TABLE 4.—MICHIGAN OIL FIELDS, 1965 Continued (Sheet 6 of 7)

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE: DEPTH IN FEET	PAY ZONE: THICKNESS AND LITHOLOGY	PAY ZONE: OIL GRAVITY A.P.I.	DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF OIL WELLS: TO END 1965	NUMBER OF OIL WELLS: COMP. IN 1965	NUMBER OF OIL WELLS: ABAND. IN 1965	NUMBER OF OIL WELLS: PRODUCING AT END 1965	NUMBER OF OIL WELLS: SHUT IN OR SHUT DOWN	OIL PRODUCTION IN BARRELS: PRODUCED IN 1965	OIL PRODUCTION IN BARRELS: CUMULATIVE THROUGH 1965	DRILLED ACRES	RECOVERY PER ACRE DRILLED (BBLS.)	BRINE PRODUCTION BBLS./DAY: DISPOSAL: SUBSURFACE	BRINE PRODUCTION BBLS./DAY: DISPOSAL: SURFACE	BRINE PRODUCTION BBLS./DAY: TOTAL PRODUCTION
RAY	MACOMB	1963	SALINA-NIAGARAN	(GAS FIELD PRODUCING SMALL QUANTITY OF OIL)										586	1,554					
REED CITY	LAKE-OSCEOLA	1940	DUNDEE	3490	3	L	46.3	ST. PETER Ss.	8917											
		1941	REED CITY	3585	7	D	42.8			Secondary Recovery Project						5320		3,416	0	3,416
		1941	TRAVERSE	2925	5	L	43.7													
				Converted to Gas Storage Reservoir 1964																
		1954	RICHFIELD	4633	12	SL	45.8													
		1955	DETROIT RIVER SZ	4184	73	DL	48.2			45	0	4	38	4	318,203	43,969,993	1800	6,176	0	14	14
													The 38 wells include 9 Richfield, 25 Sour Zone and 4 Richfield and Sour Zone							
REED CITY, EAST	OSCEOLA	1947	TRAVERSE	3106	1	L	41.2	DETROIT RIVER	3840	8	0	0	4	1	10,547	343,322	80	4,292	950	0	950
REEMAN	NEWAYGO	1958	TRAVERSE	2099	1	L		TRAVERSE	2100	3	0	0	1	1	0	44,778	30	1,493			
REYNOLDS	MONTCALM	1954	REED CITY	3343	2	D	44.3	BASS ISLANDS	4300	53	0	0	34	7			2100		2,397	64	2,461
		1955	TRAVERSE	2787	4	D	39.8			16	0	0	12	0	129,773	4,089,456	110	1,850	1,125	70	1,195
RICH	LAPEER	1962	DETROIT RIVER SZ	3028	5		33.9	SYLVANIA	3267	7	0	0	7	0	26,214	86,285	280	308	5	7	12
RIVERSIDE	MISSAUKEE	1942	DUNDEE	3944	3	L	44.5	DUNDEE	3953	3	0	0	3	0	5,092	102,220	100	1,022	160	0	160
		1961	TRAVERSE	3220	2	L	42.6			1	0	0	1	0	2,956	8,529	10	853	0	10	10
RIVERTON	MASON	1957	TRAVERSE	1650	6	L	38.5	DUNDEE	2317	19	0	0	3	0	3,026	234,755	190	1,236	195	0	195
RIVERTON, SEC. 21	MASON	1964	TRAVERSE	1683	4	L	38.2	DUNDEE	2290	2	1	0	2	0	962	1,126	20	56	0	2	2
ROBINSON, SEC. 3	OTTAWA	1956	DUNDEE	2107	7	L		DUNDEE	2210	2	0	0	1	0	731	8,008	20	400	0	2	2
ROCKFORD	KENT	1945	TRAVERSE	2204	3	L	44.0	DETROIT RIVER	2850	23	1	0	6	1	9,400	505,015	210	2,405	580	0	580
ROSEBUSH	ISABELLA	1933	DUNDEE	3690	6	L	42.0	DETROIT RIVER	4322	40	0	2	33	4	27,082	1,964,449	900	2,183	327	11	338
ROSE CITY	OGEMAW	1942	RICHFIELD	4125	9	D	41.2	CAMBRIAN	12,906	126	0	18	78	3	83,217	4,872,529	4920	990	0	29	29
ROSE LAKE	OSCEOLA	1943	TRAVERSE	3140	5	L	45.5	DETROIT RIVER	3990	18	0	1	6	0	28,224	1,665,333	720	2,313	335	8	343
SAGINAW	SAGINAW	1925	BEREA	1825	16	S	46.1	SYLVANIA	3920	?	0	1	15	1	7,063	1,643,286	1500	1,096	0	18	18
SALEM	ALLEGAN	1937	TRAVERSE	1583	8	L	38.3	TRENTON	4347	337	0	1	100	3	46,879	8,856,343	3390	2,612	239	48	287
			SALINA	REFER TO GAS STORAGE RESERVOIRS - PRODUCES SMALL AMOUNT OF OIL - INCLUDED AS MISCELLANEOUS PRODUCTION IN ABANDONED TOTALS.																
SANFORD	MIDLAND	1951	DUNDEE	3755	3	L	42.6	DETROIT RIVER	4811											
		1959	TRAVERSE	3125	2	L				13	0	0	13	0	7,835	160,913	260	619	0	4	4
													The 13 wells include 10 Dundee, 1 Traverse and 2 Dundee and Traverse							
SAUBLE	LAKE	1942	TRAVERSE	2111	2	L	35.6	TRAVERSE	2156	5	0	0	2	0	409	143,429	200	717	1,000	0	1,000
SCOTTVILLE	MASON	1961	TRAVERSE	1646	3	L	34.6														
		1962	REED CITY	2319	3	L	37.2	CINCINNATIAN	5129	17	0	0	14	0	49,754	346,129	360	961	2,978	0	2,978
													The 14 wells include 13 Traverse and 1 Traverse and Reed City Zone							
SHELBY	OCEANA	1951	TRAVERSE	1743	3	L	43.0	DUNDEE	2234	20	0	0	6	0	3,609	221,280	350	632	34	0	34
SHERMAN	ISABELLA	1936	DUNDEE	3650	4	D	42.0	SYLVANIA	4994	88	0	0	5	1	5,625	4,694,655	1020	4,603	330	0	330
SKEELS	CLARE-GLADWIN	1950	DUNDEE	3840	7	D	39.6	SYLVANIA	6016	5	0	0	4	1			50		120	0	120
		1955	TRAVERSE	3102	6	L	38.4			4	0	0	2	0			40		0	4	4
		1942	DETROIT RIVER SZ	4844	4	D	47.4													
		1953	RICHFIELD	5080	17	D	44.8			31	0	0	26	0	47,725	1,957,518	1240	1,472	0	22	22
													The 26 wells include 17 Richfield, 4 Sour Zone and 5 Richfield and Sour Zone							
SPRINGPORT	JACKSON	1960	TRENTON-BLACK RIVER	4696	12+	D	46.5	PRAIRIE DU CHIEN	5250	1	0	0	1	1	0	649	40	16			
ST. CHARLES	SAGINAW	1957	TRAVERSE	2305	3	L	51.6	TRAVERSE	2308	1	0	0	1	0	322	13,111	10	1,311	0	0	0
ST. HELEN	ROSCOMMON	1941	RICHFIELD	4180	11	D	43.3	SALINA	5440	99	2RW	4	64	1	92,295	3,666,446	3960	926	0	34	34
STANDISH	ARENAC	1948	RICHFIELD	4108	3	D	35.4	RICHFIELD	4210	9	0	0	8	3	1,061	146,066	360	406	0	0	0
STANTON	**MONTCALM**	**1951**	**TRAVERSE**	**2916**	**7**	**DL**	**43.0**	**DUNDEE**	**3692**	**16**	**0**	**0**	**10**	**0**	**20,997**	**848,626**	**320**	**2,652**	**363**	**30**	**393**

TABLE 4.—MICHIGAN OIL FIELDS, 1965 Continued (Sheet 7 of 7)

STERLING	ARENAC	1947	DUNDEE	2872	17	L	33.6	RICHFIELD	4285	20	0	0	19	1			200		0	9	0
		1948	TRAVERSE	1970	5	L	36.2			22	0	0	16	0			220		4	8	12
		1950	RICHFIELD	5153	8	D	37.6														
		1952	DETROIT RIVER SZ	3918	5	D	41.1			41	1RW	0	36	1	88,329	1,868,016	1600	925	0	5	5
													The 36 wells include 13 Richfield, 13 Sour Zone and 10 Richfield and Sour Zone							
STONY LAKE	OCEANA	1946	TRAVERSE	1630	19	L	44.9	NIAGARAN	3837	78	0	31	19	2			1540		4,396	1	4,397
		1949	BEREA	930	1	SL	48.0			2	0	1	0	(Abandoned 1965)	25,618	7,467,723	20	4,787			
SUMNER	GRATIOT	1953	TRAVERSE	2853	1	L	44.5	DUNDEE	3366	35	0	1	27	3	45,626	972,470	350	2,778	1,025	0	1,025
SYLVAN	OSCEOLA	1948	DUNDEE	3925	13.7	D	48.0	DUNDEE	4100	11	0	0	2	1	3,379	1,174,943	440	2,620	760	0	760
TRENT	MUSKEGON	1949	TRAVERSE	2039	1	L		TRAVERSE	2118	2	0	0	1	0	412	29,819	40	745	0	0	0
TROWBRIDGE	ALLEGAN	1937	TRAVERSE	1358	2	L	41.2	CINCINNATIAN	2952	162	0	2	12	0	4,122	496,261	1840	270	142	22	164
VERNON	ISABELLA	1930	DUNDEE	3755	3	DL	38.6	BOIS BLANC	5118	78	0	1	6	0	8,453	5,009,934	890	5,629	3,240	0	3,240
WALKER	KENT-OTTAWA	1938	TRAVERSE	1872	8	L	36.0	ST. PETER Ss.	5222								8560				
		1940	"BEREA"	1121	21	SL															
		1957	DETROIT RIVER	2132	12	D				783	0	11	462	5	200,787	15,697,182	10	1,832	15	123	138
													The 462 wells include 455 Traverse, 6 Berea and 1 Detroit River							
WAYLAND	ALLEGAN	1944	TRAVERSE	1799	6	L	36.0	TRENTON-BLACK RIVER	4400	54	0	1	3	1	2,045	248,516	530	469	0	2	2
		1960	SALINA	3132	12	D	28.0			26	11	0	26	1	144,800	575,695	1040	553	0	3	4
WAYLAND, NORTH	ALLEGAN	1957	TRAVERSE	1696	7	L		TRAVERSE	1712	15	0	0	6	1	1,707	98,837	150	659	0	0	0
WEST BRANCH	OGEMAW	1933	TRAVERSE	(REFER TO ABANDONED FIELDS)																	
		1933	DUNDEE	2650	20	L	36.8	CAMBRO-ORDOVICIAN	11,012	275	0	0	176	4	82,782	8,343,126	2750	3,034	135	37	172
		1951	DETROIT RIVER SZ	3585	9	D	38.9														
		1952	RICHFIELD	4127			33.0			63	0	0	62	0	112,727	2,294,098	2520	910	0	5	5
													The 62 wells include 30 Richfield, 27 Sour Zone and 5 Richfield and Sour Zone							
WILEY	MASON	1962	TRAVERSE	1663	5	L	39.9	ST. PETER Ss.	5890	17	0	1	15	3	71,859	300,408	360	834	544	0	544
WINFIELD	MONTCALM	1936	DUNDEE-REED CITY	3340	1	L	43.2	REED CITY	3430	7	0	1	2	0	1,394	104,175	120	868	0	28	28
WINTERFIELD	CLARE	1940	TRAVERSE	3105	1	L		SYLVANIA	5273	8	0	0	6	0			200		3	4	7
		1940	DUNDEE	3794	3	L	44.2			37	0	0	6	1			740		1,750	0	1,750
		1942	RICHFIELD	5015	15	D				2	0	0	1	0	31,234	5,020,384	80	4,922	0	2	2
WISE	ISABELLA	1938	DUNDEE	3700	11	L	45.2	SYLVANIA	5202												
		1953	TRAVERSE	3090	31	L	43.0			79	0	0	24	1			1640		1,880	0	1,880
													The 24 wells include 19 Dundee, 1 Stray and 4 Dundee and Traverse							
		1955	DETROIT RIVER SZ	4415	48	DL	42.6			2	0	0	1	0	36,772	3,843,214	80	2,234	15	0	15
WOODVILLE	NEWAYGO	1943	TRAVERSE	2820	5	L	43.5	DETROIT RIVER	3534	10	0	0	10	0	10,204	507,551	350	1,450	50	9	59
WRIGHT	OTTAWA	1953	TRAVERSE	1920	1	L		DETROIT RIVER	2337	7	0	0	3	1			70		0	2	2
		1954	"BEREA"	1170	3	L				5	0	0	5	2	2,409	55,772	40	507	7	2	9
WYOMING PARK	KENT	1939	TRAVERSE	1870	6	L	39.0	DETROIT RIVER	2255	21	0	0	1	0	236	156,276	300	521	0	0	0
ZEELAND	OTTAWA	1942	TRAVERSE	1514	3	L	41.9	NIAGARAN	3052	21	0	0	1	1	0	310,085	400	775			
		1958	SALINA	(REFER TO ABANDONED FIELDS)																	
										534+8RW		155	4,368	332					141,028	4,074	145,102

INCOMPLETE RECORD

187 ACTIVE FIELDS AT THE END OF 1965

TOTAL OF 155 ABANDONMENTS IN 1965 INCLUDES PAY ZONES WHERE WELLS WERE DEEPENED OR REWORKED AND RECOMPLETED IN NEW PAY ZONES, AND WELLS CONVERTED TO INJECTION WELLS.

TOTAL OF 4,368 PRODUCIBLE WELLS DOES NOT INCLUDE GAS WELLS WHICH PRODUCED SOME OIL OR INJECTION WELLS. TOTAL OF 4,368 PRODUCIBLE WELLS INCLUDES 332 SHUT DOWN AND SHUT-IN WELLS.

TOTAL NUMBER OF PRODUCING WELLS IS 4,036.

BRINE FOR COMMERCIAL USES, LEASE PURPOSES, COUNTY ROADS, ETC. . . 3,299
BRINE TO SURFACE PITS. 775
TOTAL. 4,074

519,836,390 BBLS. CUMULATIVE OIL PRODUCTION FROM ACTIVE FIELDS
4,165,604 BBLS. CUMULATIVE PRODUCTION FROM ABANDONED FIELDS
524,001,994 BBLS. OIL TOTAL CUMULATIVE PRODUCTION END 1965

14,727,927 BBLS. OIL FROM ACTIVE FIELDS, 1965.
296 BBLS. MISCELLANEOUS PRODUCTION
14,728,223 BBLS. TOTAL 1965 PRODUCTION

TABLE 5. – LOCATION OF MICHIGAN OIL FIELDS, (Sheet 1 of 4)

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
ADAIR	ST. CLAIR	CHINA	4N 16E	7
		CASCO	4N 15E	12, 13
ADAMS	ARENAC	ADAMS	19N 3E	21, 23, 24, 25, 26, 27, 34,35, 36
		DEEP RIVER	19N 4E	31
	BAY	GIBSON	18N 3E	1, 2
ADAMS, NORTH	ARENAC	ADAMS	19N 3E	11, 14, 15, 22, 23, 27,
AKRON	TUSCOLA	AKRON	14N 8E	19, 20, 21, 28, 29, 30
		WISNER	14N 7E	22, 23, 24, 25, 26
ALBION-PULASKI-SCIPIO TREND				
	CALHOUN	LEE	1S 5W	17, 22, 23, 26
		SHERIDAN	2S 4W	18, 19, 20, 28, 33
		ALBION	3S 4W	3, 4, 10, 11, 14, 15, 22, 23, 26, 27, 35, 36
		HOMER	4S 4W	1, 12
	JACKSON	PULASKI	4S 3W	6, 7, 8, 17, 18, 19, 20, 28, 29, 33, 34
	HILLSDALE	SCIPIO	5S 3W	3, 4, 10, 11, 13, 14, 15, 23, 24, 25, 26
		FAYETTE	5S 3W	36
		MOSCOW	5S 2W	19, 31, 32
		ADAMS	6S 2W	3, 4, 5, 6, 8, 10, 16, 17
ARBELA	TUSCOLA	ARBELA	10N 7E	28, 33, 34
ASHTON	OSCEOLA	LINCOLN	18N 10W	5
ATLANTA	MONTMORENCY	AVERY	30N 3E	10, 15
AU GRES	ARENAC	AU GRES	19N 6E	2, 3, 10, 11
BARD	GLADWIN	BEAVERTON	17N 2W	5, 6
		GROUT	18N 2W	31, 32
BEAVER CREEK	CRAWFORD	BEAVER CREEK	25N 4W	7, 8, 16, 17, 18, 19, 20, 21, 27, 28, 29
	KALKASKA	GARFIELD	25N 5W	12, 13
BEAVERTON	GLADWIN	BEAVERTON	17N 2W	2, 3, 11
BEAVERTON, SOUTH	GLADWIN	BEAVERTON	17N 2W	26, 27, 35, 36
	GLADWIN	TOBACCO	17N 1W	31
BEAVERTON, WEST	GLADWIN	BEAVERTON	17N 2W	19
BELLE RIVER MILLS	ST. CLAIR	CHINA	4N 16E	DEVELOPED GAS STORAGE RESERVOIR
BELLY ACHERS	MONTCALM	HOME	12N 6W	11, 14
BENTLEY	GLADWIN	BENTLEY	17N 2E	16, 17, 18, 19, 20, 21, 27, 28, 29, 34, 35
BERLIN	ST. CLAIR	BERLIN	6N 13E	32, 33
BEVENS LAKE	MECOSTA	GREEN	16N 10W	13
BIG HAND	ST. CLAIR	COLUMBUS	5N 15E	24, 25
BILLINGS	GLADWIN	BILLINGS	17N 1E	2, 3, 10, 11
BILLINGS, SOUTH	GLADWIN	BILLINGS	17N 1E	12, 13
		BENTLEY	17N 2E	18
BIRCH BELA	SAGINAW	BIRCH RUN	10N 6E	25, 36
	TUSCOLA	ARBELA	10N 7E	30, 31, 32
BIRCH RUN (DUNDEE)	SAGINAW	BIRCH RUN	10N 6E	19, 20, 29
		TAYMOUTH	10N 5E	13

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
BLOOMER	MONTCALM	BLOOMER	9N 5W	31, 32
		BUSHNELL	9N 6W	36
	IONIA	NORTH PLAINS	8N 5W	5, 6
BLOOMINGDALE	VAN BUREN	BLOOMINGDALE	1S 14W	1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16,
				17, 18, 24
		COLUMBIA	1S 15W	1, 2, 10, 11, 12, 13, 14, 15, 16, 23, 24
		PINE GROVE	1S 13W	18
BOYD	ST. CLAIR	CASCO	4N 15E	29, 31, 32, W½ 28 & W½ 33
		IRA	3N 15E	5, 6
BUCKEYE, NORTH	GLADWIN	BUCKEYE	18N 1W	1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15
		HAY	18N 1E	15, 16, 21, 22
BUCKEYE, SOUTH	GLADWIN	BUCKEYE	18N 1W	22, 23, 24, 25, 26, 27, 35, 36
		HAY	18N 1E	33
		BILLINGS	17N 1E	4, 9, 10
		TOBACCO	17N 1W	1
BURDELL	OSCEOLA	BURDELL	20N 10W	19
BUTMAN	GLADWIN	BUTMAN	20N 1W	11, 12, 13, 14
CAPAC	ST. CLAIR	MUSSEY	7N 13E	GAS RESERVOIR PRODUCING SMALL QUANTITIES OF OIL
		LYNN	8N 13E	
CATO	MONTCALM	CATO	12N 8W	3, 4, 6, 8, 9
CEDAR	OSCEOLA	CEDAR	18N 9W	10, 27, 28, 33, 34
CHASE	LAKE	CHASE	17N 11W	19, 29
CHESTERFIELD	MACOMB	CHESTERFIELD	3N 14E	29 (ALSO SEE GAS FIELDS)
CHINA, SEC. 12	ST. CLAIR	CHINA	4N 16E	12
CHINA, SOUTH	ST. CLAIR	COTTRELLVILLE	3N 16E	4 (ALSO SEE GAS FIELDS)
CLARE, CITY	CLARE	GRANT	17N 4W	24, 35, 36
	ISABELLA	WISE	16N 3W	6
CLAYTON	ARENAC	CLAYTON	20N 4E	3, 4, 5, 8, 9, 10, 11
	OGEMAW	RICHLAND	21N 4E	31
		MILLS	21N 3E	36
COLDWATER	ISABELLA	COLDWATER	16N 6W	19, 20, 21, 28, 29, 30, 31, 32, 33, 34
		SHERMAN	15N 6W	5, 6
COLFAX	MECOSTA	COLFAX	15N 9W	5
COTTRELLVILLE	ST. CLAIR	CHINA	4N 16E	31
		COTTRELLVILLE	3N 16E	6, 7, 8 (ALSO SEE GAS FIELDS)
		IRA	3N 15E	SE¼ 1, NE¼ 12
CRANBERRY LAKE	CLARE	WINTERFIELD	20N 6W	1, 2, 11, 12
CRANBERRY LAKE, EAST	CLARE	SUMMERFIELD	20N 5W	7, 8, 17
CRYSTAL	MONTCALM	CRYSTAL	10N 5W	1, 2, 3, 4, 10, 11, 12, 13
		FERRIS	11N 5W	26, 34, 35, 36
CRYSTAL VALLEY	OCEANA	CRYSTAL	16N 16W	9, 10, 11, 14, 15, 16
CURRIE	ISABELLA	VERNON	16N 4W	5, 8
DALTON	MUSKEGON	DALTON	11N 16W	10, 11, 15
DAY (TRAVERSE)	MONTCALM	DAY	11N 6W	36

TABLE 5.–LOCATION OF MICHIGAN OIL FIELDS Continued (Sheet 2 of 4)

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
DEEP RIVER (DUNDEE)	ARENAC	DEEP RIVER	19N 4E	6, 7, 8, 9, 14, 15, 16, 23, 24
DEERFIELD	MONROE	DUNDEE	6S 6E	19, 29, 30
		SUMMERFIELD	6S 6E	31
DENNISON	OTTAWA	POLKTON	8N 14W	21, 27, 28
DIAMOND SPRINGS	ALLEGAN	OVERISEL	4N 14W	36
		SALEM	4N 13W	31
		HEATH	3N 14W	1
		MONTEREY	3N 13W	6
DORR	ALLEGAN	DORR	4N 12W	19, 29, 30, 31, 32, 33
		SALEM	4N 13W	25
DOUGLASS	MONTCALM	DOUGLASS	11N 7W	1
DUNNINGVILLE	ALLEGAN	HEATH	3N 14W	22, 27, 33
DWIGHT	HURON	DWIGHT	18N 13E	21
EAST NORWICH	MISSAUKEE	NORWICH	24N 5W	1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22
	ROSCOMMON	LYON	24N 4W	6, 7, 18
EDEN	MASON	EDEN	17N 16W	25, 26, 35, 36
EDENVILLE	MIDLAND	EDENVILLE	16N 1W	5,.26, 27
EDMORE	MONTCALM	HOME	12N 6W	2, 3, 9, 10, 11
ELBRIDGE	OCEANA	ELBRIDGE	15N 16W	22, 26, 27, 28
ELMWOOD	TUSCOLA	ELMWOOD	14N 10W	17, 20, 21
ENTERPRISE	MISSAUKEE	ENTERPRISE	23N 5W	10, 11, 12, 13, 14
	ROSCOMMON	LAKE	23N 4W	18
ESSEXVILLE	BAY	HAMPTON	14N 6E	7, 8, 9, 15, 16, 17, 18
		HAMPTON	14N 5E	12
EVART	OSCEOLA	OSCEOLA	18N 8W	21, 22, 23, 25, 26, 27, 28
EXCELSIOR	KALKASKA	EXCELSIOR	27N 6W	11
FERRY	OCEANA	FERRY	14N 16W	16, 20, 21
FILLMORE	ALLEGAN	FILLMORE	4N 15W	2, 3, 11, 12
FOREST RIVER	OCEANA	COLFAX	16W 15W	12
FORK	MECOSTA	FORK	16N 7W	4, 5, 6, 7, 8, 16, 18
		CHIPPEWA	16N 8W	1, 12
FORK, NORTH	OSCEOLA	ORIENT	17N 7W	28, 33
FREEMAN-REDDING	CLARE	REDDING	19N 6W	27, 28, 29, 32, 33, 34
		FREEMAN	18N 6W	3, 4
GENEVA	VAN BUREN	GENEVA	1S 16W	20, 21, 22, 27, 28, 29, 32, 33
GIBSON, SEC. 20	BAY	GIBSON	18N 3E	20, 29
GILBERT LAKE	OCEANA	COLFAX	16N 15W	34
GILMORE	ISABELLA	GILMORE	16N 5W	30, 31, 32
		NOTTAWA	15N 5W	5
GOODWELL	NEWAYGO	GOODWELL	14N 11W	5, 6, 7, 8, 9, 16, 17
GRANT, SEC. 29	HURON	GRANT	15N 11E	29
GROUT	GLADWIN	GROUT	18N 2W	10, 11, 14, 15

