

**SUBJECT**

RACER Lansing  
Water Well Survey

**TO**

Ms. Christine Matlock  
Michigan Department of Environment,  
Great Lakes, and Energy

**DATE**

February 24, 2023

**OUR REF**

RACER Lansing

**DEPARTMENT**

Environment

**PROJECT NUMBER**

30171056

**COPIES TO**

Mr. Dave Favero, RACER Trust

**NAME**

Tiffany Linder  
Tiffany.Linder@arcadis.com

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Arcadis of Michigan, LLC (Arcadis) on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust has completed a water well survey within a one-mile radius from the property boundaries of RACER Trust Plants 2, 3, and 6, located in Lansing, Michigan (Site). The water well survey identifies all water wells and nearby Well Head Protection Areas (WHPA) within one mile of the Site and locations are shown on **Figure 1**.

**EGLE Water Well Viewer Summary**

A review of the Michigan Department of Environment, Great Lakes, and Energy's (EGLE's) water well viewer database, Wellogic (<https://www.mcgi.state.mi.us/waterwellviewer/>), was completed for the area within one mile of Site boundaries. The locations and type of water supply wells are shown on **Figure 1** and **Table 1**, respectively. Well logs for wells obtained from the EGLE Water Well Viewer are included in **Attachment 1**.

Based on the database search, a total of 35 wells are within one mile of the Site (**Table 1**). At the Site, groundwater monitoring wells have been installed in three separate hydrologic zones to evaluate impacts and groundwater flow: the perched zone, deep overburden zone and weathered bedrock/bedrock zone. After review of historical and current groundwater contour mapping at the Site, groundwater flows differently in each of these zones across the three Plants.

- **Perched Zone:** Encompasses monitoring wells screened within the shallow sediments (typically 10-40 feet below ground surface (feet bgs). The perched zone is located above a clay till aquitard and consists of primarily clay and silt with intermittent saturated sand units.
- **Deep Overburden Zone:** Present below the clay till where saturated overburden is present above the weathered bedrock. Saturated deep overburden is only observed above a bedrock low observed at Plant 3 and includes monitoring wells screened between 52 and 90 feet bgs. This zone is hydraulically connected to the weathered bedrock and bedrock zones. Where observed, the hydraulic gradient is to the northwest on the north central portion of Plant 3 and to the southeast in the southwest portion of Plant 3.
- **Weathered Bedrock/Bedrock Zone:** Encompasses monitoring wells screened within the weathered zone and deeper consolidated bedrock with well screens installed at depths ranging from 77 and 195 feet bgs. Hydraulic gradient in bedrock is variable with groundwater generally flowing from northwest to southeast.

Twenty-seven (27) of the thirty-five (35) wells identified within one mile of the Site are either owned by Lansing Township or by the Lansing Board of Water and Light (LBWL). These 27 wells are all Type I Public, which is a

community well that provides year-round service to not less than 25 residents or not less than 15 living units. These wells are associated with two Type I Traditional WHPAs within one mile of the site boundaries. The WHPAs include Water System Serial Numbers (WSSN) 3760 (LBWL), and 3770 (Lansing Township). The total depths of the public water supply wells range between 225 feet bgs and 500 feet bgs and are open borehole construction within the Saginaw and Grand River Formation sandstone, shale and limestone units. The wells are typically cased to 25 to 50 feet into the bedrock to assure stability of the open hole below the casing. Groundwater is extracted from the open borehole with line shaft pumps that can produce up to four hundred gallons per minute. Based on previous communication with LBWL, two of the wells (BWL-10-15 and BWL-10-12) were taken offline and abandoned during the 1980's due to vinyl chloride impacts from non-Site sources located to the northeast of Plant 3.

No residential drinking water wells were identified within a mile of the Site during the Wellogis database search.

The remaining eight (8) wells within one mile of Site boundaries are as follows:

- Four (4) wells are RACER Trust/Arcadis monitoring wells, MW-12-01, MW-12-02, MW-12-03, MW-12-04, (Wellogis ID – 33000015171, 33000015172, 33000015170, 33000015169).
- Two (2) wells (one test well and one irrigation well) are approximately one mile south of the Site, on the south side of the Grand River at 2200 Moores River Drive and owned by the Country Club of Lansing. These wells – 33000010342 and 33000010343 were drilled to 370 feet bgs. No well screens were installed at either of these wells since the well intakes are listed as bedrock wells. Well 33000010342 well casing extends down to 370 feet bgs into sandstone and the well casing is grouted from ground surface to 45 feet bgs. Well 33000010343 well casing extends down to 370 feet bgs into a shale bedrock unit and the well casing is grouted from ground surface to 55 feet bgs.
- One (1) irrigation well southwest of Site (Well – 33000006278), located at 514 Stoner was drilled to 225 feet bgs into sandstone and the well casing is grouted from ground surface to 129 feet bgs.
- One (1) well west of the Site is owned by Grace Brethren Church. The log for Well 23000000122 does not provide much information on the installation of this well. The remarks section indicates no log exists as of 9/14/98 and the well use/status is closed.

Nine wells were identified within a 0.25-mile radius of the Site (**Figure 1**): MW-12-01, MW-12-02, MW-12-03, MW-12-04, BWL-10-06; BWL-10-10; BWL-10-15; Lansing Township Well #4; Lansing Township Well #5.

- MW-12-01 (110 feet bgs – bedrock), MW-12-02 (110 feet bgs – bedrock), MW-12-03 (80 feet bgs – bedrock) and MW-12-04 (100 feet bgs – bedrock) are bedrock groundwater monitoring wells owned by RACER Trust that were installed as part of the RCRA Facility Investigation (RFI) activities.
- BWL-10-06 (total depth 427 feet bgs – bedrock), BWL-10-10 (total depth 410 feet bgs – bedrock) and BWL-10-15 (total depth 440 feet bgs – bedrock) are Type I Water Wells owned by LBWL. As noted above, Well BWL-10-15 is off-line and was abandoned in the 1980s.
- Lansing Township Well #4 (total depth 404 feet bgs – bedrock) and Lansing Township Well #5 (total depth 400 feet bgs – bedrock) are Type I Water Wells owned by Lansing Township located west of Plants 2 and 3.

In summary, groundwater impacts observed at RACER Trust Plants 2, 3, and 6 are well characterized and delineated by monitoring wells, including an extensive bedrock monitoring well network, installed at the Site as

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part of site investigations. The data collected to date suggest a limited risk to municipal water supply wells located within one mile of the RACER Site. The municipal wells located nearest the Site extend several hundred feet into the bedrock with intake zones below any known impact associated with the Site. The active Lansing Township wells located west of Plants 2 and 3 are monitored annually by RACER to verify groundwater impacts (i.e., 1,4-dioxane) noted in weathered bedrock at the Site is not migrating to these wells. The other bedrock water supply wells closest to the Site are noted as closed or are irrigation and not used for potable/residential use. Finally, there are no residential drinking water wells noted within one mile of the Site.

Please let us know if you have any questions regarding this information.

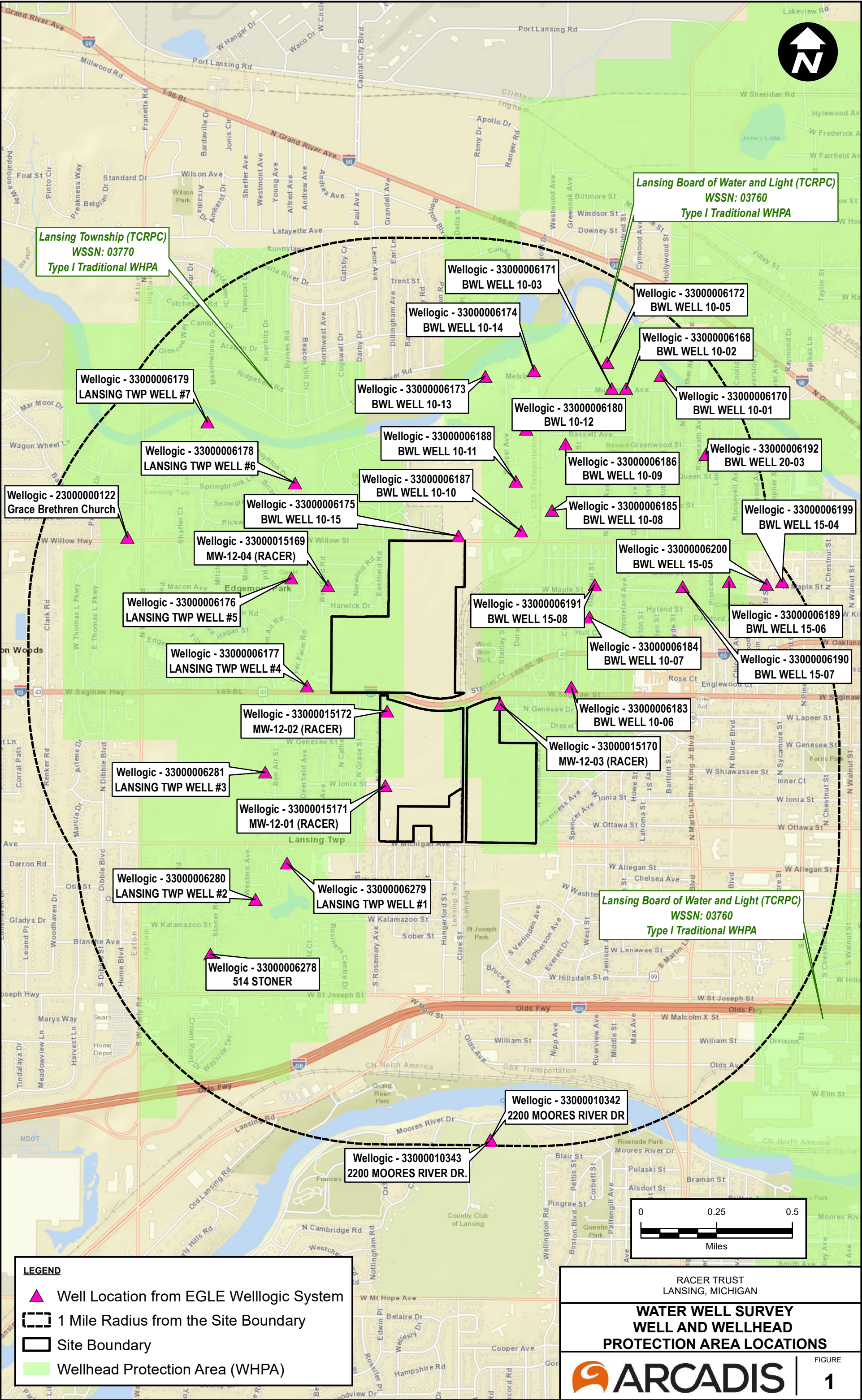
Enc. Figure 1 – Water Well Survey Well and Wellhead Protection Area Locations

Table 1 – Well Logic Well Summary

Attachment 1 – Well Logic Records

**FIGURE**

CITY: Novi DIV: ENV DB: TRY PIC: J.Barrett PM: T. Linder TR: PROJECT NUMBER: 30112892 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl T: ENV\RACER\Buffalo\MXDs\2022 Wellhead Protection Areas\Well Protection Areas July 2022.mxd PLOTTED: 1/24/2023 11:04:10 AM BY: KPullen



**TABLE**

**Table 1**  
**Well Logic Well Summary**  
**RACER Trust**  
**RACER Lansing**  
**Lansing, MI**



Well Use	Owner	County	Township	Address	City	Zip Code	Well Depth (feet)	Completion Depth Date	Well Record
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-01	LANSING		500		<a href="#">Wellogic - 33000006170</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-02	LANSING		402		<a href="#">Wellogic - 33000006168</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-03	LANSING		418	7/10/1929	<a href="#">Wellogic - 33000006171</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-05	LANSING	--	417	7/31/1929	<a href="#">Wellogic - 33000006172</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-06	LANSING	48915	427	4/4/1946	<a href="#">Wellogic - 33000006183</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-07	LANSING	--	443	10/16/1946	<a href="#">Wellogic - 33000006184</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-08	LANSING	--	422	6/6/1945	<a href="#">Wellogic - 33000006185</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-09	LANSING	48915	435	11/3/1952	<a href="#">Wellogic - 33000006186</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-10	LANSING	--	410	3/22/1945	<a href="#">Wellogic - 33000006187</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-11	LANSING	--	451	3/22/1945	<a href="#">Wellogic - 33000006188</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-12	LANSING	--	436	4/12/1945	<a href="#">Wellogic - 33000006180</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-13	LANSING	--	388	12/15/1945	<a href="#">Wellogic - 33000006173</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-14	LANSING	--	423	6/7/1945	<a href="#">Wellogic - 33000006174</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 10-15	LANSING	--	440	5/19/1961	<a href="#">Wellogic - 33000006175</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 15-04	LANSING	--	437	Not Reported	<a href="#">Wellogic - 33000006199</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 15-05	LANSING	--	425	Not Reported	<a href="#">Wellogic - 33000006200</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 15-06	LANSING	--	445	Not Reported	<a href="#">Wellogic - 33000006189</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 15-07	LANSING	--	430	Not Reported	<a href="#">Wellogic - 33000006190</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 15-08	LANSING	--	430	7/26/1945	<a href="#">Wellogic - 33000006191</a>
TY1PU	BOARD OF WATER & LIGHT	Ingham	Lansing	BWL WELL 20-03	LANSING	--	430	9/28/1959	<a href="#">Wellogic - 33000006192</a>

