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DEPARTMENT OF CONSERVATION  
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GEOLOGICAL SURVEY DIVISION  
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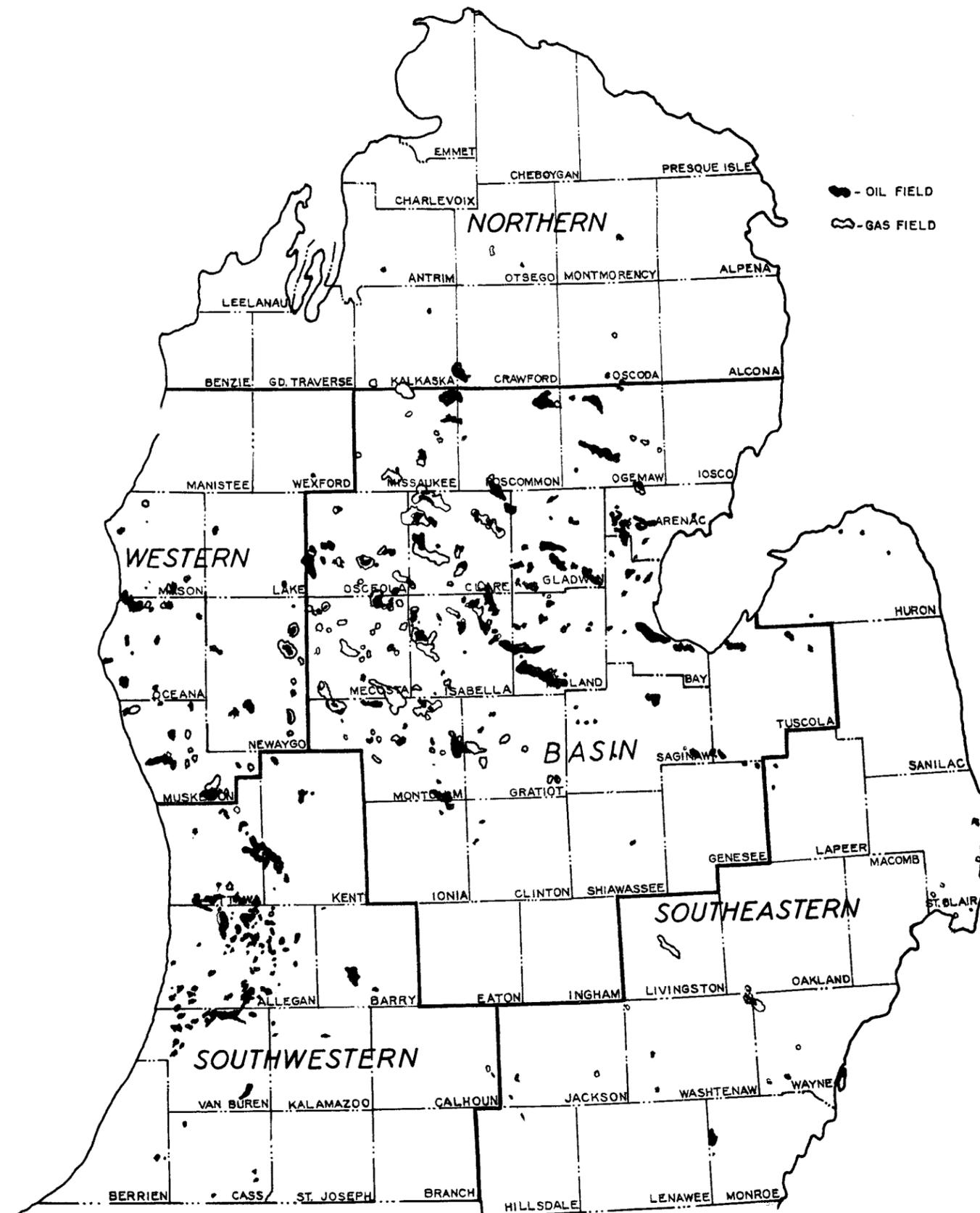
SUMMARY OF OPERATIONS  
OIL AND GAS FIELDS

AS COMPILED BY  
THE STAFF OF THE OIL AND GAS SECTION

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OIL AND GAS FIELDS  
SOUTHERN PENINSULA OF MICHIGAN  
BY DISTRICTS

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GENERAL ACTIVITIES

(Comparative Statistics 1957-58)

Exploratory and development well permits issued for 1958 increased 3.9% from 1957. In 1958, permits totaled 481, classified as 437 for exploratory and development wells and 44 for service wells. For 1957, the total permits issued numbered 461 with 420 as exploratory and development wells and 41 as service wells. These figures represent the actual permits issued and do not include the cancel and transfer of permits from previous years.

Completions registered a slight decline (2.4%) from the previous year. This percentage decline does not include 40 service well completions for 1958 and 38 service well completions for 1957. Table I is a comparative summary of the exploratory and development well completions for the two years in question.

TABLE I  
EXPLORATORY AND DEVELOPMENT WELL COMPLETIONS, 1957-58 (Inc.)

	<u>1957</u>					<u>1958</u>				
	Oil	Gas	Dry	Total	Per cent Success	Oil	Gas	Dry	Total	Per cent Success
Exploratory Wells	13	5	132	150	12.0	11	7	134	152	11.8
Development Wells	<u>163</u>	<u>35</u>	<u>75</u>	<u>273</u>	<u>72.5</u>	<u>155</u>	<u>13</u>	<u>93</u>	<u>261</u>	<u>64.4</u>
Totals	176	40	207	423	51.1	166	20	227	413	45.1

The footage drilled by exploratory and development wells decreased 71,995 feet from last year. Drilled footage totaled 1,156,923 feet for 1958 and 1,228,918 feet for 1957. Of the 1958 total, 414,914 feet was attributed to exploratory wells and 762,611 feet to development wells. Average exploratory effort drilled 2,730 feet and average development effort 2,922 feet. In 1957, exploratory footage totaled 388,763 feet and development footage 840,155 feet. For that year, the average exploratory effort drilled 2,592 feet and development effort 3,077 feet.

Oil production in 1958 declined 8.5% and gas increased 65.1% from the previous year. Production reported for 1958 was 9,308,018 barrels of oil and 10,964,378 MCF of gas. Production reported for 1957 was 10,168,602 barrels of oil and 6,639,813 MCF of gas. All production figures are from the records of the Michigan Department of Revenue.

EXPLORATION

The exploratory wells drilled during the year resulted in five new oil fields, two new gas fields, five extensions, and six new pools for a 11.8% success ratio. Additional encouragement for the year was provided by the discovery of five oil pools and one gas pool extension through the drilling or reworking of development wells. These wells have not been included in the exploratory statistics. Subsurface geology continued to be the major tool of

EXPLORATION - continued

exploration. However, a substantial number of exploratory tests were drilled as a result of gravity surveys.

Forty-four exploratory wells were classified as important deep tests in 1958. A formational breakdown of these tests in ascending order is as follows: six the Prairie du Chien, six the Trenton-Black River, four the Cincinnati, ten the Clinton, nine the Niagaran, four the Salina, one the Bass Island, one the Bois Blanc, one the Sylvania, and two the lower Detroit River. The deep tests resulted in five discoveries, or a 3.3% success ratio.

Two geological test permits were issued in 1958. Six such permits were issued in 1957.

Geophysical exploration was conducted throughout the year. All reported work was in the nature of gravity surveys. Southwestern and southern Michigan received the greatest amount of attention. However, surveys were also conducted in St. Clair County and surrounding area.

Undeveloped acreage under lease at the end of the year as reported by several companies increased substantially from the previous year. Twelve major companies and two independents reported 1,078,511 acres under lease at the end of 1958. These same companies reported 843,072 undeveloped acres under lease in December of 1957. Most of the increase in acreage can be attributed to southern Michigan.

Subsurface geology as in the past was the most efficient tool of exploration in Michigan during 1958. All but two of the recorded discoveries were the result of subsurface geology. These two tests: Bernhardt-Kain #1, Section 30, T.7S., R.6E., Monroe County, and Devine-Kok #1, Section 29, T.5N., R.14W., Ottawa County, were the result of a combination of gravity and subsurface geology.

PROSPECTS FOR 1959

Exploration and development well activity is expected to increase during 1959. A large part of this increase will be in southern Michigan. Current and past successes in the Western, Southwestern, and Eastern Districts continue to stimulate interest in those areas. The Basin District will probably maintain the same level of activity as in the past few years.

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 Explanation for the Core Photographs  
 Illustrated on Page Five

1. Albion: Carter Oil Co. - Rosenau #1, NW SW NW, Sec. 23, T.3S., R.4W., Albion Township, Calhoun County  
Producing zone - Trenton Formation, approx. depth of sample 3968
2. Pulaski: Sun Oil Co. - Blair #1, NW NE SW, Sec. 20, T.4S., R.3W., Pulaski Township, Jackson County  
Producing zone - Trenton Formation, approx. depth of sample 3927
4. Scipio: Aurora & McClure - Rowe #A-1, NW SW SE, Sec. 3, T.5S., R.3W., Scipio Township, Hillsdale County  
Producing zone - Trenton Formation, approx. depth of sample 3940
3. Northville: Taggart - Newton #2, NE NW SE, Sec. 2, T.1S., R.7E., Salem Township, Washtenaw County  
Producing zone - Trenton Formation, approx. depth of sample 4151



1. ALBION



2. PULASKI



3. NORTHVILLE



4. SCIPIO

TRENTON-BLACK RIVER DEVELOPMENTS IN SOUTHERN MICHIGAN

Favorable developments in the Trenton-Black River Formation of the Ordovician System created considerable interest and activity in the oil industry during 1958. This interest was confined principally to Branch, Calhoun, Jackson, and Hillsdale counties (see inside front cover). Activity ranged from intensive leasing programs to development in the Scipio Field which was discovered in 1957. Nineteen new wells were completed bringing the total to 25 producible wells at the end of 1958. These wells produced 527,253 barrels of oil during 1958 for an accumulative total of 613,484 barrels. Production is from a secondary dolomite and is confined to a fracture zone. Presently, the field is about one half mile wide and two miles long, trending south-southeast to north-northwest. Structurally, the fracture zone is directly associated with a shallow syncline which plunges to the north-northwest. All of the production has been in or on the flanks of the depression. Approximately 30 feet of relief is indicated. The northwest and southeast limits of the field have not been established. The Trenton-Black River is principally limestone with very little porosity outside the fracture zone.

Another Trenton-Black River discovery was drilled in the area in December, 1958. This test was located in Section 22, Albion Township, Calhoun County (see Table IV). It is significant that the well is aligned with the general Scipio trend although located some twelve miles away in a northwesterly direction. The structure and general characteristics of the Albion Field are similar to those in the Scipio Field. Based on the lineation and position of the two fields, a successful test was completed between these fields in early 1959. This test, the Turner Petroleum Corporation, Blair No. 1 in the SE NW SW Section 20, T.4S., R.3W., Pulaski Township, Jackson County, has all the general characteristics of the earlier two fields. The nature and position of the three fields suggest the possibility of a fracture zone at least twenty miles in length which has been partially proven productive of oil. Future prospects along this trend are very encouraging.

The producing pays in the Scipio, Pulaski, and Albion trend are illustrated on page five. All of the photographs are of representative samples from four-inch cores which have been reduced for publication. A small section of a core from the Northville Field in northeastern Washtenaw County is included for comparison. The vugs in the cores vary considerably in size and shape, depending on the degree of fracturing and resulting solution activity. The pays are irregular as can be expected in reservoirs of this type. Some of the fractured and brecciated zones have been completely re-sealed with white crystalline dolomite. The reservoir energy is furnished principally by a large gas cap with some indications of a bottom hole water drive. The wells are prorated at 150 barrels of oil per day but not allowed to produce in excess of 200 MCF of gas per day. Present spacing is one well to 20 acres with the wells located in the center of the northwest and center of the southeast ten acres of each forty-acre tract.

Exploration for the type of fracture zone trend discussed above is costly and hazardous. The low differences in relief are not readily indicated by regional contours. In other Trenton producing areas of the state, such as the Deerfield, Northville, and Freedom fields, the fracture zones have been located along the flanks of good vertical structures with reliefs of several hundred feet in less than one-quarter mile. These structures are prominent northwesterly trending features which are indicated with a minimum amount of well control.

A major portion of the exploratory and development activity during 1959 will be concentrated on the Trenton-Black River sediments in southern Michigan. The results of this work will have a direct bearing on the future of the oil industry in Michigan.

OIL FIELD BRINE

Michigan oil fields were producing a total of 179,231 barrels of brine per day at the end of 1958. This is a decrease of 16,399 barrels per day as compared with a total of 195,630 barrels per day at the end of 1957.

Table II is a record of all Michigan oil fields which were producing in excess of 2,000 barrels of brine per day and the percentage factor of the total produced from these fields in relation to the total daily brine produced in the state.

TABLE II

Field	1958	1957	1956	1955	1954	1953
Coldwater	29,344	33,704	33,256	29,799	26,751	22,601
Reed City	21,785	22,385	23,822	24,907	28,105	30,498
Freeman-Redding	12,247	12,612	11,930	12,734	14,501	17,485
Porter	11,719	11,963	12,292	12,604	12,528	11,966
Deep River	11,321	13,020	11,729	10,538	5,174	4,368
Stony Lake	10,215	8,561	7,062	7,139	5,142	4,466
Pentwater	9,455	8,725	8,129	8,196	6,997	7,473
Fork	6,481	7,758	12,115	16,475	18,632	19,109
Adams, North	5,392	5,759	5,449	5,387	5,278	4,972
Sylvan	4,598	6,950	6,407	4,830	3,960	3,780
Kimball Lake	4,405	10,004	10,040	12,276	12,859	11,543
Winterfield	4,071	4,327	4,612	3,624	3,205	4,416
Clayton	3,763	4,456	2,477	2,390	2,517	2,453
Evart	3,460	4,685	4,610	5,590	6,035	6,692
Prosper	3,302	3,513	3,644	3,544	3,012	3,060
Vernon	2,530	2,910	2,825	2,825	2,300	2,335
Reynolds	2,251	1,139	478	174	0	0
Huber	2,146	1,727	592	1	0	0
Cedar	2,102	1,960	1,217	1,637	1,616	1,607
Total (19 fields)	150,587	166,158	162,686	164,670	158,612	158,824
State total	179,231	195,630	196,563	202,361	194,078	190,817
Per cent state total	84.02	84.93	82.77	81.37	81.73	83.23

Of the nineteen fields tabulated, five had an increase in the daily amount of brine produced and fourteen a decrease. The most significant increases were in the Stony Lake and Pentwater fields. The Reynolds, Huber and Cedar fields produced in excess of the 2,000 barrel per day production rate during 1958 and appear in this table for the first time. The substantial decrease in brine produced in the Kimball Lake and Fork fields was due to plugging and abandonment of wells. The decrease in the Deep River and Coldwater fields was due to the shut down status of several temporarily abandoned and nonproductive wells.