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
HAMILTON	CLARE	HAMILTON	19N 3W	5, 6, 7, 8, 15
		HAYES	19N 4W	1, 2
		FROST	20N 4W	35, 36
HANOVER	JACKSON	HANOVER	4S 2W	8, 9
HARRISON	CLARE	HATTON	18N 4W	7
HEADQUARTERS	ROSCOMMON	ROSCOMMON	21N 3W	19, 20, 28, 29, 30, 32, 33, ¾
	CLARE	FRANKLIN	20N 3W	3, 4, 10, 15
HEATH	ALLEGAN	HEATH	3N 14W	11, 12, 13, 14
HESSEN	ST. CLAIR	CASCO	4N 15E	2, 3 (ALSO SEE GAS FIELDS)
		COLUMBUS	5N 15E	34, 35
HILLIARDS (SALINA)	ALLEGAN	HOPKINS	3N 12W	3, 4, 10 (ALSO SEE GAS FIELDS)
HOME, SEC. 26	MONTCALM	HOME	12N 6W	26
HOPE	BARRY	HOPE	2N 9W	26, 27, 28, 33, 34, 35
		BARRY	1N 9W	1, 2, 3, 12
HOPKINS, SOUTH	ALLEGAN	HOPKINS	3N 12W	19, 30, 31, 32
HOPKINS, WEST	ALLEGAN	HOPKINS	3N 12W	7, 18
HUBER	NEWAYGO	DENVER	14N 14W	4, 5, 8
ISABELLA	ISABELLA	ISABELLA	15N 4W	7, 18
		NOTTAWA	15N 5W	12, 13
JEFFERSON	CASS	JEFFERSON	7S 15W	22, 23, 26, 27, 35
JEROME	MIDLAND	JEROME	15N 1W	6, 7, 8
JOHNSTOWN	BARRY	JOHNSTOWN	1N 8W	7, 8, 17
KAWKAWLIN	BAY	KAWKAWLIN	15N 4E	26, 27, 28, 29, 33, 34, 35, 36
		MONITOR	14N 4E	1, 2, 3, 11, 12
		BANGOR	14N 5E	4, 5, 6, 7, 8, 9
		BANGOR	15N 5E	31
KIMBALL LAKE	NEWAYGO	GARFIELD	12N 13W	2, 10, 11, 12, 13, 14, 15, 24
LAKEFIELD	SAGINAW	LAKEFIELD	11N 1E	1
LAKETON	MUSKEGON	LAKETON	10N 17W	15
LAKEVIEW	MONTCALM	CATO	12N 8W	22
LAKE GEORGE	CLARE	LINCOLN	18N 5W	6
LAWTON	VAN BUREN	PORTER	4S 13W	5, 8, 17, 18, 19 , 20
		DECATUR	4S 14W	24
LEATON	ISABELLA	DENVER	15N 3W	19, 30, 31
		ISABELLA	15N 4W	24, 25
LENOX	MACOMB	LENOX	4N 14E	32 (DEVELOPED GAS STORAGE RESERVOIR)
		CHESTERFIELD	3N 14E	5
LEROY	OSCEOLA	LEROY	19N 10W	27
LIME LAKE	HILLSDALE	WRIGHT	8S 1W	11
LINCOLN, SEC. 18	ARENAC	LINCOLN	18N 4E	18
LINCOLN, SEC. 31	ARENAC	LINCOLN	18N 4E	31
LUCHT	BAY	PINCONNING	17N 4E	29
LUTHER	LAKE	NEWKIRK	19N 12W	14
MCBAIN	MISSAUKEE	RIVERSIDE	21N 7W	19, 20, 30

TABLE 5. — LOCATION OF MICHIGAN OIL FIELDS Continued (Sheet 3 of 4)

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
MCBAIN	MISSAUKEE	RICHLAND	21N 8W	24
MACON CREEK	LENAWEE	MACON	5S 5E	23
MARATHON	LAPEER	MARATHON	9N 9E	16
MARINE CITY	ST. CLAIR	COTTRELLVILLE	3N 16E	2, 3, 10, 11, 15 (ALSO SEE GAS FIELDS)
MARINE CITY, SOUTH	ST. CLAIR	COTTRELLVILLE	3N 16E	23, 26
MEDINA	LENAWEE	MEDINA	8S 1E	3
MILLS, SEC. 1	MIDLAND	MILLS	16N 2E	1
MINERAL SPRINGS	OSCEOLA	SHERMAN	20N 9W	16, 20, 21
MIO	OSCODA	MENTOR	25N 3E	30, 32
	OGEMAW	ROSE	24N 3E	3, 4
MOFFATT, SEC. 34	ARENAC	MOFFATT	20N 3E	34
MONTEREY	ALLEGAN	MONTEREY	3N 13W	2, 4, 8, 9, 10; 11, 14, 15, 16, 17, 18, 20, 21,
				22, 23, 24, 27, 32, 36
MT. CLEMENS	MACOMB	MACOMB	3N 13E	34
MT. FOREST	BAY	PINCONNING	17N 4E	18, 19
		MT. FOREST	17N 3E	13, 24
MT. PLEASANT	MIDLAND	GREENDALE	14N 2W	6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
		LEE	14N 1W	7, 8, 18
	ISABELLA	CHIPPEWA	14N 3W	1, 2, 3, 4, 11, 12, 13
		DENVER	15N 3W	28, 33, 34
MUSKEGON	MUSKEGON	MUSKEGON	10N 16W	3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 21, 22
		LAKETON	10N 17W	1, 11, 12, 13, 14
NELLSVILLE	ROSCOMMON	ROSCOMMON	22N 4W	8, 17
NEW RICHMOND	ALLEGAN*	MANLIUS	3N 15W	16
NORTHVILLE	WASHTENAW	SALEM	1S 7E	1, 2, 12
	OAKLAND	LYON	1N 7E	34, 36
	WAYNE	NORTHVILLE	1S 8E	16, 17
		PLYMOUTH	1S 8E	21, 22, 23, 25, 26
OTISVILLE	GENESEE	FOREST	9N 8E	5, 6, 12
	TUSCOLA	MILLINGTON	10N 8E	31, 32
OTTO, SEC. 32	OCEANA	OTTO	13N 16W	32
OVERISEL	ALLEGAN	OVERISEL	4N 14W	5, 8, 9, 15, 16, 21, 22, 27, 28, 34
		HEATH	3N 14W	3, 4, 9, 10
OXBOW	MASON	RIVERTON	17N 17W	26, 27
PARIS	MECOSTA	GREEN	16N 10W	16, 21, 22, 27, 28
PAW PAW	VAN BUREN	PAW PAW	3S 14W	2, 10, 11, 15
PAW PAW, SEC. 33	VAN BUREN	PAW PAW	3S 14W	33
PENTWATER	OCEANA	WEARE	16N 17W	4, 5, 6, 7, 8
		PENTWATER	16N 18W	1, 2, 12
	MASON	SUMMIT	17N 17W	31
		SUMMIT	17N 18W	26, 35, 36
PETERS	ST. CLAIR	CASCO	4N 15E	S½ 15, SE¼ 16, 22, 23, 26, 27, E½ 28, NW¼ 33,
				N½ 34.
PETERS, EAST	ST. CLAIR	CASCO	4N 15E	24, 25
PETERS, EAST	ST. CLAIR	CHINA	4N 16E	19
PINCONNING	BAY	PINCONNING	17N 4E	25, 35, 36
		FRASER	16N 4E	2
PIPESTONE	BERRIEN	PIPESTONE	5S 17W	24
POLKTON	OTTAWA	POLKTON	8N 14W	8, 9, 10, 11, 14, 15, 16
PORTER	MIDLAND	PORTER	13N 1W	7, 8, 9, 10, 14, 15, 16, 17, 18, 19, 20, 21, 22,
				23, 26, 27, 28
		JASPER	13N 2W	1, 2, 3, 11, 12
		GREENDALE	14N 2W	34, 35
PROSPER	MISSAUKEE	AETNA	22N 6W	26, 35
PULLMAN, EAST	ALLEGAN	LEE	1N 15W	5, 6, 7, 8
PUTTYGUT	ST. CLAIR	CASCO	4N 15E	11, 14 PRODUCTION COMBINED WITH ADAIR FIELD
RAVENNA	MUSKEGON	RAVENNA	9N 14W	21, 27, 28, 29, 30, 31
		SULLIVAN	9N 15W	25, 36
RAY	MACOMB	RAY	4N 13E	GAS RESERVOIR PRODUCING SMALL QUANTITIES OF OIL
REED CITY	OSCEOLA	LINCOLN	18N 10W	17, 18, 19, 20, 29, 30, 31, 32
		RICHMOND	17N 10W	4, 5, 6, 7, 8, 9
	LAKE	PINORA	18N 11W	24, 25, 36
REED CITY, EAST	OSCEOLA	LINCOLN	18N 10W	26
REEMAN	NEWAYGO	SHERIDAN	12N 14W	8
REYNOLDS	MONTCALM	REYNOLDS	12N 10W	1, 2, 12, 13
		WINFIELD	12N 9W	6, 7, 8, 17, 18
	MECOSTA	AETNA	13N 10W	36
RICH	LAPEER	RICH	10N 10E	27, 28
RIVERSIDE	MISSAUKEE	RIVERSIDE	21N 7W	14, 23, 24
RIVERTON	MASON	RIVERTON	17N 17W	10, 11, 15
RIVERTON, SEC. 21	MASON	RIVERTON	17N 17W	21
ROBINSON, SEC. 3	OTTAWA	ROBINSON	7N 15W	3
ROCKFORD	KENT	ALGOMA	9N 11W	25, 35, 36
		COURTLAND	9N 10W	19
ROSEBUSH	ISABELLA	ISABELLA	15N 4W	1, 2, 11, 12, 13
		DENVER	15N 3W	7, 18
ROSE CITY	OGEMAW	FOSTER	24N 1E	14, 20, 21, 23, 24, 25
		FOSTER	24N 2E	19, 20, 21, 28, 29, 30, 31, 32, 33
		ROSE	24N 2E	27, 34, 35
		KLACKING	23N 2E	2, 3, 11
ROSE LAKE	OSCEOLA	ROSE LAKE	19N 9W	31
		LEROY	19N 10W	36
		CEDAR	18N 9W	6
		LINCOLN	18N 10W	1
SAGINAW	SAGINAW	SAGINAW	12N 4E	10, 11, 12, 13, 14, 15, 24
SALEM	ALLEGAN	SALEM	4N 13W	1, 2, 3, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21,
				22, 23, 24, 34
	OTTAWA	JAMESTOWN	5N 13W	35, 36

TABLE 5. — LOCATION OF MICHIGAN OIL FIELDS, Continued (Sheet 4 of 4)

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
SANFORD	MIDLAND	JEROME	15N 1W	12, 13
SAUBLE	LAKE	SAUBLE	19N 14W	16
SCOTTVILLE	MASON	AMBLER	18N 17W	13, 14
SHELBY	OCEANA	BENONA	14N 18W	18
		BENONA	14N 19W	13
SHERMAN	ISABELLA	SHERMAN	15N 6W	29, 32, 33, 34
		BROOMFIELD	14N 6W	3, 4, 5
SKEELS	GLADWIN	SHERMAN	20N 2W	30, 31
	CLARE	FRANKLIN	20N 3W	25, 36
SPRINGPORT	JACKSON	SPRINGPORT	1S 3W	11
ST. CHARLES	SAGINAW	ST. CHARLES	10N 3E	26
ST. HELEN	ROSCOMMON	AU SABLE	24N 1W	10, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25,
				26, 27, 28, 29, 30, 32
STANDISH	ARENAC	LINCOLN	18N 4E	10, 11, 15
STANTON	MONTCALM	DOUGLAS	11N 7W	26, 27, 34, 35
STERLING	ARENAC	DEEP RIVER	19N 4E	9, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23
STONY LAKE	OCEANA	CLAYBANKS	13N 18W	9, 10, 11, 14, 15, 16
SUMNER	GRATIOT	SUMNER	11N 4W	11, 12
SYLVAN	OSCEOLA	SYLVAN	18N 7W	8, 9, 16
TRENT	MUSKEGON	CASNOVIA	10N 13W	19
TROWBRIDGE	ALLEGAN	TROWBRIDGE	1N 13W	1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17,
				18, 19, 20, 21, 22, 23, 27, 28, 29, 30, 31, 32
		OTSEGO	1N 12W	7, 18
VERNON	ISABELLA	VERNON	16N 4W	15, 16, 21, 22, 23, 26, 27
WALKER	KENT	WALKER	7N 12W	19, 20, 27, 28, 29, 30, 31, 32, 33, 34
		WALKER	6N 12W	3, 4, 5, 6,
		WYOMING	6N 12W	2, 3, 4, 7, 8
	OTTAWA	TALLMADGE	7N 13W	14, 15, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36
		TALLMADGE	6N 13W	1, 12
		GEORGETOWN	6N 13W	1, 2
		GEORGETOWN	7N 13W	35
WAYLAND	ALLEGAN	WAYLAND	3N 11W	E½ 8, 9, 16, 17, 18, 20
WAYLAND, NORTH	ALLEGAN	WAYLAND	3N 11W	6, 7, NW of 8
WEST BRANCH	OGEMAW	WEST BRANCH	22N 2E	18, 19, 20, 21, 26, 27, 28, 29, 34, 35, 36
		OGEMAW	22N 1E	10, 13, 14, 23, 24
		CHURCHILL	22N 3E	31
		HORTON	21N 2E	1, 2
		MILLS	21N 3E	5, 6
WILEY	MASON	EDEN	17N 16W	18
		RIVERTON	17N 17W	12, 13
WINFIELD	MONTCALM	WINFIELD	12N 9W	20, 28, 29
WINTERFIELD	CLARE	WINTERFIELD	20N 6W	28, 29, 30, 32, 35, 36
		REDDING	19N 6W	1, 5
		GREENWOOD	19N 5W	6
WISE	ISABELLA	WISE	16N 3W	8, 9, 16, 17, 20, 21, 28, 29, 32, 33
WOODVILLE	NEWAYGO	NORWICH	15N 11W	20, 28, 29
WRIGHT	OTTAWA	WRIGHT	8N 13W	28, 32, 33
		TALLMADGE	7N 13W	4
WYOMING PARK	KENT	WYOMING	6N 12W	13, 14, 23
ZEELAND	OTTAWA	ZEELAND	5N 14W	32

IN THE COLUMN TITLED PRODUCING SECTIONS, listing of a section or part of a section does not necessarily mean the entire section to be productive of oil or gas in any or all potentially productive formations. Only those sections or parts of sections, which have had at least one well completed as an oil or gas well are listed. These tables also include the few gas reservoirs which produce small quantities of oil.

TABLE 6.— ABANDONED OIL FIELDS (Sheet 1 of 3)

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE				DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF OIL WELLS					OIL PRODUCTION IN BARRELS		DRILLED ACRES	RECOVERY PER ACRE DRILLED (BBLS.)	BRINE PRODUCTION BBLS./DAY		
				DEPTH IN FEET	THICKNESS AND LITHOLOGY		OIL GRAVITY A.P.I.			TO END 1964	COMP. IN 1964	ABAND. IN 1964	PRODUCING AT END 1964	SHUT IN OR SHUT DOWN	YEAR OF ABANDONMENT	CUMULATIVE PRODUCTION			DISPOSAL SUBSURFACE	DISPOSAL SURFACE	TOTAL PRODUCTION
ALAMO	KALAMAZOO	1949	TRAVERSE	1310	2	L		TRAVERSE	1420	16					1962	27,545	160	172			
ALLEGAN	ALLEGAN	1937	TRAVERSE	1563	2	L	38.0	CINCINNATIAN	2987	18					1961	15,577	180	87			
ASHLAND, SEC. 8	NEWAYGO	1959	TRAVERSE	2238	1	L		TRAVERSE	2239	1					1962	267	10	27			
BANGOR	VAN BUREN	1939	TRAVERSE	1002	2	L	29.5	TRENTON	2552	65					1959	933,965	610	1,531			
BARTON	NEWAYGO	1947	TRAVERSE	3097	1	L	30.0	DETROIT RIVER	3745	3					1963	20,227	50	405			
BEAVER, SEC. 31	BAY	1954	BEREA	2413	16	SL		SYLVANIA	4754	1					1961	926	10	93			
BENONA, SEC. 13	OCEANA	1949	TRAVERSE	1640	3	L		DETROIT RIVER	2276	2					1956	4,951	20	248			
BIRCH RUN	SAGINAW	1934	BEREA	1530	5	S	43.3	DUNDEE	2646	26					1951	215,876	250	864			
BISHOP	NEWAYGO	1950	TRAVERSE	2226	3	L		TRAVERSE	2238	7					1952	33,327	110	303			
BLOOMER, SEC. 18	MONTCALM	1936	TRAVERSE	2717	6	L		DUNDEE	3138	1					1936	814	10	81			
BREEDSVILLE	VAN BUREN	1943	TRAVERSE	1061	2	L	33.0	DETROIT RIVER	1445	32					1961	285,584	300	952			
BUCKEYE, SOUTH	GLADWIN	1956	TRAVERSE	2891	3	D	42.0	DETROIT RIVER	4509	7						PRODUCTION COMBINED WITH BUCKEYE, SOUTH, DUNDEE					
BUSHNELL	MONTCALM	1935	DUNDEE	3105	2	L	33.9	DUNDEE	3125	1					1939	4,035	10	403			
BUTMAN	GLADWIN	1950	TRAVERSE	2789	2	L		SYLVANIA	5027	1					1953	PRODUCTION COMBINED WITH BUTMAN RICHFIELD					
		1949	DUNDEE	3596	6	L	41.4			1					1963	PRODUCTION COMBINED WITH BUTMAN RICHFIELD					
CASCO	ALLEGAN	1940	TRAVERSE	1095	1.5	L	38.6	TRAVERSE	1115	9					1959	17,382	50	348			
CEDAR CREEK, SEC. 23	MUSKEGON	1949	TRAVERSE	1951	2	L		DUNDEE	2453	1					1951	1,223	10	120			
CHERRY GROVE	WEXFORD	1952	TRAVERSE	3145	4	D		DUNDEE	3998	1					1953	4,814	10	481			
CHESHIRE	ALLEGAN	1947	TRAVERSE	1289	2	L	35	TRAVERSE	1348	3					1958	9,290	30	310			
CHESTER, SEC. 15	OTSEGO	1951	SALINA	6610	5	D	41.0	NIAGARAN	6870	1					1956	2,752	40	69			
CHIPPEWA, SEC. 10	ISABELLA	1961	TRAVERSE	3193	1	L		TRAVERSE	3220						1964	1,250	PRODUCTION CARRIED IN MT. PLEASANT FIELD TOTALS				
CLEAR LAKE	VAN BUREN	1950	TRAVERSE	1380	1	L		TRAVERSE	1399	14					1953	17,490	140	125			
CLINTON	WASHTENAW	1953	TRAVERSE	936	2	D		TRENTON	3606	2					1962	2,093	20	105			
COFFEE LAKE	VAN BUREN	1946	TRAVERSE	1128	1	L		TRAVERSE	1130	11					1954	34,649	110	315			
COLDWATER, SOUTH	ISABELLA	1951	DUNDEE	3739	4	D		DUNDEE	3743	1					1959	10,941	20	547			
COMSTOCK, SEC. 5	KALAMAZOO	1949	TRAVERSE	1430	3	L		TRAVERSE	1480	2					1952	974	20	49			
CONCORD	JACKSON	1953	TRAVERSE	1627	1	L		SALINA	2417	5					1958	6,437	50	129			
CRANBERRY LAKE	CLARE	1953	DETROIT RIVER	4801	16		48.8	RICHFIELD	5223						1962	PRODUCTION COMBINED WITH CRANBERRY LAKE DUNDEE, TRAVERSE, AND RICHFIELD					
CRANBERRY LAKE, EAST	CLARE	1963	TRAVERSE	3057	6		39.2								1965	588	MARGINAL PRODUCTION COMBINED WITH CRANBERRY EAST DUNDEE				
CROOKED LAKE	ALLEGAN	1949	TRAVERSE	1278	1	L		TRAVERSE	1312	2					1956	115,452	40	2,886			
CROTON	NEWAYGO	1951	TRAVERSE	2543	2	L		SALINA	3993	10					1958	91,678	200	458			
CRUMP	BAY	1950	DUNDEE	3294	7	L		DUNDEE	3354	1					1951	1,043	10	104			
DALLAS	CLINTON	1942	TRAVERSE	2482	2	L		DETROIT RIVER	2934	3					1948	3,085	40	770			
DAY	MONTCALM	1946	DUNDEE	3337	2	L		DUNDEE	3387	2					1954	16,239	20	812			
DOUGLASS, SEC. 3	MONTCALM	1954	TRAVERSE	3025	8	L		DUNDEE	3666	1					1956	3,155	20	158			
EAST NORWICH	MISSAUKEE	1942	DUNDEE	3082	4	L	44.2	SYLVANIA	4632	1					1947	PRODUCTION COMBINED WITH EAST NORWICH RICHFIELD					
		1944	TRAVERSE	2410	1	L									1944	PRODUCTION COMBINED WITH EAST NORWICH RICHFIELD					
EDWARDS	OGEMAW	1951	DUNDEE	3362	10	L		SYLVANIA-BOIS BLANC	5260	1					1954	4,941	10	494			
ELBA	GRATIOT	1927	TRAVERSE	2440	2	L	47.0	DUNDEE	3044	8					1962	42,925	90	477			
ELKLAND	TUSCOLA	1946	DUNDEE	2653	14	L		SYLVANIA	3735	2					1947	1,546	20	77			
ENSLEY	NEWAYGO	1954	TRAVERSE	2439	2	L		DETROIT RIVER	3018	6					1959	70,415	120	587			
FREEDOM	WASHTENAW	1954	TRENTON	3963	20	D	43.5	CAMBRO-ORDOVICIAN	4691	1					1956	7,217	40	180			

TABLE 6.— ABANDONED OIL FIELDS, Continued (Sheet 2 of 3)