**Table 1**  
**Well Logic Well Summary**  
**RACER Trust**  
**RACER Lansing**  
**Lansing, MI**



Well Use	Owner	County	Township	Address	City	Zip Code	Well Depth (feet)	Completion Depth Date	Well Record
TY1PU	LANSING TOWNSHIP	Ingham	Lansing	LANSING TWP WELL #1	LANSING	--	404	9/17/1945	<a href="#">Wellogic - 33000006279</a>
TY1PU	LANSING TOWNSHIP	Ingham	Lansing	LANSING TWP WELL #2	LANSING	--	417	10/8/1945	<a href="#">Wellogic - 33000006280</a>
TY1PU	LANSING TOWNSHIP	Ingham	Lansing	LANSING TWP WELL #3	LANSING	--	399	9/6/1945	<a href="#">Wellogic - 33000006281</a>
TY1PU	LANSING TOWNSHIP	Ingham	Lansing	LANSING TWP WELL #4	LANSING	--	404	6/17/1952	<a href="#">Wellogic - 33000006177</a>
TY1PU	LANSING TOWNSHIP	Ingham	Lansing	LANSING TWP WELL #5	LANSING	--	400	1/7/1988	<a href="#">Wellogic - 33000006176</a>
TY1PU	LANSING TOWNSHIP	Ingham	Lansing	LANSING TWP WELL #6	LANSING	--	441	6/18/1966	<a href="#">Wellogic - 33000006178</a>
TY1PU	LANSING TOWNSHIP	Ingham	Lansing	LANSING TWP WELL #7	LANSING	--	405	3/7/1967	<a href="#">Wellogic - 33000006179</a>
TESTW	COUNTRY CLUB OF LANSING	Ingham	Lansing	2200 MOORES RIVER DR	LANSING	48910	370	2/2/1995	<a href="#">Wellogic - 33000010342</a>
TESTW	Racer Trust/Arcadis	Ingham	Lansing	GM Plant # 2, North side	Lansing	48912	110	3/19/2012	<a href="#">Wellogic - 33000015172</a>
TESTW	Racer Trust/Arcadis	Ingham	Lansing	GM Plant #6	Lansing	48912	80	3/22/2012	<a href="#">Wellogic - 33000015170</a>
TESTW	Racer Trust/Arcadis	Ingham	Lansing	Rosemany and GM Plant #2	Lansing	48912	110	3/19/2012	<a href="#">Wellogic - 33000015171</a>
TESTW	Racer Trust/Arcadis	Ingham	Lansing	Timber Drive	Lansing	48917	100	3/22/2012	<a href="#">Wellogic - 33000015169</a>
OTH	GRACE BRETHERN CHURCH	Eaton	Delta	--	--	--	0	Not Reported	<a href="#">Wellogic - 23000000122</a>
IRRI	COUNTRY CLUB OF LANSING	Ingham	Lansing	2200 MOORES RIVER DR.	LANSING	48910	370	2/8/1995	<a href="#">Wellogic - 33000010343</a>
IRRI	JOHN EATON	Ingham	Lansing	514 STONER	LANSING	--	225	2/18/1990	<a href="#">Wellogic - 33000006278</a>

**Table Notes:**

TY1PU	Type I Public Well
TESTW	Test Well
OTH	Other Well
IRRI	Irrigation Well
--	No information available

# **Attachment 1**

**Well Logic Records**





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040205302

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006168</b>  Elevation: 841 ft. Latitude: 42.7556375388 Longitude: -84.5715243284 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 5	<b>Well Status:</b> Inactive	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-02
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 45' N OF MUSKEGON AVE., 100' W OF GLENROSE				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-02 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown		<b>Pump Installed:</b> No	
<b>Well Depth:</b> 402.00 ft.	<b>Well Use:</b> Type I public	<b>Pressure Tank Installed:</b> No	
<b>Well Type:</b> Replacement	<b>Date Completed:</b>	<b>Pressure Relief Valve Installed:</b> No	
<b>Casing Type:</b> Steel - black	<b>Height:</b>		
<b>Casing Joint:</b> Threaded & coupled			
<b>Casing Fitting:</b> None			
<b>Diameter:</b> 12.00 in. to 55.80 ft. depth			
<b>Borehole:</b>			
<b>Static Water Level:</b> 113.00 ft. Below Grade		<b>Formation Description</b>	<b>Thickness</b>
<b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown		<b>Depth to Bottom</b>
		Sand & Gravel W/Clay	45.00
		Gray Sandstone	20.00
		Shale Sandy	15.00
		Sandstone & Shale	10.00
		Blue Shale	130.00
		Gray Sandstone	15.00
		White Sandstone Fine	35.00
		White Sandstone Medium	45.00
		Sandstone Coarse	15.00
		Sandstone Fine	20.00
		Sandstone Medium To Coarse Gray	35.00
		Gray Sandstone	5.00
		White Sandstone	12.00
<b>Screen Installed:</b> No	<b>Intake:</b> Unknown	<b>Geology Remarks:</b>	
<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown		
<b>Grouting Material</b>	<b>Bags</b>	<b>Additives</b>	<b>Depth</b>
Unknown	0.00	None	0.00 ft. to 0.00 ft.
<b>Wellhead Completion:</b> Other, 12 inches above grade		<b>Drilling Machine Operator Name:</b>	
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown	
<b>Type</b>	<b>Distance</b>	<b>Direction</b>	
Unknown	0 ft.		
<b>Abandoned Well Plugged:</b> No		<b>Contractor Type:</b> Unknown	
<b>Reason Not Plugged:</b>		<b>Reg No:</b> 33-0729	
		<b>Business Name:</b>	
		<b>Business Address:</b>	
		<b>Water Well Contractor's Certification</b>	
		This well was drilled under my supervision and this report is true to the best of my knowledge and belief.	
		<b>Signature of Registered Contractor</b>	<b>Date</b>
<b>General Remarks:</b> ORIGINAL WELLID# WAS 05002; WELL 10-02 SEALED W/WASHED PEASTONE 227' TO 402' AND 6.6 YDS OF CONCRETE GROUT FROM 0' TO 227' ON 3-10-83. (CASING ELEV. 840.10)			
<b>Other Remarks:</b> Wellhead Completion:12 inch Above Grade			



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040205304

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006170</b>  <b>Elevation:</b> 811 ft.  <b>Latitude:</b> 42.7562579618  <b>Longitude:</b> -84.569270313  <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 5	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-01
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 350' N OF MUSKEGON AVE. 400' W OF LOGAN ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-01 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown	<b>Well Use:</b> Type I public	<b>Pump Installed:</b> Yes	<b>Pump Installation Only:</b> No
<b>Well Depth:</b> 500.00 ft.	<b>Date Completed:</b>	<b>Pump Installation Date:</b>	<b>HP:</b>
<b>Well Type:</b> Replacement	<b>Height:</b> 0.00 ft. below grade	<b>Manufacturer:</b> Other	<b>Pump Type:</b> Unknown
<b>Casing Type:</b> Unknown		<b>Model Number:</b>	<b>Pump Capacity:</b>
<b>Casing Joint:</b> Unknown		<b>Drop Pipe Length:</b> 0.00 ft.	<b>Pump Voltage:</b>
<b>Casing Fitting:</b> None		<b>Drop Pipe Diameter:</b>	<b>Drilling Record ID:</b>
<b>Diameter:</b>		<b>Draw Down Seal Used:</b> No	
<b>Borehole:</b>		<b>Pressure Tank Installed:</b> No	
		<b>Pressure Relief Valve Installed:</b> No	

<b>Static Water Level:</b> 999.99 ft. Below Grade <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Brown Peat	4.00	4.00
<b>Screen Installed:</b> No  <b>Intake:</b> Unknown		Gray Gravel Silty	4.00	8.00
		Brown Gravel	2.00	10.00
		Yellow Gravel Silty	9.00	19.00
		Gray Sand & Gravel	11.00	30.00
		Light Gray Sandstone Medium	25.00	55.00
		Gray Shale Sandy	5.00	60.00
		Gray Sandstone Fine	10.00	70.00
		Light Gray Shale Sandy	5.00	75.00
		White Sandstone Medium W/Sand	100.00	175.00
		Shale	20.00	195.00
		Gray Sandstone Coarse	25.00	220.00
		White Sandstone Fine	15.00	235.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material</b>	<b>Bags</b> <b>Additives</b> <b>Depth</b>	
Unknown	0.00 None 0.00 ft. to 0.00 ft.	
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown
<b>Type</b>	<b>Distance</b> <b>Direction</b>	
Unknown	0 ft.	
<b>Abandoned Well Plugged:</b> No		
<b>Reason Not Plugged:</b>		

(Continued on page 2)

**General Remarks:** ORIGINAL WELLID# WAS 05004; RECORDED BY R.B. NEWCOMBE FROM SAMPLES FURNISHED BY THE BOARD OF ELECTRIC LIGHT AND WATER COMMISSIONERS, AND SUPPLEMENTARY LOG.

**Other Remarks:** Pump Manufacturer:Pump Manufacturer unknown





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040205305

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham		<b>Township:</b> Lansing	
<b>Well ID: 33000006171</b>  Elevation: 840 ft. Latitude: 42.7556331317 Longitude: -84.5724518081 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 5	<b>Well Status:</b> Active	<b>WSSN:</b> 3760
		<b>Source ID/Well No:</b> BWL WELL 10-03			
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 150' N OF MUSKEGON AVE. 280' W OF GLENROSE			
		<b>Well Owner:</b> BOARD OF WATER & LIGHT			
		<b>Well Address:</b> BWL WELL 10-03 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933	

<b>Drilling Method:</b> Unknown		<b>Pump Installed:</b> Yes		<b>Pump Installation Only:</b> No	
<b>Well Depth:</b> 418.00 ft.		<b>Pump Installation Date:</b>		<b>HP:</b>	
<b>Well Type:</b> Replacement		<b>Manufacturer:</b> Other		<b>Pump Type:</b> Unknown	
<b>Date Completed:</b> 7/10/1929		<b>Model Number:</b>		<b>Pump Capacity:</b>	
<b>Casing Type:</b> Unknown		<b>Drop Pipe Length:</b> 0.00 ft.		<b>Pump Voltage:</b>	
<b>Height:</b> 0.00 ft. below grade		<b>Drop Pipe Diameter:</b>		<b>Drilling Record ID:</b>	
<b>Casing Joint:</b> Unknown		<b>Draw Down Seal Used:</b> No			
<b>Casing Fitting:</b> None		<b>Pressure Tank Installed:</b> No			
<b>Diameter:</b> 12.00 in. to 63.30 ft. depth		<b>Pressure Relief Valve Installed:</b> No			
<b>Borehole:</b>					
<b>Static Water Level:</b> 999.99 ft. Below Grade		<b>Formation Description</b>		<b>Thickness</b>	<b>Depth to Bottom</b>
<b>Well Yield Test:</b>		<b>Yield Test Method:</b> Unknown			
		Sand & Gravel		65.00	65.00
		White Sandstone W/Gravel		5.00	70.00
		Gray Shale		70.00	140.00
		Gray Shale Sandy		30.00	170.00
		White Sandstone Fine To Medium		130.00	300.00
		White Sandstone Coarse		15.00	315.00
		White Sandstone Fine To Medium		85.00	400.00
		Green Shale		18.00	418.00
<b>Screen Installed:</b> No		<b>Intake:</b> Unknown			
<b>Well Grouted:</b> Yes		<b>Grouting Method:</b> Unknown		<b>Geology Remarks:</b>	
<b>Grouting Material</b>		<b>Bags</b>	<b>Additives</b>	<b>Depth</b>	
Unknown		0.00	None	0.00 ft. to 0.00 ft.	
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>			
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown			
<b>Type</b>	<b>Distance</b>	<b>Direction</b>			
Unknown	0 ft.				
<b>Abandoned Well Plugged:</b> No		<b>Contractor Type:</b> Unknown		<b>Reg No:</b> 33-0729	
<b>Reason Not Plugged:</b>		<b>Business Name:</b>		<b>Business Address:</b>	
		<b>Water Well Contractor's Certification</b>			
		This well was drilled under my supervision and this report is true to the best of my knowledge and belief.			
		<b>Signature of Registered Contractor</b>		<b>Date</b>	
<b>General Remarks:</b> ORIGINAL WELLID# WAS 05005; RECORDED BY: O. F. POINDEXTER FROM SAMPLES.					
<b>Other Remarks:</b> Pump Manufacturer:Pump Manufacturer unknown					



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040205306

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006172</b>  Elevation: 825 ft. Latitude: 42.7568809903 Longitude: -84.5727600797 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 5	<b>Well Status:</b> Active	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-05
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 500' W OF GLENROSE AVE. 1100' S OF THE GRAN				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-05 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown	<b>Well Use:</b> Type I public	<b>Pump Installed:</b> Yes	<b>Pump Installation Only:</b> No
<b>Well Depth:</b> 417.00 ft.	<b>Date Completed:</b> 7/31/1929	<b>Pump Installation Date:</b>	<b>HP:</b>
<b>Well Type:</b> Replacement	<b>Height:</b> 0.00 ft. below grade	<b>Manufacturer:</b> Other	<b>Pump Type:</b> Unknown
<b>Casing Type:</b> Unknown		<b>Model Number:</b>	<b>Pump Capacity:</b>
<b>Casing Joint:</b> Unknown		<b>Drop Pipe Length:</b> 0.00 ft.	<b>Pump Voltage:</b>
<b>Casing Fitting:</b> None		<b>Drop Pipe Diameter:</b>	<b>Drilling Record ID:</b>
<b>Diameter:</b> 12.00 in. to 57.10 ft. depth		<b>Draw Down Seal Used:</b> No	
<b>Borehole:</b>		<b>Pressure Tank Installed:</b> No	
		<b>Pressure Relief Valve Installed:</b> No	

<b>Static Water Level:</b> 999.99 ft. Below Grade <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Clay Sand Gravel	15.00	15.00
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		Red Clay W/Stones	30.00	45.00
		Sand & Gravel	5.00	50.00
		Iron Formation	10.00	60.00
		Gray Sandstone Coarse W/Gravel	10.00	70.00
		White Sandstone Fine To Medium	10.00	80.00
		Gray Sandstone	20.00	100.00
		Gray Shale	60.00	160.00
		Interval Not Sampled	5.00	165.00
		Gray Sandstone W/Shale	5.00	170.00
		Gray Shale	15.00	185.00
		Gray Sandstone	5.00	190.00
		Dark Gray Shale	25.00	215.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material</b>	<b>Bags</b> <b>Additives</b> <b>Depth</b>	
Unknown	0.00 None 0.00 ft. to 0.00 ft.	
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown
<b>Type</b> <b>Distance</b> <b>Direction</b>		
Unknown 0 ft.		
<b>Abandoned Well Plugged:</b> No		
<b>Reason Not Plugged:</b>		

(Continued on page 2)

**General Remarks:** ORIGINAL WELLID# WAS 05006; RECORDED BY: O,F, POINDEXTER FROM SAMPLES

**Other Remarks:** Pump Manufacturer:Pump Manufacturer unknown



**Import ID:** 33040205306

<b>Tax No:</b> 0000000000		<b>Permit No:</b>		<b>County:</b> Ingham			<b>Township:</b> Lansing		
<div style="font-size: 2em; font-weight: bold; margin-bottom: 10px;">Well ID: 33000006172</div> <div> <b>Elevation:</b> 825 ft.  <b>Latitude:</b> 42.7568809903  <b>Longitude:</b> -84.5727600797  <b>Method of Collection:</b> Interpolation-Map         </div>				<b>Town/Range:</b> 04N 02W	<b>Section:</b> 5	<b>Well Status:</b> Active	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-05	
				<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 500' W OF GLENROSE AVE. 1100' S OF THE GRAN					
				<b>Well Owner:</b> BOARD OF WATER & LIGHT					
				<b>Well Address:</b> BWL WELL 10-05 LANSING, MI			<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

