

Michigan Department of Environmental Quality Analytical Testing Report

Report Date: 11/15/2024 10:09
 Client: EGLE-RRD-LANSING
 Attention: Mike Jury
 Project Name: MPART-CADILLAC INDUSTRIAL PARK

					Address 1	Address 2	Address 3	Address 4	Address 5	Address 6	Address 7		
Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std		National Primary Drinking Water Regulation MCL ^[2]		2410342-02	2410342-03	2410342-04	2410342-05	2410342-06	2410342-07	2410342-08
Sample ID							WT2410301004GSC	WT2410301115GSC	WT2410301145GSC	WT2410301210GSC	WT2410301240GSC	WT2410301310GSC	WT2410301335GSC
Sample Depth													
Date Collected							10/30/2024	10/30/2024	10/30/2024	10/30/2024	10/30/2024	10/30/2024	10/30/2024
Date Received							10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024
Analyte	Units	Method											
11Cl-PF3OUdS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
4:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
6:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
8:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
9Cl-PF3ONS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
ADONA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
HFPO-DA	ppt	533	370	10	<2	<2	<2	<2	<2	<2	<2		
NFDHA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
PFBA	ppt	533	NA	NA	5	3	2	<2	<2	4	2		
PFBS	ppt	533	420	NA	11	2	6	<2	<2	2	7		
PFDA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
PFDaA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
PFEESA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
PFHpA	ppt	533	NA	NA	<2	<2	<2	<2	<2	3	<2		
PFHpS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
PFHxA	ppt	533	400,000	NA	<2	2	3	4	<2	5	<2		
PFHxS	ppt	533	51	10	4	3	2	<2	<2	2	2		
PFMBA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
PFMPA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
PFNA	ppt	533	6	10	<2	<2	<2	<2	<2	<2	<2		
PFOA	ppt	533	8	4.0	4	5	4	6	<2	12	2		
PFOS	ppt	533	16	4.0	<2	3	<2	6	<2	<2	<2		
PFPeA	ppt	533	NA	NA	<2	<2	3	4	<2	3	<2		
PFPeS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		
PFUnA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2		

Grey indicates contaminant was detected.

Yellow indicates contaminant exceeds Michigan Drinking Water Criteria

"NA" means a criterion or value is not available or, in the case of background, not applicable

Note that sample number 2410342-01 is a field blank

[1] Maximum Contaminant Level (MCL) is the maximum amount of a contaminant allowed in drinking water. Applies only to public drinking water supplies covered under the Michigan Safe Drinking Water Act. Private residential wells are not regulated under the Michigan Safe Drinking Water Act, but Michigan uses the MCLs along with other factors when evaluating private residential well results.

[2] Compliance with MCLs is determined by running annual averages at the sampling point.

Address 8	Address 9	Address 10	Address 11	Address 12	Address 13
2410342-09	2410342-10	2410342-11	2410342-12	2410342-13	2410342-14
WT2410301525GSC	WT2410301635GSC	WT2410301645GSC	WT2410301700GSC	WT2410301715GSC	WT2410301730GSC
10/30/2024	10/30/2024	10/30/2024	10/30/2024	10/30/2024	10/30/2024
10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	3	<2	2	4
2	<2	2	<2	9	6
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	3
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	4	6
<2	<2	2	<2	3	17
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
2	<2	2	3	7	13
<2	<2	2	<2	<2	<2
<2	<2	<2	<2	3	2
<2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2

Michigan Department of Environmental Quality Analytical Testing Report

Report Date:12/5/2024 12:47

Client:EGLE-RRD-LANSING

Attention:Mike Jury

Project Name:MPART-CADILLAC INDUSTRIAL PARK

					Address 1	Address 2	Address 3	Address 4	Address 5	Address 6	Address 7	Address 8	Address 9	Address 10	Address 11	Address 12	
Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std	National Primary Drinking Water Regulation MCL ^[2]	2411220-02	2411220-03	2411220-04	2411220-05	2411220-06	2411220-07	2411220-08	2411220-09	2411220-10	2411220-11	2411220-12	2411220-13	
Sample ID					T/202411201000TL	T/202411201010TL	T/202411201020TL	T/202411201025TL	T/202411201030TL	T/202411201035TL	T/202411201055TL	T/202411201100TL	T/202411201125TL	T/202411201135TL	R/202411201225TL	R/202411201240TL	
Sample Depth																	
Date Collected					11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024
Date Received					11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024
Analyte	Units	Method															
11Cl-PF3OUdS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
4:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
6:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
8:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
9Cl-PF3ONS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
ADONA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
HFPO-DA	ppt	533	370	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
NFDHA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
PFBA	ppt	533	NA	NA	4	2	2	4	<2	2	<2	4	<2	<2	3	7	
PFBS	ppt	533	420	NA	4	3	<2	30	2	2	<2	3	<2	10	<2	6	
PFDA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
PFDoA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
PFEESA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
PFHpA	ppt	533	NA	NA	2	<2	2	4	<2	<2	<2	<2	<2	<2	<2	2	
PFHpS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
PFHxA	ppt	533	400,000	NA	3	<2	3	16	2	<2	<2	<2	<2	<2	<2	5	
PFHxS	ppt	533	51	10	6	3	3	190	<2	2	<2	<2	<2	<2	<2	17	
PFMBA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
PFMPA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
PFNA	ppt	533	6	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
PFOA	ppt	533	8	4.0	16	2	6	6	5	<2	<2	3	<2	3	4	8	
PFOS	ppt	533	16	4.0	11	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	13	
PFPeA	ppt	533	NA	NA	4	<2	2	5	2	<2	<2	<2	<2	<2	3	4	
PFPeS	ppt	533	NA	NA	<2	<2	<2	49	<2	<2	<2	<2	<2	<2	<2	<2	
PFUnA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	

Grey indicates contaminant was detected.

