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DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

VIA E-MAIL

TO: Members of the Michigan Legislature

FROM: Dan Wyant, Director

DATE: February 19, 2014

SUBJECT: Orphan Well Fund Annual Report

In accordance with Section 324.61607 of Part 616, Orphan Well Fund, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, attached is the Department of Environmental Quality's (DEQ) Orphan Well Fund Annual Report for fiscal year 2012-2013.

If you need further information, please contact Harold R. Fitch, Chief, Office of Oil, Gas, and Minerals, at 517-284-6823; or you may contact me at 517-284-6700.

Attachment

cc/att: Ellen Jeffries, Director, Senate Fiscal Agency
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Orphan Well Fund Annual Report **(Fiscal Year 2012-2013)**



Michigan Department of Environmental Quality
Office of Oil, Gas, and Minerals

Pursuant to Part 616, Orphan Well Fund,
of the Natural Resources and Environmental Protection Act,
1994 PA 451, as Amended

For more information on the Orphan Well Program, please contact:

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**ORPHAN WELL FUND ANNUAL REPORT
FISCAL YEAR 2012-2013**

Part 616, Orphan Well Fund, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), created a funding source and method for carrying out plugging, response activity, or site restoration at abandoned or improperly closed oil or gas wells for which no owner or operator is known, for which all owners or operators are insolvent, or at which the Supervisor determines there exists an imminent threat to public health and safety. Section 324.61607 requires an annual report be submitted to the Legislature detailing expenditures from the Orphan Well Fund for the preceding fiscal year (FY).

During FY 2012-2013, total expenditures were as follows:

Plugging, Response Activity, and Site Restoration	\$186,108
Remedial Investigation, Remediation	\$37,202
Program Costs (i.e., Wages, Contractual Services, Supplies, Materials, and Travel)	\$227,986
Central Administrative Costs	\$83,668
Emergency Contingency	\$0
TOTAL COST FOR FY 2012-2013	<u>\$534,964</u>

The attached table titled "Orphan Well Fund Expenditures for Fiscal Year 2012-2013" (Appendix A) shows total expenditures for plugging costs, response activity, remedial investigation, and site restoration, as well as a breakdown of these costs by well or project and total administrative costs.

Plugging costs ranged from approximately \$3,300 to \$60,600 with an average cost of \$21,875. There were no tank batteries encountered this fiscal year; however, site restoration averaged \$12,178 per location. The total cost for plugging, response activity, and restoration for all projects was \$223,310.

Not shown on the Annual Report; however, worthy of note is the return to the Orphan Well Fund of \$14,720 resulting from the sale of well tubing, casing, and equipment and bond recovery.

The Annual Report for FY 2012-2013 represents the 18th year that funds were expended from the Orphan Well Fund. Four wells were plugged, the ground water remediation system (installed during last year's actions) was operational, and four Category III sites were investigated for contaminants. Category III investigations are used to prepare for further actions if required or to delist the site based upon the sampling analysis of soil and or water. There was no oil storage areas (tank batteries) encountered during this year's actions.

During FY 2012-2013, expansion of contract options to include specialized vendors in environmental remediation (as mentioned in the last report) have been completed. It is expected that the procurement process will be finalized early in 2014. This will allow for continued and more thorough Remedial Investigations and investigations of legacy issues statewide.

Also, Office of Oil, Gas, and Minerals (OOGM) management conducted an internal review of procedures for evaluation of wells and determination of eligibility for Orphan Well status. The review resulted in improved internal procedures and coordination designed to streamline the process and avoid delays in initiating plugging and remediation activities.

The "Fiscal Year 2013-2014 Orphan Well Fund List" is included in this report and details expenditures from the Orphan Well Fund for the current fiscal year (Appendix B).

DESCRIPTION OF TABLE COLUMN HEADINGS

COUNTY: Name of the county where the well is located.

PERMIT NUMBER: The number is issued in a chronological order sequence. The first drilling permit (Permit Number 1) was issued in 1927. Permits are currently issued pursuant to Part 615, Supervisor of Wells, of the NREPA. By the end of FY 2012-2013, a total of **60,831** permits had been issued.

YEAR: The calendar year in which the drilling permit was issued.

COMPANY: The last person or organization that owned the well.

