592	2119	DECEMBER 20, 1982 .076	2123	2228	11-15-82	-105	1640	

* Estimated

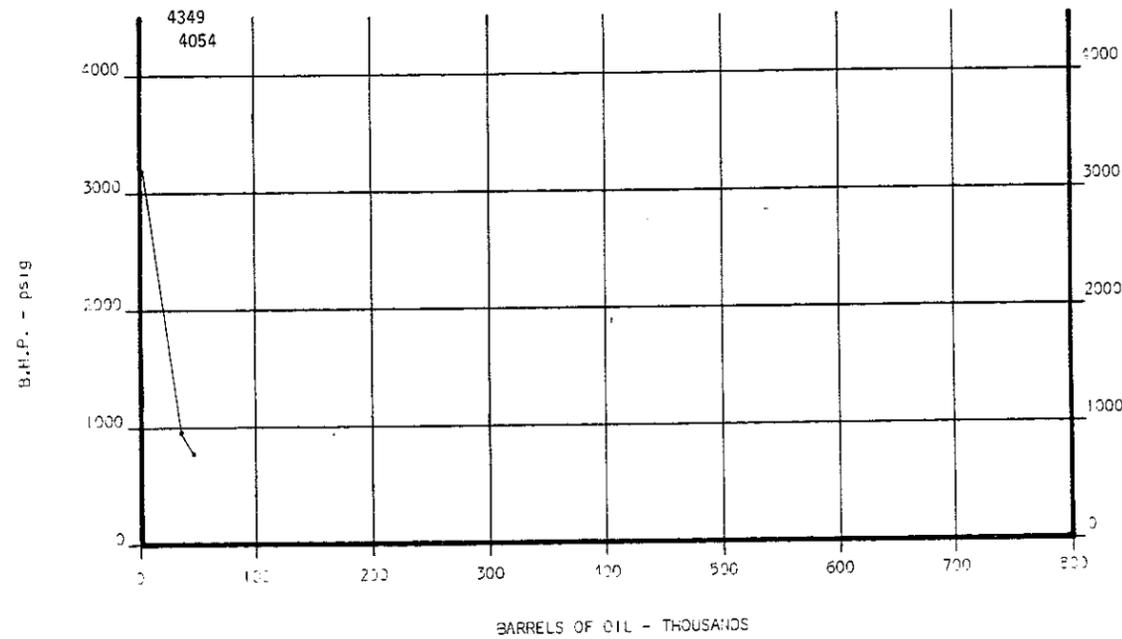
STATE OF MICHIGAN

FIELD NAME PARADISE 27-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-76 VIRGIN PRESSURE 3203 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5241 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
Edwards #2-27	2-76	208	6175	3057	FEBRUARY 20, 1976 .28	3057		INITIAL TEST		1409	
Edwards #2-27	2-76	696	6175	3203	MARCH 11, 1976 .30	3203		INITIAL TEST		1515	
Edwards #1-22	4-76	18	6226	1903	APRIL 21, 1976 .33	1890	NOT USED IN CALCULATIONS Incomplete pressure buildup at 35 PSI/Hour.			667	
Stuckman #1-28	10-77	95.5	6160	2275	OCTOBER 25, 1977 .267	2278	NOT USED IN CALCULATIONS			1203	1523
Edwards #1-22	4-76	N.A.	6191	985	DECEMBER 14, 1978 .028	985	3203	3-11-76	-2218	863	
Edwards #1-22	4-76	141	6191	783	OCTOBER 10, 1979 .03	782	985	12-14-78	-203	658	

BOTTOM-HOLE PRESSURE DROP VERSUS
RESERVOIR CUMULATIVE OIL PRODUCTION

PARADISE 27-26N-10W



FIELD NAME PARADISE 28-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-79 VIRGIN PRESSURE 3195 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5188 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Tuller #1-28	9-79	Months	6115	3195	MARCH 27, 1980 .157	3195	INITIAL TEST		2532	

FIELD NAME PARADISE 27A-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-79 VIRGIN PRESSURE 3125 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5414 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Cunningham #1-27	8-79	166.5	6347	3125	NOVEMBER 28, 1979 .10*	3125	INITIAL TEST		2396	2419