FREMONT, SEC. 27	ISABELLA	1962	DUNDEE												1962 (?)	488					
FREMONT	ISABELLA	1938	DUNDEE	3696	4	D		DUNDEE	3700	2					1956	3,045	30	102			
FREMONT, SEC. 32	ISABELLA	1957	TRAVERSE	3058	2			DUNDEE	3619	1					1958	892	10	89			
FREMONT	SAGINAW	1946	DUNDEE	3125	1	L		DUNDEE	3150	2					1947	2,000	20	100			
FREEPORT	BARRY	1949	TRAVERSE	2031	3	L		DETROIT RIVER	2430	1					1951	19,229	10	1,923			
GARFIELD	CLARE	1946	DUNDEE	5013	10	S		SYLVANIA	5307	1					1948	13,769	40	344			
GENEVA	MIDLAND	1935	DUNDEE	3678	2	L	42.7	DUNDEE	3690	7					1960	62,684	70	895			
GIBSON	BAY	1950	DUNDEE	2942	4	L		DETROIT RIVER	4343	1					1952	PRODUCTION COMBINED WITH GIBSON TRAVERSE					
		1935	TRAVERSE	2036	4	L				12					1957	51,892	130	399			
GREENWOOD, SEC. 11	CLARE	1952	DUNDEE	4054	10	L		RICHFIELD	5432	1					1953	1,324	10	132			
GROUT	GLADWIN	1940	DUNDEE	3825	4	L		DETROIT RIVER	5228	5					1957	PRODUCTION COMBINED WITH GROUT RICHFIELD					
		1958	DETROIT RIVER SZ	4801	12	D									1963	PRODUCTION COMBINED WITH GROUT RICHFIELD					
HAMILTON	CLARE	1940	DUNDEE	4041	10	L	41.8	RICHFIELD	5395	3					1959	PRODUCTION COMBINED WITH HAMILTON RICHFIELD					
HAMLIN	MASON	1952	NIAGARAN	4224	20	D	46.2	CAMBRIAN	6622	1					1958	60,532	40	1,513			
HART	OCEANA	1933	TRAVERSE	1911	4	D	34.0	ST. PETER Ss.	5531	17					1936	116,275	150	775			
HATTON	CLARE	1941	DUNDEE	3945	2	L		DUNDEE	4000	4					1948	139,272	160	870			
HAWKHEAD	ALLEGAN	1946	TRAVERSE	1103	1	L	36.0	DETROIT RIVER	1385	16					1960	68,292	160	427			
HEATH, SEC. 35	ALLEGAN	1945	TRAVERSE	1468	2	L		TRAVERSE	1470	1					1946	559	10	56			
HILLIARDS	ALLEGAN	1944	TRAVERSE	1576	1.2	L		NIAGARAN	3157	17					1961	124,401	300	415			
HOLTON	MUSKEGON	1948	TRAVERSE	1993	1	L	37.3	DUNDEE	2554	3					1963	95,911	60	1,598			
HOPKINS	ALLEGAN	1939	TRAVERSE	1633	4	L	41.5	DETROIT RIVER	1965	10					1956	145,513	110	1,323			
HOPKINS, WEST	ALLEGAN	1941	TRAVERSE	1371	2	L	41.5	SALINA	3140	31					1951	388,777	370	1,051			
HUBBARDSTON	IONIA	1947	DUNDEE	3028	5	L		DUNDEE	3072	5					1959	48,479	50	970			
LACOTA	VAN BUREN	1946	TRAVERSE	1110	2	L		TRAVERSE	1208	11					1955	51,904	120	433			
LARKIN	MIDLAND	1935	BEREA	2473	4	S	39.0	DUNDEE	3829	2					1945	7,070	20	353			
LEBANON	CLINTON	1948	TRAVERSE	2548	1	L		TRAVERSE	2570	1					1950	1,036	10	104			
LEE	ALLEGAN	1941	TRAVERSE	1170	1	L		TRAVERSE	1207	6					1952	3,030	60	51			
LEE, SOUTH	ALLEGAN	1949	TRAVERSE	1171	1	L		TRENTON	2960	12					1953	91,117	120	759			
MARNE	OTTAWA	1940	"BEREA"	1170	3	L		TRAVERSE	1904	2					1946	6,253	20	313			
MARTIN	ALLEGAN	1948	TRAVERSE	1617	1	L	36.0	ST. PETER Ss.	4290	2					1960	2,188	20	109			
MEARS	OCEANA	1949	DUNDEE	2210	3	L	32.2	REED CITY	2347	3					1959						
		1951	TRAVERSE	1745	2.5	DL	36.1			11					1959	105,807	110	622			
MOFFATT, SEC. 34	ARENAC	1953	DUNDEE	2984	4	L		DUNDEE	3027	1					1956	8,392	10	839			
MT. HALEY	MIDLAND	1934	DUNDEE	3477	3	D	39.6	DUNDEE	3500	1					1947	36,069	10	3,607			
MT. FOREST, SEC. 1	BAY	1946	DUNDEE	2960	2	L		DUNDEE	3057	1					1946	1,906	10	191			
NEW BOSTON	WAYNE	1943	TRENTON	2635	4	L		TRENTON	2983	2					1949	2,349	10	117			
NILES	BERRIEN	1940	TRAVERSE	602	7	L	21.5	TRENTON	2089	7					1958	29,672	70	424			
NORTH PORTER	CASS	1930	TRAVERSE	660	2	L	37.0	TRENTON	2382	2					1953	1,424	20	71			
OTISVILLE	GENESEE	1941	TRAVERSE	1895	2	L		DUNDEE	2674	1					1946	PRODUCTION COMBINED WITH OTISVILLE DUNDEE AND BEREA					
OTSEGO	ALLEGAN	1938	TRAVERSE	1532	1	L		TRAVERSE	1600	6					1962	2,290	100	23			
OTSEGO, SEC. 9	ALLEGAN	1950	TRAVERSE	1456	1	L		TRAVERSE	1457	4					1958	681	40	17			
OTTO, SEC. 30	OCEANA	1955	TRAVERSE	REFER TO ACTIVE FIELDS												COMBINED WITH OTTO, SEC. 32					
		1958	"BEREA"	1428	9			TRAVERSE	1860	2					1960	COMBINED WITH SEC. 32					
OVERISEL, SEC. 11	ALLEGAN	1940	TRAVERSE	1553	4	L		TRAVERSE	1578	1					1944	6,370	10	637			

TABLE 6.—ABANDONED OIL FIELDS, Continued (Sheet 3 of 3)

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE			DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF OIL WELLS					OIL PRODUCTION IN BARRELS		DRILLED ACRES	RECOVERY PER ACRE DRILLED (BBLS.)	BRINE PRODUCTION BBLS./DAY		
				DEPTH IN FEET	THICKNESS AND LITHOLOGY	OIL GRAVITY A.P.I.			TO END	COMP. IN	ABAND. IN	PRODUCING AT END	SHUT IN OR SHUT DOWN	YEAR OF ABANDONMENT	CUMULATIVE THROUGH			DISPOSAL SUBSURFACE	DISPOSAL SURFACE	TOTAL PRODUCTION
PINCONNING	BAY	1958	TRAVERSE	2151	1 L		DETROIT RIVER	3790	1					1960	PRODUCTION COMBINED WITH PINCONNING DUNDEE					
PINE	MONTCALM	1938	TRAVERSE	2836	1 L	45.0	DUNDEE	3308	2					1963	105,506	20	5,275			
PINE RIVER	GRATIOT	1942	DUNDEE	3280	2 L		DUNDEE	3285	2					1956	13,285	90	148			
PINE RIVER	GRATIOT	1956	TRAVERSE	2890	5 L				1					1958	760	10	76			
PORT HURON	ST. CLAIR	1886	DUNDEE	575	20 L		CAMBRIAN	4948	21					NO RECORD						
PROSPER	MISSAUKEE	1954	RICHFIELD	5128	21 D			5254	1					1957	7,088	40	177			
PULLMAN	ALLEGAN	1949	TRAVERSE	1185	1 L		BASS ISLAND	1942	9					1951	26,840	90	298			
RABBIT RIVER	ALLEGAN	1950	TRAVERSE	1655	3 L		TRAVERSE	1678	8					1959	12,745	80	159			
RICHLAND	SAGINAW	1936	TRAVERSE	2739	10 L	46.0	DUNDEE	3264	1					1936	1,871	10	187			
RIDGEWAY, SEC. 1	LENAWEE	1954	TRENTON	2415	4 D		TRENTON	2491	1					1962	47	10	5			
SECORD	GLADWIN	1937	DUNDEE	3437	5 L	38.0	DUNDEE	3500	2					1941	12,024	20	601			
SHERIDAN, SEC. 25	NEWAYGO	1951	TRAVERSE	2204	1 L		TRAVERSE	2205	1					1955	628	10	63			
SHERMAN, SEC. 18	ISABELLA	1939	TRAVERSE	3217	4 L		DUNDEE	3835	3					1947	1,364	20	68			
SUMMERFIELD	MONROE	1958	TRENTON-BLACK RIVER	1940	10 DL		TRENTON-BLACK RIVER	2382	2					1964	2,142					
TEKONSHA	CALHOUN	1959	TRENTON	3553	7 DL		PRAIRIE DU CHIEN	4147	1					1963	2,698	10	269			
THORNAPPLE, SEC. 4	BARRY	1952	TRAVERSE	1951	2 L		TRAVERSE	1973	2					1961	2,716	20	136			
TYRONE	KENT	1952	TRAVERSE	2379	2 L		DETROIT RIVER	2900	7					1956	31,449	140	225			
UNION	ISABELLA	1950	TRAVERSE	3191	2 L		DETROIT RIVER	4096	1					1963	58,263	20	2,913			
VICTORY, SEC. 10	MASON	1957	TRAVERSE	1603	9 L	36.0	TRAVERSE	1616	1					1958	580	10	58			
WEARE	OCEANA	1961	TRAVERSE	1681	2 L		TRAVERSE	1737	3					1964	6,919					
WEARE, SEC. 14	OCEANA	1952	TRAVERSE	1674	1 L	41.4	DUNDEE	2217	1					1954	1,096	10	110			
WEST BRANCH	OGEMAW	1933	TRAVERSE	1796	2 L		CAMBRO-ORDOVICIAN	11,012	1					1956	PRODUCTION COMBINED WITH WEST BRANCH DUNDEE					
WHEATLAND	MECOSTA	1945	DUNDEE	3690	2 L	43.0	DETROIT RIVER	3849	6					1960	141,631	100	1,416			
WHITE CLOUD	NEWAYGO	1963	TRAVERSE	2537	1 L		TRAVERSE	2540	1					1964	1,295					
WHITE RIVER	MUSKEGON	1950	DUNDEE	2053	2 L	28.0	DUNDEE	2055	1					1951	7,061	20	353			
ZEELAND	OTTAWA	1958	SALINA	2792	5 D	20.5	NIAGARAN	3052	1					1962	1,606	10	161			
ZEELAND, SEC. 28	OTTAWA	1954	TRAVERSE	1491	1 L		DETROIT RIVER	2215	3					1956	4,437	30	148			

CUMULATIVE PRODUCTION FROM ABANDONED FIELDS	4,156,986
MISCELLANEOUS PRODUCTION FROM DRY HOLES AND ABANDONED POOLS WITH MINOR ACCUMULATIONS	8,616
TOTAL ACUMULATIVE FROM ABANDONED FIELDS AND POOLS	4,165,604

TABLE 7.—LOCATION OF ABANDONED OIL FIELDS (Sheet 1 of 2)

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS	YEAR OF DISCOVERY AND ABANDONMENT	
ALAMO	KALAMAZOO	ALAMO	1S 12W	19, 29, 30,	1949	1962
ALLEGAN	ALLEGAN	ALLEGAN	2N 13W	2, 5, 9, 10, 13, 22, 23, 26,		
				27, 34, 35, 36	1937	1961
ASHLAND, SEC. 8	NEWAYGO	ASHLAND	11N 13W	8	1959	1962
BANGOR	VAN BUREN	BANGOR	2S 16W	4,5,9,10,14,15,16,21,28,29	1939	1959
BARTON	NEWAYGO	BARTON	16N 11W	16	1947	1963
BEAVER, SEC. 31	BAY	BEAVER	15N 3E	31	1954	1961
BENONA, SEC. 13	OCEANA	BENONA	14N 18W	13	1952	1956
BIG PRAIRIE, SEC. 33	NEWAYGO	BIG PRAIRIE	13N 11W	33	1947	1949
BIRCH RUN (BEREA)	SAGINAW	BIRCH RUN	10N 6E	19, 20, 21	1934	1951
BISHOP	NEWAYGO	GARFIELD	12N 13W	19, 20, 30	1950	1952
BLOOMER, SEC. 18	MONTCALM	BLOOMER	9N 5W	18	1936	1936
BLOOMFIELD, SEC. 20	HURON	BLOOMFIELD	17N 14E	20	1940	1941
BLUE LAKE, SEC. 5	MUSKEGON	BLUE LAKE	12N 16W	5	1940	1941
BREEDSVILLE	VAN BUREN	GENEVA	1S 16W	23, 24, 25, 26	1943	1961
BUSHNELL	MONTCALM	BUSHNELL	9N 6W	1	1935	1939
BUTMAN (TRAVERSE)	GLADWIN	BUTMAN	20N 1W	1	1950	1953
CALVIN	CASS	CALVIN	7S 14W	1	1954	1955
CASCO	ALLEGAN	CASCO	1N 16W	34, 35	1940	1959
	VAN BUREN	GENEVA	1S 16W	4		
CEDAR CREEK, SEC. 23	MUSKEGON	CEDAR CREEK	11N 15W	23	1949	1951
CHERRY GROVE	WEXFORD	CHERRY GROVE	21N 10W	27	1952	1953
CHESHIRE	ALLEGAN	CHESHIRE	1N 14W	26, 27	1947	1958
CHESTER (NIAG)	OTSEGO	CHESTER	29N 2W	15	1951	1956
CHIPPEWA, SEC. 10	ISABELLA	CHIPPEWA	14N 3W	10	1961	1964
CLEAR LAKE	VAN BUREN	PINE GROVE	1S 13W	3, 4, 9, 10	1950	1953
CLINTON	WASHTENAW	BRIDGEWATER	4S 4E	28	1953	1962
COFFEE LAKE	VAN BUREN	COLUMBIA	1S 15W	17, 18	1946	1954
COLDWATER, SOUTH	ISABELLA	SHERMAN	15N 6W	8	1951	1959
COMSTOCK, SEC. 5	KALAMAZOO	COMSTOCK	2S 10W	5	1949	1952
CONCORD	JACKSON	CONCORD	3S 3W	35, 36	1953	1958
CROOKED LAKE	ALLEGAN	CLYDE	2N 15W	25	1949	1956
CROTON	NEWAYGO	CROTON	12N 11W	20, 29	1951	1958
CRUMP	BAY	GARFIELD	16N 3E	23	1950	1951
DALLAS	CLINTON	DALLAS	7N 4W	21	1942	1948
DAY (DUNDEE)	MONTCALM	DAY	11N 6W	36	1946	1954
DAYTON, SEC. 16	NEWAYGO	DAYTON	13N 14W	16	1957	1957
DECATUR, SEC. 4	VAN BUREN	DECATUR	4S 14W	4	1942	1942
DOUGLASS, SEC. 3	MONTCALM	DOUGLASS	11N 7W	3	1954	1956
EAST NORWICH (DUNDEE)	MISSAUKEE	NORWICH	24N 5W	14	1942	1947
EAST NORWICH (TRAVERSE)	MISSAUKEE	NORWICH	24N 5W	16	1944	1944
EDWARDS	OGEMAW	EDWARDS	21N 1E	15	1951	1954
EDWARDSBURG	CASS	ONTWA	8S 15W	22, 23	1940	1950
ELBA	GRATIOT	ELBA	9N 1W	14, 15, 22, 23	1927	1962

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS	YEAR OF DISCOVERY AND ABANDONMENT	
ELKLAND	TUSCOLA	ELKLAND	14N 11E	31	1946	1947
		NOVESTA	13N 11E	6	1946	1947
ENSLEY	NEWAYGO	ENSLEY	11N 11W	6, 7, 8	1954	1959
EVERGREEN, SEC. 22	MONTCALM	EVERGREEN	10N 6W	22	1953	1954
FORK, NORTH	OSCEOLA	ORIENT	17N 7W	33	1951	1956
FOREST, RIVER	OCEANA	COLFAX	16N 15W	12	1965	1965
FREEDOM	WASHTENAW	FREEDOM	3N 4W	8	1954	1956
FREEMAN, SEC.15	CLARE	FREEMAN	18N 6W	15	1964	1965
FREMONT	ISABELLA	FREMONT	13N 5W	5, 8	1938	1956
FREMONT	SAGINAW	FREMONT	11N 2E	3, 5	1937	1947
FREMONT, SEC. 32	ISABELLA	FREMONT	13N 5W	32	1957	1958
FREEPORT	BARRY	CARLTON	4N 8W	6	1949	1951
GAINES, SEC. 8	KENT	GAINES	5N 11W	8	1945	1945
GANGES, SEC. 4	ALLEGAN	GANGES	2N 16W	4	1954	1955
GARFIELD	CLARE	GARFIELD	17N 6W	18	1946	1948
GENEVA	MIDLAND	GENEVA	15N 2W	19, 20, 29	1935	1960
GIBSON (TRAVERSE)	BAY	GIBSON	18N 3W	1, 2, 11, 12	1935	1957
GIBSON (DUNDEE)	BAY	GIBSON	18N 3E	2	1950	1952
GREENWOOD, SEC. 11	CLARE	GREENWOOD	19N 5W	11	1952	1953
GROUT (DUNDEE)	GLADWIN	GROUT	18N 2W	10, 11, 15	1940	1957
HAMLIN	MASON	HAMLIN	19N 18W	27	1952	1962
HART	OCEANA	HART	15N 17W	36	1932	1936
		ELBRIDGE	15N 16W	31	1932	1936
HATTON	CLARE	HATTON	18N 4W	31	1941	1948
		LINCOLN	18N 5W	36	1941	1948
HAWKHEAD	ALLEGAN	CASCO	1N 16W	20, 29	1946	1960
HEATH, SEC. 35	ALLEGAN	HEATH	3N 14W	35	1945	1946
HILLIARDS (TRAVERSE)	ALLEGAN	HOPKINS	3N 12W	4, 5	1944	1961
HINTON, SEC. 21	MECOSTA	HINTON	13N 8W	21	1948	1948
HOLTON	MUSKEGON	HOLTON	12N 15W	4, 9	1948	1963
HOPKINS	ALLEGAN	HOPKINS	3N 12W	22, 23	1939	1956
HOPKINS, WEST	ALLEGAN	HOPKINS	3N 12W	7, 18	1941	1963
HUBBARDSTON	IONIA	NORTH PLAINS	8N 3W	4	1947	1959
HUME, SEC. 12	HURON	HUME	18N 12E	12	1953	1953
JAMESTOWN, SEC. 29	OTTAWA	JAMESTOWN	5N 13W	29	1942	1942
JONESFIELD, SEC. 9	SAGINAW	JONESFIELD	12N 1E	9	1949	1949
JONESFIELD, SEC. 24	SAGINAW	JONESFIELD	12N 1E	24	1942	1943
LACOTA	VAN BUREN	GENEVA	1S 16W	9, 10	1946	1955
LARKIN	MIDLAND	LARKIN	15N 2E	21, 32	1935	1945
LEBANON	CLINTON	LEBANON	8N 4W	34	1948	1950
LEE	ALLEGAN	LEE	1N 15W	18, 19	1941	1952
	ALLEGAN	CASCO	1N 16W	13	1941	1952
LEE, SOUTH	ALLEGAN	LEE	1N 15W	31	1949	1953
		CASCO	1N 16W	36	1949	1953

TABLE 7.—LOCATION OF ABANDONED OIL FIELDS Continued (Sheet 2 of 2)

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS	YEAR OF DISCOVERY AND ABANDONMENT	
LINCOLN, SEC. 9	MIDLAND	LINCOLN	15N 1E	9	1939	1949
MARNE	OTTAWA	TALLMADGE	7N 13W	5	1940	1946
		WRIGHT	8N 13W	32	1940	1946
MARTIN	ALLEGAN	MARTIN	2N 11W	18	1948	1960
MEARS	OCEANA	GOLDEN	15N 18W	34, 35	1949	1959
MOUNT HALEY	MIDLAND	MOUNT HALEY	13N 1E	28	1934	1947
MOUNT FOREST, SEC. 1	BAY	MOUNT FOREST	17N 3E	1	1946	1946
NEW BOSTON	WAYNE	HURON	4S 9E	18	1943	1949
NILES	BERRIEN	NILES	7S 17W	1, 2, 3	1940	1958
NORTH PLAINS, SEC. 18	IONIA	NORTH PLAINS	8N 5W	18	1950	1951
NORTH PORTER	CASS	PORTER	7S 13W	32	1930	1955
OSHTEMO, SEC. 5	KALAMAZOO	OSHTEMO	2S 12W	5	1944	1944
OTISVILLE (TRAVERSE)	GENESEE	FOREST	9N 8E	5	1941	1946
OTSEGO	ALLEGAN	OTSEGO	1N 12W	30	1939	1962
		TROWBRIDGE	1N 13W	36	1939	1962
OTSEGO, SEC. 9	ALLEGAN	OTSEGO	1N 12W	9	1950	1951
OTTO	OCEANA	OTTO	13N 16W	19, 30	1955	1956
OVERISEL, SEC. 11	ALLEGAN	OVERISEL	4N 14W	11	1940	1944
PINE	MONTCALM	PINE	11N 8W	29	1938	1963
PINE RIVER	GRATIOT	PINE RIVER	12N 3W	31	1942	1958
		SEVILLE	12N 4W	36	1942	1958
PORT HURON	ST. CLAIR	PORT GRATIOT	7N 17E	32	1886	1921
PROSPER (RICHFIELD)	MISSAUKEE	AETNA	22N 6W	35	1954	1957
PULLMAN	ALLEGAN	CASCO	1N 16W	11, 12	1949	1951
RABBIT RIVER	ALLEGAN	SALEM	4N 13W	28, 29, 32, 33	1950	1959
RICHLAND	SAGINAW	RICHLAND	12N 2E	31	1936	1936
RIDGEWAY, SEC. 1	LENAWEE	RIDGEWAY	6S 5E	1	1954	1962
SECORD	GLADWIN	SECORD	19N 1E	11, 12	1937	1941
SHERIDAN, SEC. 25	NEWAYGO	SHERIDAN	12N 14W	25	1951	1955
SHERIDAN, SEC. 29	NEWAYGO	SHERIDAN	12N 14W	29	1958	1958
SHERIDAN, SEC. 26	MECOSTA	SHERIDAN	15N 7W	26	1952	1953
SHERMAN, SEC. 18	ISABELLA	SHERMAN	15N 6W	18	1939	1947
SHIAWASSEE, SEC. 11	SHIAWASSEE	SHIAWASSEE	6N 3E	11	1930	1931
SILVER CREEK	CASS	SILVER CREEK	5S 16W	22, 23	1939	1964
SPRINGFIELD, SEC. 22	OAKLAND	SPRINGFIELD	4N 8E	22	1955	1955
SUMMERFIELD	MONROE	SUMMERFIELD	7S 6E	30	1958	1964
	LENAWEE	DEERFIELD	7S 5E	24	1958	1964
SUMPTER, SEC. 22	WAYNE	SUMPTER	4S 8E	22	1941	1942
TEKONSHA	CALHOUN	TEKONSHA	4S 6W	17	1959	1964
THORNAPPLE, SEC. 4	BARRY	THORNAPPLE	4N 10W	3, 4	1952	1961
TYRONE	KENT	TYRONE	10N 12W	10, 11, 14, 15	1952	1958
UNION	ISABELLA	UNION	14N 4W	20	1950	1963
WATSON, SEC. 8	ALLEGAN	WATSON	2N 12W	8	1949	1950
WEARE	OCEANA	WEARE	16N 17W	12, 13	1961	1964
WEARE, SEC. 14	OCEANA	WEARE	16N 17W	14	1952	1954
WEST BRANCH (TRAVERSE)	OGEMAW	HORTON	21N 2E	1	1933	1956
WHEATLAND	MECOSTA	WHEATLAND	14N 7W	7, 8	1945	1960
WHITE CLOUD	NEWAYGO	WILCOX	14N 12W	19	1963	1964
WHITE RIVER	MUSKEGON	WHITE RIVER	12N 18W	15	1950	1951
ZEELAND	OTTAWA	ZEELAND	5N 14W	25, 30, 31, 36	1942	1962
		HOLLAND	5N 15W	E½ 35, 36	1942	1962
ZEELAND, SEC. 4	OTTAWA	ZEELAND	5N 14W	4	1956	1957
ZEELAND, SEC. 28	OTTAWA	ZEELAND	5N 14W	21, 28	1954	1956

IN THE COLUMN TITLED PRODUCING SECTIONS, listing of a section or part of a section does not necessarily mean the entire section to be productive of oil or gas in any or all potentially productive formations. Only those sections, or parts of sections, which have had at least one well completed as an oil or gas well are listed. These tables also include miscellaneous, single wells which reported small amounts of oil production. Production from these wells is accounted for in the cumulative oil tables.