[illegible]



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040205307

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006173</b>  Elevation: 811 ft. Latitude: 42.756204 Longitude: -84.58068 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 5	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-13
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 2900' N OF WILLOW ST. 300' W OF SUNSET AVE.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-13 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown	<b>Well Use:</b> Type I public	<b>Pump Installed:</b> No
<b>Well Depth:</b> 388.00 ft.	<b>Date Completed:</b> 12/15/1945	<b>Pressure Tank Installed:</b> No
<b>Well Type:</b> Replacement	<b>Height:</b> 0.00 ft. below grade	<b>Pressure Relief Valve Installed:</b> No
<b>Casing Type:</b> Unknown		
<b>Casing Joint:</b> Unknown		
<b>Casing Fitting:</b> Drive shoe		
<b>Diameter:</b>		
<b>Borehole:</b>		

<b>Static Water Level:</b> 999.99 ft. Below Grade <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Topsoil	1.00	1.00
		Yellow Clay Hard	11.00	12.00
		Red Sand	2.00	14.00
		Red Clay Sandy Wet/Moist	11.00	25.00
		Blue Clay	10.00	35.00
		Blue Sandstone	4.00	39.00
		Blue Sandstone	47.00	86.00
		Blue Sandstone Soft	4.00	90.00
		Blue Sandstone Soft	10.00	100.00
		Gray & White Sandstone Fine Hard	20.00	120.00
		Light Gray Sandstone W/Shale	25.00	145.00
		White Sandstone Fine To Medium	1.00	146.00
		White Sandstone Fine	4.00	150.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material</b>	<b>Bags</b> <b>Additives</b> <b>Depth</b>	
Unknown	0.00 None 0.00 ft. to 0.00 ft.	
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown
<b>Type</b>	<b>Distance</b> <b>Direction</b>	
Unknown	0 ft.	
<b>Abandoned Well Plugged:</b> No		
<b>Reason Not Plugged:</b>		

(Continued on page 2)

**General Remarks:** ORIGINAL WELLID# WAS 05007; 14" O.D. DRIVE PIPE WITH CAST STEEL SHOE DRIVEN TO 39'. BOTTOM PIECE INCLUDING SHOE 21'11" TOP PIECE 18'7" LONG. JOINT MADE UP TO BUTT. BACK UP TONGS USED IN PIT. DRIVE SHOE WELDED ON TOP (BY CITY LAST DRIVE 1" TO 15 STROK

**Other Remarks:**





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040205308

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006174</b>  Elevation: 831 ft. Latitude: 42.7564760693 Longitude: -84.5775152136 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 5	<b>Well Status:</b> Inactive	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-14
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 3000' N OF WILLOW ST. 500' E OF SUNSET AVE.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-14 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Cable Tool <b>Well Depth:</b> 423.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b> 13.00 in. to 0.00 ft. depth  <b>Borehole:</b>		<b>Well Use:</b> Type I public <b>Date Completed:</b> 6/7/1945  <b>Height:</b> 0.00 ft. below grade		<b>Pump Installed:</b> Yes <b>Pump Installation Date:</b> <b>Manufacturer:</b> Other <b>Model Number:</b> <b>Drop Pipe Length:</b> 0.00 ft. <b>Drop Pipe Diameter:</b> <b>Draw Down Seal Used:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No		<b>Pump Installation Only:</b> No <b>HP:</b> <b>Pump Type:</b> Unknown <b>Pump Capacity:</b> <b>Pump Voltage:</b> <b>Drilling Record ID:</b>																																											
<b>Static Water Level:</b> 80.00 ft. Below Grade <b>Well Yield Test:</b>		<b>Yield Test Method:</b> Unknown		<table border="1"> <thead> <tr> <th>Formation Description</th> <th>Thickness</th> <th>Depth to Bottom</th> </tr> </thead> <tbody> <tr><td>Topsoil W/Clay</td><td>5.00</td><td>5.00</td></tr> <tr><td>Gravel Wet/Moist</td><td>15.00</td><td>20.00</td></tr> <tr><td>Clay Sandy</td><td>10.00</td><td>30.00</td></tr> <tr><td>Sand &amp; Gravel</td><td>25.00</td><td>55.00</td></tr> <tr><td>Sand Coarse</td><td>5.00</td><td>60.00</td></tr> <tr><td>Sand &amp; Gravel</td><td>15.00</td><td>75.00</td></tr> <tr><td>Blue Clay Stoney</td><td>5.00</td><td>80.00</td></tr> <tr><td>Sand &amp; Gravel Wet/Moist</td><td>10.00</td><td>90.00</td></tr> <tr><td>Blue Shale</td><td>13.00</td><td>103.00</td></tr> <tr><td>White Sandstone Fine</td><td>73.00</td><td>176.00</td></tr> <tr><td>White Sandstone Coarse</td><td>24.00</td><td>200.00</td></tr> <tr><td>White Sandstone Fine</td><td>115.00</td><td>315.00</td></tr> <tr><td>White Sand Soft</td><td>3.00</td><td>318.00</td></tr> </tbody> </table>		Formation Description	Thickness	Depth to Bottom	Topsoil W/Clay	5.00	5.00	Gravel Wet/Moist	15.00	20.00	Clay Sandy	10.00	30.00	Sand & Gravel	25.00	55.00	Sand Coarse	5.00	60.00	Sand & Gravel	15.00	75.00	Blue Clay Stoney	5.00	80.00	Sand & Gravel Wet/Moist	10.00	90.00	Blue Shale	13.00	103.00	White Sandstone Fine	73.00	176.00	White Sandstone Coarse	24.00	200.00	White Sandstone Fine	115.00	315.00	White Sand Soft	3.00	318.00		
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<b>Screen Installed:</b> No  <b>Intake:</b> Unknown				(Continued On Page 2)																																													
<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.				<b>Geology Remarks:</b>																																													
<b>Wellhead Completion:</b> Unknown				<b>Drilling Machine Operator Name:</b>																																													
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>				<b>Employment:</b> Unknown																																													
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>				(Continued on page 2)																																													

**General Remarks:** ORIGINAL WELLID# WAS 05008; 12" SIZER RUN FREE TO 423' 6-7-45. SAMPLES DELIVERED TO MR. WRIGHT 6-8-45.

**Other Remarks:** Pump Manufacturer: Pump Manufacturer unknown





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040207301

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006175</b>  <b>Elevation:</b> 851 ft. <b>Latitude:</b> 42.7485651279 <b>Longitude:</b> -84.5823838811 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 7	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-15
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 700' W OF SUNSET AVE. 100' N OF WILLOW ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-15 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown <b>Well Depth:</b> 440.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b>  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> 5/19/1961 <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> Yes <b>Pump Installation Date:</b> <b>Manufacturer:</b> Other <b>Model Number:</b> <b>Drop Pipe Length:</b> 77.00 ft. <b>Drop Pipe Diameter:</b> <b>Draw Down Seal Used:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No	<b>Pump Installation Only:</b> No <b>HP:</b> <b>Pump Type:</b> Unknown <b>Pump Capacity:</b> <b>Pump Voltage:</b> <b>Drilling Record ID:</b>																																										
<b>Static Water Level:</b> 123.00 ft. Below Grade <b>Well Yield Test:</b> <b>Yield Test Method:</b> Unknown		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Clay</td><td>50.00</td><td>50.00</td></tr><tr><td>Hardpan W/Clay</td><td>10.00</td><td>60.00</td></tr><tr><td>Hardpan Sandy W/Clay</td><td>16.00</td><td>76.00</td></tr><tr><td>Sandstone</td><td>6.00</td><td>82.00</td></tr><tr><td>Shale</td><td>8.00</td><td>90.00</td></tr><tr><td>Sandstone Fine</td><td>15.00</td><td>105.00</td></tr><tr><td>Sandstone W/Shale</td><td>10.00</td><td>115.00</td></tr><tr><td>Shale</td><td>25.00</td><td>140.00</td></tr><tr><td>Sandstone Fine</td><td>5.00</td><td>145.00</td></tr><tr><td>Sandstone Medium</td><td>65.00</td><td>210.00</td></tr><tr><td>Sandstone Fine</td><td>20.00</td><td>230.00</td></tr><tr><td>Sandstone Coarse</td><td>5.00</td><td>235.00</td></tr><tr><td>Sandstone Fine</td><td>10.00</td><td>245.00</td></tr></tbody></table> <p>(Continued On Page 2)</p>		Formation Description	Thickness	Depth to Bottom	Clay	50.00	50.00	Hardpan W/Clay	10.00	60.00	Hardpan Sandy W/Clay	16.00	76.00	Sandstone	6.00	82.00	Shale	8.00	90.00	Sandstone Fine	15.00	105.00	Sandstone W/Shale	10.00	115.00	Shale	25.00	140.00	Sandstone Fine	5.00	145.00	Sandstone Medium	65.00	210.00	Sandstone Fine	20.00	230.00	Sandstone Coarse	5.00	235.00	Sandstone Fine	10.00	245.00
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<b>Screen Installed:</b> No <b>Intake:</b> Unknown	<b>Geology Remarks:</b>																																												
<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.	<b>Drilling Machine Operator Name:</b>																																												
<b>Wellhead Completion:</b> Unknown	<b>Employment:</b> Unknown																																												
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>	<b>(Continued on page 2)</b>																																												
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>																																													
<b>General Remarks:</b> ORIGINAL WELLID# WAS 07001;																																													
<b>Other Remarks:</b> Pump Manufacturer:Pump Manufacturer unknown																																													





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040207302

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006176</b>  Elevation: 874 ft. Latitude: 42.746524 Longitude: -84.593218 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 7	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770;600'S OF WEST WILLOW ST. 2700' EAST OF WAVER				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #5 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

<b>Drilling Method:</b> Unknown <b>Well Depth:</b> 400.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b>  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> 1/7/1988 <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No
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<b>Static Water Level:</b> 999.99 ft. Below Grade <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Yellow Clay	12.00	12.00
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		Blue Clay W/Stones	38.00	50.00
		Sand & Clay Fine	10.00	60.00
		Sand	15.00	75.00
		Hardpan Clayey	5.00	80.00
		Shale Soft	15.00	95.00
		Sandstone Broken	7.00	102.00
		Gray Sandstone	18.00	120.00
		White Sandstone	15.00	135.00
		Sandstone & Shale	10.00	145.00
		White Sandstone	10.00	155.00
		Gray Sandstone	38.00	193.00
		Sandstone & Shale	3.00	196.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>		<b>Employment:</b> Unknown
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>		(Continued on page 2)

**General Remarks:** ORIGINAL WELLID# WAS 07002; 1800' NORTH OF WELL #4. LANSING MUNICIPAL WELL #5. HOLE 14" DIAMETER. DRILLER; OHIO ,DRILLING

**Other Remarks:**





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040207303

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006177</b>  Elevation: 863 ft. Latitude: 42.741357 Longitude: -84.592179 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 7	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770; 90' N OF W SAGINAW ST. 1050' E OF MORRIS AV				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #4 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

<b>Drilling Method:</b> Unknown <b>Well Depth:</b> 404.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> Drive shoe  <b>Diameter:</b>  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> 6/17/1952 <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No																																										
<b>Static Water Level:</b> 89.00 ft. Below Grade <b>Well Yield Test:</b>		<b>Yield Test Method:</b> Unknown																																										
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Yellow Clay &amp; Sand</td><td>12.00</td><td>12.00</td></tr><tr><td>Blue Clay &amp; Sand</td><td>13.00</td><td>25.00</td></tr><tr><td>Yellow Sand &amp; Clay</td><td>10.00</td><td>35.00</td></tr><tr><td>Blue Sand &amp; Clay</td><td>12.00</td><td>47.00</td></tr><tr><td>Blue Clay &amp; Sand</td><td>38.00</td><td>85.00</td></tr><tr><td>Red Sand &amp; Clay</td><td>29.00</td><td>114.00</td></tr><tr><td>Sandstone Broken</td><td>3.00</td><td>117.00</td></tr><tr><td>Sandstone</td><td>30.00</td><td>147.00</td></tr><tr><td>Shale</td><td>4.00</td><td>151.00</td></tr><tr><td>Sandstone &amp; Shale Broken</td><td>9.00</td><td>160.00</td></tr><tr><td>Sandstone</td><td>25.00</td><td>185.00</td></tr><tr><td>Sandstone &amp; Shale</td><td>4.00</td><td>189.00</td></tr><tr><td>Shale</td><td>21.00</td><td>210.00</td></tr></tbody></table>	Formation Description	Thickness	Depth to Bottom	Yellow Clay & Sand	12.00	12.00	Blue Clay & Sand	13.00	25.00	Yellow Sand & Clay	10.00	35.00	Blue Sand & Clay	12.00	47.00	Blue Clay & Sand	38.00	85.00	Red Sand & Clay	29.00	114.00	Sandstone Broken	3.00	117.00	Sandstone	30.00	147.00	Shale	4.00	151.00	Sandstone & Shale Broken	9.00	160.00	Sandstone	25.00	185.00	Sandstone & Shale	4.00	189.00	Shale	21.00	210.00
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<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.		<b>Geology Remarks:</b>																																										
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>																																										
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>		<b>Employment:</b> Unknown																																										
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>		(Continued on page 2)																																										
<b>General Remarks:</b> ORIGINAL WELLID# WAS 07003; WELL CASED WITH 121'11" OF 14"-57 LB BLACK STEEL DRIVE PIPE IN HALF RANDOM LENGTHS, FITTED WITH STEEL DRIVE SHOE. LANSING MUNICIPAL WELL #4. DRILLED BY ELMER WENGER																																												
<b>Other Remarks:</b>																																												

# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.