Operators in Michigan oil fields were returning 176,774 barrels of brine per day to approved subsurface formations. This was 98.63 per cent of the total brine produced. Of the remaining 2,457 barrels, or 1.37 per cent, 1,089 barrels was being used by county road commissions for road maintenance and in lease operations and 1,368 barrels was being disposed of on the surface and released in small widely scattered amounts in accordance with temporary arrangements with the operators.

TABLE III  
SUMMARY OF OIL FIELD BRINE PRODUCTION AND DISPOSAL DATA  
AS OF DECEMBER 31, 1958

Producing Formation	Brine Production and Disposal by Formation in Barrels Daily										Total Sub-Surface				
	Surface					Subsurface									
	Produced From Formation	Returned to Producing Formation	Roads	Pits	Basal Drift	Parma Mar.	Parma and Mar.	Mar.	Cold-water	Berea		Traverse	Dundee	Lower Dundee	Sylvania
Marshall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Berea	149	0	0	31	0	0	0	86	32	0	0	0	0	0	118
Traverse	40,906	31,194	42	418	5	1,495	1,504	2,114	720	0	31,194	3,104	310	0	40,446
Dundee	136,719	116,457	676	478	0	4,456	5,383	363*	15	108	8,783	115,001	1,456	0	135,565
Detroit River	1,042	0	173	335	0	7	0	299	0	0	228	0	0	0	534
Salina-Niagara	201	0	0	104	0	0	0	0	0	0	97	0	0	0	97
Trenton	214	0	198	2	0	0	0	0	0	0	0	0	0	14	14
Totals	179,231	147,651	1,089	1,368	5	5,958	6,887	2,862	767	108	40,302	118,105	1,766	14	176,774
% Total	100.00	82.38	.61	.76	.003	3.32	3.84	1.60	.43	.06	22.49	65.89	.99	.008	98.63

TABLE IV  
MONTHLY SUMMARY OF OIL AND GAS OPERATIONS AND PRODUCTION FOR 1958

Month 1958	Permits Issued			COMPLETIONS			INITIAL PRODUCTION			MONTHLY PRODUCTION				
	Oil Wells	Gas Wells	Service Wells	LPG	GS	WI	Dry Holes	Total	Oil (Bbls.)	Gas (MCF)	Exploratory Wells	Field Wells	Oil (Bbls.)	Gas (MCF)
January	29	21	1	1	0	0	15	39	554	600	13	25	782,341	1,248,508
February	19	13	0	0	0	1	19	34	464	3,400	15	18	686,295	1,409,655
March	30	11	0	0	0	0	17	29	429	600	7	22	808,097	1,197,335
April	62	11	0	0	0	0	18	31	365	24,655	11	20	788,567	707,102
May	31	10	0	1	0	0	19	31	303	350	14	16	782,437	550,661
June	44	11	0	6	0	0	18	35	483	0	16	13	759,958	459,960
July	42	11	1	14	0	0	22	49	1,054	110	14	20	789,219	502,347
August	44	17	1	2	0	0	15	37	1,066	12,652	9	25	753,169	558,889
September	34	8	0	7	0	0	28	46	440	1,985	15	24	781,860	639,646
October	50	18	0	4	0	0	24	48	1,063	1,460	18	26	793,449	822,460
November	50	20	0	1	0	0	13	37	1,175	2,748	9	27	737,658	1,133,391
December	46	15	1	0	0	0	19	37	874	1,878	11	25	844,968	1,734,424
Totals	481	166	4	35	1	227	453	8,270	50,438	152	261	9,308,018	10,964,378	

Service Wells: (LPG - Liquid Petroleum Gas Storage Wells), (GS - Gas Storage Wells), and (WI - Water Injection Wells)

TABLE V  
MICHIGAN OPERATIONS BY DISTRICT IN 1958

District*	Wells Completed			Initial Potential			Production			Geol. Test Permits		Successful Wildcats		
	Permits Issued	Oil Wells	Gas Wells	Oil (Bbls.)	Gas Wells	Service Wells*	Oil (Bbls.)	Gas (MCF)	Oil (Bbls.)	Gas (MCF)	Oil Wells	Gas Wells	Oil Wells	Gas Wells
Basin	159	183	78	2,543	5	25	7,165,014	3,802,182	0	0	55	7	0	0
Northern	4	8	1	9	2	0	225,810	1,008,845	0	0	5	0	0	0
Southeastern	96	68	35	3,786	3	2	687,137	2,624,867	0	0	0	2	20	2
Southwestern	135	116	33	1,002	9	3	529,846	3,455,314	0	0	0	4	39	4
Western	87	77	19	930	1	10	700,211	73,169	2	2	33	4	33	4
Totals	481	453	166	8,270	20	40	9,308,018	10,964,377	2	2	152	18	152	18

\*Includes wells for Liquid Petroleum Gas Storage (4), Gas Storage (35), and Water Injection (1).

TABLE VI  
SUMMARY OF OIL AND GAS DEVELOPMENTS BY COUNTIES FOR 1958

County	Permits Issued	COMPLETIONS					INITIAL PRODUCTION			
		Oil Wells	Gas Wells	Service LPG	Service GS	Service WI	Dry Holes	Total	Oil (Bbls.)	Gas (M.C.F.)
Allegan	83	9	8	0	0	0	46	63	164	20,624
Arenac	7	1	0	0	0	0	4	5	75	0
Barry	1	0	0	0	0	0	1	1	0	0
Bay	4	3	0	0	0	0	1	4	105	0
Calhoun	1	1	0	0	0	0	0	1	150	0
Cheboygan	2	0	0	0	0	0	3	3	0	0
Clare	28	0	1	0	24	0	5	30	0	252
Crawford	2	1	0	0	0	0	1	2	9	0
Genesee	2	1	0	0	0	0	1	2	9	0
Gladwin	5	4	0	0	0	0	5	9	82	0
Gratiot	7	2	0	0	0	0	3	5	170	0
Hillsdale	39	19	0	0	0	0	9	28	2,216	0
Huron	3	0	0	0	0	0	1	1	0	0
Ingham	0	0	0	0	0	0	1	1	0	0
Isabella	14	4	2	0	0	0	9	15	140	1,835
Jackson	5	0	0	0	0	0	3	3	15	0
Kalamazoo	1	1	0	0	0	0	1	2	103	184
Kent	13	4	1	2	0	1	7	15	0	0
Lake	2	0	0	0	0	0	1	2	3	0
Lapeer	0	2	0	0	0	0	1	1	0	0
Livingston	1	0	0	0	0	0	1	1	0	0
Mason	29	9	0	0	0	0	14	23	609	0
Mecosta	5	0	0	0	0	0	2	6	0	0
Midland	5	2	1	0	0	0	2	5	28	1,200
Missaukee	1	0	0	0	1	0	0	1	0	0
Monroe	4	2	0	0	0	0	2	4	42	0
Montcalm	25	12	1	0	0	0	19	32	511	350
Muskegon	3	0	0	0	0	0	1	1	0	0
Newaygo	30	3	0	0	10	0	9	23	64	878
Oakland	2	0	0	0	0	0	0	0	0	0
Oceana	21	7	0	0	0	0	20	27	257	0
Ogemaw	4	3	0	0	0	0	2	5	38	0
Osceola	11	8	0	0	0	0	4	12	508	0
Oscoda	0	0	0	0	0	0	1	1	0	0
Otsego	0	0	2	0	0	0	0	2	0	265
Ottawa	30	18	0	0	0	0	8	26	570	0
Roscommon	3	5	0	0	0	0	0	5	120	0
Saginaw	25	17	0	0	0	0	6	23	495	0
Shiawassee	4	0	0	0	0	0	4	4	0	0
St. Clair	37	13	1	0	0	0	11	25	1,465	24,600
St. Joseph	1	0	0	0	0	0	1	1	0	0
Tuscola	9	14	0	0	0	0	3	17	262	0
Van Buren	5	0	0	0	0	0	8	8	0	0
Washtenaw	5	0	1	0	0	0	1	2	0	250
Wayne	0	1	1	2	0	0	0	4	60	0
Wexford	2	0	0	0	0	0	2	2	0	0
Totals	481	166	20	4	35	1	227	453	8,270	50,438

TABLE VII  
1958 DISCOVERY WELLS

County	Field	Section Township Range	Operator and Lease	Permit Number	Comp. Date	Depth (Feet)	Total Depth (Feet)	Production		Prod. Formation <sup>1</sup>	System <sup>2</sup>
								Oil Bbls./Day	Gas MCF/Day		
Calhoun	Albion	23-3S-4W	Mask & McClure-Rosenau #1	21195	12-15	4324	4125	F 168	Tr.	Ord.	Ord.
Mason	Oxbow	26-17N-17W	Van Raalte-Schober #1	21200	11-7	1660	1652	P 180**	Trav.	Dev.	Dev.
Monroe	Summerfield	30-7S-6E	Bernhardt-Kain #1	20803	5-27	2382	1921	F 12***	Tr.	Ord.	Ord.
Montcalm	Maple Valley "16"	16-11N-9W	McClure & Hartman-Maddhes #1	20521	5-5	3365	1120	350	M.S.	Miss.	Miss.
Newaygo	Reeman	8-12N-14W	McClure-Busch #1	21250	11-26	2100	2099	P 80**	Trav.	Dev.	Dev.
Newaygo	Sheridan, "29"	29-12N-14W	Muskegon Dev. Co.-Mion #1	20842	2-12	2122	2118	P 5**	Trav.	Dev.	Dev.
Washtenaw	Lyndon, Sec. 7	7-1S-3E	Hanners-Boyce #1	21024	9-10	4702	1311	250**	Trav.	Dev.	Dev.
Allegan	Diamond Springs	1-2N-14W	Muskegon Dev. Co.-Confer #1	20570	11-10	2651	2389	P 50	Sal. (E)	Sil.	Sil.
Allegan	Hilliards	4-3N-12W	Ford Oil Co.-Gruncinski #1	20831	3-7	2993	2938	5250***	Sal. (Al)	Sil.	Sil.
Allegan	Salem	16-4N-13W	Muskegon Dev. Co.-Neinker #1	4621	10-15	2390	1969	260	D.R.	Dev.	Dev.
*Bay	Pinconning	25-17N-4E	Ogma Dev. Co.-Szyperski #3	20997	6-12	2158	2151	P 60 + 150 W	Trav.	Dev.	Dev.
Isabella	Fremont "32"	32-13N-5W	McClure & Collin-Johnson #1	21016	9-13	1275	1264	1335	M.S.	Miss.	Miss.
Mason	Eden	26-17N-16W	Superior-M. Sippy #4	14456	11-28	2354	1960	600**	Trav.	Dev.	Dev.
Newaygo	Enasley	6-11N-11W	Hess-Butler #1	21299	12-22	900	826	878	Mar.	Miss.	Miss.
*Oceana	Otto, Sec. 30	19-13N-16W	Fothergill-Phillips #1	20027	7-19	1922	1428	P 5	Be.	Miss.	Miss.
Ottawa	Zeeland	29-5N-14W	Devine & Lang-Kok #1	20944	5-11	3052	2792	F 75	Sal. (Al)	Sil.	Sil.
*Roscommon	Headquarters	30-21N-3W	Farmers Pet. Coop. - State Roscommon #D-2	12511	6-16	4057	3938	F 35 + 15W*	Dd.	Dev.	Dev.
*St. Clair	Boyd	31-4N-15E	Sheldon-Taetz #1	21095	10-16	2562	2557	F 50**	Sal. (B.N.)	Sil.	Sil.
*Clare	Headquarters	11-20N-2W	Hilliard, Ex.-Johnston et al #1	18289	8-22	5270	1372	252**	M.S.	Miss.	Miss.
Isabella	Broomfield-Deerfield	7-14N-5W	Glavin-Clabuesch #1	20565	1-12	3651	1320	500**	M.S.	Miss.	Miss.
Isabella	Gilmore	5-15N-5W	Neyer et al-Cotter #1	20853	5-19	3824	3821	F 50**	Dd.	Dev.	Dev.
Montcalm	Winfield	29-12N-9W	Otterbine et al-Zyistra #1	20857	6-20	3341	3337	F 50**	R.C.	Dev.	Dev.
Ogemaw	West Branch	10-22N-1E	Harvey - State-Ogenaw #1	21069	8-21	4381	4303	F 15***	Rich.	Dev.	Dev.
Tuscola	Birch-Bela	32-10N-7E	Muskegon Dev. Co.-Montle #1	20836	1-15	2564	2502	F 15***	Dd.	Dev.	Dev.
*Rework & development well discoveries not included in exploratory statistics.											
**Production after acid.											
***Production after sandfrac.											
1. M.S. - Michigan Stray Sal. - Salina (E) - "E" Zone (Al) - Al Dolomite (B.N.) - "Bn" Niagara Tr. - Trenton											
2. Miss. - Mississippian Dev. - Devonian Sil. - Silurian Ord. - Ordovician											