TABLE 8.—FLUID INJECTION INTO PRODUCING FORMATIONS IN OIL FIELDS IN 1965 (Sheet 1 of 2)

FIELD AND COUNTY		OPERATOR OR COMPANY	TYPE OF PROJECT	YEAR PROJECT STARTED	PAY ZONE			DRILLED ACRES	INJECTION FLUIDS	SOURCE OF INJECTION FLUID	VOLUME OF INJECTED FLUID - 1965			CUMULATIVE VOLUME OF INJECTED FLUID		PRODUCTION - 1965				CUMULATIVE PRODUCTION	
					FORM.	THICK.	DEPTH				MCF GAS	BARRELS WATER	INJ. WELLS	MCF GAS	BARRELS WATER	BARRELS OIL	SALES MCF GAS	WATER PRODUCED	NO. WELLS	BARRELS OIL	SALES MCF GAS
ADAMS	ARENAC		B.D. & P.M.		DD.	15	2,958	310	BRINE.	PROD. BRINES		4,380	1			12,126		8,030	17	830,416	
ADAMS, NORTH	ARENAC		B.D. & P.M.		DD.		2,905	470	BRINE	PROD. BRINES		146,000	1			27,349		1,190,360	19	9,092,975	
BARD	GLADWIN		B.D. & P.M.		DD.	6	3,933	170	BRINE	PROD. BRINES		34,675				6,655		74,825	7	558,161	
BEAVER CREEK	CRAWFORD-KALKASKA	PURE OIL CO.	UNIT WTR.FLOOD		RICH.	20	4,160	3,960	FRESH WTR.	GLACIAL DRIFT		2,555,778	39		4,497,032	79,211	344,517	59,130	59	6,084,813	15,089,983
BEAVERTON, SOUTH	GLADWIN	SUN OIL CO.	UNIT.PILOT WTR.	1959	DD.	12	3,845	700	FRESH WTR.	GLACIAL DRIFT		193,468	4		1,038,646	29,726		81,760	19	1,528,378	
BELLY ACHERS	MONTCALM	W.D. SUTHERLAND	B.D. & P.M.		DD.	2	3,470	220	BRINE	PROD. BRINES		58,750	1			1,306		58,750	3	333,150	
BENTLEY	GLADWIN	FARMERS PET. COOP.	COOP. P.M. & B.D.	1964	DD.	13	3,510	1,920	BRINE & FRESH WTR.	SAGINAW & PROD. BRINES		87,961	2		87,961	41,718		42,340	48	2,643,061	
BEVENS LAKE	MECOSTA	BIG RAPIDS ROYALTY CO.	B.D. & P.M.		TRAV.		2,297	30	BRINE	PROD. BRINES		14,600	1			1,430		14,600	1	85,589	
BLOOMINGDALE	VAN BUREN		B.D. & P.M.		TRAV.	4	1,244	4,020	BRINE	PROD. BRINES		204,400	4			9,845		435,080	25	9,948,118	
BUCKEYE, NORTH	GLADWIN	SUN OIL CO.	COOP. WRT. FLOOD	1948	DD.	14	3,615	3,020	FRESH WTR. & BRINE	GLACIAL DRIFT PROD. BRINES		151,260	3		1,912,592	126,270		761,390	55	18,587,631	9,834
BURDELL	OSCEOLA		B.D. & P.M.		DD.-RC		3,678	120	BRINE	PROD. BRINES		98,185	1		331,450	6,734		98,185	3	132,846	
CATO	MONTCALM		B.D. & P.M.		DD.-RC		3,542	590	BRINE	PROD. BRINES		406,975	1			22,366		625,975	7	881,874	
CLAYTON	AREMAC		B.D. & P.M.		DD.	12	2,465	1,290	BRINE	PROD. BRINES		708,465	5			47,783		757,010	45	5,974,739	
COLDWATER	ISABELLA	SOHIO PETR. CO.	B.D. & P.M.		DD.	25	3,692	3,200	BRINE	PROD. BRINES		10,568,210	6			169,376		10,721,510	37	21,226,685	6,311,307
CRYSTAL	MONTCALM		B.D. & P.M.		DD.	4	3,187	2,000	BRINE	PROD. BRINES		574,875	2			8,376			8	7,684,154	
DEEP RIVER	ARENAC		B.D. & P.M.		DD.	145	2,795	1,060	BRINE	PROD. BRINES		2,863,425	11			113,957		2,872,550	31	25,979,237	
DENNISON	OTTAWA		B.D. & P.M.		TRAV.	4	1,874	280	BRINE	PROD. BRINES		113,150	3			65,119		113,150	12	252,295	
DIAMOND SPRINGS	ALLEGAN		B.D. & P.M.		TRAV.	3	1,461	420	BRINE	PROD. BRINES		62,780	2			3,802		63,145	8	990,609	
EAST NORWICH	MISSAUKEE	SUN OIL CO.	P.M.,GAS & WTR. UNIT	1947	RICH.	13	4,390	4,360	GAS & FRESH WTR.	PROD. GAS GLACIAL DRIFT	Discontinued	995,258	30	11,699,478	4,052,433	160,734	457,682	28,835	74	7,194,277	4,137,997
EDMORE	MONTCALM	FARMERS COOP.	COOP., P.M. & B.D.	1960	TRAV.	4	3,102	500	BRINE & FRESH WTR.	PROD. BRINES GLACIAL DRIFT		424,820	2		1,689,970	27,370	37,313	438,730	27	1,284,116	1,094,548
ELBRIDGE	OCEANA		B.D. & P.M.		TRAV.	2	2,160	360	BRINE	PROD. BRINES		318,310	4		1,625,683	19,748		318,310	8	390,032	
ENTERPRISE	MISSAUKEE	SUN OIL CO.	P.M.,GAS & WTR. UNIT	1953	RICH.	15	4,405	1,280	GAS & FRESH WTR.	PROD. GAS GLACIAL DRIFT	Discontinued	278,780	5	1,419,641	1,274,852	60,505	86,445	20,440	22	1,951,345	500,174
EVART	OSCEOLA		B.D. & P.M.		DD.	6	3,755	1,100	BRINE	PROD. BRINES		825,630	3			10,847		825,630	7	3,787,447	
FERRY	OCEANA		B.D. & P.M.		TRAV.	2	1,949	280	BRINE	PROD. BRINES		159,850	3		1,474,861	173		159,850	4	163,226	To be abandoned
FILLMORE	ALLEGAN		B.D. & P.M.		TRAV.	3	1,516	770	BRINE	PROD. BRINES		27,010	2			4,821		28,470	11	949,597	
FORK	MECOSTA		B.D. & P.M.		DD.	8	3,845	2,700	BRINE	PROD. BRINES		935,495	1			4,000		935,495	4	7,767,337	
FREEMAN-BEDDING	CLARE		B.D. & P.M.		DD.	19	3,885	2,800	BRINE	PROD. BRINES		1,873,180	9			35,710		2,235	20	16,432,241	1,956,056
GENEVA	VAN BUREN		B.D. & P.M.		TRAV.	2	1,042	750	BRINE	PROD. BRINES		109,500	1			1,534		109,500	1	494,370	
GILMORE	ISABELLA		B.D. & P.M.		DD.	3	3,803	120	BRINE	PROD. BRINES		702,625	2			12,452		702,625	8	346,932	
GROUT	GLADWIN	SUN OIL CO.	UNIT.WTR.FLOOD	1960	RICH.	10	5,039	680	FRESH WTR.	GLACIAL DRIFT		206,448	3		1,124,820	137,680		14,965	12	1,034,979	
HAMILTON	CLARE	SUN OIL CO.	UNIT.WTR.FLOOD	1958	RICH.	12	5,145	1,800	FRESH WTR.	GLACIAL DRIFT		993,406			4,831,805	358,506	187,067	137,970	28	3,429,027	2,645,929
HEADQUARTERS	CLARE-ROSCOMMON		B.D. & P.M.		TRAV.	5	3,356	1,400	BRINE	PROD. BRINES		182,500	3			3,960		183,230	3	7,416,596	
HUBER	NEWAYGO	(REACTIVATED)	B.D. & P.M.		TRAV.	2	2,109	260	BRINE	PROD. BRINES		193,450	1			4,943		193,450	6	538,672	
JEFFERSON	CASS		B.D. & P.M.		TRAV.	3	710	280	BRINE	PROD. BRINES		167,900	3		580,350	5,230		167,900	7	91,371	
JEROME	MIDLAND	TRIDENT OIL CO.	COOP., PILOT WTR. FLOOD	1957	DD.	10	3,743	260	FRESH WTR. & BRINE	GLACIAL DRIFT		7,300	1		80,814	3,156		1,095	3	220,885	
KAWKAWLIN	BAY	GULF OIL	UNIT.WTR.FLOOD	1953	DD.	45	2,830	6,400	FRESH WTR. & BRINE	GLACIAL DRIFT PROD. BRINES		806,592	20		3,253,635	233,675		589,475	294	12,545,970	
LAKE GEORGE	CLARE		B.D. & P.M.		DD.		3,968	100	BRINE	PROD. BRINES		187,975	2			7,641		187,975	5	329,973	
MCBAIN	MISSAUKEE		B.D. & P.M.		DD.	15	3,969	920	BRINE	PROD. BRINES		2,188,175			6,755,050	204,277		2,188,175	23	2,137,882	
MT. PLEASANT	ISABELLA		B.D. & P.M., FRESH WTR.PILOT		DD.	15	3,545	5,710	BRINE-FRESH WTR.	PROD. BRINES GLACIAL DRIFT		14,965 290,233	1		407,706	101,491 (Pilot fresh wtr. flood abandoned 11-3-65)		298,205	133	26,864,859	7,808,389
OVERISEL	ALLEGAN		B.D. & P.M.		TRAV.	3	1,478	1 770	BRINE	PROD. BRINES		18,250	1			10,966		24,455	27	2,878,955	

TABLE 8. — FLUID INJECTION INTO PRODUCING FORMATIONS IN OIL FIELDS IN 1965 (Sheet 2 of 2)

FIELD AND COUNTY		OPERATOR OR COMPANY	TYPE OF PROJECT	YEAR PROJECT STARTED	PAY ZONE			DRILLED ACRES	INJECTION FLUIDS	SOURCE OF INJECTION FLUID	VOLUME OF INJECTED FLUID - 1965			CUMULATIVE VOLUME OF INJECTED FLUID		PRODUCTION - 1965				CUMULATIVE PRODUCTION	
					FORM.	THICK.	DEPTH				MCF GAS	BARRELS WATER	INJ. WELLS	MCF GAS	BARRELS WATER	BARRELS OIL	SALES MCF GAS	WATER PRODUCED	NO. WELLS	BARRELS OIL	SALES MCF GAS
OXBOW	MASON		B.D. & P.M.		TRAV.		1,652	30	BRINE	PROD. BRINES		18,980	1					18,980	3	76,040	
PENTWATER	MASON-OCEANA	HUMBLE OIL	UNIT,WTR.FLOOD	1960	U.TRAV.	8	1,585	1,400	BRINE	PROD. BRINES		239.415	5								
PENTWATER	MASON-OCEANA	HUMBLE OIL	UNIT,WTR.FLOOD	1960	DD.	10	2,088	2,000	BRINE	PROD. BRINES		0	0		2,808,162	34,194	(Unit prod. only)	567.210	22	4,859.147	1,010,763
PINCONNING	BAY		B.D. & P.M.		DD.		2,898	100	BRINE	PROD. BRINES		73,000	1			5,423		73.365	2	840,816	
PORTER	MIDLAND		B.D. & P.M., FRESH WTR.PILOT		DD.	12	3,415	6,650	BRINE & FRESH WTR.	PROD. BRINES GLACIAL DRIFT		2,216,645 418,321	17		724,759	155,357 (Pilot fresh water flood abandoned 2-9-66)		3,141,190	138	48,043,114	4,992,995
PROSPER	MISSAUKEE		B.D. & P.M.		DD.		3,837	520	BRINE	PROD. BRINES		1,035,870	2			13,956		1,035,870	6	1,662,852	
PULLMAN, EAST	ALLEGAN		B.D. & P.M.		TRAV.	2	1,131	250	BRINE	PROD. BRINES		60,955	4			5,080		64,970	13	358,813	
REED CITY	OSCEOLA	MICH. CONS.	UNIT,GAS INJ.IN OIL RESERVOIR	1963	DD.-RC	10	3,585	5,320	BRINE GAS	M. C. SYSTEM PROD. BRINES	6,715,230	1,526,430	8 wtr. 6 gas	11,924,000		203,649	-(1)	1,526,430	35	38,768,988	16,257,876
REYNOLDS	MONTCALM		B.D. & P.M. COOP.	1956	DD.-RC		3,343	7,100	BRINE	PROD. BRINES		1,215,085	8			111,605		1,334,440	33	3,769,123	408,555
RICHMOND	OSCEOLA		UNIT	1965	D.R.(SZ)		4,184	1,132	FRESH WTR.	GLACIAL DRIFT		79,650	4		79,650	20,077	(2)148,380	1,460	18	960,665	(2)3,015,253
RIVERSIDE	MISSAUKEE		B.D. & P.M.		DD.		3,950	60	BRINE	PROD. BRINES		58,400	1		167,900	5,092		58,400	3	102,220	
RIVERTON	MASON		B.D. & P.M.		TRAV.	6	1,650	190	BRINE	PROD. BRINES		50,370	1			3,026		50,370	3	234,755	
ROCKFORD	KENT		B.D. & P.M.		TRAV.	3	2,204	210	BRINE	PROD. BRINES		25,550	1			9,400		211.700	5	505,015	
ROSE CITY	OGEMAW	MUSKEGON DEV. CO.	UNIT,WTR.FLOOD	1955	RICH.	9	4,125	4,520	FRESH WTR.	GLACIAL DRIFT		929,090	38		1,302,850	83,217		10.585	58	4,872,529	5,619,076
ROSE LAKE	OSCEOLA		B.D. & P.M.		TRAV.	5	3,140	720	BRINE	PROD. BRINES		186,150	2			28,224		198,195	6	28,224	1,665,333
SALEM	ALLEGAN		B.D. & P.M.		TRAV.	8	1,583	3,390	BRINE	PROD. BRINES		52,560	8			46,879		104,755	97	8,856,343	
SCOTTVILLE	MASON		B.D. & P.M.		TRAV.	3	1,650	320	BRINE	PROD. BRINES		982,215	2		2,321,400	49,754		982,215	14	346,129	
SHERMAN	ISABELLA	PURE OIL CO.	B.D. & P.M.		DD.		3,650	1,020	BRINE	PROD. BRINES		116,070	2			5,625		127,750	4	4,694,655	641,217
SKEELS	CLARE-GLADWIN		B.D. & P.M.		DD.		3,840	50	BRINE	PROD. BRINES		43,800	1			9,328		43,800	3	928,502	
ST. HELEN	ROSCOMMON	SUN OIL CO.	UNIT,WTR.FLOOD	1958	RICH.	11	4,180	3,960	FRESH WTR.	GLACIAL DRIFT	Discontinued	497,982	25	3,151,610	2,585,014	92,295		10.585	63	3,666,446	7,381,176
STONY LAKE	OCEANA	HUMBLE OIL	B.D. & P.M.		TRAV.	19	1.630	1,540	BRINE	PROD. BRINES		1,962,970	2			25,618		1,962,496	17	7,450,478	
SUMNER	GRATIOT		B.D. & P.M.		TRAV.	1	3,366	350	BRINE	PROD. BRINES		105,850	1		299,300	45,626		382,885	24	972,470	
SYLVAN	OSCEOLA	GULF OIL	B.D. & P.M.		DD.	14	3,925	440	BRINE	PROD. BRINES		277,400	1			3,379		277,400	1	1,174,943	
VERNON	ISABELLA		B.D. & P.M.		DD.		3,755	890	BRINE	PROD. BRINES		1,293,925	2			8,453		1,293,925	5	5,009,934	
WILEY	MASON		B.D. & P.M.		TRAV.	5	1,660	300	BRINE	PROD. BRINES		153.665	3			71,859		153,665	12	300,408	
WINTERFIELD	CLARE		B.D. & P.M.		DD.	3	3.794	740	BRINE	PROD. BRINES		379,235	2			17,022		574,875	5	4,652,757	
WISE	ISABELLA		B.D. & P.M.	1960	DD.	11	3,700	1.640	*FRESH WTR. & BRINE	PROD. BRINES		601,165	9		3,955,185	31,256		719,050	23	3,771,804	

*Extraneous Wtr. Injection Discontinued

341 INJECTION WELLS

(1) Estimate based on percentage breakdown of daily multiple zone production.

(2) Gas figures include runs from 8 D.R. wells outside the 18 well Richmond Unit.

SOURCE OF INJECTION FLUID

B.D. & P.M.	BRINE DISPOSAL AND PRESSURE MAINTENANCE
COOP.	COOPERATIVE OPERATION OR ORGANIZATION
UNIT.	UNITIZED OPERATION OR ORGANIZATION
PILOT	PILOT PROJECT
WTR.	WATER
WTR. FLOOD	WATER FLOOD

TYPE OF PROJECT

M.C. SYSTEM	MICHIGAN CONSOLIDATED GAS CO.
PROD. BRINES	PRODUCED BRINES
PROD. GAS	PRODUCED GAS

TABLE 9. — MICHIGAN GAS FIELDS, 1965 (Sheet 1 of 3)

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE			DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF GAS WELLS				GAS PRODUCTION IN M.C.F		DRILLED ACRES	REMARKS
				DEPTH IN FEET	THICKNESS AND LITHOLOGY				TO END 1965	COMP. IN 1965	ABAND. IN 1965	PROD. AT END 1965	PRODUCED IN 1965	CUMULATIVE THROUGH 1965		
ADAMS, SEC. 8	HILLSDALE	1962	TRAVERSE	1420	4	L	PRAIRIE DU CHIEN	4169	1	0	1	0	ABANDONED 1965	18,919	20	
ALPINE	ST. CLAIR	1963	NIAGARAN	3151	25	D	CLINTON	3470	1	0	0	1	-	0	80	SHUT IN
ASHTON	OSCEOLA	1946	MICHIGAN STRAY	1215	2	S	REED CITY	3779	3	0	0	1	-	205,680	400	SHUT IN
ASHTON, EAST	OSCEOLA	1962	MICHIGAN STRAY	1297	5	S	REED CITY	3750	1	0	0	1	-	0	160	SHUT IN
BELLE RIVER MILLS	ST. CLAIR	1961	SALINA-NIAGARAN	2215	305	D	CLINTON	2694	27	1	0	27	6,856,379	21,395,142	840	CONVERTED TO GAS STORAGE RESERVOIR JULY 7, 1965 REFER TO GAS STORAGE FIELDS
BEVENS LAKE	MECOSTA	1951	DUNDEE	3536	11	L	REED CITY	3771	2	0	0	1	15,135	671,404	320	
		1952	MICHIGAN STRAY	1244	6	S			3	0	0	1	5,131	496,162		
BIG RAPDS	MECOSTA	1943	MICHIGAN STRAY	1145	7	S	REED CITY	3595	9	0	0	1	7,443	2,373,260	1440	
		1965	DUNDEE	3420	6	L	REED CITY	3595	1	1RW	0	1	0	0	160	SHUT IN
BLISSFIELD	LENAWEE	1963	TRENTON-BLACK RIVER	2686	9	D	GLENWOOD	3251	1	0	0	1	0	0	40	SHUT IN
BOYD	ST. CLAIR	1952	SALINA-NIAGARAN										-	-		COMBINED WITH OIL FIELD DATA - REFER TO OIL WELL GAS PRODUCTION
CAL-LEE	CALHOUN	1962	NIAGARAN	3036	8	D	PRAIRIE DU CHIEN	4912	4	0	0	4	0	0	280	SHUT IN FOR MARKET
CAPAC	ST. CLAIR	1961	NIAGARAN	4505	6	D	MT. SIMON Ss.	6337	38	8+1RW	0	37	443,768	1,175,208	6240	34 WELLS SHUT IN FOR MARKET
CEDAR	OSCEOLA	1945	MICHIGAN STRAY	1490	7	S	SYLVANIA	5160	5	0	0	4	11,588	1,393,303	800	1 WELL DOMESTIC USE
CHERRY GROVE, SEC. 13	WEXFORD	1957	MICHIGAN STRAY	1326	35	S	DUNDEE	4080	5	0	0	5	61,937	61,937	640	
CHESTER, SEC. 15	OTSEGO	1965	ANTRIM	1360	?	SH.	NIAGARAN	6870	2	2	0	2	0	0	80	SHUT IN
CHESTERFIELD	MACOMB	1959	NIAGARAN	2504	14	D	CLINTON	2707					-	-		COMBINED WITH OIL FIELD DATA - REFER TO OIL WELL GAS PRODUCTION
CHINA BELLE	ST. CLAIR	1963	NIAGARAN	2365	15	D	NIAGARAN	2451	3	0	0	3	0	0	120	SHUT IN FOR MARKET
CHINA, SOUTH	ST. CLAIR	1961	SALINA-NIAGARAN	2324	14	D	CLINTON	2743	11	0	1	7	155,842	467,600	440	4 WELLS SHUT IN
CLARE CITY	CLARE-ISABELLA	1937	MICHIGAN STRAY	1290	5	S	DUNDEE	3865	8	0	0	1	-	2,294,990	720	DOMESTIC USE
CLAYTON	ARENAC	1936	BEREA	1180	10	S	SYLVANIA	4163	31	0	0	17	-	5,111,048	1560	DOMESTIC USE
COLFAX	MECOSTA	1945	MICHIGAN STRAY	1240	8	S	DETROIT RIVER	4043	4	0	0	1	-	485,844	640	DOMESTIC USE
		1957	DUNDEE-REED CITY	3474	9	D			1	0	0	1	-	5,121	160	DOMESTIC USE
COLUMBUS	ST. CLAIR	1964	SALINA-NIAGARAN	2738	190	D	CLINTON	3232	8	2	0	8	-	-	240	SHUT IN FOR MARKET
COLUMBUS, SEC. 23	ST. CLAIR	1965	NIAGARAN	2900	46+	D	CLINTON	3122	1	1	0	1	-	-	40	SHUT IN
COON CREEK	MACOMB	1963	NIAGARAN	3034	20	D	NIAGARAN	3093	2	0	0	2	20,525	79,942	80	1 WELL SHUT IN
COTTRELLVILLE	ST. CLAIR	1959	SALINA-NIAGARAN	2293	37	D	CLINTON	2511	2	0	0	2	-	-		REFER TO OIL WELL GAS PRODUCTION
CRYSTAL VALLEY	OCEANA	1946	DUNDEE	2400	7	L	TRENTON-BLACK RIVER	5985	4	0	0	1	-	-	160	SHUT IN
		1961	SALINA	4102	10	D			1	0	0	1	-	162,079	40	SHUT IN
DEEP RIVER	ARENAC	1936	BEREA	1490	10	S	SYLVANIA	4311	12	0	0	3	-	1,609,812	1520	DOMESTIC USE
DORR	ALLEGAN	1957	DETROIT RIVER	1918	1	D	NIAGARAN	3319	1	0	0	1	-	4,710	160	SHUT IN
DORR, SEC. 17	ALLEGAN	1951	"BEREA"	953	8	D	TRAVERSE	1642	1	0	0	1	-	0	40	DOMESTIC USE
DORR, SEC. 21	ALLEGAN	1940	"BEREA"	957	1	D	TRAVERSE	1687	1	0	0	1	-	0	40	DOMESTIC USE
EDEN	MASON	1958	TRAVERSE	1960	7	L	CAMBRIAN	7249	1	0	0	1	-	0	160	SHUT IN
EDENVILLE, SEC. 5	MIDLAND	1957	SAGINAW FM.	382	12	S	DUNDEE	4028	3	0	0	2	-	0	160	SHUT IN FOR MARKET
EGELSTON	MUSKEGON	1951	"BEREA"	1120	5	D	DUNDEE	2282	7	0	0	1	6,228	291,097	1120	
ENSLEY	NEWAYGO	1958	MARSHALL	826	5	S	DETROIT RIVER	3018	8	0	0	8	963	906,626	1280	SHUT IN DUE TO WATER
ENTERPRISE, SEC. 32	MISSAUKEE	1953	MICHIGAN STRAY	1986	5	S	DETROIT RIVER	4200	2	0	0	2	-	0	320	DOMESTIC USE
FALMOUTH	MISSAUKEE	1962	MICHIGAN STRAY	1279	3	S	REED CITY	4035	8	0	0	8	165,828	502,814	1280	4 WELLS SHUT IN
FERRY, SEC. 25	OCEANA	1961	"BEREA"	1310	5	D	REED CITY	2650	1	0	0	1	-	0	40	DOMESTIC USE
FILLMORE	ALLEGAN-OTTAWA	1959	SALINA A-2 CARB.	2632	16	D	NIAGARAN	3045							1500	
		1959	SALINA A-1 CARB.	2792	16	D			11	0	0	11	314,323	855,520	1600	PRODUCTION COMINGLED
FORK, NORTH	OSCEOLA	1956	MICHIGAN STRAY	1433	19	S	REED CITY	3823	1	0	0	1	-	60,178	160	DOMESTIC USE
FORK, WEST	MECOSTA	1943	MICHIGAN STRAY	1490	5	S	SYLVANIA	5198	17	0	0	2	4,941	2,391,011	2880	DOMESTIC USE & LEASE FUEL