Yellow indicates contaminant exceeds Michigan Drinking Water Criteria.

“NA” means a criterion or value is not available

Note that samples 2411220-01 and 2411219-01 are field blanks

Same 2411219-02 has a different sample number because a maximum of 20 samples fit on one work order

[1] Maximum Contaminant Level (MCL) is the maximum amount of a contaminant allowed in drinking water. Applies only to public drinking water supplies covered under the Michigan Safe Drinking Water Act. Private residential wells are not regulated under the Michigan Safe Drinking Water Act, but Michigan uses the MCLs along with other factors when evaluating private residential well results.

[2] Compliance with MCLs is determined by running annual averages at the sampling point.

[illegible]

Michigan Department of Environmental Quality Analytical Testing Report

Report Date: 1/14/2025 14:21
 Client: EGLE-RRD-LANSING
 Attention: Mike Jury
 Project Name: MPART-CADILLAC INDUSTRIAL PARK

			Address 1	Address 2	Address 3	Address 4	Address 5	Address 6	Address 7	Address 8	Address 9	Address 10	Address 11
Sample Number			2412230-02	2412230-03	2412230-04	2412230-05	2412230-06	2412230-07	2412230-08	2412230-09	2412230-10	2412230-11	2412230-12
Sample ID			WT2412180930TLM	WR2412180955TLM	WT2412181000TLM	WT2412181015TLM	WT2412181030TLM	WT2412181040TLM	WT2412181100TLM	WR2412181110TLM	WT2412181120TLM	WT2412181130TLM	WT2412181140TLM
Sample Depth													
Date Collected			12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024
Date Received			12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024
Analyte	Units	Method	Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std		National Primary Drinking Water Regulation MCL ^[2]								
11CL-PF3OUdS	ng/L	533					<2	<2	<2	<2	<2	<2	<2
4:2FTS	ng/L	533	NA	NA			<2	<2	<2	<2	<2	<2	<2
6:2FTS	ng/L	533	NA	NA			<2	<2	<2	<2	<2	<2	<2
8:2FTS	ng/L	533	NA	NA			<2	<2	<2	<2	<2	<2	<2
9CL-PF3ONS	ng/L	533	NA	NA			<2	<2	<2	<2	<2	<2	<2
ADONA	ng/L	533	NA	NA			<2	<2	<2	<2	<2	<2	<2
HFPO-DA	ng/L	533	370	10			<2	<2	<2	<2	<2	<2	<2
NFDHA	ng/L	533	NA	NA			<2	<2	<2	<2	<2	<2	<2
PFBA	ng/L	533	NA	NA		2	3	5	4	5	7	5	6
PFBS	ng/L	533	420	NA		2	5	8	20	7	45	15	13
PFDA	ng/L	533	NA	NA		<2	<2	<2	<2	<2	<2	<2	<2
PFDoA	ng/L	533	NA	NA		<2	<2	<2	<2	<2	<2	<2	<2
PFEESA	ng/L	533	NA	NA		<2	<2	<2	<2	<2	<2	<2	<2
PFHpA	ng/L	533	NA	NA		<2	<2	<2	<2	2	3	2	<2
PFHpS	ng/L	533	NA	NA		<2	<2	<2	<2	<2	<2	<2	<2
PFHxA	ng/L	533	400,000	NA		2	4	<2	<2	3	5	6	5
PFHxS	ng/L	533	51	10		3	2	2	3	3	5	16	12
PFMBA	ng/L	533	NA	NA		<2	<2	<2	<2	<2	<2	<2	<2
PFMPA	ng/L	533	NA	NA		<2	<2	<2	<2	<2	<2	<2	<2
PFNA	ng/L	533	6	10		<2	<2	<2	4	<2	<2	<2	<2
PFOA	ng/L	533	8	4.0		6	3	4	8	3	10	19	15
PFOS	ng/L	533	16	4.0		2	<2	<2	<2	18	5	3	<2
PFPeA	ng/L	533	NA	NA		<2	<2	<2	4	<2	3	4	3
PFPeS	ng/L	533	NA	NA		<2	<2	<2	<2	<2	<2	<2	<2
PFUnA	ng/L	533	NA	NA		<2	<2	<2	<2	<2	<2	<2	<2

Grey indicates contaminant was detected.
 Yellow indicates contaminant exceeds Michigan Drinking Water Criteria.
 "NA" means a criterion or value is not available

Note that samples 2412230-01 and 2412231-01 are field blanks

- [1] Maximum Contaminant Level (MCL) is the maximum amount of a contaminant allowed in drinking water. Applies only to public drinking water supplies covered under the Michigan Safe Drinking Water Act. Private residential wells are not regulated under the Michigan Safe Drinking Water Act, but Michigan uses the MCLs along with other factors when evaluating private residential well results.
- [2] Compliance with MCLs is determined by running annual averages at the sampling point.