TABLE X  
SUMMARY OF MICHIGAN OIL FIELDS

LINE NO.	FIELD NAME AND COUNTY	YEAR OF DISC.	PRODUCING FORMATION	PAY ZONE		DEPTH IN FEET	DEPT. ZONE TESTED	O.M.V. A.P.I.	DEPT. ZONE TESTED	NO. ENDS 1958	NUMBER OF OIL WELLS		AT END 1958	AT END 1958	OIL PRODUCTIONS IN BARRELS		RECOVERY PER ACRE (BARRELS)	BEING PRODUCTION		TOTAL PRODUCTION	LINE NO.
				DEPTH	THICK (FOOT)						TO END 1958	COMP. 1958			1958	CUMULATIVE		RECOVERY PER ACRE (BARRELS)	SUBSURFACE		
44	Carso	1940	Traverse	1095	1.5 L	38.6	Traverse	1115	9	0	0	0	3	501	17,017	50	340	0	6	6	
45	Carso	1944	Reed City	3542	3 D		Detroit River	3721	17	1	1	7	7	25,071	729,992	590	1,237	1,725	0	1,725	
46	Cedar	1943	Dundee	3810	2 L	46.0	Sylvania	5155	10	0	0	8		603		603	2,100	0	2,100		
47	Chase	1945	Richfield	5060	6 L		Sylvania	5155	2	1	0	2		22,745	898,786	60	1,994	1	1	2	
48	Chase	1945	Richfield	2460	4 SL		Detroit River	3724	2	0	0	1		126	5,518	20	277	0	0	0	
49	Cheshire	1947	Traverse	1289	2 L	35.0	Traverse	3948	3	0	0	1		Aband. 1958	9,420	30	310	0	0	0	
50	Clare City	1938	Michigan Stray	1393	2 S		Dundee	3853	7	0	0	5		1,583	64,555	120	524	3,742	21	3,763	
51	Clayton	1935	Dundee	2665	2 SL	34.2	Sylvania	4163	79	0	0	50		79,137	5,670,109	200	3,805	0	0	0	
52	Clayton	1947	Richfield	3770	3 D	45.9	Sylvania	4463	5	0	0	5		0	1,931	20	97	Shut down	0	0	
53	Clayton	1951	Det. River S.Z.	1557	2 D		Tranton	3656	2	0	0	1		691,695	18,694,306	3,200	5,823	29,244	0	29,244	
54	Clayton	1951	Traverse	586	2 D	46.0	Detroit River	5990	81	0	2	62		533	10,491	20	247	100	0	100	
55	Goldwater	1944	Dundee	462	1 L		Dundee	3911	1	0	0	1		Aband. 1958	6,437	50	129	80	0	80	
56	Goldwater	1951	Dundee	3718	4 D		Salina	2417	5	0	1	0		Aband. 1958	0	70	0	0	0	70	
57	Grandberry Lake	1953	Traverse	1627	1 L		Richfield	5201	7	0	0	2		70		70	0	0	0	70	
58	Grandberry Lake	1943	Dundee	1815	2 L		Richfield	5201	7	0	0	4		70		70	0	0	0	70	
59	Grandberry Lake	1943	Dundee	1801	2 L	48.8	Richfield	5201	16	0	1	14		70,436	954,856	640	1,224	23	2	25	
60	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
61	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
62	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
63	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
64	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
65	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
66	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
67	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
68	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
69	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
70	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
71	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
72	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
73	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
74	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
75	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
76	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
77	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
78	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
79	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
80	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
81	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
82	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
83	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
84	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
85	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
86	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	
87	Grandberry Lake	1953	Richfield	4801	15 D	51	Richfield	5201	16	0	0	1		Aband. 1958	9,678	200	448	1,090	20	1,110	

TABLE X  
SUMMARY OF MICHIGAN OIL FIELDS

LINE NO.	FIELD NAME AND COUNTY	YEAR OF DISC.	PRODUCING FORMATION	PAY ZONE		DEPTH IN FEET	DEPT. ZONE TESTED	O.M.V. A.P.I.	DEPT. ZONE TESTED	NO. ENDS 1958	NUMBER OF OIL WELLS		AT END 1958	AT END 1958	OIL PRODUCTIONS IN BARRELS		RECOVERY PER ACRE (BARRELS)	BEING PRODUCTION		TOTAL PRODUCTION	LINE NO.
				DEPTH	THICK (FOOT)						TO END 1958	COMP. 1958			1958	CUMULATIVE		RECOVERY PER ACRE (BARRELS)	SUBSURFACE		
88	Berenville	1944	Dundee	2835	37 L	35.3	Sylvania	4130	50	1	0	41		120,305	2,552,691	1,770	3,464	135	2	117	
89	Berenville	1942	Dundee	3755	6 L		Sylvania	5282	29	0	2	10		21,821	3,684,287	1,190	3,349	3,450	0	3,450	
90	Beaumont	1950	Traverse	2093	2 L		Traverse	2316	1	0	0	1		703	5,956	10	596	0	1	1	
91	Beaumont	1940	Traverse	1516	2.7 L		Beaumont	2455	63	0	0	35		9,349	988,981	770	3,180	107	6	113	
92	Beaumont	1942	Dundee	3845	8 L		Beaumont	5294	64	0	11	12		27,510	7,702,825	2,700	2,811	6,480	0	6,480	
93	Beaumont	1945	Richfield	5001	11 D	54.8	Beaumont	5284	1	0	0	1		40		40	0	0	1	1	
94	Beaumont	1948	Dundee	3885	4.5 L		Sylvania	5462	170	0	0	37		66,403	16,144,916	2,800	5,766	12,247	0	12,247	
95	Beaumont	1947	Traverse	3058	2 L		Dundee	3619	1	0	1	0		Aband. 1958	717	892	10	89	0	0	
96	Beaumont	1945	Dundee	3678	2 L	42.7	Dundee	3690	7	1	0	1		910	61,906	70	884	0	0	0	
97	Beaumont	1940	Traverse	1042	2 L	31.5	Traverse	1163	77	0	2	4		3,766	479,132	750	639	605	0	605	
98	Beaumont	1951	Dundee	3097	11 L		Dundee	3157	3	0	0	3		2,639	13,271	30	142	0	0	0	
99	Beaumont	1936	Traverse	2032	8 D	42.5	Beaumont	2711	2	0	0	3		40,543	5,997	30	1,242	45	0	45	
100	Beaumont	1945	Dundee	3803	3 D		Dundee	3813	11	4	0	11		55,947	1,631,114	110	1,483	1,085	0	1,085	
101	Beaumont	1945	Traverse	2760	12 L	45.0	Beaumont	4942	31	0	0	2		4,455	1,070,394	1,240	863	5	6	11	
102	Beaumont	1945	Det. River	3158	8 D		Beaumont	3918	2	0	0	2		932	6,988	80	87	0	5	5	
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TABLE X  
SUMMARY OF MICHIGAN OIL FIELDS

LINE NO.	FIELD NAME AND COUNTY	YEAR OF DISC.	PRODUCING FORMATION	PAY ZONE		DEPTH IN FEET	DIAMETER OF WELL	NUMBER OF OIL WELLS		OIL PRODUCTION IN BARRELS		RECOVERY PER ACRE (BU/AC)	BEING PRODUCTION		LINE NO.				
				DEPTH THICK	LATE			TO END	ABAND. IN	1956	CUMULATIVE		DEPLETED ACRES	RECOVERY PER ACRE (BU/AC)		DEPLETED ACRES	BEING PRODUCTION		
132	Jewett	1939	Traverse	1140	1	37.5	Trenton	2775	59	0	10	7	4,022	183,804	590	312	0	22	22
133	Leaton	1929	Dundee	3655	7.5	43.0	Detroit River	4990	14	0	0	2	5,890	1,698,105	500	3,396	150	0	150
134	Litchfield, Sec. 18	1927	Traverse	2727	1	37.2	Dundee	3062	1	0	0	1	0	0	0	0	0	0	0
135	Joist	1949	Traverse	2230	3	37.2	Dundee	3240	5	0	0	5	5,066	171,656	50	3,433	59	0	59
136	Marathon	1955	Berea	1449	18	37.2	Berea	1467	4	2	0	4	186	186	40	5	0	0	0
137	Marine City	1951	Sylvania	2426	21	38.0	Clinton	2428	4	0	0	1	1,401	4,427	10	143	0	0	0
138	Marin	1948	Traverse	1617	1	36.0	Traverse	1645	2	0	0	1	77	2,188	20	109	0	0	0
139	Mears	1949	Dundee	2210	3	32.2	Reed City	2347	3	0	0	2	1,272	104,987	110	618	0	5	5
140	Mills, Sec. 1	1951	Traverse	1745	2.5	36.1	Reed City	2347	11	0	0	4	1,457	3,947	30	395	0	2	2
141	Mills, Sec. 1	1957	Dundee	3450	7		Dundee	3463	1	0	0	1	5,802	264,517	240	1,102	130	0	130
142	Mineral Springs	1951	Dundee	1894	2		Detroit River	3963	12	0	0	3	2,781	32,890	160	206	0	6	6
143	Mo	1946	Richfield	4219	6	37.6	Bols Blue	5133	4	0	1	3	4,600	966,442	1,030	940	0	13	13
144	Montgomery	1938	Traverse	1618	3	37.6	Clinton	3266	99	0	0	13	28,905	678,664	960	653	0	16	16
145	Mr. Forest	1927	Dundee	3025	9	35.4	Richfield	4305	37	0	0	33	678,664	678,664	80	0	0	0	0
146	Mr. Pleasant	1952	Traverse	2224	3	36.2	Richfield	4305	4	0	0	2	2,188	2,188	20	109	0	0	0
147	Mr. Pleasant	1928	Dundee	2455	15	41.8	Sylvania	4821	485	1	1	156	26,130,134	6,831,669	3,150	2,200	120	745	96
148	Neasegon	1928	Dundee	1700	3.5	37.4	St. Peter	4774	7	0	0	1	6,081	31,686	40	294	4	0	4
149	Nellville	1956	Richfield	4932	17	21.5	Detroit River	5165	1	0	0	1	6,081	31,686	10	294	0	0	0
150	Nellville	1957	Dundee	3710	6		Detroit River	5165	1	0	0	1	6,081	31,686	10	294	0	0	0
151	Niles	1940	Traverse	445	7	21.5	Traverse	671	7	0	7	0	Aband. 1958	0	0	0	15	50*	
152	Norwalk	1954	Trenton-Elk River	1495	24	45.6	Cambria-Ord.	4890	12	1	0	9	72,522	488,397	180	2,693	2	100*	142
153	Ottaville	1941	Traverse	(Refer to abandoned fields)															
154	Ottaville	1944	Traverse	1456	1		Traverse	1457	4	3	3	0	Aband. 1948	367	40	17	0	0	0
155	Ottaville	1945	Berea	1500	3	37.0	Dundee	2674	5	1	0	5	75,259	75,259	40	471	32	1	33
156	Ottaville	1950	Traverse	1456	1		Traverse	1457	4	3	3	0	Aband. 1948	367	40	17	0	0	0
157	Ottaville, Sec. 30	1955	Traverse	(Refer to abandoned fields)															
158	Ottaville, Sec. 30	1958	Berea	1428	9		Traverse	1860	2	1	0	1	2,099	89,569	10	8,957	75	0	75
159	Ottaville, Sec. 32	1950	Berea	1445	1		Traverse	1895	1	0	0	1	498	3,140	10	115	0	0	0
160	Overton	1938	Traverse	1478	3	42.1	Trenton	4060	164	0	2	33	18,039	2,768,743	1,770	1,564	30	36	66
161	Oxley	1958	Traverse	1652	1		Traverse	1660	1	1	0	1	3,010	3,010	10	301	0	0	0
162	Park	1949	Traverse	2890	10	43.6	Reed City	3245	21	0	3	16	32,793	1,016,553	420	2,420	963	0	963
163	Park	1948	Dundee	2088	10	43.1	Reed City	3245	21	0	3	16	32,793	1,016,553	420	2,420	963	0	963
164	Park	1948	Traverse	1959	8	40.1	Presque Isle	5383	143	0	0	106	131,101	5,895,022	1,400	1,731	9,155	0	9,155
165	Park	1947	Sylvania	2615	2	39.0	Clinton	2862	12	11	0	12	73,529	78,454	200	392	0	79*	79
166	Park	1947	Dundee	2998	7	36.2	Detroit River	3790	9	0	0	4	23,637	753,907	90	7,539	481	0	481
167	Park	1948	Traverse	2453	1		Detroit River	3790	1	1	0	1	2,099	89,569	10	8,957	75	0	75
168	Park	1948	Traverse	2836	1		Dundee	3308	1	0	0	1	2,099	89,569	10	8,957	75	0	75
169	Park	1946	Dundee	2990	5		Dundee	3285	1	0	1	0	Aband. 1958	51	10	76	0	0	
170	Park	1942	Traverse	1878	2		Dundee	2351	9	0	0	2	1,642	35,492	90	394	0	2	2
171	Porter	1933	Dundee	2415	12	40.6	Sylvania	4723	524	0	2	218	253,143	47,056,936	6,630	7,098	11,698	21	11,719
172	Porter	1942	Dundee	3877	4	43.2	Richfield	5254	13	0	1	9	31,099	1,486,928	520	2,859	3,302	0	3,302
173	Porter	1944	Richfield	(Refer to abandoned fields)															
174	Porter	1949	Traverse	1131	2	39.0	Traverse	1220	25	0	1	13	9,651	311,622	250	1,270	134	0	138
175	Porter	1950	Traverse	1655	3		Traverse	1678	8	0	0	1	331	12,745	80	159	0	0	0

TABLE X  
SUMMARY OF MICHIGAN OIL FIELDS

LINE NO.	FIELD NAME AND COUNTY	YEAR OF DISC.	PRODUCING FORMATION	PAY ZONE		DEPTH IN FEET	DIAMETER OF WELL	NUMBER OF OIL WELLS		OIL PRODUCTION IN BARRELS		RECOVERY PER ACRE (BU/AC)	BEING PRODUCTION		LINE NO.				
				DEPTH THICK	LATE			TO END	ABAND. IN	1958	CUMULATIVE		DEPLETED ACRES	RECOVERY PER ACRE (BU/AC)		DEPLETED ACRES	BEING PRODUCTION		
176	Ravenna	1952	Traverse	1842	1.5	L	Detroit River	2601	37	0	3	19	16,749	414,788	730	568	255	7	262
177	Reed City	1940	Dundee	3490	3	L	St. Peter	8917	208	0	0	129	573,118	41,775,797	5,320	5,867	21,511	2	21,513
178	Reed City	1941	Traverse	2925	5	L	St. Peter	8917	208	0	0	129	573,118	41,775,797	5,320	5,867	21,511	2	21,513
179	Reed City	1944	Reed City	3595	7	D	St. Peter	8917	208	0	0	129	573,118	41,775,797	5,320	5,867	21,511	2	21,513
180	Reed City	1954	Reed City	4633	12	SL	St. Peter	8917	208	0	0	129	573,118	41,775,797	5,320	5,867	21,511	2	21,513
181	Reed City	1955	Reed City	4184	73	SL	St. Peter	8917	208	0	0	129	573,118	41,775,797	5,320	5,867	21,511	2	21,513
182	Reed City	1947	Traverse	3106	1	L	Detroit River	3840	8	0	0	4	12,717	270,049	80	3,376	600	0	600
183	Reed City	1958	Traverse	2099	1	L	Traverse	2100	1	1	0	1	2,039	72,839	20	3,642	0	0	0
184	Reed City	1942	Dundee	3944	3	L	Dundee	4200	53	2	2	51	684,494	2,012,562	2,100	911	3,297	94	1,351
185	Reed City	1957	Traverse	1650	6	L	Dundee	2317	8	7	0	8	45,785	45,785	80	572	36	0	36
186	Reed City	1956	Dundee	2107	7		Dundee	2110	2	0	0	1	1,173	2,959	20	148	0	2	2
187	Reed City	1945	Traverse	2204	3	L	Dundee	2850	22	1	0	5	12,400	47,139	210	2,082	480	0	480
188	Reed City	1942	Richfield	4325	9	D	Detroit River	4322	39	0	0	35	1,726,233	1,726,233	900	1,918	332	5	337
189	Reed City	1942	Traverse	2140	5	L	Sylvania	5367	118	2	1	113	285,875	3,678,651	4,640	793	0	0	0
190	Reed City	1942	Traverse	2140	5	L	Sylvania	5367	118	2	1	113	285,875	3,678,651	4,640	793	0	0	0
191	Reed City	1942	Traverse	2140	5	L	Sylvania	5367	118	2	1	113	285,875	3,678,651	4,640	793	0	0	0
192	Reed City	1942	Traverse	2140	5	L	Sylvania	5367	118	2	1	113	285,875	3,678,651	4,640	793	0	0	0
193	Reed City	1942	Traverse	2140	5	L	Sylvania	5367	118	2	1	113	285,875	3,678,651	4,640	793	0	0	0
194	Reed City	1942	Traverse	2140	5	L	Sylvania	5367	118	2	1	113	285,875	3,678,651	4,640	793	0	0	0
195	Reed City	1942	Traverse	2140	5	L	Sylvania	5367	118	2	1	113	285,875	3,678,651	4,640	793	0	0	0
196	Reed City	1942	Traverse	2140	5	L	Sylvania	5367	118	2	1	113	285,875	3,678,651					