TABLE 9. — MICHIGAN GAS FIELDS, 1965 Continued (Sheet 2 of 3)

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE DEPTH IN FEET	PAY ZONE THICKNESS AND LITHOLOGY		DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF GAS WELLS TO END 1965	COMP. IN 1965	ABAND. IN 1965	PROD. AT END 1965	GAS PRODUCTION IN M.C.F. PRODUCED IN 1965	CUMULATIVE THROUGH 1965	DRILLED ACRES	REMARKS
FORWARD	MISSAUKEE	1961	MICHIGAN STRAY	1393	7	S	DETROIT RIVER	5225	6	0	0	6	100,748	269,097	960	1 WELL SHUT IN
FOWLERVILLE	LIVINGSTON	1961	SALINA-NIAGARAN	3880	45	D	PRAIRIE DU CHIEN	5685	2	0	0	2	-	0	320	SHUT IN
FREMONT, SEC. 32	ISABELLA	1958	MICHIGAN STRAY	1264	6	S	DUNDEE	3619	1	0	0	1	1,495	17,027	160	SHUT IN
HEADQUARTERS	ROSCOMMON	1945	MICHIGAN STRAY	1340	6	S	SYLVANIA	5929	12	0	0	2	0	1,725,892	1760	1 WELL SHUT IN
HEATH, SEC. 21	ALLEGAN	1960	SALINA	2492	19	D	SALINA	2789	1	0	1	0	ABANDONED 1965	63,430	160	
HILLIARDS	ALLEGAN	1958	SALINA A-1 CARB.	2938	30	D	NIAGARAN	3157	6	0	0	6	76,961	1,807,728	960	3 WELLS SHUT IN
ITHACA	GRATIOT	1943	MICHIGAN STRAY	900	16	S	DUNDEE	3419	5	0	1	0	ABANDONED 1965	1,520,995	800	
LENOX	MACOMB	1960	SALINA-NIAGARAN	2734	46	D	CLINTON	3018					51,735	2,152,679	300	CONVERTED TO STORAGE 2-1-65.
LEONARD	OAKLAND	1963	NIAGARAN	4245	21	D	CLINTON	4450	1	0	0	1	-	0	40	SHUT IN
LOGAN	MASON	1941	RICHFIELD	3260	5	S	RICHFIELD	3330	2	0	0	2	0	13,289	80	SHUT IN
LOGAN	OGEMAW	1944	BEREA	1420	6	S	RICHFIELD	4537	15	0	0	13	108,698	108,698	2080	4 WELLS SHUT IN
			WEIR Ss.	1230	11	S							-	-		
LYNDON	WASHTENAW	1958	TRAVERSE	1311	6	D	TRENTON	4702	6	0	0	6			960	
		1959	DETROIT RIVER	1733	11	D							67,662	131,905		5 TRAVERSE WELLS - 1 TRAVERSE/DETROIT RIVER WELL
MAPLE VALLEY, SEC. 16	MONTCALM	1958	MICHIGAN STRAY	1120	5	S	REED CITY	3365	1	0	0	1	-	0	160	DOMESTIC USE
McKAY	CLARE	1929	MICHIGAN STRAY	1400	3	S	DETROIT RIVER	4055	9	0	0	2	-	712,626	360	DOMESTIC USE
MARINE CITY, SOUTH	ST. CLAIR	1962	SALINA A-1 CARB.	2100	4	O	NIAGARAN	2251					-	-		COMBINED WITH OIL FIELD DATA - REFER TO OIL WELL GAS PRODUCTION
MARSAC CREEK	ST. CLAIR	1965	SALINA-NIAGARAN	?	?	?	?	?	4	4	0	4	0	0	40	SHUT IN
MARTINY	MECOSTA	1934	MICHIGAN STRAY	1370	2	S	DETROIT RIVER	3807	5	0	0	4	22,920	1,074,808	680	
MIDDLE BRANCH	OSCEOLA	1963	MICHIGAN STRAY	1630	10	S	DETROIT RIVER	4283	4	0	0	4	-	0	640	SHUT IN FOR MARKET IN 1965 (ACTIVE 1966)
MONTAGUE	MUSKEGON	1953	SALINA-NIAGARAN	37347	80	D	TRENTON	4517	3	0	0	2	-	41,482	480	DOMESTIC USE
MORTON	MECOSTA	1946	MICHIGAN STRAY	1279	2	S	DUNDEE	3691	2	0	0	1	-	118,377	320	DOMESTIC USE
MUSKEGON	MUSKEGON	1927	TRAVERSE-DUNDEE-DETROIT RIVER	1640 2025	6	L	ST. PETER	4754	?	0	0	2	-	7,237,438	1520	DOMESTIC USE & LEASE FUEL
NEWARK	GRATIOT	1948	MICHIGAN STRAY	979	5	S	DUNDEE	3255	6	0	0	4	0	441,757	960	SHUT IN
NORTH MORENCI	LENAWEE	1962	TRAVERSE	638	2	D	PRAIRIE DU CHIEN	3284	51	2	0	51	0	0	2080	SHUT IN FOR MARKET
NORTH STAR	GRATIOT	1940	MICHIGAN STRAY	870	7	S	DUNDEE	3100	1	0	0	1	5,549	547,725	40	
NORTHVILLE	WAYNE-WASHTENAW	1937	SALINA-NIAGARAN	2905	2	D	CAMBRO-ORDOVICIAN	5850	8	0	2	6	158,761	3,566,483	1200	SHUT IN
		1954	TRENTON	4395	70	D			29	4	0	29	682,442	12,608,347	2320	22 WELLS SHUT IN - PREPARING TO CONVERT TO STORAGE
OTSEGO	OTSEGO	1940	ANTRIM	1385	4	SH	DUNDEE	3944	7	0	0	4	15,889	329,351	680	SHUT IN
PARADISE	GRAND TRAVERSE	1965	TRAVERSE	1869	8	L	DUNDEE	1897	1	1	0	1	0	0	280	SHUT IN
PARIS	MECOSTA	1949	DUNDEE										-	-		REFER TO ABANDONED FIELDS
		1951	MICHIGAN STRAY	1217	5	S	REED CITY	3545	2	0	0	1	1,538	347,701	160	
PARTELLO	CALHOUN	1959	SALINA A-1 CARB.	3192	30	D	TRENTON-BLACK RIVER	4905	3	1	0	3	111,055	111,055	160	
PETERS	ST. CLAIR	1955	SALINA-NIAGARAN	2386	47	D	CLINTON	2842					-	-		COMBINED WITH OIL FIELD DATA - REFER TO OIL WELL GAS PRODUCTION
PINE, SECS. 9 & 17	MONTCALM	1951	MICHIGAN STRAY	1251	1	S	DUNDEE	3469	2	0	0	2	-	37,272	80	DOMESTIC USE
PIONEER	MISSAUKEE	1931	TRAVERSE	3025	5	L	DUNDEE	3583	1	0	0	1	-	0	40	SHUT IN
PROSPER	MISSAUKEE	1948	MICHIGAN STRAY	1269	6	S	RICHFIELD	5254	3	0	0	2	-	152,882	480	USED FOR LEASE FUEL
PULLMAN, EAST	ALLEGAN	1961	SALINA A-2 CARB.	1645	7	D	TRENTON	3020	3	0	0	3	26,101	26,101	480	
PUTTYGUT	ST. CLAIR	1960	SALINA-NIAGARAN	2423	60	D	NIAGARAN	2774	14	3	0	14	988,888	7,981,550	440	2 WELLS SHUT IN
RAVENNA	MUSKEGON	1936	"BEREA"	1205	10	D	DUNDEE	2306	30	0	0	4	-	1,432,593	4480	DOMESTIC USE
RAVENNA, SEC. 27	MUSKEGON	1953	"BEREA"	1182	6	D	DUNDEE	2500	3	0	0	2	-	32,243	480	DOMESTIC USE
RAY	MACOMB	1961	SALINA-NIAGARAN	2945	101	D	NIAGARAN	3273	22	2	0	22	7,780,454	13,546,605	660	2 WELLS SHUT IN
REDDING	CLARE	1940	MICHIGAN STRAY	1475	3	S	SYLVANIA	5462	?	0	0	5	-	32,692	160	USED FOR LEASE FUEL
REEDER	MISSAUKEE	1964	MICHIGAN STRAY	1385	4	S	DUNDEE	4002	4	1	0	4	-	0	320	SHUT IN

TABLE 9. — MICHIGAN GAS FIELDS, 1965 Continued (Sheet 3 of 3)

ROMEO	MACOMB	1965	NIAGARAN	?	?	?		3565	1	1	0	1	0	0	40	SHUT IN FOR MARKET
ROMULUS	WAYNE	1955	SALINA A-1 CARB.	1980	20	D	NIAGARAN	2259	2	0	0	1	0	45,045	320	SHUT IN
SALEM	ALLEGAN	1937	SALINA A-2 CARB.	2725	2	D	TRENTON	4347								REFER TO DEVELOPED GAS STORAGE RESERVOIRS
		1958	DETROIT RIVER	1969	6	D			3	0	0	3	5,309	49,582	320	
SEARS	OSCEOLA	1964	MICHIGAN STRAY	1492	12	S	DUNDEE	3988	1	0	1	0	ABANDONED 1965	0	160	
SHERIDAN	MECOSTA	1935	MICHIGAN STRAY	1375	2	S	DUNDEE	3904	5	0	0	1	-	271,374	480	DOMESTIC USE
SURREY	CLARE	1945	MICHIGAN STRAY	1460	3	S	DUNDEE	4000	?	0	0	2	-	12,667	320	DOMESTIC USE
TAYMOUTH	SAGINAW	1957	TRAVERSE	2085	6	L	TRAVERSE	2135	1	0	0	1	0	0	160	DOMESTIC USE
TURK LAKE	MONTCALM	1947	MICHIGAN STRAY	1081	4	S	DETROIT RIVER	3413	4	0	0	2	-	217,584	640	DOMESTIC USE
UNION, SEC. 6	ISABELLA	1965	MICHIGAN STRAY	1382	3	S	DUNDEE	3777	1	0	0	1	0	0	240	SHUT IN FOR MARKER
WALKER	KENT-OTTAWA	1939	"BEREA"	1150	8	D	ST. PETER	5222							220	
		1940	DETROIT RIVER	2250	2	D									160	
		1958	TRAVERSE						14	0	1	8	18,709	1,196,092	40	7 WELLS DOMESTIC & COMMERCIAL USE & LEASE FUEL. 1 WELL SHUT IN
WHEATLAND	MECOSTA	1947	MICHIGAN STRAY	1399	3	S	DUNDEE	3740	4	0	0	3	6,073	500,465	160	
WISE	ISABELLA	1940	MICHIGAN STRAY	1250	5	S	SYLVANIA	5205	?	0	0	5	2,484	1,700,078	1280	4 WELLS DOMESTIC USE & LEASE FUEL, 1 WELL SHUT IN
YANKEE	ST. CLAIR	1963	NIAGARAN	2620	20	D	CLINTON	2829	2	0	0	2	-	0	80	SHUT IN FOR MARKET
ZEELAND	OTTAWA	1946	"BEREA"	945	9	D	NIAGARAN	3388	7	0	1	1	-	0	280	DOMESTIC USE

18,303,502 MCF GAS PRODUCTION 1965

105,202,122 MCF CUMULATIVE GAS PRODUCTION THROUGH 1965

INCOMPLETE

GAS PRODUCED IN 1965

ACTIVE GAS FIELDS	18,303,502
OIL WELL GAS	16,811,019
DEVELOPED GAS STORAGE RESERVOIRS	NONE
UNDEVELOPED GAS STORAGE RESERVOIRS	5,847
TOTAL GAS PRODUCTION IN 1965	35,120,368

CUMULATIVE GAS FROM ACTIVE FIELDS	105,202,122
CUMULATIVE GAS FROM ABANDONED FIELDS	7,342,965
CUMULATIVE OIL WELL GAS	159,346,381
CUMULATIVE GAS FROM DEVELOPED STORAGE RESERVOIRS	206,030,609
CUMULATIVE GAS FROM UNDEVELOPED STORAGE RESERVOIRS	34,248,498
UNASSIGNED GAS FROM EARLY RECORDS	3,050,143
CUMULATIVE TOTAL	515,220,718

TABLE 10.—LOCATION OF MICHIGAN GAS FIELDS (Sheet 1 of 2)

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
ALPINE	ST. CLAIR	WALES	6N 15E	32
ASHTON	OSCEOLA	LINCOLN	18N 10W	5, 6
ASHTON, EAST	OSCEOLA	LINCOLN	18N 10W	3
BEVENS LAKE	MECOSTA	GREEN	16N 10W	13
BIG RAPIDS	MECOSTA	BIG RAPIDS	15N 10W	3, 9, 10, 11, 13
BLISSFIELD	LENAWEE	BLISSFIELD	7S 5E	5
CAL-LEE	CALHOUN	LEE	1S 5W	16, 22
CAPAC	ST. CLAIR	MUSSEY	7N 13E	4, 5, 8, 9, 16, 17, 18, 20, 21, 28, 29, 32, 33
		LYNN	8N 13E	28, 29, 32, 33, 34
CEDAR	OSCEOLA	CEDAR	18N 9W	27, 28, 32, 33
CHERRY GROVE, SEC. 13	WEXFORD	CHERRY GROVE	21N 10W	13
		CLAM LAKE	21N 9W	7, 18
CHESTER	OTSEGO	CHESTER	29N 2W	10, 14
CHESTERFIELD	MACOMB	CHESTERFIELD	3N 14E	29
CHINA BELLE	ST. CLAIR	CHINA	4N 16E	34, 35
CHINA, SOUTH	ST. CLAIR	CHINA	4N 16E	28, 33, 34
		COTTRELLVILLE	3N 16E	3, 4
CLARE CITY	CLARE	GRANT	17N 4W	25, 26, 35, 36
		SHERIDAN	17N 3W	31
	ISABELLA	WISE	16N 3W	6
CLAYTON	ARENAC	CLAYTON	20N 4E	4, 5, 8, 9, 10, 11, 14, 15
COLFAX	MECOSTA	COLFAX	15N 9W	4, 5 (ALSO PRODUCES OIL)
COLUMBUS	ST. CLAIR	COLUMBUS	5N 15E	15, 16, 21, 22
COON CREEK	MACOMB	LENOX	4N 14E	18
COTTRELLVILLE	ST. CLAIR	COTTRELLVILLE	3N 16E	(SEE OIL FIELD LIST FOR SECTIONS)
CRYSTAL VALLEY	OCEANA	CRYSTAL	16N 16W	(SEE OIL FIELD LIST FOR SECTIONS)
DEEP RIVER	ARENAC	DEEP RIVER	19N 4E	7, 8, 16, 17, 18, 20
DORR (DETROIT RIVER)	ALLEGAN	DORR	4N 12W	33 (SEE HILLIARD GAS FIELD)
DORR (SEC. 17 & 21)	ALLEGAN	DORR	4N 12W	17, 21
EDEN	MASON	EDEN	17N 16W	26 (ALSO SEE OIL FIELDS)
EDENVILLE, SEC. 5	MIDLAND	EDENVILLE	16N 1W	5
EGELSTON	MUSKEGON	EGELSTON	10N 15W	3, 4, 9, 10, 15
ENSLEY	NEWAYGO	ENSLEY	11N 11W	6, 7, 8, 17, 18
ENTERPRISE, SEC. 32	MISSAUKEE	ENTERPRISE	23N 5W	32
		BUTTERFIELD	22N 5W	4
FALMOUTH	MISSAUKEE	AETNA	22N 6W	30, 31
		REEDER	22N 7W	25, 36
FERRY, SEC. 25	OCEANA	FERRY	14N 16W	25
FILLMORE	ALLEGAN	FILLMORE	4N 15W	2, 3
	OTTAWA	HOLLAND	5N 15W	34, 35
FORK, NORTH	OSCEOLA	ORIENT	17N 7W	33
FORK, WEST	MECOSTA	FORK	16N 7W	5, 6, 7, 8, 16
		CHIPPEWA	16N 8W	1, 2
	OSCEOLA	EVART	17N 8W	35, 36
FORWARD	MISSAUKEE	RIVERSIDE	21N 7W	25, 36
		CLAM UNION	21N 6W	31
FOWLERVILLE	LIVINGSTON	HANDY	3N 3E	1, 2
FREMONT, SEC. 32	ISABELLA	FREEMONT	13N 5W	32
HANOVER	JACKSON	HANOVER	4S 2W	(SEE OIL FIELD LIST FOR SECTIONS)
HEADQUARTERS	ROSCOMMON	ROSCOMMON	21N 3W	17, 19, 20, 21, 29, 30
	CLARE	FRANKLIN	20N 3W	11
HEATH, SEC. 21	ALLEGAN	HEATH	3N 14W	21
HESSEN	ST. CLAIR	CASCO	4N 15E	2, 3, (ALSO SEE OIL FIELDS)
		COLUMBUS	5N 15E	34, 35
HILLIARDS	ALLEGAN	DORR	4N 12W	33 (ALSO SEE OIL FIELDS)
		HOPKINS	3N 12W	3, 4, 10
ITHACA	GRATIOT	ARCADA	11N 3W	25, 35, 36
LEONARD	OAKLAND	ADDISON	5N 11E	15
LOGAN	MASON	LOGAN	17N 15W	9, 16
LOGAN	OGEMAW	LOGAN	22N 4E	16, 17, 18, 20, 23, 25
		CHURCHILL	22N 3E	1, 12
LYNDON	WASHTENAW	LYNDON	1S 3E	6, 7
	LIVINGSTON	UNADILLA	1N 3E	31
MCKAY	CLARE	GRANT	17N 4W	6
		SURREY	17N 5W	1
		HATTON	18N 4W	31
MAPLE VALLEY, SEC. 16	MONTCALM	MAPLE VALLEY	11N 9W	16
MARINE CITY	ST. CLAIR	COTTRELLVILLE	3N 16E	(ALSO SEE OIL FIELDS)
MARINE CITY, SOUTH	ST. CLAIR	COTTRELLVILLE	3N 16E	(ALSO SEE OIL FIELDS)
MARSAC CREEK	ST. CLAIR	CASCO	4N 15E	29, 30
MARTINY	MECOSTA	MARTINY	15N 8W	12, 22, 23
MIDDLE BRANCH	OSCEOLA	MIDDLE BRANCH	19N 7W	17, 18
MONTAGUE	MUSKEGON	MONTAGUE	12N 17W	7
		WHITE RIVER	12N 18N	12
MORTON	MECOSTA	MORTON	14N 8W	15, 22
MUSKEGON	MUSKEGON	MUSKEGON	10N 16W	4, 5, 6, 7, 8, 9, 15, 22
		LAKETON	10N 17W	12
NEWARK	GRATIOT	NEW HAVEN	10N 4W	23, 24, 25, 26
NORTH MORENCI	LENAWEE	SENECA	8S 2W	13,14,15,16,17,19,20,21,22,23,25,28,29,30
		MEDINA	8S 1E	24, 25, 35
NORTH STAR	GRATIOT	NORTH STAR	10N 2W	4
NORTHVILLE	OAKLAND	LYON	1N 7E	35, 36
	WASHTENAW	SALEM	1S 7E	1, 2, 12
	WAYNE	NORTHVILLE	1S 8E	7, 16, 17
		PLYMOUTH	1S 8E	21, 22, 23, 25, 26
OTSEGO	OTSEGO	BAGLEY	30N 3W	21, 22, 28, 34
PARADISE	GRAND TRAVERSE	PARADISE	25N 10W	16
PARIS	MECOSTA	GREEN	16N 10W	21, 27, 28

TABLE 10.—LOCATION OF MICHIGAN GAS FIELDS Continued (Sheet 2 of 2)

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
PARTELLO	CALHOUN	LEE	1S 5W	12, 13
PETERS	ST. CLAIR	CASCO	4N 15E	(ALSO SEE OIL FIELDS)
PINE, 9 & 17	MONTCALM	PINE	11N 8W	9, 17
PIONEER, 24	MISSAUKEE	PIONEER	24N 7W	24
PROSPER	MISSAUKEE	AETNA	22N 6W	34, 35
		CLAM UNION	21N 6W	2
PULLMAN, EAST	ALLEGAN	LEE	1N 15W	5, 6, 8
PUTTYGUT	ST. CLAIR	CASCO	4N 15W	11, 14, 15
RAVENNA	MUSKEGON	RAVENNA	9N 14W	4, 5, 6, 7, 8, 9, 17
		SULLIVAN	9N 15W	12
		MOORLAND	10N 14W	32, 33
RAVENNA, SEC. 27	MUSKEGON	RAVENNA	9N 14W	22, 27, 28
RAY	MACOMB	RAY	4N 13E	1, 2, 11
		ARMADA	5N 13E	36
REDDING	CLARE	REDDING	19N 6W	27, 32
		FREEMAN	18N 6W	2
REEDER	MISSAUKEE	REEDER	22N 7W	32
		RIVERSIDE	21N 7W	5
ROMEO	MACOMB	WASHINGTON	4N 12E	11
ROMULUS	WAYNE	ROMULUS	3S 9E	15, 16
SALEM (DETROIT RIVER)	ALLEGAN	SALEM	4N 13W	16, 21
SHERIDAN	MECOSTA	SHERIDAN	15N 7W	13, 14
SURREY	CLARE	SURREY	17N 5W	23, 24
TAYMOUTH	SAGINAW	TAYMOUTH	10N 5E	11
TURK LAKE	MONTCALM	MONTCALM	10N 8W	9, 10, 14, 15
UNION, SEC. 6	ISABELLA	UNION	14N 4W	6
VICTORY	MASON	VICTORY	19N 17W	10
WALKER	KENT	WALKER	7N 12W	30, 32, 33
		WALKER	6N 12W	5
		WYOMING	6N 12W	4
	OTTAWA	TALLMADGE	7N 13W	27
WHEATLAND	MECOSTA	WHEATLAND	14N 7W	7, 8, 9
WISE	ISABELLA	WISE	16N 3W	8, 17, 20, 21, 28, 29, 33
YANKEE	ST. CLAIR	ST. CLAIR	5N 16E	25
ZEELAND	OTTAWA	ZEELAND	5N 14W	2, 11, 12, 13, 14

IN THE COLUMN TITLED PRODUCING SECTIONS, listing of a section or part of a section does not necessarily mean the entire section to be productive of oil or gas in any or all potentially productive formations. Only those sections, or parts of sections, which have had at least one well completed as an oil or gas well are listed.