[illegible]

Michigan Department of Environmental Quality Analytical Testing Report

Report Date: 2/21/2025 16:55
 Client: EGLE-RRD-LANSING
 Attention: Mike Jury
 Project Name: MPART-CADILLAC INDUSTRIAL PARK

			Address 1	Address 2	Address 3	Address 4	Address 5	Address 6	Address 7	Address 8	Address 9	Address 10
Sample Number	Drinking Water Criteria (DWC)		2502070-02	2502070-03	2502070-04	2502070-05	2502070-06	2502070-07	2502070-08	2502070-09	2502070-10	2502070-11
Sample ID			WT2502070925ZR	WS2502070940ZR	WT2502071000ZR	WT2502071010ZR	WS2502071020ZR	WT2502071115ZR	WT2502071125ZR	WT2502071130ZR	WT2502071200ZR	WR2502071335ZR
Sample Depth												
Date Collected			2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025
Date Received			2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025
Analyte	Units	Method										
11Cl-PF3OUdS	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2FTS	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
6:2FTS	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
8:2FTS	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
ADONA	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-DA	ng/L	533	370	<2	<2	<2	<2	<2	<2	<2	<2	<2
NFDHA	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFBA	ng/L	533	NA	5	<2	<2	4	5	3	5	2	4
PFBS	ng/L	533	420	6	<2	<2	5	47	15	5	3	8
PFDA	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFEESA	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFHpA	ng/L	533	NA	<2	<2	<2	<2	7	<2	<2	<2	<2
PFHpS	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFHxA	ng/L	533	400,000	2	<2	<2	2	22	<2	3	3	3
PFHxS	ng/L	533	51	4	<2	<2	9	340	3	2	<2	2
PFMBA	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFMPA	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFNA	ng/L	533	6	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFOA	ng/L	533	8	3	<2	<2	2	10	4	<2	<2	4
PFOS	ng/L	533	16	2	<2	<2	<2	2	6	<2	<2	6
PFPeA	ng/L	533	NA	3	<2	<2	<2	6	<2	3	3	4
PFPeS	ng/L	533	NA	<2	<2	<2	<2	100	<2	<2	<2	<2
PFUnA	ng/L	533	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2

Grey indicates contaminant was detected.

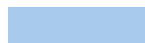
Yellow indicates contaminant exceeds Michigan Drinking Water Criteria

"NA" means a criterion or value is not available

Note that sample 2502070-01 is a field blank

[illegible]

Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std	National Primary Drinking Water Regulation MCL ^[2]	2410342-02	2410342-03	2410342-04	2410342-05
Sample ID					WT2410301004GSC	WT2410301115GSC	WT2410301145GSC	WT2410301210GSC
Sample Depth								
Date Collected					10/30/2024	10/30/2024	10/30/2024	10/30/2024
Date Received					10/31/2024	10/31/2024	10/31/2024	10/31/2024
Analyte	Units	Method						
HFPO-DA	ppt	533	370	10	<2	<2	<2	<2
PFBA	ppt	533	NA	NA	5	3	2	<2
PFBS	ppt	533	420	NA	11	2	6	<2
PFHpA	ppt	533	NA	NA	<2	<2	<2	<2
PFHxA	ppt	533	400,000	NA	<2	2	3	4
PFHxS	ppt	533	51	10	4	3	2	<2
PFNA	ppt	533	6	10	<2	<2	<2	<2
PFOA	ppt	533	8	4.0	4	5	4	6
PFOS	ppt	533	16	4.0	<2	3	<2	6
PFPeA	ppt	533	NA	NA	<2	<2	3	4
PFPeS	ppt	533	NA	NA	<2	<2	<2	<2

 Exceeds Nat'l Primary Drinking Water MCL

 Exceeds Nat'l Primary Drinking Water MCL and/or MI SDWA MCL

“NA” means a criterion or value is not available

[1] Maximum Contaminant Level (MCL) is the maximum amount of a contaminant allowed in drinking water covered under the Michigan Safe Drinking Water Act. Private residential wells are not regulated. Michigan uses the MCLs along with other factors when evaluating private residential well results.

[2] Compliance with MCLs is determined by running annual averages at the sampling point.

(w/ conditional formatting)

2410342-06	2410342-07	2410342-08	2410342-09	2410342-10	2410342-11	2410342-12
WT2410301240GSC	WT2410301310GSC	WT2410301335GSC	WT2410301525GSC	WT2410301635GSC	WT2410301645GSC	WT2410301700GSC
10/30/2024	10/30/2024	10/30/2024	10/30/2024	10/30/2024	10/30/2024	10/30/2024
10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024
<2	<2	<2	<2	<2	<2	<2
<2	4	2	<2	<2	3	<2
<2	2	7	2	<2	2	<2
<2	3	<2	<2	<2	<2	<2
<2	5	<2	<2	<2	<2	<2
<2	2	2	<2	<2	2	<2
<2	<2	<2	<2	<2	<2	<2
<2	12	2	2	<2	2	3
<2	<2	<2	<2	<2	2	<2
<2	3	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2	<2

inking water. Applies only to public drinking water supplies
ted under the Michigan Safe Drinking Water Act, but
ults.

(w/ conditional formatting)

2410342-13	2410342-14	2411220-02	2411220-03	2411220-04	2411220-05
WT2410301715GSC	WT2410301730GSC	WT202411201000TLM	WT202411201010TLM	WT202411201020TLM	WT202411201025TLM
10/30/2024	10/30/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024
10/31/2024	10/31/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024
<2	<2	<2	<2	<2	<2
2	4	4	2	2	4
9	6	4	3	<2	30
<2	3	2	<2	2	4
4	6	3	<2	3	16
3	17	6	3	3	190
<2	<2	<2	<2	<2	<2
7	13	16	2	6	6
<2	<2	11	<2	<2	2
3	2	4	<2	2	5
<2	<2	<2	<2	<2	49

(w/ conditional formatting)

2411220-06	2411220-07	2411220-08	2411220-09	2411220-10	2411220-11
WT202411201030TLM	WT202411201035TLM	WT202411201055TLM	WT202411201100TLM	WT202411201125TLM	WT202411201135TLM
11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024
11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024
<2	<2	<2	<2	<2	<2
<2	2	<2	4	<2	<2
2	2	<2	3	<2	10
<2	<2	<2	<2	<2	<2
2	<2	<2	<2	<2	<2
<2	2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2
5	<2	<2	3	<2	3
<2	<2	<2	<2	<2	<2
2	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2