*Estimated

FIELD NAME PARADISE 29-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-83 VIRGIN PRESSURE 3113 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5153 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Paradise #2-29	6-83	160	6069	3113	JUNE 21, 1983 .35	3113	INITIAL TEST		1565	

FIELD NAME PARADISE 31-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 7-74 VIRGIN PRESSURE 3162 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5292 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
McTaggart 1-31	7-74	26	JULY 31, 1974 6306	3162	126	3162	Initial Test				
McTaggart #1-31	7-74	N.A.	APRIL 30, 1976 6305	2675	112	2675	3162	7-31-74	- 487	2052	
McTaggart #1-31	7-74	70	FEBRUARY 8, 1980 6205	783	.022	785	2675	4-30-76	- 1890	668	
McTaggart 1-31	7-74	7 da	APRIL 28, 1983 6305	369	.02	369	785	2-8-80	-416	303	

RE MARKS:

FIELD NAME PARADISE 32-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 8-74 VIRGIN PRESSURE 2841 NO. PRODUCING WELLS _____
 (Reservoir A)

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5221 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Dowd-St. Paradise #1-32	8-74	504	AUGUST 6, 1974 6203	2841	130	2841	Initial Test			2247	
Dowd St. Paradise #1-32	8-74	120	SEPTEMBER 5, 1975 6203	2068	092	2068	2841	8-6-74	- 773	1622	
Dowd St.-Paradise #1-32	8-74	Since Oct. 1	NOVEMBER 13, 1975 6203	2423	.1020	2423	NOT USED IN CALCULATIONS			1912	
Dowd St.-Paradise #1-32	8-74	144	JANUARY 22, 1976 6202	1614	.024	1614	2068	9-5-75	-454	1287	
Dowd St. Paradise #1-32	8-74	179.5	AUGUST 25, 1977 6202	2412	.10	2412	NOT USED IN CALCULATIONS				

RE MARKS:

* Estimated

FIELD NAME PARADISE 32-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 3-77 VIRGIN PRESSURE 3150** NO. PRODUCING WELLS _____
 (Reservoir B)

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5221 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Paradise 2-32B	3-77	229	MARCH 12, 1977 6293 TVD	3161	.10*	3150**	INITIAL TEST				
			** Still building at 2 psi/hour.								
St. Paradise 2-32B	3-77	108.6	DECEMBER 23, 1978 6300TVD	1723	.10*	1711	3150	3-12-77	- 1439	730	Pkr.
McTaggart #5-32A	11-83	69	JUNE 27, 1983 6361TVD	1409	.10*	1397	1711	12-23-78	-314	--	

* Assumed

FIELD NAME PARADISE 33-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS _____
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-75 VIRGIN PRESSURE 3304 NO. PRODUCING WELLS _____

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5226 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Paradise 1-33	7-75	63.3	JULY 21, 1975 6150 TVD	3304	N.A.	3304	INITIAL TEST			2507	
St. Paradise 1-33	7-75	56	AUGUST 25, 1978 6190TVD	512	.10*	508	NOT USED IN CALCULATIONS			430	
St. Paradise 4-32	11-80	92.5	NOVEMBER 24, 1980 6266 TVD	2818	.29	2779	3304	7-21-75	- 525	1458	
			Both wells are believed to be located in the same reef interconnected through moderate pressure communication.								
St. Paradise #4-32	11-80	174	SEPTEMBER 13, 1983 6322 TVD	590	.03	584	2779	11-24-80	-2195	495	

*Estimated

FIELD NAME PARADISE 33A-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 4-76 VIRGIN PRESSURE 3236 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5153 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Brown #2-33	4-76	27.4	6075	3236	.16	APRIL 12, 1976	3236	INITIAL TEST		2450	
Brown #2-33	4-76	144	6079	1993	.16	JANUARY 4, 1978	1992	3236	4-12-76	- 1244	1590
Brown #2-33	4-76	40	6075	1407	.14	OCTOBER 3, 1979	1405	1992	1-4-78	- 587	1065