TABLE II.—ABANDONED GAS FIELDS, MISCELLANEOUS GAS WELLS

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE DEPTH IN FEET	PAY ZONE THICKNESS AND LITHOLOGY		DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF GAS WELLS TO END	COMP. IN	ABAND. IN	PROD. AT END	GAS PRODUCTION IN MCF YEAR OF ABANDONMENT	CUMULATIVE PRODUCTION	DRILLED ACRES	REMARKS
ADAMS, NORTH	ARENAC	1942	BEREA	1605	1	S	DUNDEE	3101	1				1948	1,280	40	
ALBION	CALHOUN	1941	TRAVERSE	1610	7	L	ST. PETER Ss.	4510	4				1948	6,114	120	
ALGONAC	ST. CLAIR	1947	ANTRIM	302	6	SH	CABOT HEAD	2504	2				1951	7,830	80	
BIG PRAIRIE	NEWAYGO	1944	MICHIGAN STRAY	1030	5	S	REED CITY	3322	1				1961	152,864	160	
BIG PRAIRIE, SEC. 33	NEWAYGO	1947	DUNDEE	2896	2	L	DUNDEE	2900	1				1952	62,324	40	
CANNON CREEK	MISSAUKEE-KALKASKA	1950	TRAVERSE	2695	11	L	RICHFIELD	4810	21				1956	851,369	3,360	
CEDAR CREEK	MUSKEGON	1940	"BEREA"	1125	7	D	DUNDEE	2252	7				1960	624,528	1,120	
COOPERSVILLE	OTTAWA	1939	"BEREA"	1240	5	D	TRAVERSE	1900	3				1959	108,839	240	
DAY	MONTCALM	1934	MICHIGAN STRAY	1352	4	S	MARSHALL	1395	2				1944	8,494	80	
DIAMOND CRYSTAL SALT	ST. CLAIR	1927	NIAGARAN	2483	17	D	NIAGARAN	2500	1				1931	136,445	40	
DOUGLASS	MONTCALM	1943	MICHIGAN STRAY	1190	5	S	DUNDEE	3423	4				1951	184,806	640	
ELBA	GRATIOT	1928	MICHIGAN STRAY	670	10	S	DUNDEE	3700	10				1957	246,058	520	
FORK, EAST	MECOSTA	1942	MICHIGAN STRAY	1480	5	S	DUNDEE	3865	4				1946	102,708	640	
FREMONT	ISABELLA	1941	MICHIGAN STRAY	1235	5	S	DUNDEE	3556	5				1956	381,330	800	
GARFIELD	CLARE	1946	DETROIT RIVER	5013	8	S	SYLVANIA	5307	1				1948	535,811	40	
GILMORE	ISABELLA	1945	MICHIGAN STRAY	1560	3	S	DUNDEE	4091	6				1952	203,312	520	
GOODWELL, EAST	NEWAYGO	1945	MICHIGAN STRAY	1190	4	S	DETROIT RIVER	3498	2				1950	7,504	200	
GRANT	MASON	1929	GLACIAL DRIFT	632	1	S	DUNDEE	2385	3				1955	8,020	120	
GREEN	MECOSTA	1946	MICHIGAN STRAY	1250	3	S	REED CITY	3710	2				1951	73,368	320	
HAMILTON	CLARE	1940	MICHIGAN STRAY	1270	3	S	DUNDEE	3897	4				1954	275,606	440	
HAMLIN	MASON	1952	SALINA-NIAGARAN	3950	?	D	CAMBRIAN	6620	1				1962	0	160	
HARRISON	CLARE	1945	MICHIGAN STRAY	1675	3	S	SYLVANIA	5633	7				1962	600,635	760	
ISABELLA	ISABELLA	1949	MICHIGAN STRAY	1454	7	S	DETROIT RIVER	3993	6				1956	335,791	240	
KAWKAWLIN	BAY	1941	SALINA	7760	16	D	ST. PETER Ss.	10477	1				1946	No Record		
LEATON	ISABELLA	1935	MICHIGAN STRAY	1240	2	S	DUNDEE	3710	5				1940	185,609	400	
MANISTEE	MANISTEE	1959	SALINA	3616	94	D	NIAGARAN	4165	1				1961	0	160	
MECOSTA LAKE	MECOSTA	1953	MICHIGAN STRAY	1314	12	S	DUNDEE	3690	2				1956	84,071	320	
MINERAL SPRINGS	OSCEOLA	1952	MICHIGAN STRAY	1397	8	S	DETROIT RIVER	3963	4				1960	228,762	480	
NORTHVILLE	WAYNE-WASHTENAW	1948	DUNDEE	788	2	L	CAMBRO-ORDOVICIAN	5850	4				1961	0	640	
PARIS	MECOSTA	1949	DUNDEE	3404	5	L	REED CITY	3545	2				1959	268,667	560	
RICHLAND, SEC. 27	MONTCALM	1963	MICHIGAN STRAY	1247	1	S	DUNDEE	3530	1				1964		160	
ST. CLAIR, SEC. 18	ST. CLAIR	1953	SALINA-NIAGARAN	3567	2	D	CINCINNATIAN	3240	1				1961	16,101	160	
SYLVAN	OSCEOLA	1941	MICHIGAN STRAY	1525	10	S	DETROIT RIVER	4034	1				1953	80,714	40	
VERNON	ISABELLA	1939	MICHIGAN STRAY	1300	2	S	DETROIT RIVER	3907	25				1956	1,464,249	920	
WOLF LAKE	MUSKEGON	1949	"BEREA"	1050	7	D	DETROIT RIVER	2250	2				1956	99,756	320	

35 ABANDONED FIELDS

7,342,965 MCF CUMULATIVE GAS PRODUCTION FROM ABANDONED FIELDS

TABLE IIA—LOCATION OF ABANDONED GAS FIELDS, MISCELLANEOUS GAS WELLS

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS	YEAR OF DISCOVERY AND ABANDONMENT	
ADAMS, SEC. 8 (TRAVERSE)	HILLSDALE	ADAMS	6S 2W	8	1962	1965
ADAMS, NORTH	ARENAC	ADAMS	19N 3E	4	1942	1948
ALBION, (TRAVERSE)	CALHOUN	ALBION	3S 4W	14, 15	1941	1948
ALGONAC	ST. CLAIR	CLAY	3N 16E	20, 29	1947	1951
BIG PRAIRIE	NEWAYGO	BIG PRAIRIE	13N 11W	16	1944	1961
BIG PRAIRIE, SEC. 33	NEWAYGO	BIG PRAIRIE	13N 11W	33	1947	1952
CANNON CREEK	MISSAUKEE	NORWICH	24N 6W	6, 7, 18	1950	1956
		PIONEER	24N 7W	1, 2, 12, 13	1950	1956
	KALKASKA	GARFIELD	25N 6W	31	1950	1956
		GARFIELD	25N 7W	25, 36	1950	1956
CEDAR CREEK	MUSKEGON	CEDAR CREEK	11N 15W	7, 17, 18, 19, 20, 32	1940	1960
COOPERSVILLE	OTTAWA	WRIGHT	8N 13W	7, 19	1939	1959
DAY	MONTCALM	DAY	11N 6W	1	1934	1944
		HOME	12N 6W	36	1934	1944
DIAMOND CRYSTAL SALT	ST. CLAIR	ST. CLAIR	5N 17E	31	1927	1931
DOUGLASS	MONTCALM	DOUGLASS	11N 7W	27, 28	1943	1951
ELBA	GRATIOT	ELBA	9N 1W	9, 14, 15, 16	1928	1957
FORK, EAST	MECOSTA	FORK	16N 7W	2, 11	1942	1946
FREEMONT	ISABELLA	FREEMONT	13N 5W	20, 21, 22, 27, 28	1941	1956
GARFIELD	CLARE	GARFIELD	17N 6W	18	1946	1948
GILMORE	ISABELLA	GILMORE	16N 5W	25,26,36	1930	1952
		VERNON	16N 4W	31	1930	1952
GOODWELL, EAST	NEWAYGO	GOODWELL	14N 11W	23, 24	1945	1950
GRANT	MASON	GRANT	20N 17W	15	1929	1955
GREEN	MECOSTA	GREEN	16N 10W	18	1946	1951
HAMILTON	CLARE	HAMILTON	19N 3W	15, 23, 26	1940	1954
HAMLIN, SEC. 27	MASON	HAMLIN	19N 18W	27	1952	1962
HARRISON	CLARE	LINCOLN	18N 5W	1, 12, 13	1945	1962
		HATTON	18N 4W	6, 7	1945	1962
ISABELLA	ISABELLA	ISABELLA	15N 4W	7, 18	1949	1956
KAWKAWLIN	BAY	MONITOR	14N 4E	2	1941	1946
LEATON	ISABELLA	DENVER	15N 3W	17, 19	1935	1940
MANISTEE	MANISTEE	FILER	21N 17W	24	1959	1961
MECOSTA LAKE	MECOSTA	MORTON	14N 8W	17, 20	1953	1956
MINERAL SPRINGS	OSCEOLA	SHERMAN	20N 9W	20, 21	1952	1960
NORTHVILLE (DUNDEE)	WASHTENAW	SALEM	1S 7E	1, 2	1947	1961
	OAKLAND	LYON	1N 7E	36	1947	1961
PARIS (DUNDEE)	MECOSTA	GREEN	16N 10W	21, 22, 27, 28	1949	1959
SEARS	OSCEOLA	SYLVAN	18N 7W	32	1964	1965
ST. CLAIR, SEC. 18	ST. CLAIR	ST. CLAIR	5N 17E	18	1953	1961
SYLVAN	OSCEOLA	SYLVAN	18N 7W	7	1941	1953
VERNON	ISABELLA	VERNON	16N 4W	25, 26, 35, 36	1939	1956
		ISABELLA	15N 4W	1	1939	1956
VERNON, SEC. 31				COMBINED WITH GILMORE		
WOLF LAKE	MUSKEGON	EGELSTON	10N 15W	7, 8	1949	1956

IN THE COLUMN TITLED PRODUCING SECTIONS, listing of a section or part of a section does not necessarily mean the entire section to be productive of oil or gas in any or all potentially productive formation. Only those sections which have had at least one well completed as an oil or gas well are listed. These tables also include miscellaneous single gas wells, or single well fields, which reported some gas production.

TABLE 12. — DEVELOPED GAS STORAGE RESERVOIRS

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE DEPTH IN FEET	PAY ZONE THICKNESS AND LITHOLOGY		DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF GAS WELLS TO END	COMP. IN 1965	ABAND. IN 1965	PROD. AT END 1965	GAS PRODUCTION IN MCF PRODUCED IN 1965	CUMULATIVE THROUGH 1965	DRILLED ACRES	REMARKS
AUSTIN	MECOSTA	1933	MICHIGAN STRAY	1380	14	S	DETROIT RIVER	4043		1+1RW	0	88		6,109,033	3970	
BELLE RIVER MILLS	ST. CLAIR	1961	SALINA-NIAGARAN	2215	305	D	CLINTON	2694		6	0	33	6,856,379	21,395,142	840	CONVERT TO GAS STORAGE 7-7-65
CRANBERRY LAKE	CLARE-MISSAUKEE	1943	MICHIGAN STRAY	1321	10	S	RICHFIELD	5201		1	0	171		7,537,451	7000	
CROTON	NEWAYGO	1951	MARSHALL	917	4	S	SALINA	3993		0	0	7		1,320,835	860	
FREEMAN-LINCOLN	CLARE	1938	MICHIGAN STRAY	1500	10	S	DETROIT RIVER	3957		0	0	80		18,099,490	6600	
GOODWELL	NEWAYGO	1943	MICHIGAN STRAY	1142	20	S	DETROIT RIVER	3562		1	0	63		5,875,670	3020	
HAMILTON, NORTH	CLARE	1952	MICHIGAN STRAY-MARSHALL	1487	8	S	RICHFIELD	5395		16	0	49		5,450,065	3040	
HOWELL	LIVINGSTON	1935	SALINA	3920	9	D	ST. PETER Ss.	5958		20	0	49		23,678,120	2400	
IRA	ST. CLAIR	1953	SALINA-NIAGARAN	2276	33	D	CLINTON	2632		5	0	14		3,498,666	680	
LENOX	MACOMB	1960	SALINA-NIAGARAN	2734	46	D	CLINTON	3018		6	3	11	51,735	2,152,679	300	CONVERTED TO GAS STORAGE 2-1-65
MARION (WINTERFIELD)	CLARE-OSCEOLA	1940	MICHIGAN STRAY	1344	15	S	SYLVANIA	5100		9	0	281		20,084,934	10,720	
ORIENT	OSCEOLA	1945	MICHIGAN STRAY	1508	11	S	SYLVANIA	5307		0	0	47		5,350,856	2600	
OVERISEL	ALLEGAN	1956	SALINA	2650	12	D	TRENTON	4060		0	1	186		14,645,048	6660	
REED CITY	OSCEOLA-LAKE	1940	MICHIGAN STRAY	1217	12	S	ST. PETER Ss.	8960		0	0	80		7,642,246	4880	
*REED CITY	OSCEOLA-LAKE	1941	REED CITY	3585	7	D	ST. PETER Ss.	8960		2	0	149	COMBINATION GAS STORAGE AND SECONDARY OIL RECOVERY PROJECT, REFER TO TABLE 7 FOR DETAILS			
RIVERSIDE	MISSAUKEE	1940	MICHIGAN STRAY	1435	7	S	DUNDEE	3953		1	0	96		5,188,481	3680	
SALEM	ALLEGAN	1937	SALINA	2725	2	D	TRENTON	3792		5	0	88		11,310,698	4960	
SHAVER (SUMNER-NEW HAVEN)	GRATIOT-MONTCALM	1935	MICHIGAN STRAY	1020	11	S	DUNDEE	3536		0	0	49		11,114,906	3920	
SIX LAKES	MECOSTA-MONTCALM	1934	MICHIGAN STRAY	1270	25	S	DETROIT RIVER	3790		30	40	269		51,604,719	11,480	
WINFIELD	MONTCALM	1935	MICHIGAN STRAY	1125	8	S	DETROIT RIVER	3405		0	2	8		4,836,132	3240	
WOODVILLE (NORWICH)	NEWAYGO	1943	MICHIGAN STRAY	1185	13	S	DETROIT RIVER	3405		0	0	41		2,683,259	2240	
										103+1RW	46	1859		206,030,609		

21 GAS STORAGE RESERVOIRS

*REED CITY - REED CITY ZONE REFERRED TO AS "LOREED"

FACILITY WELLS

INCLUDES OBSERVATION WELLS

206,030,609 MCF CUMULATIVE PRODUCTION FROM FIELDS PRIOR TO CONVERSION TO GAS STORAGE

TABLE 12 A. — UNDEVELOPED GAS STORAGE RESERVOIRS

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE DEPTH IN FEET	PAY ZONE THICKNESS AND LITHOLOGY		DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF GAS WELLS TO END	COMP. IN 1965	ABAND. IN 1965	PROD. AT END 1965	GAS PRODUCTION IN MCF PRODUCED IN	CUMULATIVE THROUGH	DRILLED ACRES	REMARKS
BROOMFIELD-DEERFIELD	ISABELLA	1930	MICHIGAN STRAY	1355	5	S	SYLVANIA	4994		0	0	21	194	13,069,055	8080	
COLDWATER	ISABELLA	1945	MICHIGAN STRAY	1390	10	S	SYLVANIA	5090		0	0	12		7,352,605	2400	
EDMORE-RICHLAND	MONTCALM	1936	MICHIGAN STRAY	1300	8	S	DUNDEE	3700		0	2	11	5,653	8,931,116	6800	
EVART	OSCEOLA	1941	MICHIGAN STRAY	1410	7	S	DETROIT RIVER	4457		0	0	12		4,895,722	5120	
NORTHVILLE	WAYNE-WASHTENAW	1954	TRENTON-BLACK RIVER	4395	70	D	CAMBRO-ORDOVICIAN	5850		3	0	-			2825+	REFER TO ACTIVE GAS FIELDS PREPARING FOR GAS STORAGE
										3	2	-	5,847	34,248,498		

5 UNDEVELOPED GAS STORAGE RESERVOIRS

FACILITY WELLS

INCOMPLETE

34,248,498 MCF CUMULATIVE PRODUCTION FROM UNDEVELOPED GAS STORAGE RESERVOIRS

TABLE 13. — LOCATION OF GAS STORAGE RESERVOIRS

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
AUSTIN	MECOSTA	AUSTIN	14N 9W	2, 3, 4, 9, 10, 11, 12, 13, 14
		COLFAX	15N 9W	32, 33
		MORTON	14N 8W	6, 7
BELLE RIVER MILLS	ST. CLAIR	CHINA	4N 16E	11, 14, 15
CRANBERRY LAKE	CLARE	SUMMERFIELD	20N 5W	4, 5, 6, 7, 8, 9, 15, 16, 17, 18, 22, 23
		WINTERFIELD	20N 6W	1, 2, 3, 10, 11, 12
	MISSAUKEE	CLAM UNION	21N 6W	25, 34, 35
CROTON	NEWAYGO	CROTON	12N 11W	29, 32
FREEMAN - LINCOLN	CLARE	LINCOLN	18N 5W	7, 16, 17, 18, 19, 20, 21, 27, 28, 29
		FREEMAN	18N 6W	2, 3, 4, 9, 10, 11, 13, 14, 15, 23, 24
GOODWELL	NEWAYGO	GOODWELL	14N 11W	5, 6, 7, 8, 9, 16, 17
		WILCOX	14N 12W	1
		NORWICH	15N 11W	31
HAMILTON, NORTH	CLARE	HAMILTON	19N 3W	5, 6, 7, 8
		HAYES	19N 4W	1
		FROST	20N 4W	35, 36
HOWELL	LIVINGSTON	GENOA	2N 5E	5,6,7,8,17
		MARION	2N 4E	1, 2, 12
		HOWELL	3N 4E	35
IRA	ST. CLAIR	IRA	3N 15E	1, 2, 11
LENOX	MACOMB	LENOX	4N 14E	32
		CHESTERFIELD	3N 14E	5
MARION (WINTERFIELD)	CLARE	WINTERFIELD	20N 6W	17,18,19,20,21,27,28,29,30,31,32,33,34,35,
		REDDING	19N 6W	1, 2, 3, 4, 6
	OSCEOLA	MARION	20N 7W	24, 25, 36
		MIDDLE BRANCH	19N 7W	1
ORIENT	OSCEOLA	ORIENT	17N 7W	2, 3, 10, 11, 12, 13, 14, 18, 19
OVERISEL	ALLEGAN	OVERISEL	4N 14W	4, 5, 8, 9, 10, 14, 15, 16, 21, 22, 23, 27, 28
REED CITY	OSCEOLA	LINCOLN	18N 10W	8, 9, 16, 17, 18, 19, 20, 21, 29, 30, 31, 32
	LAKE	PINORA	18N 11W	24, 25
RIVERSIDE	MISSAUKEE	RIVERSIDE	21N 7W	15, 16, 17, 19, 20, 21, 22, 23
SALEM	ALLEGAN	SALEM	4N 13W	2, 3, 9, 10, 11, 12, 14, 15, 16, 17, 21, 22, 23
	OTTAWA	JAMESTOWN	5N 13W	34, 35
SHAVER (SUMNER-NEW HAVEN)	GRATIOT	NEW HAVEN	10N 4W	2, 3, 4, 5, 8, 9, 10, 11
		SUMNER	11N 4W	31, 32, 33, 34
	MONTCALM	CRYSTAL	10N 5W	1, 2, 3, 5, 6
		FERRIS	11N 5W	22, 36
SIX LAKES	ISABELLA	ROLLAND	13N 6W	29, 30
	MECOSTA	HINTON	13N 8W	23, 24, 25
		MILLBROOK	13N 7W	27, 28, 29, 30, 31, 32, 33, 34, 35, 36
	MONTCALM	BELVIDERE	12N 7W	1,2,3,4,5,6,8,9,10,11,12,14,15,16,17,18,20,21
WINFIELD	MONTCALM	WINFIELD	12N 9W	6,7,8,16,17,18
		REYNOLDS	12N 10W	1, 12
WOODVILLE (NORWICH)	NEWAYGO	NORWICH	15N 11W	16, 17, 20, 21, 28, 29

IN THE COLUMN TITLED PRODUCING SECTIONS, listing of a section or part of a section does not necessarily mean the entire section to be productive of oil or gas in any or all potentially productive formations. Only those sections, or parts of sections, which have had at least one well completed as an oil or gas well are listed.

The producing sections listed for developed gas storage reservoirs does not necessarily relate to current gas storage area or boundary. The sections, or parts of sections, which are listed are those which contained at least one producible gas or oil well prior to conversion of the field to gas storage.

The producing sections or parts of sections listed for undeveloped gas storage reservoirs are those which have had at least one well completed as a gas or oil well. The listed sections do not relate to potential or future gas storage area or boundary.

UNDEVELOPED GAS STORAGE RESERVOIRS

FIELD NAME OR POOL	COUNTY	TOWNSHIP NAME	TOWNSHIP AND RANGE	PRODUCING SECTIONS
BROOMFIELD-DEERFIELD	ISABELLA	BROOMFIELD	14N 6W	1,2,3,4,5,9,10,11,13,14,15,23,24,25
		DEERFIELD	14N 5W	7, 17, 18, 19, 20, 29, 30
COLDWATER	ISABELLA	COLDWATER	16N 6W	28, 29, 30, 31, 32, 33
		SHERMAN	15N 6W	6
EDMORE-RICHLAND	MONTCALM	HOME	12N 6W	11,12,13,14,15,19,21,22,23,24,25,26,27,28,29,30,33
		RICHLAND	12N 5W	7, 8, 17, 18
EVART	OSCEOLA	OSCEOLA	18N 8W	19,21,22,23,26,27,28,29,30,31,32,33,34,35
NORTHVILLE				SEE PRODUCING GAS FIELDS

TABLE 14 - - PRIMARY SUPPLY LOCATIONS AND STORAGE FACILITIES FOR LIQUEFIED PETROLEUM GAS

Company	Plant Location County	Plant Location Locality	Type of Facility	Facility Capacity Gallons of LPG
Bay Refining Company	Bay	Bay City	Refinery Storage	95,200
Dow Chemical Company	Midland	Midland	Chemical Plant (Underground)	4,410,000
Leonard Refineries, Inc.	Gratiot	Alma	Refinery Storage	120,000
Marathon Oil Company	Hillsdale	Mosherville	Natural Gas Processing Plant	300,000
Cities Service Oil Company	Kent	Lowell	Underground Storage	24,816,000
Skelly Oil Company	Kent	Alto	Underground Storage	10,957,000
Consumers Power Company	Macomb	New Baltimore	Natural Gas Processing Plant	150,000
Marathon Oil Company	Muskegon	Muskegon	Refinery Storage	90,000
Michigan Consolidated Gas Company	St. Clair	St. Clair	Natural Gas Processing Plant	450,000
Michigan Consolidated Gas Company	Washtenaw	Ypsilanti	Natural Gas Processing Plant	450,000
Mobil Oil Company	Wayne	Trenton	Underground Storage	15,201,000
Sun Oil Company	Wayne	Wayne	Underground Storage	24,000,000
Marathon Oil Company	Wayne	Wayne	Underground Storage	16,000,000
Phillips Petroleum Company	Wayne	Wyandotte	Underground Storage	7,000,000

TOTAL PRIMARY STORAGE BY COUNTY, GALLONS LPG	
Bay	95,200
Gratiot	120,000
Hillsdale	300,000
Kent	35,773,000
Macomb	150,000
Midland	4,410,000
Muskegon	90,000
St. Clair	450,000
Washtenaw	450,000
Wayne	62,201,000
Combined Primary Storage	104,039,200

TOTAL PRIMARY STORAGE, GALLONS LPG	
Refinery Storage	305,200
Gas Plant Storage	1,350,000
Underground Storage	102,384,000
Combined Primary Storage	104,039,200

LPG underground storage reservoirs are in man-made caverns dissolved from Salina Group (Silurian) salt beds. The depth to storage reservoir salt beds varies with locality within the state.

Facility capacities have been revised from those noted in 1964.