(w/ conditional formatting)

2411220-12	2411220-13	2411220-14	2411220-15	2411220-16	2411220-17
WR202411201225TLM	WR202411201240TLM	WT202411201250TLM	WR202411201255TLM	WT202411201310TLM	WT202411201325TLM
11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024
11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024
<2	<2	<2	<2	<2	<2
3	7	2	5	4	4
<2	6	7	8	2	8
<2	2	<2	<2	<2	<2
<2	5	<2	2	<2	2
<2	17	4	2	<2	3
<2	<2	<2	<2	<2	<2
4	8	3	4	5	4
<2	13	<2	6	2	2
3	4	<2	3	<2	2
<2	<2	<2	<2	<2	<2

(w/ conditional formatting)

2411220-18	2411220-19	2411220-20	2411219-02	2412230-02	2412230-03
WT202411201410TLM	WT202411201425TLM	WT202411201435TLM	WS202411201510TLM	WT2412180930TLM	WR2412180955TLM
11/20/2024	11/20/2024	11/20/2024	11/20/2024	12/18/2024	12/18/2024
11/22/2024	11/22/2024	11/22/2024	11/22/2024	12/20/2024	12/20/2024
<2	<2	<2	<2	<2	<2
2	6	2	2	<2	<2
3	17	<2	2	<2	2
2	<2	<2	<2	<2	<2
4	6	2	<2	<2	2
2	3	2	2	<2	3
<2	<2	<2	<2	<2	<2
4	6	3	4	<2	6
<2	2	<2	2	<2	2
3	4	2	<2	<2	<2
<2	<2	<2	<2	<2	<2

(w/ conditional formatting)

2412230-04	2412230-05	2412230-06	2412230-07	2412230-08	2412230-09	2412230-10
WT2412181000TLM	WT2412181015TLM	WT2412181030TLM	WT2412181040TLM	WT2412181100TLM	WR2412181110TLM	WT2412181120TLM
12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024
12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024
<2	<2	<2	<2	<2	<2	<2
<2	2	3	5	4	5	7
4	<2	5	8	20	7	45
<2	<2	<2	<2	<2	2	3
<2	<2	4	<2	<2	3	5
2	2	3	3	<2	5	16
<2	<2	<2	<2	4	<2	<2
3	4	8	<2	3	10	19
<2	<2	<2	<2	18	5	3
<2	<2	4	<2	<2	3	4
<2	<2	<2	<2	<2	<2	<2

(w/ conditional formatting)

2412230-11	2412230-12	2412230-13	2412230-14	2412230-15	2412230-16	2412230-17
WT2412181130TLM	WT2412181140TLM	WT2412181135TLM	WR2412181300TLM	WT2412181315TLM	WR2412181410TLM	WR2412181440TLM
12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024
12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024
<2	<2	<2	<2	<2	<2	<2
5	6	2	2	<2	<2	<2
15	13	<2	2	<2	<2	<2
2	<2	<2	<2	<2	<2	<2
6	5	<2	<2	<2	<2	<2
12	3	<2	2	<2	<2	<2
<2	<2	<2	<2	<2	<2	<2
15	2	<2	4	<2	<2	<2
<2	<2	<2	<2	<2	<2	<2
3	6	<2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2	<2

(w/ conditional formatting)

2412230-18	2412230-19	2412231-02	2412231-03	2412231-04	2412231-05	2412231-06
WR2412181520TLM	WT2412181540TLM	WR2412190945TLM	WR2412191030TLM	WT2412191045TLM	WT2412191105TLM	WT2412191130TLM
12/18/2024	12/18/2024	12/19/2024	12/19/2024	12/19/2024	12/19/2024	12/19/2024
12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024	12/20/2024
<2	<2	<2	<2	<2	<2	<2
<2	<2	4	4	4	3	<2
<2	31	15	4	5	4	<2
<2	<2	2	3	2	2	<2
<2	<2	2	3	2	2	<2
<2	<2	2	3	2	<2	<2
<2	<2	<2	<2	<2	<2	<2
<2	<2	4	10	<2	2	<2
<2	<2	<2	<2	<2	<2	<2
<2	<2	<2	2	<2	<2	<2
<2	<2	<2	<2	<2	<2	<2

(w/ conditional formatting)

2412231-07	2502070-02	2502070-03	2502070-04	2502070-05	2502070-06	2502070-07
WR2412191255TLM	WT2502070925ZR	WS2502070940ZR	WT2502071000ZR	WT2502071010ZR	WS2502071020ZR	WT2502071115ZR
12/19/2024	2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025
12/20/2024	2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025
<2	<2	<2	<2	<2	<2	<2
<2	5	<2	<2	4	5	3
<2	6	<2	<2	5	47	15
<2	<2	<2	<2	<2	7	<2
<2	2	<2	<2	2	22	<2
2	4	<2	<2	9	340	3
<2	<2	<2	<2	<2	<2	<2
<2	3	<2	<2	2	10	4
<2	2	<2	<2	<2	2	6
<2	3	<2	<2	<2	6	<2
<2	<2	<2	<2	<2	100	<2

(w/ conditional formatting)

2502070-08	2502070-09	2502070-10	2502070-11	2502070-12	2502070-13	
WT2502071125ZR	WT2502071130ZR	WT2502071200ZR	WR2502071335ZR	WT2502071350ZR	WT2502071400ZR	TBA
2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025	2/7/2025	
2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025	2/10/2025	
<2	<2	<2	<2	<2	<2	<2
5	2	4	4	<2	<2	<2
5	3	8	13	<2	<2	<2
<2	<2	<2	<2	<2	<2	<2
3	3	3	6	<2	<2	<2
2	<2	2	<2	<2	<2	<2
<2	<2	<2	<2	<2	<2	<2
<2	<2	4	<2	<2	<2	<2
<2	<2	6	<2	<2	<2	<2
3	3	4	6	<2	<2	<2
<2	<2	<2	<2	<2	<2	<2