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SUMMARY OF MICHIGAN OIL FIELDS

TABLE X

8

LINE NO.	FIELD NAME AND COUNTY	YEAR OF DISC.	PRODUCING FORMATION	PAY ZONE			DEBERT ZONE TESTED	DEPT. IN FEET	NUMBER OF OIL WELLS			OIL PRODUCTION IN BARRELS			RECOVERY (BARRELS)		BRINE PRODUCTION		TOTAL PRODUCTION	LINE NO.	
				DEPTH	THICK	LITH. OF LOG			GRAB A.P.L.	TO END 1958	COMP. IN 1958	ABAND. IN 1958	PROD. AT END 1958	1958	CUMULATIVE	DILLED ACRES	RECOVERED (BARRELS)	RECOVERED (BARRELS)			SUBSURFACE
220	Vernon	1910	Dundee	3755	3	DL	44.1	Dundee	3190	78	0	0	7	13,972	4,923,476	890	5,532	2,530	0	2,530	
221	Victory, Sec. 10	1937	Traverse	1693	9	L	36.0	Traverse	3616	1	0	1	Aband. 1958	229	580	10	58	74	74	130	
221	Victory, Sec. 10	1938	Traverse	1872	8	L	40.0	St. Peter	40	5	411	0	255,661	13,703,106	7,390	1,852	0	0	3	3	
222	Walker	1940	Berea	1121	21	SL	222	St. Peter	222	658	20	5	411	30	0	0	0	0	0	0	
222	Walker	1940	Berea	2322	2	D	42.2	St. Peter	5222	1	0	0	1	522	74,867	52	455	0	0	12	12
223	Wayland	1937	Reed City	2322	2	D	42.2	St. Peter	5222	1	0	0	1	522	74,867	52	455	0	0	12	12
224	Wayland	1944	Traverse	1779	6	L	36.0	Traverse	1870	53	1	11	17	22,032	70,616	150	471	0	0	11	11
225	Wayland, North	1937	Traverse	1696	7	L	36.0	Traverse	1702	15	0	1	11	22,032	70,616	150	471	0	0	11	11
225	Wayland, North	1937	Traverse	1696	7	L	36.0	Traverse	1702	15	0	1	11	22,032	70,616	150	471	0	0	11	11
226	West Branch	1933	Traverse	(See abandoned fields)																	
227	West Branch	1933	Traverse	2650	20	L	26.8	Camero-Ord.	11,022	275	0	0	131	105,283	7,710,774	2,750	2,804	119	30	149	
227	West Branch	1933	Traverse	2650	20	L	26.8	Camero-Ord.	11,022	275	0	0	131	105,283	7,710,774	2,750	2,804	119	30	149	
227	West Branch	1933	Traverse	2650	20	L	26.8	Camero-Ord.	11,022	275	0	0	131	105,283	7,710,774	2,750	2,804	119	30	149	
227	West Branch	1933	Traverse	2650	20	L	26.8	Camero-Ord.	11,022	275	0	0	131	105,283	7,710,774	2,750	2,804	119	30	149	
227	West Branch	1933	Traverse	2650	20	L	26.8	Camero-Ord.	11,022	275	0	0	131	105,283	7,710,774	2,750	2,804	119	30	149	
228	Westland	1945	Dundee	3679	2	L	43.0	Dundee	3849	6	0	0	1	1,851	340,869	100	1,401	300	0	300	
229	Winfield	1940	Dundee	3190	1	L	43.2	Dundee	3930	6	1	0	3	6,404	74,867	80	936	7	0	7	
230	Winfield	1940	Dundee	3190	1	L	43.2	Dundee	3930	6	1	0	3	6,404	74,867	80	936	7	0	7	
231	Winterfield	1940	Dundee	3190	1	L	43.2	Dundee	3930	6	1	0	3	6,404	74,867	80	936	7	0	7	
232	Wright	1933	Traverse	3794	3	L	44.2	Sylvania	5273	10	0	0	9	44,157	4,777,897	740	4,694	3,664	0	2,664	
232	Wright	1933	Traverse	3794	3	L	44.2	Sylvania	5273	10	0	0	9	44,157	4,777,897	740	4,694	3,664	0	2,664	
233	Victory, Sec. 10	1942	Richfield	5015	15	D	45.2	Sylvania	5273	2	0	0	1	4,332	39,784	30	397	85	0	85	
233	Victory, Sec. 10	1942	Richfield	5015	15	D	45.2	Sylvania	5273	2	0	0	1	4,332	39,784	30	397	85	0	85	
233	Victory, Sec. 10	1942	Richfield	5015	15	D	45.2	Sylvania	5273	2	0	0	1	4,332	39,784	30	397	85	0	85	
233	Victory, Sec. 10	1942	Richfield	5015	15	D	45.2	Sylvania	5273	2	0	0	1	4,332	39,784	30	397	85	0	85	
234	Wise	1945	Imbela	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
234	Wise	1945	Imbela	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
234	Wise	1945	Imbela	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
234	Wise	1945	Imbela	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
235	Wright	1933	Traverse	2820	5	L	43.5	Detroit River	3534	10	1	0	10	23,148	428,858	330	1,197	0	2	2	
236	Wright	1933	Traverse	2820	5	L	43.5	Detroit River	3534	10	1	0	10	23,148	428,858	330	1,197	0	2	2	
237	Wright	1933	Traverse	3820	1	L	43.5	Detroit River	2337	6	0	0	2	4,332	39,784	30	397	85	0	85	
238	Wright	1933	Traverse	3820	1	L	43.5	Detroit River	2337	6	0	0	2	4,332	39,784	30	397	85	0	85	
239	Wright	1933	Traverse	3820	1	L	43.5	Detroit River	2337	6	0	0	2	4,332	39,784	30	397	85	0	85	
239	Wright	1933	Traverse	3820	1	L	43.5	Detroit River	2337	6	0	0	2	4,332	39,784	30	397	85	0	85	
239	Wright	1933	Traverse	3820	1	L	43.5	Detroit River	2337	6	0	0	2	4,332	39,784	30	397	85	0	85	
240	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
240	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032	20	0	0	3	1,682	105,630	400	764	70	0	70	
241	Zenland	1942	Traverse	1034	3	L	41.9	Michigan	3032												

TABLE X  
SUMMARY OF MICHIGAN OIL FIELDS

LINE NO.	FIELD NAME AND COUNTY	YEAR OF DISC.	PRODUCING FORMATION	PAY ZONE			NUMBER OF OIL WELLS			OIL PRODUCTION IN BARRELS			RECOVERY PERCENT (AVERAGE)	MINE PRODUCTION		LINE NO.				
				DEPTH FEET	THICK FEET	LITH. DESC.	DEPTH TO TEST FEET	DIP	TESTED	TO END 1958	COMP. IN 1958	ABAND. IN 1958		PROD. AT END 1958	CUMULATIVE 1958		DILLED ACRES	RECOVERY PERCENT (AVERAGE)	SURFACE	SUBSURFACE
289	Runs, Sec. 12, Huron	1952	Detroit River	3111	7	D	Detroit River	3206	1	0	0	0	0	0	0	0	40	2		
290	Jamestown, Sec. 29, Ottawa	1942	Traverse	1625	1	L	Detroit River	2017	1	0	0	0	0	0	0	0	10	5		
291	Jonesfield, Sec. 9, Shiawassee	1949	Dundee	3273	2	L	Dundee	3406	1	0	0	0	0	0	0	0	30	4		
292	Jonesfield, Sec. 24, Shiawassee	1943	Dundee	3289	6	L	Dundee	3395	1	0	0	0	0	0	0	0	10	6		
293	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	120	433		
294	Jacklin, Midland	1935	Berea	2873	4	S	Berea	3229	2	0	0	0	0	0	0	0	20	352		
295	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	104		
296	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	51		
297	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	79		
298	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	7		
299	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	23		
300	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	313		
301	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	899		
302	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	3,607		
303	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
304	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	317		
305	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	24		
306	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	71		
307	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	5		
308	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
309	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	5		
310	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
311	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
312	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
313	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
314	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
315	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
316	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
317	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
318	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
319	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
320	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
321	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
322	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
323	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
324	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
325	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
326	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
327	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
328	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
329	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		
330	Jacobs, Van Buren	1946	Traverse	1110	2	L	Traverse	1208	11	0	0	0	0	0	0	0	0	191		

MISCELLANEOUS PRODUCTION REPORTED FROM WELLS COMPLETED AS SHIP HOLES (SEE SUMMARY FOR 1957)

Sub-total - Abandoned Wells: 1,896,998

TABLE XI  
SUMMARY OF MICHIGAN GAS FIELDS

LINE NO.	FIELD NAME AND COUNTY	YEAR OF DISC.	PRODUCING FORMATION	PAY ZONE		DEPTH TO TEST FEET	DIP	TESTED	NUMBER OF GAS WELLS	GAS PRODUCTION IN MCF		RECOVERY PERCENT (AVERAGE)				
				DEPTH FEET	LITH. DESC.					TO END 1958	COMP. IN 1958		ABAND. IN 1958	PROD. AT END 1958	1958	CUMULATIVE
1	Ashton	1946	Osceola	1215	2	S	Reed City	3772	3	0	0	1	7,956	191,609	400	
2	Bevans Lake	1951	Mecosta	3536	11	L	Reed City	3771	2	0	1	1	20,839	576,624	320	
3	Big Prairie	1944	Newaygo	1244	6	S	Reed City	3771	2	0	0	2	26,389	444,569	320	
4	Big Rapids	1943	Mecosta	1030	5	S	Reed City	3322	1	0	0	1	Shut down	152,864	160	
5	Boyd	1952	Salina-Nagaran	1145	7	S	Reed City	3395	9	0	1	3	26,613	2,268,456	1,440	
6	Broomfield-Deerfield	1930	Isabella	2467	127	D	Clinton	2772	1	0	0	1	279,469	931,917	160	
7	Cedar	1945	Osceola	1355	5	S	Sylvania	4994	90	1	0	18	Domestic Use	13,068,812	8,080	
8	Cedar Creek	1940	Muskegon	1490	7	S	Sylvania	5160	5	0	0	5	15,552	1,294,862	800	
9	Cherry Grove, Sec. 13	1957	Clare-Isabella	1125	7	D	Dundee	2252	7	0	0	4	7,583	624,024	1,120	
10	Clare City	1937	Arenac	1326	35	S	Dundee	4080	1	0	0	1	Shut in	0	160	
11	Clayton	1936	Berea	1290	5	S	Dundee	3865	8	0	1	2	19,323	2,290,148	720	
12	Coldwater	1945	Isabella	1180	10	S	Sylvania	4463	31	0	0	18	Domestic Use	5,111,048	1,560	
13	Colfax	1945	Mecosta	1390	10	S	Sylvania	5090	15	0	0	12	150,596	6,807,012	2,400	
14	Coopersville	1957	Ottawa	1240	8	S	Detroit River	4043	4	0	0	1	2,665	485,844	640	
15	Croton	1951	Newaygo	1240	5	D	Traverse	1900	3	0	0	1	Domestic Use	5,069	160	
16	Crystal	1946	Oceana	917	4	S	Salina	3993	7	0	0	1	Domestic Use	108,839	240	
17	Crystal Valley	1946	Oceana	1000	5	S	Detroit River	3520	21	0	0	2	Shut in	1,320,835	860	
18	Deep River	1936	Arenac	2400	7	L	Salina	3843	3	1	0	2	17,274	17,274	160	
19	Dorr	1951	Allegan	1490	10	S	Sylvania	4311	12	0	0	4	Domestic Use	1,609,812	1,520	
20	Dorr, Sec. 17	1951	Allegan	1918	1	D	Marathon	3312	1	0	0	1	Shut in	0	160	
21	Dorr, Sec. 21	1940	Allegan	953	8	D	Traverse	1642	1	0	0	1	Domestic Use	0	40	
22	Eden	1958	Mason	957	1	D	Traverse	1687	1	0	0	1	Domestic Use	0	40	
23	Edenville, Sec. 5	1957	Midland	1960	7	L	Cambran	7249	1	1	0	1	Lease Operation	0	160	
24	Edmore-Richland	1936	Montcalm	382	12	S	Dundee	4028	2	1	1	1	Shut in	0	160	
25	Eggleston	1951	Muskegon	1300	8	S	Dundee	3700	47	0	0	13	20,602	8,870,521	6,800	
26	Enterprise, Sec. 32	1953	Missaukee	1120	5	D	Detroit River	2282	7	0	0	1	12,101	235,321	1,120	
27	Evart	1941	Osceola	826	5	S	Detroit River	3018	1	1	0	1	Shut in	0	160	
28	Fork, North	1956	Osceola	1433	19	S	Detroit River	4200	2	0	0	2	Shut in	0	320	
29	Fork, West	1943	Mecosta	1490	5	S	Detroit River	4457	33	0	0	12	Shut in	0	160	
30	Freemont, Sec. 32	1958	Isabella	1264	6	S	Dundee	3619	1	1	0	1	10,171	2,337,393	2,880	
31	Hamilton, North	1952	Clare	1487	8	S	Richfield	5395	19	0	0	17	314,327			