TABLE 15 GAS PLANT OPERATIONS BY PLANT OR FIELD, 1965 (All figures in MCF)

Plant or Field	Input Totals	Plant Fuel	Lease Fuel	Storage and Repressuring	Line Loss or Shrinkage	Vented	Extraction Loss	Market Sales	L.P.G. Recovery Gallons
*Albion-Scipio	10,458,736	989,080	0	0	0	0	997,266	8,472,390	30,083,894
*Beaver Creek	469,552	36,364	88,369	0	0	0	33,422	311,397	133,557
Belle River Mills	14,392,841	209,855	0	8,131,228	0	0	611,560	5,440,198	18,359,800
Belle River Mills plant operation is combination gas storage and recycling for liquid recovery.									
Boyd	13,129,101	259,126	0	4,688,210	52,898	0	510,950	7,617,917	16,987,534
Deliveries to Boyd plant consists of approximately 70% dry gas and 30% oil well gas. Plant serves 10 fields.									
*Enterprise	133,218	13,451	31,428	0	1,894	0	0	86,445	0
*Hamilton	269,115	18,913	43,790	0	0	0	19,349	187,063	521,030
*Headquarters	292,194	23,200	22,060	0	0	88,520	0	158,414	49,886
*Mt. Pleasant	6,799	444	0	0	0	0	72	6,283	29,046
*Norwich, East	608,413	50,757	85,887	0	0	0	2,525	469,244	63,128
Reed City	24,864,768	490,984	0	19,929,768	0	80,466	339,727	4,023,823	9,716,173
Reed City plant is combination storage and repressuring operation in oil reservoir.									
*Rose City	438,458	7,988	0	0	0	0	0	430,470	0
*St. Helen	840,464	42,697	60,942	0	0	0	8,522	728,303	216,681
Willow Run	78,440,994	267,035	0	0	0	0	343,419	77,830,540	10,730,995
Willow Run extracts residual liquids from out-state gas deliveries via interstate pipeline.									
Totals	144,344,653	2,409,894	332,476	32,749,206	54,792	168,986	2,866,812	105,762,487	86,891,724

GAS PLANT OPERATIONS BY MONTH - 1965 (All figures in MCF)

Month	Input Totals	Plant Fuel	Lease Fuel	Storage and Repressuring	Line Loss or Shrinkage	Vented	Extraction Loss	Market Sales	L.P.G. Recovery Gallons
January	7,929,685	179,918	31,106	0	0	4,835	221,765	7,492,061	6,449,998
February	17,010,313	191,629	28,325	0	0	6,745	251,744	16,531,870	7,688,556
March	20,916,584	219,786	31,919	0	0	4,470	292,792	20,367,617	8,882,250
April	18,377,999	193,250	26,420	972,624	2,812	37,850	204,178	16,940,865	6,280,839
May	14,521,320	186,636	26,498	4,797,687	5,335	27,105	226,593	9,251,466	6,707,453
June	6,768,898	158,244	20,825	5,163,989	10,393	36,564	214,104	1,164,779	6,397,721
July	6,341,644	200,121	26,587	4,608,894	11,070	11,207	232,215	1,251,550	7,117,814
August	19,605,520	247,774	26,814	5,191,943	4,340	7,066	276,990	13,850,593	8,382,965
September	8,550,070	218,494	26,840	4,549,442	1,473	8,022	235,970	3,509,829	7,169,615
October	5,808,852	225,708	28,431	4,281,940	5,381	4,746	232,148	1,030,498	7,054,825
November	5,735,330	192,148	28,689	3,182,687	5,404	8,879	215,847	2,101,676	6,654,111
December	12,778,438	196,186	30,022	0	8,584	11,497	262,466	12,269,683	8,105,577
Totals	144,344,653	2,409,894	332,476	32,749,206	54,792	168,986	2,866,812	105,762,487	86,891,724

*Receive and strip oil well gas only

TABLE 16.— OIL WELL GAS, 1965 (Sheet 1 of 2)

FIELD NAME	COUNTY	YEAR OF DISC.	PRODUCING FORMATION OR POOL	PAY ZONE: DEPTH IN FEET	PAY ZONE: THICKNESS AND LITHOLOGY	DEEPEST FORMATION OR POOL TESTED	DEPTH IN FEET	NUMBER OF GAS WELLS: TO END	NUMBER OF GAS WELLS: COMP. IN	NUMBER OF GAS WELLS: ABAND. IN	NUMBER OF GAS WELLS: PROD. AT END	GAS PRODUCTION IN MCF: PRODUCED IN 1965	GAS PRODUCTION IN MCF: CUMULATIVE THROUGH 1965	DRILLED ACRES	REMARKS
ADAIR	ST. CLAIR	1961	SALINA-NIAGARAN									39,706	413,899		
ALBION-SCIPIO TREND	CALHOUN-JACKSON-HILLSDALE	1957	TRENTON-BLACK RIVER									10,115,457	50,064,116		
BEAVER CREEK	CRAWFORD-KALKASKA	1947	RICHFIELD									344,517	15,089,983		
BOYD	ST. CLAIR	1952	SALINA-NIAGARAN									1,293,204	7,788,012		
BUCKEYE	GLADWIN	1939	DUNDEE									-	9,834		
CHESTERFIELD	MACOMB	1959	NIAGARAN									-	124,698		
CHINA, SEC. 12												8,632	27,721		FORMERLY CONSOLIDATED WITH BELLE RIVER MILLS
COLDWATER	ISABELLA	1944	DUNDEE									-	6,311,307		
COTTRELLVILLE	ST. CLAIR	1959	SALINA									300,338	1,149,651		
DORR	ALLEGAN	1956	SALINA									65,468	927,788		
EAST NORWICH	MISSAUKEE-ROSCOMMON	1942	RICHFIELD									457,682	4,137,997		
EDEN	MASON	1948	DUNDEE									-	275,801		
EDMORE	MONTCALM	1958	TRAVERSE									37,313	1,094,548		
ENTERPRISE	MISSAUKEE	1943	RICHFIELD									86,445	500,174		
ESSEXVILLE	BAY	1944	DUNDEE									-	3,267		
FORK, WEST	MECOSTA	1945	RICHFIELD									12,288	854,415		
HAMILTON, NORTH	CLARE	1952	RICHFIELD									187,067	2,645,929		
HANOVER	JACKSON	1959	TRENTON-BLACK RIVER									-	189,548		
HEADQUARTERS	CLARE-ROSCOMMON	1942	DETROIT RIVER									158,413	2,337,012		
ISABELLA	ISABELLA	1948	DUNDEE									-	138,559		
KAWKAWLIN	BAY	1938	DUNDEE									-	4,590		
KIMBALL LAKE	NEWAYGO	1947	TRAVERSE									-	2,123,116		
MARINE CITY	ST. CLAIR	1955	SALINA-NIAGARAN									419,394	1,885,994		
MARINE CITY, SOUTH	ST. CLAIR	1962	SALINA									233,322	256,990		
MT. PLEASANT	MIDLAND-ISABELLA	1928	DUNDEE									12,000	7,808,389		

TABLE 16. — OIL WELL GAS, 1965 Continued (Sheet 2 of 2)

PENTWATER	MASON-OCEANA	1948	TRAVERSE-DUNDEE									-	1,010,713		
PETERS	ST. CLAIR	1955	SALINA-NIAGARAN									1,683,040	7,700,408		
PORTER	MIDLAND	1933	DUNDEE									-	4,992,995		
REDDING	CLARE	1938	DUNDEE									-	1,956,056		
REED CITY	OSCEOLA	1940	TRAVERSE									873	387,473		
			DUNDEE									-	16,257,876		
			DETROIT RIVER									148,380	3,015,253		
REED CITY, EAST	OSCEOLA	1947	TRAVERSE									-	18,569		
REYNOLDS	MONTCALM	1954	DUNDEE									-	408,555		
ROSE CITY	OGEMAW	1942	RICHFIELD									438,458	5,619,076		
SHERMAN	ISABELLA	1936	DUNDEE									-	641,217		
ST. HELEN	ROSCOMMON	1941	RICHFIELD									763,242	7,381,176		
UNION	ISABELLA	1950	TRAVERSE									-	55,354		
WALKER	KENT-OTTAWA	1938	TRAVERSE									-	3,678,731		
WEST BRANCH	OGEMAW	1933	DUNDEE-DETROIT RIVER									5,780	59,591		
												16,811,019	159,346,381		

22 Fields producing oil well gas.

Cumulative oil well gas production through 1965 . . . . . 159,182,979 MCF

Oil well gas (casinghead gas) accounted for over 50 percent of Michigan's annual gas production. The gathering and processing of gas produced incidental to oil production is good conservation practice. LPG production from casinghead gas is shown on Table 15, preceeding page.

Oil well gas production in 1965. . 16,811,019 MCF
Active gas field production. . . . 18,303,502 MCF
Developed gas storage reservoirs . NONE
Undeveloped gas storage reservoirs 5,847 MCF
Total gas production in 1965 . . . 35,120,368 MCF

PART 3, CUMULATIVE RECORDS
EXPLANATION

Part 3 contains cumulative statistics principally of oil and gas production, well completions, and oil field brine production and disposal from 1925 through the most recent year-end compilations.

OIL AND GAS PRODUCTION TABLES. Oil and gas production figures for individual years prior to 1955 can be found in issues of the "Summary of Operations", Oil and Gas Fields for 1962, and prior years. The tables show the year of the first recorded production from a particular formation, and the yearly and cumulative production totals from 1925 through the most recent year-end compilations.

WELL COMPLETIONS AND PRODUCTION BY COUNTY. These tables show the classifications of completed wells on a county basis, and the cumulative amount of oil and gas produced in individual counties. Tables also indicate the total number of dry holes, oil wells, gas wells, etc., that have been drilled under oil and gas drilling permits in an individual county.

DRILLING PERMITS, WELL COMPLETIONS, FIELDS DISCOVERED. These tables show the number of drilling permits issued by year from 1927 through the most recent year-end compilations. Classification of well completions by year, the number of new fields or pools discovered, and the number of producible oil or gas wells on a yearly basis are all shown on the same table.

BRINE PRODUCTION AND DISPOSAL. Oil field brine production records prior to 1937 are incomplete. This table shows the reported amount of produced brine and the method of disposal from 1937 to present. Most oil field brine is now returned to subsurface formations. Small quantities are used for dust control or ice and snow removal on county roads in local areas. A small amount of brine is also disposed in burning pits. Brine production and disposal figures should not be considered entirely accurate.

SERVICE WELLS. Service wells as listed in this publication are those wells which were drilled to serve some purpose other than the initial production of oil or gas. Oil or gas wells are sometimes converted to salt water disposal, observation, or facility wells in gas storage or pressure maintenance projects. There are several types of service wells:

LPG Wells. These are wells drilled for underground storage of liquified petroleum gas. In Michigan, these storage reservoirs are in man-made cavities in salt beds. The cavities have been made by dissolving the salt with water and then pumping out the brine.

Gas Storage Wells. These are wells drilled in gas storage reservoirs. They are frequently referred to as facility wells, and are generally used to inject gas into, or extract gas from the reservoir. Certain facility wells may sometime in the history of the field be used as salt water disposal wells, or observation wells.

Observation Wells. Most observation wells are related to gas storage projects. They are used to observe underground movement of gas, brines, and other fluids, or to observe pressures.

Brine Disposal Wells. These wells, also called disposal wells, are used in the disposal of oil and gas field brines back into some suitable subsurface formation. Brine disposal well permits are issued for these wells.

Injection and Pressure Maintenance Wells. These are wells used in secondary recovery, or pressure maintenance projects. They may be new wells drilled specifically for injection or pressure maintenance, or they may be converted oil or gas wells; their status can change from time to time.

Oil or gas wells are sometimes converted to salt water disposal, observation, or facility wells in gas storage reservoirs, or water injection wells used in secondary recovery or pressure maintenance projects. The types of service wells listed under "Classification of Well Completions" does not include oil or gas wells converted to service wells.

TABLE 17 -- PERMITS, DISCOVERIES, WELL COMPLETIONS, WELLS AT END OF YEAR, 1965 AND PRIOR YEARS (Sheet 1 of 2)

Year	Permits Issued	Classification of Well Completions						Fields or Pools Discovered		Wells at End of Year				
		Oil Wells	Gas Wells	Service Wells OBS-GS	Service Wells LPG	Dry Holes	Total Completions	Oil	Gas	Oil Wells	Gas Wells	GS OBS	Inj.-P.M.	*LPG*
1925	0	3					3	1		Incomplete records from 1925				
1926	0	89				16	105		1	through 1930				
1927	16	218	3			46	267	1	1	*See Table 7 for Inj.-P.M. wells				
1928	283	79	30			49	158	1		*LPG injection and extraction				
1929	576	324	22			137	483			wells in LPG storage facilities.				
1930	257	154	19			158	331	2	3					
1931	111	59	17			52	128		1	634	64			
1932	184	109	10			64	183	1		645	72			
1933	429	223	10			85	318	3	1	831	70			
1934	444	272	47			150	469	3	2	977	117			
1935	700	319	101			221	641	1	5	1,167	212			
1936	777	333	206			268	807	6	5	1,360	402			
1937	973	622	66			267	955	6	1	1,778	442			
1938	996	580	27			411	1,018	17	2	2,141	448			
1939	1,465	845	56			578	1,479	8	2	2,684	485			
1940	1,121	557	59			565	1,181	8	13	2,928	510			
1941	1,044	441	97			413	951	7	8	3,158	577	13		
1942	570	297	74			311	682	14	4	3,324	631	13		
1943	627	233	47			355	635	12	8	3,386	639	13		
1944	741	246	64			400	710	10	2	3,433	651	13		

TABLE 17 -- PERMITS, DISCOVERIES, WELL COMPLETIONS, WELLS AT END OF YEAR, 1965 AND PRIOR YEARS Continued (Sheet 2 of 2)

1945	755	271	57	6		467	801	11	11	3,536	663	19		
1946	822	223	53	86		461	823	19	10	3,520	547	226		
1947	886	318	43	148		387	896	10	4	3,532	534	409		
1948	918	371	32	77		437	917	10	5	3,554	502	482		
1949	999	439	22	73		473	1,007	21	2	3,818	471	554		
1950	901	336	28	47		473	884	18	4	3,954	471	610		
1951	744	227	20	43	1	466	757	16	6	3,911	417	673		1
1952	694	261	30	51	2	370	714	14	5	3,979	388	732		3
1953	824	258	18	110	1	360	747	11	6	4,089	313	901		4
1954	573	214	15	2	2	338	571	18		4,167	316	903		6
1955	484	204	13	1	1	291	510	12	2	4,223	321	904		7
1956	476	196	12	28		227	463	12	2	4,191	310	932		7
1957	461	176	40	35	3	207	461	12	5	4,233	335	977		10
1958	481	166	20	36	4	227	453	10	7	4,201	345	1,025		14
1959	727	257	47	72	4	272	652	8	7	4,327	323	1,094		18
1960	904	372	19	79	1	441	912	7	4	4,555	249	1,337	242	19
1961	849	207	57	74	3	476	817	13	10	4,619	292	1,420	260	22
1962	711	148	62	53	4	474	741	5	7	4,603	300	1,531	287	26
1963	704	135	72	57	2	384	650	7		4,598	367	1,601	287	28
1964	583	82	48	126		376	632	6	4	4,588	404	1,632	288	28
1965	494	53	34	107		291	485	6	7	4,368	424	1,859	341	28
	26,304	10,917	1,697	1,311	28	12,444	26,397	346	167					

Includes 1 Geological Information Test

Refer to Table 8, pp. 39 and 40.

TABLE 18 -- OIL PRODUCTION BY FORMATIONS - 1965 AND PRIOR YEARS

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

Year	Marshall	Berea	Traverse	Dundee-Reed City	Detroit River	Salina-Niagaran	Trenton-Black River	Total Barrels Oil All Formations
	First Year of Recorded Oil Production by Formation							
	1938	1925	1927	1927	1939	1952	1935	
1925 Through 1929	. . . . .	876,559	873,777	4,017,451	. . . . .	. . . . .	. . . . .	5,767,787
1930 Through 1934		318,171	995,439	31,870,671	. . . . .	. . . . .	. . . . .	33,184,281
1935 Through 1939	7,411	310,313	13,814,816	72,339,293	. . 14,000.	. . . . .	.43,565	86,521,987
1940 Through 1944	22,040	229,262	27,856,377	67,939,211	727,418	. . . . .	348,477	97,122,785
1945 Through 1949	17,283	166,687	16,914,771	62,438,443	4,302,309	. . . . .	106,510	83,946,003
1950 Through 1954	9,068	125,089	16,974,863	38,058,703	11,878,669	43,091	225,180	67,314,663
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	1,805,959	5,342,961	2,811,865	24,082	161,979	10,168,602
1958	1,583	19,462	1,448,231	4,525,729	2,573,017	131,956	608,040	9,308,018
1959	1,430	20,702	1,511,950	4,155,217	2,238,621	392,527	2,118,161	10,438,608
1960	1,270	19,149	1,501,307	3,987,425	2,005,871	379,806	8,004,378	15,899,206
1961	1,268	16,945	1,380,081	3,539,682	1,748,644	916,157	11,298,171	18,900,948
1962	1,215	16,186	1,335,105	3,200,061	1,456,054	1,110,937	9,994,745	17,114,303
1963	1,223	15,899	1,329,268	2,583,882	1,580,589	1,067,729	9,393,157	15,971,747
1964	1,114	16,043	1,232,092	2,414,907	1,568,246	1,037,726	9,331,576	15,601,704
1965	1,290	17,046	923,300	2,344,283	1,538,041	975,580	8,928,683	14,728,223

TABLE 19 -- CUMULATIVE OIL PRODUCTION BY FORMATIONS - 1965 AND PRIOR YEARS

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

Year	Marshall	Berea	Traverse	Dundee-Reed City	Detroit River	Salina-Niagaran	Trenton-Black River	Total Barrels Oil All Formations
	First Year of Recorded Oil Production by Formation							
	1938	1925	1927	1927	1939	1952	1935	
1925 Through 1929	. . . . .	876,559	873,777	4,017,451	. . . . .	. . . . .	. . . . .	5,767,787
1930 Through 1934	. . . . .	1,194,730	1,869,216	35,888,122	. . . . .	. . . . .	. . . . .	38,952,068
1935 Through 1939	. . 7,411	1,505,043	15,684,032	108,227,415	14,000.	. . . . .	43,565	125,481,466
1940 Through 1944	. .29,451	1,734,305	43,540,409	176,166,626	741,418.	. . . . .	.392,042	222,604,251
1945 Through 1949	. .46,734	1,900,992	60,455,180	238,605,069	5,043,727.	. . . . .	.498,552	306,550,254
1950 Through 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	83,258,647	293,601,760	25,828,548	86,693	1,105,872	406,039,048
1958	. . . 62,555	2,116,018	84,706,878	298,127,489	28,401,565	218,649	1,713,912	415,347,066
1959	. . . 63,985	2,136,720	86,218,828	302,282,706	30,640,186	611,176	3,832,073	425,785,674
1960	. . . 65,255	2,155,869	87,720,135	306,270,131	32,646,057	990,982	11,836,451	441,687,880
1961	. . . 66,523	2,172,814	89,100,216	309,809,813	34,394,701	1,907,139	23,134,622	460,585,828
1962	. . . 67,738	2,189,000	90,435,321	313,009,874	35,850,755	3,018,076	33,129,367	477,700,131
1963	. . . 68,961	2,204,899	91,764,589	315,593,756	37,431,344	4,085,805	42,522,524	493,671,878
1964	. . . 70,075	2,220,942	92,996,681	318,008,663	38,999,590	5,123,531	51,854,100	509,273,582
1965	. . . 71,365	2,237,988	93,919,981	320,352,946	40,537,631	6,099,111	60,782,972	524,001,994

TABLE 20 -- GAS PRODUCTION BY FORMATIONS - 1965 AND PRIOR YEARS

Year	Glacial Drift	Stray-Marshall	Berea	Antrim Shale	Traverse	Dundee-Reed City	Detroit River	Salina Niagaran	Trenton-Black River	Total MCF Gas All Formations
	First Year of Recorded Gas Production by Formation									
	1949	1931	1936	1947	1934	1929	1946	1929	1954	
1925 Through 1929						1,887,732		74,867		1,962,599
1930 Through 1934		3,001,963			3,744	6,034,206		61,578		9,101,491
1935 Through 1939		30,769,471	1,391,076		69,894	8,862,165		6,331		41,098,937
1940 Through 1944		70,498,989	5,860,831		3,716,132	7,647,510		79,983		87,803,445
1945 Through 1949	8,020	80,217,680	1,467,460	52,495	1,414,004	15,710,636	793,763	7,393,744		107,057,802
1950 Through 1954		18,033,449	916,202	55,626	1,913,497	5,361,578	6,997,257	11,316,082	10,725	44,604,416
1955		2,378,082	54,582	8,289	31,671	623,664	1,432,635	1,202,718	1,056,056	6,787,697
1956		1,913,078	39,493	11,084	13,376	540,718	1,525,523	2,713,634	2,084,027	8,840,933
1957		1,031,520	26,294	11,094	13,062	444,272	2,326,744	1,617,909	1,168,918	6,639,813
1958		837,548	19,684	11,307	73,297	335,147	3,604,884	4,863,216	1,219,295	10,964,378
1959		674,191	8,032	14,912	135,217	343,265	3,649,466	9,720,047	1,081,097	15,626,227
1960		855,169	8,800	37,258	164,509	504,474	3,979,849	9,877,820	3,812,289	19,240,168
1961		616,710	7,357	25,573	208,967	348,084	4,054,480	9,955,240	9,828,375	25,044,786
1962		451,113	6,620	23,768	206,613	117,606	4,148,707	11,926,493	10,885,208	27,766,128
1963		356,283	10,626	43,213	161,041	85,347	3,849,049	16,808,200	10,581,942	31,895,701
1964		595,549	8,617	26,673	135,226	61,553	3,220,249	18,231,639	10,336,180	32,615,686
1965		404,485	114,926	15,889	105,848	27,135	2,626,290	21,027,896	10,797,899	35,120,368

TABLE 21 -- CUMULATIVE GAS PRODUCTION BY FORMATIONS - 1965 AND PRIOR YEARS

Year	Glacial Drift	Stray-Marshall	Berea	Antrim Shale	Traverse	Dundee-Reed City	Detroit River	Salina-Niagaran	Trenton-Black River	Cumulative MCF All Formations
	First Year of Recorded Gas Production by Formation									
	1949	1931	1936	1947	1934	1929	1946	1929	1954	
1925 Through 1929						1,887,732		74,867		1,962,599
1930 Through 1934		3,001,963			3,744	7,921,938		136,445		11,064,090
1935 Through 1939		33,771,434	1,391,076		73,638	16,784,103		142,776		52,163,027
1940 Through 1944		104,270,423	7,251,907		3,789,770	24,431,613		222,759		139,966,472
1945 Through 1949	8,020	184,488,103	8,719,367	52,495	5,203,774	40,142,249	793,763	7,616,503		247,024,274
1950 Through 1954	8,020	202,521,552	9,635,569	108,121	7,117,271	45,503,827	7,791,020	18,932,585	10,725	291,628,690
1955	8,020	204,899,634	9,690,151	116,410	7,148,942	46,127,491	9,223,655	20,135,303	1,066,781	298,416,387
1956	8,020	206,812,712	9,729,644	127,494	7,162,318	46,668,209	10,749,178	22,848,927	3,150,808	307,257,320
1957	8,020	207,844,232	9,755,938	138,588	7,175,380	47,112,481	13,075,922	24,466,846	4,319,726	313,897,133
1958	8,020	208,681,780	9,775,622	149,895	7,248,677	47,447,628	16,680,806	29,330,062	5,539,021	324,861,511
1959	8,020	209,355,971	9,783,654	164,807	7,383,894	47,790,893	20,330,272	39,050,109	6,620,118	340,487,738
1960	8,020	210,211,140	9,792,454	202,065	7,548,403	48,295,367	24,310,121	48,927,929	10,432,407	359,727,906
1961	8,020	210,827,850	9,799,811	227,638	7,757,370	48,643,451	28,364,601	58,883,169	20,260,782	384,772,692
1962	8,020	211,278,963	9,806,431	251,406	7,963,983	48,761,057	32,513,308	70,809,662	31,145,990	412,538,820
1963	8,020	211,635,246	9,817,057	294,619	8,125,024	48,846,404	36,362,357	87,617,862	41,727,932	444,434,521
1964	8,020	212,230,795	9,825,674	321,292	8,260,250	48,907,957	39,582,606	105,849,501	52,064,112	477,050,207
1965	8,020	212,635,280	9,940,600	337,181	8,366,098	48,935,092	42,208,896	126,877,397	62,862,011	512,170,575

TABLE 22 -- CUMULATIVE WELL COMPLETIONS BY COUNTY THROUGH 1965 (Sheet 1 of 2)