(w/ conditional formatting)

					Address 1	Address 2	Address 3	Address 4
Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std	National Primary Drinking Water Regulation MCL ^[2]				
Sample ID					Resident	Resident Dup		
Sample Depth								
Date Collected					9/30/2024	9/30/2024		
Date Analyzed					10/17/2024	10/17/2024		
Analyte	Units	Method						
11Cl-PF3OUdS	ppt	533	NA	NA	<2	<2		
4:2FTS	ppt	533	NA	NA	<2	<2		
6:2FTS	ppt	533	NA	NA	<2	<2		
8:2FTS	ppt	533	NA	NA	<2	<2		
9Cl-PF3ONS	ppt	533	NA	NA	<2	<2		
ADONA	ppt	533	NA	NA	<2	<2		
HFPO-DA	ppt	533	370	10	<2	<2		
NFDHA	ppt	533	NA	NA	<2	<2		
PFBA	ppt	533	NA	NA	11.3	11.7		
PFBS	ppt	533	420	NA	39.8	40.6		
PFDA	ppt	533	NA	NA	<2	<2		
PFDaA	ppt	533	NA	NA	<2	<2		
PFEESA	ppt	533	NA	NA	<2	<2		
PFHpA	ppt	533	NA	NA	<2	<2		
PFHpS	ppt	533	NA	NA	<2	<2		
PFHxA	ppt	533	400,000	NA	<2	<2		
PFHxS	ppt	533	51	10	<2	<2		
PFMBA	ppt	533	NA	NA	<2	<2		
PFMPA	ppt	533	NA	NA	<2	<2		
PFNA	ppt	533	6	10	<2	<2		
PFOA	ppt	533	8	4.0	<2	5.0		
PFOS	ppt	533	16	4.0	5.4	20.6		
PFFPeA	ppt	533	NA	NA	<2	<2		
PFFPeS	ppt	533	NA	NA	<2	<2		
PFUnA	ppt	533	NA	NA	<2	<2		

Exceeds Nat'l Primary Drinking Water MCL

Exceeds Nat'l Primary Drinking Water MCL and/or MI SDWA MCL

"NA" means a criterion or value is not available

[1] Maximum Contaminant Level (MCL) is the maximum amount of a contaminant allowed in drinking water. Applies only to public drinking water supplies covered under the Michigan Safe Drinking Water Act. Private residential wells are not regulated under the Michigan Safe Drinking Water Act, but Michigan uses the MCLs along with other factors when evaluating private residential well results.

[2] Compliance with MCLs is determined by running annual averages at the sampling point.

Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std	National Primary Drinking Water Regulation MCL ^[2]							
Sample ID					SLW-10D	SLW-10S	M-1	MW-1	MW-1	SLW-10D	SLW-10S
Sample Depth											
Date Collected					10/19/2022	10/19/2022	10/19/2022	9/1/2021	9/1/2021	9/1/2021	9/1/2021
Date Analyzed					10/27/2022	10/27/2022	10/27/2022	10/13/2021	10/13/2021	10/13/2021	10/13/2021
Analyte	Units	Method									
11Cl-PF3OUdS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
4:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
6:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
8:2FTS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
9Cl-PF3ONS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
ADONA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
HFPO-DA	ppt	533	370	10	<2	<2	<2	<2	<2	<2	
NFDHA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
PFBA	ppt	533	NA	NA	<2	<2	<2	3.12	2.90	<2	
PFBS	ppt	533	420	NA	<2	<2	11.0	5.59	5.29	1.23	
PFDA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
PFDoA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
PFEESA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
PFHpA	ppt	533	NA	NA	<2	<2	2.2	3.08	3.10	<2	
PFHpS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
PFHxA	ppt	533	400,000	NA	<2	<2	<2	1.94	2.26	<2	
PFHxS	ppt	533	51	10	6.4	2.7	<2	1.47	1.51	1.24	
PFMBA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
PFMPA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
PFNA	ppt	533	6	10	<2	<2	<2	<2	<2	<2	
PFOA	ppt	533	8	4.0	<2	2.1	4.8	6.54	7.24	1.95	
PFOS	ppt	533	16	4.0	<2	<2	<2	<2	<2	1.05	
PFPeA	ppt	533	NA	NA	<2	<2	<2	1.77	1.72	<2	
PFPeS	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	
PFUnA	ppt	533	NA	NA	<2	<2	<2	<2	<2	<2	

 Exceeds Nat'l Primary Drinking Water MCL

 Exceeds Nat'l Primary Drinking Water MCL and/or MI SDWA MCL

"NA" means a criterion or value is not available

[1] Maximum Contaminant Level (MCL) is the maximum amount of a contaminant allowed in drinking water. Applies only to public drinking water supplies covered under the Michigan Safe Drinking Water Act. Private residential wells are not regulated under the Michigan Safe Drinking Water Act, but Michigan uses the MCLs along with other factors when evaluating private residential well results.

[2] Compliance with MCLs is determined by running annual averages at the sampling point.