TABLE XII  
IMPORTANT DEEP TESTS  
1958

County	Operator and Well Name	Section Township Range	Permit Number	Basin Loc.	Comp. Date	Total Depth (Feet)	Formation <sup>2</sup>	Unit of Zone	System <sup>3</sup>	Expl. Class <sup>4</sup>	Status	Remarks
Illlegan	Ford Oil Co. - Gruncinski 1	4-3N-12W	20831	SS	3-7	2993	Salina A-1	Sil.		DPT	Gas	Disc. Hilliards field A-1 dolomite
Illlegan	Carter Oil Co.-Knoblock 1	22-3N-13W	21039	Gr.	7-10	3266	Cinn.	Ord.		NFW	Dry	
Illlegan	Devine & Lang-Lapham 1	16-4N-12W	20930	Gr.	4-18	3298	Niag.	Sil.		OP	Dry	Dorr field
Illlegan	Devine & Lang-Schoendorf 1	22-4N-11W	20937	Gr.	4-29	3623	Niag.	Sil.		NFW	Dry	
Illlegan	Ford & Basin-Kaczkowski Bros. 1	36-3N-12W	21021	SS	10-3	3235	Niag.	Sil.		DPT	Dry	Hopkins, 36
Illlegan	C. C. Jetter-Kay et al 1	25-3N-11W	20917	SS	4-12	3285	Niag.	Sil.		NFW	Dry	
Illlegan	Wing Bros.-Brown 1	9-2N-12W	21044	SS	7-1	3149	Salina A-1	Sil.		NFW	Dry	
Barry	Cobb, Jr., Inc.-Everett 1	33-2N-10W	20875	SS	2-12	3010	Salina A-2	Sil.		NFW	Dry	
Calhoun	Mask & McClure-Rosenau 1	23-3S-4W	21195	SS	12-15	4324	Tr.	Ord.		NFW	Oil	Disc. Albion, Tren.
theboygan	Ginsberg-Brown 1	1-34N-2W	20820	SG	1-27	3850	Cinn.	Ord.		NFW	Dry	
theboygan	Ginsberg-Passino 1	18-34N-1W	21198	SG	11-19	3075	Niag.	Sil.		NFW	Dry	
theboygan	Ginsberg-Vizina 1	1-34N-2W	20879	SG	3-17	3850	Cinn.	Ord.		NFW	Dry	
Beneseee	Rayburn-Wood 1	7-8N-5E	21206	SS	11-1	3323	D.R. Blk.Is.	Dev.		NFW	Dry	Richfield test
Hillsdale	Brehm-Tucker 1	18-6S-1W	21109	SS	10-2	4282	P.D.C.	Ord.		NFW	Dry	
Hillsdale	Davis Drlg. Co.-Moyer 1	12-5S-3W	20909	SS	7-19	4112	Tr.	Ord.		OP	Dry	Scipio field
Hillsdale	Edwards-Hamilton 1	6-7S-2W	21120	SS	10-15	4035	P.D.C.	Ord.		NFW	Dry	
Hillsdale	Hanners-Sterling 1	24-5S-2W	21224	NT	12-18	4143	Tr.	Ord.		NFW	Dry	
Hillsdale	Houseknecht-Kintigh 1	9-5S-3W	20935	SS	5-30	4187	P.D.C.	Ord.		OP	Dry	Scipio field
Hillsdale	Rayburn-House 1	26-16N-4W	20801	SS	1-2	5118	B.B.	Dev.		DPT	Dry	Vernon field
Isabella	Hanners-Sanuskar 1	3-4S-3W	20894	Gr.	5-20	4312	Tr.	Ord.		NFW	Dry	
ackson	McClure Oil Co.-Abbott 1	29-2S-3W	21161	Gr.	9-26	3402	Cat.	Sil.		NFW	Dry	
ackson	Sun Oil Co.-Kladder 1	17-5S-11W	20993	SS	6-3	3875	Cinn.	Ord.		NFW	Dry	
ent	Brehm-Sawyer 1	18-5S-1E	18290	SS	12-8	4453	P.D.C.	Ord.		NFW	Dry	
enawee	Bernhardt-Kain 1	30-7S-6E	20803	Gr.	5-27	2382	Tr.	Ord.		NFW	Oil	Deep, old dry hole
onroe	Schrot-Delaney Heirs 1	30-6S-6E	20986	SS	10-10	2976	P.D.C.	Ord.		DPT	Dry	Deerfield field
onroe	Van Raalte-Nordwall 1	30-12N-14W	20721	SS	2-15	3360	B.I.	Sil.		NFW	Dry	
ewaygo	Cobb-Holleman 1	23-5N-13W	20874	SS	2-15	3191	Salina A-2	Sil.		NFW	Dry	A-2 limestone
tttawa	Devine & Lang-Bazaan 1	31-6N-15W	21020	Gr.	6-12	3110	Niag.	Sil.		NFW	Dry	
tttawa	Devine & Lang-Blauwkamp 1	11-5N-14W	20949	Gr.	5-26	3388	Niag.	Sil.		NFW	Dry	
tttawa	Devine & Lang-Kok 1	29-5N-14W	20944	Gr.	5-11	3052	Niag.	Sil.		DPT	Oil	
Ottawa	Smith Pet. Co.-Van's Pines 1	25-7N-15W	21002	SS	6-14	3445	Niag.	Sil.		NFW	Dry	
Shiawassee	Rayburn-Little 1	12-8N-4E	21138	SS	9-9	3494	Sylv.	Dev.		NFW	Dry	
St. Clair	Anschutz & McClure-Parsons 1	13-6N-15E	21264	Gr.	12-12	3349	Cl.	Sil.		NFW	Dry	
St. Clair	Collin-Tamblin 1	24-4N-15E	21228	NT	12-12	2727	Cl.	Sil.		NFW	Dry	
St. Clair	Collin-Tamblin 1	16-4N-16E	20834	Gr.	2-26	2759	Cl.	Sil.		NFW	Dry	

Page 2 - IMPORTANT DEEP TESTS 1958

County	Operator and Well Name	Section Township Range	Permit Number	Basin Loc.	Comp. Date	Total Depth (Feet)	Formation <sup>2</sup>	Unit of Zone	System <sup>3</sup>	Expl. Class <sup>4</sup>	Status	Remarks
St. Clair	Panhandle Eastern Pipe Line Co. - Balfour 1	2-3N-16E	21007	Gr.	6-3	2491	Cl.	Sil.		NFW	Dry	
St. Clair	Panhandle Eastern Pipe Line Co. - Green 1	26-4N-16E	20989	Gr.	5-15	2554	Cl.	Sil.		NFW	Dry	
St. Clair	Panhandle Eastern Pipe Line Co. - Fritz 1	8-3N-16E	20896	Gr.	3-15	2511	Cl.	Sil.		NFW	Dry	
St. Clair	Panhandle Eastern Pipe Line Co. - Molenhauer 1	12-4N-15E	20910	Gr.	4-6	2808	Cl.	Sil.		NFW	Dry	
St. Clair	Panhandle Eastern Pipe Line Co. - Rhein 1	9-4N-15E	20936	Gr.	4-27	3010	Cl.	Sil.		NFW	Dry	
St. Joseph	Grigg & Marshall - Thunder 1	27-6S-11W	21155	Gr.	9-23	3094	P.D.C.	Ord.		NFW	Dry	
Tuscola	Rayburn - Seddon 1	9-10N-9E	20850	SS	2-3	3407	D.R. Blk.Is.	Dev.		NFW	Dry	Richfield test
Van Buren	McClure Oil Co.-Pease 1	8-1S-14W	21194	SS	10-28	3090	Tr.	Ord.		DPT	Dry	Bloomington field

1. SS - Subsurface Geology, SG - Surface Geology, NT - Nontechnical, Gr. - Gravity.
2. D.R. - Detroit River, Sylv. - Sylvania, B.B. - Bois Blanc, B.I. - Bass Island, Sal. - Salina, Niag. - Niagaran, Cl. - Clinton, Cat. - Cataract, Cinn. - Cincinnati, Tr. - Trenton-Black River, P.D.C. - Prairie du Chein.
3. Dev. - Devonian, Sil. - Silurian, Ord. - Ordovician.
4. NFW - New Field Wildcat, DPT - Deeper Pool Test, OP - Out Post.

TABLE XIII  
OIL AND GAS ACTIVITIES IN MICHIGAN

Year	Permits Issued	COMPLETIONS						FIELDS DISCOVERED			WELLS AT END OF YEAR				ABANDONED WELLS					
		Oil Wells	Gas Wells	Service		Dry Holes	Total	Oil	Gas	Oil	Gas	LPG	WI	Oil	Gas	Oil Wells	Gas Wells			
				GS	LPG													WI		
1925	0	3	0	0	0	0	3	1	0	0	0	0	634	64	292*	27*	0			
1926	0	89	0	0	0	16	105	0	1	0	0	0	645	72	98	2	0			
1927	16	218	3	0	0	46	267	1	1	0	0	0	831	70	37	12	0			
1928	283	79	30	0	0	49	158	1	0	0	0	0	977	117	126	0	0			
1929	576	324	22	0	0	137	483	0	2	0	0	0	1,167	212	129	6	0			
1930	257	154	19	0	0	158	331	2	0	0	0	0	1,360	402	140	16	0			
1931	111	59	17	0	0	52	128	0	1	0	0	0	1,778	442	204	26	0			
1932	184	109	10	0	0	64	183	3	1	0	0	0	2,141	448	217	21	0			
1933	429	223	10	0	0	85	318	3	2	0	0	0	2,684	485	302	19	0			
1934	444	272	47	0	0	150	469	3	3	0	0	0	2,928	510	313	34	0			
1935	700	319	101	0	0	221	641	1	8	0	0	0	3,158	577	211	15	0			
1936	777	333	206	0	0	268	807	6	8	0	0	0	3,324	631	131	22	0			
1937	973	622	66	0	0	267	955	7	4	0	0	0	3,386	639	171	39	0			
1938	996	580	27	0	0	411	1,018	12	8	0	0	0	3,433	651	168	45	0			
1939	1,465	845	56	0	0	578	1,479	10	11	0	0	0	3,520	547	239	17	0			
1940	1,121	557	59	0	0	565	1,181	11	10	0	0	0	3,532	534	306	17	0			
1941	1,044	441	97	0	0	413	951	10	10	0	0	0	3,554	502	349	64	0			
1942	570	297	74	0	0	311	682	14	7	0	0	0	3,818	471	175	53	0			
1943	627	233	47	0	0	355	635	12	2	0	0	0	3,954	471	200	19	0			
1944	741	246	64	0	0	400	710	10	5	0	0	0	3,911	417	270	49	0			
1945	755	271	57	0	0	467	801	11	4	0	0	0	3,979	388	193	50	0			
1946	822	223	53	0	0	461	823	10	6	0	0	0	4,089	313	148	34	0			
1947	886	318	43	0	0	387	896	10	9	0	0	0	4,167	316	136	12	0			
1948	918	371	32	0	0	437	917	10	13	0	0	0	4,223	321	148	8	0			
1949	999	439	22	0	0	473	1,007	21	5	0	0	0	4,223	321	228	23	0			
1950	901	336	28	0	0	473	884	14	5	0	0	0	4,191	310	134	5	0			
1951	744	227	20	0	0	466	757	13	5	0	0	0	4,233	335	180	15	0			
1952	694	261	30	0	0	370	747	8	3	0	0	0	4,201	345	180	15	0			
1953	824	258	18	0	0	360	747	9	2	0	0	0	4,201	345	180	15	0			
1954	573	214	15	0	0	338	571	13	10	0	0	0	4,201	345	180	15	0			
1955	484	204	13	0	0	291	510	5	5	0	0	0	4,201	345	180	15	0			
1956	476	196	12	0	0	227	463	10	3	0	0	0	4,201	345	180	15	0			
1957	461	176	40	0	0	207	461	5	2	0	0	0	4,201	345	180	15	0			
1958	481	166	20	0	0	227	453	5	2	0	0	0	4,201	345	180	15	0			
Totals	21,332	9,663	1,358	742	14	1	9,730	254	115	1	1	1	4,201	345	1,025	14	1	5,444	729	19

\*Accumulative Abandonments through 1931.

TABLE XIV  
OIL, GAS, AND BRINE PRODUCTION IN MICHIGAN

Year	OIL PRODUCTION		GAS PRODUCTION		BRINE PRODUCTION AND DISPOSAL (BBLs. PER DAY)																
	Annual (Bbls.)	Accumulative (Bbls.)	Annual (M.C.F.)	Accumulative (M.C.F.)	Disposal																
					Pits	Roads	Chem. Co.														
1925	4,000	4,000	400	16,490																	
1926	94,000	98,000	400	16,890																	
1927	435,928	533,829	600	17,490																	
1928	592,620	1,126,548	469,000	486,490																	
1929*	4,641,239	5,767,787	4,526,000	5,012,490																	
1930	3,928,229	9,696,016	2,369,550	7,382,040																	
1931	3,785,633	13,481,649	594,363	7,976,403																	
1932	6,925,665	20,407,314	1,432,159	9,408,562																	
1933	7,941,995	28,349,309	1,697,628	11,106,190																	
1934	10,602,759	38,952,068	3,008,085	14,114,275																	
1935	15,776,237	54,728,305	5,553,858	19,668,133																	
1936	11,918,013	66,646,318	6,864,726	26,532,859																	
1937	16,628,344	83,274,662	9,310,844	35,843,703																	
1938	18,744,709	102,019,371	9,232,509	45,076,212																	
1939	23,462,025	125,481,466	10,137,003	55,213,215																	
1940	19,753,103	145,234,569	14,126,364	69,339,579																	
1941	16,358,717	161,593,286	15,092,464	84,432,043																	
1942	21,753,771	183,347,057	17,749,249	102,181,292																	
1943	20,767,724	204,114,781	19,581,420	121,762,712																	
1944	18,489,470	222,604,251	21,253,903	143,016,615																	
1945	17,267,493	239,871,744	23,298,548	166,315,163																	
1946	17,074,518	256,946,262	23,774,495	190,089,658																	
1947	16,215,613	273,161,875	23,954,925	214,044,583																	
1948	16,871,046	290,032,921	21,369,587	235,414,170																	
1949	16,517,333	306,550,254	14,660,247	250,074,417																	
1950	15,826,148	322,376,402	12,614,024	262,688,441																	
1951	13,926,518	336,302,920	10,524,495	273,212,936																	
1952	13,249,428	349,552,348	8,677,737	281,890,673																	
1953	12,284,510	361,836,858	7,089,985	288,980,658																	
1954	12,088,059	373,864,917	5,698,175	294,678,833																	
1955	11,265,832	385,130,749	6,787,697	301,466,530																	
1956	10,739,697	395,870,446	8,840,933	310,307,463																	
1957	10,168,602	406,039,048	6,639,813	316,947,276																	
1958	9,308,018	415,347,066	10,964,378	327,911,654																	
Totals																					

\*Oil production data are from Michigan tax records since 1929 and from United States Bureau of Mines prior to 1929.