**Import ID:** 33040207303

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006177</b>  <b>Elevation:</b> 863 ft.  <b>Latitude:</b> 42.741357  <b>Longitude:</b> -84.592179  <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 7	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770; 90' N OF W SAGINAW ST. 1050' E OF MORRIS AV				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #4 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

[illegible]



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040207304

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006178</b>  <b>Elevation:</b> 840 ft. <b>Latitude:</b> 42.751083 <b>Longitude:</b> -84.593004 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 7	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770;100' N OF SNOWGLEN LN. 100' E OF BOYNTON DR.				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #6 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

<b>Drilling Method:</b> Other <b>Well Depth:</b> 441.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b> 16.00 in. to 63.80 ft. depth  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> 6/18/1966 <b>Height:</b> 3.00 ft. above grade	<b>Pump Installed:</b> Yes <b>Pump Installation Date:</b> <b>Manufacturer:</b> Other <b>Model Number:</b> <b>Drop Pipe Length:</b> 0.00 ft. <b>Drop Pipe Diameter:</b> <b>Draw Down Seal Used:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No	<b>Pump Installation Only:</b> No <b>HP:</b> <b>Pump Type:</b> Unknown <b>Pump Capacity:</b> 525 GPM <b>Pump Voltage:</b> <b>Drilling Record ID:</b>																																										
<b>Static Water Level:</b> 999.99 ft. Below Grade <b>Well Yield Test:</b> Pumping level 197.00 ft. after 24.00 hrs. at 700 GPM		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Topsoil</td><td>1.00</td><td>1.00</td></tr><tr><td>Blue Clay</td><td>4.00</td><td>5.00</td></tr><tr><td>Blue Clay Gravelly</td><td>29.00</td><td>34.00</td></tr><tr><td>Sand &amp; Gravel W/Clay</td><td>6.00</td><td>40.00</td></tr><tr><td>Sand &amp; Gravel W/Stones</td><td>6.00</td><td>46.00</td></tr><tr><td>Sandstone Broken</td><td>4.00</td><td>50.00</td></tr><tr><td>Sandstone</td><td>15.00</td><td>65.00</td></tr><tr><td>White Sandstone</td><td>8.00</td><td>73.00</td></tr><tr><td>Sandstone Hard</td><td>4.00</td><td>77.00</td></tr><tr><td>Shale</td><td>5.00</td><td>82.00</td></tr><tr><td>Sandstone</td><td>41.00</td><td>123.00</td></tr><tr><td>Shale</td><td>3.00</td><td>126.00</td></tr><tr><td>Sandstone</td><td>105.00</td><td>231.00</td></tr></tbody></table>		Formation Description	Thickness	Depth to Bottom	Topsoil	1.00	1.00	Blue Clay	4.00	5.00	Blue Clay Gravelly	29.00	34.00	Sand & Gravel W/Clay	6.00	40.00	Sand & Gravel W/Stones	6.00	46.00	Sandstone Broken	4.00	50.00	Sandstone	15.00	65.00	White Sandstone	8.00	73.00	Sandstone Hard	4.00	77.00	Shale	5.00	82.00	Sandstone	41.00	123.00	Shale	3.00	126.00	Sandstone	105.00	231.00
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<b>Screen Installed:</b> No <b>Intake:</b> Unknown		<b>(Continued On Page 2)</b>																																											
<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Neat cement <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.	<b>Geology Remarks:</b>																																												
<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b> COONRAD <b>Employment:</b> Unknown																																												
<b>Nearest Source of Possible Contamination:</b> <table border="1"><thead><tr><th>Type</th><th>Distance</th><th>Direction</th></tr></thead><tbody><tr><td>Unknown</td><td>0 ft.</td><td></td></tr></tbody></table>	Type	Distance	Direction	Unknown	0 ft.		<b>(Continued on page 2)</b>																																						
Type	Distance	Direction																																											
Unknown	0 ft.																																												
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>																																													
<b>General Remarks:</b> ORIGINAL WELLID# WAS 07004; LANSING MUNICIPAL WELL #6. LANSING TOWNSHIP-WESTSIDE WATER. HOLE 20 & 15" DIAMETER. REVERSE CIRC. DRILLING.																																													
<b>Other Remarks:</b> Drilling Method:Drilling Method unknown, Pump Manufacturer:Pump Manufacturer unknown																																													



# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



Failure to comply is a misdemeanor.

Import ID: 33040207304

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006178</b>  <b>Elevation:</b> 840 ft. <b>Latitude:</b> 42.751083 <b>Longitude:</b> -84.593004 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 7	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770;100' N OF SNOWGLEN LN. 100' E OF BOYNTON DR.				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #6 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

(Continued from Page 1)

Formation Description	Thickness	Depth to Bottom	OTHER REMARKS:
Shale	1.00	232.00	Drilling Method:Drilling Method unknown, Pump Manufacturer:Pump Manufacturer unknown
Limestone & Sandstone Brown	2.00	234.00	
Sandstone	33.00	267.00	
Limestone	3.00	270.00	
Sandstone	10.00	280.00	
Shale	9.00	289.00	
Sandstone & Shale	2.00	291.00	
Limestone	2.00	293.00	
Shale	19.00	312.00	
Sandstone	1.00	313.00	
Shale	3.00	316.00	
Sandstone	2.00	318.00	
Shale	2.00	320.00	
Sandstone	1.00	321.00	
Shale	2.00	323.00	
Sandstone	1.00	324.00	
Shale	4.00	328.00	
Sandstone	84.00	412.00	
Sandstone & Shale	3.00	415.00	
Gray Sandstone	5.00	420.00	
Sandstone	21.00	441.00	
			<b>Contractor Type:</b> Unknown <b>Reg No:</b> 91-0550
			<b>Business Name:</b> <b>Business Address:</b>
			<b>Water Well Contractor's Certification</b> This well was drilled under my supervision and this report is true to the best of my knowledge and belief.
			<b>Signature of Registered Contractor</b>
			<b>Date</b>



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040207305

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006179</b>  <b>Elevation:</b> 808 ft. <b>Latitude:</b> 42.75398 <b>Longitude:</b> -84.598694 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 7	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770; 135'N OF BOYNTON DR. 1150' E OF WAVERLY RD.				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #7 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

<b>Drilling Method:</b> Other <b>Well Depth:</b> 405.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b> 16.00 in. to 54.00 ft. depth  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> 3/7/1967  <b>Height:</b>	<b>Pump Installed:</b> Yes <b>Pump Installation Date:</b> <b>Manufacturer:</b> Other <b>Model Number:</b> <b>Drop Pipe Length:</b> 0.00 ft. <b>Drop Pipe Diameter:</b> <b>Draw Down Seal Used:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No	<b>Pump Installation Only:</b> No <b>HP:</b> <b>Pump Type:</b> Unknown <b>Pump Capacity:</b> 600 GPM <b>Pump Voltage:</b> <b>Drilling Record ID:</b>																																										
<b>Static Water Level:</b> 999.99 ft. Below Grade <b>Well Yield Test:</b> <b>Yield Test Method:</b> Unknown Pumping level 118.00 ft. after 24.00 hrs. at 754 GPM		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Topsoil</td><td>1.00</td><td>1.00</td></tr><tr><td>Clay</td><td>5.00</td><td>6.00</td></tr><tr><td>Sand &amp; Gravel</td><td>28.00</td><td>34.00</td></tr><tr><td>Shale</td><td>6.00</td><td>40.00</td></tr><tr><td>Sandstone</td><td>2.00</td><td>42.00</td></tr><tr><td>Shale</td><td>1.00</td><td>43.00</td></tr><tr><td>Sandstone</td><td>13.00</td><td>56.00</td></tr><tr><td>Sandstone W/Shale</td><td>6.00</td><td>62.00</td></tr><tr><td>Shale</td><td>3.00</td><td>65.00</td></tr><tr><td>Sandstone</td><td>4.00</td><td>69.00</td></tr><tr><td>Shale</td><td>2.00</td><td>71.00</td></tr><tr><td>Sandstone</td><td>18.00</td><td>89.00</td></tr><tr><td>Shale</td><td>3.00</td><td>92.00</td></tr></tbody></table>		Formation Description	Thickness	Depth to Bottom	Topsoil	1.00	1.00	Clay	5.00	6.00	Sand & Gravel	28.00	34.00	Shale	6.00	40.00	Sandstone	2.00	42.00	Shale	1.00	43.00	Sandstone	13.00	56.00	Sandstone W/Shale	6.00	62.00	Shale	3.00	65.00	Sandstone	4.00	69.00	Shale	2.00	71.00	Sandstone	18.00	89.00	Shale	3.00	92.00
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<b>Screen Installed:</b> No <b>Intake:</b> Unknown		<b>(Continued On Page 2)</b>																																											
<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.	<b>Geology Remarks:</b>																																												
<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b>																																												
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>	<b>Employment:</b> Unknown																																												
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>		<b>(Continued on page 2)</b>																																											
<b>General Remarks:</b> ORIGINAL WELLID# WAS 07005; LANSING MUNICIPAL WELL #7. CHARTER TOWNSHIP OF LANSING. DRILLER: L.D. COONROD. REVERSE CIRC. DRILLING.																																													
<b>Other Remarks:</b> Drilling Method:Drilling Method unknown, Pump Manufacturer:Pump Manufacturer unknown																																													





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208007

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham		<b>Township:</b> Lansing	
<b>Well ID: 33000006180</b>  Elevation: 830 ft. Latitude: 42.7536640898 Longitude: -84.5780108849 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b> Inactive	<b>WSSN:</b> 3760
		<b>Source ID/Well No:</b>			
		<b>Distance and Direction from Road Intersection:</b> 350' E OF SUNSET AVE. 2050' N OF WILLOW ST.			
		<b>Well Owner:</b> BOARD OF WATER & LIGHT			
		<b>Well Address:</b> 10-12 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933	

<b>Drilling Method:</b> Cable Tool	<b>Pump Installed:</b> No
<b>Well Depth:</b> 436.00 ft.	<b>Pressure Tank Installed:</b> No
<b>Well Type:</b> Replacement	<b>Pressure Relief Valve Installed:</b> No
<b>Well Use:</b> Type I public	
<b>Date Completed:</b> 4/12/1945	
<b>Casing Type:</b> Unknown	
<b>Height:</b> 0.00 ft. below grade	
<b>Casing Joint:</b> Unknown	
<b>Casing Fitting:</b> None	
<b>Diameter:</b> 13.25 in. to 0.00 ft. depth	
<b>Borehole:</b>	

<b>Static Water Level:</b> 55.58 ft. Below Grade <b>Well Yield Test:</b>		
	<b>Yield Test Method:</b> Unknown	
<b>Screen Installed:</b> No <b>Intake:</b> Unknown	Formation Description	Thickness
	Topsoil W/Clay	20.00
	Sand Fine W/Silt	15.00
	Sand Medium	10.00
	Sand Medium	5.00
	Sand & Gravel Medium	15.00
	Sand & Gravel	31.00
	Sand & Gravel Wet/Moist	2.00
	Sandstone	17.00
	Blue Shale & Sandstone	15.00
	Sandstone	30.00
	Sandstone	60.00
	Gray Shale	10.00
	Sandstone	185.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material</b>	<b>Bags</b>	
Unknown	0.00	
<b>Additives</b>	<b>Depth</b>	
None	0.00 ft. to 0.00 ft.	
<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b>	
<b>Nearest Source of Possible Contamination:</b>	<b>Employment:</b> Unknown	
<b>Type</b>		
Unknown		
<b>Distance</b>		
0 ft.		
<b>Direction</b>		
<b>Abandoned Well Plugged:</b> No	(Continued on page 2)	
<b>Reason Not Plugged:</b>		

**General Remarks:** CITY OF LANSING. STOPPED DRILLING IN LIMESTONE. TOTAL DEPTH OF DRILLING 436'. STATIC MEASURED WHEN DRILLING STOPPED. DRILLERS: BARRETT & PRAMER.

**Other Remarks:**





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208301

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006183</b>  Elevation: 862.35 ft. Latitude: 42.7413606887 Longitude: -84.5750431662 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-06
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 150' W OF COMFORT ST., 100' N OF E BOUND SA				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-06 LANSING, MI 48915		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown	<b>Pump Installed:</b> No
<b>Well Depth:</b> 427.00 ft.	<b>Pressure Tank Installed:</b> No
<b>Well Type:</b> Replacement	<b>Pressure Relief Valve Installed:</b> No
<b>Well Use:</b> Type I public	
<b>Date Completed:</b> 4/4/1946	
<b>Casing Type:</b> Unknown	
<b>Height:</b> 0.00 ft. below grade	
<b>Casing Joint:</b> Unknown	
<b>Casing Fitting:</b> None	
<b>Diameter:</b> 14.00 in. to 0.00 ft. depth	
<b>Borehole:</b>	

<b>Static Water Level:</b> 999.99 ft. Below Grade	<b>Formation Description</b>	<b>Thickness</b>	<b>Depth to Bottom</b>
<b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown		
	Topsoil W/Clay	45.00	45.00
	Sandstone Coarse	45.00	90.00
	Sandstone Very Fine	55.00	145.00
	Shale	30.00	175.00
	Sandstone Fine To Medium	110.00	285.00
	Shale	15.00	300.00
	Sandstone Fine	15.00	315.00
	Shale	30.00	345.00
	Sandstone Fine	65.00	410.00
	Shale	17.00	427.00

<b>Screen Installed:</b> No	<b>Intake:</b> Unknown	<b>Geology Remarks:</b>
<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	
<b>Grouting Material</b>	<b>Bags</b>	<b>Additives</b>
Unknown	0.00	None
		<b>Depth</b>
		0.00 ft. to 0.00 ft.