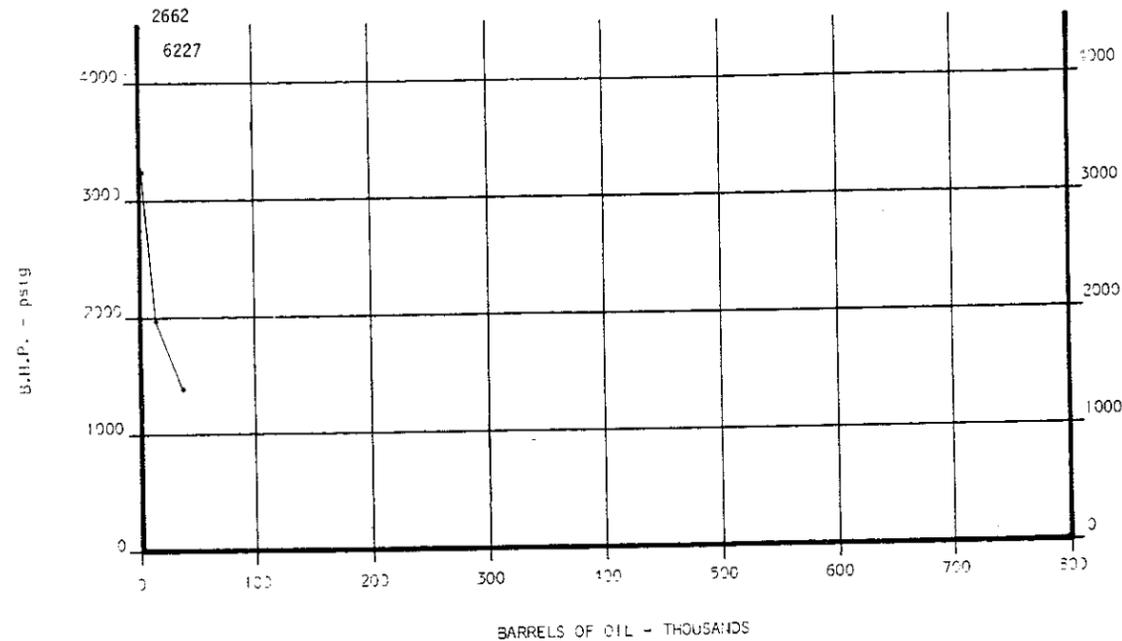
* = Assumed

FIELD NAME PARADISE 34-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-75 VIRGIN PRESSURE 3383 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5446 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Widner #1-34 A	12-75	70.8	6390	3383	N.A.	NOVEMBER 25, 1975	3383	INITIAL PRESSURE			
Widner #1-34A	12-75	8 Days	6390	1828	.04	JULY 28, 1977	1828	3383	10-25-75	- 1555	1468 1531

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

PARADISE 33A-26N-10W



FIELD NAME PARADISE 35-26N-10W COUNTY GRAND TRAVERSE TOWNSHIP PARADISE DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 10-77 VIRGIN PRESSURE 3539 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5701 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Ackerman #2-35a	10-77	92.3	6665 IVD	3539	.10*	OCTOBER 1, 1977	3539	INITIAL TEST			
Sedlacek 3-35b	5-78	41	6650 IVD	3498	.12	MAY 5, 1978	3499	3539	10-1-77	- 40	2685
Sedlacek 3-35b	5-78	96	6650 IVD	2441	.092	JANUARY 8, 1979	2442	3499	5-5-78	-1057	1827
BUILDUP INCOMPLETE, BUILDUP RATE OF 2 psi/hr.											
Sedlacek 3-35b	5-78	123.5	6650 IVD	2081	.063	MAY 21, 1979	2081				1655
Ackerman #2-35a	10-77	123	6662 IVD	2010	.063		2010				1597
AVE. 2046											
Ackerman #2-35a	10-77	98	6662 IVD	1493	.042	JANUARY 22, 1980	1493	2442	1-8-79	- 397	
NOT USED IN CALCULATIONS											
Sedlacek 3-35b	5-78	220	6650 IVD	1583	.049	MARCH 9, 1980	1583	2046	5-21-79	- 463	1260
Sedlacek 3-35B	5-78	11 da	6650 IVD	713	.10	JANUARY 10, 1983	713	1583	3-9-80	-870	590