TABLE XV  
CUMULATIVE WELL COMPLETIONS BY COUNTIES  
January 1, 1925, to January 1, 1959

County	Oil	Gas	Gas Storage	LPG	WI	Dry Holes	Total Completions
1. Alcona	0	0	0	0	0	14	14
2. Allegan	1,262	49	0	0	0	1,582	2,893
3. Alpena	0	0	0	0	0	8	8
4. Antrim	0	1	0	0	0	25	26
5. Arenac	395	44	0	0	0	360	799
6. Barry	69	0	0	0	0	109	178
7. Bay	456	1	0	0	0	202	659
8. Benzie	0	0	0	0	0	2	2
9. Berrien	7	0	0	0	0	52	59
10. Branch	0	0	0	0	0	13	13
11. Calhoun	1	4	0	0	0	29	34
12. Cass	10	0	0	0	0	63	73
13. Charlevoix	0	0	0	0	0	7	7
14. Cheboygan	0	0	0	0	0	11	11
15. Clare	372	169	339	0	0	328	1,208
16. Clinton	4	0	0	0	0	67	71
17. Crawford	78	0	0	0	0	17	95
18. Eaton	0	0	0	0	0	11	11
19. Emmet	0	0	0	0	0	3	3
20. Genesee	11	0	0	0	0	35	46
21. Gladwin	703	0	0	0	0	234	937
22. Grand Traverse	0	0	0	0	0	7	7
23. Gratiot	25	74	0	0	0	222	321
24. Hillsdale	25	0	0	0	0	39	64
25. Huron	4	0	0	0	0	65	69
26. Ingham	0	0	0	0	0	12	12
27. Ionia	9	0	0	0	0	66	75
28. Iosco	0	0	0	0	0	17	17
29. Isabella	645	158	0	0	0	437	1,240
30. Jackson	5	1	0	0	0	44	50
31. Kalamazoo	17	0	0	0	0	93	110
32. Kalkaska	22	7	0	0	0	39	68
33. Kent	417	6	0	7	1	324	755
34. Lake	18	1	0	0	0	94	113
35. Lapeer	5	0	0	0	0	45	50
36. Leelanau	0	0	0	0	0	8	8
37. Lenawee	1	1	0	0	0	29	31
38. Livingston	0	16	0	0	0	59	75
39. Macomb	1	0	0	0	0	17	18
40. Manistee	0	0	0	0	0	20	20
41. Mason	62	5	0	0	0	122	189
42. Mecosta	98	193	113	0	0	329	733
43. Midland	886	1	0	1	0	253	1,141
44. Missaukee	142	45	83	0	0	149	419
45. Monroe	36	0	0	0	0	73	109
46. Montcalm	358	220	69	0	0	498	1,145
47. Montmorency	3	1	0	0	0	17	21
48. Muskegon	425	118	0	0	0	323	866
49. Newaygo	190	39	53	0	0	295	577
50. Oakland	2	2	0	0	0	42	46

Page 2- Cumulative Well Completions by Counties

County	Oil	Gas	Gas Storage	LPG	WI	Dry Holes	Total Completions
51. Oceana	280	4	0	0	0	317	601
52. Ogemaw	487	10	0	0	0	153	650
53. Osceola	326	107	85	0	0	278	796
54. Oscoda	2	0	0	0	0	9	11
55. Otsego	1	8	0	0	0	28	37
56. Ottawa	369	14	0	0	0	406	789
57. Presque Isle	0	0	0	0	0	2	2
58. Roscommon	177	14	0	0	0	99	290
59. Saginaw	377	2	0	0	0	163	542
60. Sanilac	0	0	0	0	0	18	18
61. Shiawassee	1	0	0	0	0	45	46
62. St. Clair	22	10	0	0	0	105	137
63. St. Joseph	0	0	0	0	0	12	12
64. Tuscola	137	1	0	0	0	93	231
65. Van Buren	704	0	0	0	0	935	1,639
66. Washtenaw	8	14	0	0	0	70	92
67. Wayne	7	17	0	6	0	40	70
68. Wexford	1	1	0	0	0	37	39
Totals (So. Pen.)	9,663	1,358	742	14	1	9,720	21,498
69. Chippewa	0	0	0	0	0	4	4
70. Delta	0	0	0	0	0	1	1
71. Luce	0	0	0	0	0	1	1
72. Mackinac	0	0	0	0	0	2	2
73. Schoolcraft	0	0	0	0	0	2	2
Totals (No. Pen.)	0	0	0	0	0	10	10
Totals (State)	9,663	1,358	742	14	1	9,730	21,508

TABLE XVI  
OIL PRODUCTION BY COUNTIES JANUARY 1, 1953 TO JANUARY 1, 1959

County	1953	1954	1955	1956	1957	1958	Cumulative Jan. 1, 1959
1. Alcona	0	0	0	0	0	0	0
2. Allegan	275,843	249,354	225,698	224,320	244,126	230,864	16,828,246
3. Alpena	0	0	0	0	0	0	0
4. Antrim	0	1,885,888	1,554,816	1,262,958	909,041	613,072	41,662,247
5. Arenac	2,037,582	38,449	42,976	36,894	32,654	26,813	471,801
6. Barry	37,685	660,892	686,198	698,777	822,106	758,595	14,861,942
7. Bay	746,165	0	0	0	0	0	0
8. Benzie	0	1,383	1,752	0	0	0	29,672
9. Berrien	3,677	0	0	0	0	0	0
10. Branch	0	0	0	0	0	0	0
11. Calhoun	0	316	0	0	0	0	1,793
12. Cass	-	0	0	0	0	0	0
13. Charlevoix	0	0	0	0	0	0	0
14. Cheboygan	645,304	1,070,174	1,136,510	1,016,973	788,573	603,672	28,673,409
15. Clare	0	283,423	244,453	227,723	198,787	182,406	4,121
16. Clinton	298,561	0	0	0	0	0	4,073,553
17. Crawford	0	0	0	0	0	0	0
18. Eaton	0	0	0	0	0	0	0
19. Emmet	5,857	3,972	3,707	4,113	4,113	3,996	71,717
20. Genesee	547,133	472,987	422,362	419,230	547,184	493,489	28,462,496
21. Gladwin	0	0	0	0	0	0	0
22. Grand Traverse	169	37,731	73,530	40,971	23,973	27,915	254,511
23. Gratiot	0	3,997	3,739	3,408	86,230	527,253	613,483
24. Hillsdale	3,735	0	6,874	4,982	1,977	2,465	35,130
25. Huron	0	7,609	0	0	0	3,381	375,387
26. Ingham	40,500	0	0	0	4,712	0	0
27. Ionia	0	1,394,275	1,286,579	1,155,957	1,032,095	923,765	47,864,157
28. Iosco	1,521,140	2,525	1,955	1,957	0	0	6,437
29. Isabella	2,525	519	1,498	12,821	4,934	2,516	26,868
30. Jackson	519	59,279	54,385	58,357	44,669	41,178	978,179
31. Kalamazoo	122,947	125,870	118,745	120,357	121,427	113,487	8,322,604
32. Kalkaska	152,001	10,037	10,241	9,623	8,735	6,140	2,124,049
33. Kent	36,495	0	0	67	0	119	186
34. Lake	0	0	0	0	0	0	0
35. Lapeer	0	0	0	0	0	0	0
36. Leelanau	0	0	0	0	0	0	47
37. Lenawee	0	0	47	0	0	0	0

Page 2- Oil Production by Counties January 1, 1953 to January 1, 1959

County	1953	1954	1955	1956	1957	1958	Cumulative Jan. 1, 1959
38. Livingston	0	0	0	0	0	0	0
39. Macomb	0	0	0	0	0	0	0
40. Manistee	0	0	0	0	0	0	0
41. Mason	255,829	532,703	557,919	426,135	392,696	235,421	3,003,862
42. Mecosta	217,645	181,401	150,263	129,275	103,355	74,710	8,940,231
43. Midland	439,777	436,085	420,586	394,510	368,306	339,976	63,518,603
44. Missaukee	643,387	602,366	552,299	526,546	476,307	431,873	8,204,710
45. Monroe	7,187	19,747	12,754	7,953	6,376	8,401	608,411
46. Montcalm	287,129	297,842	351,539	672,195	981,406	954,539	13,929,851
47. Montmorency	880	0	0	175	86	86	7,206
48. Muskegon	153,280	120,941	101,133	62,584	51,770	33,730	7,562,890
49. Newaygo	326,496	226,768	197,072	319,271	235,949	122,260	8,292,221
50. Oakland	0	1,734	2,494	159	456	1,030	5,873
51. Oceana	1,034,892	875,446	668,405	567,944	466,004	302,660	13,065,523
52. Ogemaw	806,501	840,691	860,214	827,709	714,352	619,861	12,776,042
53. Osceola	798,989	722,044	656,241	597,962	633,363	703,301	47,942,819
54. Oscoda	1,373	2,523	2,214	2,320	1,899	1,902	15,587
55. Otsego	354	0	0	83	0	238	2,990
56. Ottawa	128,920	127,281	127,942	116,798	120,886	127,904	6,863,946
57. Presque Isle	0	0	0	0	0	0	0
58. Roscommon	466,555	408,969	430,196	441,962	408,920	369,216	8,967,342
59. Saginaw	11,212	10,614	18,777	35,173	59,052	90,623	2,002,834
60. Sanilac	0	0	0	0	0	0	0
61. Shiawassee	0	0	0	0	0	0	236
62. St. Clair	0	0	0	1,755	6,277	76,377	84,409
63. St. Joseph	0	0	0	0	0	0	0
64. Tuscola	50,623	65,392	108,768	168,758	160,299	153,030	1,475,733
65. Van Buren	174,344	101,420	66,185	46,490	36,105	28,262	11,838,009
66. Washtenaw	0	148,121	85,130	78,904	58,948	60,965	432,068
67. Wayne	0	0	19,636	15,723	10,365	10,527	58,821
68. Wexford	1,299	0	0	0	0	0	4,814
Totals	12,284,510	12,028,059	11,265,832	10,739,697	10,168,602	9,308,018	415,347,066

TABLE XVII

ANNUAL OIL PRODUCTION BY FORMATIONS

Year	Marshall	Berea	Traverse	Dundee	Detroit River	Salina-Niagaran	Trenton	Yearly Totals
1925		4,000						4,000
1926		94,000						94,000
1927		434,000	482	1,446				435,928
1928		231,000	83,650	277,970				592,620
1929		113,559	789,645	3,738,035				4,641,239
1930		89,387	330,510	3,508,332				3,928,229
1931		61,876	152,787	3,570,970				3,785,633
1932		63,616	145,176	6,716,873				6,925,665
1933		55,066	143,630	7,743,299				7,941,995
1934		48,226	223,336	10,331,197			162	10,602,759
1935		63,305	174,992	15,537,778			7,640	15,776,237
1936		93,599	134,888	11,681,886			8,923	11,918,013
1937		62,877	509,299	16,047,245			7,346	16,628,344
1938	2,879	51,119	2,488,753	16,194,612			7,346	18,744,709
1939	4,532	39,413	10,506,884	12,877,772	14,000		19,494	23,462,095
1940	3,875	34,154	8,717,972	10,879,392	9,125		108,585	19,753,103
1941	5,504	43,764	4,455,607	11,695,296	73,763		84,783	16,358,717
1942	4,486	53,570	5,475,975	16,030,753	119,698		69,289	21,753,771
1943	4,118	50,310	4,858,236	15,623,591	180,282		51,187	20,767,724
1944	4,057	47,464	4,348,587	13,710,179	344,550		34,633	18,489,470
1945	3,876	42,485	2,943,994	13,651,857	598,240		27,041	17,267,493
1946	4,175	32,132	2,332,730	14,064,533	616,651		24,297	17,074,518
1947	3,263	32,794	3,157,115	12,443,546	556,028		22,867	16,215,613
1948	3,079	30,311	4,200,258	11,702,520	916,179		18,699	16,871,046
1949	2,890	28,965	4,280,674	10,575,987	1,615,211		13,606	16,517,333
1950	2,175	28,996	4,442,243	9,516,523	1,820,598		15,613	15,826,148
1951	1,609	27,254	3,689,227	8,242,103	1,952,899		13,426	13,926,518
1952	1,989	24,596	3,397,823	7,297,355	2,504,094	2,599	20,972	13,249,428
1953	1,420	22,026	2,997,465	6,599,408	2,632,204	24,800	7,187	12,284,510
1954	1,875	22,217	2,448,105	6,403,314	2,968,874	15,692	167,982	12,028,059
1955	1,662	26,193	2,048,256	5,959,338	3,101,121	11,258	118,004	11,265,832
1956	1,678	24,356	1,974,389	5,635,689	2,993,166	8,262	102,157	10,739,697
1957	1,830	19,926	1,789,636	5,359,284	2,811,865	24,082	161,979	10,168,602
1958	1,583	19,462	1,448,231	4,527,027	2,571,719	131,956	608,040	9,308,018

These data include estimates for multiple pay wells and leases when an accurate breakdown was not available.