WELL NAME & NUMBER: The name and number assigned by the permittee. The name and number are intended to allow easy identification and differentiation in the oil field of the various wells owned by a company. TB means tank battery.

CATEGORY:

CATEGORY IA wells are abandoned oil and gas wells that are leaking significant volumes of gas or that, as a result of leaking oil or brine, are contaminating the groundwater used for public consumption.

CATEGORY IB wells are abandoned oil and gas wells that are leaking oil, resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

CATEGORY IC wells are abandoned oil and gas wells that are leaking gas or brine, resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

CATEGORY II wells are abandoned, nonleaking wells.

CATEGORY III wells have been plugged; however, site remediation has not yet been completed.

PLUGGING COSTS: The cost to plug the well.

RESPONSE ACTIVITY: The cost for removing contaminated soils and fluids in the tank and isolating wellheads and flow lines prior to the plugging of the well.

REMEDIAL INVESTIGATION: The estimated cost for studies to define any soils or groundwater and associated resources contamination.

REMEDICATION: The estimated cost to remediate soil and groundwater. Costs are to be determined after completing the plugging, interim response, and remedial investigation.

SITE RESTORATION: The cost for removal of production equipment and flow lines, disposal of fluids, excavation and disposal of contaminated soils, grading of soils, and revegetation of the area. Site restoration occurs after the plugging of the well.

TOTAL COSTS: The total costs per well.

STATE HOUSE: The Michigan House District where the well is located.

STATE SENATE: The Michigan Senate District where the well is located.

ORPHAN WELL FUND EXPENDITURES FOR FISCAL YEAR 2012-2013

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	CATEGORY	PLUGGING COSTS	RESPONSE ACTIVITY	REMEDIAL INVESTIGATION	REMEDICATION	SITE RESTORATION	TOTAL COSTS *	STATE HOUSE	STATE SENATE
Gratiot	1193	1931	Miller & Combs	Rebecca Kerr #1 (2 wells – 0 TB)	II	\$42,182	\$0	\$0	\$0	\$22,839	\$65,021	93	32
Eaton	429	1929	Whittmer Oil & Gas Corporation	Alpha Portland Cement #1 (1 well site– 0 TB)	III	\$0	\$3,666	\$8,049	\$0	\$21,221	\$32,936	71	24
Muskegon	Various	1996	Muskegon County –2013	Various Wells (3 wells – 0 TB)	II	\$67,195	\$0	\$0	\$0	\$29,005	\$96,200	92	34
Various	--	--	Various Operators	Category III Site Investigations (4 sites)	III	\$0	\$0	\$19,477	\$0	\$0	\$19,477	--	--
**Otsego	29028	1973	Saba Energy of Texas	Leacock & Hubbard Underwood Unit #1 (ongoing remediation project)	III	\$0	\$0	\$0	\$9,675	\$0	\$9,675	105	36
Plugging, Response Activity, and Site Restoration Costs:						\$109,377	\$3,666	\$27,526	\$9,675	\$73,066	\$223,310		
Orphan Well Program Administrative Costs:											\$311,654		
TOTAL COSTS :											\$534,964		

TB = Tank Battery

** = continuation of Ground Water Remediation Project started in FY 2011-2012

Note: See Orphan Well Fund Project Summary for details on activities undertaken at the above projects.

ORPHAN WELL FUND PROJECT SUMMARY

The following is a brief description of Orphan Well Fund Projects for FY 2012-2013:

Gratiot County – Kerr #1 (PN #1193): This well, in Gratiot County, was drilled in 1929 to the Parma sand formation.

Initial investigation of the well was not encouraging. There was little optimism of successfully reaching bottom without extensive drilling/milling of old tubulars abandoned in the well.

Actions proceeded by carefully excavating around the well, removing deteriorated sections of outer casings and cautiously fishing and recovering the old tubulars intact. Accomplishing this allowed the reentry to proceed smoothly and without great effort. Ultimately, the well was plugged to surface without incident and the site restored.

Also, soon after accessing the property, the landowner made us aware of another well (from the same 1930s era) left unplugged and within a few hundred yards of operations. Upon reviewing the scenario and performing minor testing, it was realized this wellbore was open and without obstruction. An on-site determination was made, upon completion of the targeted Kerr #1 well, to proceed and properly seal this additional well while on site. This saved the State of Michigan mobilization fees and associated costs while safely securing the wellbore.