* Estimated

FIELD NAME: PARADISE 35-26N-10W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5701 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Ackerman 2-35A	10-77	7 da	6662 TVD	506		APRIL 27, 1983 01	506	713	1-10-83	-207	425

REMARKS:

STATE OF MICHIGAN

FIELD NAME UNION 1-26N-9W COUNTY GRAND TRAVERSE TOWNSHIP UNION DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-72 VIRGIN PRESSURE 3381 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5547 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
St. Union "F" 1-1	11-72	N.A.	6526	3381		NOVEMBER 30, 1972 .10*	3381		INITIAL TEST		
St. Union "F" 1-1	11-72	51.5	6515	900		JANUARY 13, 1978 .02	900	3381	11-30-72	- 2481	
St. Union "F" 1-1	11-72	72.7	6515	762		OCTOBER 3, 1978 .023	762	900	1-13-78	- 138	630 630
St. Union "F" 1-1	11-72	71.5	6572	452		OCTOBER 12, 1981 .907	410	762	10-3-78	- 352	169 405

* Estimated

STATE OF MICHIGAN

FIELD NAME UNION 2-26N-9W COUNTY GRAND TRAVERSE TOWNSHIP UNION DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-73 VIRGIN PRESSURE 3427 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5636 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
St. Union #2-2	8-73	38	6350	3392		AUGUST 6, 1973 .137	3427		INITIAL TEST	2705 2750	
Martuch #1-2	1-74	41.5	6552 TVD	3403		JANUARY 21, 1974 .108	3410		INITIAL TEST	2698 Pkr.	
St. Union #2-2	8-73	N.A.	6537	2754		MARCH 17, 1977 .112	2761			2179 2165	
Martuch #1-2	1-74	N.A.	6550 TVD	2740		.089	2746	3427	8-6-73	- 673	2173 1681
						Average	2754				
St. Union #2-2	8-73	50.3	6537	2205		JANUARY 12, 1978 .10	2212				1760 1827
Martuch #1-2	1-74	48½	6550 TVD	2196		.07	2201	2754	3-17-77	- 548	1765
						AVERAGE	2207				
St. Union #2-2	8-73	48	6537	1896		JUNE 20, 1978 .061	1900				1546
Martuch #1-2	1-74	48	6550 TVD	1892		.055	1896	2207	1-12-78	- 309	1538
						AVERAGE	1898				
St. Union #2-2	8-73	75.3	6537	1716		SEPTEMBER 25, 1978 .048	1719				1405
Martuch 1-2	1-74	73.3	6550 TVD	1711		.054	1715	1898	6-20-78	- 181	1711
						AVERAGE	1717				

STATE OF MICHIGAN

FIELD NAME UNION 3-26N-9W COUNTY GRAND TRAVERSE TOWNSHIP UNION DATE OF TESTS
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-72 VIRGIN PRESSURE 3405 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 5636 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE			
Bodmann #1-11	3-75	18	6645 TVD	3405		MARCH 8, 1975 .137*	3405		INITIAL TEST	2657 2810	
St. Union "B" #1-3	3-72	Since Completion	6521	2891		OCTOBER 5, 1976 .103	2898	3405	8-6-73	- 507	2246 1337
St. Union "B" #1-3	3-72	70	6521	2177		MARCH 17, 1977 .103*	2184		NOT USED IN CALCULATIONS		1755 1660
St. Union "B" #1-3	3-72	7 Months	6521	2242		JANUARY 18, 1978 .071	2247	2898	10-5-76	-651	1774 1436
St. Union "B" #1-3	3-72	N.A.	6521	1598		JUNE 22, 1978 .084	1603	2247	1-18-78	-644	1308
St. Union "B" 1-3	3-72	71.5	6521	1337		SEPTEMBER 28, 1978 .10*	1344	1603	6-22-78	-259	1089
St. Union "B" 1-3	3-72	71.3	6521	583		APRIL 24, 1981 .015	584	1344	9-28-78	- 760	489 1346

* Assumed