<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b>
-------------------------------------	--

<b>Nearest Source of Possible Contamination:</b>	<b>Employment:</b> Unknown
<b>Type</b>	
Unknown	
<b>Distance</b>	
0 ft.	
<b>Direction</b>	

<b>Abandoned Well Plugged:</b> No	<b>Contractor Type:</b> Unknown	<b>Reg No:</b> 33-0729
<b>Reason Not Plugged:</b>	<b>Business Name:</b>	
	<b>Business Address:</b>	

	<b>Water Well Contractor's Certification</b>
	This well was drilled under my supervision and this report is true to the best of my knowledge and belief.
	<b>Signature of Registered Contractor</b> <b>Date</b>

<b>General Remarks:</b> ORIGINAL WELLID# WAS 08001; CASING IS 14" O.D. 13.25" I.D. WELL DYNAMITED AND CLEANED OUT 4-15-46 TO 5-2-46. REMOVED 12 YD. MATERIAL.
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<b>Other Remarks:</b>
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# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208302

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006184</b>  <b>Elevation:</b> 860 ft. <b>Latitude:</b> 42.7446905406 <b>Longitude:</b> -84.5738525758 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-07
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 150' E OF COMFORT ST., 100' S OF HYLAND ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-07 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown <b>Well Depth:</b> 443.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b>  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> 10/16/1946 <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No																																										
<b>Static Water Level:</b> 999.99 ft. Below Grade <b>Well Yield Test:</b>		<b>Yield Test Method:</b> Unknown																																										
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Clay</td><td>5.00</td><td>5.00</td></tr><tr><td>Gravel Fine</td><td>30.00</td><td>35.00</td></tr><tr><td>Shale</td><td>45.00</td><td>80.00</td></tr><tr><td>Sandstone Fine</td><td>20.00</td><td>100.00</td></tr><tr><td>Shale</td><td>70.00</td><td>170.00</td></tr><tr><td>Sandstone</td><td>90.00</td><td>260.00</td></tr><tr><td>Sand</td><td>5.00</td><td>265.00</td></tr><tr><td>Sandstone</td><td>25.00</td><td>290.00</td></tr><tr><td>Shale</td><td>10.00</td><td>300.00</td></tr><tr><td>Sandstone</td><td>5.00</td><td>305.00</td></tr><tr><td>Shale</td><td>10.00</td><td>315.00</td></tr><tr><td>Sandstone W/Shale</td><td>15.00</td><td>330.00</td></tr><tr><td>Shale</td><td>20.00</td><td>350.00</td></tr></tbody></table> <p>(Continued On Page 2)</p>	Formation Description	Thickness	Depth to Bottom	Clay	5.00	5.00	Gravel Fine	30.00	35.00	Shale	45.00	80.00	Sandstone Fine	20.00	100.00	Shale	70.00	170.00	Sandstone	90.00	260.00	Sand	5.00	265.00	Sandstone	25.00	290.00	Shale	10.00	300.00	Sandstone	5.00	305.00	Shale	10.00	315.00	Sandstone W/Shale	15.00	330.00	Shale	20.00	350.00
Formation Description	Thickness	Depth to Bottom																																										
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Sandstone W/Shale	15.00	330.00																																										
Shale	20.00	350.00																																										
<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.		<b>Geology Remarks:</b>																																										
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>																																										
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>		<b>Employment:</b> Unknown																																										
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>		(Continued on page 2)																																										
<b>General Remarks:</b> ORIGINAL WELLID# WAS 08002; WELL DYNAMITED & CLEANED OUT 10-2-46 TO 10-16-46. TOTAL MATERIAL REMOVED 8 YD.																																												
<b>Other Remarks:</b>																																												





# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



Import ID: 33040208303

Failure to comply is a misdemeanor.

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006185</b>  Elevation: 857.63 ft. Latitude: 42.7497888576 Longitude: -84.5763053441 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-08
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 400' W OF COMFORT ST., 500' N OF WILLOW ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-08 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Cable Tool	<b>Pump Installed:</b> No
<b>Well Depth:</b> 422.00 ft.	<b>Pressure Tank Installed:</b> No
<b>Well Type:</b> Replacement	<b>Pressure Relief Valve Installed:</b> No
<b>Well Use:</b> Type I public	
<b>Date Completed:</b> 6/6/1945	
<b>Casing Type:</b> Unknown	
<b>Height:</b> 0.00 ft. below grade	
<b>Casing Joint:</b> Unknown	
<b>Casing Fitting:</b> None	
<b>Diameter:</b>	
<b>Borehole:</b>	

<b>Static Water Level:</b> 104.00 ft. Below Grade <b>Well Yield Test:</b> <b>Yield Test Method:</b> Unknown	<b>Formation Description</b>	<b>Thickness</b>	<b>Depth to Bottom</b>
	Sand & Gravel	10.00	10.00
	Gravel Wet/Moist	25.00	35.00
	Sand & Gravel	40.00	75.00
<b>Screen Installed:</b> No <b>Intake:</b> Unknown	White Sand	4.00	79.00
	Blue Sand & Silt Wet/Moist	34.00	113.00
	White Sand	22.00	135.00
	Blue Shale	25.00	160.00
	White Sand	5.00	165.00
	Blue Shale	5.00	170.00
	White Sand	100.00	270.00
	Blue Shale	15.00	285.00
	White Sand	115.00	400.00
	Blue Shale	22.00	422.00

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material</b>	<b>Bags</b> <b>Additives</b> <b>Depth</b>	
Unknown	0.00 None 0.00 ft. to 0.00 ft.	

<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b> JOHN JOHNSON
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<b>Nearest Source of Possible Contamination:</b>	<b>Employment:</b> Unknown
<b>Type</b>	
Unknown	
<b>Distance</b>	
0 ft.	
<b>Direction</b>	

<b>Abandoned Well Plugged:</b> No	<b>Contractor Type:</b> Unknown	<b>Reg No:</b> 91-0550
<b>Reason Not Plugged:</b>	<b>Business Name:</b>	
	<b>Business Address:</b>	

<b>Water Well Contractor's Certification</b>	
This well was drilled under my supervision and this report is true to the best of my knowledge and belief.	
<b>Signature of Registered Contractor</b>	<b>Date</b>

**General Remarks:** ORIGINAL WELLID# WAS 08003; CITY OF LANSING. RAN SIZER TO BOTTOM - MR. WRIGHT WITNESSED. TURNED SAMPLES OVER TO MR. WRIGHT. PIPE LEFT IN HOLE 123'3".

**Other Remarks:**



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208304

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006186</b>  Elevation: 846 ft. Latitude: 42.7529703739 Longitude: -84.575454385 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	
		<b>Source ID/Well No:</b> BWL WELL 10-09				
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 1800' N OF WILLOW ST. 200' W OF COMFORT ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-09 LANSING, MI 48915		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown		<b>Pump Installed:</b> No	
<b>Well Depth:</b> 435.00 ft.		<b>Pressure Tank Installed:</b> No	
<b>Well Type:</b> Replacement		<b>Pressure Relief Valve Installed:</b> No	
<b>Well Use:</b> Type I public			
<b>Date Completed:</b> 11/3/1952			
<b>Casing Type:</b> Unknown			
<b>Height:</b> 0.00 ft. below grade			
<b>Casing Joint:</b> Unknown			
<b>Casing Fitting:</b> None			
<b>Diameter:</b>			
<b>Borehole:</b>			
<b>Static Water Level:</b> 999.99 ft. Below Grade			
<b>Well Yield Test:</b>		<b>Yield Test Method:</b> Unknown	
		<b>Formation Description</b>	<b>Thickness</b>
			<b>Depth to Bottom</b>
		Clay	35.00
		Gravel	20.00
		Sandstone	45.00
			100.00
		Shale	15.00
			115.00
		Sandstone	10.00
			125.00
		Shale	35.00
			160.00
		Sandstone	55.00
			215.00
		Sandstone W/Shale	30.00
			245.00
		Shale	10.00
			255.00
		Sandstone	20.00
			275.00
		Shale	20.00
			295.00
		Sandstone	125.00
			420.00
		Shale	15.00
			435.00
<b>Well Grouted:</b> Yes		<b>Grouting Method:</b> Unknown	
<b>Grouting Material</b>		<b>Bags</b>	<b>Additives</b>
Unknown		0.00	None
		<b>Depth</b>	
		0.00 ft. to 0.00 ft.	
<b>Wellhead Completion:</b> Unknown		<b>Geology Remarks:</b>	
<b>Nearest Source of Possible Contamination:</b>		<b>Drilling Machine Operator Name:</b>	
<b>Type</b>	<b>Distance</b>	<b>Employment:</b> Unknown	
Unknown	0 ft.		
<b>Abandoned Well Plugged:</b> No		<b>Contractor Type:</b> Unknown	
<b>Reason Not Plugged:</b>		<b>Reg No:</b> 33-0729	
		<b>Business Name:</b>	
		<b>Business Address:</b>	
		<b>Water Well Contractor's Certification</b>	
		This well was drilled under my supervision and this report is true to the best of my knowledge and belief.	
		<b>Signature of Registered Contractor</b>	<b>Date</b>
<b>General Remarks:</b> ORIGINAL WELLID# WAS 08004;			
<b>Other Remarks:</b>			



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208305

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006187</b>  Elevation: 855 ft. Latitude: 42.7487958876 Longitude: -84.57832713 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-10
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760;250' N OF WILLOW ST. 1000' W OF COMFORT ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-10 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown		<b>Pump Installed:</b> No		
<b>Well Depth:</b> 410.00 ft.	<b>Well Use:</b> Type I public	<b>Pressure Tank Installed:</b> No		
<b>Well Type:</b> Replacement	<b>Date Completed:</b> 3/22/1945	<b>Pressure Relief Valve Installed:</b> No		
<b>Casing Type:</b> Unknown	<b>Height:</b> 0.00 ft. below grade			
<b>Casing Joint:</b> Unknown				
<b>Casing Fitting:</b> None				
<b>Diameter:</b>				
<b>Borehole:</b>				
<b>Static Water Level:</b> 73.00 ft. Below Grade		<b>Formation Description</b>	<b>Thickness</b>	<b>Depth to Bottom</b>
<b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Topsoil	1.00	1.00
		Yellow Clay	35.00	36.00
		Blue Clay Soft	9.00	45.00
		Brown Clay	15.00	60.00
		Gray Clay Soft W/Stones	5.00	65.00
		Blue Clay Very Hard	12.00	77.00
		Blue Shale	21.00	98.00
		Black Shale	6.00	104.00
		Brown Shale Hard	2.00	106.00
		Gray Sandstone Soft	7.00	113.00
		Shale W/Sandstone	48.00	161.00
		Shale & Sandstone	14.00	175.00
		Sandstone	105.00	280.00
		(Continued On Page 2)		
<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>		
<b>Grouting Material</b>	<b>Bags</b> <b>Additives</b> <b>Depth</b>			
Unknown	0.00 None 0.00 ft. to 0.00 ft.			
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b> RONALD HANSEN & HARRY WEBS		
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown		
<b>Type</b>	<b>Distance</b> <b>Direction</b>			
Unknown	0 ft.			
<b>Abandoned Well Plugged:</b> No		(Continued on page 2)		
<b>Reason Not Plugged:</b>				
<b>General Remarks:</b> ORIGINAL WELLID# WAS 08005; CITY OF LANSING.				
<b>Other Remarks:</b>				





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208306

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006188</b>  Elevation: 845 ft. Latitude: 42.7511851773 Longitude: -84.57865638 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 10-11
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 250' E OF SUNSET AVE. 1050' N OF WILLOW ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 10-11 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown <b>Well Depth:</b> 451.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b>  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> 3/22/1945 <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No																																										
<b>Static Water Level:</b> 79.00 ft. Below Grade <b>Well Yield Test:</b>		<b>Yield Test Method:</b> Unknown																																										
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Yellow Clay Hard</td><td>8.00</td><td>8.00</td></tr><tr><td>Clay Sandy Hard</td><td>2.00</td><td>10.00</td></tr><tr><td>Sand Fine Wet/Moist</td><td>10.00</td><td>20.00</td></tr><tr><td>Clay Sandy</td><td>19.00</td><td>39.00</td></tr><tr><td>Gravel Wet/Moist</td><td>3.00</td><td>42.00</td></tr><tr><td>Gravel &amp; Sand Fine To Medium</td><td>17.00</td><td>59.00</td></tr><tr><td>Clay Hard</td><td>7.00</td><td>66.00</td></tr><tr><td>Sandstone Soft</td><td>12.00</td><td>78.00</td></tr><tr><td>Sandstone Medium Hard</td><td>13.00</td><td>91.00</td></tr><tr><td>Sandstone W/Shale</td><td>98.00</td><td>189.00</td></tr><tr><td>Shale Soft</td><td>1.00</td><td>190.00</td></tr><tr><td>White Sandstone W/Shale</td><td>71.00</td><td>261.00</td></tr><tr><td>Blue Shale Soft</td><td>5.00</td><td>266.00</td></tr></tbody></table>	Formation Description	Thickness	Depth to Bottom	Yellow Clay Hard	8.00	8.00	Clay Sandy Hard	2.00	10.00	Sand Fine Wet/Moist	10.00	20.00	Clay Sandy	19.00	39.00	Gravel Wet/Moist	3.00	42.00	Gravel & Sand Fine To Medium	17.00	59.00	Clay Hard	7.00	66.00	Sandstone Soft	12.00	78.00	Sandstone Medium Hard	13.00	91.00	Sandstone W/Shale	98.00	189.00	Shale Soft	1.00	190.00	White Sandstone W/Shale	71.00	261.00	Blue Shale Soft	5.00	266.00
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<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.		<b>Geology Remarks:</b>																																										
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b> RONALD HANSON & JOHN <b>Employment:</b> Unknown																																										
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>																																												
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>																																												
<b>General Remarks:</b> ORIGINAL WELLID# WAS 08006; CITY OF LANSING.																																												
<b>Other Remarks:</b>																																												





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208308

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006189</b>  Elevation: 850 ft. Latitude: 42.7464030622 Longitude: -84.5648164439 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 15-06
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 4800' W OF S BND CEDAR ST. 1300' N OF W BND				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 15-06 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown		<b>Pump Installed:</b> No		
<b>Well Depth:</b> 445.00 ft.	<b>Well Use:</b> Type I public	<b>Pressure Tank Installed:</b> No		
<b>Well Type:</b> Replacement	<b>Date Completed:</b>	<b>Pressure Relief Valve Installed:</b> No		
<b>Casing Type:</b> Unknown	<b>Height:</b> 0.00 ft. below grade			
<b>Casing Joint:</b> Unknown				
<b>Casing Fitting:</b> None				
<b>Diameter:</b>				
<b>Borehole:</b>				
<b>Static Water Level:</b> 60.67 ft. Below Grade		<b>Formation Description</b>	<b>Thickness</b>	<b>Depth to Bottom</b>
<b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Light Brown Clay	50.00	50.00
Pumping level 126.00 ft. after 0.00 hrs. at 599 GPM		Gray Shale	15.00	65.00
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		Light Gray Sandstone Medium	5.00	70.00
		Gray Shale Sandy Soft	20.00	90.00
		Gray Sandstone Fine Silty	45.00	135.00
		Light Gray Sandstone Fine Wet/Moist	65.00	200.00
		Gray Shale Wet/Moist	5.00	205.00
		Light Gray Sandstone Fine To Coarse W/Silt	45.00	250.00
		Brown Sandstone Wet/Moist	15.00	265.00
		Light Gray Sandstone Fine Wet/Moist	105.00	370.00
		Gray Shale Wet/Moist	15.00	385.00
		Sandstone W/Silt	10.00	395.00
		Light Gray Sandstone Fine To Medium Wet/Moist	35.00	430.00
		Dark Gray Shale Wet/Moist	15.00	445.00
<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>		
<b>Grouting Material</b>	<b>Bags</b> <b>Additives</b> <b>Depth</b>			
Unknown	0.00    None    0.00 ft. to 0.00 ft.			
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>		
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown		
<b>Type</b>	<b>Distance</b> <b>Direction</b>			
Unknown	0 ft.			
<b>Abandoned Well Plugged:</b> No		<b>Contractor Type:</b> Unknown <b>Reg No:</b> 33-0729		
<b>Reason Not Plugged:</b>		<b>Business Name:</b>		
		<b>Business Address:</b>		
		<b>Water Well Contractor's Certification</b>		
		This well was drilled under my supervision and this report is true to the best of my knowledge and belief.		
		<b>Signature of Registered Contractor</b> <b>Date</b>		
<b>General Remarks:</b> ORIGINAL WELLID# WAS 08008;				
<b>Other Remarks:</b>				