The additional well was successfully plugged to surface without incident and the site restored.

The Kerr #1 well site was removed from the Orphan Well List upon completion of this project.

There was no salvage value received from this project.

Eaton County – Alpha Portland Cement #1 (PN #429): This project located in Eaton County, near the village of Bellevue, was initially reported in a previous report from operations occurring in FY 2002-2003 as follows:

Whittmer Oil & Gas Corporation – Alpha Portland cement #1: The Alpha Portland Cement #1 well was previously plugged by the operator in September 1930. The well was cut and capped during this project. The site was restored as nearly as possible to the original condition. There was no salvage equipment. The well was removed from the Orphan Well List upon completion of this project.

However, early in 2013, the Orphan Well Program received notice that a large crater suddenly formed after heavy rainfall. The well casing was once again visible and surface soil was being lost into the depression.

Investigation of the site confirmed the reports and measures were immediately taken to safely secure the location. Geologists from within the OOGM were engaged to assist in investigating this phenomenon. Initial assumptions were that the wellbore was open and material was transported down hole. It soon became evident this was unlikely.

It is known that the bedrock of the Bellevue area is comprised of shallow highly fractured Bayport Limestone. The area has a rich history in mining this limestone for creating high grade cement and mortar.

Regional investigation identified an open pit mine, opened in the summer of 2012, approximately 100 yards west of the cratering feature, which created an outlet for ground water flow to occur. Also, the owner of the property had a septic leach field almost directly over the old well location, which may also have been a contributing factor.

The crater was very localized and not a classically defined sinkhole feature. Additionally, there are no documented cases of sinkholes in this area in over 100 years of mining activity. Certainly, several issues were in play contributing to the loss of material, possibly including the unusual drought conditions of 2012.

While not a typical response activity for the Orphan Well Program, since the well casing was at the center of the crater, resources were mobilized to remedy the situation and protect the wellbore location should future reentry become necessary. Excavation contractors were consulted and a remediation/site restoration plan was created to seal around the casing and prevent the further loss of surface material into the fractured limestone subcrop.

In order to further understand how several factors may have contributed to cause the crater formation, OOGM scientists acquired cutting edge passive seismic testing equipment. Data from this equipment is allowing for a three dimensional model to be created defining the unique geological feature in the immediate vicinity of the event.

This site will be monitored periodically for any changes.

Muskegon County 2013 Project: A gas well, previously used as a 'domestic' well for a greenhouse operation and two visually unusual well casings left above ground uncut and uncapped, comprised this project in Muskegon County.

Years of neglect and weathering caused the gas well to be inoperative and structurally questionable. It was also suspected that there was gas pressure on the well. Safe release of that pressure allowing entry into the well was essential. The technique of 'hot tapping' was used to create a new and safe valve port into the casing. Upon installation of this new port, pressure was safely relieved and water pumped into the casing to kill the well. Once 'zero' pressure was achieved, the well was dismantled and new operable valves and fittings installed. The well was then successfully plugged without incident.

The well locations with 'curious' casing situations were addressed with interest. The first site consisted of a 7-inch casing approximately 3-foot above grade. Initially, an indistinguishable piece of iron was visible within the casing just below the open top.

Upon careful cutting and removal of the outer casing, it was found that the iron was a relatively intact set of cable tool drilling jars. Once removed, it was discovered the jars were resting on hard cement within the casing. Examination of the well did not indicate any issues with previous plugging events with no sign of leakage or contamination. The casing was cut below grade and a steel plate welded upon the top to properly complete plugging. Apparently, the casing acted as a repository for unwanted junk left behind by previous plugging actions that occurred in 1930.

The second unique casing was found to be 16-inch casing approximately 12-foot above grade. Coordinates were rechecked and found to indeed be the location of a well on record. No record of this size casing was indicated in historical records and to be sure, is highly unusual for a cable tool drilling scenario of the 1930s era. There was no evidence of any faults or issues from previous plugging activity. The pipe was cut below grade and a steel plate welded upon the top

to complete plugging. It is assumed that this was an undocumented surface string that became stuck upon attempts to pull same during plugging efforts of the day.