TABLE XVIII

PERCENTAGE ANNUAL OIL PRODUCTION BY FORMATIONS

Year	Marshall	Berea	Traverse	Dundee	Detroit River	Salina-Niagaran	Trenton
1925		100.00					
1926		100.00					
1927		99.56	.11	.33			
1928		38.98	14.12	46.90			
1929		2.45	17.01	80.54			
1930		2.27	8.42	89.31			
1931		1.64	4.05	94.31			
1932		.92	2.10	96.98			
1933		.69	1.82	97.49			
1934		.46	2.11	97.43			
1935		.40	1.11	98.49			.001
1936		.79	1.13	98.02			.06
1937		.38	3.06	96.51			.05
1938	.02	.27	13.28	86.39			.04
1939	.02	.17	44.78	54.89	.06		.08
1940	.02	.17	44.14	55.07	.05		.55
1941	.03	.27	27.24	71.49	.45		.52
1942	.02	.24	25.18	73.69	.55		.32
1943	.02	.24	23.39	75.23	.87		.25
1944	.02	.26	23.52	74.15	1.86		.19
1945	.02	.25	17.05	79.06	3.46		.16
1946	.02	.19	13.66	82.37	3.62		.14
1947	.02	.21	19.47	76.73	3.43		.14
1948	.02	.18	24.90	69.36	5.43		.11
1949	.02	.18	25.92	64.02	9.78		.08
1950	.01	.18	28.07	60.13	11.51		.10
1951	.01	.20	26.49	59.18	14.02		.10
1952	.01	.19	25.64	55.08	18.90	.02	.16
1953	.01	.18	24.40	53.72	21.43	.20	.06
1954	.02	.18	20.35	53.24	24.68	.13	1.40
1955	.02	.23	18.16	52.91	27.53	.10	1.05
1956	.02	.23	18.35	52.50	27.87	.08	.95
1957	.02	.20	17.60	52.70	27.65	.24	1.59
1958	.02	.21	15.56	48.63	27.63	1.42	6.53

TABLE XIX

ACCUMULATIVE OIL PRODUCTION BY FORMATIONS

Year	Marshall	Berea	Traverse	Dundee	Detroit River	Salina-Niagaran	Trenton	Cumulative Totals
1925		4,000						4,000
1926		98,000						98,000
1927		532,000	482	1,446				533,928
1928		763,000	84,132	279,416				1,126,548
1929		876,559	873,777	4,017,451				5,767,787
1930		965,946	1,204,287	7,525,783				9,696,016
1931		1,027,822	1,357,074	11,096,753				13,481,649
1932		1,091,438	1,502,250	17,813,626				20,407,314
1933		1,146,504	1,645,880	25,556,925				28,349,309
1934		1,194,730	1,869,216	35,888,122				38,952,068
1935		1,258,035	2,044,208	51,425,900			162	54,728,305
1936		1,351,634	2,179,096	63,107,786			7,802	66,646,318
1937		1,414,511	2,688,395	79,155,031			16,725	83,274,662
1938	2,879	1,465,630	5,177,148	95,349,643			24,071	102,019,371
1939	7,411	1,505,043	15,684,032	108,227,415	14,000		43,565	125,481,466
1940	11,286	1,539,197	24,402,004	119,106,807	23,125		152,150	145,234,569
1941	16,790	1,582,961	28,857,611	130,802,103	96,888		236,933	161,593,286
1942	21,276	1,636,531	34,333,586	146,832,856	216,586		306,222	183,347,057
1943	25,394	1,686,841	39,191,822	162,456,447	396,868		357,409	204,114,781
1944	29,451	1,734,305	43,540,409	176,166,626	741,418		392,042	222,604,251
1945	33,327	1,776,790	46,484,403	189,818,483	1,339,658		419,083	239,871,744
1946	37,502	1,808,922	48,817,133	203,883,016	1,956,309		443,380	256,946,262
1947	40,765	1,841,716	51,974,248	216,326,562	2,512,337		466,247	273,161,875
1948	43,844	1,872,027	56,174,506	228,029,082	3,428,516		484,946	290,032,921
1949	46,734	1,900,992	60,455,180	238,605,069	5,043,727		498,552	306,550,254
1950	48,909	1,929,988	64,897,423	248,121,592	6,864,325		514,165	322,376,402
1951	50,518	1,957,242	68,586,650	256,363,695	8,817,224		527,591	336,302,920
1952	52,507	1,981,838	71,984,473	263,661,050	11,321,318	2,599	548,563	349,552,348
1953	53,927	2,003,864	74,981,938	270,260,458	13,953,522	27,399	555,750	361,836,858
1954	55,802	2,026,081	77,430,043	276,663,772	16,922,396	43,091	723,732	373,864,917
1955	57,464	2,052,274	79,478,299	282,623,110	20,023,517	54,349	841,736	385,130,749
1956	59,142	2,076,630	81,452,688	288,258,799	23,016,683	62,611	943,893	395,870,446
1957	60,972	2,096,556	83,242,324	293,618,083	25,828,548	86,693	1,105,872	406,039,048
1958	62,555	2,116,018	84,690,555	298,145,110	28,400,267	218,649	1,713,912	415,347,066

TABLE XX

PERCENTAGE ACCUMULATIVE OIL PRODUCTION BY FORMATIONS

Year	Marshall	Berea	Traverse	Dundee	Detroit River	Salina-Niagaran	Trenton
1925		100.00					
1926		100.00					
1927		99.64	.09	.27			
1928		67.73	7.47	24.80			
1929		15.20	15.15	69.65			
1930		9.96	12.42	77.62			
1931		7.62	10.07	82.31			
1932		5.35	7.36	87.29			
1933		4.04	5.81	90.15			
1934		3.07	4.80	92.13			
1935		2.30	3.73	93.97			.001
1936		2.03	3.27	94.69			.01
1937		1.70	3.23	95.05			.02
1938	.003	1.44	5.08	93.46			.02
1939	.01	1.20	12.50	86.25	.01		.03
1940	.01	1.06	16.80	82.01	.02		.10
1941	.01	.98	17.86	80.94	.06		.15
1942	.01	.89	18.73	80.08	.12		.17
1943	.01	.83	19.20	79.59	.19		.18
1944	.01	.78	19.56	79.14	.33		.18
1945	.01	.74	19.38	79.13	.56		.18
1946	.01	.71	19.00	79.35	.76		.17
1947	.02	.67	19.03	79.19	.92		.17
1948	.02	.65	19.36	78.62	1.18		.17
1949	.01	.62	19.73	77.83	1.65		.16
1950	.01	.60	20.14	76.96	2.13		.16
1951	.01	.58	20.40	76.22	2.62		.17
1952	.01	.57	20.60	75.41	3.24	.01	.16
1953	.02	.55	20.73	74.68	3.86	.01	.15
1954	.02	.54	20.72	73.99	4.53	.01	.19
1955	.01	.53	20.65	73.38	5.20	.01	.22
1956	.01	.52	20.58	72.82	5.82	.01	.24
1957	.02	.52	20.50	72.31	6.36	.02	.27
1958	.02	.51	20.39	71.78	6.84	.05	.41

## MICHIGAN CASINGHEAD GAS PLANT OPERATIONS FOR 1958

TABLE XXI  
SUMMARY OF GAS PLANT OPERATIONS BY MONTHS\*

Month	Total	Extraction	Plant Fuel	Lease Fuel	Repressuring	Sales	Recycled Gas Lift	Line Losses & Shrinkage	L.P.G. Gallons
January	441,485.9	21,377.4	34,317.8	44,683.2	121,980	204,771.5	11,899	2,457	242,053
February	423,181.7	20,828.7	31,326.0	42,056.3	96,991	218,972.7	11,218	1,789	213,241
March	475,540.3	28,517.6	34,464.2	38,896.6	107,970	252,546.9	11,411	1,734	265,132
April	454,498.9	37,043.7	32,594.8	31,079.1	104,509	235,489.3	10,006	3,777	332,026
May	428,911.8	27,755.2	30,516.2	26,600.4	81,867	248,812.0	8,690	4,671	374,723
June	512,959.0	22,925.1	34,482.8	29,714.8	115,146	292,520.3	13,340	4,830	335,317
July	473,373.3	24,951.3	32,497.2	25,316.7	97,628	277,260.1	10,160	5,560	298,311
August	478,916.2	29,613.7	31,757.8	25,250.8	105,621	275,250.9	10,768	654	336,062
September	465,116.6	24,870.2	31,323.8	26,574.2	104,805	264,181.4	8,094	5,268	306,492
October	473,381.3	26,819.8	32,056.0	27,998.1	107,115	269,016.4	7,792	2,584	299,788
November	456,630.6	16,573.1	33,246.1	31,858.9	102,995	256,569.5	6,335	9,053	270,183
December	466,194.2	17,390.2	34,052.8	38,733.8	100,906	261,823.4	6,582	6,706	238,343
Totals	5,550,189.8	298,666.0	392,635.5	388,762.9	1,247,533	3,057,214.4	116,295	49,083	3,511,671

TABLE XXII  
SUMMARY OF GAS PLANT OPERATIONS BY PLANTS FOR 1958\*

Month	Total	Extraction	Plant Fuel	Lease Fuel	Repressuring	Sales	Recycled Gas Lift	Line Losses & Shrinkage	L.P.G. Gallons
Beaver Creek	1,161,066.0	249,568.2	74,819.8	116,169.8	-	720,508.2	-	-	2,755,200
Coldwater	176,638.0	29,610.0	30,863.0	-	-	116,165.0	-	-	252,506
Eden	64,472.0	1,503.0	15,786.0	-	-	17,474.0	-	29,709	54,684
Enterprise	223,905.0	-	20,345.0	42,514.0	146,262	-	14,063	721	-
Hamilton	290,270.0	-	13,851.0	68,077.0	-	208,288.0	-	54	87,120
Headquarters	419,450.0	3,484.8	41,841.7	18,777.1	-	355,346.4	-	-	129,908
Mt. Pleasant	100,375.0	5,475.0	27,010.0	-	-	67,890.0	-	-	112,914
East Norwich	1,633,463.0	4,521.0	124,873.0	126,963.0	1,101,271	173,603.0	102,232	-	-
Rose City	723,183.8	-	7,784.0	-	-	715,399.8	-	18,599	119,339
St. Helen	757,367.0	4,504.0	35,462.0	16,262.0	-	682,540.0	-	-	-
Totals	5,550,189.8	298,666.0	392,635.5	388,762.9	1,247,533	3,057,214.4	116,295	49,083	3,511,671

\*M.C.F.

STATE OF MICHIGAN  
ACTIVE CRUDE OIL REFINERIES  
January 1, 1959

Name of Refinery	Location	Rated Capacity* Bbls. Daily
Aurora Gasoline Co. (Elsie Division)	Elsie (Address 15911 Wyoming Ave., Detroit 21)	6,000
Aurora Gasoline Co. (Detroit Division)	15911 Wyoming Ave., Detroit 21	47,500
Aurora Gasoline Co. (Old Dutch Division)	2920 E. Laketon Ave., Muskegon	15,000
Bay Refining Corporation	Bay City (Address 1201 Second Nat'l. Bank Bldg., Saginaw)	10,500
Crystal Refining Co. of Carson City, Inc.	Carson City	6,000
Lakeside Refining Co.	Kalamazoo	3,500
Leonard Refineries, Inc. (Leonard Division)	Alma	10,500
Leonard Refineries, Inc. (Mid-West Division)	Alma	11,000
Leonard Refineries, Inc. (Roosevelt Division)	Mt. Pleasant	7,500
Marvel Refining Co.	2201 Chicago Drive, Grand Rapids	2,000
Naph-Sol Refining Co.	Muskegon	10,000
Osceola Refining Co., Inc.	Reed City	2,500
Petroleum Specialties, Inc.	Flat Rock	6,500
Socony-Mobil Oil Co., Inc.	Trenton (Address 903 W. Grand Blvd., Detroit)	32,500
West Branch Refineries, Inc.	West Branch	5,000
Total Refinery Capacity		179,000

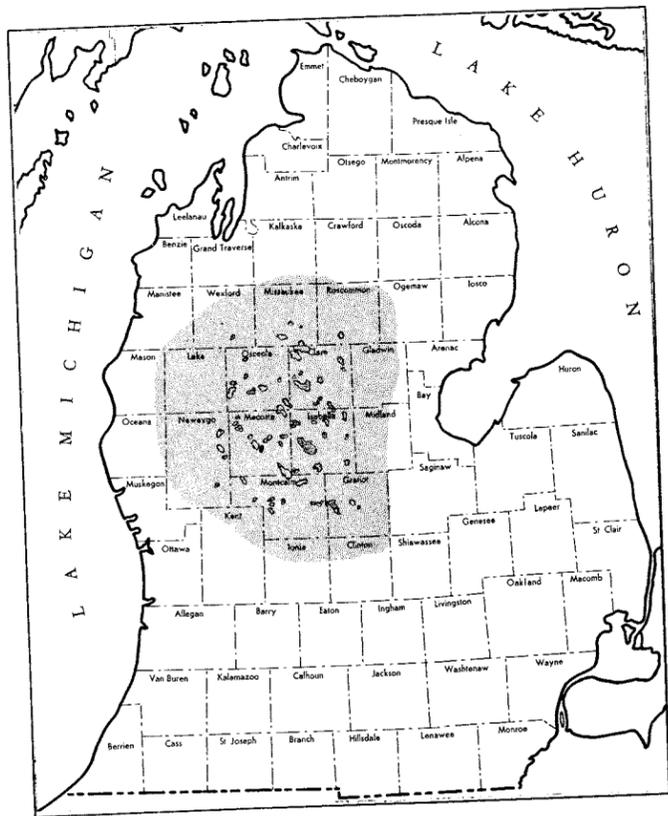
\*Nominal ratings only. Actual operating rates  
could be either more or less than these figures.