Client: City of Cadillac-Utilities Department
 Attention: Jeff Dietlin
 Project Name: LDFA Special Investigation

Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std	National Primary Drinking Water Regulation MCL ^[2]	Michigan Rule 57 Surface Water Quality Values ^[3]	50382117002	50382117003	250204-01	50385014002	50385014003
Sample ID						Plant Effluent	Plant Effluent Dup.	Plant Effluent	I-5 Effluent	I-5 Effluent Dup
Test Method						537.1(M)	537.1(M)	8327	537.1(M)	537.1(M)
Date Collected						9/10/2024	9/10/2024	2/4/2025	10/14/2024	10/14/2024
Date Analyzed						9/20/2024	9/20/2024	2/8/2025	10/24/2024	10/24/2024
CAS#	Analyte	Units								
763051-92-9	11CI-PF3OUdS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
356-02-5	3:3FTCA	ppt	NA	NA	NA	NA	NA	<4.0	NA	NA
757124-72-4	4:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
914637-49-3	5:3FTCA	ppt	NA	NA	NA	NA	NA	<2.0	NA	NA
27619-97-2	6:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
812-70-4	7:3FTCA	ppt	NA	NA	NA	NA	NA	<2.0	NA	NA
39108-34-4	8:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
756426-58-1	9CI-PF3ONS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
919005-14-4	ADONA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
13252-13-6	HFPO-DA	ppt	370	10	NA	<2.0	<2.0	<4.0	<2.0	<2.0
2991-50-6	NEtFOSAA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
2355-31-9	NMeFOSAA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
375-22-4	PFBA	ppt	NA	NA	NA	3.1	3.3	<4.0	3.0	3.0
375-73-5	PFBS	ppt	420	NA	670,000	10.7	11.3	11	<2.0	<2.0
30334-69-1	PFBSA	ppt	NA	NA	NA	NA	NA	6.6	NA	NA
335-76-2	PFDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
307-55-1	PFDoDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
335-77-3	PFDS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
646-83-3	PFECHS	ppt	NA	NA	NA	NA	NA	<2.0	NA	NA
375-85-9	PFHpA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
375-92-8	PFHpS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
307-24-4	PFHxA	ppt	400,000	NA	NA	3.2	3.3	3.0	<2.0	<2.0
355-46-4	PFHxS	ppt	51	10	210	4.4	4.6	4.2	<2.0	<2.0
41997-13-1	PFHxSA	ppt	NA	NA	NA	NA	NA	NA	NA	NA
375-95-1	PFNA	ppt	6	10	30	<2.0	<2.0	<2.0	<2.0	<2.0
68259-12-1	PFNS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
335-67-1	PFOA	ppt	8	4.0	170	3.9	3.7	4.5	<2.0	<2.0
1763-23-1	PFOS	ppt	16	4.0	12	2.4	2.5	3.6	<2.0	<2.0
754-91-6	PFOSA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
2706-90-3	PFPeA	ppt	NA	NA	NA	3.2	3.6	3.0	<2.0	<2.0
2706-91-4	PFPeS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
376-06-7	PFTeDA	ppt	NA	NA	NA	<2.0	<2.0	<4.0	<2.0	<2.0
72629-94-8	PFTTrDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0
2058-94-8	PFUnDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0

Exceeds Nat'l Primary Drinking Water MCL

Exceeds Nat'l Primary Drinking Water MCL and/or MI SDWA MCL

NA means a criterion or value is not available

[1] Maximum Contaminant Level (MCL) is the maximum amount of a contaminant allowed in drinking water. Applies only to public drinking water supplies covered under the Michigan Safe Drinking Water Act. Private residential wells are not regulated under the Michigan Safe Drinking Water Act, but Michigan uses the MCLs along with other factors when evaluating private residential well results.

[2] Compliance with MCLs is determined by running annual averages at the sampling point.

[3] Michigan's Rule 57 Water Quality Values apply to NPDES discharges. If a waterbody is also used as a source for drinking water, water quality values are lower than those shown.

Client: City of Cadillac-Utilities Department
 Attention: Jeff Dietlin
 Project Name: LDFA Special Investigation

Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std	National Primary Drinking Water Regulation MCL ^[2]	Michigan Rule 57 Surface Water Quality Values ^[3]	2411198-01	2411198-02	50385014004	50385014005	50385014006	50385014007	50385014008
Sample ID						S-1	S-2	S-2	S-3	S-4	S-5	S-6
Test Method						8327	8327	537.1(M)	537.1(M)	537.1(M)	537.1(M)	537.1(M)
Date Collected						11/18/2024	11/18/2024	10/14/2024	10/14/2024	10/14/2024	10/14/2024	10/14/2024
Date Analyzed						11/27/2024	11/27/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
CAS#	Analyte	Units										
763051-92-9	11Cl-PF3OUdS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
356-02-5	3:3FTCA	ppt	NA	NA	NA	<4.0	<4.0	NA	NA	NA	NA	NA
757124-72-4	4:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
914637-49-3	5:3FTCA	ppt	NA	NA	NA	<2.0	<2.0	NA	NA	NA	NA	NA
27619-97-2	6:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
812-70-4	7:3FTCA	ppt	NA	NA	NA	<2.0	<2.0	NA	NA	NA	NA	NA
39108-34-4	8:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
756426-58-1	9Cl-PF3ONS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
919005-14-4	ADONA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
13252-13-6	HFPO-DA	ppt	370	10	NA	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0
2991-50-6	NEtFOSAA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2355-31-9	NMeFOSAA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
375-22-4	PFBA	ppt	NA	NA	NA	<4.0	4.3	5.3	6.7	3.9	6.1	12.2
375-73-5	PFBS	ppt	420	NA	670,000	5.7	47	48.7	38.8	11.7	33.1	24.5
30334-69-1	PFBSA	ppt	NA	NA	NA	<2.0	12	NA	NA	NA	NA	NA
335-76-2	PFDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
307-55-1	PFDoDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
335-77-3	PFDS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
646-83-3	PFECHS	ppt	NA	NA	NA	<2.0	<2.0	NA	NA	NA	NA	NA
375-85-9	PFHpA	ppt	NA	NA	NA	<2.0	4.1	4.3	<2.0	<2.0	<2.0	<2.0
375-92-8	PFHpS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
307-24-4	PFHxA	ppt	400,000	NA	NA	2.4	3.7	3.8	3.4	3.2	3.1	3.0
355-46-4	PFHxS	ppt	51	10	210	3.4	3.5	4.0	<2.0	4.8	<2.0	<2.0
41997-13-1	PFHxSA	ppt	NA	NA	NA	<2.0	<2.0	NA	NA	NA	NA	NA
375-95-1	PFNA	ppt	6	10	30	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
68259-12-1	PFNS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
335-67-1	PFOA	ppt	8	4.0	170	7.7	14	10.8	3.2	3.5	3.3	4.2
1763-23-1	PFOS	ppt	16	4.0	12	<2.0	<2.0	<2.0	3.8	2.3	4.6	4.6
754-91-6	PFOSA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2706-90-3	PFPeA	ppt	NA	NA	NA	2.6	2.9	2.9	3.8	3.5	3.9	2.2
2706-91-4	PFPeS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
376-06-7	PFTeDA	ppt	NA	NA	NA	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0
72629-94-8	PFTTrDA	ppt	NA	NA	NA	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0
2058-94-8	PFUnDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