Salvage of recovered project materials totaling \$1,080 was returned to the Orphan Well Fund to aid in future activity.

All sites were restored and removed from the Orphan Well List upon completion of the project.

Otsego County - Leacock & Hubbard & Underwood Unit #1 Remediation Project: The OOGM continued remediation at the Leacock et al. #2-21 Orphan Well site. Remediation of elevated levels of 1, 2, 4 – Trimethylbenzene (TMB); 1, 3, 5 – TMB; and Xylenes started in the summer of 2012 and will continue until contamination levels below residential drinking water thresholds (as per Part 201, Environmental Remediation, of the NREPA, 'Generic Unrestricted Cleanup Criteria') are achieved.

As reported previously, upon completion of site surface restoration and remediation system installation, the system was energized in late summer of 2012. However, site operation was suspended during winter months due to mechanical problems and freezing of condensation in the soil vapor extraction lines. Early in 2013 the necessary repair, maintenance, and system adjustments were performed and the system was operated continuously from May 9 to the end of FY 2012-2013.

On August 2, 2013, the system received new granulated carbon media for air filtration purposes. The system resumed operation with only an occasional shut-down for minor maintenance.

Routine sampling of soil and water continues on a quarterly basis. The sampling, to date, has allowed OOGM staff to establish baseline monitoring for the site. Monitoring will continue in 2014 to further define and establish trends in the contaminant plume and determine system effectiveness.

The main costs in 2013 were, and will continue to be, utility costs for operation and periodic maintenance.

Given current site conditions, past data accumulation, recent adjustments to the system, and the time frame, the OOGM is anticipating a marked remediation system response during FY 2013-2014.

Category III Site Investigations Project: Orphan well funds were utilized to conduct subsurface investigation at five Orphan Well Category III sites in 2013. The sites are: Connolly B-1 (PN #19368) and Kobetich #L-2 (PN #18112), Gladwin County; Lake County Farm (PN #12767), Lake County; Price #1 (PN #1281), Ogemaw County; and Thayer #3 and #5 (PN #1941 and PN #3628), Isabella County.

Soil borings were advanced near the well or suspected areas where contamination was thought to remain after the initial plugging/site restoration phase. Elevated levels of hydrocarbons were detected in the soils at the Connolly B-1, Kobetich #L-2, and Lake County Farm sites.

A sufficient number of boings were installed to delineate the extent of remaining hydrocarbon contamination in the soil.

At the Price #1 and Thayer #3 and #5 sites, the soil analytical results indicate the sites have achieved clean closure status. Subsequently, these sites were removed from the Category III list.

Orphan Well Fund List

(Fiscal Year 2013-2014)



Michigan Department of Environmental Quality
Office of Oil, Gas, and Minerals

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FISCAL YEAR 2103-2014 ORPHAN WELL LIST

The Orphan Well List (List), prepared by the Department of Environmental Quality (DEQ), Office of Oil, Gas, and Minerals (OOGM), is a compiled listing of oil or gas wells scheduled to be plugged and those at which interim response, remedial investigation, remediation, or site restoration should be performed with money from the Orphan Well Fund. The List is arranged in order of priority using the score assessment determined for each well or project. Estimated costs are given for the total cost of each well or project and the cost of each phase of the project (plugging costs, interim responses, etc.). The List also shows the State House and State Senate District in which each well is located. The criteria used to calculate the score and a brief description of column headings are identified below.

The List is divided into three categories of wells: **Category I** wells are known to be leaking oil, gas, and/or brine; **Category II** wells are not known to be leaking, but may have had past leaks or spills, have been incompletely plugged by the operator, or have surface equipment or facilities remaining; and **Category III** wells have been properly plugged but still have remediation needs.

Category I wells are subdivided into three subcategories based on their potential risk to public health, safety, and the environment. The wells are listed in a descending order of priority within each subcategory.

Category IA wells are abandoned oil and gas wells that are leaking significant volumes of gas or that, as a result of leaking oil or brine, are contaminating the groundwater used for public consumption.