# OIL AND GAS PRODUCING AREAS BY FORMATION

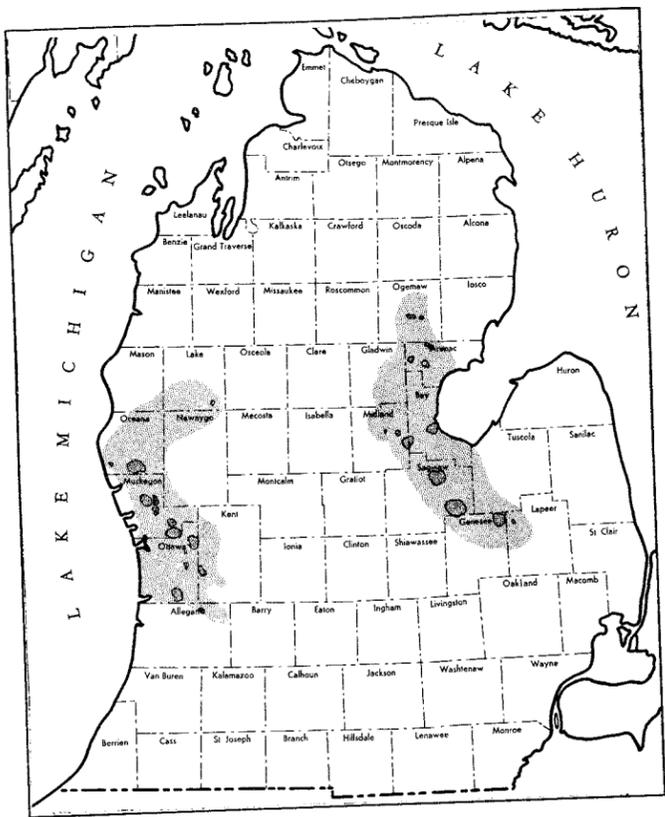
1958

# OIL AND GAS PRODUCING AREAS BY FORMATION

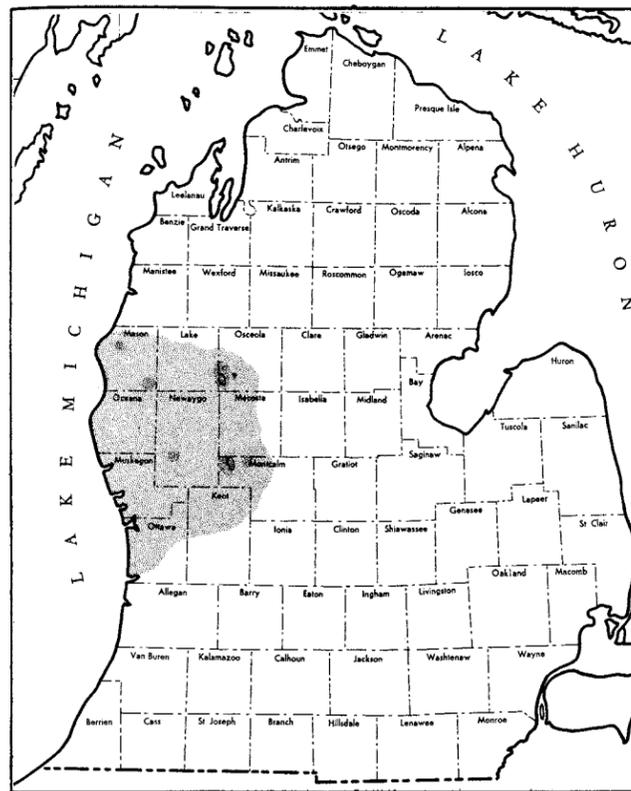
1958



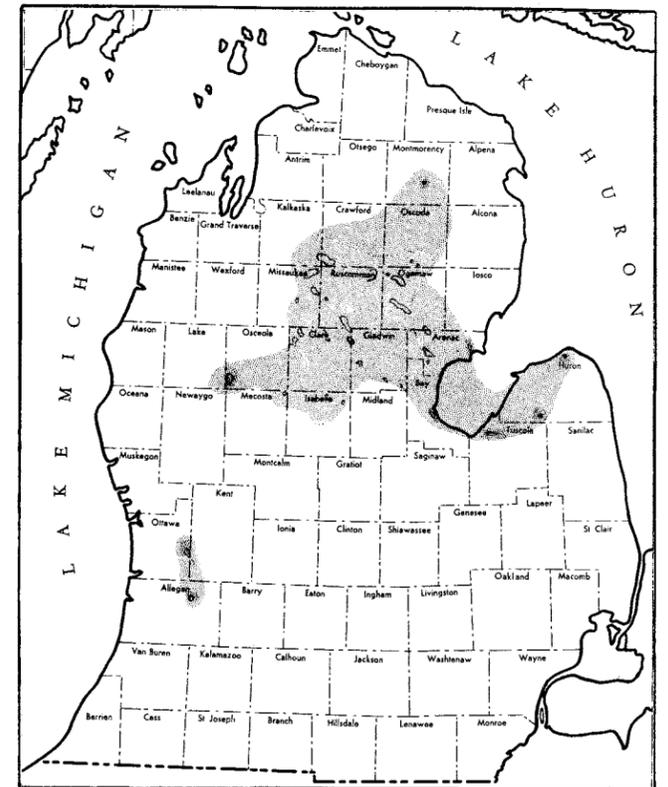
MICHIGAN STRAY



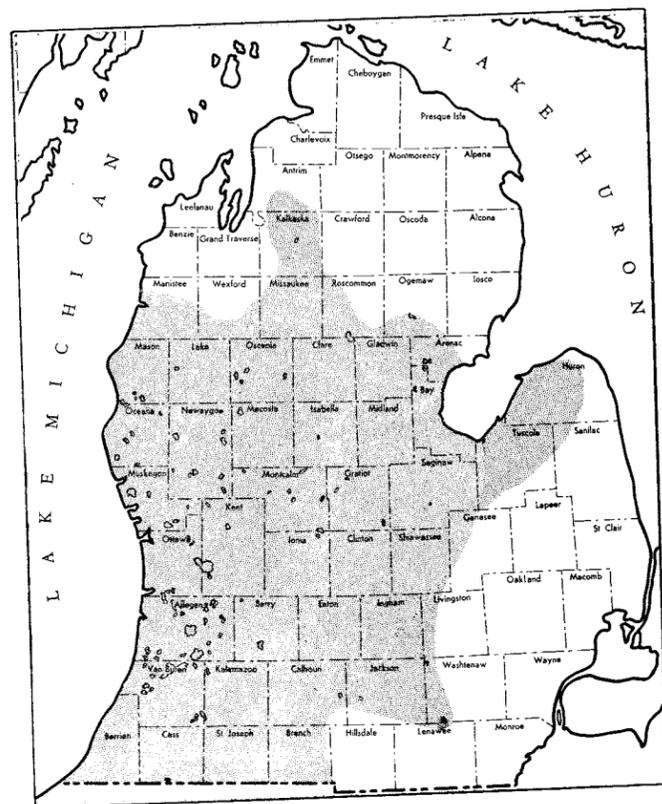
BEREA



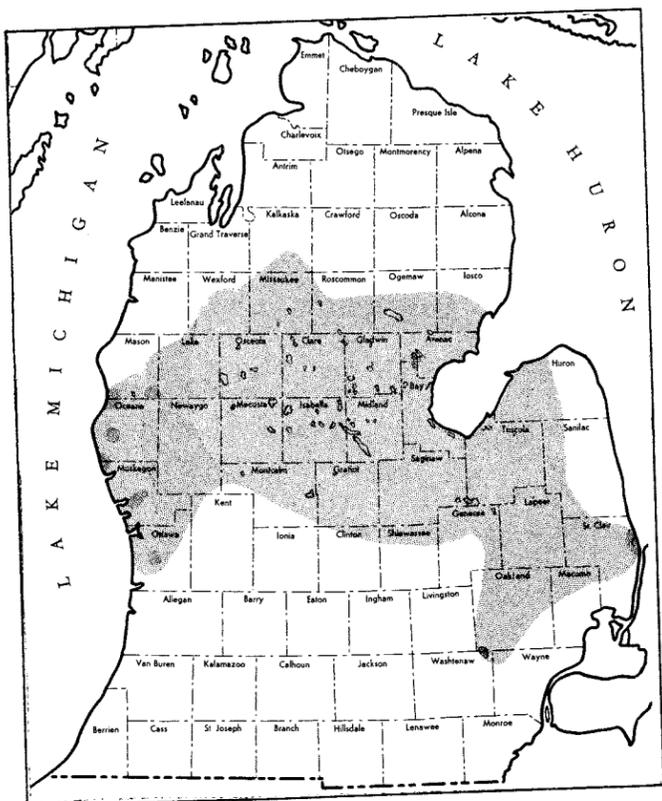
REED CITY



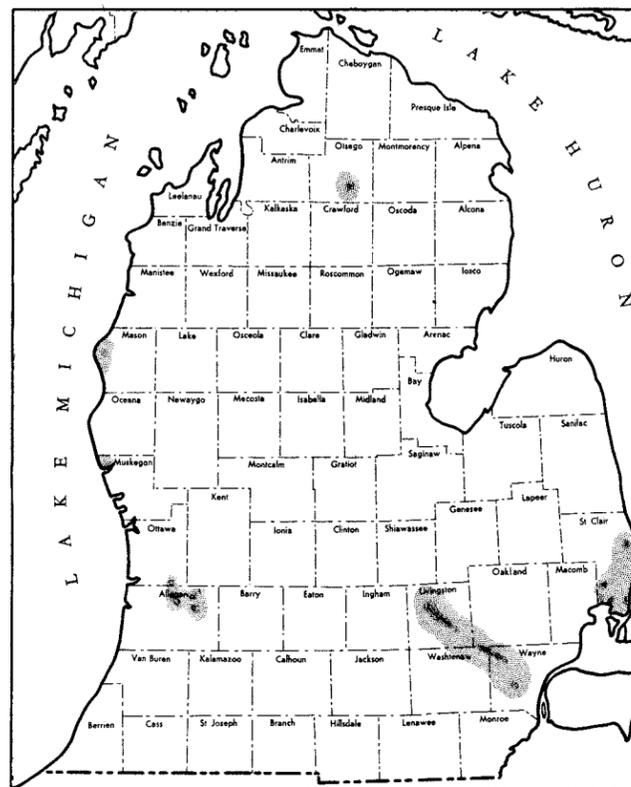
DETROIT RIVER



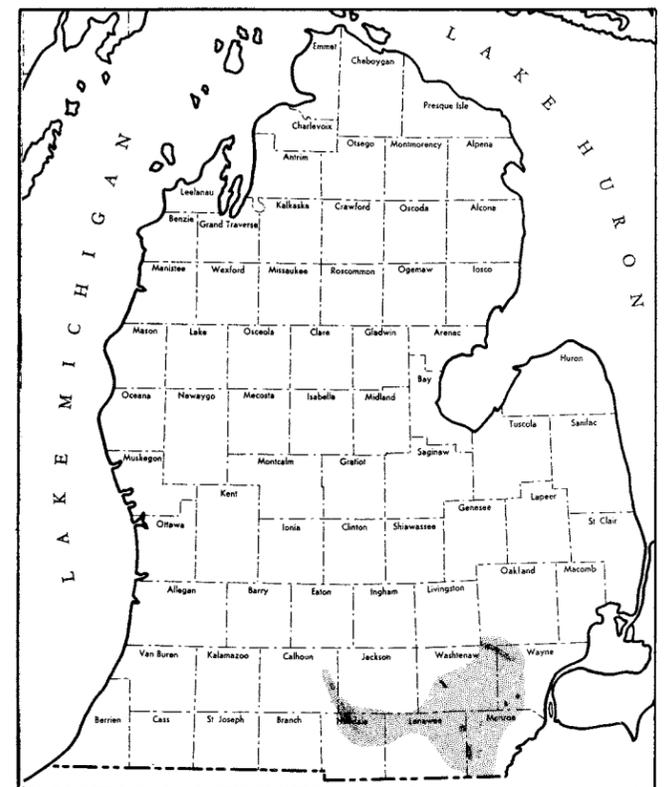
TRAVERSE



DUNDEE



SALINA



TRENTON

# GENERALIZED COLUMNAR SECTION OF MICHIGAN

## MICHIGAN GEOLOGICAL SURVEY DIVISION

SYSTEM, SERIES	FORMATION, GROUP	LITHOLOGY	THICKNESS	ECONOMIC PRODUCTS
<b>RECENT</b>				
<b>PLEISTOCENE</b>	GLACIAL DRIFT	SAND, GRAVEL, CLAY, boulders, marl	0-1000	SAND, GRAVEL, PEAT, MARL, FRESH WATER
"PERMO-CARBONIFEROUS"	"RED-BEDS"	SHALE, CLAY, SANDY SHALE, gypsum		
<b>PENNSYLVANIAN</b>	GRAND RIVER	SANDSTONE, sandy shale	80-95	BUILDING STONE, FRESH WATER
	SAGINAW	SHALE, SANDSTONE, limestone, coal	20-535	SHALE, COAL, FRESH WATER, BRINE, GAS
<b>MISSISSIPPIAN</b>	BAY PORT	LIMESTONE, SANDY OR CHERTY LIMESTONE, SANDSTONE	2-100	LIMESTONE, FRESH WATER
	MICHIGAN	SHALE, gypsum, anhydrite, sandstone	0-500	GYPSUM
	"MICHIGAN STRAY"	SANDSTONE	0-80	GAS
	MARSHALL	SANDSTONE, sandy shale	100-400	FRESH WATER, BRINE BUILDING STONE
	COLDWATER	SHALE, sandstone, limestone	500-1100	SHALE, FRESH WATER
	SUNBURY	SHALE	0-140	
	BEREA - BEDFORD	SANDSTONE, SHALE	0-325	GAS, OIL
<b>DEVONIAN</b>	ELLSWORTH - ANTRIM	SHALE, limestone	100-950	SHALE, GAS
	TRAVERSE	LIMESTONE, SHALE	100-800	LIMESTONE, OIL, GAS, FRESH WATER
	BELL	SHALE, Limestone	0-80	SHALE
	ROGERS CITY - DUNDEE	LIMESTONE	0-475	LIMESTONE, OIL, GAS, FRESH WATER
	DETROIT RIVER	DOLOMITE, limestone, salt anhydrite	150-1400	LIMESTONE, DOLOMITE, OIL, GAS, SALT, BRINE, FRESH WATER
	SYLVANIA	SANDSTONE, SANDY DOLOMITE	0-550	GLASS SAND, FRESH WATER
<b>SILURIAN</b>	BOIS BLANC	DOLOMITE, CHERTY DOLOMITE	0-1000	
	BASS ISLAND	DOLOMITE	50-570	DOLOMITE, FRESH WATER
	SALINA	SALT, DOLOMITE, Shale, anhydrite	50-4000	SALT, GAS, OIL
	NIAGARAN (Guelph - Lockport - Engadine) (Manistique - Burnt Bluff) (Cataract)	DOLOMITE, Limestone, shale	150-800	LIMESTONE, DOLOMITE, OIL, GAS, FRESH WATER
	<b>ORDOVICIAN</b>	CINCINNATIAN (Richmond) (Maysville - Eden)	SHALE, LIMESTONE	250-800
TRENTON - BLACK RIVER		LIMESTONE, DOLOMITE	200-1000	OIL, GAS, LIMESTONE, FRESH WATER
ST. PETER		SANDSTONE	0-150	FRESH WATER
<b>OZARKIAN OR CANADIAN</b>	PRAIRIE DU CHIEN	DOLOMITE, Shale	0-410	
	HERMANVILLE	DOLOMITE, SANDY DOLOMITE, sandstone	15-500	
<b>CAMBRIAN</b>	LAKE SUPERIOR (Munising) (Jacobsville)	SANDSTONE	500-2000	BUILDING STONE FRESH WATER
<b>ALGONKIAN</b>	KEWEENAW (Copper formations)	LAVA FLOWS, conglomerate, shale, sandstone	9800-35000	COPPER, SILVER, ROAD METAL, SEMI-PRECIOUS GEM STONES
	KILLARNEY GRANITE	GRANITE, GNEISS, diorite, syenite		
	HURONIAN (Iron formations)	SLATES, HEMATITE, SCHIST, QUARTZITE, GRANITE, marble, dolomite	2000+	IRON ORE, ROOFING SLATE, ROAD METAL, GRAPHITE MARBLE
<b>ARCHEAN</b>	LAURENTIAN	SCHIST, GNEISS, GRANITE		ROAD METAL, BUILDING STONE, VERDE ANTIQUE, TALC, GOLD
	KEEWATIN	SCHIST, GREENSTONE, SLATE		ROAD METAL