Exceeds Nat'l Primary Drinking Water MCL

Exceeds Nat'l Primary Drinking Water MCL and/or MI SDWA MCL

"NA" means a criterion or value is not available

- [1] Maximum Contaminant Level (MCL) is the maximum amount of a contaminant allowed in drinking water. Applies only to public drinking water supplies covered under the Michigan Safe Drinking Water Act. Private residential wells are not regulated under the Michigan Safe Drinking Water Act, but Michigan uses the MCLs along with other factors when evaluating private residential well results.
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MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY ENVIRONMENTAL LABORATORY

Report Date: 2/5/2025 13:39
Client: City of Cadillac-Utilities Department
Attention: Jeff Dietlin
Project Name: LDFA Special Investigation

Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std	National Primary Drinking Water Regulation MCL ^[2]	Michigan Rule 57 Surface Water Quality Values ^[3]	2501113-01	2501113-02	2501113-03	2501113-04	50385014001	2411198-03	2501113-05	2501113-06	2501113-07	2501113-08	2501113-09	
Sample ID						I-1	I-2	I-3	I-4	I-5 Influent	I-6	I-7	I-8	I-9	I-10	I-11	
Test Method						8327	8327	8327	8327	537.1(M)	8327	8327	8327	8327	8327	8327	
Date Collected						1/27/2025	1/27/2025	1/27/2025	1/27/2025	10/14/2024	11/18/2024	1/27/2025	1/27/2025	1/27/2025	1/27/2025	1/27/2025	1/27/2025
Date Analyzed						1/31/2025	1/31/2025	1/31/2025	2/1/2025	10/24/2024	11/27/2024	2/1/2025	2/1/2025	2/1/2025	2/1/2025	2/1/2025	2/1/2025
CAS#	Analyte	Units															
763051-92-9	11CI-PF3OUdS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
356-02-5	3:3FTCA	ppt	NA	NA	NA	<4.0	<4.0	<4.0	<4.0	NA	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	
757124-72-4	4:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
914637-49-3	5:3FTCA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
27619-97-2	6:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
812-70-4	7:3FTCA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
39108-34-4	8:2FTS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
756426-58-1	9CI-PF3ONS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
919005-14-4	ADONA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
13252-13-6	HFPO-DA	ppt	370	10	NA	<4.0	<4.0	<4.0	<4.0	<2.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	
2991-50-6	NEiFOSAA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
2355-31-9	NMeFOSAA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
375-22-4	PFBA	ppt	NA	NA	NA	<4.0	4.3	<4.0	<4.0	4.5	4.1	<4.0	<4.0	<4.0	<4.0	5.2	
375-73-5	PFBS	ppt	420	NA	670,000	5.2	20	<2.0	5.7	15.2	8.4	3.6	5.1	8.4	2.8	28	
30334-69-1	PFBSA	ppt	NA	NA	NA	9.1	15	<2.0	2.4	NA	<2.0	<2.0	<2.0	2.7	2.8	17	
335-76-2	PFDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
307-55-1	PFDoDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
335-77-3	PFDS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
646-83-3	PFECHS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
375-85-9	PFHpA	ppt	NA	NA	NA	<2.0	2.8	<2.0	<2.0	2.4	<2.0	<2.0	<2.0	<2.0	<2.0	4.2	
375-92-8	PFHpS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
307-24-4	PFHxA	ppt	400,000	NA	NA	2.3	5.7	<2.0	<2.0	4.6	2.7	2.3	2.3	2.3	2.0	6.4	
355-46-4	PFHxS	ppt	51	10	210	4.3	2.8	<2.0	5.1	6.0	5.9	3.4	2.9	7.7	16	5.3	
41997-13-1	PFHxSA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
375-95-1	PFNA	ppt	6	10	30	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
68259-12-1	PFNS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
335-67-1	PFOA	ppt	8	4.0	170	4.3	6.1	<2.0	2.5	5.9	3.5	3.5	2.6	2.8	4.5	12	
1763-23-1	PFOS	ppt	16	4.0	12	2.2	4.2	<2.0	<2.0	2.4	<2.0	<2.0	<2.0	2.3	<2.0	6.7	
754-91-6	PFOSA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
2706-90-3	PFPeA	ppt	NA	NA	NA	2.6	6.3	<2.0	<2.0	4.4	2.7	2.1	<2.0	3.2	<2.0	7.0	
2706-91-4	PFPeS	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
376-06-7	PFTeDA	ppt	NA	NA	NA	<4.0	<4.0	<4.0	<4.0	<2.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	
72629-94-8	PFTfDA	ppt	NA	NA	NA	<4.0	<4.0	<4.0	<4.0	<2.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	
2058-94-8	PFUnDA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	