Category IB wells are abandoned oil and gas wells that are leaking oil, resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

Category IC wells are abandoned oil and gas wells that are leaking gas or brine, resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

Category II wells are abandoned, nonleaking wells. These wells may also have been incompletely plugged by the operator or have surface equipment or facilities remaining. Category II wells are then grouped and prioritized by project.

Category III wells have been plugged; however, site remediation has not yet been completed.

Abandoned oil and gas wells that qualify for plugging under Part 616, Orphan Well Fund, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, must be scored prior to being added to the List. All wells are scored (prioritized) utilizing a well assessment program. The well assessment program was developed by the OOGM. This system factors in: presence and type of contaminants in soils or groundwater from spills, potential for future contamination, sensitivity of drinking water supplies, degree to which groundwater is protected by geology, age of the well, presence of hydrogen sulfide gas, potential for public exposure to contaminants, and the environmental sensitivity of the area.

The score values are only applicable within their respective category. All Category I wells have priority over Category II wells. However, special considerations such as assessment of risk and available technology to successfully resolve a situation, the inability to obtain access to the location, or the need to obtain auxiliary permits may necessitate temporarily bypassing a well with a higher score in favor of a well with a lower score.

CATEGORY I WELLS

CATEGORY IA WELLS are leaking significant volumes of gas or that, as a result of leaking oil or brine, are contaminating the groundwater used for public consumption.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST.	REMEDIA-TION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE
TOTAL ESTIMATED COSTS:													
TOTAL WELLS: 0													

CATEGORY IB WELLS are leaking oil, resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST.	REMEDIA-TION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE
Muskegon	653	1929	Damm, Carl & Dollie	C.P. Damm #4	24	>\$750,000	\$15,000	T.B.D.	T.B.D.	T.B.D	>\$765,000	92	34
Midland	2076	1934	Turner, Fred	Eugene St. John B #2	19	>\$300,000	\$0	T.B.D.	T.B.D.	T.B.D	>\$300,000	99	36
TOTAL ESTIMATED COSTS:						>\$1,050,000	\$15,000	T.B.D.	T.B.D.	T.B.D	>\$1,065,000		
TOTAL WELLS: 2													

CATEGORY IC WELLS are leaking gas or brine, resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST.	REMEDIA-TION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE
TOTAL ESTIMATED COSTS:													
TOTAL WELLS: 0													