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208309

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006190</b>  <b>Elevation:</b> 859 ft. <b>Latitude:</b> 42.7461631203 <b>Longitude:</b> -84.5678343849 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 15-07
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 100' N OF MAPLE ST. 100' W OF LOGAN ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 15-07 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown <b>Well Depth:</b> 430.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b>  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No																																										
<b>Static Water Level:</b> 47.01 ft. Below Grade <b>Well Yield Test:</b> Pumping level 107.00 ft. after 0.00 hrs. at 585 GPM		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Gray Clay</td><td>40.00</td><td>40.00</td></tr><tr><td>Gray Sandstone Fine To Medium Wet/Moist</td><td>30.00</td><td>70.00</td></tr><tr><td>Gray Sandstone Coarse W/Limestone</td><td>4.00</td><td>74.00</td></tr><tr><td>Coal</td><td>1.00</td><td>75.00</td></tr><tr><td>Gray Sandstone Fine Wet/Moist</td><td>5.00</td><td>80.00</td></tr><tr><td>Gray Shale Wet/Moist Soft</td><td>20.00</td><td>100.00</td></tr><tr><td>Shale Sandy Wet/Moist</td><td>35.00</td><td>135.00</td></tr><tr><td>Gray Shale Wet/Moist</td><td>30.00</td><td>165.00</td></tr><tr><td>Light Gray Sandstone Wet/Moist</td><td>30.00</td><td>195.00</td></tr><tr><td>Gray Shale Sandy Soft</td><td>30.00</td><td>225.00</td></tr><tr><td>Light Gray Sandstone Wet/Moist</td><td>70.00</td><td>295.00</td></tr><tr><td>Gray Shale Wet/Moist</td><td>5.00</td><td>300.00</td></tr><tr><td>Sandstone W/Shale</td><td>5.00</td><td>305.00</td></tr></tbody></table>	Formation Description	Thickness	Depth to Bottom	Gray Clay	40.00	40.00	Gray Sandstone Fine To Medium Wet/Moist	30.00	70.00	Gray Sandstone Coarse W/Limestone	4.00	74.00	Coal	1.00	75.00	Gray Sandstone Fine Wet/Moist	5.00	80.00	Gray Shale Wet/Moist Soft	20.00	100.00	Shale Sandy Wet/Moist	35.00	135.00	Gray Shale Wet/Moist	30.00	165.00	Light Gray Sandstone Wet/Moist	30.00	195.00	Gray Shale Sandy Soft	30.00	225.00	Light Gray Sandstone Wet/Moist	70.00	295.00	Gray Shale Wet/Moist	5.00	300.00	Sandstone W/Shale	5.00	305.00
Formation Description	Thickness	Depth to Bottom																																										
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Sandstone W/Shale	5.00	305.00																																										
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		(Continued On Page 2)																																										
<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>																																										
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>																																										
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>		<b>Employment:</b> Unknown																																										
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>		(Continued on page 2)																																										
<b>General Remarks:</b> ORIGINAL WELLID# WAS 08009; <b>Other Remarks:</b>																																												





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208310

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006191</b>  Elevation: 857 ft. Latitude: 42.7462443079 Longitude: -84.5735291278 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	
		<b>Source ID/Well No:</b> BWL WELL 15-08				
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 100' N OF MAPLE ST. 200' W OF JENNISON ST.				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 15-08 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Cable Tool	<b>Pump Installed:</b> No
<b>Well Depth:</b> 430.00 ft.	<b>Pressure Tank Installed:</b> No
<b>Well Type:</b> Replacement	<b>Pressure Relief Valve Installed:</b> No
<b>Well Use:</b> Type I public	
<b>Date Completed:</b> 7/26/1945	
<b>Casing Type:</b> Unknown	
<b>Height:</b> 0.00 ft. below grade	
<b>Casing Joint:</b> Unknown	
<b>Casing Fitting:</b> None	
<b>Diameter:</b> 13.25 in. to 0.00 ft. depth	
<b>Borehole:</b>	

<b>Static Water Level:</b> 80.00 ft. Below Grade <b>Well Yield Test:</b> <b>Yield Test Method:</b> Unknown	<b>Formation Description</b>	<b>Thickness</b>	<b>Depth to Bottom</b>
	Clay & Gravel	10.00	10.00
	Gravel & Clay	15.00	25.00
	Gravel	10.00	35.00
<b>Screen Installed:</b> No <b>Intake:</b> Unknown	White Sand	5.00	40.00
	Gravel	5.00	45.00
	Blue Shale	25.00	70.00
	Coal	1.00	71.00
	Gray Shale	19.00	90.00
	Sand Broken	50.00	140.00
	Blue Shale	5.00	145.00
	Sandstone	260.00	405.00
	Shale	25.00	430.00

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material:</b> Unknown	<b>Bags:</b> 0.00	
<b>Additives:</b> None	<b>Depth:</b> 0.00 ft. to 0.00 ft.	

<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b>
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<b>Nearest Source of Possible Contamination:</b>	<b>Employment:</b> Unknown
<b>Type:</b> Unknown	
<b>Distance:</b> 0 ft.	
<b>Direction:</b>	

<b>Abandoned Well Plugged:</b> No	<b>Contractor Type:</b> Unknown	<b>Reg No:</b> 91-0550
<b>Reason Not Plugged:</b>	<b>Business Name:</b>	
	<b>Business Address:</b>	

<b>Water Well Contractor's Certification</b>	
This well was drilled under my supervision and this report is true to the best of my knowledge and belief.	
<b>Signature of Registered Contractor</b>	<b>Date</b>

**General Remarks:** ORIGINAL WELLID# WAS 08010; 430' FROM CASING TOP. PIPE LEFT IN HOLE 97"6". DRILLER: JOHN A. JOHNSON

**Other Remarks:**



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040208311

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006192</b>  Elevation: 850 ft. Latitude: 42.7524775688 Longitude: -84.5663443955 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 20-03
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 400' E OF LOGAN ST. 3600' N OF W BOUND OAKL				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 20-03 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown	<b>Well Use:</b> Type I public	<b>Pump Installed:</b> Yes	<b>Pump Installation Only:</b> No
<b>Well Depth:</b> 430.00 ft.	<b>Date Completed:</b> 9/28/1959	<b>Pump Installation Date:</b>	<b>HP:</b>
<b>Well Type:</b> Replacement	<b>Height:</b> 0.00 ft. below grade	<b>Manufacturer:</b> Other	<b>Pump Type:</b> Unknown
<b>Casing Type:</b> Unknown		<b>Model Number:</b>	<b>Pump Capacity:</b>
<b>Casing Joint:</b> Unknown		<b>Drop Pipe Length:</b> 78.00 ft.	<b>Pump Voltage:</b>
<b>Casing Fitting:</b> None		<b>Drop Pipe Diameter:</b>	<b>Drilling Record ID:</b>
<b>Diameter:</b>		<b>Draw Down Seal Used:</b> No	
<b>Borehole:</b>		<b>Pressure Tank Installed:</b> No	
		<b>Pressure Relief Valve Installed:</b> No	

<b>Static Water Level:</b> 75.00 ft. Below Grade <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Sand	15.00	15.00
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		Gravel Medium	5.00	20.00
		Clay & Gravel	8.00	28.00
		Hardpan W/Gravel	2.00	30.00
		Gravel Medium	15.00	45.00
		Gravel Coarse	5.00	50.00
		Clay Sandy	10.00	60.00
		Boulders	2.00	62.00
		Coal	8.00	70.00
		Shale	4.00	74.00
		Sandstone W/Shale	11.00	85.00
		Shale	8.00	93.00
		Sandstone Coarse	7.00	100.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material:</b> Unknown	<b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.	
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b> COGLEY
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown
<b>Type:</b> Unknown	<b>Distance:</b> 0 ft.	<b>Direction:</b>
<b>Abandoned Well Plugged:</b> No		(Continued on page 2)
<b>Reason Not Plugged:</b>		

**General Remarks:** ORIGINAL WELLID# WAS 08011;

**Other Remarks:** Pump Manufacturer: Pump Manufacturer unknown

# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



**Import ID:** 33040208311

Failure to comply is a misdemeanor.

<b>Import ID:</b> 33040200311 <b>Tax No:</b> <b>Permit No:</b>		<b>County:</b> Ingham <b>Township:</b> Lansing				
<b>Well ID:</b> 330000006192  <b>Elevation:</b> 850 ft.  <b>Latitude:</b> 42.7524775688  <b>Longitude:</b> -84.5663443955  <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 8	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 20-03
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 400' E OF LOGAN ST. 3600' N OF W BOUND OAKL				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 20-03 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

[illegible]



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040209307

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006199</b>  <b>Elevation:</b> 851.84 ft. <b>Latitude:</b> 42.7464196001 <b>Longitude:</b> -84.561369159 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 9	<b>Well Status:</b>	<b>WSSN:</b> 3760	<b>Source ID/Well No:</b> BWL WELL 15-04
		<b>Distance and Direction from Road Intersection:</b> WSSN 03760; 4000' W OF S BND CEDAR ST. 1100' N OF W BND				
		<b>Well Owner:</b> BOARD OF WATER & LIGHT				
		<b>Well Address:</b> BWL WELL 15-04 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933		

<b>Drilling Method:</b> Unknown <b>Well Depth:</b> 437.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b>  <b>Borehole:</b>	<b>Well Use:</b> Type I public <b>Date Completed:</b> <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No																																										
<b>Static Water Level:</b> 47.33 ft. Below Grade <b>Well Yield Test:</b> Pumping level 51.00 ft. after 0.00 hrs. at 842 GPM		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Sand W/Silt Gravely</td><td>20.00</td><td>20.00</td></tr><tr><td>Sand &amp; Clay</td><td>5.00</td><td>25.00</td></tr><tr><td>Gravel &amp; Clay</td><td>5.00</td><td>30.00</td></tr><tr><td>Gravel &amp; Clay Fine</td><td>5.00</td><td>35.00</td></tr><tr><td>Sand &amp; Clay Very Fine Silty</td><td>5.00</td><td>40.00</td></tr><tr><td>Sandstone Very Fine Silty</td><td>5.00</td><td>45.00</td></tr><tr><td>Gray Shale</td><td>10.00</td><td>55.00</td></tr><tr><td>Coal</td><td>5.00</td><td>60.00</td></tr><tr><td>Shale Fine Sandy</td><td>25.00</td><td>85.00</td></tr><tr><td>Sandstone Fine W/Shale</td><td>15.00</td><td>100.00</td></tr><tr><td>Gray Sandstone Fine</td><td>20.00</td><td>120.00</td></tr><tr><td>Sandstone Fine W/Shale</td><td>35.00</td><td>155.00</td></tr><tr><td>Sandstone Fine</td><td>20.00</td><td>175.00</td></tr></tbody></table>	Formation Description	Thickness	Depth to Bottom	Sand W/Silt Gravely	20.00	20.00	Sand & Clay	5.00	25.00	Gravel & Clay	5.00	30.00	Gravel & Clay Fine	5.00	35.00	Sand & Clay Very Fine Silty	5.00	40.00	Sandstone Very Fine Silty	5.00	45.00	Gray Shale	10.00	55.00	Coal	5.00	60.00	Shale Fine Sandy	25.00	85.00	Sandstone Fine W/Shale	15.00	100.00	Gray Sandstone Fine	20.00	120.00	Sandstone Fine W/Shale	35.00	155.00	Sandstone Fine	20.00	175.00
Formation Description	Thickness	Depth to Bottom																																										
Sand W/Silt Gravely	20.00	20.00																																										
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Sand & Clay Very Fine Silty	5.00	40.00																																										
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Sandstone Fine W/Shale	35.00	155.00																																										
Sandstone Fine	20.00	175.00																																										
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		(Continued On Page 2)																																										
<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.	<b>Geology Remarks:</b>																																											
<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b>																																											
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>	<b>Employment:</b> Unknown																																											
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>		(Continued on page 2)																																										
<b>General Remarks:</b> ORIGINAL WELLID# WAS 09007; <b>Other Remarks:</b>																																												





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040209308

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing		
<b>Well ID: 33000006200</b>  Elevation: 847.14 ft. Latitude: 42.7462946669 Longitude: -84.5623705131 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 9	<b>Well Status:</b>	<b>WSSN:</b> 3760
		<b>Source ID/Well No:</b>			
		<b>Distance and Direction from Road Intersection:</b> 4300' W OF S BND CEDAR ST. 1000' N OF W BND OAKLAND AVE			
		<b>Well Owner:</b> BOARD OF WATER & LIGHT			
		<b>Well Address:</b> BWL WELL 15-05 LANSING, MI		<b>Owner Address:</b> 123 W. OTTAWA ST. LANSING, MI 48933	

<b>Drilling Method:</b> Unknown		<b>Pump Installed:</b> No	
<b>Well Depth:</b> 425.00 ft.	<b>Well Use:</b> Type I public	<b>Pressure Tank Installed:</b> No	
<b>Well Type:</b> Replacement	<b>Date Completed:</b>	<b>Pressure Relief Valve Installed:</b> No	
<b>Casing Type:</b> Unknown	<b>Height:</b> 0.00 ft. below grade		
<b>Casing Joint:</b> Unknown			
<b>Casing Fitting:</b> None			
<b>Diameter:</b>			
<b>Borehole:</b>			
<b>Static Water Level:</b> 46.00 ft. Below Grade		<b>Formation Description</b>	<b>Thickness</b>
<b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown		<b>Depth to Bottom</b>
Pumping level 69.00 ft. after 0.00 hrs. at 780 GPM		Sand Fine	15.00
		Sand & Gravel Fine	10.00
		Gravel Coarse W/Sand	5.00
		Clay W/Gravel	5.00
		Gray Shale Wet/Moist	5.00
		Light Gray Shale Wet/Moist Sandy	20.00
		Light Gray Shale Sandy Wet/Moist	25.00
		Light Gray Shale Wet/Moist	15.00
		Light Gray Sandstone Fine	25.00
		Light Gray Sandstone Cemented	5.00
		Light Gray Sandstone Very Fine W/Silt	55.00
		Light Gray Sandstone Coarse W/Silt	5.00
		Sandstone Fine To Coarse	5.00
		(Continued On Page 2)	
<b>Screen Installed:</b> No	<b>Intake:</b> Unknown	<b>Geology Remarks:</b>	
<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown		
<b>Grouting Material</b>	<b>Bags</b> <b>Additives</b> <b>Depth</b>		
Unknown	0.00 None 0.00 ft. to 0.00 ft.		
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b>	
<b>Nearest Source of Possible Contamination:</b>		<b>Employment:</b> Unknown	
<b>Type</b>	<b>Distance</b> <b>Direction</b>		
Unknown	0 ft.		
<b>Abandoned Well Plugged:</b> No		(Continued on page 2)	
<b>Reason Not Plugged:</b>			
<b>General Remarks:</b> ORIGINAL WELLID# WAS 09008;			
<b>Other Remarks:</b>			





# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



Import ID:

Failure to comply is a misdemeanor.