Exceeds Nat'l Primary Drinking Water MCL

Exceeds Nat'l Primary Drinking Water MCL and/or MI SDWA MCL

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Client: City of Cadillac-Utilities Department
Attention: Jeff Dietlin
Project Name: LDFA Special Investigation

Sample Number			Michigan Safe Drinking Water Act MCL ^[1] and Groundwater Cleanup Std	National Primary Drinking Water Regulation MCL ^[2]	Michigan Rule 57 Surface Water Quality Values ^[3]	50382117002	250204-01	2501113-01	2501113-02	2501113-03	2501113-04	50385014002	50374982002	50385014001	2411198-03	2501113-05
Sample ID						Plant Effluent	Plant Effluent	I-1	I-2	I-3	I-4	I-5 Effluent	I-5 Influent	I-5 Influent	I-6	I-7
Test Method						537.1(M)	8327	8327	8327	8327	8327	537.1(M)	537.1(M)	537.1(M)	8327	8327
Date Collected						9/10/2024	2/4/2025	1/27/2025	1/27/2025	1/27/2025	1/27/2025	10/14/2024	6/4/2024	10/14/2024	11/18/2024	1/27/2025
Date Analyzed						9/20/2024	2/8/2025	1/31/2025	1/31/2025	1/31/2025	2/1/2025	10/24/2024	7/2/2024	10/24/2024	11/27/2025	2/1/2025
CAS#	Analyte	Units														
13252-13-6	HFPO-DA	ppt	370	10	NA	<2.0	<4.0	<4.0	<4.0	<4.0	<4.0	<2.0	<2.0	<2.0	<4.0	<4.0
375-22-4	PFBA	ppt	NA	NA	NA	3.1	<4.0	<4.0	4.3	<4.0	<4.0	3.0	4.0	4.5	4.1	<4.0
375-73-5	PFBS	ppt	420	NA	670,000	10.7	11.0	5.2	20	<2.0	5.7	<2.0	12.8	15.2	8.4	3.6
30334-69-1	PFBSA	ppt	NA	NA	NA	NA	6.6	9.1	15	<2.0	2.4	NA	NA	NA	<2.0	<2.0
646-83-3	PFECHS	ppt	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	<2.0	<2.0
375-85-9	PFHpA	ppt	NA	NA	NA	<2.0	<2.0	<2.0	2.8	<2.0	<2.0	<2.0	<2.0	2.4	<2.0	<2.0
307-24-4	PFHxA	ppt	400,000	NA	NA	3.2	3.0	2.3	5.7	<2.0	<2.0	<2.0	4.1	4.6	2.7	2.3
355-46-4	PFHxS	ppt	51	10	210	4.4	4.2	4.3	2.8	<2.0	5.1	<2.0	5.2	6.0	5.9	3.4
375-95-1	PFNA	ppt	6	10	30	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
335-67-1	PFOA	ppt	8	4.0	170	3.9	4.5	4.3	6.1	<2.0	2.5	<2.0	5.5	5.9	3.5	3.5
1763-23-1	PFOS	ppt	16	4.0	12	2.4	3.6	2.2	4.2	<2.0	<2.0	<2.0	2.4	2.4	<2.0	<2.0
2706-90-3	PFPeA	ppt	NA	NA	NA	3.2	3.0	2.6	6.3	<2.0	<2.0	<2.0	3.5	4.4	2.7	2.1

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2501113-06	2501113-07	2501113-08	2501113-09	2411198-01	50385014004	2411198-02	50385014005	50385014006	50385014007	50385014008
I-8	I-9	I-10	I-11	S-1	S-2	S-2	S-3	S-4	S-5	S-6
8327	8327	8327	8327	8327	537.1(M)	8327	537.1(M)	537.1(M)	537.1(M)	537.1(M)
1/27/2025	1/27/2025	1/27/2025	1/27/2025	11/18/2024	10/14/2024	11/18/2024	10/14/2024	10/14/2024	10/14/2024	10/14/2024
2/1/2025	2/1/2025	2/1/2025	2/1/2025	11/27/2025	10/24/2024	11/27/2025	10/24/2024	10/24/2024	10/24/2024	10/24/2024
<4.0	<4.0	<4.0	<4.0	<4.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0
<4.0	<4.0	<4.0	5.2	<4.0	5.3	4.3	6.7	3.9	6.1	12.2
5.1	8.4	2.8	28	5.7	48.7	47	38.8	11.7	33.1	24.5
<2.0	2.7	2.8	17	<2.0	NA	12	NA	NA	NA	NA
<2.0	<2.0	<2.0	<2.0	<2.0	NA	<2.0	NA	NA	NA	NA
<2.0	<2.0	<2.0	4.2	<2.0	4.3	4.1	<2.0	<2.0	<2.0	<2.0
2.3	2.3	2.0	6.4	2.4	3.8	3.7	3.4	3.2	3.1	3.0
2.9	7.7	16	5.3	3.4	4.0	3.5	<2.0	4.8	<2.0	<2.0
<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2.6	2.8	4.5	12	7.7	10.8	14	3.2	3.5	3.3	4.2
<2.0	2.3	<2.0	6.7	<2.0	<2.0	<2.0	3.8	2.3	4.6	4.6
<2.0	3.2	<2.0	7.0	2.6	2.9	2.9	3.8	3.5	3.9	2.2

ie Drinking Water Act. Private residential wells are not regulated unde