CATEGORY II WELLS - PRIORITIZED

CATEGORY II WELLS are not known to be leaking. Projects are delineated by the alternately shaded and nonshaded groups.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	CAT II WELL SCORE	CAT II PROJ. SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST	REMEDIA-TION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE
Clare	4939	1938	Lucas, George	Loveless #1	24	24	\$45,000	\$0	\$0	T.B.D.	\$15,000	\$60,000	97	35
Clare	4870	1938	Lucas, George	Wood #1	24	24	\$45,000	\$0	\$0	T.B.D.	\$15,000	\$60,000	97	35
Calhoun	30539	1975	R&B Energy Co. LLC	Barnes & Ashley Unit 1	18	19	\$40,000	\$0	\$0	T.B.D.	\$25,000	\$65,000	62	19
Eaton	42246	1991	R&B Energy Co. LLC	Whittum #1-5A	20	19	\$40,000	\$0	\$0	T.B.D.	\$10,000	\$50,000	71	24
Clare	11435	1945	LaVoye, Lewis & Mabel	LaVoye & Esterline #1	15	15	\$30,000	\$0	\$0	T.B.D.	\$2,500	\$32,500	97	35
Clare	25745	1964	VanBuskirk, Richard	VanBuskirk #1	15	15	\$30,000	\$0	\$0	T.B.D.	\$5,000	\$35,000	97	35
Mason	21377	1959	Miller Brothers	Bedker, Leo & Alice #2	15	15	\$85,000	\$0	\$0	T.B.D.	\$5,000	\$90,000	101	34
Oceana	33493	1980	Adams, Frank Jr.	Lauber #1-6 BDW	14	14	\$45,000	\$0	\$0	T.B.D.	\$15,000	\$60,000	100	34
Lenawee	16693	1959	McClenathan, Fred	McClenathan, Fred #1	14	14	\$50,000	\$0	\$0	T.B.D.	\$5,000	\$55,000	57	16
Hillsdale	46018	1992	Reservoir Research Corporation	Denning #3-20 BDW	13	13	\$45,000	\$0	\$0	T.B.D.	\$5,000	\$50,000	58	16
Mason	1040	1930	Diamond MI	Diamond #2	12	12	\$40,000	\$0	\$0	T.B.D.	\$5,000	\$45,000	101	34
Shiawassee	55375	2002	Davenport, Coye	Davenport #4-2	12	12	\$30,000	\$0	\$0	T.B.D.	\$5,000	\$35,000	85	22
St. Clair	23428	1961	Wenning & Forsyth	Wenning & Forsyth #1	12	12	\$35,000	\$0	\$0	T.B.D.	\$5,000	\$40,000	81	25
Manistee	N/A	N/A	Manistee Gas LLC	Brown CPF	13	13	PC*	\$0	\$0	T.B.D.	\$125,000	\$125,000	101	35
Eaton	29925	1974	Midway-Terrel Operating Co.	Zentmyer-Cupp#1	11	11	*PC	\$0	\$0	T.B.D.	\$10,000	\$10,000	71	24
Otsego	44355	1991	Duff Oil Company	Forterra #1-15	11	11	PC*	\$0	\$0	T.B.D.	\$20,000	\$20,000	105	36
Wexford ¹	N/A	<1931	unknown	Cummer Diggins Location	7	11	\$5,000	\$0	\$0	T.B.D.	\$2,500	\$7,500	102	35
Sanilac ¹	966	1930	K-Bar Oil & Gas	Kolodziej #1	11	11	\$2,500	\$0	\$0	T.B.D.	\$5,000	\$7,500	83	25
Tuscola ¹	64	1928	Murphy Oil Co.	Adam Gottler #1	11	11	\$2,500	\$0	\$0	T.B.D.	\$5,000	\$7,500	84	31
St. Clair ¹	506	1929	Patterson, BP Trustee	Routley #1	13	11	\$5,000	\$0	\$0	T.B.D.	\$5,000	\$10,000	83	25
Bay ¹	1016	1930	Eureka Oil Corp	Lambert-Cloverleaf #1	11	11	\$5,000	\$0	\$0	T.B.D.	\$2,500	\$7,500	98	31
Isabella ¹	471	1929	McCandless, J.	Bufford #1	11	11	PC*	\$0	\$0	T.B.D.	\$5,000	\$5,000	99	33
Ogemaw	4333	1937	R.E. Gallagher	Vincent, Ellis #1	11	10	\$55,000	\$0	\$0	T.B.D.	\$8,000	\$63,000	103	35

CATEGORY II WELLS - PRIORITIZED

CATEGORY II WELLS are not known to be leaking. Projects are delineated by the alternately shaded and nonshaded groups.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	CAT II WELL SCORE	CAT II PROJ. SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST	REMEDIA-TION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE	
Ogemaw	31207	1976	States Petroleum	Sheppard & Marquieta #1	9	10	\$65,000	\$0	\$0	T.B.D.	\$2,000	\$67,000	103	35	
Presque Isle	40971	1988	Richland Exploration	Compton #1-14B	8	10	\$50,000	\$0	\$0	T.B.D.	\$4,000	\$54,000	106	36	
Presque Isle	40923	1988	Richland Exploration	Kimball #1-11	11	10	\$50,000	\$0	\$0	T.B.D.	\$7,000	\$57,000	106	36	
Manistee	39990	1986	Alumni Petroleum and Resource Management Corp.	Marshall Enterprises #1-23C	9	9	*PC	\$0	\$0	T.B.D.	\$10,000	\$10,000	101	35	
Estimated Costs Remaining:							\$800,000	\$0	\$0	T.B.D.	\$328,500	\$1,128,500			
Current Number of Category II Orphan Wells:							27								

*PC = Plugging Complete

¹ = wells regrouped from previous years reporting into a Statewide project.