<b>Tax No:</b> 330118352028	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006278</b>  <b>Elevation:</b> 880 ft. <b>Latitude:</b> 42.728521 <b>Longitude:</b> -84.598403 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 18	<b>Well Status:</b> Active	<b>WSSN:</b>	
		<b>Source ID/Well No:</b>				
		<b>Distance and Direction from Road Intersection:</b> 110FT W OF STONER, 480FT S OF KALAMAZOO				
		<b>Well Owner:</b> JOHN EATON				
		<b>Well Address:</b> 514 STONER LANSING, MI		<b>Owner Address:</b> 514 STONER LANSING, MI		

<b>Drilling Method:</b> Rotary	<b>Pump Installed:</b> No
<b>Well Depth:</b> 225.00 ft.	<b>Pressure Tank Installed:</b> No
<b>Well Type:</b> New	<b>Pressure Relief Valve Installed:</b> No
<b>Well Use:</b> Irrigation	
<b>Date Completed:</b> 2/18/1990	
<b>Casing Type:</b> PVC plastic	
<b>Casing Joint:</b> Welded	
<b>Casing Fitting:</b> None	
<b>Height:</b> 1.50 ft. above grade	
<b>Diameter:</b> 5.00 in. to 129.00 ft. depth	
<b>Borehole:</b> 8.00 in. to 129.00 ft. depth	

<b>Static Water Level:</b> 85.00 ft. Below Grade <b>Well Yield Test:</b> Pumping level 120.00 ft. after 0.00 hrs. at 60 GPM <b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
	Brown Clay	5.00	5.00
<b>Screen Installed:</b> No <b>Intake:</b> Bedrock Well	Black Topsoil	4.00	9.00
	Gray Clay	10.00	19.00
	Black & Gray Clay	30.00	49.00
	Clay & Stones Sandy	16.00	65.00
	Red Clay Soft	30.00	95.00
	Red Shale	10.00	105.00
	Red Sandstone Soft	20.00	125.00
	White Sandstone	15.00	140.00
	Gray Sandstone	22.00	162.00
	White Sandstone	23.00	185.00
	Gray Shale	15.00	200.00
	Gray Sandstone White	25.00	225.00

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material:</b> Bentonite slurry	<b>Bags:</b> 0.00	
<b>Additives:</b> None	<b>Depth:</b> 0.00 ft. to 129.00 ft.	

<b>Wellhead Completion:</b> Pitless adapter	<b>Drilling Machine Operator Name:</b> PETES WELL DRILLING
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<b>Nearest Source of Possible Contamination:</b>	<b>Employment:</b> Unknown
<b>Type:</b> Sewer line	
<b>Distance:</b> 80 ft.	
<b>Direction:</b> East	

<b>Contractor Type:</b> Unknown	<b>Reg No:</b> 18-2003
<b>Business Name:</b>	
<b>Business Address:</b>	
<b>Water Well Contractor's Certification</b>	
This well was drilled under my supervision and this report is true to the best of my knowledge and belief.	
<b>Signature of Registered Contractor</b>	<b>Date</b>

<b>General Remarks:</b>
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<b>Other Remarks:</b>
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# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040218301

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006279</b>  Elevation: 880 ft. Latitude: 42.732887 Longitude: -84.593458 Method of Collection: Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 18	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770; 500' S OF MICHIGAN AVE. 1200' W OF GRACE ST				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #1 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

<b>Drilling Method:</b> Cable Tool	<b>Pump Installed:</b> No
<b>Well Depth:</b> 404.00 ft.	<b>Pressure Tank Installed:</b> No
<b>Well Type:</b> Replacement	<b>Pressure Relief Valve Installed:</b> No
<b>Well Use:</b> Type I public	
<b>Date Completed:</b> 9/17/1945	
<b>Casing Type:</b> Unknown	
<b>Height:</b> 0.00 ft. below grade	
<b>Casing Joint:</b> Unknown	
<b>Casing Fitting:</b> None	
<b>Diameter:</b>	
<b>Borehole:</b> 13.25 in. to 0.00 ft. depth	

<b>Static Water Level:</b> 80.00 ft. Below Grade <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Black Loam	4.00	4.00
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		Blue Clay	38.00	42.00
		Shale Sandy	13.00	55.00
		Sand & Gravel	20.00	75.00
		Blue Shale	36.00	111.00
		White Sand Coarse	59.00	170.00
		Sand W/Shale	50.00	220.00
		White Sand	70.00	290.00
		Blue Shale	12.00	302.00
		Sand	4.00	306.00
		Gray Shale	17.00	323.00
		White Sand	80.00	403.00
		Gray Limestone	1.00	404.00

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks:</b>
<b>Grouting Material:</b> Unknown	<b>Bags:</b> 0.00	
<b>Additives:</b> None	<b>Depth:</b> 0.00 ft. to 0.00 ft.	

<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b>
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<b>Nearest Source of Possible Contamination:</b>	<b>Employment:</b> Unknown
<b>Type:</b> Unknown	
<b>Distance:</b> 0 ft.	
<b>Direction:</b>	

<b>Abandoned Well Plugged:</b> No	<b>Contractor Type:</b> Unknown	<b>Reg No:</b> 91-0550
<b>Reason Not Plugged:</b>	<b>Business Name:</b>	
	<b>Business Address:</b>	

	<b>Water Well Contractor's Certification</b>	
	This well was drilled under my supervision and this report is true to the best of my knowledge and belief.	
	<b>Signature of Registered Contractor</b>	<b>Date</b>

<b>General Remarks:</b> ORIGINAL WELLID# WAS 18001;
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<b>Other Remarks:</b>
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# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040218302

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006280</b>  <b>Elevation:</b> 880 ft. <b>Latitude:</b> 42.731139 <b>Longitude:</b> -84.595502 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 18	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770; 850' S OF MICHIGAN AVE. 1300' W OF GRACE ST				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #2 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

<b>Drilling Method:</b> Cable Tool <b>Well Depth:</b> 417.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None  <b>Diameter:</b> 0.00 in. to 143.80 ft. depth  <b>Borehole:</b> 13.25 in. to 0.00 ft. depth	<b>Well Use:</b> Type I public <b>Date Completed:</b> 10/8/1945 <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No
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<b>Static Water Level:</b> 77.00 ft. Below Grade <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Clay Sandy	5.00	5.00
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		Sand W/Shale	60.00	65.00
		Sand & Gravel	15.00	80.00
		Coal	2.00	82.00
		Sand	13.00	95.00
		Shale	24.00	119.00
		White Sand	4.00	123.00
		Sand Broken	17.00	140.00
		White Sand	30.00	170.00
		Shale & Sandstone	65.00	235.00
		White Sand	45.00	280.00
		Black Shale	13.00	293.00
		Sand Broken	51.00	344.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.	<b>Geology Remarks:</b>
<b>Wellhead Completion:</b> Unknown	<b>Drilling Machine Operator Name:</b> F. C. CULLY
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>	<b>Employment:</b> Unknown
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>	

(Continued on page 2)

**General Remarks:** ORIGINAL WELLID# WAS 18002; TESTED 10-12-45.

**Other Remarks:**





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040218303

<b>Tax No:</b>	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000006281</b>  <b>Elevation:</b> 860 ft. <b>Latitude:</b> 42.737225 <b>Longitude:</b> -84.594893 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 18	<b>Well Status:</b>	<b>WSSN:</b> 3770	<b>Source ID/Well No:</b> LANSING TWP
		<b>Distance and Direction from Road Intersection:</b> WSSN 03770; 1500' S OF SAGINAW ST. 100' W OF BONAIR ST.				
		<b>Well Owner:</b> LANSING TOWNSHIP				
		<b>Well Address:</b> LANSING TWP WELL #3 LANSING, MI		<b>Owner Address:</b> LANSING, MI 48933		

<b>Drilling Method:</b> Cable Tool <b>Well Depth:</b> 399.00 ft. <b>Well Type:</b> Replacement <b>Casing Type:</b> Unknown <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> Drive shoe  <b>Diameter:</b> 14.00 in. to 102.80 ft. depth  <b>Borehole:</b> 13.25 in. to 0.00 ft. depth	<b>Well Use:</b> Type I public <b>Date Completed:</b> 9/6/1945 <b>Height:</b> 0.00 ft. below grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No																																										
<b>Static Water Level:</b> 999.99 ft. Below Grade <b>Well Yield Test:</b>		<b>Yield Test Method:</b> Unknown																																										
<b>Screen Installed:</b> No <b>Intake:</b> Unknown		<table border="1"><thead><tr><th>Formation Description</th><th>Thickness</th><th>Depth to Bottom</th></tr></thead><tbody><tr><td>Topsoil W/Clay</td><td>6.00</td><td>6.00</td></tr><tr><td>Sand &amp; Gravel Wet/Moist</td><td>40.00</td><td>46.00</td></tr><tr><td>Shale Sandy</td><td>53.00</td><td>99.00</td></tr><tr><td>White Sandstone</td><td>101.00</td><td>200.00</td></tr><tr><td>Gray Shale</td><td>5.00</td><td>205.00</td></tr><tr><td>White Sandstone</td><td>70.00</td><td>275.00</td></tr><tr><td>Blue Shale</td><td>40.00</td><td>315.00</td></tr><tr><td>Sandstone</td><td>74.00</td><td>389.00</td></tr><tr><td>Shale Sandy</td><td>10.00</td><td>399.00</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>	Formation Description	Thickness	Depth to Bottom	Topsoil W/Clay	6.00	6.00	Sand & Gravel Wet/Moist	40.00	46.00	Shale Sandy	53.00	99.00	White Sandstone	101.00	200.00	Gray Shale	5.00	205.00	White Sandstone	70.00	275.00	Blue Shale	40.00	315.00	Sandstone	74.00	389.00	Shale Sandy	10.00	399.00												
Formation Description	Thickness	Depth to Bottom																																										
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Sandstone	74.00	389.00																																										
Shale Sandy	10.00	399.00																																										
<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Unknown <b>Grouting Method:</b> Unknown <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 0.00 ft.		<b>Geology Remarks:</b>																																										
<b>Wellhead Completion:</b> Unknown		<b>Drilling Machine Operator Name:</b> JOHN JOHNSTON <b>Employment:</b> Unknown																																										
<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> 0 ft. <b>Direction:</b>		<b>Contractor Type:</b> Unknown <b>Business Name:</b> <b>Business Address:</b>																																										
<b>Abandoned Well Plugged:</b> No <b>Reason Not Plugged:</b>		<b>Reg No:</b> 91-0550																																										
		<b>Water Well Contractor's Certification</b> This well was drilled under my supervision and this report is true to the best of my knowledge and belief.																																										
		<b>Signature of Registered Contractor</b> _____ <b>Date</b> _____																																										
<b>General Remarks:</b> ORIGINAL WELLID# WAS 18003; 6" LENGTH OF DRIVE SHOE. 402' FROM TOP OF FOUNDATION.																																												
<b>Other Remarks:</b>																																												



# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040220006

<b>Tax No:</b> 330120301001	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing		
<b>Well ID: 33000010342</b>  <b>Elevation:</b> 850 ft. <b>Latitude:</b> 42.7196784765 <b>Longitude:</b> -84.5802149561 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 20	<b>Well Status:</b>	<b>WSSN:</b>
		<b>Source ID/Well No:</b>			
		<b>Distance and Direction from Road Intersection:</b> 600'E OF WEST SEC. LINE;2730'N OF SOUTH SEC. LINE			
		<b>Well Owner:</b> COUNTRY CLUB OF LANSING			
		<b>Well Address:</b> 2200 MOORES RIVER DR LANSING, MI 48910		<b>Owner Address:</b> 2200 MOORES RIVER DR LANSING, MI 48910	

<b>Drilling Method:</b> Rotary	<b>Well Use:</b> Test well	<b>Pump Installed:</b> Yes	<b>Pump Installation Only:</b> No
<b>Well Depth:</b> 370.00 ft.	<b>Date Completed:</b> 2/2/1995	<b>Pump Installation Date:</b>	<b>HP:</b>
<b>Well Type:</b> New	<b>Height:</b> 0.00 ft. below grade	<b>Manufacturer:</b> Unknown	<b>Pump Type:</b> Submersible
<b>Casing Type:</b> PVC plastic		<b>Model Number:</b>	<b>Pump Capacity:</b> 0 GPM
<b>Casing Joint:</b> Unknown		<b>Drop Pipe Length:</b> 0.00 ft.	<b>Pump Voltage:</b>
<b>Casing Fitting:</b> None		<b>Drop Pipe Diameter:</b>	<b>Drilling Record ID:</b>
<b>Diameter:</b>		<b>Draw Down Seal Used:</b> No	
<b>Borehole:</b>		<b>Pressure Tank Installed:</b> No	
		<b>Pressure Relief Valve Installed:</b> No	

<b>Static Water Level:</b> 0.00 ft. Above Grade (Flowing) <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Brown Clay	20.00	20.00
<b>Unrestricted Flow Rate:</b>		Gray Clay	5.00	25.00
		Gray Clay & Gravel	10.00	35.00
<b>Screen Installed:</b> No	<b>Intake:</b> Bedrock Well	Black Shale Soft	10.00	45.00
		Black Shale Hard	15.00	60.00
		Gray Shale	5.00	65.00
		Gray Shale & Sandstone	15.00	80.00
		Sandstone	40.00	120.00
		Sandstone & Shale	2.00	122.00
		Sandstone	33.00	155.00
		Sandstone & Shale	15.00	170.00
		Sandstone W/Limestone	5.00	175.00
		Sandstone	15.00	190.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	<b>Geology Remarks: (Continued On Page 2)</b>
<b>Grouting Material</b>	<b>Bags</b> <b>Additives</b> <b>Depth</b>	BROWN CLAY. [20] [10] [20] GRAY CLAY. [5] [10] [25] GRAY CLAY & GRAVEL. [10] [17] [35] BLACK SOFT SHALE. [10] [67] [45] HARK BLACK SHALE. [15] [55] [60] GRAY SHALE - BLACK MIX. [5] [55] [65] GRAY SHALE - SANDSTONE. [15] [56] [80] SANDSTONE. [40] [50] [120] SANDSTONE SHALE STREAK.
Bentonite slurry	0.00 None 0.00 ft. to 45.00 ft.	