County	Area of County (including inland water)			Classification of Completed Wells (does not include reworked wells)						Approximate Well Density (All Classes)
	Square Miles	Acres	Oil Wells	Gas Wells	Service Wells GS -	OBS -	SWD -	LPG	Dry Holes	Total Completions	Wells: Sq. Miles
Alcona	694	444,160							19	19	1:37 Square miles
Allegan	837	535,680	1299	89		174			1663	3225	4:1 Square Mile
Alpena	590	377,600							10	10	1:59 Square Miles
Antrim	520	332,800		1					28	29	1:19 Square Miles
Arenac	369	236,160	406	44					393	843	2:1 Square Mile
Barry	571	365,440	74						127	201	1:3 Square Miles
Bay	451	288,640	458	1					211	670	1:1 Square Mile
Benzie	342	218,880							2	2	1:171 Square Miles
Berrien	584	373,760	9						70	79	1:8 Square Miles
Branch	517	330,880							39	39	1:13 Square Miles
Calhoun	716	458,240	195	11					198	404	1:2 Square Miles
Cass	505	323,200	30						122	152	1:3 Square Miles
Charlevoix	451	288,640							11	11	1:41 Square Miles
Cheboygan	798	510,720							15	15	1:53 Square Miles
Chippewa	1,651	1,056,640	Northern Peninsula County						4	4	1:413 Square Miles
Clare	577	369,280	381	171		391			356	1299	2:1 Square Mile
Clinton	573	366,720	4						77	81	1:7 Square Miles
Crawford	566	362,240	79			1			21	101	1:6 Square Miles
Delta	1,202	769,280	Northern Peninsula County						1	1	1:120 Square Miles
Eaton	572	366,080							21	21	1:27 Square Miles
Emmet	477	305,280							3	3	1:159 Square Miles
Genesee	649	415,360	11						40	51	1:13 Square Miles
Gladwin	512	327,680	736						258	994	2:1 Square Mile
Grand Traverse	490	313,600		1					8	9	1:054 Square Miles
Gratiot	566	362,240	46	74		19			253	392	2:1 Square Mile
Hillsdale	604	386,560	229	1					376	606	1:1 Square Mile
Huron	824	527,360	5						74	79	1:10 Square Miles
Ingham	560	358,400							17	17	1:33 Square Miles
Ionia	578	369,920	9						74	83	1:7 Square Miles
Iosco	563	360,320							23	23	1:25 Square Miles
Isabella	573	366,720	649	160					459	1268	2:1 Square Mile
Jackson	717	458,880	128	2					210	340	1:2 Square Miles
Kalamazoo	580	371,200	18						106	124	1:5 Square Miles
Kalkaska	573	366,720	22	7					43	72	1:8 Square Miles
Kent	868	555,520	461	6		1		8	336	812	1:1 Square Mile
Lake	577	369,280	19	1					118	138	1:4 Square Miles
Lapeer	662	423,680	12						57	69	1:10 Square Miles
Leelanau	374	239,360							9	9	1:42 Square Miles

TABLE 22 CUMULATIVE WELL COMPLETIONS BY COUNTY THROUGH 1965 Continued (Sheet 2 of 2)

Lenawee	760	486,400	3	51				89	143	1:5 Square Miles
Livingston	583	373,120		19		35		74	128	1:5 Square Miles
Luce	929	594,560	Northern Peninsula County					2	2	1:465 Square Miles
Mackinac	1,081	691,840	Northern Peninsual County					2	2	1:541 Square Miles
Macomb	481	307,840	3	37		6		177	223	1:2 Square Miles
Manistee	568	363,520		1				26	27	1:21 Square Miles
Mason	505	323,200	116	6				236	358	1:1 Square Mile
Mecosta	570	364,800	101	194		178		369	842	1:1 Square Mile
Midland	523	334,720	898	2			2	268	1170	2:1 Square Mile
Missaukee	572	366,080	169	63		102		189	523	1:1 Square Mile
Monroe	564	360,960	45					111	156	1:4 Square Miles
Montcalm	720	460,800	375	221		181		554	1331	2:1 Square Miles
Montmorency	567	362,880	3	1				17	21	1:27 Square Miles
Muskegon	519	332,160	432	119				352	903	2:1 Square Miles
Newaygo	867	554,880	195	46		70		347	658	1:1 Square Mile
Oakland	899	575,360	5	3				57	65	1:14 Square Miles
Oceana	541	346,240	327	7				464	798	1:1 Square Mile
Ogemaw	580	371,200	495	20		1		161	677	1:1 Square Mile
Osceola	585	374,400	334	113		115		320	892	2:1 Square Mile
Oscoda	568	363,520	2					10	12	1:47 Square Miles
Otsego	538	344,320	1	10				30	41	1:13 Square Miles
Ottawa	572	366,080	472	19		2		477	970	2:1 Square Mile
Presque Isle	678	433,920						6	6	1:113 Square Miles
Roscommon	573	366,720	180	14				101	295	1:2 Square Miles
Saginaw	814	520,960	378	2				172	552	1:1 Square Mile
Sanilac	961	615,040						49	49	1:20 Square Miles
Schoolcraft	1,229	786,560	Northern Peninsula County					2	2	1:615 Square Miles
Shiawassee	540	345,600	1					52	53	1:10 Square Miles
St. Clair	751	480,640	211	133		17		569	930	1:1 Square Mile
St. Joseph	518	331,520						15	15	1:35 Square Miles
Tuscola	820	524,800	148	1				100	249	1:3 Square Miles
Van Buren	615	393,600	721					986	1707	3:1 Square Mile
Washtenaw	723	462,720	9	18		4		96	127	1:6 Square Miles
Wayne	625	400,000	12	24		14	18	50	118	1:5 Square Miles
Wexford	570	364,800	1	4				52	57	1:11 Square Miles
73 Counties		Totals:	10,917	1,697		1,311	28	12,445	26,398	

Most Service wells are related to gas storage reservoirs.

TABLE 23 -- CUMULATIVE OIL AND GAS PRODUCTION BY COUNTY THROUGH 1965

County	Oil Wells	Gas Wells	Cumulative Production Barrels Oil	Cumulative Production MCF Gas
Allegan	1299	89	18,420,474	29,204,414
Arenac			44,449,785	6,722,136
Barry			606,148	0
Bay			18,009,067	7,857
Berrien			29,672	0
Calhoun	195	11	17,530,394	19,444,257
Cass			93,163	0
Clare	79	0	32,316,620	55,913,850
Clinton	4	0	4,121	0
Crawford			4,954,044	13,136,345
Genesee	11	0	92,901	0
Gladwin	736	0	31,609,315	9,834
Gratiot			1,029,440	12,924,612
Hillsdale	229	1	28,211,287	29,161,225
Huron	5	0	49,085	0
Ionia	9	0	381,269	0
Isabella	649	160	51,659,643	32,977,796
Jackson	128	2	13,493,304	11,455,739
Kalamazoo	18	0	28,868	0
Kalkaska	22	7	1,140,260	2,152,619
Kent	461	6	9,288,956	3,659,004
Lake	19	1	2,170,713	182,438
Lapeer	12	0	86,474	0
Lenawee	3	51	5,319	0
Livingston	0	19	109	23,699,845
Macomb	3	37	18,588	15,903,924
Mason	116	6	4,307,148	297,116
Mecosta	101	194	9,201,272	30,583,708
Midland	898	2	65,533,755	12,443,982
Missaukee	169	63	12,359,074	11,985,999
Monroe	45	0	691,164	0
Montcalm	375	221	17,188,938	52,550,191
Montmorency	3	1	7,688	0
Muskegon	432	119	7,683,190	9,759,149
Newaygo	195	46	8,623,436	13,132,193
Oakland	5	3	28,545	13,737
Oceana	327	7	14,711,294	1,172,788
Ogemaw	495	20	15,630,185	5,797,762
Osceola	334	113	50,908,547	44,323,571
Oscoda	2	0	28,221	0
Otsego	1	10	2,990	329,351
Ottawa	472	19	8,267,848	1,792,110
Roscommon	180	14	10,592,666	11,149,909
Saginaw	378	2	2,349,421	0
Shiawassee	1	0	236	0
St. Clair	211	133	5,202,255	53,903,258
Tuscola	148	0	2,155,712	0
Van Buren	721	0	11,989,840	0
Washtenaw	9	18	691,184	7,044,160
Wayne	12	24	162,921	9,272,159
Wexford	1	4	4,814	61,937
51 Counties			524,001,363	512,170,575

Does not include small quantity of miscellaneous production from dry holes, etc.

TABLE 24 -- OIL AND GAS FIELD BRINE PRODUCTION AND DISPOSAL - 1965 AND PRIOR YEARS

Year	Pits	Roads	Chemical Co.	Subsurface	Total
	Method of Disposal or Use (Barrels per day) Records Prior to 1937 are Incomplete				
1937	8,342	-	10,375	21,849	40,206
1938	6,748	-	8,920	31,211	46,879
1939	4,901	-	7,466	48,579	60,946
1940	5,206	-	6,726	68,822	74,754
1941	3,540	-	8,452	78,484	90,476
1942	4,725	-	8,082	83,722	96,529
1943	4,963	-	8,170	89,207	102,340
1944	3,964	-	8,778	102,090	114,832
1945	2,352	-	8,992	107,973	119,317
1946	2,307	-	9,151	121,385	132,843
1947	1,883	-	8,579	132,844	143,346
1948	1,495	-	8,430	148,497	158,422
1949	1,541	-	8,568	162,172	172,781
1950	1,212	-	6,949	180,018	188,179
1951	1,623	-	7,630	190,074	199,327
1952	1,425	147	1,500	204,216	207,288
1953	1,233	175	460	188,949	190,817
1954	1,374	120	614	191,970	194,078
1955	1,560	161	609	200,031	202,361
1956	1,389	697	2	194,475	196,563
1957	1,245	1,162	0	193,223	195,630
1958	1,368	1,089	0	176,774	179,231
1959	1,038	944	0	170,623	172,605
1960	1,019	1,512	0	168,466	170,997
1961	910	1,060	0	155,855	157,855
1962	982	657	0	147,789	149,428
1963	866	3,130	0	145,700	149,696
1964	896	4,245	0	143,831	148,972
1965	775	3,299	0	141,028	145,102

In 1965, Michigan oil well owners and operators returned 141,028 barrels of brine per day to approved subsurface formations. This is about 97 per cent of the total brine produced. Of the remaining 3 per cent or 4,074 barrels per day, 3,299 barrels were used for county road maintenance and lease purposes and 775 barrels were disposed of in surface pits in small amounts. Brine production and disposal formations are shown in Table 3, page 14.

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STRATIGRAPHIC SUCCESSION IN MICHIGAN

PALEOZOIC THROUGH RECENT

MICHIGAN DEPARTMENT OF CONSERVATION

Ralph A. MacMullan, Director

GEOLOGICAL SURVEY

Gerald E. Eddy, State Geologist

ACKNOWLEDGEMENT: Compiled with the counsel of colleagues in this department, the U. S. Geological Survey, Michigan's universities, other state Geological Surveys, and geologists within Michigan's oil and gas industry. Dr. Aureal T. Cross, Department of Geology, Michigan State University, identified rocks of Mesozoic age and suggested provisional age assignments.

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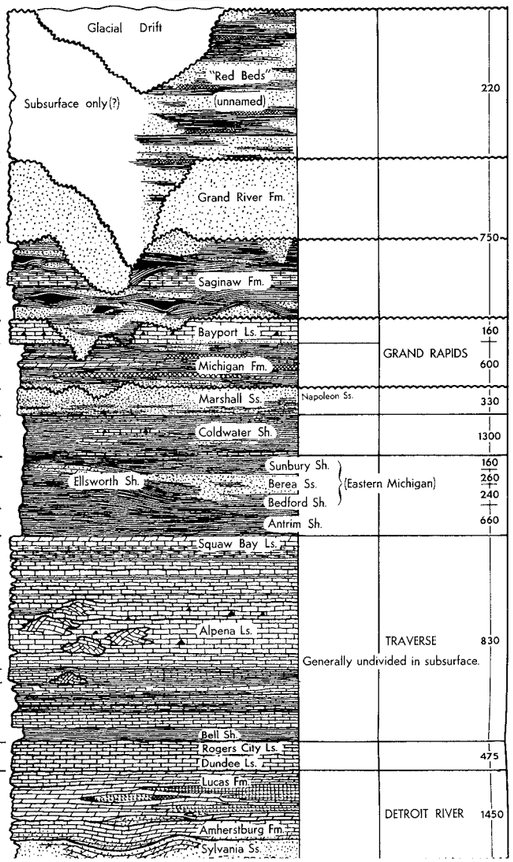
PLEISTOCENE NOMENCLATURE

ERA	SYSTEM	SERIES	STAGE	
CENOZOIC	QUATERNARY	RECENT		
		PLEISTOCENE	Wisconsin Glaciation	Valders Stade
				Two Creeks Interstade
				Mankato Stade (Pt. Huron?)
				Cary Stade
				Tazewell Stade
			Sangamon Interglaciation	
			Illinoian Glaciation	

OUTCROP NOMENCLATURE

GEOLOGIC TIME: ERA	PERIOD	EPOCH	TIME-STRATIGRAPHIC: SYSTEM	ROCK-STRATIGRAPHIC: SERIES	GROUP	FORMATION	MEMBER
MESOZOIC	JURASSIC	LATE	JURASSIC	KIMERIDGIAN			
	PENNSYLVANIAN	LATE	PENNSYLVANIAN	CONEMAUGH		Grand River Fm.	Ionia, Eaton, and Woodville Sandstones
		EARLY		POTTSVILLE		Saginaw Fm.	Verne Ls.
	MISSISSIPPIAN	LATE	MISSISSIPPIAN	MERAMECIAN	GRAND RAPIDS	Bayport Ls.	
						Michigan Fm.	
		EARLY		OSAGIAN		Marshall Ss.	Napoleon Ss.
				KINDERHOOKIAN		Coldwater Sh.	
	MISSISSIPPIAN-DEVONIAN		Unassigned				
	DEVONIAN	LATE				Ellsworth Sh. (Western Michigan)	
				CHAUTAUQUAN		Antrim Sh.	
				SENECAN	TRAVERSE	Squaw Bay Ls.	
				ERIAN		Thunder Bay Ls.	
						Potter Farm Fm.	
						Norway Point Fm.	
						Four Mile Dam Fm.	
						Alpena Ls.	
						Newton Creek Ls.	
						Genshaw Fm.	Killians
						Ferron Point Fm.	
						Rockport Quarry Ls.	
						Bell Sh.	
					DETROIT RIVER	Rogers City Ls.	
						Dundee Ls.	
	MIDDLE		DEVONIAN	ULSTERIAN		Anderdon Fm.	
						Lucas Fm.	
						Amherstburg Fm.	
						Sylvania Ss.	

DOMINANT LITHOLOGY



SUBSURFACE NOMENCLATURE

ROCK-STRATIGRAPHIC		
FORMATION	MEMBER	GROUP

Approximate maximum thickness, in feet, of rock units in the subsurface. NO SCALE

INFORMAL TERMS

Principal oil and gas pays, and informal terms used in petroleum exploration and applied to parts of formations or groups in the subsurface.

STRATIGRAPHIC POSITION	INFORMAL TERMS	PAYS
Basal sandstones of Saginaw Fm.	Parma sandstone	
In lower part of Michigan	triple gyp.	
	brown lime	
	stray-stray ss.	Gas
	stray dol.	
	stray ss.	Gas & Oil
Marshall Ss.		Gas & Oil
Coldwater Sh.	Coldwater lime	
	Weir sand	Gas
	Coldwater red-rock	
In upper part of Ellsworth Sh.	"Berea" (Western Michigan)	Oil & Gas
Berea Ss.	Berea sand (Eastern Michigan)	Oil & Gas
Squaw Bay Ls.	Squaw Bay	Oil & Gas
Upper part of Traverse Group in Western Michigan	Traverse formation	
	Traverse lime	Oil & Gas
	Stoney Lake zone	Oil & Gas
Rogers City Ls.		Oil & Gas
Dundee Ls.		Oil & Gas
Dundee Ls. (?), Upper part of Lucas Fm. (?)	Reed City zone	Oil & Gas
In Lucas Fm.	massive salt	
	big salt	
	sour zone	Oil & Gas
	massive anhydrite	
	big anhydrite	
	Richfield zone	Oil & Gas
Amherstburg Fm.	black lime	
Part of Salina Group E Unit	E zone (or Kintigh zone)	Oil
Divisions of A-2 Carbonate in Western Michigan	A-2 dolomite	Gas
	A-2 lime	
A-1 Carbonate	A-1 dolomite	Oil & Gas
Upper part of Niagaran Series	brown Niagaran	Oil & Gas
	gray Niagaran	
	white Niagaran	

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STRATIGRAPHIC SUCCESSION IN MICHIGAN

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	MISSISSIPPIAN-DEVONIAN Unassigned						
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						Bell Sh.	
						Rogers City Ls.	
						Dundee Ls.	
				ULSTERIAN	DETROIT RIVER	Anderdon Fm.	
						Lucas Fm.	
						Amherstburg Fm.	
						Sylvania Ss.	
						Bois Blanc Fm.	
		EARLY				Garden Island Fm.	
	SILURIAN	LATE	SILURIAN	CAYUGAN	BASS ISLANDS	Raisin River Dol.	
						Put-in-Bay Dol.	
						St. Ignace Dol. (Northern Peninsula)	
					SALINA	Pte. aux Chenes Sh.	
		MIDDLE		NIAGARAN		Engadine Dol.	
					MANISTIQUE	Cordell Dol.	
						Schoolcraft Dol.	
					BURNT BLUFF	Hendricks Dol.	Fiborn Ls.
						Byron Dol.	
						Lime Island Dol.	
		EARLY		ALEXANDRIAN	CATARACT	Cabot Head Sh.	
						Manitoulin Dol.	
	ORDOVICIAN	LATE	ORDOVICIAN	CINCINNATIAN	RICHMOND	Big Hill Fm.	
						Stonington Fm.	Ogontz; Bay de Noc
						Bill's Creek Sh.	Collingwood
		MIDDLE		MOHAWKIAN	TRENTON	Groos Quarry Fm.	
						Chandler Falls Fm.	
					BLACK RIVER	Bony Falls Fm.	
				CHAZYAN			
		EARLY		CANADIAN	PRAIRIE DU CHIEN	Oneota Dol.	
	CAMBRIAN	LATE	CAMBRIAN	ST. CROIXAN	LAKE SUPERIOR	Trempealeau Fm.	Jordan Ss.; Lodi; St. Lawrence
						Munising Fm.	Miner's Castle Ss.; Chapel Rock Ss.
		MIDDLE				Jacobsville Ss.	
		EARLY					

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ROCK-STRATIGRAPHIC		
FORMATION	MEMBER	GROUP

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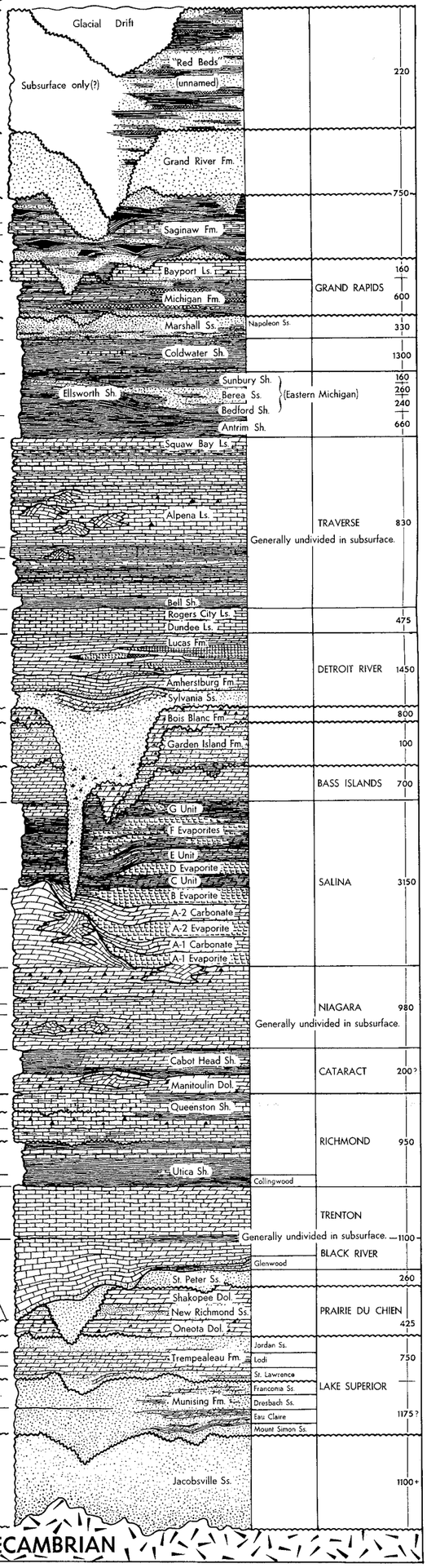
DOMINANT LITHOLOGY



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	stray dol.	
	stray ss.	Gas & Oil
Marshall Ss.		Gas & Oil
Coldwater Sh.	Coldwater lime	
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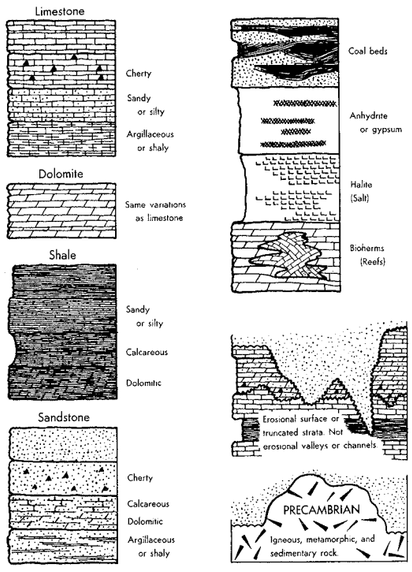
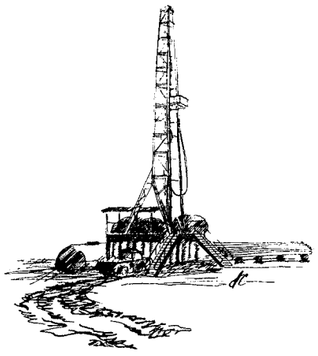
	Coldwater red-rock	
In upper part of Ellsworth Sh.	"Berea" (Western Michigan)	Oil & Gas
Berea Ss.	Berea sand (Eastern Michigan)	Oil & Gas
Squaw Bay Ls.	Squaw Bay	Oil & Gas
Upper part of Traverse Group in Western Michigan	Traverse formation	
	Traverse lime	Oil & Gas
	Stoney Lake zone	Oil & Gas
Rogers City Ls.		Oil & Gas
Dundee Ls.		Oil & Gas
Dundee Ls. (?), Upper part of Lucas Fm. (?)	Reed City zone	Oil & Gas
In Lucas Fm.	massive salt	
	big salt	
	sour zone	Oil & Gas
	massive anhydrite	
	big anhydrite	
	Richfield zone	Oil & Gas
Amherstburg Fm.	black lime	
Part of Salina Group E Unit	E zone (or Kinnigh zone)	Oil
Divisions of A-2 Carbonate in Western Michigan	A-2 dolomite	Gas
	A-2 lime	
A-1 Carbonate	A-1 dolomite	Oil & Gas
Upper part of Niagaran Series	brown Niagaran	Oil & Gas
	gray Niagaran	
	white Niagaran	
Part of Niagaran Series	Clinton shale (Eastern Michigan)	
Trenton Group		Oil & Gas
Black River Group	Black River formation	Oil & Gas
	Black River shale	
	Van Wert zone	
Oneota Dol.		Oil

EXPLANATION



GEOLOGIC NAMES COMPILATIONS: Harry O. Sorensen, Cambrian and Ordovician; Robert W. Kelley, Early and Middle Silurian; Garland D. Ells, Late Silurian through Detroit River Group of Devonian age; Harry J. Hardenberg, Dundee Limestone through Traverse Group of Devonian age; L. David Johnson, Antrim Shale through the Pennsylvanian System; F. Wells Terwilliger, glacial geology of the Cenozoic.

CHART 1

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