CATEGORY III WELLS

CATEGORY III WELLS – Sites still require remedial work.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	SCORE	ACTUAL PLUGGING	ACTUAL INTERIM RESPONSE	ACTUAL SITE RESTOR.	TOTAL COSTS TO DATE	ESTIMATED REMEDIAL INVEST.	ESTIMATED REMED.	ESTIMATED FUTURE COSTS	SALVAGE (Income)	STATE HOUSE	STATE SENATE
Allegan	15891	1950	Michigan Pipe Co.	Maude Mesick #1	17	\$27,580	\$0	\$19,374	\$46,953	\$10,000	\$50,000	\$60,000	\$0	80	26
Calhoun	N/A	1970	James Kelly dba Kelly Oil Co.	Miller CTB	13	\$141,282	\$0	\$5,671	\$146,953	\$1,500	\$80,000	\$81,500	\$0	62	19
Gladwin	18112	1953	Lakeland Oil Corp	Kobetich #L-2	25	\$50,420	\$0	\$10,400	\$60,820	\$10,000	\$75,000	\$85,000	\$0	97	36
Gladwin	19368	1955	Lakeland Oil Corp.	Connolly #B-1	23	\$50,420	\$0	\$10,400	\$60,820	\$10,000	\$75,000	\$85,000	\$0	97	36
Isabella	1941	1934	Nollem O & G	Thayer, L. # 3	24	\$78,765	\$0	\$11,603	\$90,368	\$20,000	\$80,000	\$100,000	\$0	99	33
Isabella	3628	1937	Nollem O & G	Thayer, L # 5	39	\$60,529	\$0	\$9,331	\$69,860	\$20,000	\$80,000	\$100,000	\$0	99	33
Kent	6056	1939	Bauman, M.H.	Burgess #1	20	\$29,500	0	\$5,300	\$34,800	\$5,000	\$75,000	\$80,000	\$0	74	28
Lake	12767	1946	Byron MacCallum	Lake Co Farm #1	41	\$41,031	\$4,969	\$4,729	\$50,729	\$35,000	\$65,000	\$100,000	\$0	100	35
Manistee	30540	1975	Whitney Oil & Gas Corp.	Hadaway #2-2A	PC*	-	-	-	\$0	\$10,000	\$20,000	\$30,000	\$0	101	35
Montcalm	11919	1945	Kill Drilling Co.	Douglas #1	16	\$40,316	\$0	\$40,268	\$80,584	\$10,000	\$75,000	\$85,000	\$0	70	33
Montcalm	10816	1944	Stewart, Fred	Charnley - Witherall # 1	44	\$39,000	\$0	\$25,900	\$64,900	\$1,500	\$7,000	\$8,500	\$0	70	33
Montcalm	27876	1969	Stewart, James	Graham, H. #1	43	\$33,206	\$0	\$9,190	\$42,396	\$50,000	\$150,000	\$200,000	\$0	70	33
Muskegon	92	1928	Continental Motors Corp.	Continental #1	47	\$56,161	\$4,570	\$6,424	\$67,155	\$50,000	\$200,000	\$250,000	\$0	92	34
Muskegon	85	1928	Muskegon Oil Corp	H. Heinz #3	38	\$46,086	\$5,111	\$2,746	\$53,943	\$10,000	\$35,000	\$45,000	\$0	92	34
Muskegon	114	1928	W. J. Simon	Reeths #1-D	37	\$69,458	\$11,551	\$5,715	\$86,724	\$20,000	\$50,000	\$70,000	\$0	92	34
Oceana	31691	1977	Simmons, J.	Vander Zanden #2	15	\$45,246	\$0	\$5,882	\$51,128	\$5,000	\$50,000	\$55,000	\$0	100	34
Otsego	29028	1973	Saba Energy of TX	Leacock, Hubbard Underwood Unit #1	-	Active Remediation Project								105	36
Ottawa	20899	1958	J & T Distributing	Kneibel #1	19	\$21,000	\$0	\$5,700	\$26,700	\$5,000	\$50,000	\$55,000	\$0	88	30
Ottawa	20219	1956	J & T Distributing	Neahr #3	19	\$21,000	\$0	\$5,700	\$26,700	\$5,000	\$50,000	\$55,000	\$0	88	30
Ottawa	7051	1939	J & T Distributing	Sims #1	19	\$21,000	\$0	\$5,700	\$26,700	\$5,000	\$50,000	\$55,000	\$0	88	30
Estimated Costs Remaining:										\$283,000	\$1,317,000	\$1,600,000			
Total Category III Sites Remaining: 20															

*PC = Plugging Complete