<b>Wellhead Completion:</b> 12 inches above grade	<b>Drilling Machine Operator Name:</b> STANLEY BROWN; BROWN
<b>Nearest Source of Possible Contamination:</b>	<b>Employment:</b> Unknown

<b>Type</b>	<b>Distance</b>	<b>Direction</b>
Septic tank	0 ft.	Unknown

(Continued on page 2)

**General Remarks:** SLURRY USED IN GROUTING

**Other Remarks:**





# Water Well And Pump Record



Completion is required under authority of Part 127 Act 368 PA 1978.

Failure to comply is a misdemeanor.

Import ID: 33040220007

<b>Tax No:</b> 330110301001	<b>Permit No:</b>	<b>County:</b> Ingham	<b>Township:</b> Lansing		
<b>Well ID: 33000010343</b>  <b>Elevation:</b> 850 ft. <b>Latitude:</b> 42.7196120656 <b>Longitude:</b> -84.5802434199 <b>Method of Collection:</b> Interpolation-Map		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 20	<b>Well Status:</b>	<b>WSSN:</b>
		<b>Source ID/Well No:</b>			
		<b>Distance and Direction from Road Intersection:</b> 600'E OF WEST SEC. LINE; 2700'N OF SOUTH SEC. LINE			
		<b>Well Owner:</b> COUNTRY CLUB OF LANSING			
		<b>Well Address:</b> 2200 MOORES RIVER DR. LANSING, MI 48910		<b>Owner Address:</b> 2200 MOORES RIVER DR. LANSING, MI 48910	

<b>Drilling Method:</b> Rotary <b>Well Depth:</b> 370.00 ft. <b>Well Type:</b> New	<b>Well Use:</b> Irrigation <b>Date Completed:</b> 2/8/1995	<b>Pump Installed:</b> Yes <b>Pump Installation Date:</b> <b>Manufacturer:</b> Unknown	<b>Pump Installation Only:</b> No <b>HP:</b> <b>Pump Type:</b> Submersible <b>Pump Capacity:</b> 0 GPM <b>Pump Voltage:</b> <b>Drilling Record ID:</b>
<b>Casing Type:</b> PVC plastic <b>Casing Joint:</b> Unknown <b>Casing Fitting:</b> None	<b>Height:</b>	<b>Model Number:</b> <b>Drop Pipe Length:</b> 0.00 ft. <b>Drop Pipe Diameter:</b> <b>Draw Down Seal Used:</b> No	
<b>Diameter:</b> 12.00 in. to 55.00 ft. depth		<b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No	
<b>Borehole:</b> 15.50 in. to 55.00 ft. depth			

<b>Static Water Level:</b> 36.00 ft. Below Grade <b>Well Yield Test:</b> <b>Yield Test Method:</b> Unknown Pumping level 132.00 ft. after 8.00 hrs. at 350 GPM	Formation Description		Thickness	Depth to Bottom
	Brown Clay		25.00	25.00
<b>Screen Installed:</b> No <b>Intake:</b> Bedrock Well	Gray Clay & Gravel		10.00	35.00
	Shale Soft		10.00	45.00
	Shale Hard		5.00	50.00
	Black Shale		10.00	60.00
	Gray Shale		15.00	75.00
	Sandstone		70.00	145.00
	Shale & Sandstone		15.00	160.00
	Sandstone		45.00	205.00
	Sandstone Hard W/Shale		20.00	225.00
	Limestone & Sandstone		5.00	230.00
	Sandstone		80.00	310.00
	Shale & Sandstone		15.00	325.00

(Continued On Page 2)

<b>Well Grouted:</b> Yes <b>Grouting Method:</b> Unknown <b>Grouting Material:</b> Bentonite slurry <b>Bags:</b> 0.00 <b>Additives:</b> None <b>Depth:</b> 0.00 ft. to 55.00 ft.	<b>Geology Remarks: (Continued On Page 2)</b> BRWON CLAY. [25] [10] [25] GRAY CLAY & GRAVEL. [10] [17] [35] SOFT SHALE. [10] [55] [45] HARD SHALE. [5] [55] [50] BLACK SHALE. [10] [55] [60] GRAY SHALE. [15] [55] [75] SANDSTONE. [70] [50] [145] SHALE SANDSTONE. [15] [56] [160] SANDSTONE. [45] [50] [205] SANDSTONE HARD SHALE. [
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<b>Wellhead Completion:</b> 12 inches above grade	<b>Drilling Machine Operator Name:</b> STANLEY BROWN;BROWN DRILLING
<b>Nearest Source of Possible Contamination:</b>	<b>Employment:</b> Unknown

<b>Type:</b> Unknown	<b>Distance:</b> 0 ft.	<b>Direction:</b> Unknown
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(Continued on page 2)

**General Remarks:** SLURRY ALSO USED IN GROUTING

**Other Remarks:**





# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



Import ID:

Failure to comply is a misdemeanor.

<b>Tax No:</b> 33-21-01-07-403-018	<b>Permit No:</b> 3-7-12-029	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000015169</b>  <b>Elevation:</b> 853.9 ft. <b>Latitude:</b> 42.746156387 <b>Longitude:</b> -84.590837388 <b>Method of Collection:</b> GPS Differential (DGPS)		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 7	<b>Well Status:</b> Active	<b>WSSN:</b>	<b>Source ID/Well No:</b> MW-12-04
		<b>Distance and Direction from Road Intersection:</b> Timber Drive, East of Westfield				
		<b>Well Owner:</b> Racer Trust/Arcadis				
		<b>Well Address:</b> Timber Drive Lansing, MI 48917		<b>Owner Address:</b> 10559 Citation Drive, Suite 100 Brighton, MI 48855		

<b>Drilling Method:</b> Rotary <b>Well Depth:</b> 100.00 ft. <b>Well Type:</b> New <b>Casing Type:</b> Steel - black <b>Casing Joint:</b> Welded <b>Casing Fitting:</b>  <b>Diameter:</b> 4.00 in. to 77.00 ft. depth  <b>Borehole:</b>	<b>Well Use:</b> Test well <b>Date Completed:</b> 3/22/2012 <b>Height:</b> 2.00 ft. above grade	<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No
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<b>Static Water Level:</b> Below Grade <b>Well Yield Test:</b>	<b>Yield Test Method:</b> Unknown	Formation Description	Thickness	Depth to Bottom
		Sand	5.00	5.00
<b>Screen Installed:</b> No <b>Intake:</b> Bedrock Well		Clay	2.00	7.00
		Silt	10.00	17.00
		Sand	1.00	18.00
		Silt	6.00	24.00
		Sand	30.00	54.00
		Clay & Silt	10.00	64.00
		Shale	3.00	67.00
		Sandstone	33.00	100.00

<b>Well Grouted:</b> Yes <b>Grouting Material:</b> Neat cement <b>Grouting Method:</b> Unknown <b>Bags:</b> <b>Additives:</b> Unknown <b>Depth:</b>	<b>Geology Remarks:</b>
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<b>Wellhead Completion:</b> 12 inches above grade
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<b>Nearest Source of Possible Contamination:</b> <b>Type:</b> Unknown <b>Distance:</b> <b>Direction:</b>	<b>Drilling Machine Operator Name:</b> Chris Barden <b>Employment:</b> Employee
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<b>Contractor Type:</b> Water Well Drilling Contractor <b>Business Name:</b> Boart Longyear <b>Business Address:</b> 6215 Lehman Drive, Flint, MI, 48507	<b>Reg No:</b>
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<b>Water Well Contractor's Certification</b> This well/pump was constructed under my supervision and I hereby certify that the work complies with Part 127 Act 368 PA 1978 and the well code.	
<b>Signature of Registered Contractor</b>	<b>Date</b>

<b>General Remarks:</b>
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<b>Other Remarks:</b>
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# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



Import ID:

Failure to comply is a misdemeanor.

<b>Tax No:</b> 33-21-01-18-227-001	<b>Permit No:</b> 3-7-12-032	<b>County:</b> Ingham	<b>Township:</b> Lansing
<b>Well ID: 33000015170</b>  <b>Elevation:</b> 878.5 ft. <b>Latitude:</b> 42.740505418 <b>Longitude:</b> -84.579633441 <b>Method of Collection:</b> GPS Differential (DGPS)		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 17
		<b>Well Status:</b> Active	<b>WSSN:</b>
		<b>Source ID/Well No:</b> MW-12-03	
		<b>Distance and Direction from Road Intersection:</b> GM Plant #6, South of MLK	
		<b>Well Owner:</b> Racer Trust/Arcadis	
		<b>Well Address:</b> GM Plant #6 Lansing, MI 48912	<b>Owner Address:</b> 10559 Citation Drive, Suite 100 Brighton, MI 48855

<b>Drilling Method:</b> Rotary	<b>Pump Installed:</b> No
<b>Well Depth:</b> 80.00 ft.	<b>Pressure Tank Installed:</b> No
<b>Well Type:</b> New	<b>Pressure Relief Valve Installed:</b> No
<b>Well Use:</b> Test well	
<b>Date Completed:</b> 3/22/2012	
<b>Casing Type:</b> Steel - black	
<b>Height:</b> 2.00 ft. above grade	
<b>Casing Joint:</b> Welded	
<b>Casing Fitting:</b>	
<b>Diameter:</b> 4.00 in. to 57.00 ft. depth	
<b>Borehole:</b>	

<b>Static Water Level:</b> Below Grade	<b>Yield Test Method:</b> Unknown	<b>Formation Description</b>	<b>Thickness</b>	<b>Depth to Bottom</b>
<b>Well Yield Test:</b>		Silt	6.00	6.00
		Silt & Sand	11.00	17.00
		Silt	20.00	37.00
		Sand	8.00	45.00
		Sandstone	33.00	78.00
		Shale	2.00	80.00

<b>Screen Installed:</b> No	<b>Intake:</b> Bedrock Well	<b>Geology Remarks:</b>
<b>Well Grouted:</b> Yes	<b>Grouting Method:</b> Unknown	
<b>Grouting Material:</b> Neat cement	<b>Bags:</b> Unknown	
<b>Additives:</b> Unknown	<b>Depth:</b>	

<b>Wellhead Completion:</b> 12 inches above grade
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<b>Nearest Source of Possible Contamination:</b>	<b>Drilling Machine Operator Name:</b> Chris Barden
<b>Type:</b> Unknown	<b>Employment:</b> Employee
<b>Distance:</b>	
<b>Direction:</b>	

<b>Contractor Type:</b> Water Well Drilling Contractor	<b>Reg No:</b>
<b>Business Name:</b> Boart Longyear	
<b>Business Address:</b> 6215 Lehman Drive, Flint, MI, 48507	

<b>Water Well Contractor's Certification</b>	
This well/pump was constructed under my supervision and I hereby certify that the work complies with Part 127 Act 368 PA 1978 and the well code.	
<b>Signature of Registered Contractor</b>	<b>Date</b>

<b>General Remarks:</b>
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<b>Other Remarks:</b>
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# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



Import ID:

Failure to comply is a misdemeanor.

<b>Tax No:</b> 33-21-01-18-227-001	<b>Permit No:</b> 3-7-12-030	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000015171</b>  <b>Elevation:</b> 864 ft. <b>Latitude:</b> 42.736604072 <b>Longitude:</b> -84.587082066 <b>Method of Collection:</b> GPS Differential (DGPS)		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 18	<b>Well Status:</b> Active	<b>WSSN:</b>	<b>Source ID/Well No:</b> MW-12-01
		<b>Distance and Direction from Road Intersection:</b> GM Plant #2, South of Adams Platting				
		<b>Well Owner:</b> Racer Trust/Arcadis				
		<b>Well Address:</b> Rosemary and GM Plant #2 Lansing, MI 48912		<b>Owner Address:</b> 10559 Citation Drive, Suite 100 Brighton, MI 48855		

<b>Drilling Method:</b> Rotary <b>Well Depth:</b> 110.00 ft. <b>Well Type:</b> New <b>Casing Type:</b> Steel - black <b>Casing Joint:</b> Welded <b>Casing Fitting:</b>  <b>Diameter:</b> 4.00 in. to 87.00 ft. depth  <b>Borehole:</b>		<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No																																											
<b>Well Use:</b> Test well <b>Date Completed:</b> 3/19/2012 <b>Height:</b> 4.00 ft. above grade																																													
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# Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



Import ID:

Failure to comply is a misdemeanor.

<b>Tax No:</b> 33-21-01-18-227-001	<b>Permit No:</b> 3-7-12-031	<b>County:</b> Ingham	<b>Township:</b> Lansing			
<b>Well ID: 33000015172</b>  <b>Elevation:</b> 866.1 ft. <b>Latitude:</b> 42.740167085 <b>Longitude:</b> -84.586980713 <b>Method of Collection:</b> GPS Differential (DGPS)		<b>Town/Range:</b> 04N 02W	<b>Section:</b> 18	<b>Well Status:</b> Active	<b>WSSN:</b>	<b>Source ID/Well No:</b> MW-12-02
		<b>Distance and Direction from Road Intersection:</b> GM Plant #2, East of Adams Platting				
		<b>Well Owner:</b> Racer Trust/Arcadis				
		<b>Well Address:</b> GM Plant # 2, North side Lansing, MI 48912		<b>Owner Address:</b> 10559 Citation Drive Brighton, MI 48116		

<b>Drilling Method:</b> Rotary <b>Well Depth:</b> 110.00 ft. <b>Well Type:</b> New <b>Casing Type:</b> Steel - black <b>Casing Joint:</b> Welded <b>Casing Fitting:</b>  <b>Diameter:</b> 4.00 in. to 87.00 ft. depth  <b>Borehole:</b>		<b>Pump Installed:</b> No <b>Pressure Tank Installed:</b> No <b>Pressure Relief Valve Installed:</b> No																																														
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